

Project Proposal Summary Sheet

Turtle Creek Watershed Project

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STATE: North Dakota WATERSHED: Turtle Creek
HYDROLOGICAL UNIT CODE: 10130101-020 HIGH PRIORITY WATERSHED: YES

<u>Project Type</u>	<u>Waterbody Type</u>	<u>NPS Category</u>
Watershed	Stream/River	Agriculture

Project Location: Latitude 47 degrees 17 minutes, Longitude -100 degrees 57 minutes

Major Goals:

The primary goal is to restore the beneficial use of recreation to fully supporting, for Turtle Creek and its tributaries. This will be accomplished through nutrient management, grazing management, and improved handling of livestock waste, as well as educational efforts.

Project Description:

Project sponsors intend to reduce non-point source pollution within Turtle Creek by; 1) providing technical and financial assistance to producers and landowners within the watershed, particularly in applying best management practices that protect and enhance riparian areas 2) developing education and information programs that increase public awareness of NPS causes, effects, and solutions.

Funding:

FY2013 319 Funds Requested: \$378,600

Match: \$252,400

Other Federal Funds: \$533,500

Total Project Cost: \$1,164,500

319 Funded Full Time Personnel: One

2.0 STATEMENT OF NEED

2.1 Project Need and Priority

Water quality sampling completed in 2011, indicated high fecal coliform bacteria counts and elevated levels of phosphorus and nitrogen. As a result, the Turtle Creek watershed was included on the 2012 the 303(d) TMDL list as not supporting the designated use of recreation and subsequently, assigned high priority. A TMDL is scheduled to be developed for Turtle Creek by October 2013. In addition to water quality analysis, a Rapid Geomorphic Assessment (RGA) was conducted that determined the average score for Turtle Creek was 14 (fourteen) which is considered moderately unstable.

2.2 Waterbody Description

The Turtle Creek watershed (Appendix A) is a 129,537 acre sub-watershed of the Painted Woods-Square Butte Creek watershed (hydrologic unit code 10130101) located in central North Dakota. Turtle Creek is a Class III stream, approximately 27.46 river miles in length, beginning in the northeastern portion of McLean County just below Lake Ordway. Turtle Creek then flows south until its confluence with the Missouri River south of Washburn, North Dakota.

2.3 The attached maps in Appendix A illustrate the Turtle Creek watershed and location of monitoring sites (Figure 1), landuse as identified by the 2010 National Agricultural Statistical Service (Figure 2), and high priority areas as determined by the AnnAGNPS model (Figure 3 & 4). The

2.4 General Information

The Turtle Creek Watershed is located in the Northwestern Glaciated Plains. The landscape in the watershed is nearly level to rolling with steeper areas along rivers. Land use is a mosaic of cropland and rangeland. Soil textures are dominantly loamy in glacial till, sandy in outwash areas, and clayey in lacustrine areas. Most soils are moderately deep or deep, well drained or moderately well drained, and have a frigid temperature regime.

Based on data from the past 63 years, the average maximum temperature in July is 83.2 °F and the average minimum temperature in January is -2.3°F. Average total precipitation is 17.13 inches, with 85% of the total falling between April and October. Average annual snowfall is approximately 30.6 inches.

Land use in the Turtle Creek watershed is primarily agricultural. According to the 2010 National Agricultural Statistical Service (NASS) land survey data, approximately 46 percent of the the contributing watershed is pasture/grassland/hayland, 37 percent active cropland, nine (9) percent water/wetlands, four (4) percent developed/open space, and three (3) percent in other land uses. The majority of the crops grown consist of spring wheat, canola, sunflower, dry beans, flax, corn, peas, and durum

wheat (Appendix A Figure 2). A visual survey of the watershed indicated there are nine livestock feeding operations within one-quarter mile of Turtle Creek.

2.5 Water Quality

An assessment of water quality within the Turtle Creek watershed was conducted in 2010-11 by sampling at three sites along Turtle Creek (Table 1, Appendix A Figure 1).

Table 1. Water Quality Monitoring Stations in the Turtle Creek Watershed.

Station	Description	Parameter	Years	Samples
385549	Above Turtle Lake – canal road	Water Quality ¹ Stream Stage ²	2010- 2011	46
385550	Highway 200 – former USGS site	Water Quality ¹ Stream Stage ²	2010- 2011	50
385551	County Highway 22 East of Washburn, ND	Water Quality ¹ Stream Stage ²	2010- 2011	45

¹ Water Quality includes Nutrients Complete (Total Nitrogen, Total Kjeldahl Nitrogen, Nitrite-Nitrate, Ammonia, And Total Phosphorus), E. coli Bacteria, Trace Elements, and Total Suspended Solids.

²Stream stage was measured by using an automated stage recorder and a standard manual staff gage.

2.5.1 Nutrients

Results show that total nitrogen (TN), total phosphorus (TP) and total suspended solids (TSS) concentrations varied widely during the course of seasonal monitoring, as well as between sites. TN data for sites 385549, 385550 and 385551 was compiled for years 2010 and 2011 and the State's guideline (1.0 mg/L) is indicated as a red line in Figure 2. Average annual concentrations for TN ranged from a low of 1.12 mg/L at site 385550 in 2011 to a high of 1.51 mg/L at site 385549 in 2010. TP data for monitoring sites 385549, 385550 and 385551 was compiled for years 2010 and 2011 and the State's guideline (0.1 mg/L) is indicated as a red line in Figure 3. Average annual TP concentrations showed very little temporal variation at most sites, however there appeared to be elevated levels of TP in mid to late summer of 2010 and 2011 at site 385551. The guidelines of 1.0 mg/L and 0.1 mg/L are not State limits and nutrient values for water quality standards have not yet been determined. However, the guidelines are provided as a point of reference in looking at the overall data. Analysis of the data shows concentrations of TP increase from upstream to downstream where TN concentrations are highest at the furthest site upstream. Total suspended solid concentrations increase from upstream to downstream (Figure 4). Site 385551 had the highest average concentration in both 2010 and 2011 at 50.0 mg/L and 56.0 mg/L, respectively.

