Project Proposal Summary Sheet

Painted Woods Creek Watershed Project

South McLean SCD
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STATE: North Dakota WATERSHED: Painted Woods Creek

HYDROLOGICAL UNIT CODE: 10130101-020 HIGH PRIORITY WATERSHED: YES

Project Type	Waterbody Type	NPS Category
Watershed	Stream/River	Agriculture

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

Continuation Project: No

Major Goals:

The primary goal is to fully restore the recreational uses of Painted Woods Creek by reducing the E. colibacteria levels to state standard criteria concentrations. This will be accomplished through nutrient management, grazing management, and improved handling and storage of livestock manure, as well as a concentrated educational effort. A secondary goal of the project is to protect the aquatic life uses of the creek.

Project Description:

Project sponsors intend to reduce E. coli bacteria concentrations, improve riparian function and maintain baseline nutrient (N&P) concentrations within Painted Woods Creek by; 1) providing technical and financial assistance to producers and landowners within the watershed, to apply best management practices that protect and enhance riparian areas and improve livestock grazing and manure management; and
2) developing education and information programs that increase public awareness of NPS pollution causes, effects, and solutions.

Funding:

FY2019 319 Funds Requested: $310,000

Match: $206,667

Other Federal Funds: $2,500,000

Total Project Cost: $516,667

319 Funded Full Time Personnel: One half time – shared with Turtle Creek Watershed Project

2.0 STATEMENT OF NEED

2.1 Project Need and Priority

Water quality sampling completed in 2017, indicated high E. coli bacteria counts in Painted Woods Creek. As a result, it is anticipated that Painted Woods Creek and its tributaries will be included on the 2018 303(d) TMDL list as not supporting the designated use of recreation and subsequently, assigned high priority. This will result in the need for a TMDL or Alternative Plan to be developed for Painted Woods Creek.

2.2 Waterbody Description

The Painted Woods Creek watershed (Appendix A) is a 193,570-acre sub-watershed of the Painted Woods-Square Butte Creek watershed (hydrologic unit code 10130101) located in central North Dakota. Painted Woods Creek is a Class III stream, approximately 47.42 river miles in length, beginning in the northern Burleigh County and flowing west until its confluence with the Missouri River south of Washburn, North Dakota in southern McLean County.

2.3 Maps

The attached maps in Appendix A illustrate the Painted Woods Creek watershed and location of monitoring sites, land use as identified by the 2015 National Agricultural Statistical Service, and high priority areas as determined by the AnnAGNPS model identified along the main stream channel with non-cropland acres most significant area of concern. Additionally, riparian areas within the AnnAGNPS priority area will be considered high priority for restoration work, if needed.

2.4 General Information

The Painted Woods Creek Watershed is located in the Northwestern Glaciated Plains and lies within three Level IV EcoRegions:

1) Missouri Coteau (42a)
2) Collapsed Glacial Outwash (42b)
3) Missouri Coteau Slope (42c)

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 83.3 °F and the average minimum temperature in January is 1.9°F. Average total precipitation is 17.18 inches, with 85% of the total falling between April and October. Average annual snowfall is approximately 30.6 inches.

Land use in the Painted Woods Creek watershed is primarily agricultural. According to the 2015 National Agricultural Statistical Service (NASS) land survey data (Table 1), approximately 52 percent of the contributing watershed is active cropland, 36 percent watershed is pasture/grassland/hayland, six (5) percent water/wetlands, four (4) percent bare/roads/developed, 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 (Table 1, and Appendix A).

Table 1. Land Use Statistics Using 2015 NASS Land Use Data.

Land use By Category		
Land Use Name	Sum of Acres	% of watershed
Cropland or Tilled Acres	100,703.94	52.02%
Native Grassland	70,364.11	36.35%
Water/Wetlands	8,793.17	4.54%
Bare/Roads/Developed	7,012.73	3.62%
Tamegrasses/Reseeded Grass	5,004.69	2.59%
Alfalfa	1,223.51	0.63%
Riparian Woodlands/Tree Rows/Shrubs	468.46	0.24%
Total Watershed Acres:	193,570.61	

A visual survey of the watershed indicated there are four concentrated livestock feeding operations within one-quarter mile of Painted Woods Creek and one located on the headwaters of a tributary. In addition, a visual survey for current grazing management indicated areas of over-grazing or overstocking rates adjacent to the riparian corridor.

2.5 Water Quality

An assessment of water quality within the Painted Woods Creek watershed was conducted in 2016-17 by sampling at four sites along Painted Woods Creek (Table 1, Appendix A).

Table 2. Water Quality Sampling Site Descriptions.

STORET ID	Site Description	Data to be Collected	Collection Year
386005	Above confluence with flow from New Johns Lake	Water Quality	2016-2017
386006	10.5 miles East - 1 mile south of Washburn – former USGS site	Water Quality	2016-2017
386007	4.5 miles East - 2 miles south of Washburn	Water Quality	2016-2017
386008	4.5 miles SE of Washburn - HWY 83	Water Quality	2016-2017

2.5.1 General Summary

As shown by the water quality data (Appendix B), the beneficial use of recreation is being impacted by E. coli bacteria. Also, the data shows elevated levels of nutrients as compared to regional guidelines, however until there are criteria developed it is difficult to recommend specific actions. Specific E. coli bacteria sources that may be impacting water quality include but are not limited to; animal feeding operations within one-half mile of the stream, instream livestock watering and residential septic systems. Additionally, a visual survey for current grazing management indicated areas of over-grazing or overstocking rates adjacent to the riparian corridor. No municipal point source discharges of concern within the watershed. All bacteria (E. coli) are due to NPSs.

