1.0 SHEYENNE RIVER IN RANSOM AND BARNES COUNTIES PROPOSAL SUMMARY SHEET

The Sheyenne River In Ransom and Barnes Counties
Ransom County Soil Conservation District

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State Contact – Emilee Novak
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State - North Dakota Watershed – Sheyenne River
Hydrological Unit Code – 09020204 High priority Watershed - yes

Project Type	Waterbody Types	NPS Category
Watershed		
Stream/River/Lake	Agricultural	

Project Location: Latitude - 46 degrees 26 minutes Longitude - 97 degrees 41 minutes

Major Goals: The primary goal of this project is to restore and/or protect the aquatic life and recreational uses of the Sheyenne River throughout Ransom and Barnes Counties in North Dakota. The long term water quality goals for the river are to maintain mean annual Nitrogen (N), Phosphorous (P) and Total Suspended Solids (TSS) concentrations at or below 1.047 mg/l; 0.215 mg/l; and 35 mg/l, respectively.

Project Description: To reduce the cumulative effects of NPS pollution within the Sheyenne River Watershed, the Ransom County Soil Conservation District (SCD), Barnes County (SCD), Natural Resources Conservation Service (NRCS) and Farm Service Agency (FSA) will provide financial and technical assistance for conservation planning and implementation of best management practice (BMP), as well as, increase understanding of NPS Pollution through information and education (I & E) programs. USDA and Section 319 funding will support these efforts.
The main project objectives are:
1) Reduce the sediment and nutrient inputs from farm fields and pasture/rangeland.
2) Reduce the pathogen/nutrient inputs from leaking or faulty septic systems, prioritizing systems within less than one mile to the Sheyenne River or its tributaries. (**appendix A2**), and
3) Increase public awareness to the causes, effects and solutions to NPS pollution.

Funding
FY 2026 319 Funds requested: $380,730
Match: $253,820
Other Federal Funds $450,000
Other State Funds $100,000
Total Project Cost: $1,225,730 319 Funded Full Time Personnel: 1 FTE

2.0 Statement of Need

2.1 Project Reference

The initial phase Ranson County Sheyenne River PTMApp Project focused on reducing the sources of sediment, nitrogen, and phosphorous on agricultural lands in Ransom County to reduce potential threats to aquatic life and recreational uses of the Sheyenne River in the county. With these same goals in mind it has been determined that the need in this area reached beyond the initial project scope and a basin-wide approach involving multiple upstream and downstream partners will allow for a more comprehensive addressment of NPS concerns. The collaboration with Barnes County SCD to refine the project scope and expand the project to include the Sheyenne River drainage below Baldhill Dam will allow for the financial and technical assistance provided through the program to better address identified impairments.

The 2022 Integrated Report Section 305(b) and Section 303(d) lists multiple segments along the Sheyenne (and its tributaries) where water quality is impaired. These segments include:

1. The Sheyenne River from Lake Ashtabula downstream to its confluence with a tributary above Valley City, near the railroad bridge (ND-09020204-040) – Impaired due to flow regime modification, physical substrate habitat alterations, and sedimentation/siltation.
2. The Sheyenne River from the railroad bridge downstream to its confluence with a tributary below Valley City (ND-09020204-034) – impaired due to flow regime modification, physical substrate habitat alterations, and sedimentation/siltation.
3. The Sheyenne River from its confluence with a tributary watershed below Valley City downstream to its confluence with a tributary near Highway 46 located in south central Barnes County (ND-09020204-027) – impaired due to fish and other aquatic biota conditions as well as flow regime modification, physical substrate habitat alterations, and sedimentation/siltation.
4. Spring Creek upstream from Clausen Springs Dam located in southern Barnes County (ND-09020204-031) – impaired due to dissolved oxygen affecting fish and aquatic biota as well as E. coli having an effect on recreation.
5. Spring Creek from its confluence with the Sheyenne River upstream to Clausen Springs dam including all tributaries located in south central Barnes County (ND-09020204-032) impaired for recreational use due to E. coli.
6. Sheyenne River from its confluence with a tributary near Highway 46 downstream to the low head dam located just east of the Highway 32 bridge in Lisbon, ND (ND-09020204-025) impaired due to Fecal Coliform influencing recreational use.
7. Sheyenne River from the low head dam just east of Highway 32 bridge downstream to its confluence with Dead Colt Creek located in Ransom County (ND-09020204-022) impaired for recreation due to E. coli.
8. Deadcolt Creek Dam is a flood control and recreational structure on a tributary to the Sheyenne River in south central Ransom County (ND-09020204-021). Built in 1980 the reservoir has a watershed of 41,400 acres of highly fertile agricultural lands – impaired for fish and aquatic biota due to dissolved oxygen and nutrients. It is also impaired for recreational use due to nutrients.
9. An unnamed tributary of the Sheyenne River located in NE Ransom County and Richland County (ND-09020204-017) impaired due to benthic macroinvertebrate bioassessments, fish bioassessments, physical substrate habitat alterations, and sedimentation/siltation.

2.2 Waterbody Description

The Lower Sheyenne Watershed HUC (09020204) begins in northern Barnes County and ends where the Sheyenne River empties into the Red River 50 miles northeast of where it exits Ransom County. The segment of the Sheyenne River, being addressed through this project begins at the outlet of the Baldhill Dam, runs south through Valley City, meanders through southern Barnes County where it enters the northwest corner of Ransom County, continues to meander through the central part of the Ransom County, and exits the eastern border of Ransom County. (see appendix A1). The mainstem of the Sheyenne River is perennial and the tributaries are all intermittent or ephemeral. The Sheyenne River Watershed covers approximately 295,000 acres in Ransom County and approximately 350,000 acres in Barnes County.

The main stem of the Sheyenne River (600,000 + acres) flows continuously throughout the year. The flows of the Sheyenne River are influenced by the operation of the Baldhill dam north of Valley City. There are several low head impoundments located on the Sheyenne River, including one within the town of Fort Ransom and one directly north of Lisbon in Ransom County, and one located near Valley City in Barnes County.

2.3 Maps

Watershed location map (appendix A1)
Potential Septic Contributors (appendix A2)

2.4 General Information

The Sheyenne River Watershed, below Baldhill Dam in Barnes County and through Ransom County covers approximately 295,000 acres in Ransom County and 350,000 acres in Barnes County in Southeastern North Dakota. There is one main tributary to the Sheyenne River in Barnes County, Spring Creek and two in Ransom County, Timber Coulee and Dead Colt Creek.

The majority of the watershed lies within the Drift Plains of the Northern Glaciated Plains ecoregion. There are also small areas of Glacial Outwash and Tewaukon Dead Ice Moraine located in a portion of the watershed. This ecoregion is characterized by flat to gently rolling terrain composed primarily of glacial drift. The Eastern area of the watershed lies within the Sand Deltas and Beach Ridges of the Glacial Lake Agassiz ecoregion.

The climate of this region is subhumid. The average annual precipitation is approximately 19 inches. 78%, about 15 inches, occurs during the growing season, April through September. Average snowfall is approximately 34 inches. The average daily summer temperature is 85 degrees Farenheight. Northwest is the prevailing wind direction. 11.5 miles per hour is the average annual wind speed.

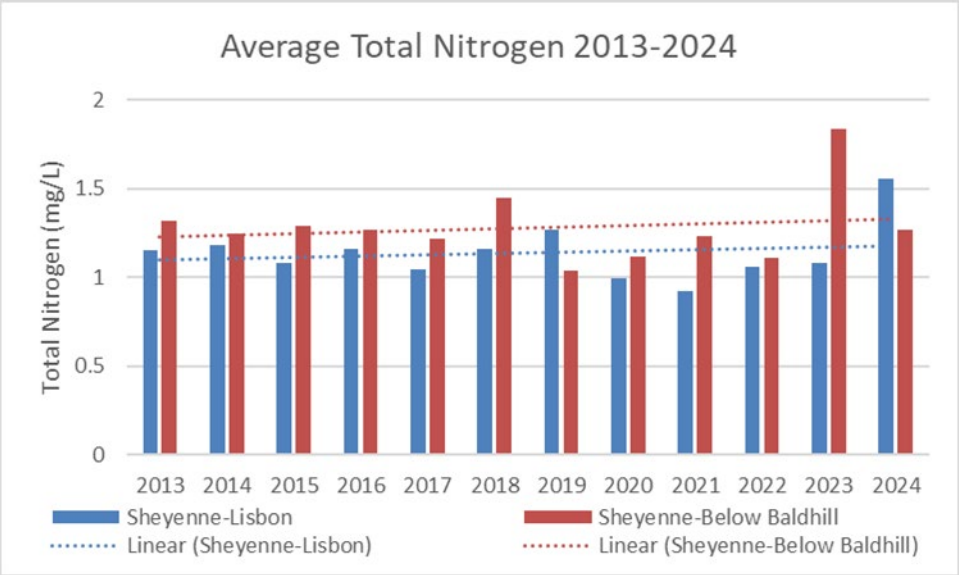
Land use within the Sheyenne River Watershed is primarily agricultural. The major crops grown are corn, soybeans, spring wheat and sunflowers. Minor crops are dry beans, millet, potatoes and winter wheat. Spring wheat, corn, soybeans is a typical rotation within the Sheyenne river watershed. The Sheyenne National Grasslands cover approximately 2,200 acres in the eastern Sheyenne River Watershed near the Ransom/Richland border. The livestock enterprises are primarily cow/calf operations.

