

1.0 BEAVER CREEK AND SEVEN MILE COULEE WATERSHED PROJECT
Phase II Proposal

Stutsman County SCD
Business Loop East
Jamestown, ND 58401

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State: North Dakota Watershed—Beaver Creek/Seven Mile Coulee
Hydrological Unit Code: 10160003 and 10160001
High priority Watershed: yes

<u>Project Type</u>	<u>Waterbody Types</u>	<u>NPS Category</u>
Watershed	streams / rivers	Agricultural

Project Location: Beaver Creek: 46.704218N 98.697647W
Seven Mile Coulee: 46.901601N 98.508468W

Summary of Major Goals: The primary goal of this project is to restore the recreational and aquatic uses of the Beaver Creek and Seven Mile Coulee Watersheds. This will be accomplished by focusing on properly handling the livestock waste, nutrient management, and riparian and grazing management as well as cooperative educational efforts.

Project Description: Beaver Creek and Seven Mile Coulee Watersheds are subwatershed basins in Hydrologic Unit 10160003 located in south central North Dakota. This watershed area (10160003) has been identified as fully supporting but threatened, with E. coli bacteria indicated as the impairment in the 2012 Integrated Report (2012 IR). The beneficial uses affected by this impairment include recreational, aquatic life and agricultural stock water and will be addressed with BMP's targeting manure management in Phase II. Natural Resource Management stressors of greatest concern are livestock densities in feeding operations, commercial/industrial effluent and pasture/rangeland near riparian areas.

FY 2013 319 incremental funds requested \$509,940
Match \$344,460

Other Federal Funds \$1,821,000 Total project cost \$2,675,400
319 Funded Full Time Personnel: 2

1.5 Phase I project accomplishments

See Attachment 7.

2.0 Statement of Need

- 2.1 The Beaver Creek and Seven Mile Coulee Watersheds are sub watershed basins in Hydrologic Unit 10160003 located in south central North Dakota. This watershed area (10160003) has been identified as fully supporting but threatened, with E. coli bacteria indicated as the impairment in the 2012 Integrated Report (2012 IR).

The State's water quality standards provide for four stream classes (I, IA, II and III) and five lake classes (1-5). All classified lakes, reservoirs, rivers, and streams in the state are protected for aquatic life, recreation, agricultural and industrial uses. Class I, IA and II rivers and streams, and all classified lakes and reservoirs, are also designated for use as municipal and domestic drinking water supplies, unless specifically stated otherwise. Beaver Creek is identified as a Class II stream while Seven Mile Coulee and Buffalo Creek are identified as Class III streams.

Based on the 2012 Section 303(d) List of Impaired Waters Needing Total Maximum Daily Loads (TMDLs), the North Dakota Department of Health (NDDoH) has identified: a 32 mile segment of the Buffalo Creek from its beginning downstream to its confluence with Beaver Creek as fully supporting but threatened for recreational uses due to Escherichia coli (E. coli) bacteria, a 16 mile segment of Beaver Creek from its confluence with Buffalo Creek downstream to its confluence with the James River as fully supporting but threatened for recreational uses due to Escherichia coli (E. coli) bacteria and Seven Mile Coulee including all its tributaries, approximately 40 stream miles, as not supporting recreational uses due to E. coli bacteria. The primary source of E. coli and fecal coliform bacteria contamination are run off from animal feeding operations and animal grazing in riparian areas.

Effective January 2011, the NDDoH revised the state water quality standards. In these latest revisions the Department eliminated the fecal coliform bacteria standard, retaining only the E. coli bacteria standard for the protection of recreational uses. This standards change was recommended by the US EPA as E. coli is believed to be a better indicator of recreational use risk.

The water quality targets for the listed segments are based on the numeric water quality standards for E. coli bacteria established to protect the recreational beneficial uses for North Dakota's waterbodies. The North Dakota water quality standard for E. coli bacteria is a 30-day geometric mean concentration of 126 CFU/100 mL during the recreation season from May 1 to September 30. In addition, no more than ten percent of samples collected for E. coli bacteria should exceed 409 CFU/100 mL.

Macroinvertebrate sampling was conducted in the project area during the assessment and implementation phases of this project. Samples collected within the Seven Mile Coulee watershed received low Macroinvertebrate Index of Biological Integrity (MIBI) scores and were given condition

classifications of either “fair” or “poor”. MIBI scores and condition classifications indicated that aquatic life use impairments exist and that aquatic life uses were not supported. Samples collected from Beaver Creek received high MIBI scores and condition class ratings of “good” which indicated that aquatic life uses were fully supported. At the single Buffalo Creek site there was an increase in MIBI score from the 2006 sample (MIBI of 39, “poor” condition) to the 2011 sample (MIBI of 73, “good” condition) which indicated a positive trend in aquatic life use support and fully supporting status.

- 2.2** Project Location: In general the area includes the Seven Mile Coulee watershed in east central Stutsman County and the Beaver Creek watershed in southern Stutsman County.

The Beaver Creek and Seven Mile Coulee watersheds are located within the Upper James watershed (10160003) in Stutsman County. Both of the watersheds are located primarily in the Northern Glaciated Plains eco-region (46). The headwaters of Beaver Creek extend into the Northern Glaciated Plains (42).

- 2.3** **Maps**
See Attachments 1-4.

2.4 **General Information**

The Seven Mile Coulee Watershed has an area of 89,177 acres or approximately 139 square miles. Approximately 78% of the land use is for cropland, 16% for rangeland/grassland, 5% for wetland/water, and 1% for urban and other.

The Beaver Creek Watershed has an area of 212,705 acres or approximately 332 square miles. Approximately 59% of the land use is for cropland, 33% for rangeland/grassland, 7.5% for wetland/water, and 0.5% for urban and other.

Priority Animal Feeding Operations (AFO’s) are shown on **Attachment 1**. There are 7 high priority AFO’s in the Seven Mile Coulee watershed and 36 high priority AFO’s in the Beaver Creek watershed.

The following information is taken from the NRCS Rapid Watershed Assessment completed in January of 2007. The information lists resource concerns.

Soils

- The HEL cropland acreage experiencing erosion rates above sustainable levels decreased 23,400 acres in 1997, as compared to 35,200 acres in 1982.
- NRI estimates indicate there was a 73 percent reduction from 1987 to 1997 in the amount of Highly Erodible Land (HEL) being farmed.
- Through NRCS programs, many farmers and ranchers have applied conservation practices to reduce the effect of wind erosion. From 1982 to

1997, the average wind erosion rate reduced from 5.2 t/ac/yr to 3.8 t/ac/yr on all cultivated cropland.

- Conservation practices that can be used to address these water quality issues include grazing management, erosion control, nutrient and ag waste management, and riparian buffers.
- Sandy soils and irrigated soils still require conservation practices to control excessive erosion.
- Soil erosion and low organic matter remain resource concerns.
- Windbreak plantings, reduced tillage systems, and improved cropping systems are still needed.
- Grassed waterways are still needed to help reduce ephemeral gully erosion.

Water

- **Aquifers** – There are three glacial drift aquifers in the Seven Mile Coulee Watershed these include: Seven Mile Coulee, Spiritwood, and LaMoure. There are five glacial drift aquifers in Beaver Creek Watershed these include: Windsor, Klose, Buffalo Creek –Upper, Sydney, and Nortonville. A number of these aquifers supply municipal sources of water. **See Attachment 2.**
- **Wellhead Protection Areas** – there are five protection areas located in these two watershed areas. They are designated to protect municipal and rural water supplies.
- Conservation practices that can be used to address these water quality issues include grazing management, erosion control, nutrient and ag waste management, and riparian buffers.
- Lack of adequate riparian buffer width and health are impacting water quality and stream health.
- Leaching of nitrogen into the groundwater is a concern on high water table soils.
- Sheet and rill erosion due to improper residue management, poor crop rotations, overgrazing, and excess tillage is a concern.
- Urban and agricultural runoff is a concern for excessive nutrients and organics of surface water.
- Water use and conservation are concerns for irrigated cropland.
- Water erosion is a severe hazard on gently sloping and steeper soils. The hazard is greatest when the soil is bare during crop establishment.

Air

- Soil blowing is a severe hazard on the coarse textured and moderately textured soils.

Plants

- Major concerns are controlling invasive weeds and maintaining good pasture condition.
- Noxious weeds and poor range condition reduce the productivity for livestock and wildlife.
- Native species not being replaced after land disturbances take place is a major concern.

- Season long grazing on or near water courses are of a concern for riparian health.*
- **See Attachment 3** for Land Use/Land Cover maps and shaded relief maps.

References

USDA – NRCS, Rapid Watershed Assessment, Upper James River 10160003, 2007

2.5 Water Quality Problem Definition

There are four types of contributors to the water quality problems in Seven Mile Coulee and Beaver Creek Watersheds. The high priority cropland and non-cropland areas are identified on the maps in **Attachment 4**. These reaches represent the areas of greatest concern for water quality as identified in the assessment.