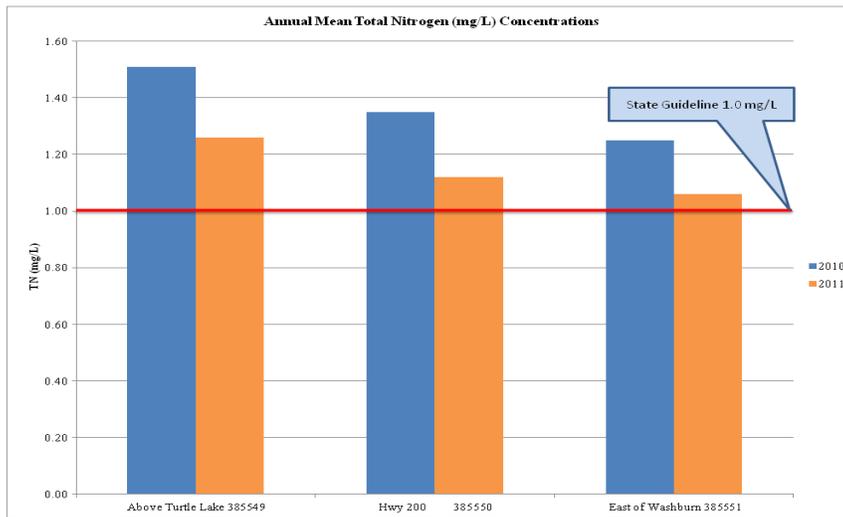


Figure 2. Annual Mean Total Nitrogen Concentrations for Turtle Creek.

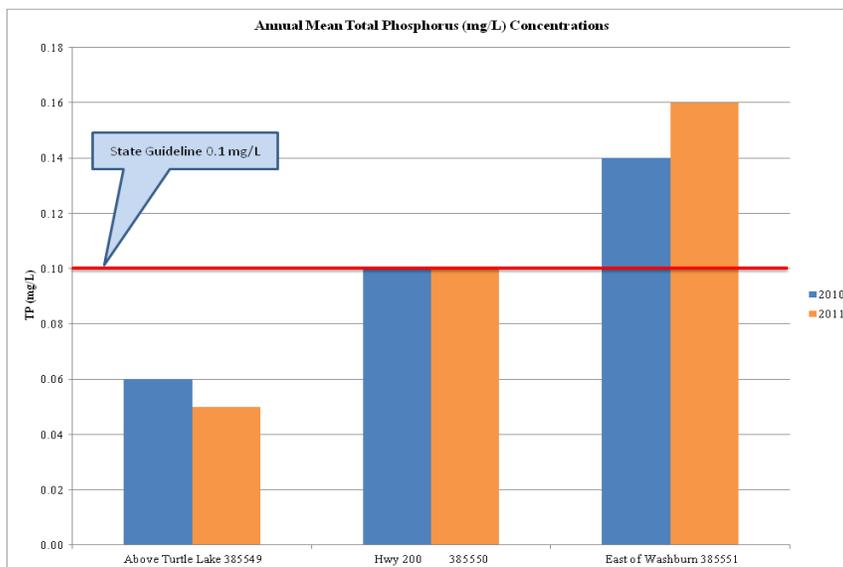


Figure 3. Annual Mean Total Phosphorus Concentrations for Turtle Creek.

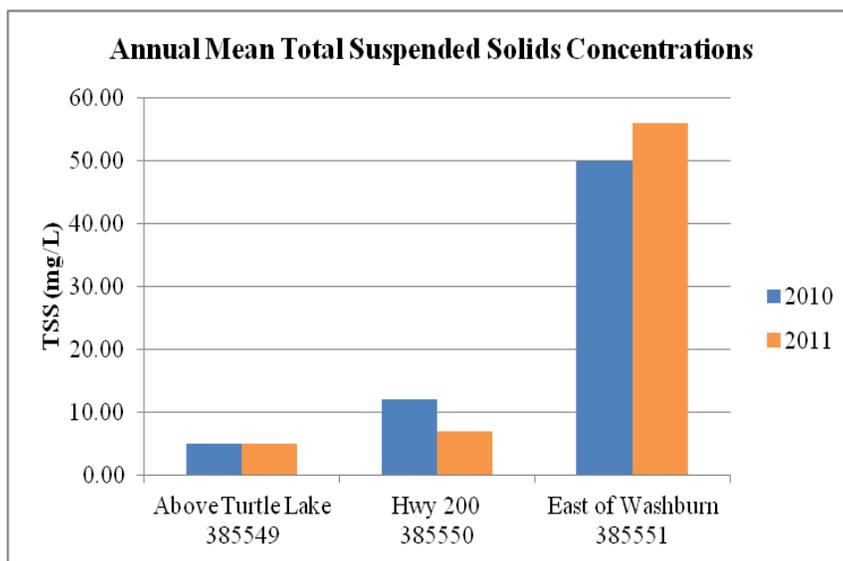


Figure 4. Annual Mean Total Suspended Solids Concentrations for Turtle Creek.