2.5.2 E. Coliform Bacteria

As shown by the data (Appendix B), Painted Woods Creek is not supporting the beneficial use of recreation at all sampling sites during some portion of the recreation season (May – September). Site 386006 is of concern because it is not supporting in June, July and September and fully supporting but threatened in August. This indicates a relatively constant delivery of E. coli bacteria to the creek from sources that are likely very near the creek.

2.5.3 Beneficial Use Assessment

Recreational Use

To determine if Painted Woods 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.

Recreation use includes primary contact activities such as swimming and wading and secondary contact activities such as boating, fishing, and wading. Recreation use in rivers and streams is considered fully supporting where there is little or no risk of illness through either primary or secondary contact with the water. The State's recreation use support assessment methodology for rivers and streams is based on the State's numeric water quality standards for E. coli bacteria.

For each assessment based on E. coli data, the following criteria are used:

- Assessment Criteria 1: For each assessment unit, the geometric mean of samples collected during any month for May 1 through September 30 does not exceed a density of 126 CFUs/mL. A minimum of five monthly samples is required to compute the geometric mean. If necessary, samples may be pooled by month across years.

- Assessment Criteria 2: For each assessment unit, less than 10 percent of samples collected during any month from May 1 through September 30 may exceed a density of 409 CFUs per 100 mL. A minimum of five monthly samples is required to compute the percent of samples exceeding the criteria. If necessary, samples may be pooled by month across years.

The two criteria are then applied using the following use support decision criteria:

- Fully Supporting: Both criteria 1 and 2 are met.

- Fully Supporting but Threatened: Criterion 1 is met, but 2 is not.

- Not Supporting: Criterion 1 is not met. Criteria 2 may or may not be met.

The recreational use assessment methodology information provided above can be found in the *North Dakota 2016 Integrated Section 305(b) Water Quality Assessment Report and Section 303(d) List of Waters Needing Total Maximum Daily Loads*.

2.5.4 Nutrients (Total N, Total P)

As shown by the data (Appendix B) compared to Rangeland Plains guidelines, nutrient levels are slightly elevated through most of Painted Woods Creek. At site 386005, the most upstream site, both nitrogen and phosphorus are present at levels not seen at the other downstream sites. One factor that may be influencing this is a Texas crossing located downstream and is pooling the water. At site 386008, located at Highway 83, it is encouraging that the median levels of nitrogen and phosphorus meet the current guideline levels.

It must be reiterated that the data is being compared to guidelines and may be re-evaluated once nutrient criteria are established. Please see Appendix B.

3.0 PROJECT DESCRIPTION

3.1 Goal

The primary goal is to restore the recreational uses of Painted Woods Creek by lowering the E. coli bacteria concentrations. 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 Rangeland Plains Guidelines of 0.886 mg/L for total nitrogen (TN) and 0.07 mg/L

for total phosphorus (TP) will be used. The 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 administrative, technical and financial support for the implementation of the project.

Task 1 – Employ a watershed coordinator to assist in the coordination with partner organizations and agencies, providing technical assistance to producers, monitoring water quality, and providing educational materials to the public.

Product – One ½ time watershed coordinator, including salary, benefits, travel, training, office, and equipment.
Cost – $76,725 (Cost will be shared with the Turtle Creek Watershed Project)

Task 2 – Improve district supervisor's and employee's understanding of soil and water resource management planning.

Product – All supervisors and staff attend Level 101 and 201 Soil and Water Conservation Leadership Academies.
Cost – $600 (registration and travel)

Objective 2: Increase the public's understanding and awareness of the impacts of and solutions to NPS pollution.

Task 3 – 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-project, 1 mid-project, and 1 post-project)
B) 3 – Producer tours to highlight project successes
C) 2 – Grazing workshop
D) 2 – Soil health workshop
Cost – $6,000

Task 4 – 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 – $900

Objective 3: 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 5 – Provide financial and technical assistance to agricultural producers and landowners to implement Best Management Practices (BMP) on cropland and rangeland, including nutrient management, riparian buffers, and grazing management on the highest priority areas identified with the AnnAGNPS model (Appendix A). AnnAGNPS identified 2,986 acres of cropland and 5,761 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 8,000 acres over five years. BMPs include: conservation tillage, cover crops, nutrient management.
Cost – $42,550

Task 6 – Provide financial and technical assistance to livestock producers for the installation of best management practices addressing manure management along the streams within the watershed. Visual survey indicated five feeding operations within ¼ mile of the Painted Woods Creek and its tributaries. Priority will be given these systems located within ¼ mile of a creek and its tributaries.

Product – Assistance for partial- or full-containment waste management provided to 5 livestock producers.
Cost – $177,150

Task 7 – 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 4: Complete required project reports.

Task 8 - Complete annual and final project reports on progress 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. The type of permits that may be needed include 404 permits associated with restoration work in the riparian corridor or wetlands. NDDH permits will also be obtained for full containment manure management systems. The ND State Historic Preservation Office (SHPO) will also be contacted to ensure protection of cultural resources.

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 NRCS standards and specifications or 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 Section 319 grantee and 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 a 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 Quality Assurance Project Plan (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, riparian restoration projects and other BMPs requiring construction designs.

4.2 Local Project Support

Letters of support will be solicited from Burleigh County Soil Conservation District, Burleigh County Water Resource District and McLean County Water Resources Board and other potential conservation partners. See Appendix E.

4.3 Funding Coordination

The funding of best management practices in the Painted Woods 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. In addition, North Dakota Outdoor Heritage Fund grant money will be pursued as needed.

