

## PROJECT SUMMARY SHEET

### ***1.0 Project Title: Wild Rice River Restoration and Riparian Project Phase III***

#### **Lead Project Sponsor:**

Wild Rice Soil Conservation District  
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**State:** North Dakota

**Watershed:** Wild Rice River Watershed

**Hydrologic Unit Code:** 09020105 **High**

**Priority Watershed:** Yes

<b><u>PROJECT TYPE</u></b>	<b><u>WATERBODY TYPES</u></b>	<b><u>NPS CATEGORY</u></b>
Watershed	Rivers, Streams	Agriculture wetlands

**Project Location:** The project area lies within the Western Wild Rice Hydrologic Unit, 09020105, located in Southeastern North Dakota. The specific focus of this phase of the project will be on the ½ mile corridor along the Wild Rice River in Sargent County and the subwatersheds for the tributaries named Shortfoot and Crooked Creek.

**Summarization of Major Goals:** The Wild Rice Soil Conservation District, primary goal, through the course of the project is to promote and implement agricultural Best Management Practices (BMP) to restore and maintain the recreational and aquatic life uses of the targeted areas along the Wild Rice River and within the Shortfoot and Crooked Creek subwatersheds. Reduction of nutrients; (phosphorus & nitrogen) E. coli bacteria and sediment will be accomplished through; implementing nutrient management plans, reducing erosion and runoff from cropland, establishing vegetative buffers, and addressing degraded riparian areas.

**Project Description:** This watershed project will implement comprehensive conservation planning, BMP implementation, monitoring/assessment, and information/demonstration project in the watersheds for the Wild Rice River as well as Crooked and Shortfoot Creeks to reduce NPS pollution impacts to aquatic life and recreational uses. Emphasis will be placed on improving vegetative conditions and management within the riparian corridor and on lands immediately adjacent to the river or creeks.

FY16 319 funds requested - \$329,603.  
Other Federal Funds - \$0.0  
§319 Funded Full Time Personnel – 1.5

Match \$373,437.  
Total project cost \$703,040.

The main objectives are:

1. Target areas needing improvement in sediment reductions. We can achieve this with BMPs, cost share assistance, and technical assistance for long term planning. The flat stream channels allow tillage right to the waters edge, so the installation of long term riparian and grass buffers will benefit sediment reduction.
2. Increase the IBI score for the specific reaches being addressed by the project to achieve a fair to good ranking (>70 for good and 59-70 for fair).
3. Document trends in water quality and beneficial use conditions (i.e. nutrient/sediment and E. coli bacteria concentrations, riparian conditions, fish and macro invertebrate diversity, etc.) as BMPs are applied to evaluate progress toward established goals.
4. Provide opportunities for producers and the general public to increase their understanding of NPS pollution related to agricultural production, potential cropping options, and understanding the importance of slowing water runoff, and enhance infiltration using management systems that can reduce the delivery of sediments and nutrients to rivers, lakes, and streams in Southeastern ND.

## **2.0 STATEMENT OF NEED:**

**2.1 Project Reference** The Wild Rice Soil Conservation District (SCD) has worked to protect the natural, economic, and recreational value of the Wild Rice River by providing financial and technical assistance to reduce the effects of non-point source pollution. The SCD has received Section 319 funding for the previous NPS pollution management efforts in the Wild Rice River watershed. Specific practices applied through these previous projects are provided in Appendix A. During Phase III, Section 319 funding for the Wild Rice River (Sargent County) Watershed and Riparian Restoration Project will be targeted toward practices that improve the management and vegetative conditions in the riparian corridor and lands immediately adjacent to the river and its tributaries. In many areas of the watersheds, excessive soil erosion is associated with intensive agricultural activity and/or frequent over land flooding due to heavy rains and abundant snowfall. These conditions are causing failing streambanks, scalloping, and fluvial erosion.

The Wild Rice Soil Conservation District will use funding through Phase III to support the development and implementation of comprehensive conservation plans. These plans will address these erosion issues and restore and protect the Wild Rice River as well as Shortfoot and Crooked Creeks. Subsection 2.5 summarizes the current water quality and beneficial use conditions of the Wild Rice River and Shortfoot and Crooked Creeks.

The CCSP Farm which is the project's primary educational program, will demonstrate and research advances in emerging technology for in crop establishment of cover crops, and promote soil conservation practices. Water quality can be improved in our local area by keeping more residue on the soil surface, wider adoption of cover crops, and the improvement of water infiltration into the soil. All of these items are consistent with "soil health". Currently increased tillage has been used to dry soil out during wet periods. If cover crops could be used instead, it would substantially change the need for tillage. These technologies need to be further tested to establish credibility with local farmers before widespread adoption can happen.

**2.2 Watershed Description** The Wild Rice River watershed is located in Cass, Dickey, Ransom, Richland and Sargent Counties in Southeastern North Dakota and Marshall and Roberts Counties in northeastern South Dakota. The Wild Rice River watershed lies within the Level III Northern Glaciated Plains (46) and Lake Agassiz Plain (48) Ecoregions.

The Wild Rice River (HUC09020105) is identified as a Class II stream. The quality of the waters in this class shall be the same as the quality of class I streams, except that additional treatment may be required to meet the drinking water requirements of the Department. Streams in this classification may be intermittent in nature which would make these waters of limited value for beneficial uses such as municipal water, fish life, and irrigation, or swimming.

Phase III of the project will not address the entire Wild Rice Watershed in Sargent County. Phase III will focus on the ½ mile corridor along the river as well as the subwatersheds for Shortfoot Creek and Crooked Creek. Maps of the Phase III project area are provided in Appendix B & C.

**2.3 Maps** An Annualized Agricultural NonPoint Source Pollution (AnnAGNPS) model was developed for the Shortfoot and Crooked Creek subwatersheds (Appendix B). The AnnAGNPS model uses soils, fertilization rates, cropping systems, elevation, landuse, precipitation data, etc. to 1) characterize the size and shape of the watershed and 2) identify “high priority areas” that are potentially the most significant sources of nutrients (N & P) and sediment in the Shortfoot and Crooked Creek Watershed. The results of the AnnAGNPS model will be used to target technical and financial assistance for the implementation of BMPs within the watershed.

**2.4 General Watershed Information** The western Wild Rice River watershed is 580,914 acres in size and it originates in Sargent County and encompasses a majority of the county. The climate is subhumid characterized by warm summers with frequent hot days and occasional cool days. Average temperatures range is from 12° F in winter to 60° F in summer. Precipitation occurs primarily during the warm period and is normally heavy in later spring and early summer. Total annual precipitation is about 24 inches.

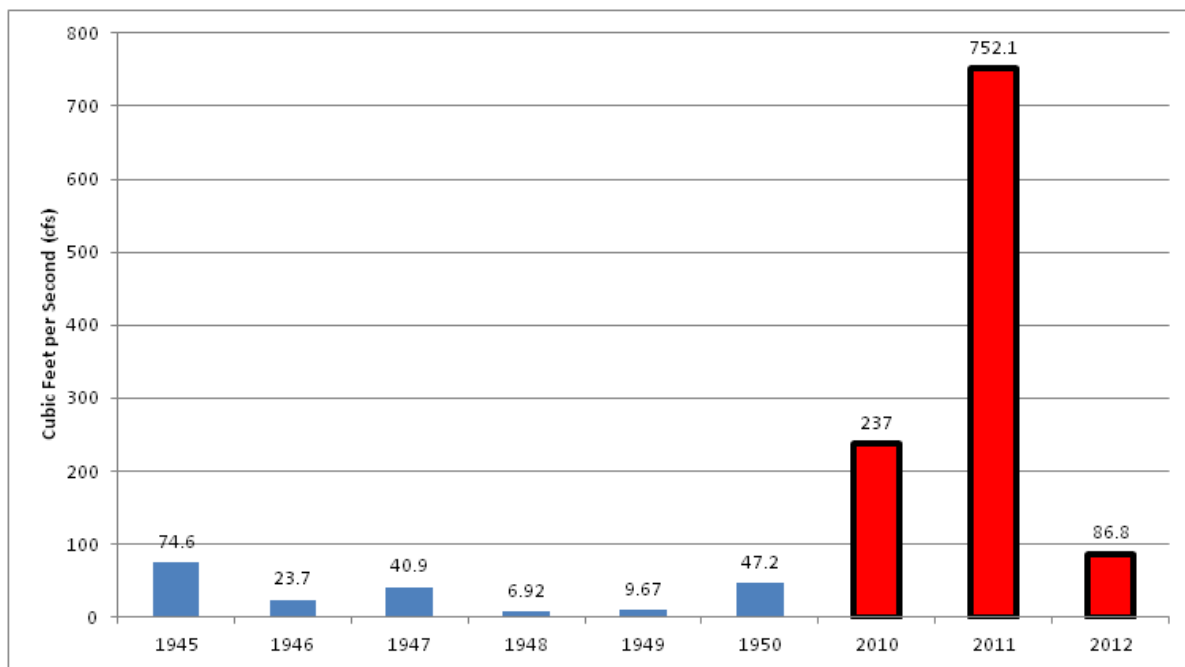
The western Wild Rice River is characterized by highly fertile upland, primarily used for row crop, small grain, and livestock production. According to the Sargent County Soil Survey, the predominant soils in the watershed are Forman - Aastad loam. These soils are formed on slopes of 3 to 6 percent and are deep, medium textured, well to moderately well drained, very fertile, and possess high moisture holding capabilities. Typically Forman - Aastad loams are resistant to wind erosion but moderately susceptible to water erosion. Land use within the tributaries is approximately 95 percent agriculture with 55 percent being actively cultivated.

The river and its tributaries as well as the lakes connected to the river are classified as a warm water fishery, "waters capable of supporting growth and propagation of non-salmonid fishes and associated aquatic biota (NDDH). Approximately 24 fish species are found in the Wild Rice River Watershed, offering a fishery for local fisherman, particularly in the lower reaches of the river. Documented species include; Northern Pike, Walleye, White Sucker, Shorthead, Redhorse, Quillback, Black Bullhead, Tadpole Madtom, Carp, Fathead Minnow, Spotfin Shiner, Common Shiner, and Iowa Darter (NDDH 1994-1995 test netting).

The dominant land use in the western Wild Rice River watershed is row crop agriculture with 59 percent of the land in cropland, 16 percent in grassland, and 11 percent in wetlands, the remaining 14 percent is in other land uses. The majority of the crops grown are corn, soybeans, spring wheat, alfalfa, winter wheat, sunflowers, and dry beans.

**2.5 Watershed Water Quality** Daily stream discharge values were collected at one stream location within the Wild Rice River watershed. This location was at the United States Geological Survey (USGS) gauging station 05052000 (Wild Rice River near Mantador, ND). The USGS station has operated continuously from 1945 to 1950 and was reestablished in 2010. For the purposes of this report, the last three years (2010-2013) of historical discharge records will be used to describe the hydrology of the Wild Rice River watershed. Figure 1 shows the mean annual discharge record from 1945 through 1950 and 2010 to present.

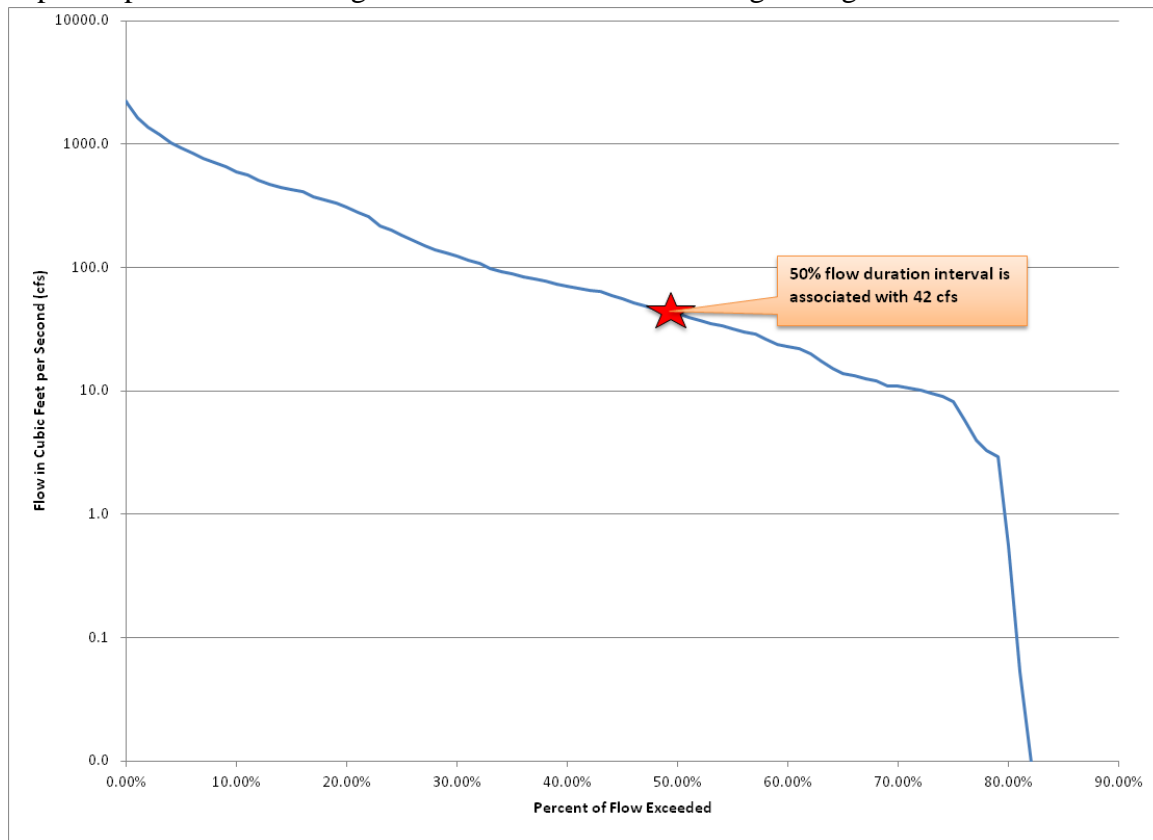
It is interesting to note that during the early operation of the gauge station discharge is relatively normal to very low, this is most likely due to the weather patterns during those years of normal to below normal precipitation. Likewise, when the gauge station is reestablished in 2011 the flows have increase exponentially, again weather was a driving factor since the state has been in a “wet cycle” since the 1990’s land management is playing a role in these exceptionally high flows. The mean annual discharge for 2011 indicated a period of extremely high flows, while 2012 indicated a rather normal to low annual mean flow.



