PROJECT TITLE: Rapid Creek Watershed Project Segment 1

1.0 PROJECT SUMMARY SHEET

PROJECT PERIOD: September 1, 2025 – August 31, 2028

NAME, ADDRESS, PHONE AND E-MAIL OF LEAD PROJECT SPONSOR
West Dakota Water Development District
Chairman: Dan Bjerke
402 Saint Joseph Street Suite 6, Rapid City, SD 57701 Phone: 605-394-2685
E-mail: dlbjerke@midco.net

CONTACT PERSON: Dan Mullaly (administrative contact)
PHONE: 605-394-2685
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Technical contacts: Dan Driscoll (605-209-0305, wdwdd3@gmail.com); Ron Koth (605-390-0165, ron.koth@gmail.com)

319 NONPOINT SOURCE FUNDS: $200,000
WATER QUALITY FUNDS: $ 0
MATCH: $133,333
OTHER FEDERAL FUNDS: $0
TOTAL PROJECT COST: $333,333
WATERSHED: Rapid Creek

HYDROLOGIC UNIT CODE: 10120110 **HIGH PRIORITY WATERSHED**: YES

TMDL Development: No **TMDL Implementation:** Yes

PROJECT TYPE: Watershed

NPS CATEGORY: Agriculture, Urban

NPS FUNCTIONAL CATEGORY: BMP IMPLEMENTATION, WATERSHED PLANNING INFORMATION AND EDUCATION

NPS POLLUTANTS TO BE ADDRESSED:
EXCESS NITROGEN, EXCESS PHOSPHORUS, SEDIMENTATION, E. COLI BACTERIA

PROJECT LOCATION: Black Hills **START DATE:** 9/1/2025

SUMMARIZATION OF MAJOR GOALS:

The goal of this three-year project is to protect and improve water quality through planning and implementation of erosion control, stream restoration, and soil and riparian health best management practices (BMPs) in the Rapid Creek watershed located in the Black Hills of South Dakota. The project will also implement best management practices to address protection of non 303(d) listed waters in the Rapid Creek watershed. Outreach will include planning and holding workshops and field demonstration tours to educate and inform the public and producers of ways to manage land to reduce runoff and erosion to ultimately improve and protect water quality.

2. STATEMENT OF NEED

2.1. Demonstrated Water Quality Need

Waterbodies in the Black Hills region of South Dakota including Rapid Creek generally are of high quality and support high levels of recreation including fishing and wading as well as providing domestic water supply for much of the area's population. The Black Hills area has been mostly ignored from a Section 319 standpoint because most of South Dakota's Section 319 funding has gone to waterbodies that are listed as impaired. Priority has increased throughout the nation on providing funding to protecting high-quality waterbodies from becoming impaired. Protecting healthy waters and watersheds is one of the national priorities that is stated in the EPA's 2024 Nonpoint Source Program and Grants Guidelines for States and Territories.

According to the 2024 SD DANR Integrated Report, Rapid Creek is supporting its designated water quality standards above Rapid City and has non supporting parameters (*E. coli* and total suspended solids) throughout the city limits and downstream until it's confluence with the Cheyenne River. This project will address the water-quality impairments as well as planning for protection efforts upstream of and within Rapid City. Hydro-modification to Rapid Creek and tributaries is common but is not a currently listed water quality impairment in South Dakota. Implementation of a protection project for the Rapid Creek watershed will provide a mechanism to address these hydro-modified waters.

2.2. Waterbody Information

The Rapid Creek Watershed Project includes the Rapid Creek watershed that includes Pactola, Deerfield, and Canyon Lakes. The majority of the Rapid Creek watershed is located in Pennington County. The northwest portion of the watershed is located in Lawrence County (see Figure 1 in section 3.0). Many of the lakes and streams in the watershed provide recreational opportunities for the public that include boating, swimming, and fishing. The waterbodies also have economic benefits for the state as they are a large draw for tourists that enjoy the area.

Waterbody	Assessment Unit Identification (AUID)	Assigned Beneficial Uses *	Impairment
Rapid Creek	SD-CH-R-RAPID_01	1,2,7,8,9,10	Fully Supporting
Rapid Creek	SD-CH-R-RAPID_02	1,2,7,8,9,10	Fully Supporting
Rapid Creek	SD-CH-R-RAPID_03	1,2,7,8,9,10	*E. coli*
Rapid Creek	SD-CH-R-RAPID_04	4,7,8,9,10	*E. coli*
Rapid Creek	SD-CH-R-RAPID_05	4,7,8,9,10	*E. coli* and Total Suspended Solids (TSS)
Canyon Lake	SD-CH-L-CANYON_01	1,2,7,8,9	Fully Supporting
Deerfield Lake	SD-CH-L-DEERFIELD_01	2,7,8,9	Temperature
Pactola Reservoir	SD-CH-L-PACTOLA_01	1,2,7,8,9,10	Temperature

*Table 1. Support Status for waterbodies in the Rapid Creek Watershed. *Beneficial uses can be found in the 2024 Integrated Report (page 12).*

A main focus will also be on protecting the waterbodies listed as fully supporting their beneficial uses in Segment 2 and as impaired in Segment 3. Minor activities also likely will be implemented in downstream Segments 3, 4, and 5.