2.5 Water Quality

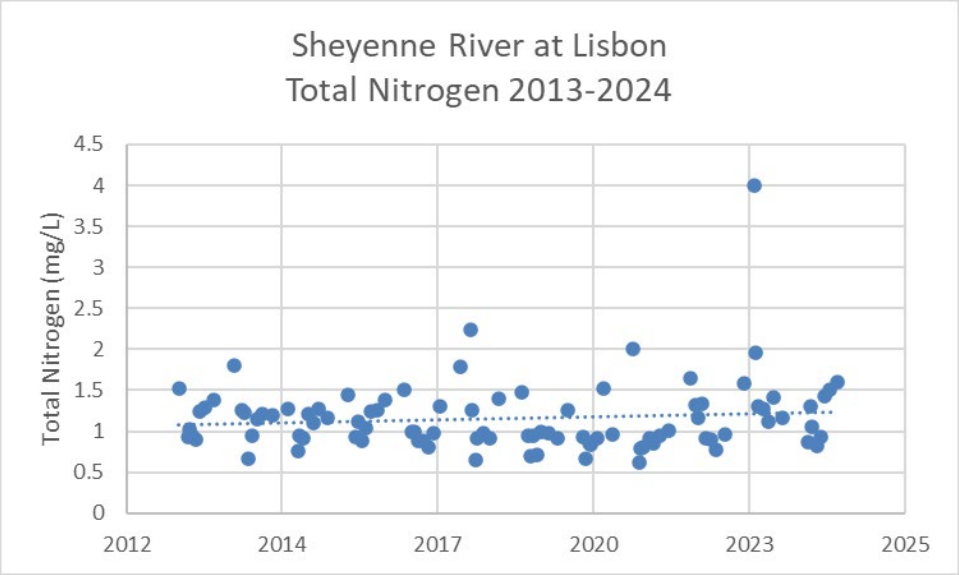
The NDDEQ Ambient Monitoring site on the Sheyenne River in Lisbon has changed locations over the years. It was on the southeast end of town 2002-2012 (385169), then moved to bridge on the north side of town 2013-2015 (385168), back to the southeast end of town for 2016 and 2017 before moving north to downstream of the low-head dam 2018-onward (385628). For simplicity, I combined all three sites for trends. Site 380153 is at the upstream end of the proposed project area, just below Baldhill Dam. It has been an ambient monitoring site since 1998.

Total Nitrogen (TN)

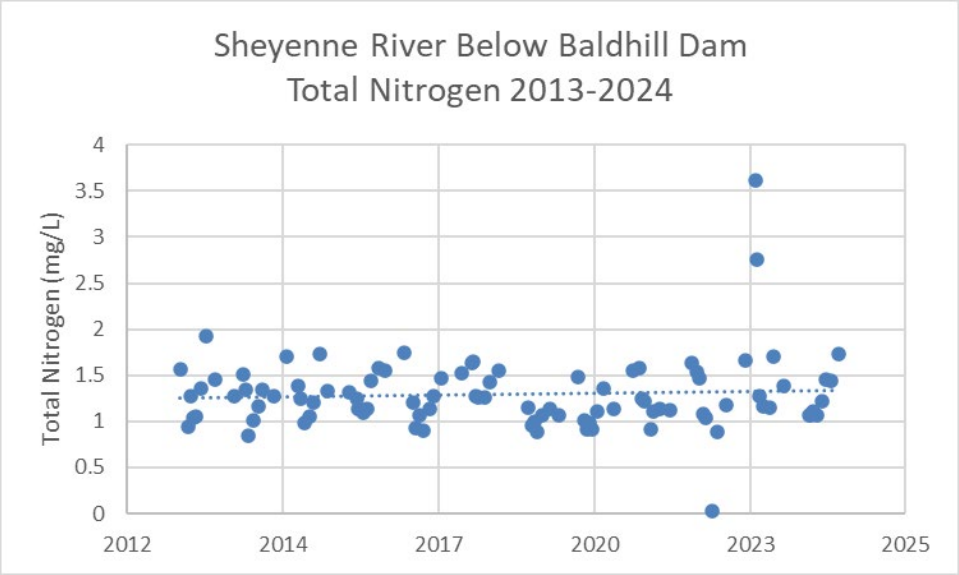
Roughly 50% of the Total Nitrogen samples (47 of 96) collected at the Sheyenne River at Lisbon exceed the ecoregion chemical stressor threshold values of 1.047 mg/L for moderately disturbed sites for macroinvertebrates. At the site below Baldhill dam, more than 80% of samples (80 of 98) exceeded the chemical stressor threshold for macroinvertebrates.



Average Total Nitrogen for NDDEQ Ambient Monitoring sites on the Sheyenne River in Lisbon and below Baldhill dam, 2013-2024. Total Nitrogen is increasing at both locations and is higher at the upstream site (380153) most years.



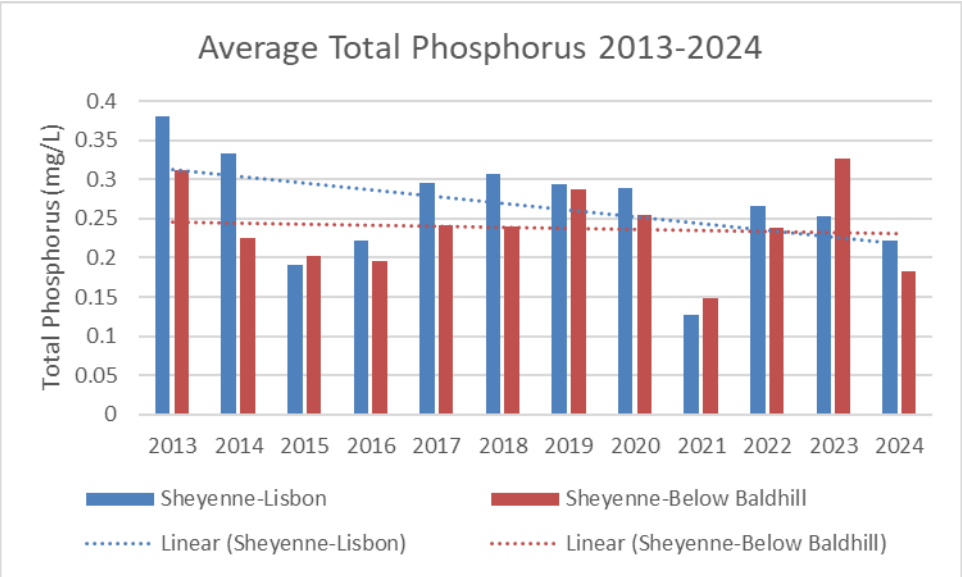
Total Nitrogen concentrations have increased slightly at the Sheyenne River at Lisbon sites, 2013-2024.