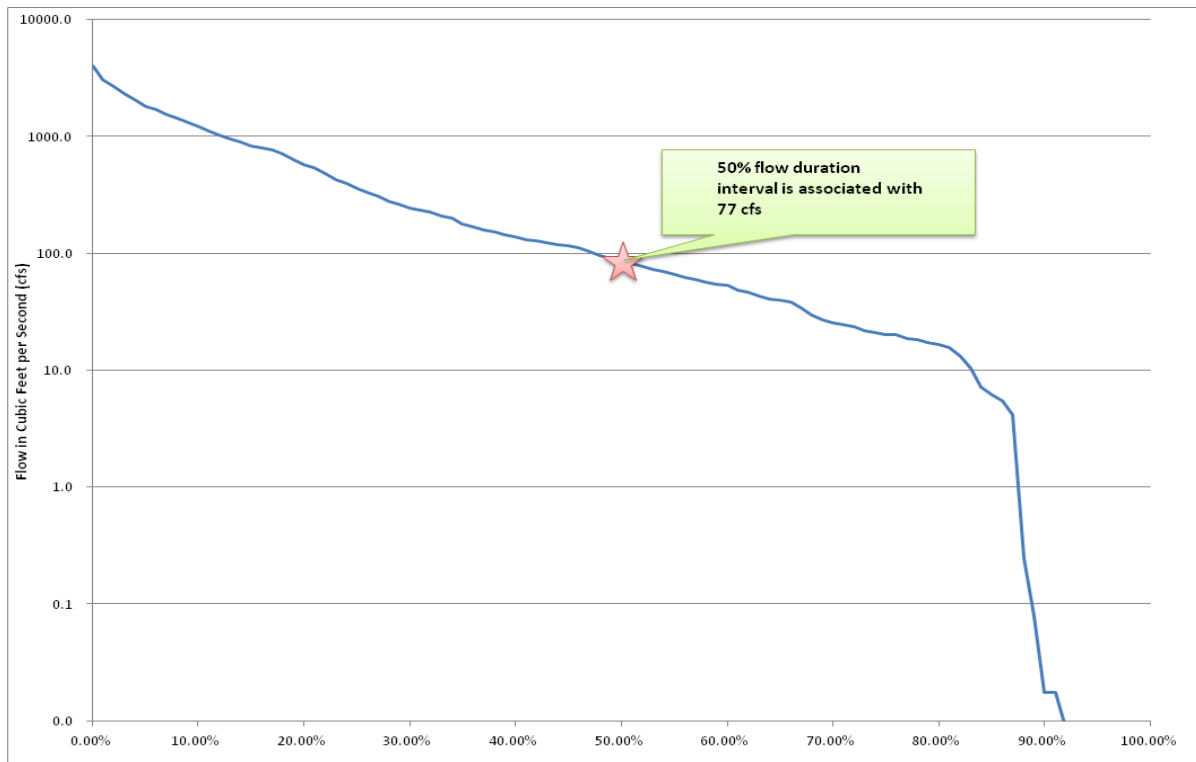
**Figure 1. Mean Annual Discharge at the USGS Gauging Station (05052000) on the Wild Rice River near Mantador, ND (1945-1950 and 2010-2012).**

Discharge for the watershed is used to determine the flow duration curve that will be used in the load duration curve analysis. Figure 2 shows the flow duration curve for site 380006, with a flow duration interval of 50 percent is related to a stream flow of 42 cubic feet per second (cfs) and in Figure 3 represent site 385234 a flow duration interval of 50 percent, is associated with the stream flow of 77 cfs, implying that 50 percent of all observed mean daily discharge values from these two sites are less than, equal to, or exceed 42 or 77 cfs, respectively.

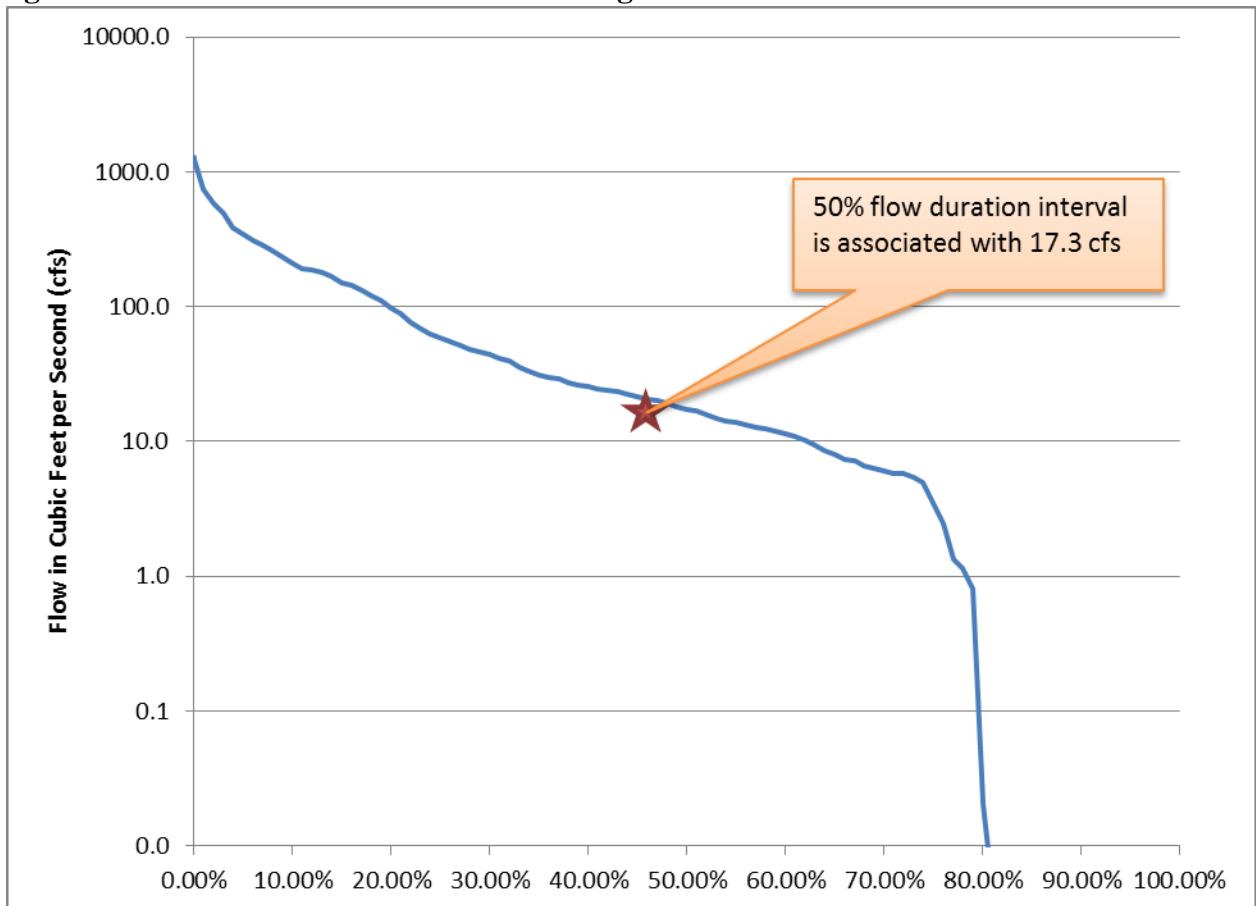
As mentioned earlier, this is a complement to the concentration data (measured in mg/L) and will help to depict how often large amounts of water are flowing through the watershed.



**Figure 2. Flow Duration Curve for Monitoring Station 380006.**



**Figure 3. Flow Duration Curve for Monitoring Station 385234.**



**Figure 4. Flow Duration Curve for Monitoring Station 384037.**

## **Total Nitrogen Load Duration Curve Analysis**

### **Wild Rice River and Shortfoot Creek**

See Appendix C

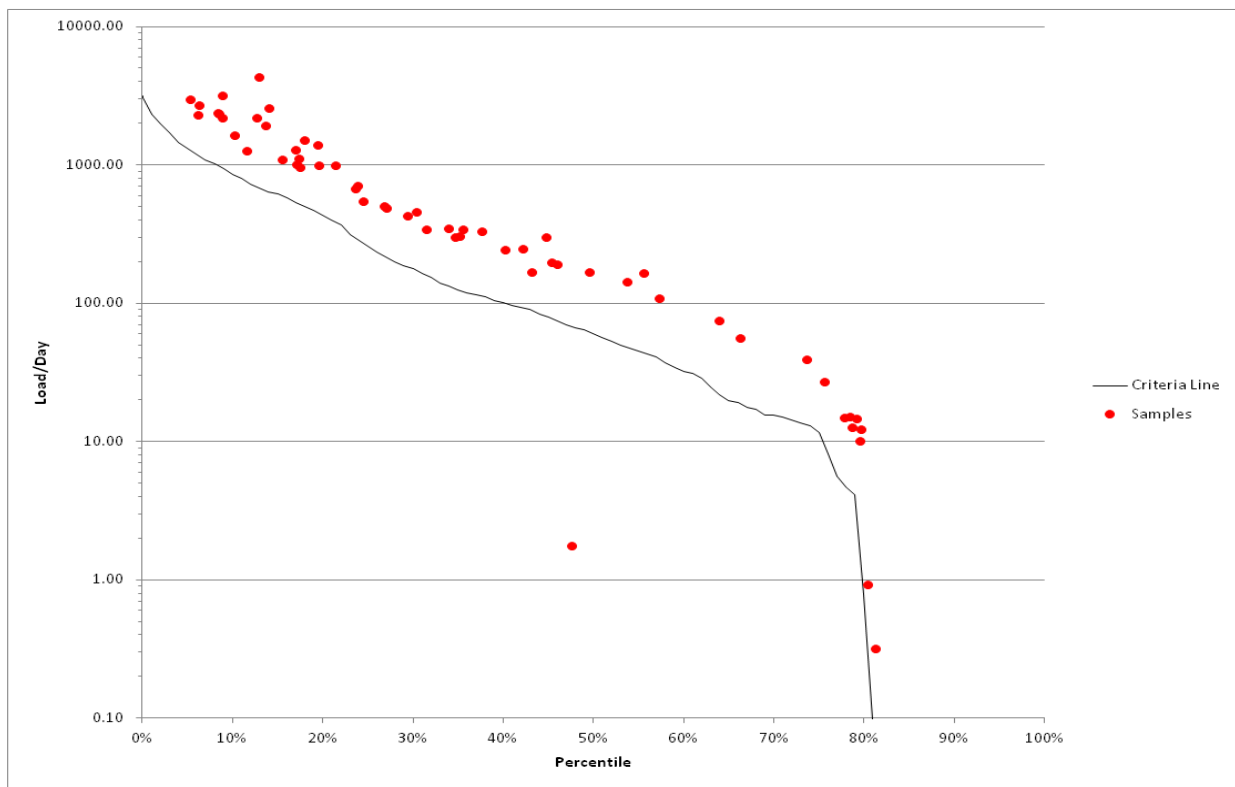
According to the draft report *An Ecological Assessment of Perennial, Wadeable Streams in the Red River Basin* (Larsen, 2012), Ecoregion 46 (Northern Glaciated Plains) and 48 (Lake Agassiz), had total nitrogen reference values of 0.581 mg/L and 0.883 mg/L, respectively. These values were derived from nutrient data collected at a set of “least disturbed” reference sites located in the Northern Glaciated Plains and Lake Agassiz ecoregions of North Dakota. These values are not a water quality standard, as nutrient criteria or standards have not yet been developed, but are provided as a point of reference or goal when evaluating the data collected within the watershed.

Daily load estimates points above the criteria line of 0.581 mg/L for sites 380006 and 384037, and 0.883 mg/L for site 385234 depict observed concentrations that exceeded the reference concentration value for that flow. This would have also exceeded the nitrogen load of a least impaired/impacted reference stream for that given flow.