- 1) The impacts from the malting plant effluent near can be tracked through the water quality data collected during Phase I of the project. The malting plants' phosphorus discharge is a cause for concern and should be addressed through industrial and discharge improvements. Education and involvement from the Stutsman SCD, NDDH and others may be an answer to this problem.
- 2) The fecal coliform counts at each of the sites are likely due mainly to concentrated areas of animal waste. There are several operations that have not been updated and need to be addressed. Nutrient management is essential in addressing this concern.
- 3) The fecal coliform counts may also be addressed through improved grazing management, particularly in riparian areas. As is seen in **Attachment 3** maps, much of the rangeland in these areas is in riparian areas. Improvements to riparian areas are key in addressing the water quality problems.
- 4) Addressing erosion from cropland and nutrient management in these areas is also key in reducing phosphorus and nitrogen contributions.
- 5) The AnnAGNPS priority maps for Beaver Creek and Seven Mile Coulee watersheds are shown in Attachment 4. These will be used to address priority NPS pollution issues by targeting these sections with BMP's. These may include riparian area and grazing improvements as well as manure management updates and cropping system improvements.

3.0 Project Description

3.1 Goals

The primary goal of this project is to restore the recreational and aquatic uses of the Beaver Creek and Seven Mile Coulee Watersheds. This will be accomplished by focusing on properly handling the wastes of five additional livestock feeding areas. This goal will also be accomplished through proper application of nitrogen and phosphorus on cropland as well as addressing riparian areas and overgrazing.

A secondary goal will be to encourage commercial operations in the area to ensure discharge is properly treated.

3.2 Tasks

Objective 1: By the end of the project period, improve the water quality in the Beaver Creek and Seven Mile Coulee by reducing the E. coli bacteria geometric mean concentration of 126 colonies/100 ml with less than 10% of samples exceeding 409 colonies/100 ml. Also, reduce phosphorus mean annual concentration. Through addressing the levels of these parameters, others such as nitrogen and total suspended solids will be reduced as well.

Task 1: Provide assistance to agricultural producers and landowners, targeting the AnnAGNPS priority areas and/or other critical areas identified by project staff to implement Best Management Practices to reduce sediment and nutrient loads from 4,000 acres of cropland per year through nutrient management plans and 4,000 acres of rangeland per year by implementing nutrient management and prescribed grazing. **See Attachment 6.** The prescribed grazing will aid in addressing streambank areas.

Product: Conservation Planning for 2,400 acres in 2015, 2,400 in 2016, 2,400 in 2017.

Cost: \$300,000

Task 2: Provide assistance for the installation of three livestock waste management systems, to willing producers, in the highest priority areas. **See attachment 6.** Priority will be given to those feeding areas located in high priority areas from the maps shown in **Attachment 4.**

Product: Three livestock waste management systems with nutrient management plans.

Cost: \$375,000

Task 3: Treat stream banks through riparian buffers and erosion control methods. Emphasis will be placed on riparian areas along the priority 303(d) listed reaches. Encourage use of additional programs through the North Dakota State Game and Fish, the ND State Forest Service and the Conservation Reserve Program to install riparian buffers. Will also work with items from Task 1 (i.e. prescribed grazing). **See Attachment 5.**

Product: Improvement of 3 miles of riparian areas throughout the watersheds.

Cost: \$30,000

Task 4: Conduct follow-up contacts to assist with conservation plan updates and monitor Operation and Maintenance of cost-shared practices.

Product: Database of applied BMP's.

Cost: Included in Personnel/Support in Part 2 of Funding Tables.

Objective 2: Document water quality improvements as BMP's are installed by monitoring water quality trends.

Task 5: Maintain a record of the locations, amounts, and costs of applied BMP and collect water quality and biological data as scheduled in the Quality Assurance Project Plan (QAPP).

Product: Refer to Section 5.0.

Cost: Included in Personnel/Support in Part 2 of Funding Tables.

Objective 3: Increase public understanding of the impacts and solutions of NPS pollution. Emphasis will be placed on efforts targeting landowners and agricultural producers.

Task 6: Organize and conduct scheduled I/E events focusing on NPS pollution control within agricultural and commercial areas and coordinate them with ongoing state/federal sponsored I/E programs.

Product: Five tours/demonstrations, three workshops, five informational meetings addressing topics such as cover crops, nutrient availability, salinity management and crop water use.

Cost: \$3,000

Task 7: Prepare newsletters and direct mailings to local land users, the general public, and media to promote the project and disseminate information on water quality and NPS pollution control.

Product: Minimum of 10 newsletters and 15 direct mailings.

Cost: \$3,000

Task 8: Complete annual and final project reports to update the project progress and completion. These will be provided to NDDH, EPA, sponsors, and all other interested organizations and individuals.

Product: Annual and final project reports.

Cost: Included in Personnel/Support in Part 2 of Funding Tables.

3.3 Milestone Table: See Attachment 6.

3.4 Permits

All necessary permits will be acquired. These may include CWA Section 404 permits. Project will work with NDDH to determine if permits are needed for the proposed livestock waste systems. State permits will be obtained for manure management systems installed by the project. Cultural Resource concerns and issues will be addressed by following the procedures outlined by NDDH and the North Dakota State Historical Society.

3.5 Appropriateness of Lead Sponsor

The Stutsman County SCD is sponsoring this water quality project. The Stutsman SCD board will oversee the Beaver Creek and Seven Mile Coulee Watershed

Project. The Stutsman County SCD's annual and long range plans help to prioritize and provide guidance to the field service staff. The Stutsman County SCD board has legal authority to employ personnel and receive and expend funds. The Stutsman County SCD has credible experience in personnel management and conservation leadership.

4.0 Coordination Plan

4.1 Lead Project Sponsor and Cooperating Organizations:

- 1) The Stutsman SCD will be the signer of the Section 319 contract and will be the lead agency responsible for project administration. They will provide office space, clerical assistance, access to equipment and supplies as well as any necessary financial support. The Stutsman County Board will oversee implementation of the scheduled project activities and provide for staff time if feasible. The board will be the primary supervisor of the watershed conservationists and all Section 319 funded activities.
- 2) The Natural Resources Conservation Service (NRCS) will provide assistance in conservation planning, plan writing, and technical/engineering assistance for construction and installation of planned BMP's. Many of the standards and specifications for approved BMP's are provided by NRCS personnel from the NRCS Field Office Technical Guide. This partnership is operated through MOU.
- 3) The North Dakota Department of Health will oversee 319 funding as well as develop the quality assurance project plan for this project. The NDDH will provide oversight on sample collection, preservation and transportation to ensure reliable data is obtained. NDDH will provide laboratory analysis of water samples as well as data storage. NDDH will assist project staff in development and implementation of the projects' information and education activities. NDDH will provide sponsor oversight to ensure proper management and expenditures of Section 319 funds. They will assist NRCS and the Stutsman County SCD personnel in the review of Operation and Maintenance requirements for Section 319 cost shared BMP's.
- 4) Sheyenne-James RC&D will assist the project through engineering assistance for ag waste systems and other structural practices provided by the BMP team project managed by the RC&D.
- 5) The North Dakota State University Extension Service local and state personnel will be asked to assist in working cooperatively on information and education activities. This would include such items as workshops, field tours, and publications. The nutrient management specialist from NDSU Extension (funded through the Section 319 program) may assist in development of nutrient management plans including livestock waste management.
- 6) The Stutsman County Ag Improvement Association will be asked to support the NDSU Extension Service and the Stutsman SCD in workshops and field tours.

- 7) The Stutsman County and Medina-Jamestown Farmers Union Boards have previously contributed funds to educational efforts for conservation through the Lower Pipestem Creek Watershed Project. They could provide additional support for workshops and field tours for the Beaver Creek and Seven Mile Coulee Watershed efforts.
- 8) The Farm Service Agency (FSA) may apply the conservation reserve program practices to assist with cost-share where needed.
- 9) The North Dakota State Game and Fish Department private lands biologist will be solicited to provide planning and financial assistance for riparian and other aspects of the project that involve combining wildlife and water quality.
- 10) The United States Fish and Wildlife Service private lands biologists may provide planning and financial assistance for certain practices which would improve wildlife habitat as well as water quality.
- 11) The Stutsman County Water Resources Board has already contributed \$18,000 in support of the project and will be reported to annually at one of their monthly meetings.

4.2 Local Support

See **Attachment 7** for Project Update.

4.3 Coordination with Other Pertinent Programs

Other programs in the project area include:

- 1) NRCS Environmental Quality Incentives Program (EQIP) will be used by the NRCS Jamestown Field Office and project 319 staff to plan relevant conservation practices not offered by the 319 project. Also, projects such as livestock waste management, etc., may involve several conservation practices. EQIP will provide cost-share for some of the practices, while 319 will provide cost share for the remaining practices not addressed through EQIP.
- 2) NDSU Extension Livestock Waste Program is a program funded for technical and educational assistance for livestock producers in North Dakota. Information and technical assistance will be utilized from this program in cooperation with this watershed effort. Planning and educational efforts in Beaver Creek and Seven Mile Coulee will be enhanced through cooperation with the Livestock Waste Management specialist in Carrington. (As mentioned in item #5 from Section 4.1)
- 3) The North Dakota State Game and Fish Private Lands Program will be utilized where pertinent to assist in developing conservation practices in the watershed area. The practices may include items such as upland vegetation establishments, riparian zone improvements and grazing management practices. Watershed project staff will work with the Private Lands

Biologist located in Jamestown in planning efforts. The Stutsman County SCD and the NDSGF have a history of working cooperatively particularly in riparian zone improvements.