4.4 Other Watershed Activities

No other watershed activities have been conducted in the Painted Woods 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

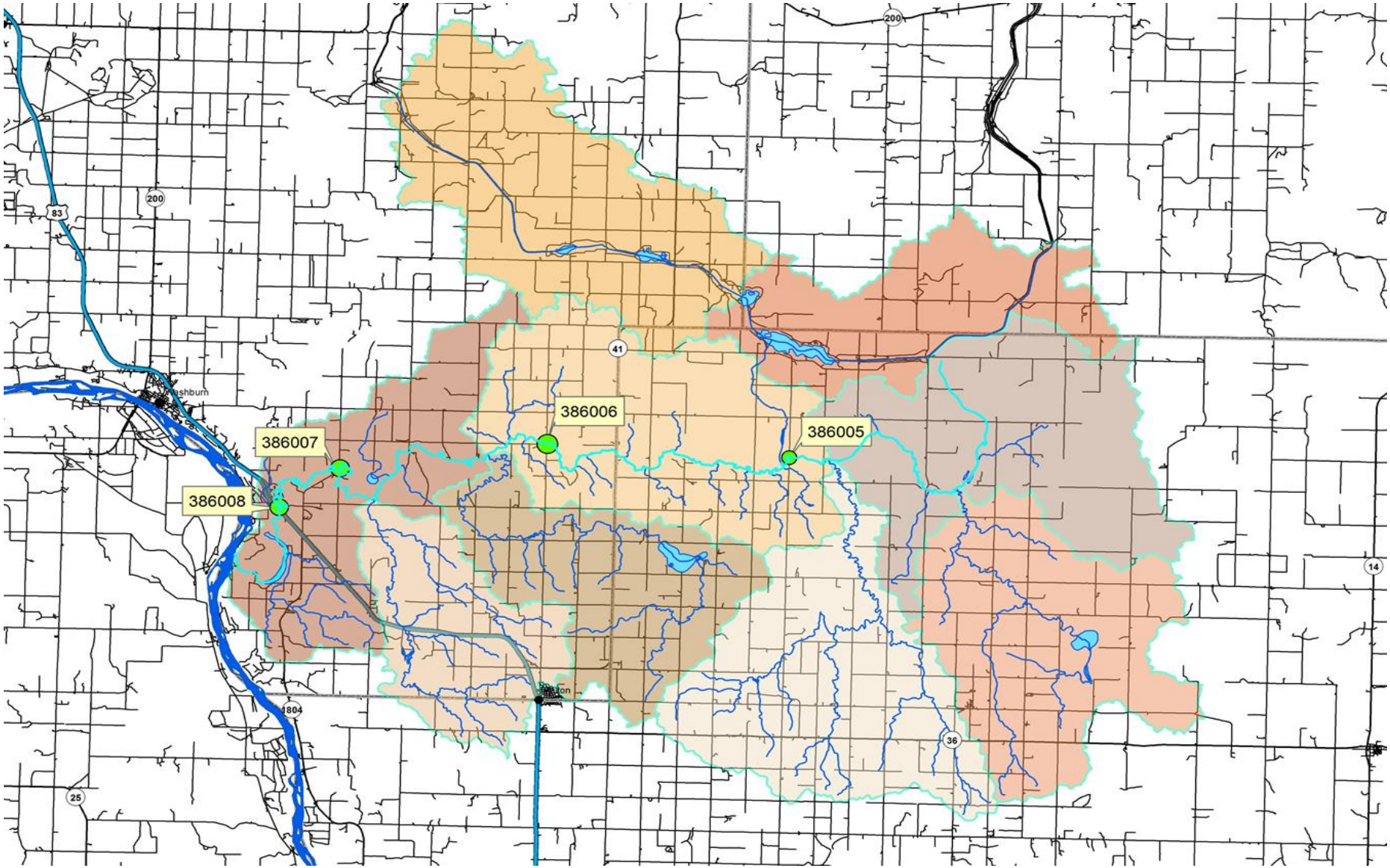
See Appendix D.