2.3. Project Map

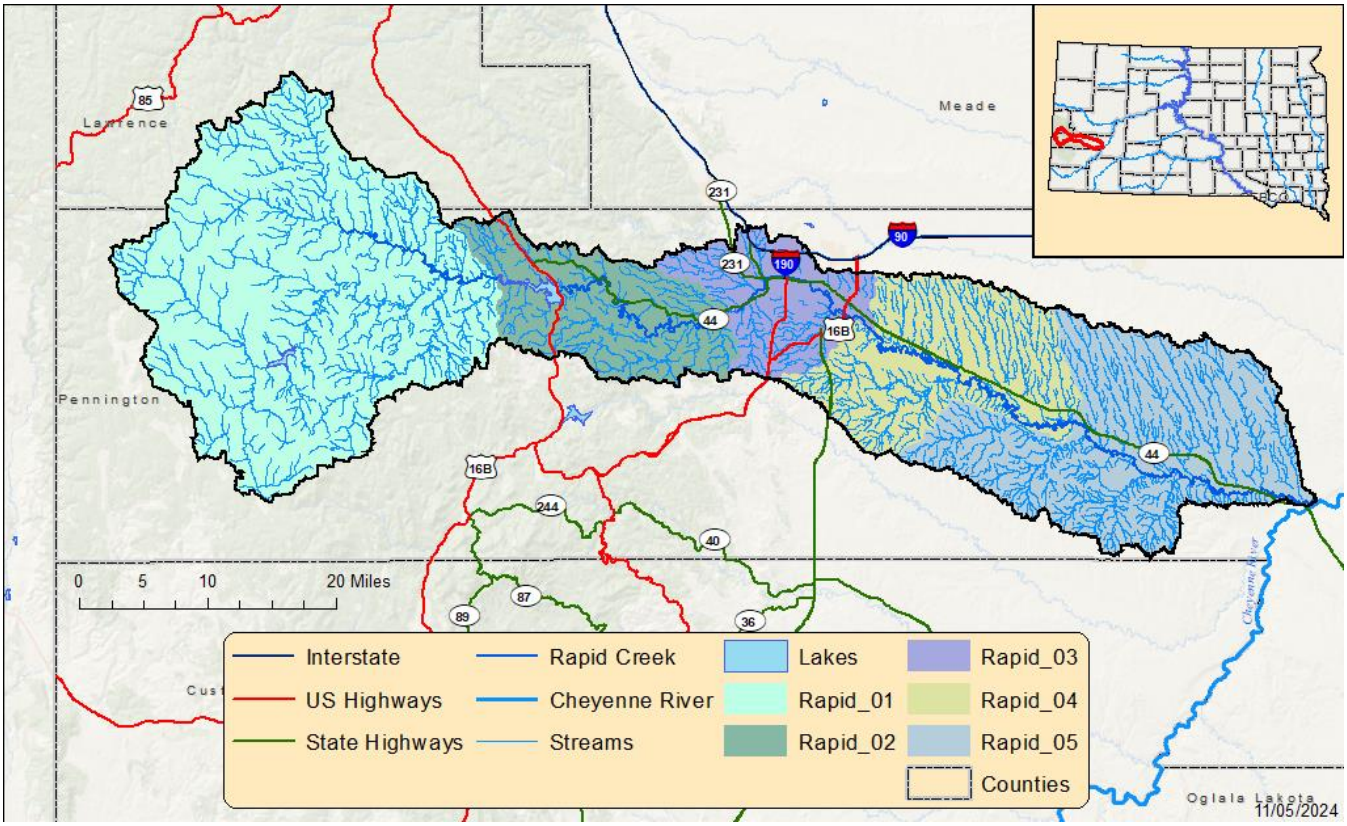

Figure 1. Rapid Creek Watershed.