- 4) The United States Fish and Wildlife Private Lands Program will be utilized where pertinent in much the same manner as mentioned in item #3. Watershed project staff will work with the USFW Private Lands Biologists in these planning efforts.
- 5) The North Dakota State Forest Service Programs (such as living snow fence) will be utilized where pertinent to assist in developing conservation plans in the watershed area. Upland vegetation and riparian zone improvements are examples where these programs will work in coordination.
- 6) The Stutsman County Water Resources Board offers cost-share to producers to decommission unused wells. This has been encouraged by the Stutsman County NRCS field office and will be encouraged in conservation planning efforts through this watershed project.

4.4 Similar Watershed Activities

- 1) As mentioned in item #1 of Section 4.3, the EQIP program will be used in coordination with this program as has been previously demonstrated by other watershed efforts in Stutsman County. The EQIP program is currently based on county-wide scale (though a watershed approach to EQIP may be developed) and is used cooperatively with 319 efforts.
- 2) The North Dakota State Agriculture Department offers a Livestock Pollution Prevention Program (LP3), targeting all livestock operations. These efforts are focused on producers outside of watershed project areas, eliminating any duplication.
- 3) The North Dakota Stockmen's Association offers a waste management program to livestock producers. These efforts again are focused on producers outside of watershed project areas, again eliminating any project duplication.

There are no other projects or programs, besides those previously mentioned, which the Stutsman County SCD is aware of in these watershed areas.

5.0 Evaluation and Monitoring Plan

Upon approval of the final PIP, the North Dakota Department of Health will develop a Quality Assurance Project Plan that identifies the monitoring goal and objectives for the project.

6.0 BUDGET

6.1 See Attachment 5.

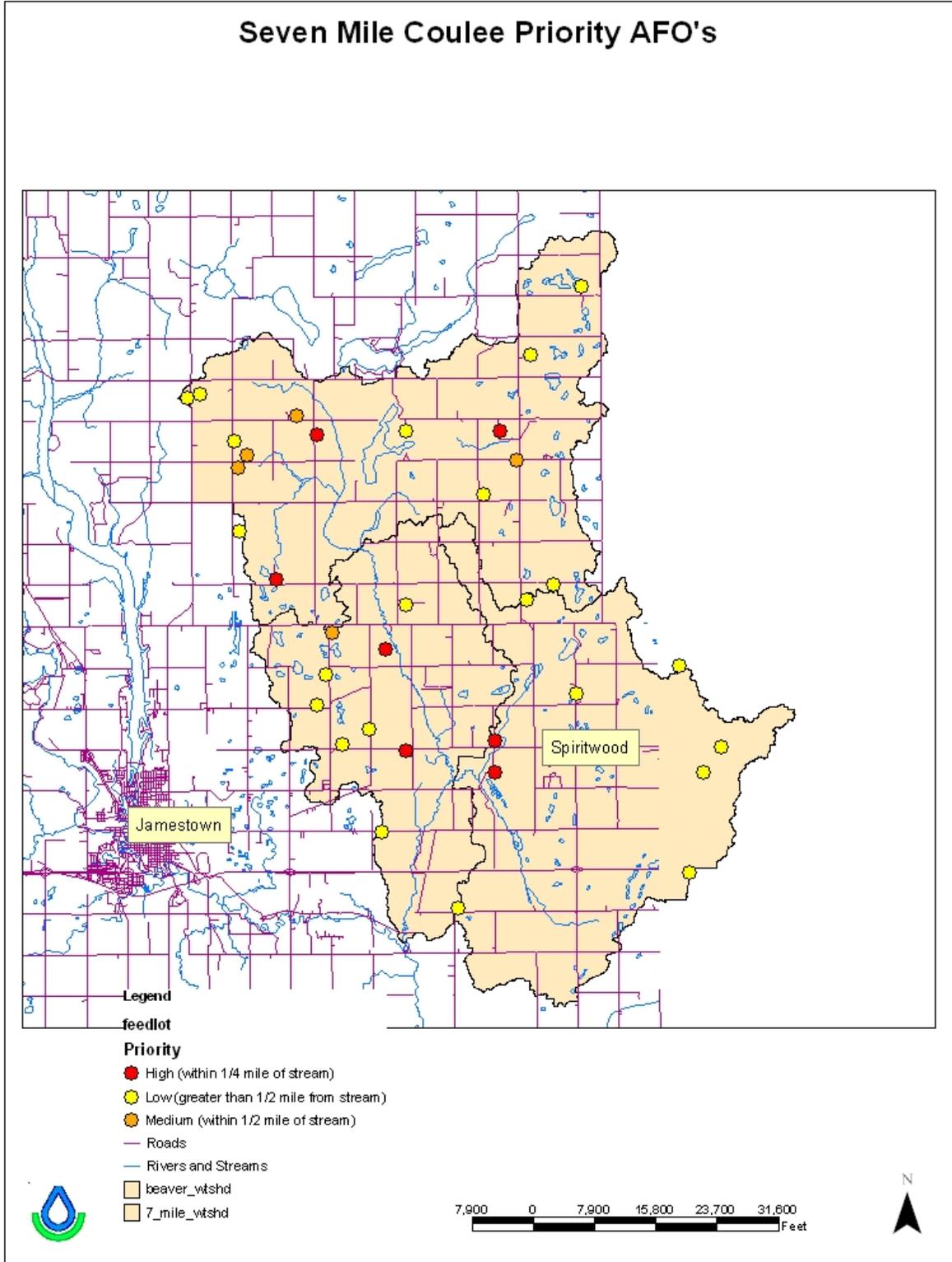
7.0 PUBLIC INVOLVEMENT

As mentioned in objective 3, an important part of this project will be educational efforts and public involvement. Through the Lower Pipestem Creek Watershed Project and the current Beaver Creek Seven Mile Coulee Watershed Project, the Stutsman County SCD and NRCS Jamestown Field Office have an established track record of good public involvement, including well attended tours of established conservation practices, well attended workshops in cooperation with the NDSU Extension, Farmers Union, and the Stutsman County Agricultural Improvement Association. This tradition will continue in Stutsman County.

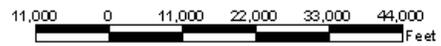
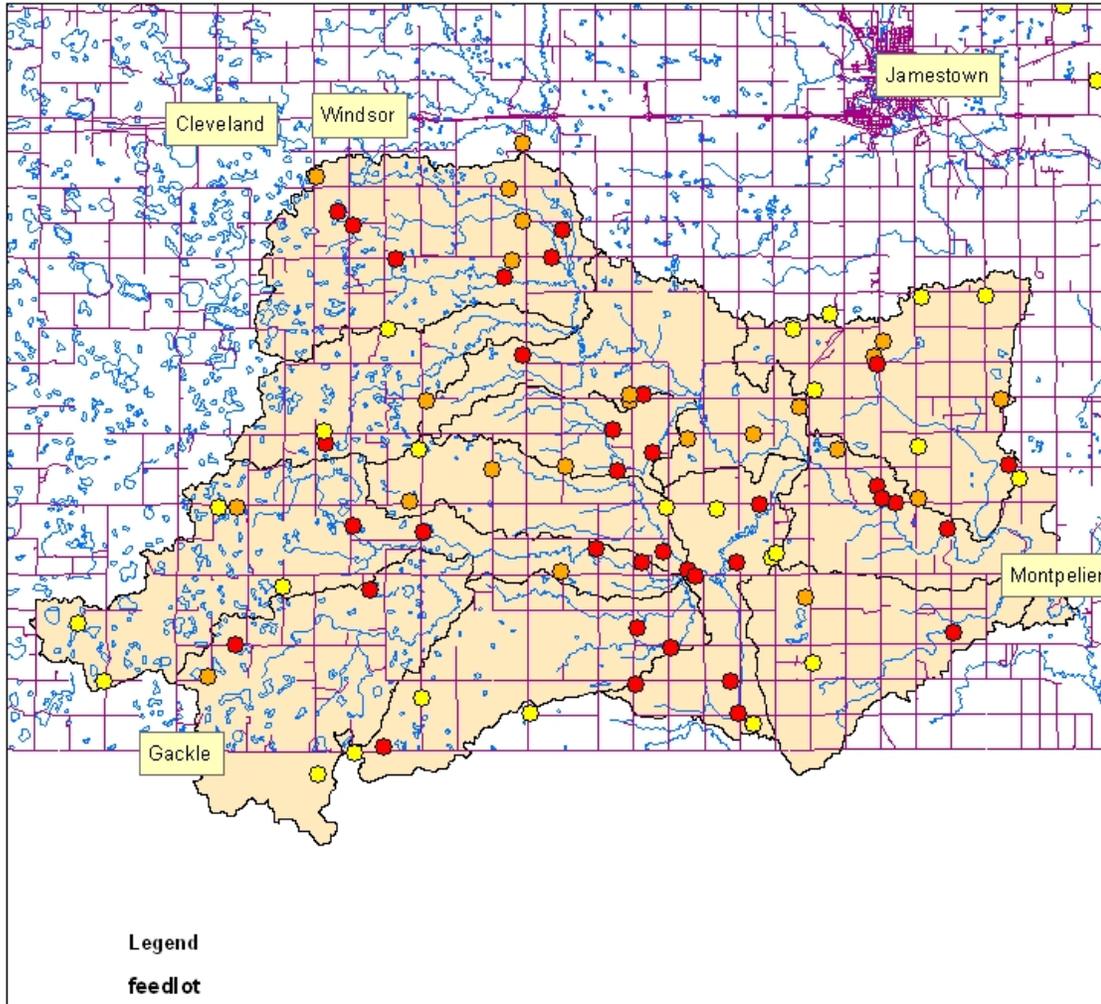
Newsletters are regularly published by the Stutsman County SCD and will continue to provide project information to the general public. The Stutsman County SCD has a website, www.stutsmanscd.org which provides 319 project information plus links and publications.