7.0 PUBLIC INVOLVEMENT

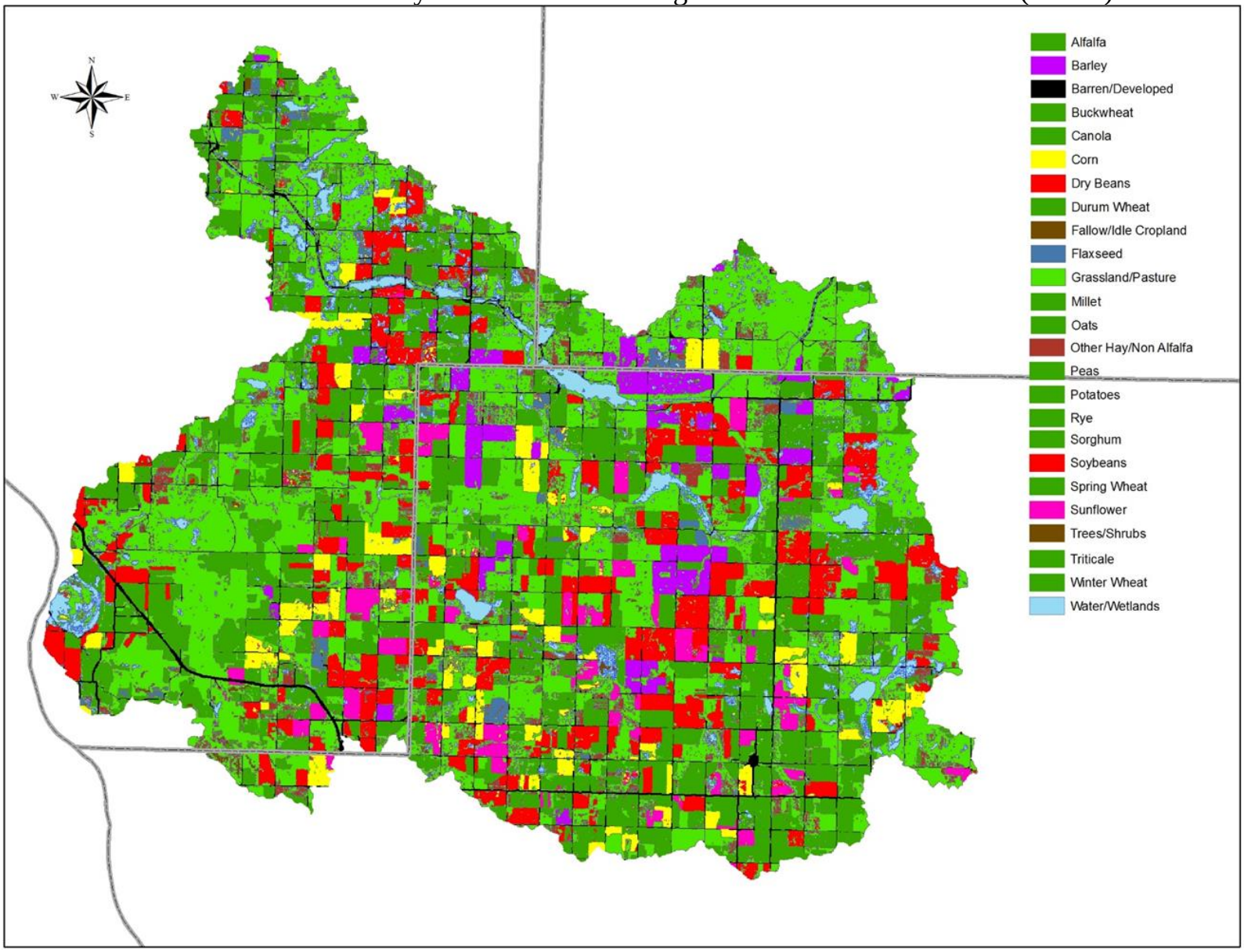
As listed in Objective 2, an important component of this project will be educational efforts and public involvement, including public meetings and tours/workshops. Watershed newsletters similar to the district's current quarterly newsletter will also be used to provide project information to the public,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

Appendix A
Maps and Figures

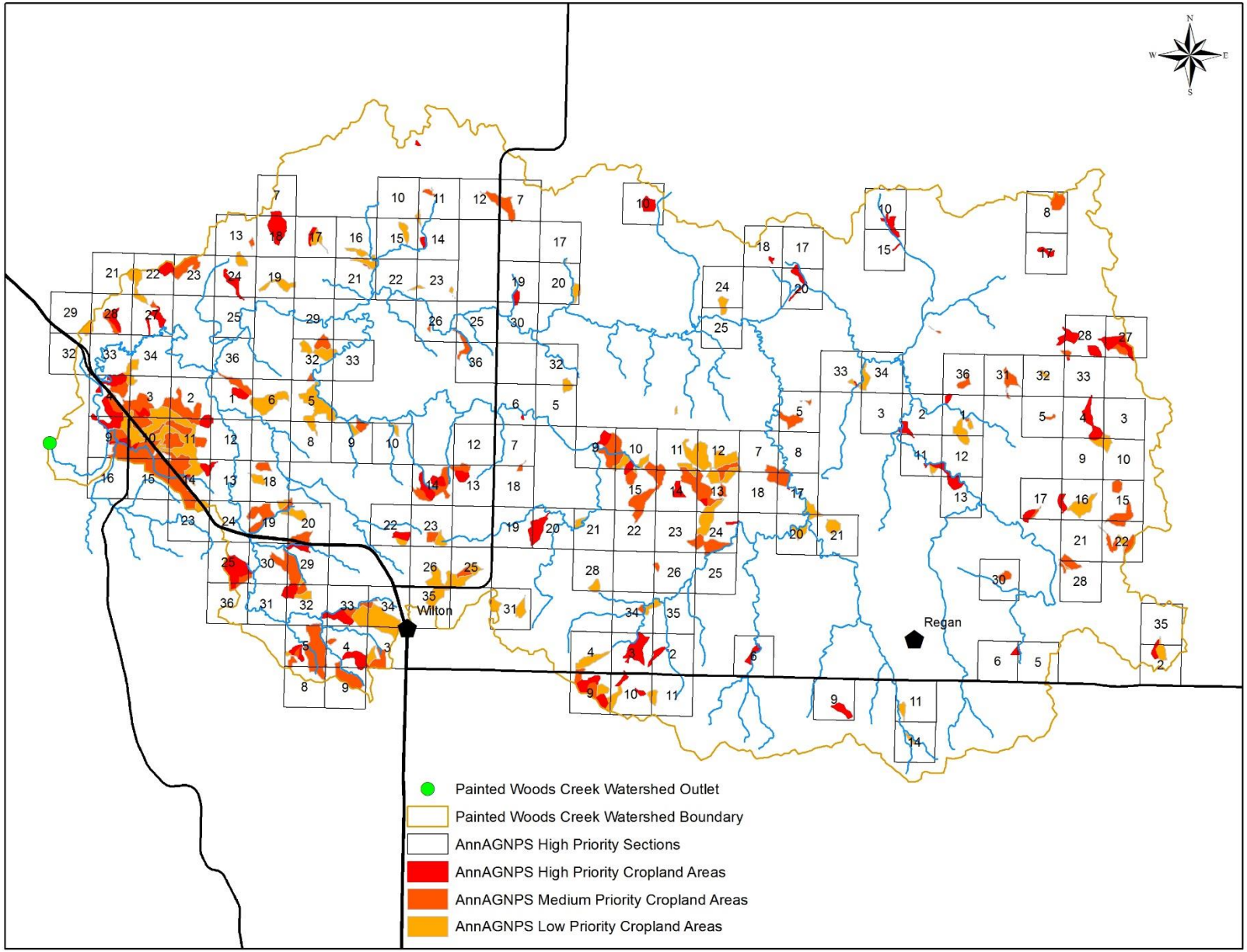
Painted Woods Creek Watershed and Water Quality Sampling Site Locations