The four segments of Rapid Creek that are included as part of this project are:

Segment 2 starts downstream of Pactola Dam and ends at Canyon Lake.
Segment 3 starts at Canyon Lake and ends at Section 15, Township 1N, Range 8E.
Segment 4 starts at Section 15, Township 1N, Range 8E and ends at Farmingdale.
Segment 5 starts at Farmingdale and ends at the confluence with the Cheyenne River.

2.4. General Watershed Information

Rapid Creek is a perennial stream located in Lawrence and Pennington Counties of South Dakota and is a tributary of the Cheyenne River, which is tributary to the Missouri River. The drainage area of Rapid Creek is approximately 718 square miles.

Much of the upper portion of the watershed is within the Black Hills National Forest. The central portion includes Rapid City, South Dakota's second largest city, and many adjacent suburban areas. The lower portion of the watershed is primarily rangeland and cropland, with irrigated lands receiving water supplied by the Deerfield/Pactola reservoir system.

Average annual precipitation for Rapid City is 20.4 inches (based on National Weather Service data), with over 70 percent of the annual precipitation occurring during the months of April

through August. Average annual precipitation in the headwaters of the watershed approaches 30 inches.

3. Project Description

This initial segment (Sept. 2025 through August 2028) of the Rapid Creek Watershed Project will help develop protection plans for Segments 2 and 3 of Rapid Creek. Engineered plans for the Star Village hillslope erosion project and engineered plans for restoration of 2000 lineal feet of the hydro-modified reach of Rapid Creek downstream of the USGS gage downstream of Pactola Dam also will be developed. Star Village is a sole source of erosion and generates storm generated sediment pulses to Rapid Creek in the receiving reach of segment 3 of Rapid Creek immediately downstream of Star Village. The protection plan for Segment 2 will also help develop an overall plan for the reach below Pactola Reservoir where dam operations and flow regimes have hydro-modified the stream geometry (dimension and profile) and floodplain connectivity over the last couple of decades. This project will also implement best management practices for soil and riparian health to reduce delivery of sediment and *E. coli* bacteria into impaired segments of Rapid Creek.

3.1. Project Outcomes

The main project outcomes will be planning and development of engineered designs to restore and protect the beneficial uses of Rapid Creek with the primary focus on high priority areas that reduce sediment, nutrient, and bacteria loadings and improve water quality by applying on the ground BMPs. The project will also provide information and education to local landowners, youth, communities, agency personnel, consultants, and the public to provide a better understanding of the importance, function and technical design of best management practices and their related water quality benefits.

3.2. Objectives, Tasks, Products

<u>Objective 1</u>: Sole Source Erosion Control and Watershed Planning

Develop engineered plans for erosion control of Star Village and stream restoration below Pactola Dam, plus develop protection plans for Segments 2 and 3 of Rapid Creek. These plans will help guide the future work of the project.

Task 1: Engineered plans and protection plans
Engineered plans will be developed to serve as implementation plans to follow when improving areas that need erosion control or stream restoration practices. Financial assistance will be developed to produce engineered designs to follow during implementation. Plans will be developed that demonstrate the proper practices needed to successfully control erosion or restore streams. There are many areas in the Rapid Creek watershed that need erosion control and stream restoration practices. Reducing erosion and restoring streams will reduce sedimentation into Rapid Creek and will help maintain and improve water quality and needs of the coldwater fishery.

Product 1: Engineered site design for Star Village erosion control

To benefit and maintain Rapid Creek downstream of the Star Village site, an engineered design and plan for the Star Village area will be produced. This engineered plan will include what is needed to properly reestablish soils and vegetation on the hill sides of the Star Village area; now a City of Rapid City owned parcel.

During 2020, the West Dakota Water Development District (West Dakota) began implementation of several pilot-level erosion control projects aiming to reduce sediment delivery to Rapid Creek through revegetation of steep, highly erosive shale slopes. This component of the Rapid Creek Watershed Project will build upon those initial pilot-level efforts.

West Dakota's largest erosion control project includes about 5 acres of steep, highly erosive shale on the north side of Star Village in central Rapid City (figure A1 in Attachment A at the end of this document), located about one-half mile south of Rapid Creek. Many of the erosive areas are totally devoid of soil and vegetation and consist of weathered shale flakes that are easily mobilized during rainstorms. Extensive head cuts (pointed out in figure A1) and side cuts indicate that about 2 to 3 feet of sediment has been eroded from extensive areas over the half-century or more that the erosive areas have anecdotally been known to be developing. Figures A2-A4 show some examples of erosion control measures that have been implemented and results to date.

To date, West Dakota's goals have been to (1) retain sediment on site; (2) prevent enlargement of the main erosive area; and (3) prevent a number of relatively small partially vegetated areas from completely blowing out. Implementation of the proposed Watershed Project will enable the large-scale resources needed to mitigate the bulk of the erosive area.