Attachment 1

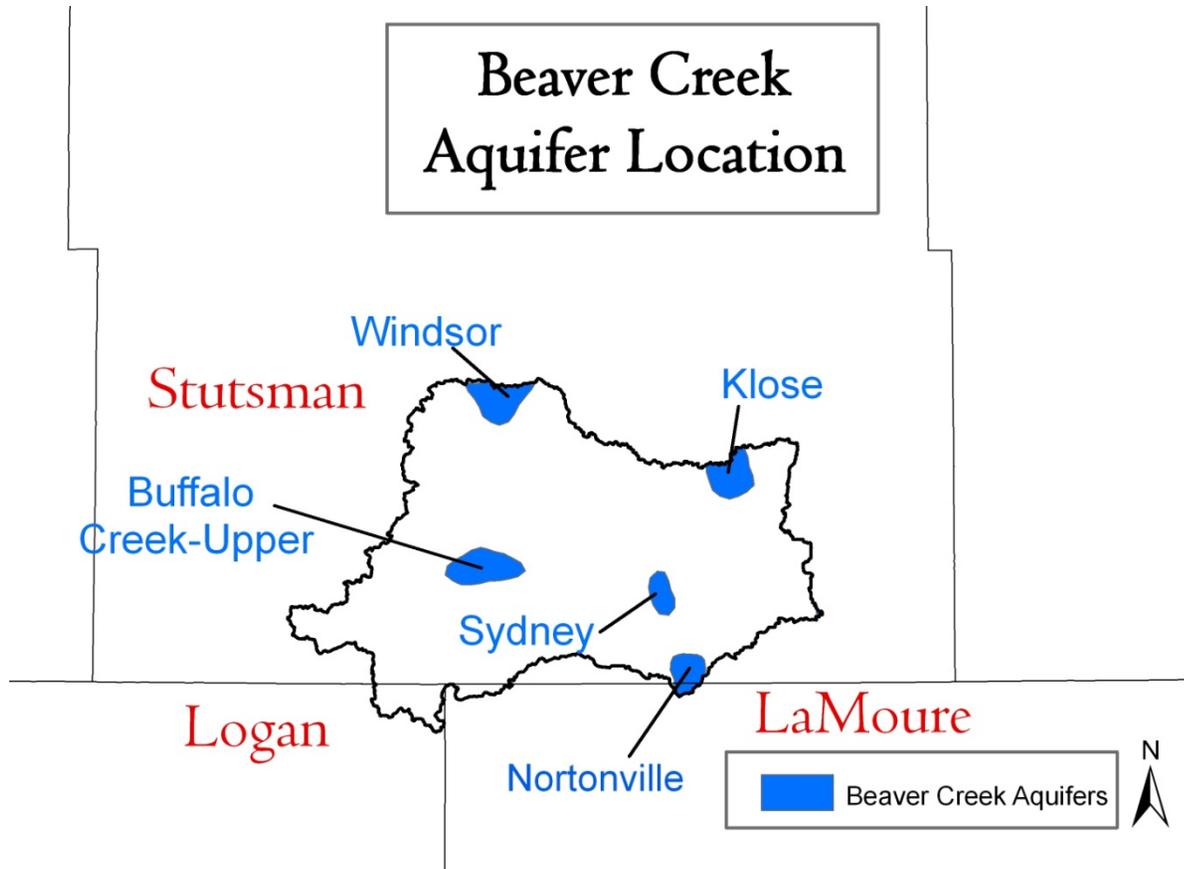
Seven Mile Coulee Priority AFO's



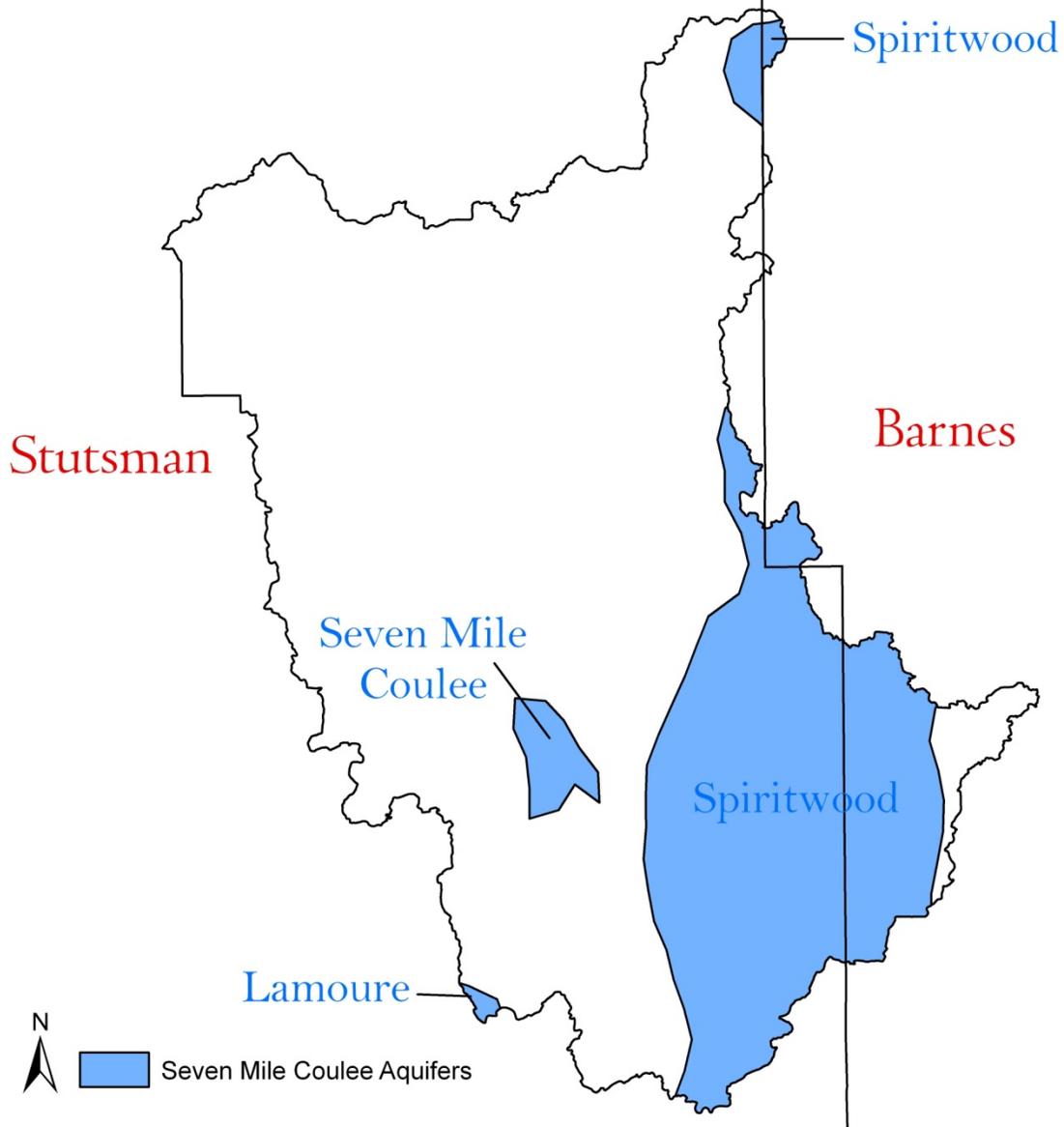
Beaver Creek Watershed Priority AFO's



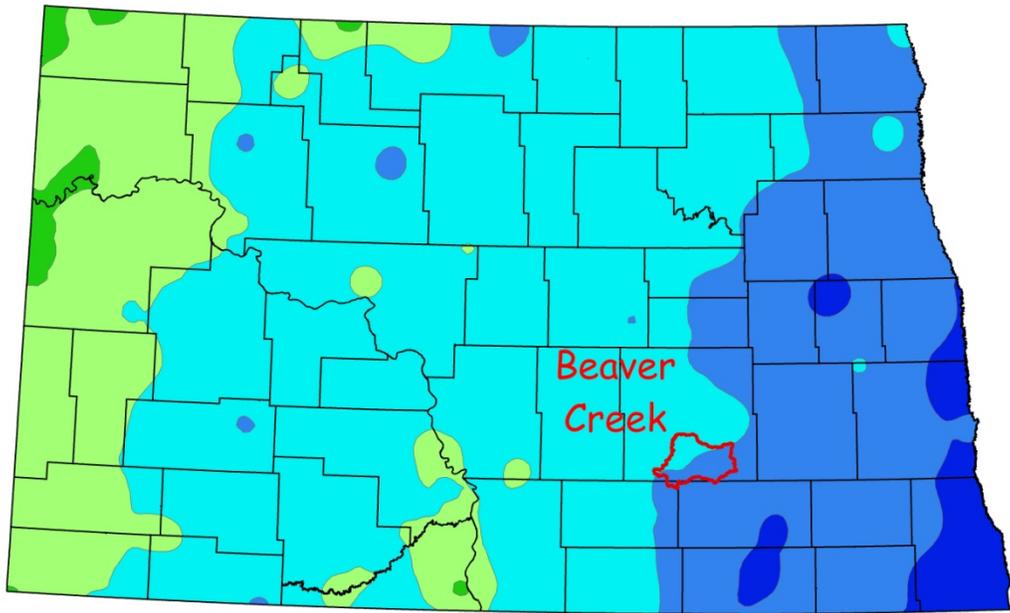
Attachment 2 Water - Aquifers



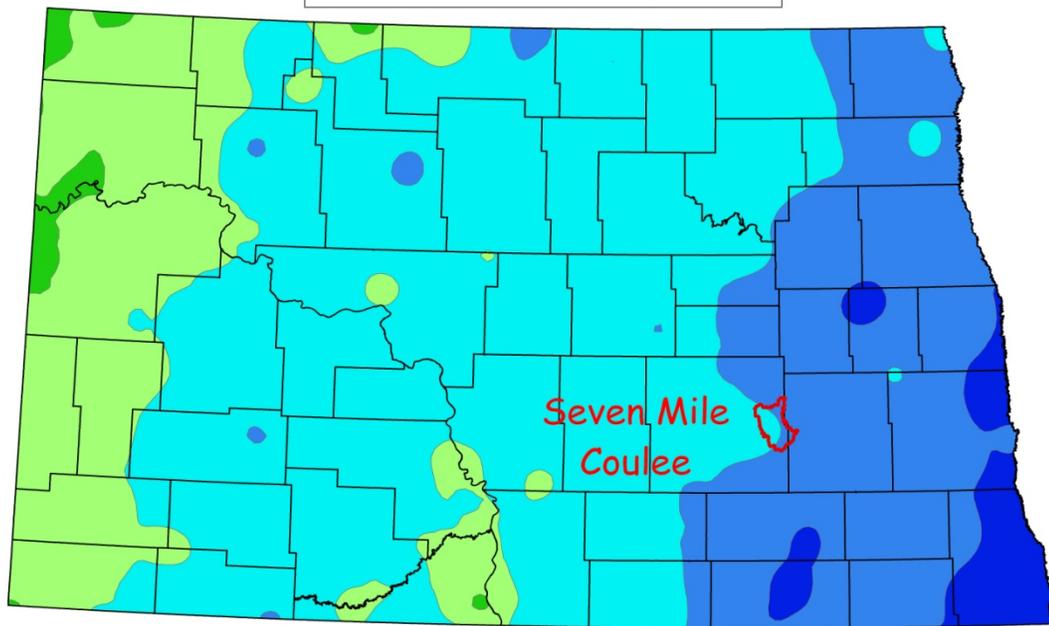
Seven Mile Coulee Aquifer Location



Beaver Creek
Average Annual Precipitation

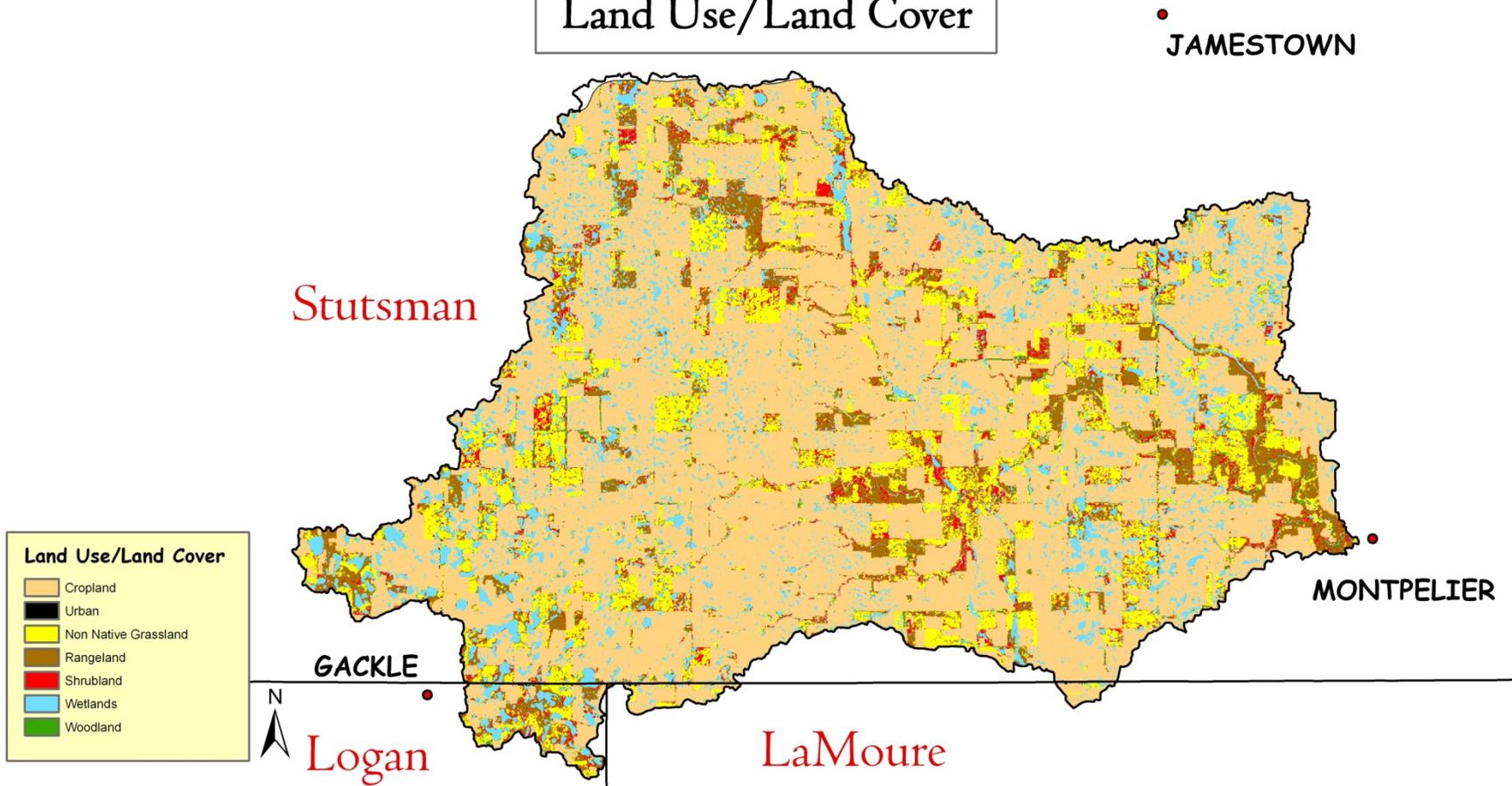


Seven Mile Coulee
Average Annual Precipitation