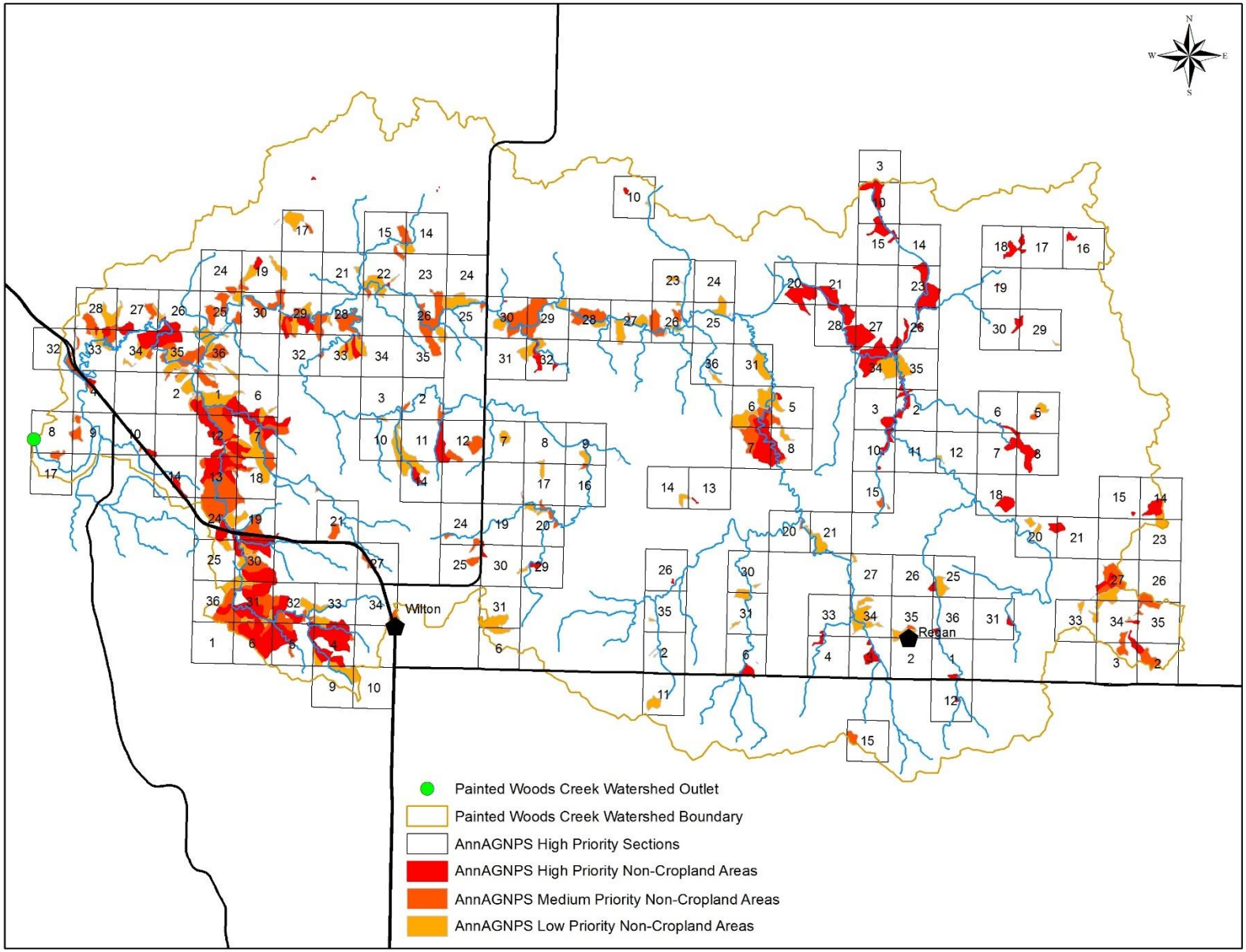
Land use as Identified by the 2015 National Agricultural Statistical Service (NASS)



High Priority Cropland Areas as Identified by AnnAGNPS.



High Priority Non-Cropland Areas as Identified by AnnAGNPS



Appendix B

Water Quality Results and Data

E. coli Bacteria 30-day Geometric Mean, Percent Exceedance of 409 CFU and Support Status for Painted Woods Sampling Sites.

	Recreational Use Determination															
	386005				386006				386007				386008			
	[1] Monthly GeoMean	[2] % Exceedence	[3] Assess	n	Monthly GeoMean	% Exceedence	Assess	n	Monthly GeoMean	% Exceedence	Assess	n	Monthly GeoMean	% Exceedence	Assess	n
May	40.97	0.00%	FS	5	43.42	0.00%	FS	5	54.48	0.00%	FS	5	63.20	0.00%	FS	5
June	1013.82	88.89%	NS	9	421.23	44.44%	NS	9	52.68	0.00%	FS	9	207.97	33.33%	NS	9
July	123.39	25.00%	FST	8	194.78	37.50%	NS	8	208.33	37.50%	NS	8	67.21	12.50%	FST	8
August	62.24	0.00%	FS	10	68.51	10.00%	FS	10	76.54	30.00%	FST	10	36.21	0.00%	FS	10
September	76.64	22.22%	FST	9	200.12	22.22%	NS	9	41.84	0.00%	FS	9	8.30	0.00%	FS	9

[1] Water Quality Standard is 126 colonies/100mL
[2] Water Quality Standard is no more than 10%of samples may exceed 409/100ml
[3] FS - Fully Supporting, FST - Fully Supporting but Threatened, NS - Not Supporting

E. coli Bacteria Seasonal Geometric Mean, Percent Exceedance of 409 CFU and Support Status for Painted Woods Sampling Sites.