Efforts since 2023 have primarily involved only minor as-needed efforts to maintain the stability of the peripheries of erosive areas. Future efforts will require an engineered design for hill slope stabilization and re-vegetation.

Milestones: One engineered design for hill slope stabilization and erosion control of the Star Village project area: 1 engineered design

Cost: $26,000 **319**: $15,600 WDWDD/City of Rapid City: $10,400

Agencies/potential partners:

West Dakota Water Development District
South Dakota Department of Agriculture and Natural Resources
City of Rapid City
Black Hills Fly Fishermen

Product 2: Stream restoration plan for 2000 lineal feet of Rapid Creek below Pactola Dam

To benefit and maintain Rapid Creek below Pactola, a stream restoration plan will be produced. This engineering plan will include a 60% design for stream restoration with more precisely estimated costs, benefits to stream processes, fisheries, and a pathway for acquiring required permits, etc to be completed during this project.

Rapid Creek below Pactola Reservoir has been affected by flow modifications since the dam was constructed, but impacts have been most prevalent since the extended high flow period of 1994-96 with repetitive high flow occurrences approximately every 8 years. The objectives of the restoration would be to reconnect the floodplain to restore floodplain functions and to re-establish appropriate channel dimension and profile. Restoration would create an incremental increase in high-flow storage and reduce the continuing channel widening following floodplain reconnection. Restoration would establish an appropriate channel dimension and profile for the

channel for approximately 2000 lineal feet below the USGS gage station that has been blown out by BOR/USACE release operations that create high flows (300 plus cfs) on an irregular basis beginning in early/mid 1990's. A 10% preliminary design has proposed 120' pool to pool spacing, 28' wide bankfull channel dimension, a 90 cfs bankfull design flow, and a 150' wide first level floodplain. These dimensions will restore a functional stream system damaged by the high flow releases and allow it to be resilient during future high flow releases. Figures B1 through B5 in Attachment B provide an overview of current conditions and planned efforts.

Milestones: One stream restoration design for 2000 lineal feet Rapid Creek below Pactola Dam: 1 stream restoration design
Cost: $60,000 **319**: $36,000 WDWDD/other local: $24,000

Agencies/potential partners:
West Dakota Water Development District
South Dakota Department of Agriculture and Natural Resources
City of Rapid City
Black Hills Fly Fishermen
Trout Unlimited
SD Department of Game Fish and Parks
US Forest Service

Product 3: Protection plan for Rapid Creek Segment 2

Segment 2 of Rapid Creek runs from Pactola Reservoir to Canyon Lake. This segment of Rapid Creek is not listed as being impaired for any beneficial use according to the 2024 South Dakota Integrated Report for Surface Water Quality Assessment, however, is highly hydro-modified due to high-flow releases from Pactola Reservoir and past flood risk reduction efforts within Rapid City. This segment is heavily used by fishermen and recreated on heavily. A protection plan will be developed to explore potential sources of pollution that could jeopardize the high-quality water and the heavy use of the fishery in this segment. The plan will include potential issues from development of land adjacent to the stream, fisheries concerns including issues arising from the presence of *Didymosphenia geminata,* a diatom commonly called "Didymo ", and any other potential issues.

Milestones: One protection plan for Segment 2 of Rapid Creek
Cost: $60,000 319: $36,000 WDWDD/other local: $24,000

Agencies/potential partners:
West Dakota Water Development District
South Dakota Department of Agriculture and Natural Resources
South Dakota Department of Game, Fish and Parks
City of Rapid City
Black Hills Fly Fishermen
SD Department of Game Fish and Parks
US Forest Service

Product 4: Protection plan for Rapid Creek Segment 3

Segment 3 of Rapid Creek runs from Canyon Lake through Rapid City. This segment of Rapid Creek is only listed as being impaired for the immersion and limited contact recreation due to *E. coli* according to the 2024 South Dakota Integrated Report for Surface Water Quality Assessment. This segment is heavily used by fishermen and recreated on heavily and is a source of domestic water supply for Rapid City and the Rapid Valley Sanitation District. A protection plan will be developed to explore potential sources of pollution that could jeopardize the high-quality water and the heavy use of the fishery in this segment. The plan will include potential issues from urban related pollution adjacent to the stream, fisheries concerns, stream bank erosion, and any other potential issues.