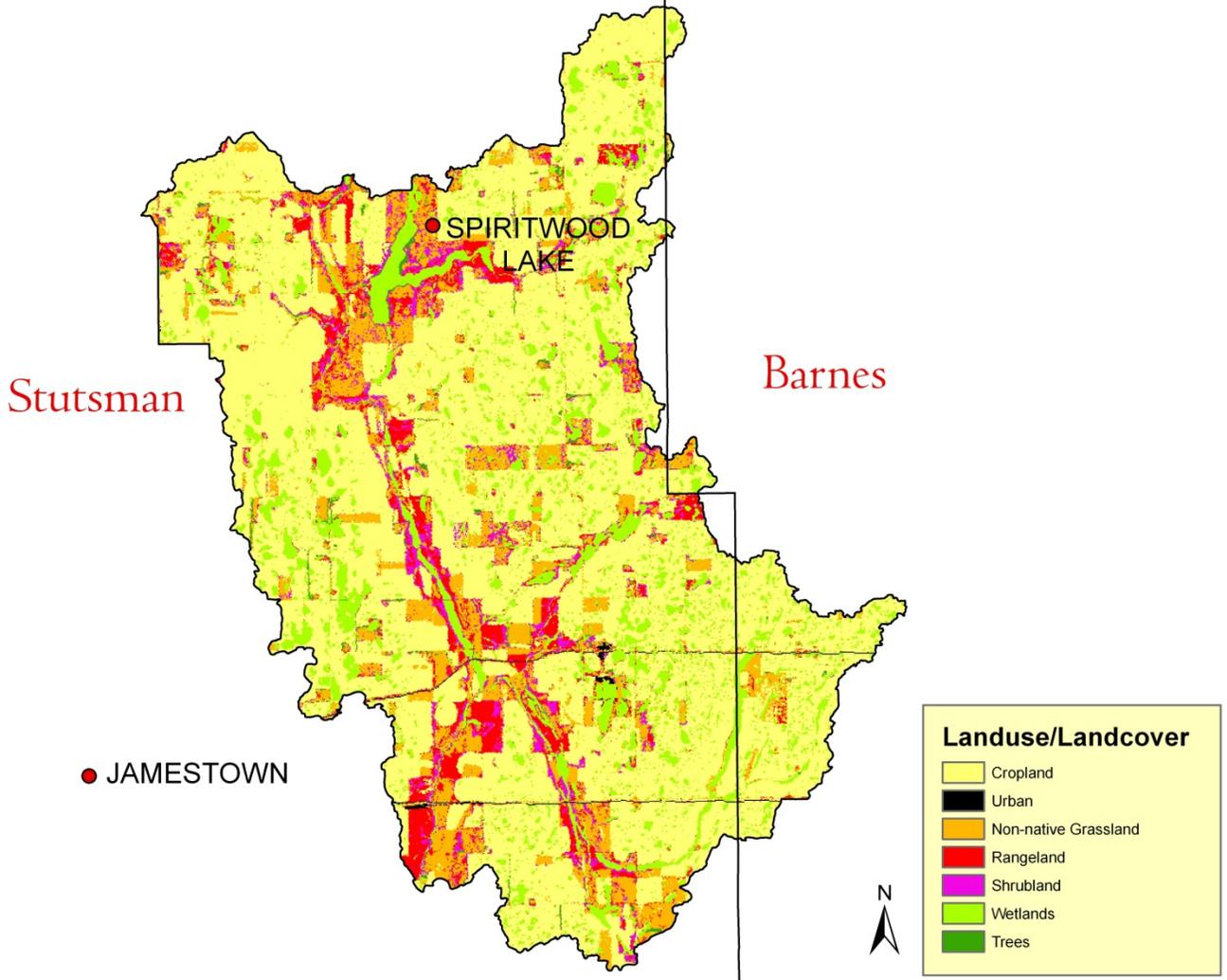


**Attachment 3
Land Use and Shaded Relief Maps**

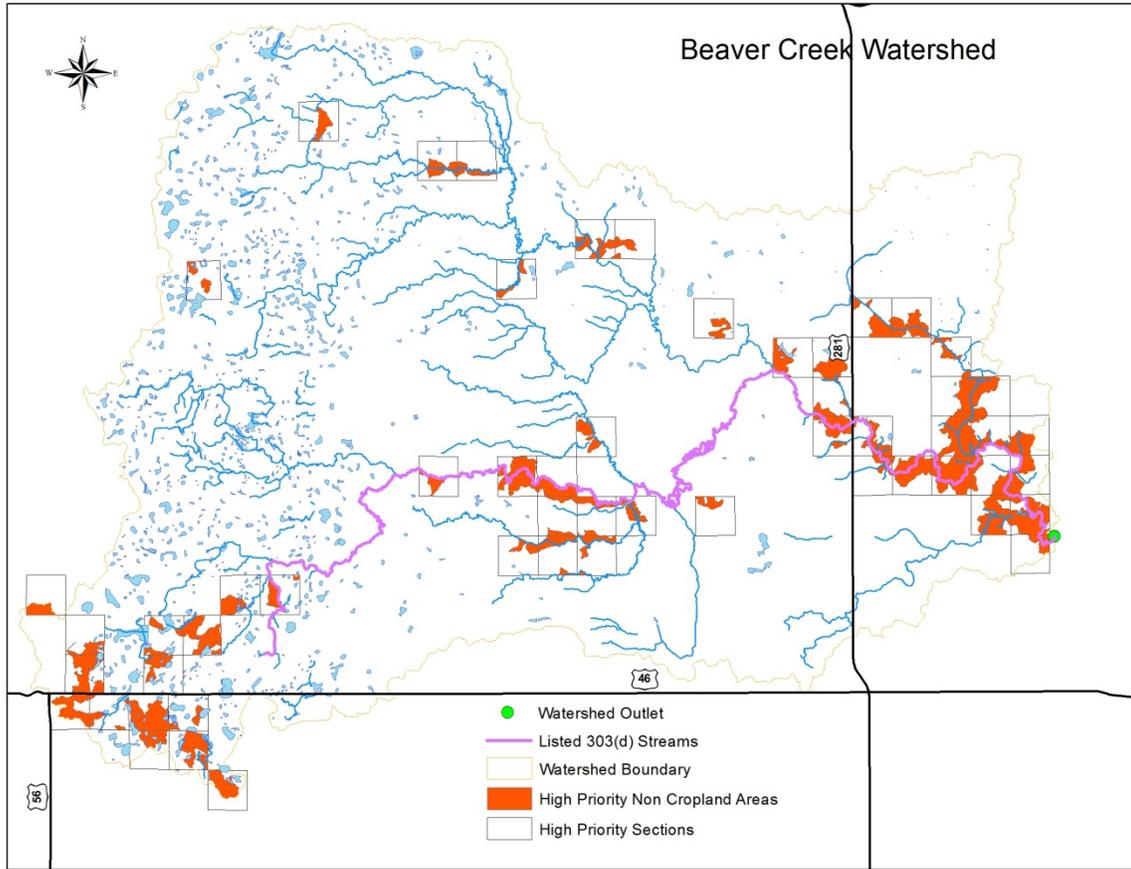
**Beaver Creek
Land Use/Land Cover**

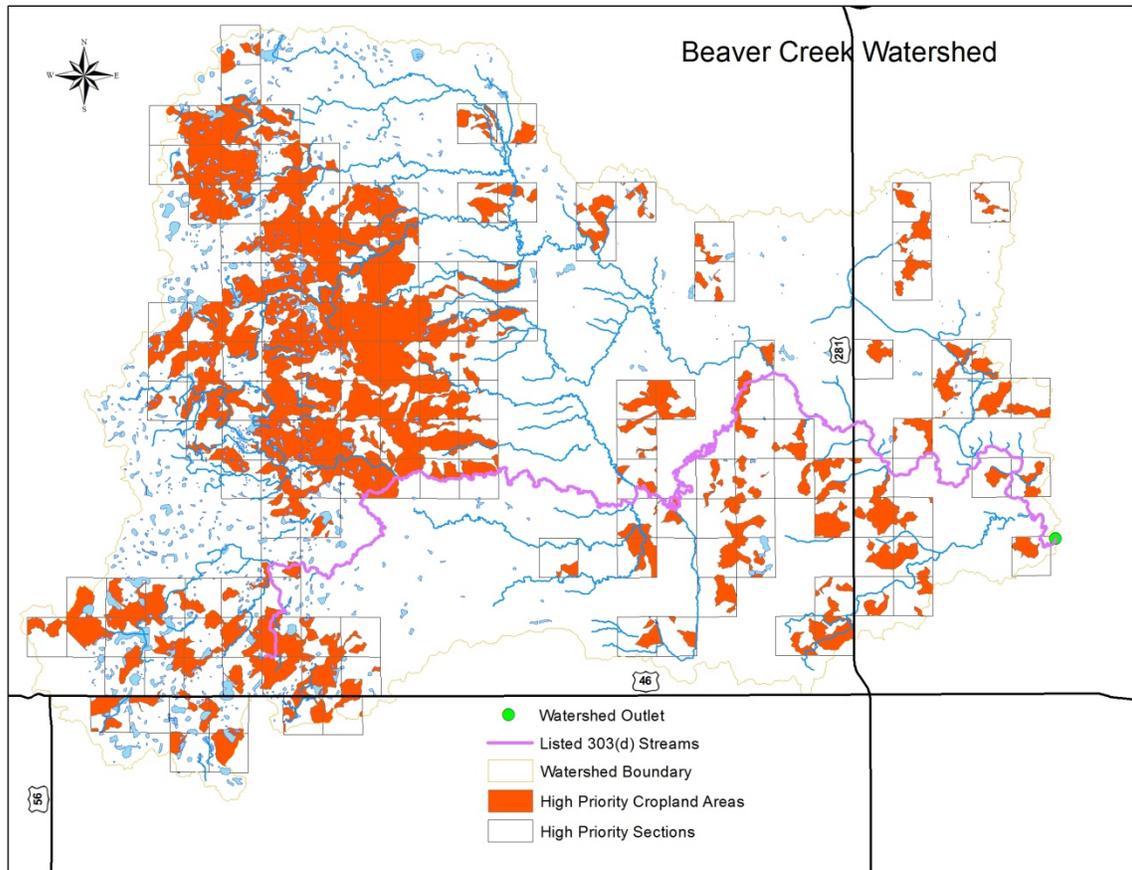


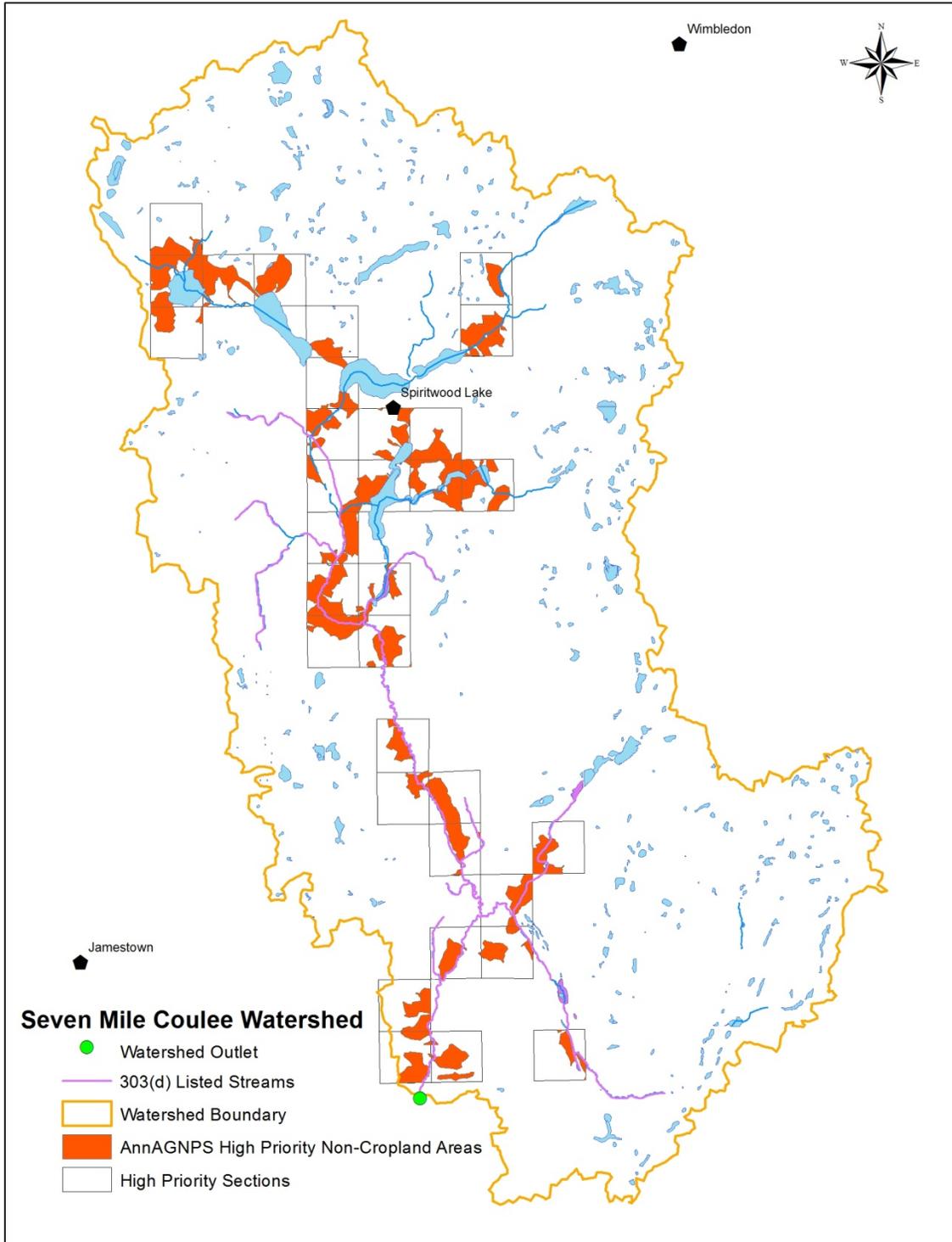
Seven Mile Coulee Land Use/Land Cover

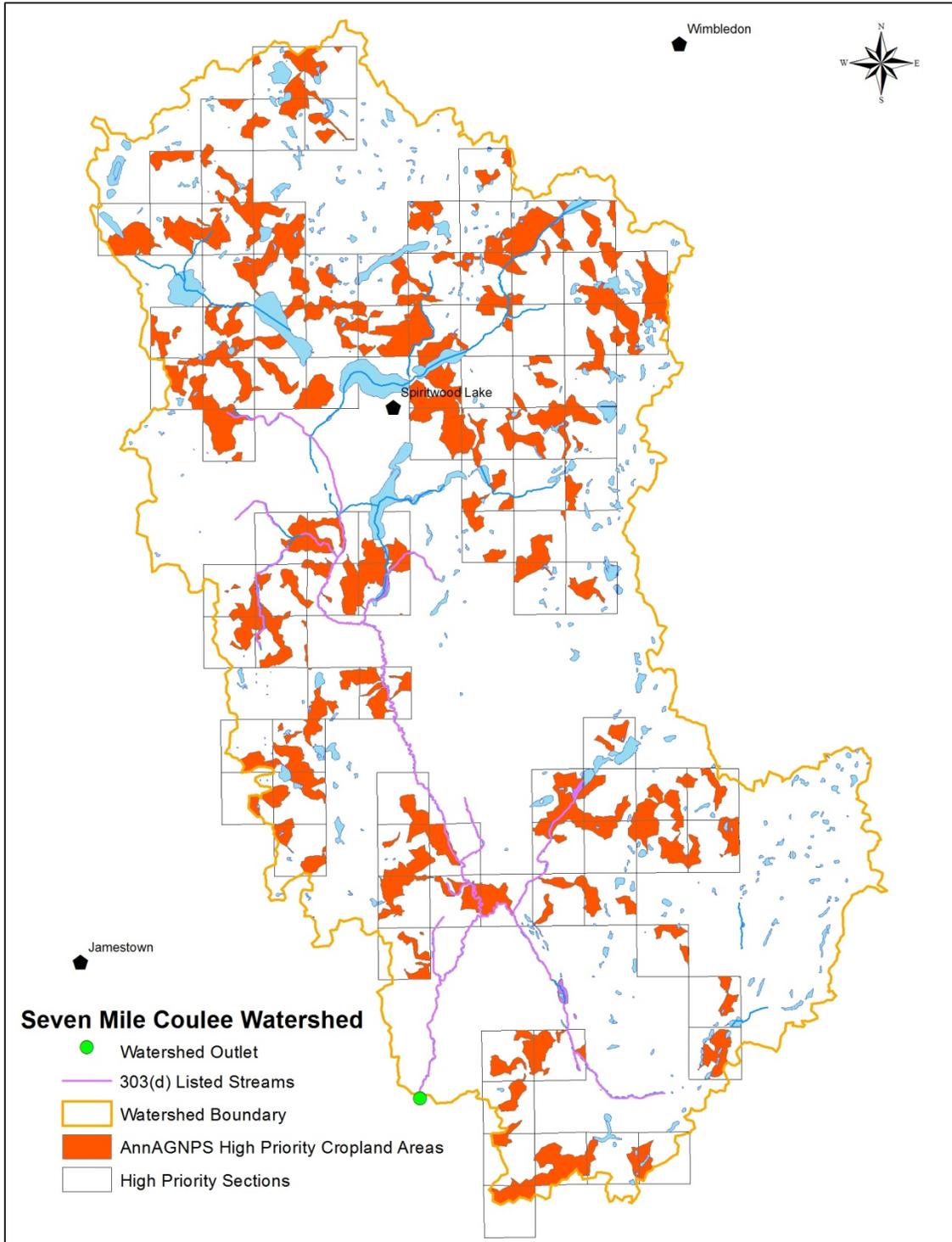


Attachment 4









Attachment 5

BMP Budget Table

Cropland and Rangeland

Practice:

590 Nutrient Management	1,995 acres @ \$5 x 2years	\$19,950
382 Fencing	100,000 lf @ \$1.35/lf	\$135,000
516 Pipeline	15,100 lf @ \$4.50/lf	\$67,950
614 Tank	10 tanks @ \$1,500/tank	\$15,000
642 Well	5 wells @ \$5,000/well	\$25,000
<u>512 P&H Planting</u>	<u>530 acres @ \$70/ac.</u>	<u>\$37,100</u>
	Total Cost	\$300,000
	40% Producer Share	\$120,000
	60% 319 Share	\$180,000

In-Kind Contributions from Producers:

(Value of Additional Producer Contributions. Not Expended from 319 BMP Funds.) Some of the land needed for nutrient management may be pasture/hayland, so 5,000 of these acres are estimated with prescribed grazing and nutrient management.

590 Nutrient Management	1,995 acres @ \$5 x 1 year	\$9,975
<u>528 Prescribed Grazing</u>	<u>4,000 acres @ \$5 x 3 years</u>	<u>\$60,000</u>
	Total Practice In-Kind	\$69,975

Animal Waste Systems

(Ag Waste Nutrient Management plans and acres are included in practice 590 as listed above.)