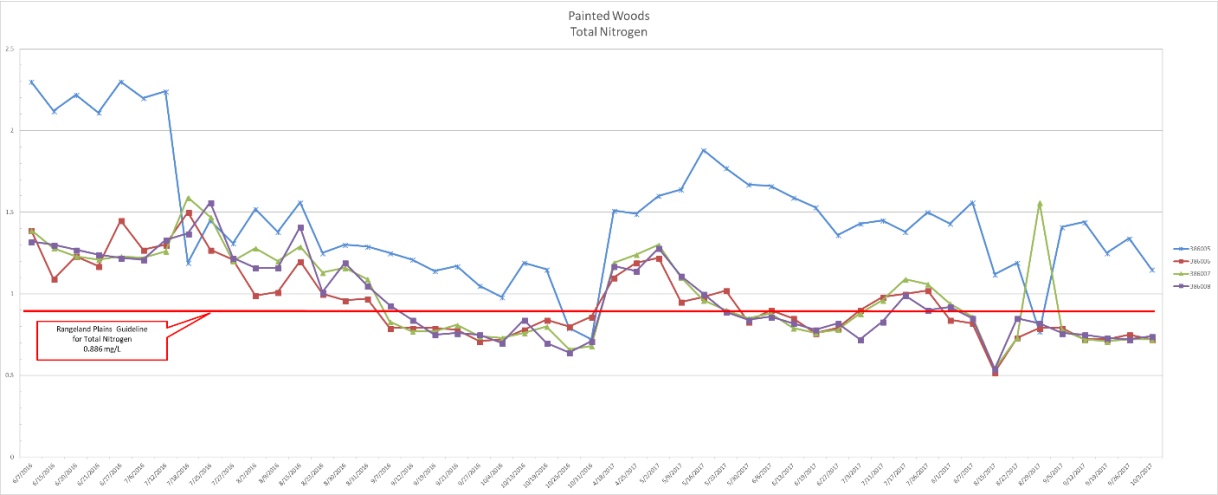
	386005	386006	386007	386008
Seasonal GeoMean	128.27	147.03	72.14	46.18
Min	5.00	5.00	5.00	5.00
Max	4800.00	3500.00	1800.00	590.00
Ave	495.00	327.98	190.24	115.24
Seasonal % >409	28.57%	23.81%	14.29%	9.52%
	Not Supporting	Not Supporting	FS/Threatened	Fully Supporting

Water Quality Standard is 126 colonies/100mL
Water Quality Standard is no more than 10% of samples may exceed 409/100ml

E. coli Bacteria Data

Date	386005	386006	386007	386008
6/7/2016	580	310	10	60
6/15/2016	1400	1000	70	70
6/20/2016	1400	330	10	420
6/21/2016	2400	1000	50	280
6/27/2016	1500	3500	10	530
7/6/2016	4800	690	420	10
7/12/2016	530	850	80	140
7/18/2016	320	470	1000	590
7/25/2016	80	30	100	80
7/27/2016	50	30	100	70
8/2/2016	30	20	60	40
8/9/2016	30	40	5	5
8/15/2016	20	30	70	10
8/23/2016	130	140	500	120
8/30/2016	130	10	70	20
8/31/2016	140	50	30	100
9/7/2016	210	320	70	5
9/12/2016	70	180	10	5
9/19/2016	60	100	160	5
9/21/2016	60	110	130	30
9/27/2016	780	180	50	10
5/2/2017	5	10	50	20
5/9/2017	10	5	80	100
5/16/2017	20	70	60	40
5/23/2017	350	210	40	70
5/30/2017	330	210	50	180
6/6/2017	240	200	130	270
6/13/2017	800	530	240	220
6/19/2017	600	50	130	90
6/27/2017	2400	220	220	520
7/11/2017	110	180	120	30
7/17/2017	30	290	100	60
7/26/2017	5	160	880	50
8/1/2017	50	80	1800	390
8/7/2017	70	180	700	50
8/15/2017	70	150	190	50
8/22/2017	260	100	20	60
8/29/2017	20	430	5	5
9/5/2017	5	110	10	5
9/12/2017	5	150	60	10
9/19/2017	520	570	10	10
9/26/2017	170	480	90	10