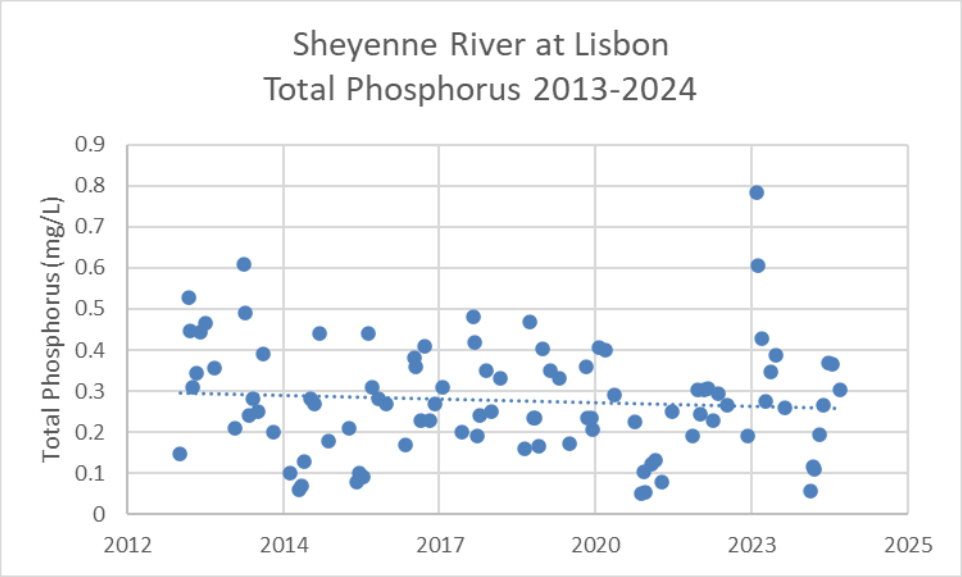
At the Sheyenne River below Baldhill Dam, Total Nitrogen concentrations have a slightly increasing trend, 2013-2024.

Total Phosphorus (TP)

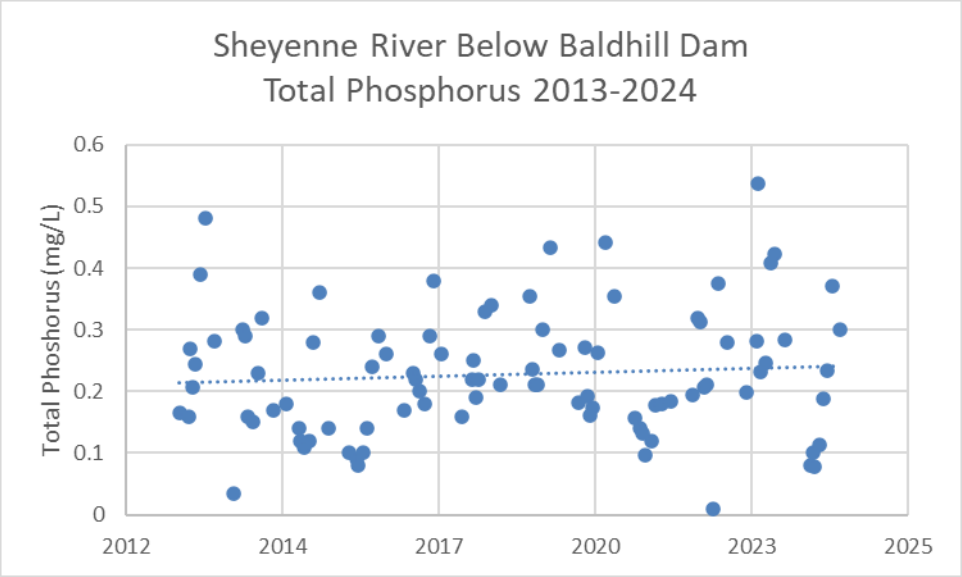
The ecoregion chemical stressor level for macroinvertebrates at moderately disturbed sites is 0.215 mg/L for Total Phosphorus. At the Sheyenne River in Lisbon, 69% (66 of 96) of samples collected 2013 to 2024 exceeded the threshold. At the Sheyenne River below Baldhill Dam, 46% (45 of 98) of samples collected 2013-2024 exceeded the threshold.



Average annual Total Phosphorus for NDDEQ Ambient Monitoring sites on the Sheyenne River in Lisbon and below Baldhill dam, 2013-2024. At Lisbon, the average annual TP concentration has decreased since 2013. The *average annual* TP concentration below Baldhill Dam (red above) has also decreased slightly since 2013, but as shown below, the actual concentrations have an increasing trend. The average annual Total Phosphorus exceeds the threshold of 0.215 mg/L most years. The average annual TP concentration for the Sheyenne River at Lisbon was below the threshold in 2015 and 2021. At the Sheyenne River below Baldhill Dam, the average annual TP concentration was below the threshold in 2015, 2016, 2021 and 2024.

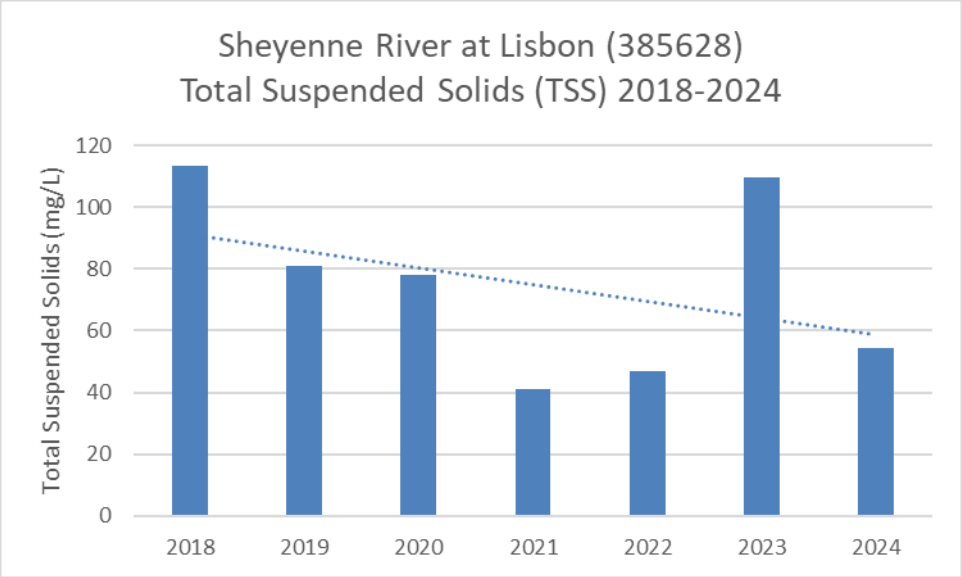


The average Total Phosphorus concentrations have decreased at the Sheyenne River at Lisbon sites, 2013-2024.

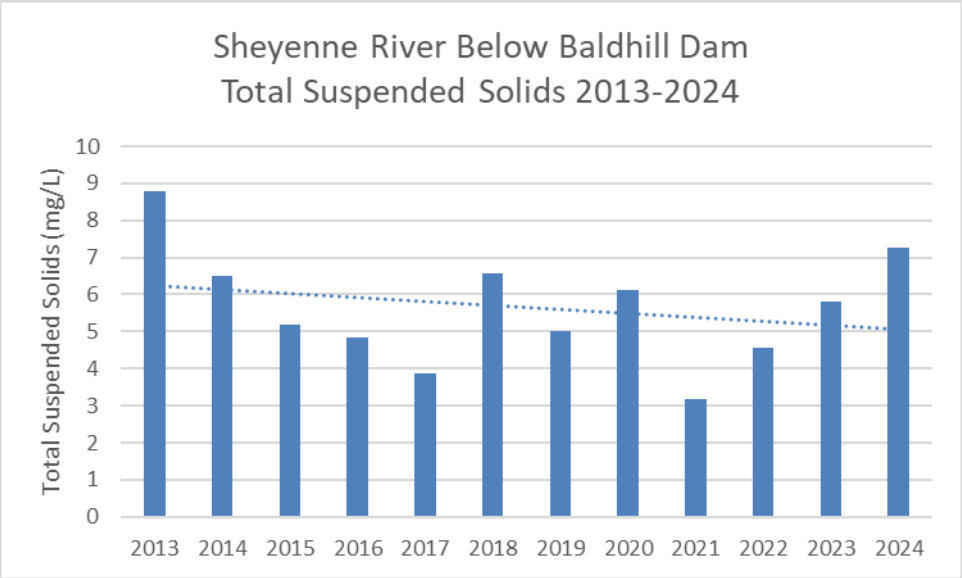


At the Sheyenne River below Baldhill Dam ambient monitoring site (380153), Total Phosphorus concentrations have a slightly increasing trend, 2013-2024.