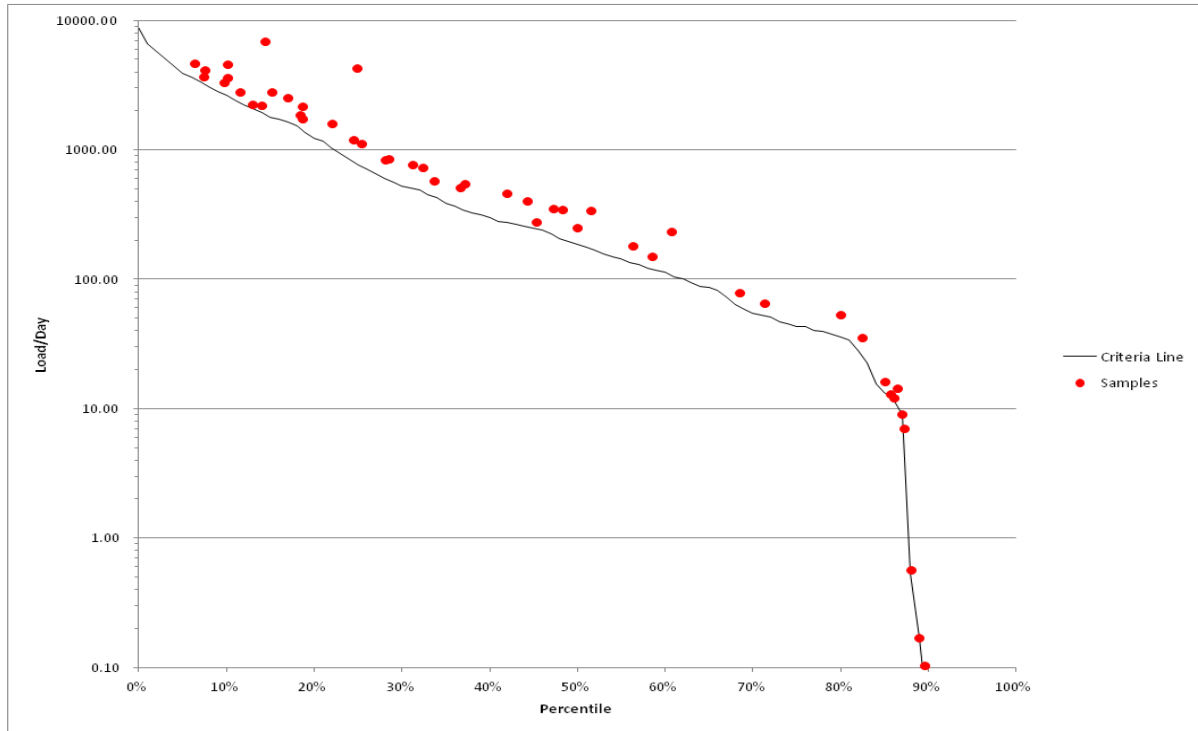
Ideally, values that are close to the line indicate a nitrogen load for the stream that is close to the least impacted condition for this ecoregion, and results are healthy. The further away from the criteria line, the larger the negative impact to the stream becomes.

In Figures 5, 6, & 7, the load duration curves for sites 380006, 384037, and 385234 indicates that the total nitrogen load is highly related to flow as the symmetry of the samples follow the flow curve quite closely. This indicates that sources of nitrogen are most likely from overland flow related to nonpoint source pollution runoff.

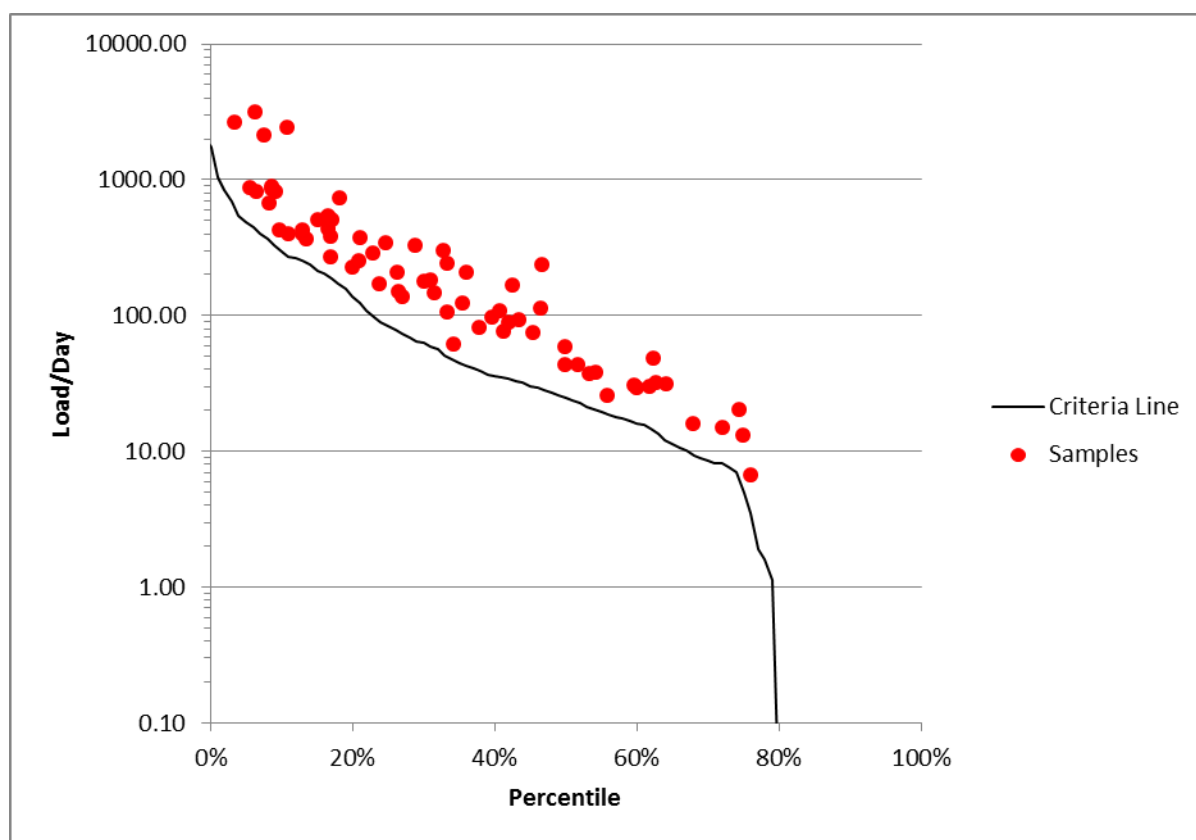




**Figure 5. Total Nitrogen Load Duration Curve for the Wild Rice River Monitoring Station 380006 (the curve reflects flow data from 2010-2013).**



**Figure 6. Total Nitrogen Load Duration Curve for the Wild Rice River Monitoring Station 385234 (the curve reflects flow data from 2010-2013).**



**Figure 7. Total Nitrogen Load Duration Curve for Shortfoot Creek Monitoring Station 384037 (the curve reflects flow data from 2010-2013).**

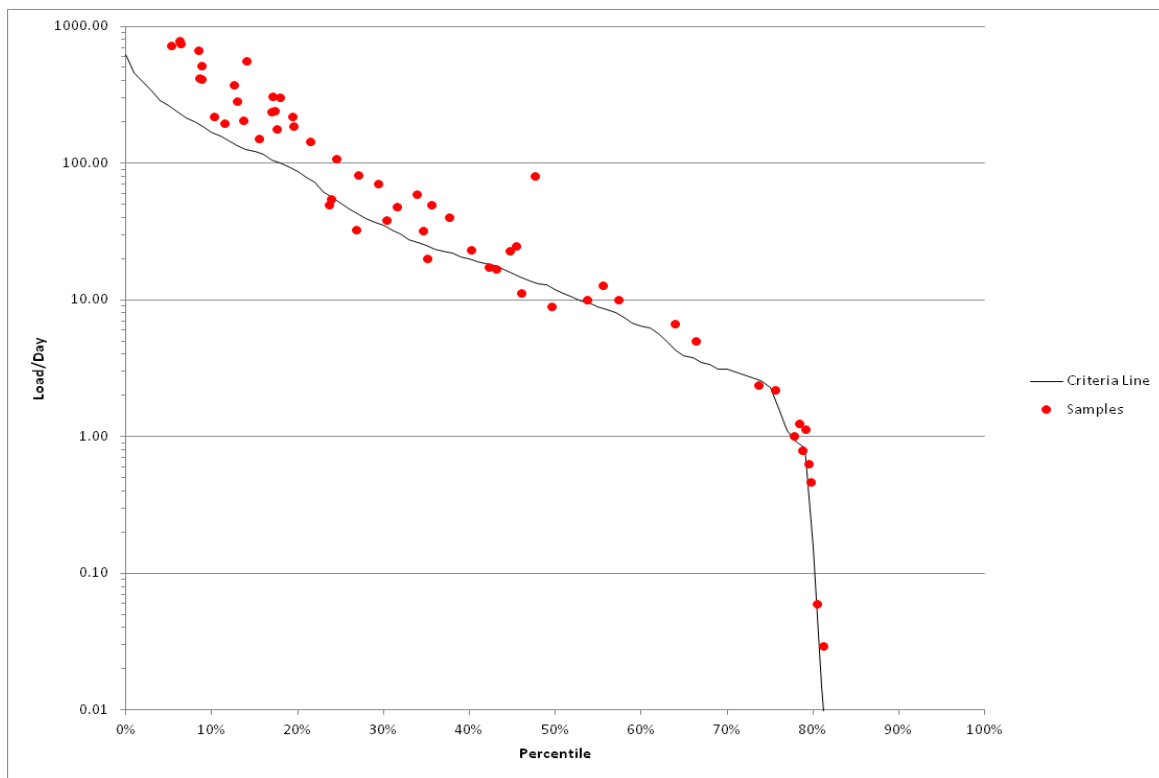
## **Total Phosphorus Load Duration Curve Analysis**

### **Wild Rice River and Shortfoot Creek**

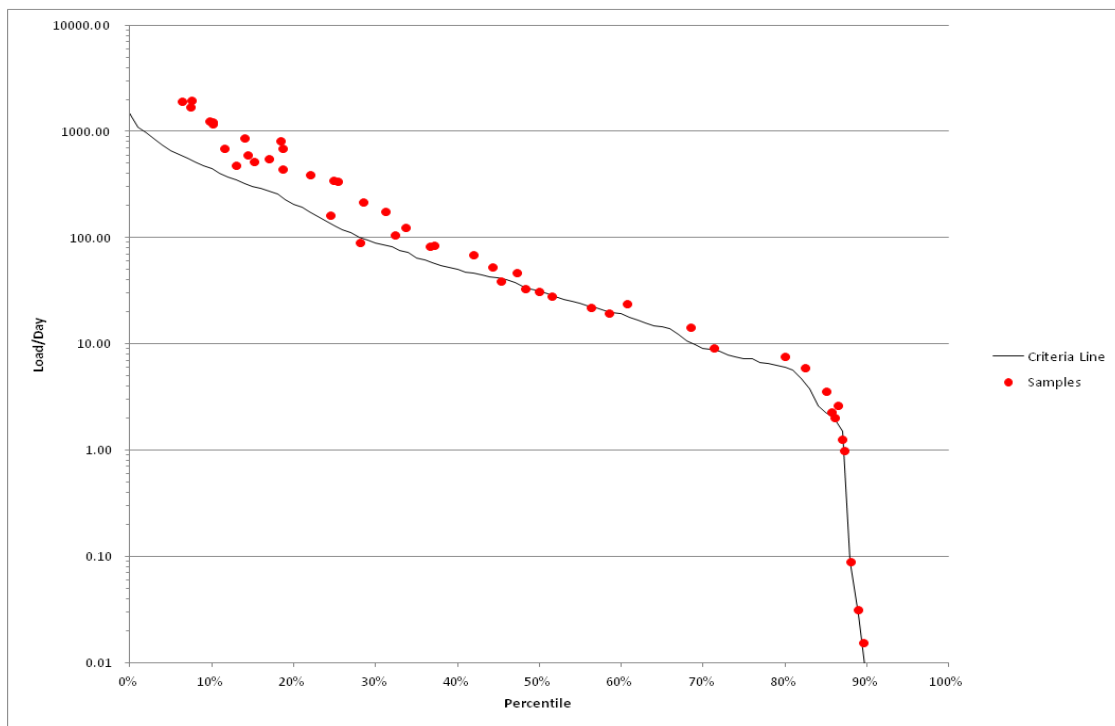
Based on the draft report *An Ecological Assessment of Perennial, Wadeable Streams in the Red River Basin*, (Larsen, 2012), a total phosphorus reference value of 0.148 mg/L was estimated for the Lake Agassiz Ecoregion (48) and 0.115 mg/L for the Northern Glaciated Plains Ecoregion (46). these reference values were developed based on data collected at “least disturbed” reference sites located in the Northern Glaciated Plains and Lake Agassiz Ecoregions. Again, the reference values of 0.148 mg/L and 0.115 mg/L are not water quality standards, but are provided as a point of reference when evaluating the data.

Daily load estimates points above the criteria line of 0.115 mg/L for sites 380006 and 384037, and 0.148 mg/L for site 385234 depict observed concentrations that exceeded the reference concentration value for that flow, and would have also exceeded the phosphorus load of a least impaired/impacted reference stream for that given flow.