2.5.2 E.coli Bacteria

Levels of bacteria varied throughout the watershed (Appendix B, Table 3). All sites experienced elevated levels of E. coli bacteria in excess of state water quality standards. Also, all three sites exceeded the state standards where more than 10% of the samples exceeded 409 CFU/100 mL for E. coli bacteria. There were large peaks in bacteria concentrations at all sites in midsummer. Excluding these concentration peaks, there were no significant trends identified that could be attributed to an explanatory variable. It should be noted that some of the samples returned results of “too numerous to count” and a value of 800 CFU/100 mL was used in these situations. Hence, the geometric mean concentrations may be underestimated in some situations.

2.5.3 Beneficial Use Assessment

Aquatic Life Use

Nutrients

Eutrophication is defined as the increase in primary productivity resulting from excessive nutrient inputs into rivers. Sources of excess nutrients include; runoff from cropland, improper nutrient management and livestock operations. The negative impacts from eutrophication may include the reduction of dissolved oxygen due to algal growth and subsequent decomposition by microbial activity and also alteration of the algal community. The alteration of the algal community can lead to a decrease in food resource quality for aquatic insects and fish and an alteration of the aquatic insect and fish communities to include less intolerant species (e.g., stonecats, mayflies, stoneflies). Concentrations of TN or TP at which rivers are considered eutrophic can be influenced by spatial and temporal variations in a variety of factors and is still an area of significant research. A combination of studies suggests that the TN and TP levels defining the boundary between mesotrophic (moderate nutrient levels) and eutrophic conditions were 1.5 mg/L and 0.075 mg/L, respectively (U.S. EPA, 2001). However, for the purposes of this assessment, only the state water quality guidelines of 1.0 mg/L for TN and 0.1 mg/L for TP will be used. The water quality results show that across the entire watershed aquatic life is impaired due to excessive nutrient loading at all sites (Figures 2 through 4).

Recreational Use

To determine if Turtle Creek supports recreational uses the data collected at each site during the recreation season (May 1 through September 30) was compared to the North Dakota water quality criteria for the pathogen indicator, E. coli bacteria (Appendix B, Table 3). From the assessment data, all three sites on Turtle Creek were not supporting recreational uses due to elevated E. coli bacteria levels. The

cause of this contamination is varied. There are nine animal feeding operations in addition to manure application on fields, riparian grazing and wildlife that may be possible causes of the elevated E. coli bacteria levels at these sites.

3.0 PROJECT DESCRIPTION

3.1 Goal

The primary goal is restore the recreational uses of Turtle Creek and its tributaries. As a secondary goal the project will also protect, the aquatic life uses by improving riparian conditions, where needed, and maintaining nitrogen and phosphorus concentrations at baseline levels determined from the water quality assessment for each monitoring stations. For the purposes of this plan, the state water quality guidelines of 1.0 mg/L for TN and 0.1 mg/L for TP will be used. Target concentrations for E. coli bacteria are 126 organisms/100 mL with less than 10% of the samples exceeding 409 CFU/100mL.

3.2 Objectives

Objective 1: Provide technical and financial assistance for the implementation of best management.

Task 1 – Hire a watershed employee to assist with coordination with other organizations and agencies, providing technical assistance to producers, monitoring water quality, and providing educational materials to the public.

Product – One watershed employee, including salary, benefits, travel, training, office, and equipment.

Cost – \$276,000

Objective 2: Provide assistance for the implementation of best management practices to achieve the state standard for E. coli bacteria and maintain or reduce mean annual concentrations of nitrogen and phosphorus.

Task 2 – Provide assistance to agricultural producers and landowners to implement Best Management Practices on cropland and rangeland, including nutrient management, riparian buffers, and grazing management on high priority areas as identified with the AnnAGNPS model (Appendix A, Figures 3 & 4). AnnAGNPS identified 7,044 acres of cropland and 14,432 acres of non-cropland/grazing lands as high priority. In addition, priority will be given to those areas within or immediately adjacent to the riparian corridor.

Product – Conservation planning and assistance on 21,000 acres over five years.

Cost – \$225,000

Task 3 – Provide assistance to livestock producers for the installation of best management practices addressing manure management along the streams within the watershed. Priority will be given to systems within ¼ mile of a creek and its tributaries.

Product – Assistance on waste management provided to 4 livestock producers.

Cost – \$120,000

Task 4 – Conduct follow-up contacts to assist with conservation plan updates and monitor operation and maintenance of Section 319 cost-shared practices.

Product – Database of applied BMPs.

Cost – Included in Task 1.

Objective 3: Increase the public's understanding and awareness of the impacts of and solutions to NPS pollution.

Task 5 – Organize and conduct informational/educational events focusing on NPS pollution control, coordinating with other organizations and state/federal agencies.

Product – A) 2 – Public informational meetings (1 pre- and 1 post-implementation)

B) 3 – Producer tours to highlight project successes

C) 1 – Grazing workshop

D) 1 – Soil health workshop

Cost – \$7500

Task 6 – Prepare newsletters, direct mailings, radio spots and other outreach to local land users, the general public, and media to promote the project and disseminate information on water quality and NPS pollution control.

Product – A) 2 – Pre and Post project watershed surveys

B) 10 – Project updates/newsletters

C) 50 – Monthly news releases highlighting a resource concern, project success or current water quality topic

Cost – \$1500

Task 7 – Continue existing water quality-related educational programs.

Product – Continued sponsorship of Project TREES, Eco Ed Day, Soil Stewardship Week, and Envirothon events.

Cost – No additional cost.

Objective 4: Document water quality improvements as BMPs are installed by monitoring water quality trends.