Total Suspended Solids (TSS)



Average Total Suspended Solids concentrations have decreased at the Sheyenne River, north side of Lisbon, site 385628 only, 2018-2024. The NDDEQ Ambient Monitoring Site moved to below the low-head dam on the north side of Lisbon in 2018, some solids are likely settling out above the dam.



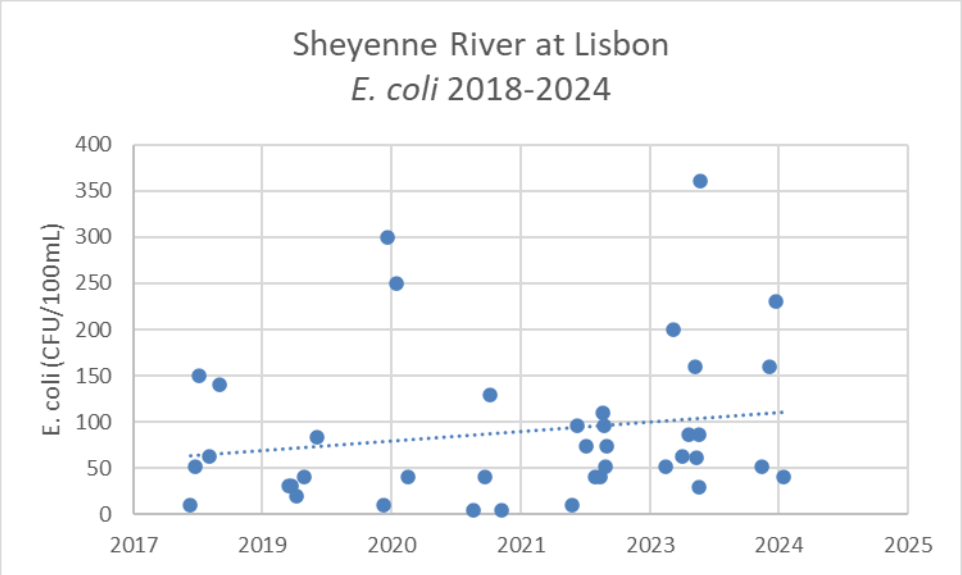
Average Total Suspended Solids concentrations have decreased at the Sheyenne River below Baldhill Dam ambient monitoring site 380153, 2013-2024. Concentrations below the laboratory detection limit have been set to half the detection limit (2.5 mg/L) for calculations. Also note the vertical is different than for the Lisbon sites as the concentrations are much smaller at this site.

E. coli

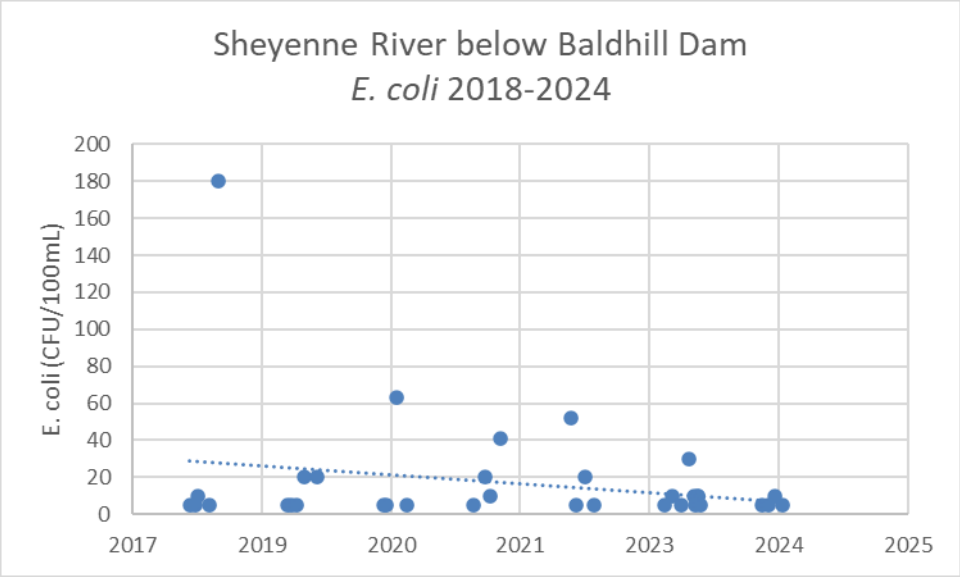
Recreation use in streams is assessed based, in part, on the amount of *Escherichia coli (E. coli)* bacteria in a river or stream. *E. coli* concentrations in streams can be highly variable. As a result,

the state water quality standard is two parts: 1) a monthly geometric average (≤ 126 CFU/100mL) and 2) ≤ 10% monthly samples exceed 409 CFU/100mL during the recreation season, May through September. To compare the average to the state water quality standard, a minimum of five samples should be used per month, samples were combined across 2018-2024. NDDEQ does not collect ambient monitoring samples in September. Additional sampling was completed in September 2023 and 2024 at the Lisbon site (385628), as well as at the site below Baldhill Dam (380153) in September 2023. Samples below the laboratory detection limit were set to half the detection limit (5 CFU/100mL) for calculations.

Sheyenne River at Lisbon 2018-2024 *E. coli* (CFU/100mL)				
Month	**# of Samples**	**Geometric Mean**	**Samples > 409**	**Recreation Use Assessment**
May	9	21	0%	Fully Supporting
June	7	102	0%	Fully Supporting
July	7	99	0%	Fully Supporting
August	6	40	0%	Fully Supporting
September	11	83	0%	Fully Supporting



E. coli concentrations at the Lisbon monitoring site have been increasing since 2018. Concentrations below the detection limit have been set to half the detection limit (5 CFU/100mL).



Sheyenne River Below Baldhill Dam 2018-2024 *E. coli* (CFU/100mL)				
Month	**# of Samples**	**Geometric Mean**	**Samples > 409**	**Recreation Use Assessment**
May	9	6	0%	Fully Supporting
June	7	7	0%	Fully Supporting
July	7	13	0%	Fully Supporting
August	6	17	0%	Fully Supporting
September	6	9	0%	Fully Supporting

E. coli concentrations at the Sheyenne River site below Baldhill Dam have been decreasing since 2018, most of the samples are below the detection limit and have been set to 5 CFU/100mL for calculations.

Data collected during past projects also supports the results of the data collected from the ambient site near Lisbon. Past project water quality reports go into detail on the water quality concerns within the Sheyenne River Watershed. Results from these past projects are on file with the NDDEQ. Listed below are excerpts from the previous projects reports that support the continued need for the installation of additional BMPs, these BMP's would include practices such as notill, nutrient management, manure management systems, prescribed grazing systems, riparian buffers and filterstrips. These practices should be targeted toward identified priority areas to ensure greater success in reducing the delivery of E. coli bacteria, sediments and nutrients to the Sheyenne River in Ransom County. A strong I/E program will also help to inform farmers and ranchers of the benefits of BMPs and the effect that NPS pollution has on water quality. The following are examples of supporting statements from previous project reports.

Water Quality Monitoring Results for the Deadcolt Creek TMDL Implementation Project August 2014

"The Dead Colt Creek TMDL Implementation Project did not attain its goal of an in-lake mean total phosphorus concentration of 0.041 mg/L. Site 380340 saw a thirty two percent increase in mean total phosphorus from 2010 to 2013. This also correlates with an average Secchi Disk Depth measurement data that indicates a decrease in clarity of the reservoir from 2010 to 2013."

Water Quality Monitoring Results for the Timber Coulee Watershed October 2019
"E. coli bacteria concentrations continue to be extremely high for all three years of the project. A number of the samples resulted in 2000+ CFU/100mL count, whereas the majority of samples were above the NDDEQ's water quality standard of 126 CFU/100mL.

A common theme with the goals of these past projects is that they were not met and there is still work that needs to be done. Prioritize, Target, Measure Application (PTMApp) may be utilized to better guide program personnel through decisions and application of BMPs throughout the project area. The PTMApp enables project managers to determine water quality management needs more effectively by mapping major nutrient or sediment sources, establishing priority areas in specific fields, and identifying feasible locations for BMP implementation. With advancements in technology being an ever-evolving industry this project will pursue any potential applications or programs that work to guide the placement of conservation practices and track successes post implementation. The technological world is making advancements daily and with the onset and so far, unknown capabilities of AI, project sponsors would be remiss not to allow for development of potential applications and leave the capability of working with something that may not exist today.