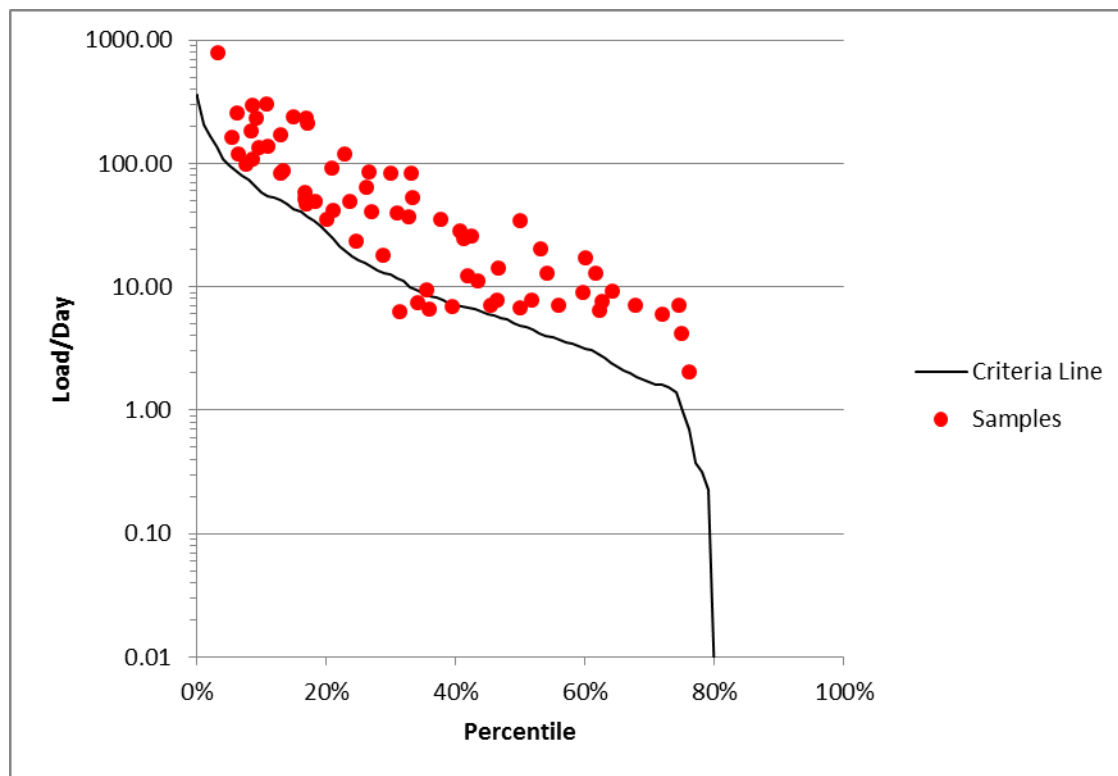
In Figure 8 & 9, the load duration curves for sites 380006 and 385234 indicate that the total phosphorus load is also related to flow conditions. This would also suggest that sources of phosphorus could be overland flow runoff and riparian grazing.



**Figure 8. Total Phosphorus Load Duration Curve for the Wild Rice River Monitoring Station 380006 (the curve reflects flow data from 2010-2013).**



**Figure 9. Total Phosphorus Load Duration Curve for the Wild Rice River Monitoring Station 385234 (the curve reflects flow data from 2010-2013).**



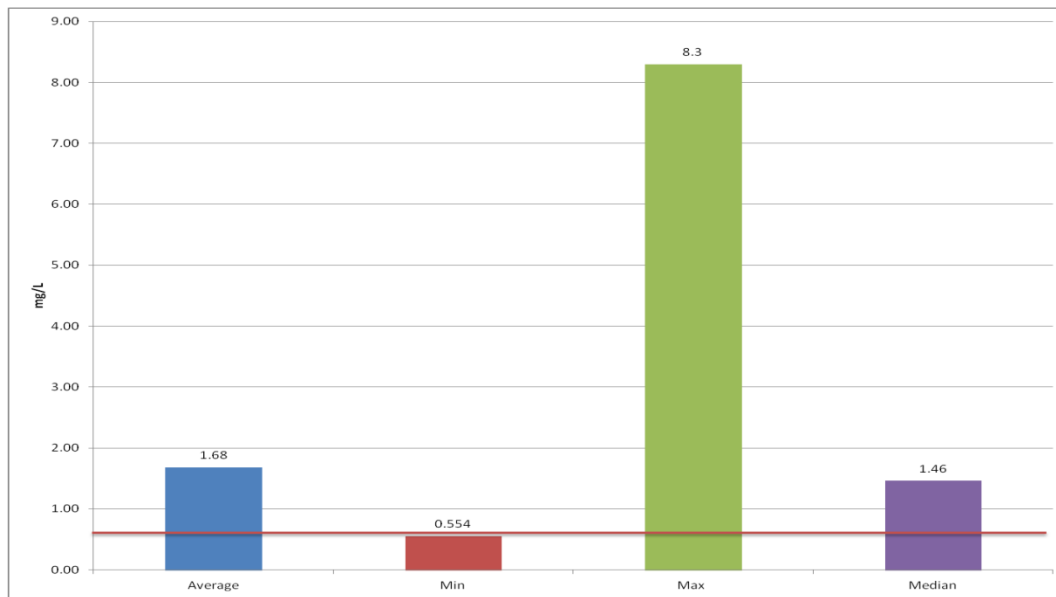
**Figure 10. Total Phosphorus Load Duration Curve for the Shortfoot Creek Monitoring Station 384037(the curve reflects flow data from 2010-2013).**

The load duration curves developed for site 380006 and 385234 on the Wild Rice River and 384037 on Shortfoot Creek indicate an increase input of total nitrogen and total phosphorus into the river system. The increase in nutrient inputs is a result of nonpoint sources (i.e. overland runoff, riparian grazing, etc.) located within the Wild Rice River and Shortfoot Creek watershed.

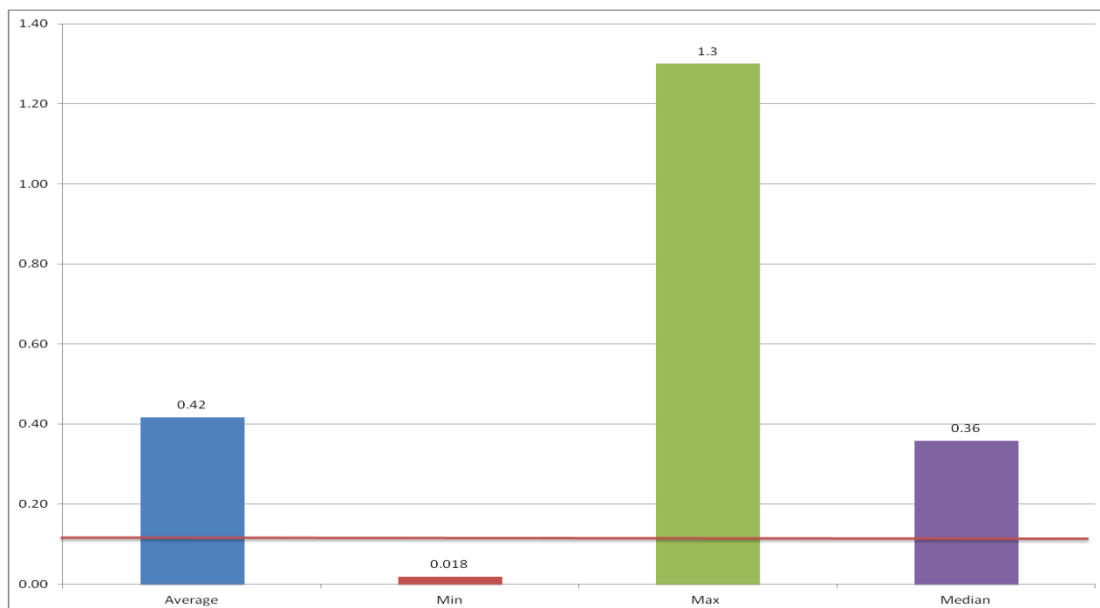
## Crooked Creek Nutrient Results

A load duration curve was not developed for Crooked Creek due to insufficient flow data. Therefore, nutrient results for Crooked Creek were summarized for minimum, maximum, average, and median values and are presented in the Figures 11 and 12. The same nutrient criteria value for ecoregion 46 is represented by the red line on the graph.

The graph shows that Crooked Creek is also experiencing high levels of nutrients entering the river system.



**Figure 11. Total Nitrogen Concentration Results and Nutrient Criteria Line for Crooked Creek.**



**Figure 12. Total Phosphorus Concentration Results and Nutrient Criteria Line for Crooked Creek.**

## **Recreational Use Assessments for Sites 38006 and 385234**

Within the Wild Rice River watershed, E. coli data was collected at two sites (380006 and 385234). Data was collected during the recreation season from May 1 through September 30 from 2011 to present. Recreational beneficial use attainment was determined for each site and is summarized in Tables 1 and 2.

Analysis of E. coli bacteria data collected at site 380006 from May 2011 to August 2013, demonstrated that the months of May, July, August, and September were fully supporting recreational beneficial uses. The geometric mean and percent exceeded calculations for beneficial uses in the month of June were not supporting recreational beneficial uses.

The recreational use support assessment of E. coli bacteria data for site 385234 concluded that during the month of September recreational beneficial uses were not supported, May was assessed as fully supporting, but threatened, and June, July, and August was fully supporting recreational beneficial uses.

**Table 1. Recreational Use Attainment Analysis for Monitoring Site 380006.**

Monitoring Site 380006									
May		June		July		August		September	
5/18/2011	10	6/1/2011	200	7/5/2011	130	8/1/2011	70	9/6/2011	50
5/23/2011	10	6/6/2011	20	7/6/2011	30	8/2/2011	10	9/7/2011	30
5/25/2011	10	6/7/2011	30	7/11/2011	60	8/8/2011	150	9/12/2011	140
5/31/2011	150	6/13/2011	10	7/12/2011	60	8/9/2011	90	9/13/2011	30
5/7/2012	40	6/14/2011	10	7/18/2011	70	8/15/2011	2900	9/19/2011	300
5/9/2012	50	6/20/2011	120	7/19/2011	10	8/16/2011	90	9/20/2011	150
5/14/2012	30	6/21/2011	6400	7/25/2011	20	8/22/2011	70	9/26/2011	40
5/16/2012	30	6/27/2011	250	7/9/2012	10	8/23/2011	230	9/27/2011	70
5/21/2012	130	6/28/2011	10	7/11/2012	110	8/29/2011	170	9/4/2012	10
5/23/2012	310	6/4/2012	210	7/17/2012	210	8/30/2011	70		
5/29/2012	170	6/6/2012	280	7/18/2012	10	8/6/2012	40		
5/30/2012	160	6/11/2012	110	7/23/2012	10	8/7/2012	90		
5/7/2013	10	6/13/2012	620	7/24/2012	100	8/13/2012	160		
5/6/2013	10	6/18/2012	600	7/30/2012	60	8/15/2012	100		
5/13/2013	10	6/20/2012	2700	7/31/2012	80	8/20/2012	90		
5/14/2013	40	6/25/2012	320	7/1/2013	160	8/22/2012	100		
5/21/2013	250	6/27/2012	190	7/8/2013	230	8/27/2012	20		
5/22/2013	10	6/5/2013	40	7/10/2013	1100	8/28/2012	60		
5/28/2013	10	6/4/2013	70	7/15/2013	370	8/5/2013	10		
5/29/2013	10	6/11/2013	220	7/17/2013	110	8/7/2013	40		
		6/12/2013	150	7/22/2013	80	8/13/2013	50		
		6/24/2013	280	7/30/2013	50				
				7/31/2013	80				
	33		142		67		78		58
	0%		18%		4%		5%		0%
FS		NS		FS		FS		FS	

FS – Fully Supporting; FSbT- Fully Supporting, but Threatened; NS – Not Supporting; INSFD – Insufficient Data

**Table 2. Recreational Use Attainment Analysis for Monitoring Site 385234.**

Monitoring Site 385234									
May		June		July		August		September	
5/18/2011	10	6/1/2011	200	7/5/2011	40	8/1/2011	110	9/6/2011	160
5/23/2011	60	6/6/2011	10	7/6/2011	20	8/2/2011	10	9/7/2011	80
5/25/2011	20	6/7/2011	10	7/11/2011	100	8/8/2011	20	9/12/2011	60
5/31/2011	5800	6/13/2011	40	7/12/2011	60	8/9/2011	20	9/13/2011	500
5/7/2012	10	6/14/2011	40	7/18/2011	100	8/15/2011	1100	9/19/2011	100
5/9/2012	40	6/20/2011	30	7/19/2011	20	8/16/2011	100	9/20/2011	180
5/14/2012	50	6/21/2011	250	7/25/2011	30	8/22/2011	80	9/26/2011	110
5/16/2012	60	6/27/2011	310	7/9/2012	70	8/23/2011	240	9/27/2011	80
5/21/2012	30	6/28/2011	40	7/11/2012	30	8/29/2011	80	9/4/2012	140
5/23/2012	600	6/4/2012	130	7/17/2012	350	8/30/2011	120	9/10/2012	540
5/29/2012	330	6/6/2012	10	7/18/2012	90	8/6/2012	80	9/11/2012	200
5/30/2012	1600	6/11/2012	70	7/23/2012	80	8/7/2012	90	9/17/2012	360
5/7/2013	10	6/13/2012	30	7/24/2012	30	8/13/2012	110	9/18/2012	350
5/6/2013	10	6/18/2012	70	7/30/2012	120	8/15/2012	110	9/26/2012	70
5/13/2013	10	6/20/2012	1600	7/31/2012	50	8/20/2012	80	9/25/2012	80
5/14/2013	20	6/25/2012	140	7/1/2013	90	8/22/2012	90		
5/21/2013	5100	6/27/2012	120	7/8/2013	240	8/27/2012	40		
5/22/2013	1900	6/5/2013	110	7/10/2013	2900	8/28/2012	2300		
5/28/2013	20	6/4/2013	60	7/15/2013	110	8/5/2013	80		
5/29/2013	10	6/11/2013	60	7/17/2013	540	8/7/2013	160		
		6/12/2013	140	7/22/2013	180	8/13/2013	40		
		6/24/2013	1900	7/30/2013	60				
				7/31/2013	90				
	75		83		90		94		154
	25%		9%		9%		10%		13%
FSbT		FS		FS		FS		NS	

FS – Fully Supporting; FSbT- Fully Supporting, but Threatened; NS – Not Supporting; INSFD – Insufficient Date

### **Index of Biotic Integrity (IBI) Summary for Sargent County**

Aquatic macroinvertebrates are the most common organisms used in water quality assessments. Human disturbance of streams and landscapes alter key attributes of the aquatic environment, (i.e., water quality, flow regime, habitat structure) which elicits a response from the macroinvertebrate community and can ultimately result in decreased biotic integrity. For example, if pollutants enter a waterway, sensitive species will suffer while tolerant species will continue to thrive. Changes in species composition such as this can easily be detected through index development.