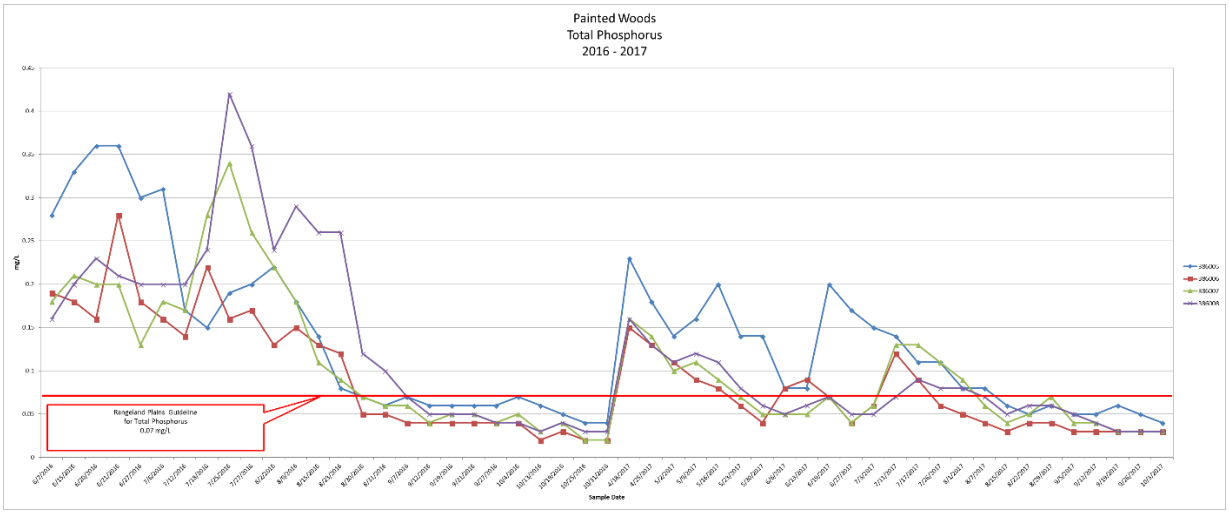
Total Nitrogen Results During the Monitoring Period



Total Nitrogen Summary and Comparison to Guideline

Site ID	Average	Regional Guideline	Minimum	Maximum	Median	# of Samples
386005	1.46	0.886	0.72	2.30	1.43	51
386006	0.96	0.886	0.52	1.50	0.90	51
386007	1.00	0.886	0.54	1.59	0.94	51
386008	0.97	0.886	0.54	1.56	0.89	51

Total Phosphorus Results During the Monitoring Period



Total Phosphorus Summary and Comparison to Guideline.

Site ID	Average	Regional Guideline	Minimum	Maximum	Median	# of Samples
386005	0.13	0.07	0.04	0.36	0.11	51
386006	0.09	0.07	0.02	0.28	0.06	51
386007	0.10	0.07	0.02	0.34	0.07	51
386008	0.12	0.07	0.03	0.42	0.07	51

Appendix C

Milestone Table

Milestone Table for the Painted Woods Creek Watershed Project

Task/Responsible Organizations		Output	Qty.	Year 1 2019	Year 2 2020	Year 3 2021	Year 4 2022	Year 5 2023
Objective 1:								
Task 1: Group 1	Hire watershed coordinator	Watershed Coordinator	.5	.5	.5	.5	.5	.5
Task 2: Group 1	Attend Leadership Academies	Level 101 & 201 Academy Attendance	2	1		1		
Objective 2:								
Task 3: Group 1, 2, 3	Organize and conduct I/E events	2 – Public meetings, 3 – Producer tours, 2 – Grazing workshop 2 – Soil health workshop	9	1	3	2	2	1
Task 4: 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	62	13	12	12	12	13
Objective 3:								
Task 5: Group 1, 2, 3	Conservation planning/assistance to apply BMPs	Completed conservation plans on 8,000 acres	8,000		2,000	2,000	2,000	2,000
Task 6: Group 1, 2, 3	Waste management improvements	Manure Management Systems	5		1	1	2	1
Task 7: Group 1,2	Operation/Maintenance checkups	Database of BMPs	Ongoing					
Objective 4:								
Task 8: Group 1, 4	Complete Annual and Final Reports	3 Annual Reports and 1 Final Report	4		1	1	1	1

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 Painted Woods 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 Environmental Quality - Statewide section 319 program management including oversight of local 319 planning and expenditures. Also provides technical assistance for water quality analysis and documentation.

Appendix D

Budget

Part 1: Funding Sources						
	2019	2020	2021	2022	2023	Total
EPA SECTION 319 FUNDS						
1)FY 2019 Funds (FA)	$17,760	$28,890	$76,390	$76,890	$110,190	$310,000
STATE/LOCAL MATCH						
1) South McLean SCD (TA & FA)	$11,760	$12,960	$11,560	$11,760	$12,160	$60,200
2) Landowners (FA)	$0	$6,300	$39,367	$39,500	$61,300	$146,467
Subtotals	$11,760	$19,260	$50,927	$51,260	$73,460	$206,667
TOTAL BUDGET						
	$29,400	$48,150	$127,317	$128,150	$183,650	$516,667
OTHER FEDERAL FUNDS						
1) NRCS (TA, EQIP, CSP, and other programs)	$2,500,000	$2,500,000	$2,500,000	$2,500,000	$2,500,000	$12,500,000
3) NDDoH	$0	$0	$6,500	$6,500	$6,500	$19,500
TOTAL FEDERAL FUNDS	$0	$0	$6,500	$6,500	$6,500	$19,500
TOTAL PROJECT COST						$516,667