Task 8 – Establish water sampling plan to document changes in water quality with installation of BMPs, to be determined in cooperation with North Dakota Department of Health (NDDoH).

Product – Quality Assurance Project Plan (QAPP).

Cost – None (will be developed by the NDDoH)

Task 9 – Collect water quality samples for analysis, as scheduled in the approved quality assurance project plan (QAPP).

Product – An approved QAPP developed by the ND Department of Health. Approximately 20 samples will be collected at each of the three sampling sites per year.

Cost – \$7500 for sampling supplies and analysis of macroinvertebrate samples.

Objective 5: Complete necessary project reports.

Task 10 – Complete annual and final project reports on progress and completion, to be provided to NDDoH, EPA, sponsors, and other interested parties.

Product – Annual and final project reports.

Cost – Included in Task 1.

3.3 Milestones

See Appendix C

3.4 Permits

All necessary permits will be acquired. Project personnel will work with NDDoH to determine if permits are needed.

3.5 Lead sponsor

The South McLean Soil Conservation District is sponsoring this water quality project. The district's annual and long range plans help to prioritize and provide guidance to the field service staff. The SCD board has legal authority to employ personnel and receive and expend funds. The South McLean SCD has credible experience in personnel management and conservation leadership.

3.6 Operation and Maintenance

All BMPs cost-shared with 319 funds will be contracted and tracked through the NPS program BMP tracking database. BMPs must be applied according to standards and specifications approved by the NPS program.

4.0 COORDINATION PLAN

4.1 Cooperating Organizations –

- 1) The South McLean Soil Conservation District (SMSCD) will be the signer of the 319 contract and will be the lead agency responsible for project administration. They will provide vehicles, clerical assistance, equipment and supplies, as well as financial support. The SCD Board will oversee implementation of the scheduled project activities and provide staff to complete the project. The board will be the primary supervisor of the watershed conservationists and all Section 319 funded activities.
- 2) Natural Resource Conservation Service (NRCS) will provide assistance in conservation planning, plan writing, and technical/engineering assistance for construction and installation of planned BMPs. Many of the standards and specifications for approved BMPs are provided by NRCS personnel from the NRCS Field Office Technical Guide. This partnership is operated through MOU. Funds may also be available to landowners through programs such as the Environmental Quality Incentives Program (EQIP). NRCS will also participate in educational outreach activities.
- 3) North Dakota Department of Health (NDDoH) will oversee 319 funding as well as develop the QAPP for this project. The NDDoH will provide oversight on sample collection, preservation, and transportation to ensure reliable data is obtained. NDDoH will provide laboratory analysis of water samples as well as data storage. NDDoH will assist project staff in development and implementation of the project's I/E activities. NDDoH will provide sponsor oversight to ensure proper management and expenditures of Section 319 funds. They will assist NRCS and South McLean SCD personnel in the review of Operation and Maintenance requirements for Section 319 funded BMPs.
- 4) Farm Service Agency (FSA) will serve as a local resource and may provide cost-share assistance to landowners when Conservation Reserve Program (CRP) practices can be applied.
- 5) Local NDSU Agricultural Extension staff may assist with information/education activities.
- 6) NDSU Nutrient Management Educational Support Program may provide technical assistance for educational events addressing manure management as well as technical assistance to producers to plan and develop nutrient management plans involving manure management.
- 7) NPS BMP Team may provide engineering assistance for designing/implementing manure management systems and riparian restoration projects.

4.2 Local Project Support

Letters of support will be solicited from McLean County Commission, McLean County Water Resources Board, City of Turtle Lake, and other conservation entities.

4.3 Funding Coordination

The funding of best management practices in the Turtle Creek Watershed project area will be coordinated with funding from programs such as EQIP through NRCS and CRP through FSA when those programs offer related practices that enhance or complement practices available through 319 funding.

4.4 Other Watershed Activities

No other watershed activities have been conducted in the Turtle Creek watershed.

5.0 EVALUATION AND MONITORING PLAN

The QAPP will be completed by the NDDoH after the project is fully approved.

6.0 BUDGET

6.1 Project Budget

See Appendix D.

7.0 PUBLIC INVOLVEMENT

As listed in Objective 2, an important component of this project will be educational efforts and public involvement, including public meetings and tours/workshops. Watershed newsletters similar to the district's current quarterly newsletter will also be used to provide project information to the public, as well as direct mailings and the use of public media.

Appendix A. Maps and Figures.