An Index of Biotic Integrity (IBI) is a multi-metric index designed and calibrated for specific regions. A metric is simply an expression of the biological community. The score is a qualitative rating such as good, fair or poor that can be associated with each site for an overall indication of biological integrity.

**Table 3. Reference Based Thresholds Used to Determine Condition Class in the Northern Glaciated Plains Ecoregion (46) of the Red River Basin in North Dakota.**

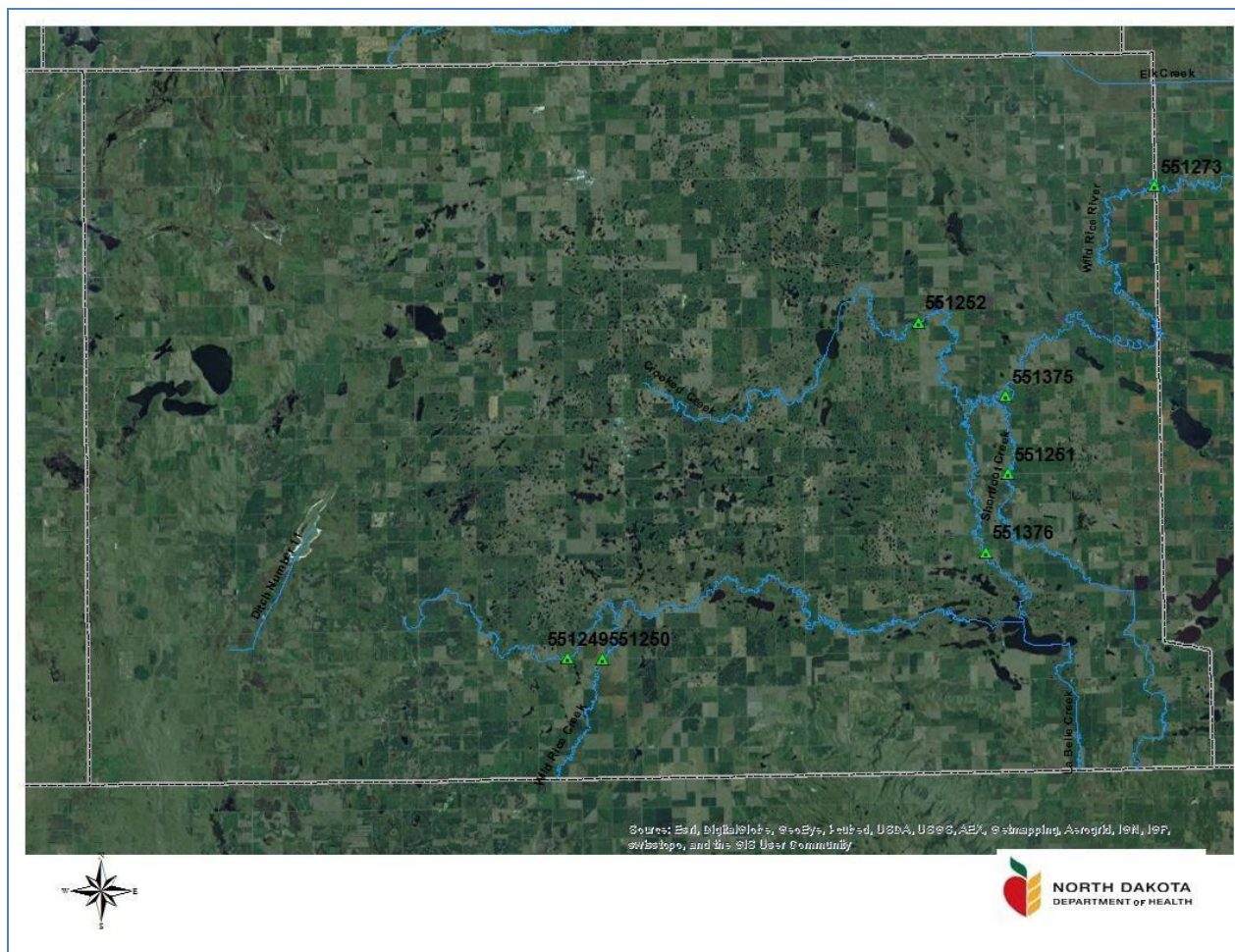
Percentile Value	Fully Supporting	Fully Supporting but Threatened	Not Supporting
	25th Percentile > 70	NA 70 -59	5th Percentile < 59

**Table 4. IBI Scores for Macroinvertebrate Sampling Locations in the Wild Rice River Drainage in Sargent County, ND.**

Station ID	WaterbodyName	Date	IBI Score	Condition Class
551249	Wild Rice River	26-Jun-02	53	Not Supporting
551249	Wild Rice River	31-Aug-09	45	Not Supporting
551251	Shortfoot Creek	26-Jun-02	32	Not Supporting
551251	Shortfoot Creek	01-Sep-09	44	Not Supporting
551252	Crooked Creek	26-Jun-02	16	Not Supporting
551252	Crooked Creek	01-Sep-09	14	Not Supporting
551375	Wild Rice River	17-Sep-07	61	Fully Supporting but Threatened
551376	Wild Rice River	17-Sep-07	70	Fully Supporting but Threatened

The macroinvertebrate IBI scores for Wild Rice River, Crooked Creek, and Shortfoot Creek indicate that the river systems are impaired for aquatic life. This correlates with the nutrient data for the same areas which also indicates nutrient water quality impairment. These areas are an important focal point for implementation of conservation practices.





**Figure 12. Sargent County Macroinvertebrate Sampling Locations.**

### **3.0 PROJECT DESCRIPTION**

**3.1 Goal for the Project:** The goal of the project is to restore riparian habitat and buffering capabilities in Crooked and Shortfoot Creek watersheds as well as along the mainstem of the Wild Rice River in Sargent County to improve aquatic life uses in the creeks and river. As a secondary goal, livestock and cropland management immediately adjacent to the creeks and river will also be addressed to enhance and protect the function of the riparian corridor.

**3.2 Objective 1:** Increase the IBI score for the specific reaches being addressed by the project to achieve a fair to good ranking (>70 for good and 59-70 for fair).

**Task 1:** SCD will employ personnel to manage the project during the grant period. Responsibilities will include BMP inventories, producer contacts, and water quality sampling.

Product: Watershed Coordinator

Cost: \$284,610. Total

**Task 2:** Utilize the Decision Support Tool to identify priority areas for BMP implementation at the field level.

Product: Field scale priority maps for cooperating producers.

Cost: Staffing cost. See Task 1

**Task 3:** Restore and/or protect 422 acres (approximately 10 miles) of riparian corridor along the Wild Rice River; Shortfoot Creek and/or Crooked Creek by installing easements, grassed waterways, filter strips and trees. The easements may have an effective life span of up to twenty years. See Appendix F for an easement agreement example.

Product: WRSCD Water Quality Easement and Erosion Control BMPs

Cost: \$95,958. Total

**Task 4:** SCD and landowners will develop cropland management plans on 1345 acres of cropland. The plans will include BMPs such as tree plantings, conservation crop rotation, cover crops, nutrient management, and soil testing and residue management.

Product: Cropland Management BMPs

Cost: \$26,900. Total

**Task 5:** SCD will work with the owner/operators of the priority livestock feeding areas, to develop and implement a manure management system for their feeding areas. The objective will be one in the 4 year proposal request in combination with NRCS. Incorporate portable windbreaks for extending grazing periods.

Product: Technical and Financial Assistance on one Manure Management and 3 Partial System BMPs

Cost: \$56,000. Total

**Task 6:** SCD and landowners will develop grazing management plan on 250 acres of land. These BMPs will include fencing, pipelines, wells, spring development, prescribed grazing plans, solar pumps, and winter grazing plan, tank and trough. The placement will be on the riparian corridor of the Wild Rice River as well as Crooked and Shortfoot Creek.

Product: Grazing Management Plan BMPs

Cost: \$17,420. Total

**Objective 2:** Increase the awareness of rural and urban residents of practices and daily activities that can be implemented to help achieve and maintain fully supporting status of the recreational and aquatic life uses of the Wild Rice River

**Task 7:** The Watershed Coordinator will conduct public meetings/notification yearly on watershed accomplishments.

Product: Annual Report and Program Information Meetings, 10 one-on-one personal contacts.

Cost: \$258. Total

**Task 8:** The SCD will disseminate information to increase producer awareness of practices and/or management systems that can be implemented to improve management of nutrients, riparian areas, and livestock manure, as well as improve soil health and reduce soil erosion.

Product: An annual cover crop tour, biennial ladies Ag night, 4 annual newspaper articles/ District Newsletter, yearly display boards in county businesses and fair.

Cost: \$261. Total

**Task 9:** The Watershed Coordinator will implement a conservation education program with local schools on watersheds and water quality as related to Wild Rice River Restoration and Riparian Project .Specific activities will be determined through planning between watershed coordinator and interested teachers.

Product: 14- Envirothon Team, 3- ECO-ED Day, 2- First Grade, 2 - Third Grade

Cost: \$261. Total

**Objective 3:** Maintain funding support thru October 2017, the Conservation Cropping System Project Farm (CCSP) as a demonstration site to increase producers' awareness and understanding of the economic and resource benefits of: 1) soil health management; 2) connectedness between water quality and soil health; and 3) feasible options for improving soil health under different crop rotations. See Appendix D.

**Task 10:** Coordinate with the CCSP advisory board to establish larger plots and new crop rotations on the CCSP Farm to focus on what was learned on the small plots previously used on the farm. The demonstrations on the larger plots will focus on soil health improvement using winter annuals as cover and cash crops, cover crop seeding techniques in standing crop, and establishment of a year-round "live root" crop rotations. A group of small plots will be retained for applicable educational and experimental studies.

Product: 6 large and 20 small demonstration plots on the 160 acre CCSP Farm.  
See Appendix D for a description of potential demonstrations.

Cost: Cash/inkind match support is listed in the Part1: Funding Source Table (Appendix H). Total inkind/cash match value is \$153,702.

**Task 11:** CCSP Farm Board will employ an agronomist to implement, coordinate and oversee activities on the CCSP farm. The Farm Manager will earn 30% of his income from the Wild Rice River Restoration and Riparian Project Phase III.

Product: Staff Employed  
Cost: \$37,640. Total

**Task 12:** Employ 2 part time field tech for work on demonstration farm to assist with operations.

Product: Staff Employed  
Cost: \$30,030. Total

**Task 13:** Organize and conduct scheduled information and education (I/E) events focusing on NPS pollution control within agricultural areas and coordinate them with ongoing state/federally sponsored I/E programs. Farm Manager and Watershed Coordinator will participate in 4- No-Tillage Workshops, 6-Tours of CCSP, 2- radio programs, and 3- booth presentations.

Product: Display and inform about compost and compost turners, rainfall simulator, no-till equipment. Guest speakers and educators are guests on the Farm Talk Radio Ag Show.  
Cost: Staffing cost. See Task 1 & 11.

**Task 14:** Identify options for establishing edge-of-field monitoring sites on the CCSP Farm to evaluate the relationship between various crop rotations and surface water quality, cover crops, and/or soil health systems. This will involve the sizing of plots to conform to small watersheds on site and potential use of a sprinkler irrigation system to simulate rainfall events.

Product: Plan and schedule for establishing edge-of-field monitoring sites.  
Costs: Plan development will be covered under Task 11 costs. Establishment of the monitoring sites will be supported by subsequent grants or alternative funding sources.

**3.3** See Attached Milestone Table in Appendix G

**3.4 Permits:** All necessary permits will be acquired. These may include CWA (Clean Water Act) Section 404 permits. Project sponsors will work with NDDH to determine if National Pollution Elimination System permits are needed for the proposed livestock systems. ND State Historic Preservation Office (SHPO) will be consulted regarding requirements for cultural resource protection.

**3.5 Lead Project Sponsor** Wild Rice Soil Conservation District (WRSCD) is the lead sponsor. Wild Rice SCD has sponsored three 319 projects. The WRSCD's annual and long range plans help to prioritize and guide the field service staff. The WRSCD has legal authorization to employ personnel and receive and expend funds. They have a track record for personnel management and addressing conservation issues for their constituency. The Sargent County Water Resource Board is responsible for the management of water resources in Sargent County. They will provide support for the project as well as assist the WRSCD in overseeing the projects progress.