One such application was utilized toward the end of Sheyenne River Project phase one called the Wayfindr app. It was developed by the International Water Institute (IWI), the same organization that developed PTMApp. The Wayfindr App can determine load reduction from practices on specific fields to ***Measure*** the success of that practice. The Measure function of PTMApp was never fully developed, but the Wayfindr App is supplemental to that. A collection of practices were put into the App to determine a Measure of success. A map of these practices in the watershed and a certificate of success that shows the Measure of success can be seen in Figures 1 and 2.

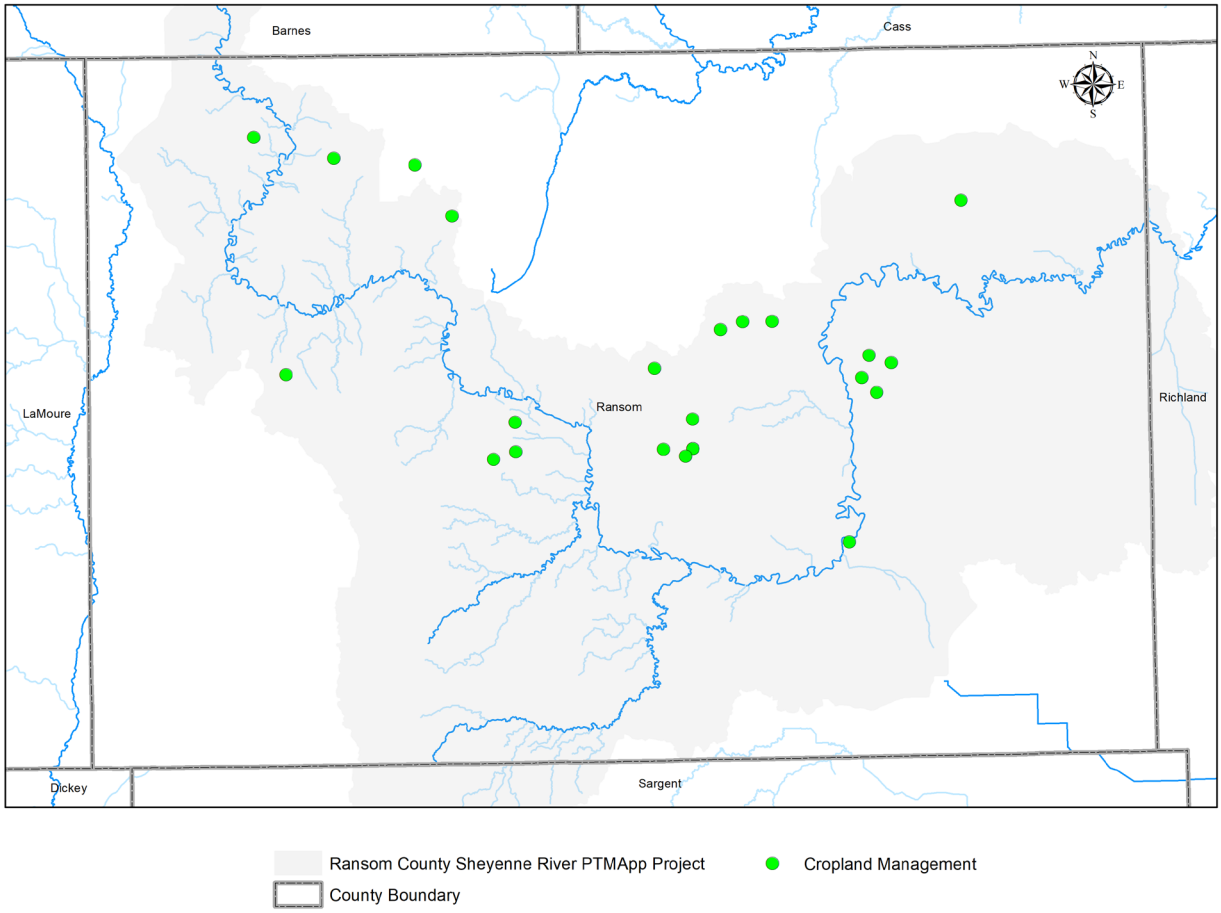


Figure 1 – Wayfindr field locations in the Sheyenne River watershed in Ransom County

Figure 2 – Wayfindr certificate summarizing the annual reduction in Phosphorous, Soil erosion, and the added infiltration of water due to a combination of Strip Till, No-Till, and CRP practices installed during the previous Sheyenne River project in Ransom County. Fields locations provided in **figure 1.**

3.0 Project Description

3.1 Goal

The primary goal of this project is to restore and/or protect the aquatic life and recreational uses of the Sheyenne River throughout Ransom and Barnes Counties in North Dakota. The long term water quality goals for the river are to maintain mean annual Nitrogen (N), Phosphorous (P) and Total Suspended Solids (TSS) concentrations at or below 1.047 mg/l; 0.215 mg/l; and 35 mg/l, respectively.

A secondary goal of this project is to provide education and disseminate information to producers and other members of the community about ways to mitigate nonpoint source (NPS) pollution in both urban and rural areas.

3.2 Objectives

Objective 1- Hire staff to coordinate and organize the project with other local agencies (i.e. NRCS, NDSU EXT, water resource, county and city boards) and provide technical assistance to farmers and ranchers in the Sheyenne River Watershed.

Task 1- Employ one watershed coordinator to coordinate the project and provide one-on-one conservation planning assistance to producers in the project area. Includes salary/fringe, travel, equipment, training, and telephone.

Product- One watershed coordinator (1 FTE)

Cost - $400,000

Task 2 – Provide staff training for the delivery of conservation technical assistance. Staff will utilize PTMApp, Wayfindr App, and other available technology to identify major nutrient or sediment sources, establish priority areas in specific fields, and identify feasible locations for BMP implementation.

Product- Reports and maps for setting watershed and field priorities; assisting producers with planning, tracking project progress and estimating N, P, and TSS load reductions per BMP.

Cost- Included in task 1

Objective 2- Address identified sources of nonpoint source pollution through the implementation of BMPs.

Task 3 – Utilize 319 funds along with others like EQIP, CRP, Pheasants Forever, and other NGO's to provide financial assistance to producers for the implementation of BMPs. Use Lidar mapping and Apps to determine priorities. Use other program funds to support practices in lower priority areas when needed.

Product - Conservation Planning for approx. 5 contracts per year for 2026-2030.

Cost- $595,000

Task 4 – Provide assistance to property owners within 1 mile of the river or major tributaries with the replacement of leaking and faulty septic systems.

Product – Total of 10 systems renovated

Cost - $150,000

Objective 3- Maximize producer adoption of effective BMP by increasing their understanding of feasible BMP options to improve water quality.

Task 5 – Organize and conduct I/E events that focus on NPS pollution control within the watershed and coordinate with ongoing state/federal sponsored I/E programs.

Product – Four workshops, four tours/demonstrations, and five informational meetings. To include emphasis on water quality impacts from practices such as cover crops, livestock waste management, crop rotation, nutrient management, minimizing tillage, and others.

Cost - $5,000

Task 6 – Prepare newsletter articles and direct mailings to local land users, general public and media to promote project and disseminate information on water quality and NPS pollution control

Product – Minimum of five newsletters, 25 news releases, and six direct mailings.

Cost - $4,500

Task 7 – Complete semi-annual, annual and final project reports. These will be provided to NDDEQ, EPA and all sponsors and interested individuals.

Product – Annual and semi-annual reports, and one final report.

Cost – included in task 1.

3.3 Milestone: See attached milestone, (appendix B3)

3.4 Permits

All necessary permits will be acquired. These may include CWA Section 404 permits; cultural resource inventories; etc. Project staff will also work with the NDDEQ to determine if National Pollution Elimination System permits are needed for potential livestock manure management systems.

3.5 Appropriateness of lead sponsor

The Ransom County SCD will be the lead sponsor of this watershed project. The Ransom County SCD's annual and long range plans help to prioritize and provide guidance to the field staff. The Ransom County SCD board has legal authority to employ personnel and receive and expend funds. The Ransom County SCD board has a track record for personnel management and addressing conservation issues. The Barnes County SCD will provide insight into their county's needs based on their annual and long range plans. Regular monthly meetings are held and will be an avenue for project coordination between Ransom and Barnes Counties. The Watershed Coordinator will attend meetings with both counties regularly to maintain a healthy relationship between Ransom and Barnes counties.