Figure 1. Turtle Creek Watershed and Water Quality Sampling Site Locations

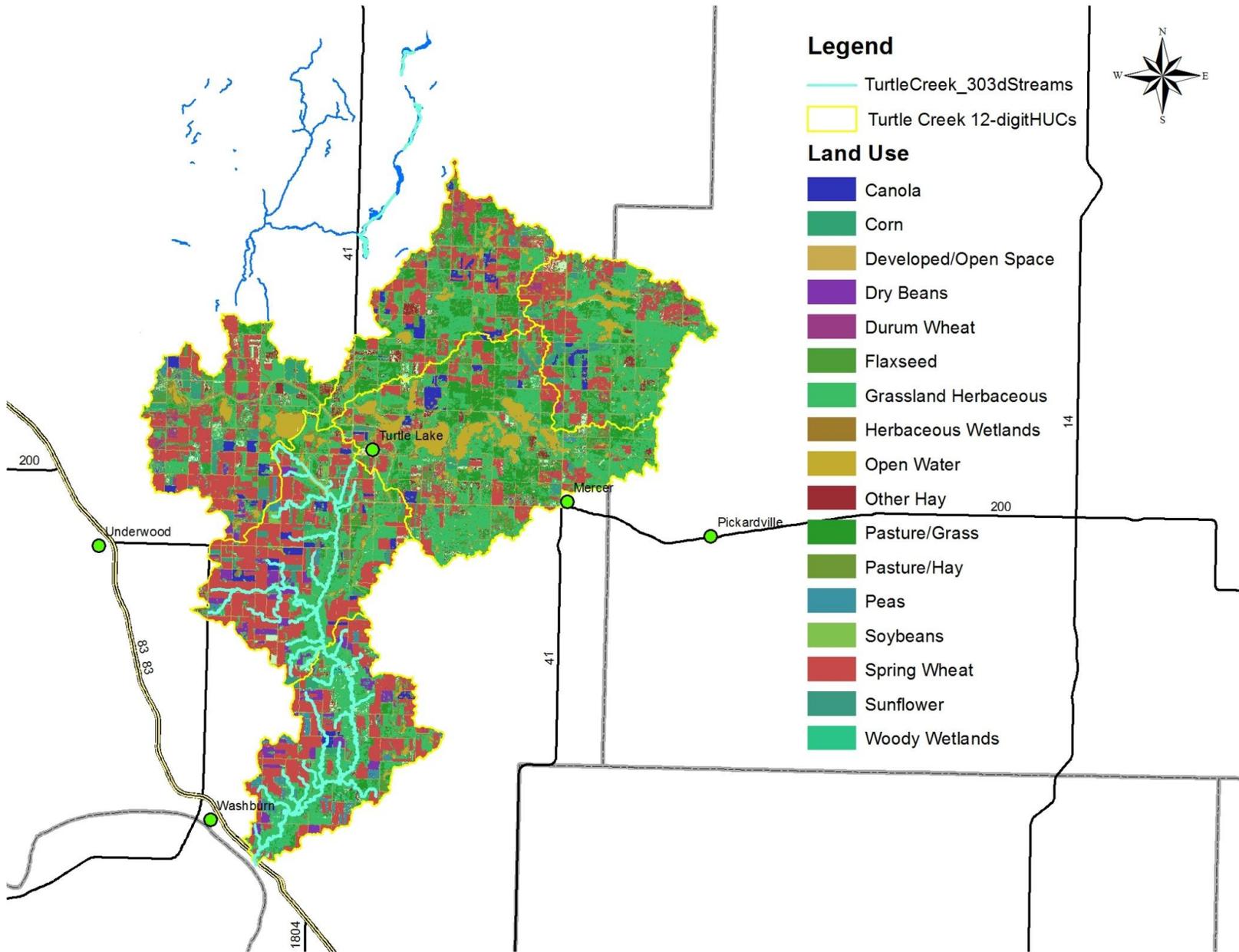


Figure 2. Landuse as Identified by the 2010 National Agricultural Statistical Service (NASS).