**3.6 Operation and Maintenance** The Wild Rice SCD will be responsible for auditing Operation and Maintenance Agreements (O&M) for Section 319 cost shared BMP through yearly status reviews of EPA Section 319 contracts. The lifespan of each BMP will be listed in each individual contract to ensure longevity of the practices. The producer signs the “EPA 319 Funding Agreement Provision” form which explains in detail the consequences of destroying a BMP before the completion of it lifespan. The Wild Rice Soil Conservation District Water Quality Easement will be filed, with the County Office Recorder at the Sargent County Court House. The original document will be filed in a custody file at the Wild Rice Soil Conservation District Office. See Appendix F

## **4.0 Coordinating Plan**

**4.1 Cooperating Organizations** The WRSCD is the signer of the Section 319 contract and is the lead agency responsible for administration. They will provide office space, clerical assistance, access to equipment, and supplies as well as annual financial support. The WRSCD board will oversee implementation of the scheduled project activities, and provide for staff time if feasible. The board (WRSCD) will be the primary supervisors of the watershed conservationist and all Section 319 funded activities.

**4.1b** The Sargent County Water Resource Board (SCWRB) will assist the WRSCD in project implement and provide negotiable financial support.

**4.1c** Sargent County Commission (SCC) - The Sargent County Commission has agreed to support this project.

**4.1d.** NRCS Environmental Quality Incentives Program (EQIP) will be used to plan relevant conservation practices not supported by the 319 grant. Some projects, like animal waste systems, can included several cost-sharable conservation practices. The 319 project dollars will be used to cover areas, practices, or landowners not addressed though EQIP.

**4.1e** North Dakota Department of Health (NDDH). The NDDH will oversee 319 funding as well as develop the Quality Assurance Project Plan (QAPP) for this project. NDDH will provide training for proper water quality sample collection, preservation and transportation, to ensure reliable data is obtained. It will provide the sponsor over sight to ensure proper management and expenditure of Section 319 funds. They will assist NRCS and SCD personnel in the review of O&M requirements for section 319 cost shared BMP's.

**4.1f** Farm Services Agency (FSA) - Programs available through FSA will be pursued for cost share assistance.

**4.1g** North Dakota Extension Service (EXT) - Local and State personnel and educational materials will be utilized to compliment the projects I/E activities. This will include such things as specific BMP publications and assistance with workshops and field tours. The specific role of EXT will be dependent on the type of I/E activity being implemented and availability of staff and materials.

**4.1h** USFWS Programs and technical assistance available through USFWS will be pursued for project assistance.

**4.1i** Ducks Unlimited Inc. (DU) - DU has agreed to support the CCSP project financially.

**4.1j** The Conservation Cropping System Project (CCSP) board, with the assistance of the advisory board will oversee the implementation of the demonstration farm. The advisory board consists of board members from ND counties: Wild Rice, Richland, James River, Ransom and Dickey. And SD counties: Day and Marshall financially support the project.

Appendix E - advisory members and sponsors.

**4.1k** North Dakota Corn Council has agreed to support the CCSP project financially.

**4.1l** North Dakota Soybean Council has agreed to support the CCSP project financially.

**4.1m** Titan Machinery supports the CCSP project with equipment and financially.

**4.2 Local Support** The WRSCD Board has concerns for the Sargent County community at large. All the board members are on township boards, we have one board member on the SCWRB. Spring 2015, there has been a total of 197 producers/landowners participating in the 319 and USDA programs.

**4.3 Partnership** The WRSCD will work with multiple partners (e.g., NRCS, other SCDs, WRD, Extension Service, CCSP Farm, etc.) to increase awareness of solutions to water quality and NPS pollution issues in the area. This will be accomplished through educational events and/or demonstrations that focus on the benefits various conservation practices. They will also provide in protecting soil resources, improving air and water quality, enhancing fish and wildlife habitat, and improving nutrient and rangeland management. Some of these events may include; an annual cover crop tour; biennial ladies Ag night; 4 annual newspaper articles, 1 annual radio program, and yearly display boards in county businesses and the county fair.

**4.4 Similar Activities** N/A

## **5.0 EVALUATION AND MONITORING PLAN**

The project sponsors are currently coordinating with the ND Department of Health to develop the Quality Assurance Project Plan (QAPP). The QAPP will be finalized after the PIP is fully approved and funded.

## **6.0 BUDGET**

**6.1** See Appendix H, the budget worksheet.

## ***7.0 Public Involvement***

The Wild Rice Watershed Program has a past history of watershed projects. The success of the program has secured public involvement on a widespread basis. The Wild Rice Restoration and Riparian Project Phase III and Sargent County SCDs are active in youth education. The county sponsors an ECO-ED Day every year for middle school children. The purpose of the camp is to help stimulate the need for natural resource conservation. Public tours and demonstrations are held each year to inform the public on various conservation issues such as no-till farming, strip tillage, cover crops. The Wild Rice Restoration and Riparian Project Phase III will be handled in a manner similar to that of other projects. With this, local project staff feels that public involvement is guaranteed.

**Appendix A**  
**Page 1 of 2**

**Best Management Practices Supported with Section 319 funds in the Wild  
Rice River Watershed**

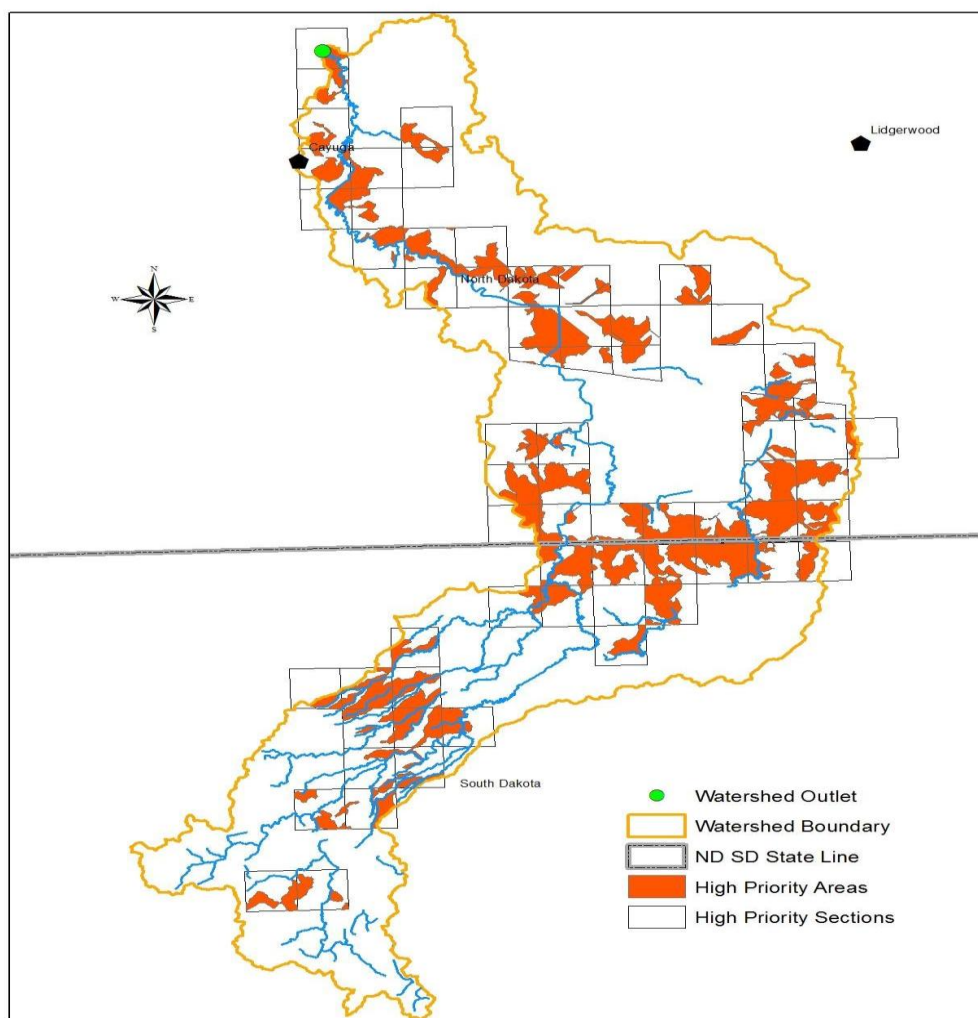
Category/Practice	Amount	Units	Cost Share	Producer Match	Total Cost	
<b><i>Cropland Management</i></b>						
Cover Crop	2,220.90	Acres	\$11,495.64	\$7,663.76	\$19,159.40	
Nutrient Management	31,369.90	Acres	\$96,244.58	\$64,163.72	\$160,408.30	
Residue Management (Mulch Till)	19,624.30	Acres	\$89,956.76	\$59,970.84	\$149,927.60	
Residue Management (No-Till and Strip Till)	5,395.00	Acres	\$35,257.80	\$23,504.20	\$58,762.00	
			<b>Total</b>	<b>\$232,954.78</b>	<b>\$155,302.52</b>	<b>\$388,257.30</b>
<b><i>Grazing Management</i></b>						
Fencing	693.00	Linear Feet	\$196.00	\$130.00	\$326.00	
Fencing (Woven Wire)	2,160.50	Linear Feet	\$2,138.89	\$1,425.93	\$3,564.82	
Pasture/Hayland Planting	28.00	Acres	\$343.00	\$228.00	\$571.00	
Pipelines	9,916.94	Linear Feet	\$7,662.61	\$5,108.41	\$12,771.02	
Pond	1.00	Number	\$1,860.00	\$1,240.00	\$3,100.00	
Prescribed Grazing	320.00	Acres	\$960.00	\$640.00	\$1,600.00	
Solar Pumps	1.00	Number	\$2,763.60	\$1,842.40	\$4,606.00	
Trough and Tank	6.00	Number	\$4,629.89	\$3,086.58	\$7,716.47	
Well (Livestock Only)	5.00	Number	\$11,925.05	\$7,950.04	\$19,875.09	
			<b>Total</b>	<b>\$32,479.04</b>	<b>\$21,651.36</b>	<b>\$54,130.40</b>
<b><i>Vegetative Buffers</i></b>						
Filter Strip	80.80	Acres	\$6,970.85	\$4,647.24	\$11,618.09	
			<b>Total</b>	<b>\$6,970.85</b>	<b>\$4,647.24</b>	<b>\$11,618.09</b>