Milestones: One protection plan for Segment 3 of Rapid Creek
Cost: $60,000 319: $36,000 WDWDD/other local: $24,000

Agencies/potential partners:
West Dakota Water Development District
South Dakota Department of Agriculture and Natural Resources
City of Rapid City
South Dakota Department of Game, Fish and Parks
Black Hills Fly Fishermen
Trout Unlimited
Rapid Valley Sanitation District

<u>Objective 2</u>: Soil Health and Riparian Health

Task 2: Implement soil and riparian health practices

This task is to collaborate with the Pennington Conservation District on work they are currently completing through a Conservation Innovation Strategy (CIS) project with the USDA-NRCS. This task also could be implemented independently of the CIS, if dictated by circumstances. The goal of this task is to reduce erosion through increased water infiltration through the use of cover crops.

Product 5: Install 400 acres of cover crops

Cover crops will be installed on agricultural lands and be paid using the latest Conservation Commission docket. The practice will be offered on a one-time basis and with a maximum acreage of 120 acres.

Milestones: Install cover crops on 400 acres.
Cost: $17,000 **319**: $10,200 Local Producer: $3,400 WDWDD: $3,400

Agencies/potential partners:
West Dakota Water Development District
Pennington Conservation District
Natural Resources Conservation Service/Farm Service Agency
South Dakota Soil Health Coalition
Local Stakeholders
South Dakota Department of Agriculture and Natural Resources

Task 3: Riparian Buffer/Seasonal Riparian Area Management

This task is again to collaborate with the Pennington Conservation District on installing riparian buffers in the form of the Riparian Buffer Initiative or Seasonal Riparian Area Management. This task would be a collaboration between partners to exclude livestock from water ways and help reduce bacterial pollution as well as erosion. The buffer will be a working buffer, meaning that landowners would be able to utilize the buffer outside of the recreation season (May-September).

Product 6: Install 200 acres of riparian buffers

Implement RBI/SRAM on riparian areas along Rapid Creek. The practice will follow the South Dakota Department of Agriculture and Natural Resources (DANR) practice fact sheets for payments and eligibility.

Milestones: Install riparian buffers on 200 acres.
Cost: $50,000 319: $30,000 WDWDD: $10,000 Local Producer: $10,000

Agencies/potential partners:
West Dakota Water Development District
Pennington Conservation District
Natural Resources Conservation Service/Farm Service Agency
South Dakota Department of Agriculture and Natural Resources
Local Stakeholders

<u>Objective 3</u>: Project Management and Administration

Task 4: Monitor project progress and evaluate project

Project progress will be monitored to determine water-quality impacts of the project and to provide information to DANR. The location of BMPs designed and installed will continue to be mapped and provided to DANR using GIS and the Tracker database. NPS load reductions expected from the BMPs will be calculated and provided to DANR through Tracker. The programs used to determine the load reduction are those approved by DANR for this purpose which include the DANR Tracker database and PLET. When tracking BMPs installed in a watershed, a unique identifier is used. Annual project status reports will be prepared and submitted to DANR for entry into GRTS. The cost to complete the monitoring, reporting and location maps will primarily be salary costs of project staff.

Product 7: Project engagement/information/education meetings

Quarterly meetings to inform stakeholders about progress and future plans.

Milestones: 4 annual meetings
Cost: $ 4,000 319: $2,400 WDWDD: $1,600

Agencies/potential partners:

West Dakota Water Development District
Pennington Conservation District
Natural Resources Conservation Service/Farm Service Agency
South Dakota Department of Agriculture and Natural Resources
City of Rapid City
South Dakota Department of Game, Fish and Parks
Local Stakeholders
Black Hills Fly Fishermen
Trout Unlimited
US Forest Service
Rapid Valley Sanitation District
South Dakota Soil Health Coalition

Product 8: 3 annual reports and 1 final report

Milestones: GRTS reports: 3
Final report: 1

Cost: $0 **319**: $0 **SRF-WQ**: $0 **Local**: $0

Annual GRTS & Final Reports

Agencies/potential partners

West Dakota Water Development District
South Dakota Department of Agriculture and Natural Resources

3.3. Milestone Table (attached)

3.4. Project Management Tracking

West Dakota, as the project sponsor, is responsible for implementing best management practices and uploading the information into the database. West Dakota will use DANR's Tracker database for reporting, invoicing, and tracking of milestones.

3.5. Permits

When a BMP or engineering plan is ready for installation, assistance will be provided to the producer/contractors with securing any required water rights, building permits, 401, 404 and storm water construction permits. Compliance with all local, state or federal requirements such as the threatened and endangered species act and historic/cultural resources requirements also will be ensured.