Turtle Creek AnnAGNPS High Priority Cropland Areas

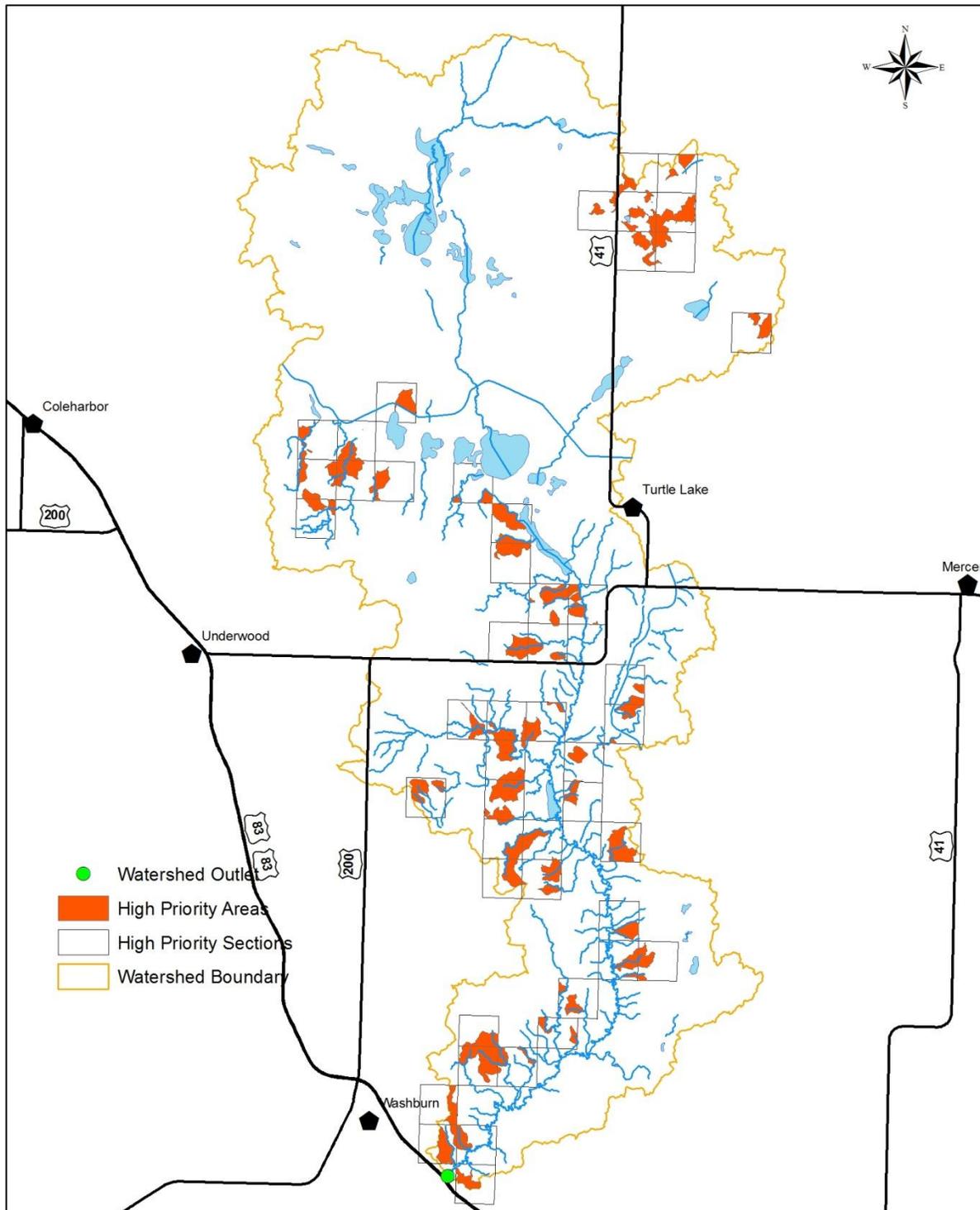


Figure 3. High Priority Cropland Areas as Identified by AnnAGNPS.

Turtle Creek AnnAGNPS High Priority NonCropland Areas

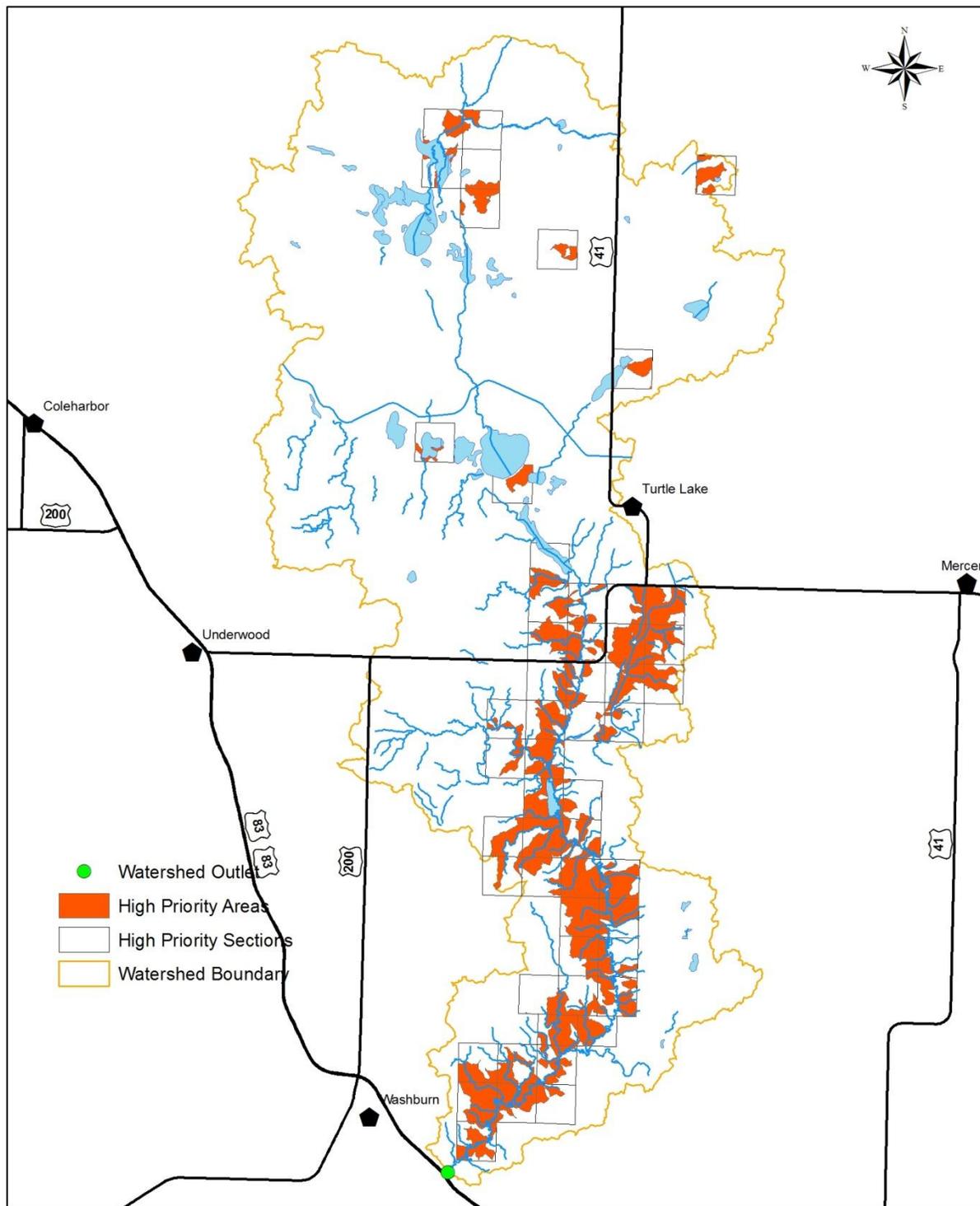


Figure 4. High Priority Non-Cropland Areas as Identified by AnnAGNPS.

Appendix B. Water Quality Results

Table 1. Summary of Descriptive Statistics for Nutrients Calculated at Each Site.