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)								
	2019	2020	2021	2022	2023	Total Costs	Cash and In-kind Match	319 Funds
Objective 1: PERSONNEL/SUPPORT/ADMIN								
Salary/Fringe	$25,575	$25,575	$25,575	$25,575	$25,575	$127,875	$51,150	$76,725
Travel	$350	$350	$350	$350	$350	$1,750	$700	$1,050
Office Space	$475	$475	$475	$475	$475	$2,375	$950	$1,425
Equipment/Supplies	$200	$200	$200	$200	$200	$1,000	$400	$600
Training	$500		$500			$1,000	$400	$600
SCD meetings	$1,000	$1,000	$1,000	$1,000	$1,000	$5,000	$2,000	$3,000
Subtotals	$28,100	$27,600	$28,100	$27,600	$27,600	$139,000	$55,600	$83,400
Objective 2: Financial & Technical Assistance								
BMPs for Rangeland, Cropland, Riparian, etc.			$23,417	$23,750	$70,917	$28,367	$28,367	$42,550
Animal Waste Management BMPs		$15,750	$75,000	$75,000	$295,250	$118,100	$118,100	$177,150
Subtotals	$0	$15,750	$98,417	$153,250	$366,167	$146,467	$146,467	$219,700
Objective 3: Information/Education								
Public meetings/Workshops/Tours	$1,000	$4,500	$500	$1,500	$2,500	$10,000	$4,000	$6,000
Survey/Newsletters/News releases	$300	$300	$300	$300	$300	$1,500	$600	$900
Subtotals	$1,300	$4,800	$800	$1,800	$2,800	$11,500	$4,600	$6,900
Total for all Objectives/Tasks								
Total 319/Non-federal Budget	$29,400	$48,150	$127,317	$128,150	$183,650	$516,667	$206,667	$310,000

Section 319 Funds per year	$17,640	$28,890	$76,390	$76,890	$110,190	$310,000
Total local match per year	$11,760	$19,260	$50,927	$51,260	$73,460	$206,667
SCD match per year	$11,760	$12,960	$11,560	$11,760	$12,160	$60,200
Producer BMP match per year	$0	$6,300	$39,367	$39,500	$61,300	$146,467

Part 3: Projected BMP List	
Practice Code	Practice Description
340	Cover Crop
351	Well Decommissioning
382	Fencing
380	Windbreak/Shelterbelt Establishment
390	Riparian Herbaceous Cover
393	Filter Strip
412	Grassed Waterway
512	Pasture & Hayland Planting
516	Pipelines
528A	Prescribed Grazing
550	Range Planting
590	Nutrient Management
610	Salinity & Sodic Soil Management
614	Trough and Tank
642	Well (livestock only)
056	Alternative Power Source
633	Waste Utilization
312	Livestock Manure Management System (full or partial)

* Additional BMPs will be implemented as needed in accordance with Section 319 guidelines.

Appendix E

Letters of Support

BURLEIGH COUNTY SOIL CONSERVATION DISTRICT
916 EAST INTERSTATE AVENUE, SUITE 6
BISMARCK, ND 58503-0548
PHONE 250-4518, EXT. 3
Fax 855-561-7866
www.bcscd.com

February 14, 2019

Greg Sandness, NSP Coordinator
North Dakota Dept. of Health/Water Quality
918 E. Divide Ave. 4th Floor
Bismarck, ND 58501

Please consider this letter of support for the "Painted Woods Creek Watershed Project" submitted by the South Mclean Soil Conservation District. The Burleigh County Soil Conservation District and the NRCS office fully supports the primary goal of the project, water quality restoration. The project will provide critical educational and technical assistance to area producers regarding restoring water quality to the Painted Woods Creek Watershed. Conservation practices that facilitate a grazing system and a no-till cropping system can be implemented and have a huge impact on the watershed.

The Burleigh County SCD and the NRCS office have seen first hand the impact that can occur by leveraging 319 funds to provide technical assistance and educational opportunities to Burleigh County producers and others through our efforts at the Menoken Farm.

The Burleigh team believes this project will contribute to the improvement of water quality issues associated with the Painted Woods Creek watershed. Promoting the appropriate conservation and regeneration methods can have the potential to improve the environmental and economic performance of working agricultural lands within the watershed.

The Burleigh County team looks forward to being available for assistance during the implementation of this project. We are happy to offer our expertise in working toward the goal of improved water quality in the Painted Woods Creek watershed. If you have any questions, please feel free to contact our office at 701-250-4518 ext. 3.

Sincerely,

David Bauer, Chair
Burleigh County Soil Conservation District

McLean County Water Resource District

Washburn, North Dakota

Derek Klostermeier

Watershed Coordinator

South McLean Soil Conservation Dist.

February 11, 2019

The McLean County Water Resource District is pleased to support your efforts with the Painted Woods Creek Watershed Project to address identified water quality issues associated with E. coli bacteria, total nitrogen and total phosphorus within the watershed. Based on previous hydrology studies by the Water District the Painted Woods Creek watershed drains from 305 square miles of grassland and cropland in McLean and Burleigh Counties.

The Water Resource Board looks forward to working with the South McLean Soil Conservation District as the project administrator for the 319 programs and the North Dakota Department of Health with their oversight of 319 funding, sample collection, and preservation of data.

Lynn Oberg, Chairman

Lynn Oberg

McLean County Water Resource District

USDA

United States Department of Agriculture

Natural Resources
Conservation Service

Turtle Lake
Field Office

24 2nd Avenue East
PO Box 537
Turtle Lake, ND
58575-0537
701-448-2377

February 13, 2019

Derek Klostermeier
Watershed Coordinator
South McLean County SCD

The Natural Resources Conservation Service (NRCS) provides technical and financial support to producers, landowners and other individuals who offer to install conservation practices to address resources concerns on any or all land uses. Your application to develop an EPA-319 supported watershed project on the Painted Woods Creek watershed addresses water quality concerns which is a strategic NRCS resource concern at national, state and local levels. NRCS has long supported the development and implementation of watershed projects as a localized method of assessing and addressing water quality needs.

The North Dakota NRCS staff and Turtle Lake field office fully support the development and implementation of the Painted Woods Creek watershed project. NRCS is willing to provide support with producer education, soil/water quality assessment, conservation planning and technical support for conservation practice design, installation and certification.

David Hendrickson, DC

DAVID HENDRICKSON
District Conservationist
NRCS Turtle Lake Field Office