4. Coordination Plan

4.1. Cooperating Organizations

West Dakota Water Development District –West Dakota, as the Project Sponsor, will hire a project coordinator of their choosing. West Dakota includes the manager and board of directors. West Dakota and/or the project coordinator will facilitate and organize project

activities, report on project activities and progress, voucher for grant funds, and provide record keeping. West Dakota and/or the project coordinator will give presentations at meetings with local work groups, tribal organizations, the State Technical Committee, NPS Task Force, the Conservation Commission, etc.

Pennington Conservation District and other conservation districts – Will provide technical assistance for BMP installation, assist with BMP prioritization, public information assistance, host local meetings, and coordinate with local work groups for USDA funding.

Natural Resources Conservation Service – Will provide technical assistance and training access to records and maps, cost share assistance for BMP installation through those USDA programs authorized in the Farm Bill, and assistance with Information and Education.

Farm Service Agency – Will provide financial assistance through those USDA cost-share or land retirement programs authorized in the Farm Bill.

US Environmental Protection Agency – Will provide Section 319 grant funds to South Dakota DANR.

Trout Unlimited, Inc. Dakota Chapter – Will provide technical and financial assistance through cost share and technical staff promoting this project and coordinating projects.

SD DANR – Will administer SRF-NPS Water Quality Funds, EPA Section 319 grant funds, and will provide technical assistance for project planning, management and training.

SD DOT – Will provide technical and financial assistance for transportation related projects.

City of Rapid City – Will provide technical and financial assistance for projects on property owned by the City and for projects with benefits to the City and area.

Black Hills Flyfishers – Will provide technical and financial assistance through cost share and technical staff promoting this project and coordinating projects.

SD Department of Game Fish and Parks – Will provide technical and financial assistance through cost share and technical staff promoting this project and coordinating projects.

US Forest Service – Will provide technical assistance through technical staff promoting this project and coordinating projects.

South Dakota Soil Health Coalition – Will provide technical assistance for BMP installation, assist with BMP prioritization, public information assistance, host local meetings, and coordinate with local work groups for USDA funding.

4.2. Support for the project

Application for this project is supported by the South Dakota School of Mines and Technology, City of Rapid City, USDA-Natural Resources Conservation Service, USDA-Farm Services Agency, SD Game Fish and Parks, Trout Unlimited-Dakota Chapter, South Dakota Department of Agriculture and Natural Resources, South Dakota Department of Transportation, and Conservation Districts, US Forest Service, Black Hills Flyfishers.

4.3. Non-duplication of effort

This project is a partnership of local, state, and federal agencies that provide technical and financial assistance for the implementation of NPS TMDLs in South Dakota. The project is managed to maximize the delivery of technical assistance and minimizes duplication of effort.

5. Evaluation and Monitoring Plan

5.1. Monitoring Strategy

The evaluation and monitoring plan includes documentation of project activities and BMPs installed. Load reductions and BMP implementation information will be provided to DANR as part of the GRTS report and provided to Section 319 projects in the areas serviced. PLET will be used to evaluate the load reductions calculated from the BMP's implemented. Load reductions of BMP's implemented with financial assistance from this project will be credited to this project.

5.2. Sampling and Analysis Plan

Water-quality sampling is not included in the project work plan. Therefore, a sampling and analysis plan will not be developed. Any sampling near implemented practices will be completed by the respective implementation project staff. SD DANR will monitor water quality benefits through their Ambient Water Quality Monitoring Program.

5.3. Quality Assurance Project Plan

This project will be covered by the quality assurance project plan developed by SD DANR.

https://danr.sd.gov/Conservation/WatershedProtection/ReportsPublications/DANR_QAPP_2022.pdf

5.4. Data Collection, Management, and Analysis

Data collected during this project, and documentation of project activities and expenditures will be compiled and used to draft a final report prepared following guidance provided by DANR. The report will focus on this project and contain a comparison of planned versus completed activities, estimate of load reductions achieved, and an evaluation of success in relation to the project goal. Copies of the report will be provided to project partners.

5.5. Models

Models may be used to help target prioritization areas for future work. Also the PLET model will be used to calculate load reductions from BMPs.

5.6. Operation and Maintenance

Operation and maintenance responsibilities for conservation practices installed will be detailed in contracts between the sponsor and landowner installing the practice. The contracts for conservation practices will specify operation and maintenance needs, procedures for practice failure or abandonment, and the life-span practices will be maintained for the terms agreed upon in the contract. The sponsor will be responsible for completing operation and maintenance scheduling, on-site visits, and follow-up with landowners and producers when actions need to be taken to ensure the practice is maintained throughout its intended lifespan.