3.6 Operation and Maintenance

Project staff will ensure that any Section 319 funded BMPs are properly installed and operated throughout the BMP life span. Cropland BMPs such as notill, nutrient management, and pasture/hayland plantings will be monitored every year of their lifespan. Any structural BMPs will be evaluated in the first year and spot-checked thereafter. A signed O&M agreement will accompany any structural BMPs requiring engineering assistance (in the design packet). These agreements will outline proper operation and maintenance for the landowner to follow. Practices implemented with life spans longer than the project's life span will be the responsibility of the NDDEQ. In some cases, such as livestock containment facilities, permits from the NDDEQ will enforce the O&M of the system throughout its life. If a producer abandons or destroys a BMP before the end of the life span, the producer will be required to pay back all Section 319 funds given previously for the installation of the BMP.

4.0 Coordination Plan

4.1 Cooperating Organizations

1) Ransom County Soil Conservation District (RCSCD)- The Ransom County SCD will be the signatory of the Section 319 contract and will be the lead agency responsible for project administration. They will provide vehicles, clerical assistance, and supplies as annual financial support. The RCSCD board will oversee implementation of the scheduled project activities and provide staff time if feasible. The board will be the primary supervisor of the watershed coordinator and all Section 319 funded activities.

2) Barnes County Soil Conservation District will provide assistance to the watershed coordinator whenever feasible. Regular monthly meetings will be held to assist the coordinator in meeting the needs of the producers in Barnes County. Barnes County staff will provide assistance whenever possible to assist with project needs.
3) Natural Resource Conservation Service (NRCS) – The NRCS will provide office space and equipment. They will also provide day-to-day assistance in conservation planning, plan writing, contract writing, and technical assistance for construction and installation of planned BMPs. Standards and specifications for approved BMPs will be provided by local NRCS personnel from the Electronic Field Office Technical Guide (eFOTG). EQIP funds will also be available to producers in the watershed area.
4) North Dakota Department of Environmental Quality (NDDEQ) – The NDDEQ will oversee 319 funding. The state NPS information and education coordinator will assist the project staff in development and implementation of the project's I/E activities. The NDDEQ will provide the sponsor with oversight to ensure proper management and expenditures of Section 319 funds. They will assist NRCS and the RCSCD personnel in review of O&M requirements for Section 319 funded BMPs. The NDDEQ will also provide analytical support for water quality samples and, if needed, develop the monitoring plan for the project.
5) Farm Service Agency (FSA) – Programs like CRP, available through FSA will be available to producers in the watershed area.
6) North Dakota Extension Service (EXT) – Local and State personnel and education materials will be utilized to compliment the project's I/E activities. The specific role of EXT will be dependent on the type of I/E activity being implemented and the availability of EXT staff and materials.
7) Funding sources from Pheasants Forever, Ducks Unlimited, Natural Resources Trust, ND Outdoor Heritage Fund, and other State and National organizations will be pursued to benefit the project in any way possible.
8) Section 319 NPS-BMP Team - when engineering assistance is required for installation of BMP's the NPS-BMP Team will be utilized.

4.2 Local Project Support

The Ransom County Soil Conservation District (RCSCD) and Barnes County Soil Conservation District boards will stand behind this project and provide all that is needed for it to succeed. Both boards have the ability to levy taxes to support this project if needed. Additional funds are also available through services offered by the Districts like tree planting and equipment rental.

4.3 Funding Coordination

The funding of best management practices in the Sheyenne River Watershed project area will be coordinated with the Environmental Quality Incentives Program (EQIP) funding from future farm bills. The watershed conservationist and NRCS staff will work closely to determine how 319 and EQIP funds can be utilized to provide the most cost-effective benefits to producers and support water quality improvements in the watershed.

4.4 Other Watershed Activities

Phase 1 of the Sheyenne River Project will be active through November 30, 2026.

5.0 Evaluation and Monitoring Plan

5.1-5.4 SAP, Monitoring Strategy, and Modeling

PTMApp and other apps will enable project staff to more effectively determine water quality management needs by helping to identify major nutrient or sediment sources, establishing priority areas in specific fields, and identifying feasible locations for BMP implementation.

Project staff will continue to explore other resources with the capabilities to track practice effectiveness through time.

Given the total acreage and potential pollutant sources upstream from the project area, in-stream monitoring will not be effective over the short term. Instead, PTMApp, the Pollution Load Estimation Tool (PLET), or other tools will be used as an interim measure to generate estimated N, P or TSS load reductions associated with applied BMP. If needed, the Animal Feedlot Runoff Risk Index Worksheet (AFRRIW) will be used to estimate N and P load reductions associated with manure management systems addressing animal feeding operations.

Over the long term, the NDDEQ ambient monitoring sites (appendix A1) will be used to track trends in E. coli bacteria, N, P and TSS concentrations during and after the project. The N, P and TSS data presented in Section 2.5 reflects the pre-project baseline conditions. Total nitrogen, phosphorous and TSS data collected during the project will be compared to the baseline data to evaluate post-project trends and improvements. E. coli bacteria data collected the final two years of the project will be pooled and used to evaluate the recreational use status. NDDEQ staff will also collect macroinvertebrate samples at the end of the project to evaluate the status of aquatic life use. All water quality data will be collected and managed by NDDEQ staff according to the NDDEQ QAPP and applicable SOP's.

5.5 Long-term Funding

No long-term funding by Section 319 funds is necessary. Operation and maintenance of restoration activities are the sole responsibility of the landowner, whether public or private.

6.0 Budget

6.1 Project Budget

See attached budget tables part1 (appendix B1) and part 2 (appendix B2). The budget has been calculated for a five-year period 2027-2031.

7.0 Public Involvement

The Ransom County Soil Conservation District has sponsored several 319 projects including:

- 2003-2004 Sheyenne River Assessment project
- 2003-2004 Dead Colt Creek TMDL project
- Lower Sheyenne Project 2010
- Deadcolt Creek TMDL Implementation Project August 2014
- Timber Coulee Watershed October 2019

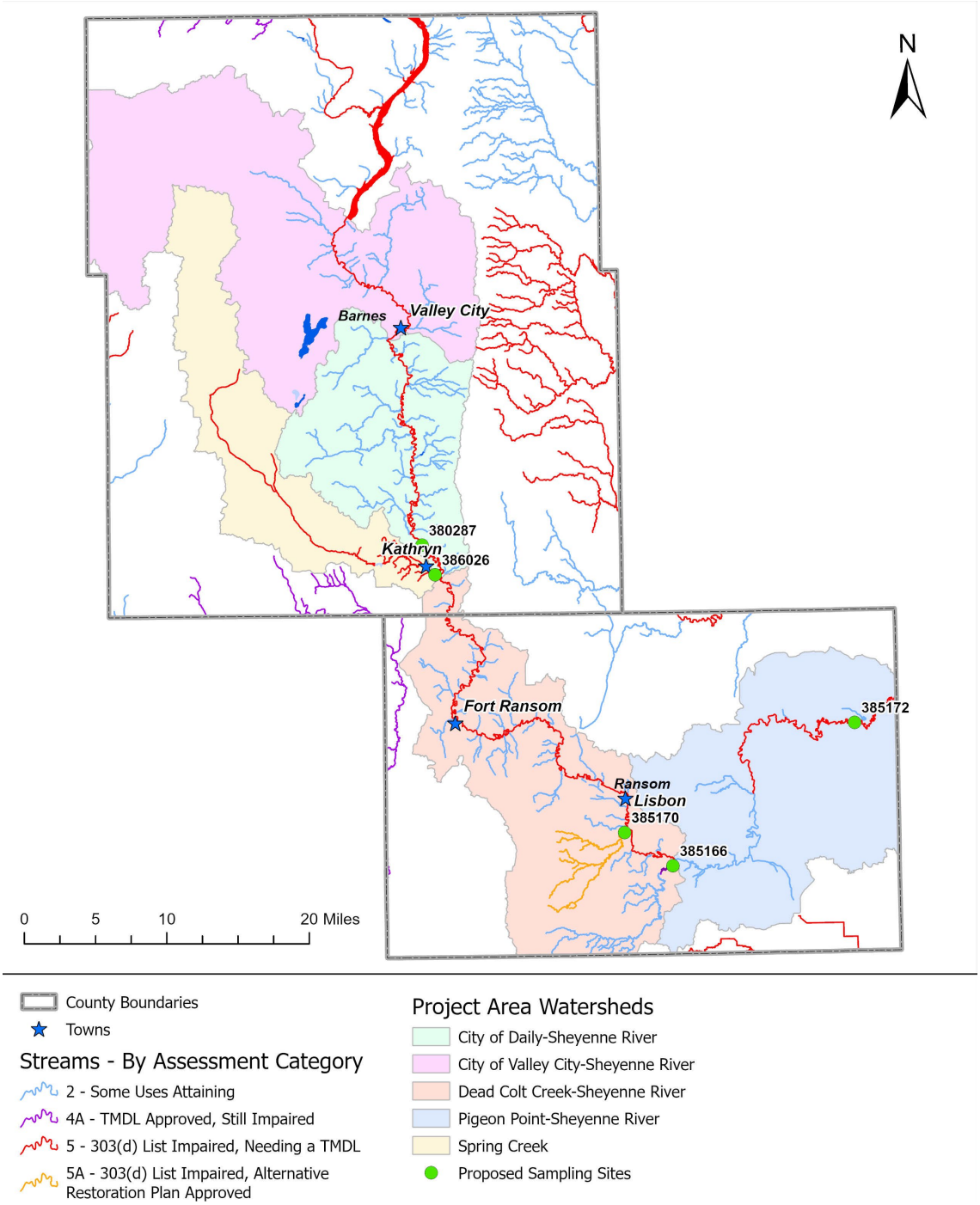
The public was involved in all projects. The Ransom County SCD sponsors an EcoEd camp every year for local seventh grade students at Fort Ransom State Park. This camp is used to inform youth of natural resource conservation issues. They also sponsor conservation speakers at local schools. And annual educational tours/demonstrations each year to inform the public on conservation measures. The District currently manages the NPS-BMP Team and has done so successfully for 6 years. The Ransom County SCD feels that public involvement in the Sheyenne River Watershed Project is guaranteed.