2010			
	Canal Rd 385549	Hwy 200 385550	East of Washburn 385551
# Samples	28	32	27
Total Nitrogen (mg/L)			
Mean	1.51	1.35	1.25
Maximum	1.71	1.94	1.95
Median	1.52	1.31	1.24
Total Phosphorus (mg/L)			
Mean	0.06	0.10	0.14
Maximum	0.15	0.22	0.34
Median	0.05	0.09	0.13
Total Suspended Solids (mg/L)			
Mean	5.00	12.00	50.00
Maximum	5.00	35.00	292.00
Median	5.00	8.00	47.00

2011			
	Canal Rd 385549	Hwy 200 385550	East of Washburn 385551
# Samples	18	18	18
Total Nitrogen (mg/L)			
Mean	1.26	1.12	1.06
Maximum	1.66	1.39	1.40
Median	1.27	1.13	1.09
Total Phosphorus (mg/L)			
Mean	0.05	0.10	0.16
Maximum	0.15	0.17	0.28
Median	0.05	0.10	0.15
Total Suspended Solids (mg/L)			
Mean	5.00	7.00	56.00
Maximum	6.00	17.00	262.00
Median	5.00	5.00	39.00

Table 2. Summary of E. coli Bacteria Data Calculated at Each Site.

385549	May		June		July		August		September	
	5/3/2010	10	6/2/2010	10	7/7/2010	90	8/3/2010	230	9/1/2010	290
5/11/2010	10	6/8/2010	10	7/13/2010	900	8/10/2010	120	9/7/2010	420	
5/17/2010	30	6/15/2010	10	7/20/2010	140	8/10/2010	200	9/14/2010	130	
5/25/2010	20	6/21/2010	30	7/26/2010	1900	8/18/2010	30	9/21/2010	10	
		6/29/2010	200	7/11/2011	10	8/25/2010	90	9/29/2010	60	
		6/1/2011	10	7/19/2011	200	8/1/2011	260	9/6/2011	80	
		6/6/2011	10	7/26/2011	430	8/9/2011	10			
		6/13/2011	20			8/15/2011	130			
		6/20/2011	90			8/23/2011	80			
		6/27/2011	40			8/29/2011	170			
Geometric Mean	15.65		23.10		210.85		96.29		95.53	
% Exceeded 409	0%		0%		29%		0%		17%	
Recreational Use	FS ¹		FS		NS ³		FS		FST ²	
# of Samples	4		10		7		10		6	
385550	May		June		July		August		September	
	5/3/2010	10	6/2/2010	40	7/7/2010	80	8/3/2010	70	9/1/2010	310
5/11/2010	10	6/8/2010	20	7/13/2010	60	8/10/2010	210	9/7/2010	5300	
5/17/2010	20	6/15/2010	340	7/20/2010	90	8/18/2010	60	9/14/2010	190	
5/24/2010	130	6/21/2010	250	7/26/2010	110	8/25/2010	190	9/21/2010	420	
		6/28/2010	350	7/11/2011	30	8/1/2011	70	9/29/2010	520	
		6/1/2011	120	7/19/2011	50	8/9/2011	80	9/6/2011	120	
		6/6/2011	80	7/26/2011	180	8/15/2011	140			
		6/13/2011	450			8/23/2011	240			
		6/20/2011	220			8/29/2011	120			
		6/27/2011	10							
Geometric Mean	22.58		108.50		74.58		115.93		448.89	
% Exceeded 409	0%		10%		0%		0%		50%	
Recreational Use	FS		FST		FS		FS		NS	
# of Samples	4		10		7		9		6	
385551	May		June		July		August		September	
	5/3/2010	20	6/2/2010	300	7/7/2010	300	8/3/2010	1100	9/1/2010	380
5/11/2010	10	6/8/2010	160	7/13/2010	340	8/10/2010	10	9/7/2010	5100	
5/25/2010	1500	6/15/2010	710	7/20/2010	240	8/18/2010	210	9/14/2010	630	
		6/21/2010	600	7/26/2010	1000	8/25/2010	100	9/21/2010	370	
		6/29/2010	1000	7/11/2011	400	8/1/2011	70	9/29/2010	330	
		6/1/2011	80	7/19/2011	550	8/9/2011	20	9/6/2011	430	
		6/6/2011	780	7/26/2011	300	8/15/2011	800			
		6/13/2011	2000			8/23/2011	730			
		6/20/2011	270			8/29/2011	1000			
		6/27/2011	250							
Geometric Mean	66.94		420.36		399.20		179.02		632.63	
% Exceeded 409	33%		50%		29%		44%		50%	
Recreational Use	FST		NS		NS		NS		NS	
# of Samples	3		10		7		9		6	

¹FS=Fully Supporting, ²FST=Fully Supporting, but Threatened, ³NS=Nonsupporting.

Appendix C. Milestone Table

Milestone Table for the Turtle Creek Watershed Project

Task/Responsible Organizations		Output	Qty.	Year 1 2013	Year 2 2014	Year 3 2015	Year 4 2016	Year 5 2017
Objective 1:								
Task 1: Group 1	Hire watershed coordinator	Watershed Coordinator	1	1	1	1	1	1
Objective 2:								
Task 2: Group 1, 2, 3	Conservation planning/assistance to apply BMPs	Completed conservation plans on 21,00 acres	10	2	2	2	2	2
Task 3: Group 1, 2, 3	Waste management improvements	Waste Management plans	4		1	1	1	1
Task 4: Group 1,2	Operation/Maintenance checkups	Database of BMPs	1					
Objective 3:								
Task 5: Group 1, 2, 3	Organize and conduct I/E events	2 – Public meetings, 3 – Producer tours, 1 – Grazing workshop 1 – Soil health workshop	7	1	3	1	1	1
Task 6: Group 1, 3	Use newsletters/mailings/radio spots to promote project and disseminate information	2 – Watershed surveys 10 – Project updates/newsletters 50 – Monthly news releases	61	13	12	12	12	13
Task 7: Group 1, 3	Continue youth education	Youth Conservation Tour	5	On-going				
Objective 4:								
Task 8: Group 1, 4	Water sampling and analysis plan	Completed SAP	1	1				
Task 9: Group 1, 4	Document water quality trends	Water quality samples as specified by NDDoH approved QAPP	3			1	1	1
Objective 5:								
Task 10: Group 1, 4	Complete annual and final project reports	Project reports	6	1	1	1	1	2

Group 1 – South McLean Soil Conservation District - Local project manager and sponsor, including responsibilities for project coordination, reimbursement payments, match tracking, and progress reporting to the NDDoH. Also provides technical assistance to plan, design, and implement BMPs.