6. Information and Education

6.1. Information and Education Activities

Print material will be developed and distributed at public events and will include fact sheets and brochures; articles published in local newspapers, and district newsletters. Target audiences include watershed landowners and producers, municipal landowners, and students of all ages.

7. Budget and Budget Justification

Rapid Creek Watershed Project	Project Funding by Year and Source									
August 1, 2025 through July 31, 2028	**2025**	**2026**	**2027**	**2028**	**Total**	**319**	**WD cash**	**WD soft**	**Local**	**Total**
Project Coordination (contract coordinator with WDWDD assistance)	$10,000	$10,000	$10,000	$10,000	$40,000	$24,000	$8,000	$8,000		$40,000
Contract Management	$2,500	$5,000	$5,000	$2,500	$15,000	$9,000	$6,000			$15,000
Audit			$1,333		$1,333	$800	$533			$1,333
Objective 1: Sole-source erosion control and watershed planning										
Task 1: Engineered plans and protection plans										
Product 1: Engineered site plan for Star Village erosion control	$26,000				$26,000	$15,600	$10,400			$26,000
Product 2: Engineered plan for stream restoration below Pactola Dam	$30,000	$30,000			$60,000	$36,000	$24,000			$60,000
Product 3: Protection plan for Segment 2 of Rapid Creek	$30,000	$30,000			$60,000	$36,000	$18,000	$6,000		$60,000
Product 4: Protection plan for Segment 3 of Rapid Creek	$30,000	$30,000			$60,000	$36,000	$18,000	$6,000		$60,000
Objective 2: Soil health and Rriparian health										
Task 3: Implement soil health practices										
Product 5: Install 400 acres of cover crops		$2,125	$6,375	$8,500	$17,000	$10,200	$3,400		$3,400	$17,000
Task 4: Riparian buffers										
Product 6: Install 200 acres of riparian buffers		$5,000	$30,000	$15,000	$50,000	$30,000	$10,000		$10,000	$50,000
Objective 3: Project management and administration										
Task 5: Monitor project progress and evaluate project										
Product 7: Project engagement/information/education meetings	$1,000	$1,000	$1,000	$1,000	$4,000	$2,400	$1,600			$4,000
Product 8: Three annual reports and one final report										
Totals	$129,500	$113,125	$53,708	$37,000	$333,333	$200,000	$99,933	$20,000	$13,400	$333,333

Rapid Creek Watershed Project								
August 1, 2025 through July 31, 2028								
	Groups	**Quantity**	**2025**	**2026**		**2027**		**2028**
Objective, Task, Product			**Aug-Dec**	**Jan-June**	**July-Dec**	**Jan-June**	**July-Dec**	**Jan-June**
Objective 1: Sole-source erosion control and watershed planning								
Task 1: Engineered plans and protection plans								
Product 1: Engineered site plan for Star Village erosion control	1,4,5,8	1	1					
Product 2: Engineered plan for stream restoration below Pactola Dam	1,4,5,6,8,9,10	1	1	1	1			
Product 3: Protection plan for Segment 2 of Rapid Creek	1,4,5,6,8,9,10	1	1	1	1			
Product 4: Protection plan for Segment 3 of Rapid Creek	1,4,5,6,8,9,10,11	1	1	1	1			
Objective 2: Soil Health and Riparian Health								
Task 3: Implement Soil Health Practices								
Product 5: Install 400 acres of cover crops	1,2,3,4,7,12	400		50		150		200
Task 4: Riparian Buffers								
Product 6: Install 200 acres of riparian buffers	1,2,3,4,7	200		100	100			
Objective 3: Project management and adminstration								
Task 5: Monitor project progress and evaluate project								
Product 7: Project engagement/information/education meetings	All	4 ann. mtgs	2	2	2	2	2	2
Product 8: Three annual reports and one final report	1,4	4	1		1		1	1
	Changed this							
Groups:								
1. West Dakota Water Development District (WDWDD)								
2. Area Conservation Districts								
3. USDA- Natural Resources Conservation Service/Farm Service Agency								
4. SD Department of Agriculture and Natural Resources								
5. City of Rapid City								
6. SD Department of Game, Fish and Parks								
7. Landowners								
8. Black Hills Fly Fishers								
9. Trout Unlimited								
10. U.S. Forest Service								
11. Rapid Valley Sanitation District								
12. South Dakota Soil Health Coalition								

Attachment A – figures for proposed Star Village erosion control project.

Figure A1. Google Earth image (date unspecified) showing Star Village project area before project implementation. Red arrows show general locations of steep head cuts, where elevation drops of several feet or more typically occur over horizontal distances of 10 feet or less.