The Barnes County Soil Conservation District is excited to get involved with another watershed project as they have sponsored projects in the past and hope to utilize this project to meet the needs set forth by their annual plan of work and long-range plan. Barnes County SCD has successfully sponsored 319 watershed projects in the past and currently manages the statewide Eco-Ed Program supported by Section 319 funds. Barnes County will serve as an advisor for projects and programs in Barnes County. Project coordinator will meet with Barnes County regularly for input and to report project progress. A support letter from Barnes County SCD can be found in appendix C.

Appendix A

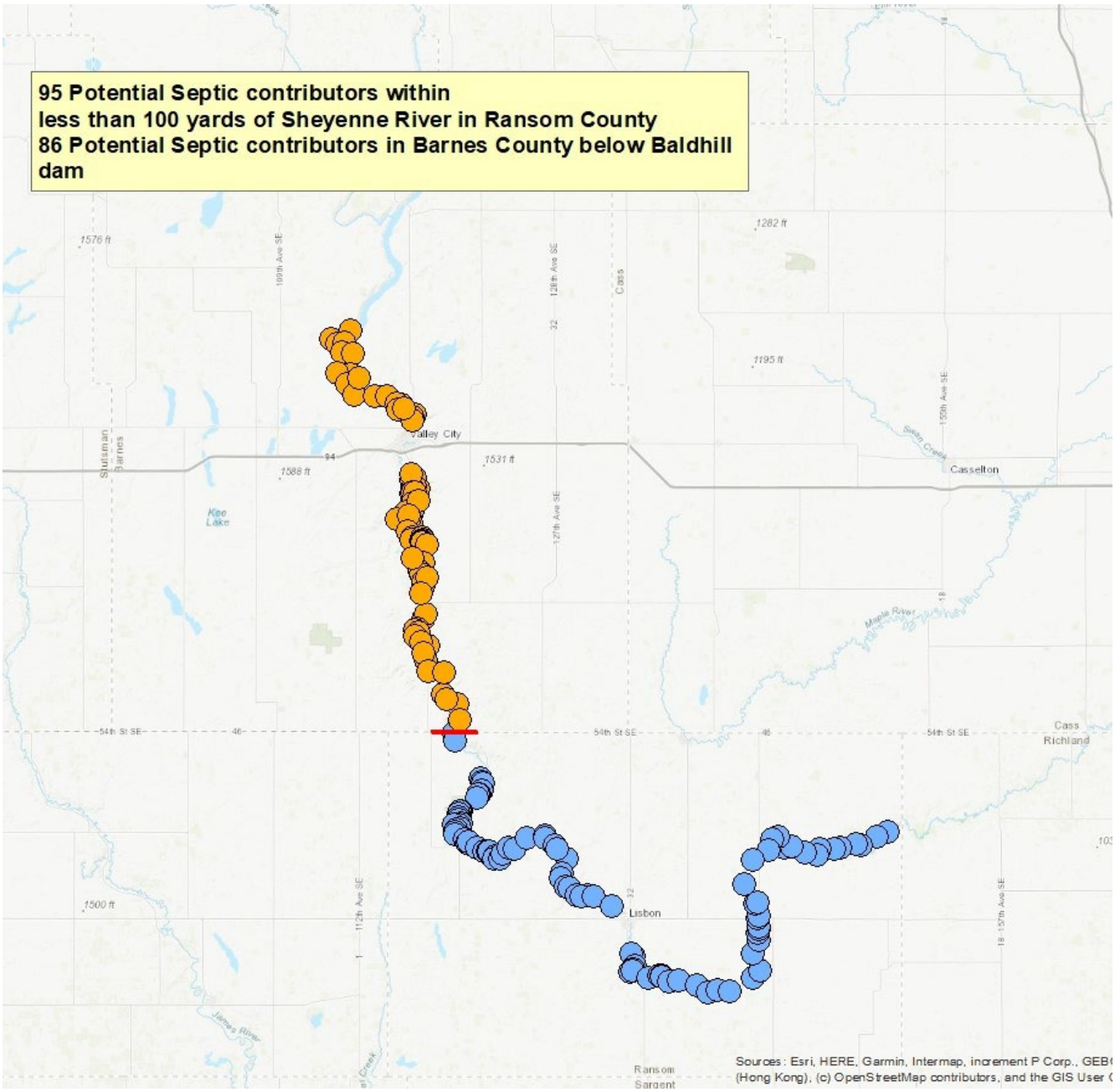
Reference Maps

A1



Proposed project area including streams, subwatersheds, current sampling sites, and proposed sampling sites.

A2



Potential septic sites within one mile of the Sheyenne River in Barnes and Ransom Counties.

Appendix B

Budget, Milestone, Agreement Provisions

B1 **Budget Table for the Sheyenne River in Ransom and Barnes Counties Watershed Project**

	2027	2028	2029	2030	2031	Total Cost
EPA 319 Funds	52,170.00	79,170.00	88,170.00	89,760.00	71,460.00	380,730.00
Subtotal	52,170.00	79,170.00	88,170.00	89,760.00	71,460.00	380,730.00
Other Federal Funds						
1) NRCS - EEQIP (FA/TA)	50,000.00	50,000.00	50,000.00	50,000.00	50,000.00	250,000.00
2) FSA - CRP (FA)	40,000.00	40,000.00	40,000.00	40,000.00	40,000.00	200,000.00
Subtotal	90,000.00	90,000.00	90,000.00	90,000.00	90,000.00	450,000.00
State/Local Match						
1) Ransom County SCD (TA/FA)	10,000.00	10,000.00	10,000.00	10,000.00	10,000.00	50,000.00
2) Barnes County SCD (TA/FA)	10,000.00	10,000.00	10,000.00	10,000.00	10,000.00	50,000.00
2) NDDEQ (TA)	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	5,000.00
3) DU/PF/G&F - OHF (FA)	20,000.00	20,000.00	20,000.00	20,000.00	20,000.00	100,000.00
4) Landowners (TA/FA)	30,000.00	40,000.00	40,000.00	40,000.00	40,000.00	190,000.00
Subtotal	71,000.00	81,000.00	81,000.00	81,000.00	81,000.00	395,000.00
Total Budget	213,170.00	250,170.00	259,170.00	260,760.00	242,460.00	**1,225,730.00**

TA - Technical Assistance
FA - Financial Assistance
NRCS - Natural Resource Conservation Service
FSA - Farm Service Agency SCD - Soil Conservation District
NDDEQ - North Dakota Department of Environmental Quality