Practice:

<u>312 Livestock Manure Mgt. System 3 @ \$125,000</u>	<u>\$375,000</u>	
	40% Producer Share	\$150,000
	60% 319 Share	\$225,000

Riparian Area Management

(Riparian Management Plans are also included in practices 382, 516, 614, and 642 as listed above)

Practice:

Includes practices such as:

- 390 Riparian Herbaceous Cover
- 391 Riparian Forest Buffer
- 580 Streambank and Shoreline Protection
- 412 Grassed Waterway
- Other Practices found in Appendix A of the NPS Cost Share Guidelines for Best Management Practices

<u>Riparian Mgmt. Practices 3 mi stream area @ \$10,000/mi.</u>	<u>\$30,000</u>
40% Producer Share	\$12,000
60% 319 Share	\$18,000

Total BMP Costs: \$705,000

40% Producer Share \$282,000

60% 319 Funding Share \$423,000

PART 1: FUNDING SOURCES

	2013	2014	2015	2016	2017	TOTAL
EPA SECTION 319 FUNDS						
1) FY13 FUNDS (FA)	N/A	N/A	169,980	169,980	169,980	509,940
Subtotal	N/A	N/A	169,980	169,980	169,980	509,940
STATE/LOCAL MATCH						
1) Landowners 40% Practice Match(FA)	N/A	N/A	94,000	94,000	94,000	282,000
2) Landowners In-kind Management Year (FA)	N/A	N/A	23,325	23,325	23,325	69,975
3) Soil Conservation District Match (TA)	N/A	N/A	1,500	1,500	1,500	4,500
4) Farmers Union (FA)	N/A	N/A	800	800	800	2,400
Subtotal	N/A	N/A	119,625	119,625	119,625	358,875
TOTAL	N/A	N/A	289,605	289,605	289,605	868,815

2013 and 2014 are years that have planned BMP's and funding in place.

FA: Financial Assistance

TA: Technical Assistance

Part 1.5 OTHER FEDERAL FUND SOURCES

	2013	2014	2015	2016	2017	Total
1) Natural Resources Conservation Service (TA)	N/A	N/A	100,000	100,000	100,000	300,000
2) Environmental Quality Incentives Program, Conservation Reserve Program (FA)	N/A	N/A	500,000	500,000	500,000	1,500,000
3) North Dakota Department of Health (TA)	N/A	N/A	7,000	7,000	7,000	21,000
Total	N/A	N/A	607,000	607,000	607,000	1,821,000

2013 and 2014 are years that have planned BMP's and funding in place.
 TA: Technical Assistance
 FA: Financial Assistance

Beaver Creek and Seven Mile Coulee Restoration Project

PART 2: FUNDING

Section 319/Non-Federal Budget	2013	2014	2015	2016	2017	Total costs	*Cash Match	*In Kind Match	319 Funds
** Personnel/Support									
1) Salary/Fringe WC (35% of time for project)	N/A	N/A	24,500	24,500	24,500	73,500	0	29,400	44,100
2) Salary/Fringe WCT (35% of time for project)	N/A	N/A	14,000	14,000	14,000	42,000	0	16,800	25,200
3) Vehicle	N/A	N/A	4,200	4,200	4,200	12,600	0	5,040	7,560
4) Travel	N/A	N/A	1,000	1,000	1,000	3,000	0	1,200	1,800
5) Equipment/Supplies	N/A	N/A	1,000	1,000	1,000	3,000	0	1,200	1,800
6) Training	N/A	N/A	300	300	300	900	0	360	540
7) Telephone/Postage	N/A	N/A	400	400	400	1,200	0	480	720
SUBTOTALS	N/A	N/A	45,400	45,400	45,400	136,200	0	54,480	81,720
OBJECTIVE 1: APPLYING BEST MANAGEMENT PRACTICES									
Range & Cropland Mgmt. Systems	N/A	N/A	100,000	100,000	100,000	300,000	0	120,000	180,000
Animal Waste Systems	N/A	N/A	125,000	125,000	125,000	375,000	0	150,000	225,000
Riparian Management	N/A	N/A	10,000	10,000	10,000	30,000	0	12,000	18,000
SUBTOTALS	N/A	N/A	235,000	235,000	235,000	705,000	0	282,000	423,000
OBJECTIVE 2: INFORMATION/EDUCATION									
Newsletter/Video	N/A	N/A	1,000	1,000	1,000	3,000	1,200	0	1,800
Tours	N/A	N/A	1,000	1,000	1,000	3,000	1,200	0	1,800
SUBTOTALS	N/A	N/A	2,000	2,000	2,000	6,000	2,400	0	3,600
OBJECTIVE 3: Monitor									
**Sample Transportation	N/A	N/A	900	900	900	2,700	0	1,080	1,620
SUBTOTALS	N/A	N/A	900	900	900	2,700	0	1,080	1,620
ADMINISTRATIVE									
Secretary	N/A	N/A	1,000	1,000	1,000	3,000	0	3,000	0
SCD/Coordinator Meetings	N/A	N/A	500	500	500	1,500	0	1,500	0
SUBTOTALS	N/A	N/A	1,500	1,500	1,500	4,500	0	4,500	0
TOTAL 319/NON FED.	N/A	N/A	<u>\$284,800</u>	<u>\$284,800</u>	<u>\$284,800</u>	<u>\$854,400</u>	<u>\$2,400</u>	<u>\$342,060</u>	<u>\$509,940</u>

*Includes Match from both State and Local Sources

** Includes In-kind funds in producer match, as shown in BMP Budget Table. 2013 and 2014 are years that have planned BMP's and funding in place.

Attachment 6
Milestone table for Beaver Creek/Seven Mile Coulee
Watershed Project for Objectives 1,2,3

TASK / RESPONSIBLE ORGANIZATIONS	OUTPUT	Qty	2013	2014	2015	2016	2017
Task 1 – Conservation Planning on management practices. Group 1,2,3	Completed conservation plans on applied acres.	7,200 ac					
Task 2 – Install 3 livestock waste management systems. Group 1,2,3	Installed waste management systems.	3					
Task 3 – Treat streambank through erosion control and riparian buffers. Group 1,2,3,4	Management plans/completed practices on riparian areas.	At least 3 stream miles					
Task 4 – Follow-up contacts and monitor O&M agreements. Group 2,3	Database of applied BMP's	1					
Task 5 – Maintain a record of the locations, amounts, and costs of applied BMP and collect water quality and biological data as scheduled in the Quality Assurance Project Plan (QAPP). Group 3							
Task 6 – Organize and schedule I/E events. Group 1,2,3	Documentation of land use and water quality trends	1					
Task 7 - Prepare newsletters and direct mailings to promote the project and disseminate information on water quality and NPS pollution control. Group 1,3	5 tours / demonstrations, 3 workshops, 5 informational meetings	13					
Task 8 - Complete annual and final project reports. Group 3,4	10 newsletters and 15 direct mailings	25					
	Project Reports	5					

Group 1 – Natural Resources Conservation Service or similar partners (i.e. ND State Game and Fish, NDSU Extension, etc.) - Provide technical assistance to plan, design, and implement BMP's.
Group 2 – Landowners in Beaver Creek and Seven Mile Coulee watersheds – Make land management decisions and provide cash and in-kind match for BMP's.
Group 3 – Stutsman County Soil Conservation District – Local project manager and sponsor, including responsibilities for project coordination.
Group 4 – ND Department of Health – Statewide Section 319 program management including oversight of local 319 planning and expenditures.

Attachment 7 Project Progress

In the period from July 1, 2008 to September 1, 2012 the watershed board has met 19 times.

To date, approximately 21 producers have signed contracts and are in various stages of plan implementation. These contracts include the following practices:

Cultural Resource Review	1 (completed)
Range Planting	21.5 acres (completed)
Prescribed Grazing	1261.3 acres (planned)
	640 acres (completed)
Pasture/Hayland Planting	277.4 acres (planned)
	634.8 acres (completed)
Trough and Tank	1 (planned)
Pipelines	450 lf (planned)
	10,220.49 (completed)
Fencing for Grazing Systems	61,516 feet (planned)
	47,972 (completed)
Cover Crops	400 acres (planned)
	1218 acres (complete)
Animal Waste Systems Phase I	2 (planned), 2 (prelim design)
	1 (complete)
Animal Waste Systems Phase II	1 (complete)
Grassed Waterway	1 (planned)

An Internet web site has been created for the Stutsman County Soil Conservation District (www.stutsmanscd.org), which includes separate pages for the Beaver Creek and Seven Mile Coulee Watershed Projects (www.stutsmanscd.org/watershed_page.htm). Information on the project web site includes a narrative of the project, list of practices, project photos and a map of the watershed area. The web site is advertised in all mailings for the project and its use encouraged.

*Held Landowner Workshops in 2010, 2011 and 2012 at various locations with the watershed areas.

*Held an "Expired CRP and Salinity Plots" Tour in July, 2011.

*Held a Conservation Crop Plots Tour in July 2012.

*Held a tour and developed a project with Jeremy Wilson a watershed area producer.

*In March 2012, held a Water Management Workshop for area producers.

*Have mailed out ten newsletters and five direct mailings to local land users and have an updated database for mailings.

*Have implemented several special projects which include a Brown Bear manure composter, a Lawson Aerator, and a White no-till corn planter for custom seeding which has been modified for interseeding as well as the Expired CRP No-till Crop Plot and Saline Plot Project which is in its fourth year.