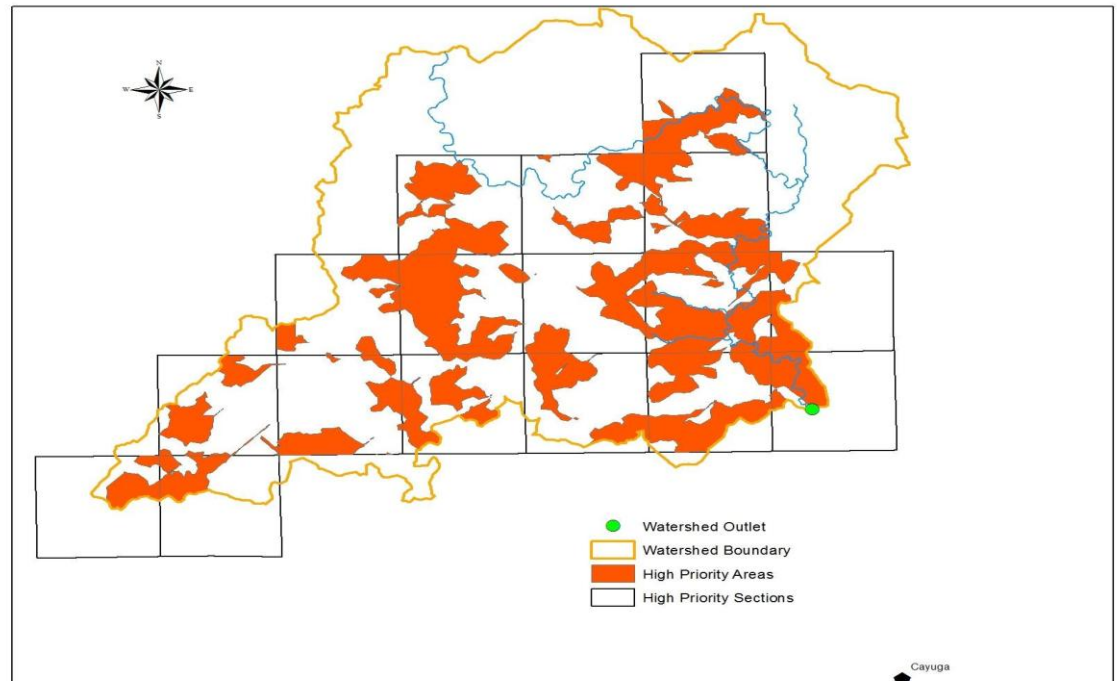
# Appendix A

## Page 2 of 2

Category/Practice	Amount	Units	Cost Share	Producer Match	Total Cost
<b><i>Livestock Manure Management System (Full System)</i></b>					
Irrigation System (site-specific approval required)	1.00	System(s)			
			\$15,000.00	\$10,000.00	\$25,000.00
Phase I Waste Management System	1.00	System(s)			
			\$70,000.00	\$46,666.67	\$116,666.67
Phase II Waste Management System	1.00	System(s)			
			\$14,710.20	\$9,806.80	\$24,517.00
Waste Management System (Coordinated With EQIP)	5.00	System(s)			
			<u>\$294,001.78</u>	<u>\$196,001.20</u>	<u>\$490,002.98</u>
			<b>Total</b>	<b>\$393,711.98</b>	<b>\$262,474.67</b>
					<b>\$656,186.65</b>
<b><i>Livestock Manure Management System (Partial System)</i></b>					
Portable Windbreaks	384.00	Linear Feet			
			\$8,568.00	\$5,712.00	\$14,280.00
Trough and Tank	1.00	Number			
			\$774.27	\$516.18	\$1,290.45
Well (Livestock Only)	1.00	Number			
			\$1,687.70	\$1,125.14	\$2,812.84
Windbreak Fencing (Ag Waste)	650.00	Linear Feet			
			<u>\$4,284.00</u>	<u>\$2,856.00</u>	<u>\$7,140.00</u>
			<b>Total</b>	<b>\$15,313.97</b>	<b>\$10,209.32</b>
					<b>\$25,523.29</b>
<b><i>Miscellaneous Practices</i></b>					
Miscellaneous (Full Manure Management System)	1.00	Misc			
			\$4,755.30	\$3,170.20	\$7,925.50
Miscellaneous (Miscellaneous Practices)	1.00	Misc			
			(\$36.00)	(\$24.00)	(\$60.00)
Solar Pumps	2.00	Number			
			\$5,078.21	\$3,385.47	\$8,463.68
Well Decommissioning	12.00	Number			
			<u>\$8,895.20</u>	<u>\$5,929.80</u>	<u>\$14,825.00</u>
			<b>Total</b>	<b>\$18,692.71</b>	<b>\$12,461.47</b>
					<b>\$31,154.18</b>
<b><i>Riparian Area Management</i></b>					
Miscellaneous (Riparian Area Management)	5.00	Misc			
			\$48,950.67	\$32,633.77	\$81,584.44
Riparian Easement (On Cropland)	418.80	Acres			
			\$95,917.15	\$63,944.77	\$159,861.92
Riparian Herbaceous Cover	23.50	Acres			
			<u>\$1,250.95</u>	<u>\$833.97</u>	<u>\$2,084.92</u>
			<b>Total</b>	<b>\$146,118.77</b>	<b>\$97,412.51</b>
					<b>\$243,531.28</b>
			<b>Grand Total</b>	<b>\$846,242.10</b>	<b>\$564,159.09</b>
					<b>\$1,410,401.19</b>

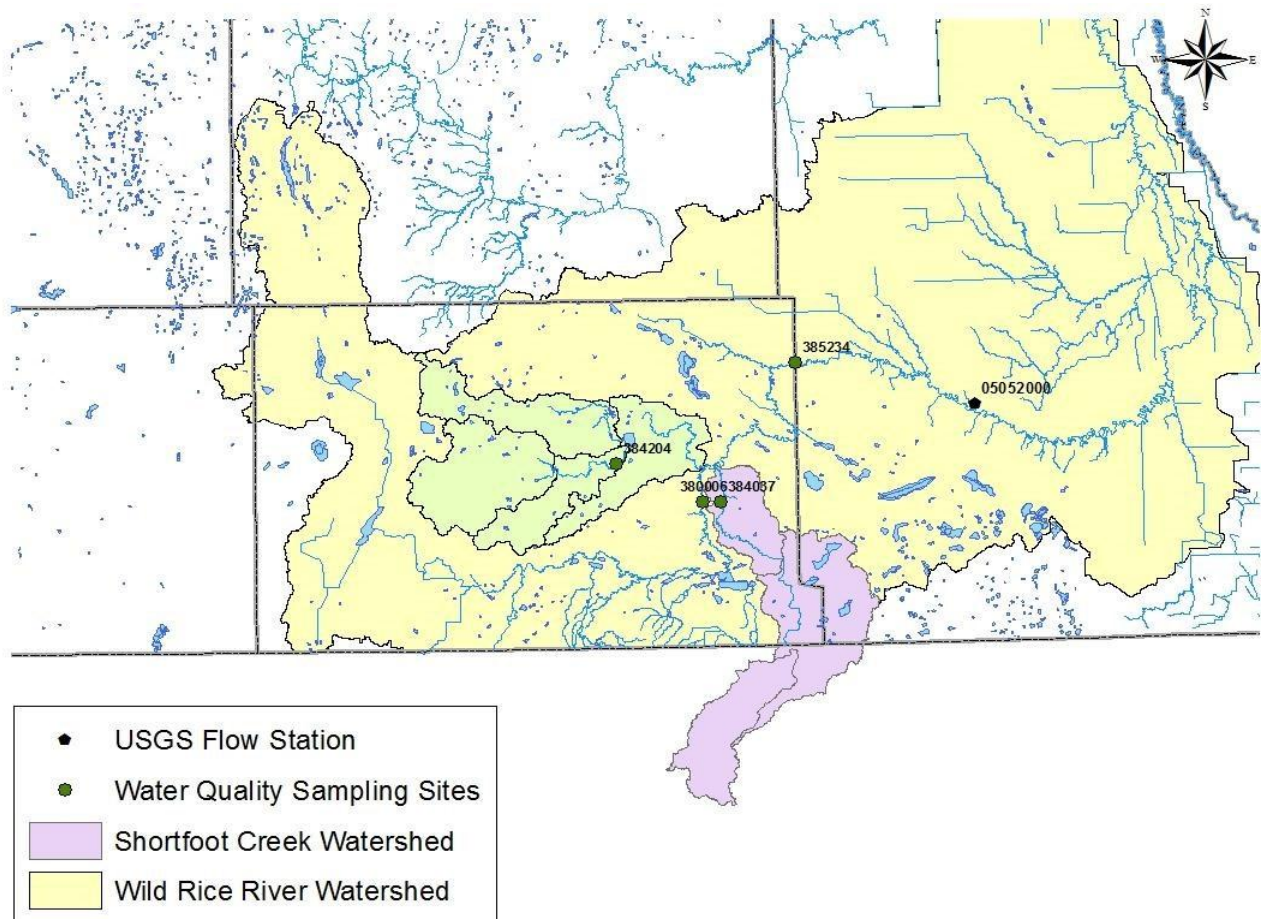


**Figure 1. Annualized Agricultural NonPoint Source Pollution (AnnAGNPS) priority area map for Shortfoot Creek.**



**Figure 2. Annualized Agricultural NonPoint Source Pollution (AnnAGNPS) priority area map for Crooked Creek.**

## Appendix C



**Figure 3. Location of Crooked and Shortfoot Creek subwatersheds in the Wild Rice River watershed.**

## *Appendix D*

### 3.0 PROJECT DESCRIPTION

The Conservation Cropping Systems Project board is composed of local producers representing counties with the targeted region from both sides of the ND - SD border. Professionals from agricultural research, as well as natural resources conservation agencies, and non-profit interest groups will assist the directing board with technical advice and support. The projects activities will take place on a 160-acre conservation demonstration farm located 1 mile south of Forman, ND.

The mission of the Conservation Cropping Systems Project is to evaluate and demonstrate profitable crop rotations and crop management strategies that are uniquely adapted to the local climate. These strategies will strive to protect the natural resources of Southeast North Dakota and northeast South Dakota through research, demonstration and education.

The Conservation Cropping System Project will now focus on using larger plots. We will take what we have learned in the past years, move that knowledge forward, and incorporate recent and experimental technologies. The large plots will be more efficient to work with, better for weed control, and less likely to have herbicide drift issues. Rotations ideas include wheat and peas for instance. These crops will be used to allow cover crops to be easily established after the harvest of these early crops. Currently there is interest in cover crops, but problems with establishment in the fall have hindered the adoption for many producers especially with late season crops such as corn and soybeans. Water quality could be substantially increased if more cover crops could be established during the growth of these long season crops because our short season allows for little if any growth after harvest. The use of coating on cover crop seed is currently being investigated and we plan to incorporate them. The coating will allow water to be absorbed and held. This will allow more germination at the soil surface. The coatings would also be evaluated for better penetration into the crop canopy when applied by airplane especially in the case of small seeds with little weight. Robotic devices are also in development that would seed cover crops by roaming up and down the rows of corn. We have been in contact with the “Rowbot” company and will work with them if the opportunity arises. More conventional machinery such as high clearance sprayers have been adapted to apply seed in between rows. Another philosophy we intend to demonstrate is the “continuous live root”. This has the potential to be the most soil friendly rotation as well and the best in water quality. This can be evaluated in the micro watershed portion of our study. Wheat, corn, soybean, alfalfa, peas and cover crops will be the main crops, seeding techniques and machinery will also be focused on.

**Appendix E**  
**Page1 of 2**  
**CCSP-Conservation Cropping Systems Project**

**Day County:** Bill Simonson  
43324 127<sup>th</sup> Street Roslyn SD  
57261

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jbsimonson@venturecomm.net

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Ellendale ND 58436  
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petersengrant@hotmail.com

Marty Visto  
9805 105<sup>th</sup> Ave SE  
Oakes ND 58474  
701-783-4378 701-710-0381  
mvisto@drtel.net

**Marshall County:**  
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jkerickson@venturecomm.net  
John Rabenberg  
PO Box 518  
Britton, SD 57430  
605-448-5952  
605-880-4059

**Ransom County:** Eric Mairs  
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Lisbon ND 58054

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ericmairs@yahoo.com

Pat Freeberg  
13290 73 St SE  
Lisbon ND 58054  
701-683-4051  
701-678-3368

**Sargent County:**  
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9597 125th Ave SE  
Cogswell, ND 58017-9609  
701-724-3921 701-678-5447  
dbosse@drtel.net

Mark Wyum  
9230 139th Ave SE  
Rutland, ND 58067-9432  
701-724-3704  
701-680-0434

**Richland County:** Jennifer Klostreich  
Watershed Coordinator  
1687 Bypass Road  
Wahpeton, ND 58075  
Jen.Klostreich@nd.nacdnet.net

Jesse Frolek  
8530 155<sup>th</sup> Ave SE  
Lidgerwood ND 58053  
701-838-4810  
Jfrolek59@gmail.com

**SCD Representatives:**

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Kent Carpenter  
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Cogswell, ND 58017  
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ckcarp2000@yahoo.com

**Ducks Unlimited:**  
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71-226-8989

**North Dakota State University:** Dr.  
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701-231-8973  
Abbey.wick@ndsu.edu

**Farm Manager:**  
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Forman, ND 58032  
701-724-6226  
701-799-1180 Kelly Cooper  
coop@notillfarm.org

## ***Appendix E***

**Page 2 of 2**

### **Current Sponsor of the CCSP Project**

#### **Platinum**

North Dakota Corn Council  
Ducks Unlimited/Bayer CropScience  
Titan Machinery

#### **Gold**

Dakota Plains  
Pioneer Hybrids  
Richland County SCD  
South Dakota Wheat Growers  
Wild Rice Soil SCD

#### **Silver**

Cropland Seed  
James River SCD  
Monsanto  
Ransom County SCD  
K & S Soil Analysis

#### **Bronze**

AgCountry, Lisbon  
AgVise

Columbia Grain  
County 14 Seed  
Dairyland Seed Co., Inc

#### **Bronze continued**

Dakota Valley Electric  
First National Bank - Milnor  
Dave and Julie Hassebrook  
Dave Bergeman Insurance Agency  
Dave Kinzler  
Dave Robbins  
Day County SCD  
Full Circle Ag  
James Valley Grain  
Marshall Dairy  
Meridian Seeds  
Millborn Seeds  
Northside Implement  
Starion Financial  
Valent USA

**Appendix F**  
**Easement**  
**Wild Rice Soil Conservation District**

This Easement ("Easement"), is made by and between Owners Name whose address is Address, City State ("Grantor"), and the Wild Rice Soil Conservation District, a North Dakota political subdivision whose post office address is 8991 Hwy 32, Forman, ND 58032-9702 (the "District"), Grantee.

WHEREAS, the purpose of this Easement is to provide and enhance riparian lands in locations most likely to benefit and sustain water quality. Grantors, in exchange for compensation paid by the District, wish to provide the District with an easement for these purposes. This Easement does not grant any rights to the general public for access to or entry upon the lands described below.

WHEREAS, Chapters 47-05 and 4-22 of the North Dakota Century Code authorize the District to acquire easements on eligible lands to establish conservation practices to enhance water quality.

WHEREAS, the District has developed a water quality program, with the goal of achieving "fully supporting" status for the aquatic life and recreational uses of the Wild Rice River and its tributaries within Sargent County by the means of preventing and reducing water pollutions through the establishment of vegetative riparian buffer zones.

NOW, THEREFORE, for and in consideration of the total sum of \$\$\$\$\$\$(\$\$\$\$00) the receipt and sufficiency of which the parties acknowledge, Grantors hereby grant, convey, and warrant to the District, its successors and assigns, an easement in accordance with the terms and conditions set forth herein for a term of 00 years on the following real property in Sargent County, North Dakota, containing 000.0 acres, more or less, identified as follows, is described:

A buffer of grass measuring approximately 100 to 300 feet on both sides of Property named  
The Wild Rice River on SE 00-000-00 and SW 00-000-00

(the "Property"). This Easement is subject to all prior easements, roadways, and mineral rights of record.

Binding Effect. This Easement constitutes servitude upon the Property; this Easement will run with the Property; and this Easement binds Grantors, their heirs, successors, assigns, representatives, and lessees, and including successors in title.

Ownership. Grantors represent and warrant they are the sole owners of the Property in fee simple, including any and all mineral rights; they have good and marketable title to the Property; they have the authority and right to execute this Easement; and this Easement does not violate any mortgage or other interest held by any third party regarding the Property, or any portion of the Property.