B2 Sheyenne River in Ransom and Barnes Counties Implementation Budget

	2027	2028	2029	2030	2031	Total Cost	Local Cash	Section 319 Funding	NRCS & FSA Funding	Misc. State Funding
Section 319/non federal budget										
Objective 1: coordination/personnell/support										
1) salary/fringe	80,000.00	80,000.00	80,000.00	80,000.00	80,000.00	400,000.00	160,000.00	240,000.00		
2) travel	3,000.00	3,000.00	3,000.00	5,000.00	5,000.00	19,000.00	7,600.00	11,400.00		
3) equipment/supplies	600.00	600.00	600.00	600.00	600.00	3,000.00	1,200.00	1,800.00		
4) training	500.00	500.00	500.00	500.00	500.00	2,500.00	1,000.00	1,500.00		
5) telephone/postage	850.00	850.00	850.00	1,500.00	1,500.00	5,550.00	2,220.00	3,330.00		
Subtotal	84,950.00	84,950.00	84,950.00	87,600.00	87,600.00	430,050.00	172,020.00	258,030.00		0
Objectives 2 Conservation Planning										
1) Cropland BMP's	0.00	10,000.00	10,000.00	10,000.00	0.00	30,000.00	12,000.00	18,000.00	250,000.00	
2) Range/Pasture BMP's	0.00	5,000.00	5,000.00	5,000.00	0.00	15,000.00	6,000.00	9,000.00		
3) Septic System replacement	0.00	30,000.00	45,000.00	45,000.00	30,000.00	150,000.00	60,000.00	90,000.00		
4)filterstrips/bufferstrips/critical area planting									200,000.00	100,000.00
Subtotal	0.00	45,000.00	60,000.00	60,000.00	30,000.00	195,000.00	78,000.00	117,000.00	450,000.00	100,000.00
Objective 4 : I/E programs										
1) workshop,tours,meetings	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	5,000.00	2,000.00	3,000.00		
2) newsletters,articles,mailings	1,000.00	1,000.00	1,000.00	1,000.00	500.00	4,500.00	1,800.00	2,700.00		
Subtotal	2,000.00	2,000.00	2,000.00	2,000.00	1,500.00	9,500.00	3,800.00	5,700.00		
Total	86,950.00	131,950.00	146,950.00	149,600.00	119,100.00	**634,550.00**	**253,820.00**	**380,730.00**	**450,000.00**	**100,000.00**

B3

Sheyenne River in Ransom and Barnes Counties Watershed Project Milestone Table

	Task/Responsible Organizations	Output	Qty.	Year 1 2027	Year 2 2028	Year 3 2029	Year 4 2030	Year 5 2031
Objective 1:	**Entity 1**							
Task 1	Employ watershed conservationist	Watershed Conservationist	1	1	1	1	1	1
Task 2	Use of technology for practice priority	PTMApp progress reports				ongoing		
Objective 2:	**Entity 1,2,3,4**							
Task 3	Cropland and pasture practices	Conservation Contracts	35	0	10	10	10	5
Task 4	Septic systems	Renovation of faulty septic	10	0	2	3	3	2
Objective 3:	**Entity 1,2,3,4**					ongoing		
Task 5	Organize and conduct I/E events	Workshops,tours, meetings	10	2	2	2	2	2
Task 6	Project promotion through media	Newsletters, articles, mailings	9	1	2	2	2	2
Task 7	Complete reports	annual/final reports	5	1	1	1	1	1

Entity 1 - Ransom County SCD - Local project sponsor, responsible for project coordination, reimbursement payments, match tracking, and progress reporting to the NDDEQ. Also provides technical assistance to plan, design and implement BMP's.

Entity 2 - Barnes County SCD - Local project sponsor, responsible for project coordination, provide personnel on an as needed basis for technical assistance with BMP implementation.

Entity 3 - Landowners in the Sheyenne River Watershed in Ransom County - Make land management decisions and provide cash and in-kind match for BMPs.

Entity 4 - Natural Resource Conservation Service - Provides technical assistance to the Ransom County SCD for implementation of BMP's. Also provides financial assistance for BMP's to landowners through the EQIP program.

Entity 5 - North Dakota Department of Environmental Quality - Statewide section 319 program management including oversight of local 319 planning and expenditures.

B4

Section 319 Cost Share Agreement Provisions

(Must be attached to the producer's CPO)

Each undersigned person agrees to participate in the Section 319 Conservation Plan of Operation (CPO) and to comply with the following terms set forth and approved by the Section 319 Project Sponsors for the period covered by this agreement. The terms are as follows:

- The conservation and/or environmental practices identified herein address all the major nonpoint source pollution (NPS) concerns on the identified land units and will directly or indirectly improve the water quality and beneficial use conditions in the watershed project area. The specific corrective measures needed to reduce identified NPS pollution impacts to water quality and beneficial uses of the targeted waterbody are contained in the Conservation Plan Schedule of Operations (CPO) approved by the Section 319 Project Sponsors. All practices shall be performed according to the CPO and in accordance with the Natural Resources Conservation Service (NRCS) standards and specifications or alternative standards approved by the NPS Program that are in effect at the time the practice is performed. The practices shall be maintained for their normal lifespan even though the agreement has expired. Section 319 cost-share assistance for eligible practices will be issued upon completion of the practice and as scheduled in the agreed upon CPO or subsequently revised CPO approved by the cooperating producer/operator and Section 319 Project Sponsors.

- The undersigned person recognizes that the implementation of some practices in the CPO may result in the generation of eligible in-kind match and the in-kind match value of the specific practices scheduled in the CPO has been reviewed with Section 319 project staff. Based on the information reviewed and contained in the CPO, the undersigned agrees to donate the in-kind match as scheduled in the CPO to the Section 319 Project Sponsors to support technical assistance provided by the project.

- Application for payment of Section 319 cost share assistance obligated for the completed practices scheduled under this agreement will be made on the NPS Program "Application for Payment" form which upon approval by the Section 319 Project Sponsors will become part is this agreement.

- Each undersigned person is jointly and severally responsible for compliance with the terms and conditions of this agreement as to the conservation and environmental problems that will be addressed by the best management practices (BMP) identified in the CPO on the specified land units on which the undersigned is an owner and/or operator. In the event it has been determined the undersigned has failed to comply with the terms and conditions of this agreement, a refund of the Section 319 cost share payment must be made to the Section 319 Project Sponsors. Failure to comply with the terms and conditions will be defined as a violation of one or more of the following actions:

- The undersigned voluntarily destroys the practice(s) installed with Section 319 cost share assistance.

- The undersigned does not maintain the cost shared practice in a fully functional condition for the approved lifespan of the practice. *[Note: If the undersigned voluntarily relinquishes control and/or title to the land on which the cost shared practice(s) have been established, the new owner and/or operator of the land should be informed of the maintenance requirements of the cost shared practice(s) and be encouraged to properly maintain the practice(s) for the remainder of the approved lifespan.]*

- A practice failure is determined by the Project Sponsors to be caused primarily by the fault of the undersigned.

I, the undersigned, certify that I have read and understand the provisions listed above:

Signature:_____ Date:_____

Appendix C

Support letter

C1

BARNES COUNTY
SOIL CONSERVATION DISTRICT

110 Winter Show Rd. SW, Suite 3 | Valley City, ND 58072 | 701-845-3114 Ext. 3
www.barnescountyscd.com

October 17, 2025

Emilee Novak
North Dakota Department of Environmental Quality
4201 Normandy Street
Bismarck, ND 58503-1324

Subject: Letter of Support for 319 Watershed Project Application

Dear Ms. Novak,

The Barnes County Soil Conservation District is pleased to express its full support for the 319 Watershed Project grant application being submitted by Mr. Bob Flath for the Sheyenne River. Our board recognizes the importance of this project in addressing water quality concerns and promoting conservation efforts within the watershed.

At our September board meeting, the Barnes County Soil Conservation District Board made a motion to proceed with supporting this application and partnering with Mr. Flath of Ransom County on this important initiative. We believe this collaboration will greatly enhance the project's effectiveness and provide long-term benefits to the Sheyenne River watershed and surrounding communities.

We appreciate the North Dakota Department of Environmental Quality's consideration of this proposal and look forward to the opportunity to work together on improving and protecting our state's valuable water resources.

Sincerely,

Charlene Stenson

Charlene Stenson

Chair, Barnes County Soil Conservation District's Board of Supervisors