Group 2 - Landowners in the Turtle Creek watershed - Make land management decisions and provide cash and in-kind match for BMPs.

Group 3 - Natural Resource Conservation Service - Provides technical assistance to plan, design, and implement BMPs. Also provides financial assistance for BMPs to landowners through the EQIP program.

Group 4 - ND Department of Health - Statewide section 319 program management including oversight of local 319 planning and expenditures. Also provides technical assistance for water quality analysis and documentation.

Appendix E. Budget.

Part 1: Funding Sources						
	2013	2014	2015	2016	2017	Total
EPA SECTION 319 FUNDS						
1)FY 2013 Funds (FA)	\$32,918	\$35,034	\$102,524	\$103,440	\$104,684	\$378,600
STATE/LOCAL MATCH						
1) South McLean SCD (TA & FA)	\$21,945	\$23,356	\$22,349	\$22,960	\$23,790	\$114,400
2) Landowners (FA)	\$0	\$0	\$46,000	\$46,000	\$46,000	\$138,000
Subtotals	\$21,945	\$23,356	\$68,349	\$68,960	\$69,790	\$252,400
TOTAL BUDGET						
	\$54,863	\$58,390	\$170,873	\$172,400	\$174,474	\$631,000
OTHER FEDERAL FUNDS						
1) NRCS (TA, EQIP, and other programs)	\$0	\$125,000	\$125,000	\$125,000	\$125,000	\$500,000
2)FSA (CRP)	\$0	\$3,500	\$3,500	\$3,500	\$3,500	\$14,000
3) NDDoH	\$0	\$0	\$6,500	\$6,500	\$6,500	\$19,500
TOTAL FEDERAL FUNDS	\$0	\$128,500	\$135,000	\$135,000	\$135,000	\$533,500

FA: Financial Assistance

TA: Technical Assistance

SCD: Soil Conservation District

NRCS: Natural Resource Conservation Service

FSA: Farm Service Agency

NDDoH: North Dakota Department of Health

Part 2: Detailed Budget (Section 319/Non-Federal)								
	2013	2014	2015	2016	2017	Total Costs	Cash and In-kind Match	319 Funds
Objective 1: PERSONNEL/SUPPORT/ADMIN								
Salary/Fringe	\$48,000	\$49,440	\$50,923	\$52,450	\$54,024	\$254,837	\$101,935	\$152,902
Travel	\$700	\$700	\$700	\$700	\$700	\$3,500	\$1,400	\$2,100
Office Space	\$950	\$950	\$950	\$950	\$950	\$4,750	\$1,900	\$2,850
Equipment/Supplies	\$1,613	\$200	\$200	\$200	\$200	\$2,413	\$965	\$1,448
Training	\$300	\$300	\$300	\$300	\$300	\$1,500	\$600	\$900
SCD meetings	\$1,800	\$1,800	\$1,800	\$1,800	\$1,800	\$9,000	\$3,600	\$5,400
Subtotals	\$53,363	\$53,390	\$54,873	\$56,400	\$57,974	\$276,000	\$110,400	\$165,600
Objective 2: Financial & Technical Assistance								
BMPs for Rangeland, Cropland, Riparian, etc.			\$75,000	\$75,000	\$75,000	\$225,000	\$90,000	\$135,000
Animal Waste Management BMPs			\$40,000	\$40,000	\$40,000	\$120,000	\$48,000	\$72,000
Subtotals	\$0	\$0	\$115,000	\$115,000	\$115,000	\$345,000	\$138,000	\$207,000
Objective 3: Information/Education								
Public meetings/Workshops/Tours	\$1,000	\$4,500	\$500	\$500	\$1,000	\$7,500	\$3,000	\$4,500
Survey/Newsletters/News releases	\$300	\$300	\$300	\$300	\$300	\$1,500	\$600	\$900
Subtotals	\$1,300	\$4,800	\$800	\$800	\$1,300	\$9,000	\$3,600	\$5,400
Objective 4: Water Quality Monitoring								
Sampling/Transport/Supplies	\$200	\$200	\$200	\$200	\$200	\$1,000	\$400	\$600
Subtotals	\$200	\$200	\$200	\$200	\$200	\$1,000	\$400	\$600
Total for all Objectives/Tasks								
Total 319/Non-federal Budget	\$54,863	\$58,390	\$170,873	\$172,400	\$174,474	\$631,000	\$252,400	\$378,600

Section 319 Funds per year	\$32,918	\$35,034	\$102,524	\$103,440	\$104,684	\$378,600
Total local match per year	\$21,945	\$23,356	\$68,349	\$68,960	\$69,790	\$252,400
SCD match per year	\$21,945	\$23,356	\$22,349	\$22,960	\$23,790	\$114,400
Producer BMP match per year	\$0	\$0	\$46,000	\$46,000	\$46,000	\$138,000