Hazardous Substances. Grantors represent and warrant there are no hazardous or toxic substances, pollutants, or contaminants in, on, or under the Property. With the exception of reasonable and necessary application of government-approved fertilizers and pesticides, Grantors will not store or permit spillage, leakage, discharge, or application, of any hazardous or toxic substance, pollutant, contaminant, compost, or manure in, on, or under the Property, and including ground water, surface water, and subsurface soils.

Access to the Property. Grantors warrant the right of not giving access to the public for ingress and egress to the Property across adjacent or other properties of Grantors. Grantors grant the District the right of reasonable ingress and egress to, from, in, on, over, across, and through the Property to inspect the Property and to ensure compliance with the terms of this Easement.

Recreational Uses. Grantors expressly reserve the right to use the Property for reasonable recreational purposes, including, but not limited to, hunting, fishing, hiking, canoeing, and kayaking, as well as access to the Property for those purposes.

Obligations of Grantors. Grantors will comply with all terms and conditions of this Easement, including the following:

1. Grantors, their heirs, successors, assigns or leases, will manage the established native grass cover for purposes of water quality in accordance with the following Best Management Practice agreed to by the District and Grantors.
2. Without otherwise limiting the rights of the District granted in this Easement, the following activities and uses are prohibited on the Property:
  - a. Altering of grassland, woodland, wildlife habitat or other natural features by burning, digging, plowing, disking, cutting, or otherwise destroying the vegetative cover except as described in the attached Best Management Practice;
  - b. Draining, dredging, channeling, filling, leveling, pumping, diking, impounding, grading, excavating, or related activities, as well as altering or tampering with ground control substances or devices;
  - c. Diverting or causing the diversion of surface or underground water into, upon, over, across, though, within, from, or out of the Property by any means;
  - d. Planting or harvesting any crops;
  - e. Grazing or allowing livestock on the Property except as described in the attached Best Management Practice;
  - f. Removing topsoil;
  - g. Dumping refuse, waste, sewage, soil, ashes, abandoned vehicles, appliances, machinery, garbage, rubbish, junk, equipment, or other debris; and
  - h. Building, constructing, locating, or placing any structures on the Property.
3. Grantors will control noxious weeds and pests on the Property by complying with noxious weed control laws, and will control pests as necessary to protect the public health.





4. Grantors will allow the District, through its authorized agents, access to the Property for purposes of inspection to verify compliance with the terms of this Easement.
5. Grantors will pay when due any and all real property and other taxes and assessments, if any, which may be levied or assessed against the Property.
6. Within 30 days of any sale or conveyance of the Property, or any portion of the Property, Grantors will notify the District, in writing, of the names and addresses of the new owner or owners.
7. Grantors are responsible for all maintenance to improvements on the Property (i.e. fences, gates, pumps, or wells), including any improvements paid for or cost-shared by the District,
8. With regard to all rights reserved by Grantors, including any activities not prohibited by this Easement, Grantors will minimize and prevent any potential damage to water quality. If Grantors believe or reasonably should believe the exercise of a right or any activity not prohibited by this Easement may have an adverse effect on water quality, Grantors will notify the District in writing before exercising the right or activity. If the District determines the exercise of the right or activity will, in fact, result in an adverse effect on water quality, Grantors will not exercise the right or activity without prior written consent of the District.
9. Grantors will not install, or allow any third party to install, any utility facilities, including lines, wires, pipelines, cables, and other associated facilities appurtenances, above or below ground, in, on, under, over, above, though, or across the Property, or any portion of the Property, without prior written consent of the District.

**Expiration of Contract.** The Wild Rice Soil Conservation District River Program Easement expires the First date of Month, year.

GRANTORS SIGNATURE(S) AND ACKNOWLEDGMENT

Dated this \_\_\_\_\_ day \_\_\_\_\_, 20\_\_\_\_

---

Dated this \_\_\_\_\_ day \_\_\_\_\_, 20\_\_\_\_

[illegible]

Notary Public, Sargent County, ND  
My Commission Expires:

## Appendix G

MILESTONE TABLE FOR WILD RICE RESTORATION AND RIPARIAN PROJECT Phase III					
TASK/RESPONSIBLE ORGANIZATIONS	OUTPUT	QTY	YEAR 1	YEAR 2	YEAR 3
<b>OBJECTIVE: 1</b>					
Task 1: Employ Watershed Coordinator	Watershed Coord	1			
Group 3					
Task 2: LiDAR/ARC GIS Support	Conservation plan	24	8	8	8
Group 3					
Task 3: Riparian	Easement	8	3	3	2
Group 1,2,3,4					
Task 4: Cropland	Management	60	20	20	20
Group 3,4					
Task 5: Manure Man/Part Man Sy	Full Sy/Windbreak	5	2	1	2
Group 1,3,4					
Task 6: Grazing Management	Graze System	5	1	2	2
Group 1,3,4					
<b>OBJECTIVE: 2</b>					
Task 7,8,9: Education	Train/Education/Meet	21	3	9	9
Group 3,4,5					
<b>OBJECTIVE: 3</b>					
Task 10: Plots/Crop Rotation	Plots	26			
Group: 5					
Task 11: Farm Manager	Other Coops	1	1	1	
Group 5					
Task 12: Staff/Summer Help	Summer Help	2	2	2	
Group 5					
Task 13 Workshop/Tours					
Group 1,2,3,4,5	Cover Crop/No-Till	8	4	4	
Task 14 : Crop Monitoring					
Group 5	Complete	2	1	1	
<p>Group 1 - Natural Resources Conservation Service - Provide technical assistance to plan, design, and implement BMP's.</p> <p>Group 2 - Landowners in Wild Rice River drainage - Make land management decisions and provide cash and in-kind match for BMP's.</p> <p>Group 3 - Sargent County SCD - Local project manager and sponsor, including responsibilities for project coordination, reimbursement payments, match tracking, and progress reporting to ND Health Dept.</p> <p>Group 4 - North Dakota Health Department - Statewide Section 319 program management including oversight of local 319 planning and expenditures.</p> <p>Group 5 - CCSP Farm Manager and Board Members.</p>					

## Wild Rice River Restoration and Riparian Project Phase III

<b>PART 1: Funding Sources</b>	<b>YEAR</b>	<b>YEAR</b>	<b>YEAR</b>	<b>Project</b>
<b>EPA SECTION 319 FUNDS</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>Total</b>
FY16 Section 319 Funds	\$ 113,357	\$ 137,779	\$ 78,467	\$ 329,603
<b>SUBTOTAL</b>	\$ 113,357	\$ 137,779	\$ 78,467	\$ 329,603
<b>LOCAL MATCH</b>				
Land Owners	\$ 23,522	\$ 39,904	\$ 15,085	\$ 78,511
<b>SUBTOTAL</b>	\$ 23,522	\$ 39,904	\$ 15,085	\$ 78,511
<b>STATE MATCH</b>				
Local SCD's (TA & FA)	\$ 38,516	\$ 38,415	\$ 37,225	\$ 114,156
<b>SUBTOTAL</b>	\$ 38,516	\$ 38,415	\$ 37,225	\$ 114,156
<b>SUPPORTING CONTRIBUTION</b>				
North Dakota Corn Council	\$ 28,000	\$ 5,000	\$ -	\$ 33,000
Ducks Unlimited	\$ 5,000	\$ 5,000	\$ 5,000	\$ 15,000
Soybean Council	\$ 21,320	\$ -	\$ -	\$ 21,320
Titan Machinery (TA & FA)	\$ 12,600	\$ 12,600	\$ 12,600	\$ 37,800
*Other Funding (TA & FA)	\$ 24,550	\$ 24,550	\$ 24,550	\$ 73,650
<b>SUBTOTAL</b>	\$ 91,470	\$ 47,150	\$ 42,150	\$ 180,770
<b>TOTAL BUDGET</b>	\$ 266,865	\$ 263,248	\$ 172,927	\$ 703,040

<b>*Supporting Private Sector Donation</b>	<b>Cash</b>	<b>In-Kind</b>
Dakota Plains		\$ 2,500
Pioneer Hybrids		\$ 2,500
South Dakota Wheat Growers		\$ 5,000
Cropland Seed		\$ 2,000
Monsanto		\$ 1,500
K & S Soil Analysis		\$ 1,000
AgCountry, Lisbon	\$ 500	
AgVise		\$ 500
Columbia Grain	\$ 500	
County 14 Seed	\$ 500	
Dairyland Seed Co		\$ 500
Dakota Valley Electric	\$ 500	
First Nation Bank - Milnor	\$ 500	
David & Julie Hassebrook		\$ 200
Dave Bergeman Insurance Agency	\$ 500	
Dave Kinzler	\$ 250	
David Robbins		\$ 500
Full Circle Ag		\$ 1,000
James Valley Grain	\$ 500	
Marshall Dairy		\$ 500
Meridian Seeds		\$ 500
Millborn Seeds		\$ 500
Northside Implement	\$ 600	
Starion Financial	\$ 500	
Valent USA		\$ 1,000
<b>Yearly Dollars</b>	<b>\$ 4,850</b>	<b>\$19,700</b>

*Appendix H*

*Page 2 of 2*

<b>Wild Rice River Restoration and Riparian Project Phase III</b>						
<b>PART 2: Sect 319/Non-Fed</b>	<b>YEAR</b>	<b>YEAR</b>	<b>YEAR</b>	<b>Total</b>	<b>In-Kind</b>	
<b>Budget Table</b>	<b>1</b>	<b>2</b>	<b>3</b>		<b>Cash</b>	
	<b>7/2016-6/2017</b>	<b>7/2017-6/2018</b>	<b>7/2018-6/2019</b>	<b>Cost</b>	<b>Match</b>	<b>319 Funds</b>
PERSONNEL/SUPPORT						
A) Personnel	\$ 56,275	\$ 56,275	\$ 56,275	\$ 168,825	\$ 67,530	\$ 101,295
B) Fringe Benefits	\$ 13,980	\$ 13,980	\$ 13,980	\$ 41,940	\$ 16,776	\$ 25,164
C) Travel, Food & Lodging	\$ 1,000	\$ 1,000	\$ 1,000	\$ 3,000	\$ 1,200	\$ 1,800
D) Supplies	\$ 452	\$ 452	\$ 452	\$ 1,356	\$ 542	\$ 814
E) Rent/Utilities	\$ 1,150	\$ 1,150	\$ 1,150	\$ 3,450	\$ 1,380	\$ 2,070
F) Communications (Tel/Post/UPS)	\$ 1,516	\$ 1,516	\$ 1,516	\$ 4,548	\$ 1,819	\$ 2,729
G) Equipment (Tractor Lease)	\$ 10,687	\$ 10,687	\$ 9,000	\$ 30,374	\$ 12,150	\$ 18,224
H) Consultant/Contractual	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
I) Other*	\$ 3,250	\$ 3,000	\$ 3,000	\$ 9,250	\$ 3,700	\$ 5,550
J) Administration Assistant	\$ 7,718	\$ 7,718	\$ 6,431	\$ 21,867	\$ 8,747	\$ 13,120
SUBTOTAL	\$ 96,028	\$ 95,778	\$ 92,804	284,610	\$ 113,844	\$ 170,766
Objective 1: APPLYING BEST MANAGEMENT PRACTICES						
Task 1: Personnel See above						
Task 2: LiDAR/ARC GIS Support	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Task 3: Riparian	\$ 41,000	\$ 34,951	\$ 20,007	\$ 95,958	\$ 38,383	\$ 57,575
Task 4: Cropland	\$ 9,000	\$ 9,000	\$ 8,900	\$ 26,900	\$ 10,760	\$ 16,140
Task 5: Part Man Sy	\$ 3,000	\$ 50,000	\$ 3,000	\$ 56,000	\$ 22,400	\$ 33,600
Task 6: Grazing Management	\$ 5,806	\$ 5,808	\$ 5,806	\$ 17,420	\$ 6,968	\$ 10,452
SUBTOTAL	\$ 58,806	\$ 99,759	\$ 37,713	\$ 196,278	\$ 78,511	\$ 117,767
Objective 2: INFORMANT & EDUCATION						
Task 7: Meetings	\$ 86	\$ 86	\$ 86	\$ 258	\$ 103	\$ 155
Task 8: Public Awareness	\$ 87	\$ 87	\$ 87	\$ 261	\$ 104	\$ 157
Task 9: Student Education	\$ 87	\$ 87	\$ 87	\$ 261	\$ 104	\$ 157
SUBTOTAL	\$ 260	\$ 260	\$ 260	\$ 780	\$ 312	\$ 468
Objective 3: CCSP FARM						
Task 10: Plots/Crop Rotation	77,936	33,616	42,150	153,702	153,702	-
Task 11: Farm Manager	18,820	18,820	-	37,640	15,056	22,584
Task 12: Staff	15,015	15,015	-	30,030	12,012	18,018
Task 13: Workshop/Tours	-	-	-	-	-	-
Task 14: Crop Monitoring	-	-	-	-	-	-
SUBTOTAL	\$ 111,771	\$ 67,451	\$ 42,150	\$ 221,372	\$ 180,770	\$ 40,602
<b>TOTAL COST</b>	<b>\$ 266,865</b>	<b>\$ 263,248</b>	<b>\$ 172,927</b>	<b>\$ 703,040</b>	<b>\$ 373,437</b>	<b>\$ 329,603</b>