Figure A2. Google Earth image (July 18, 2022) showing Star Village project site after initial (2021/2022) project implementation measures. Red arrows show locations of silt fences constructed to retain sediment on site. Blue oval shows area that was topsoiled and seeded.

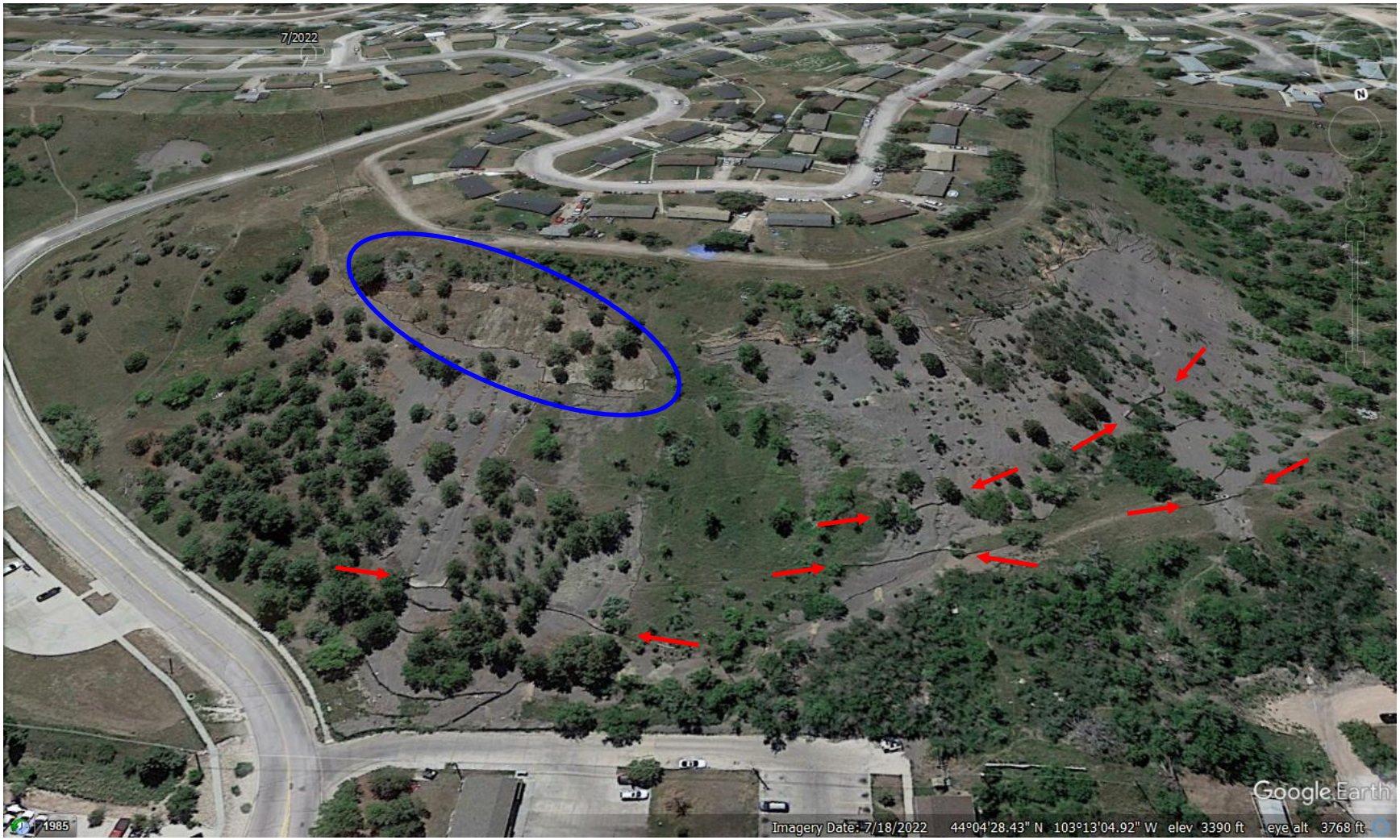

Figure A3. Volunteers applying topsoil.

Figure A4. Google Earth image (March 14, 2024) showing Star Village project site after continued implementation. Red arrow shows location of treated side cut shown in figure 7. Blue ovals show partially eroded areas that have been treated with yard waste. Red arrow shows location of a side cut that is shown in figure 7.

Figure A5. Photos showing 2022 and 2023 views of a side cut.

Attachment B – figures for proposed stream restoration project below Pactola Dam.

Figure B1. Photo from September 2024 showing overwidened channel as evidenced presence of current deflectors which were at the water's edge in the 1980's.

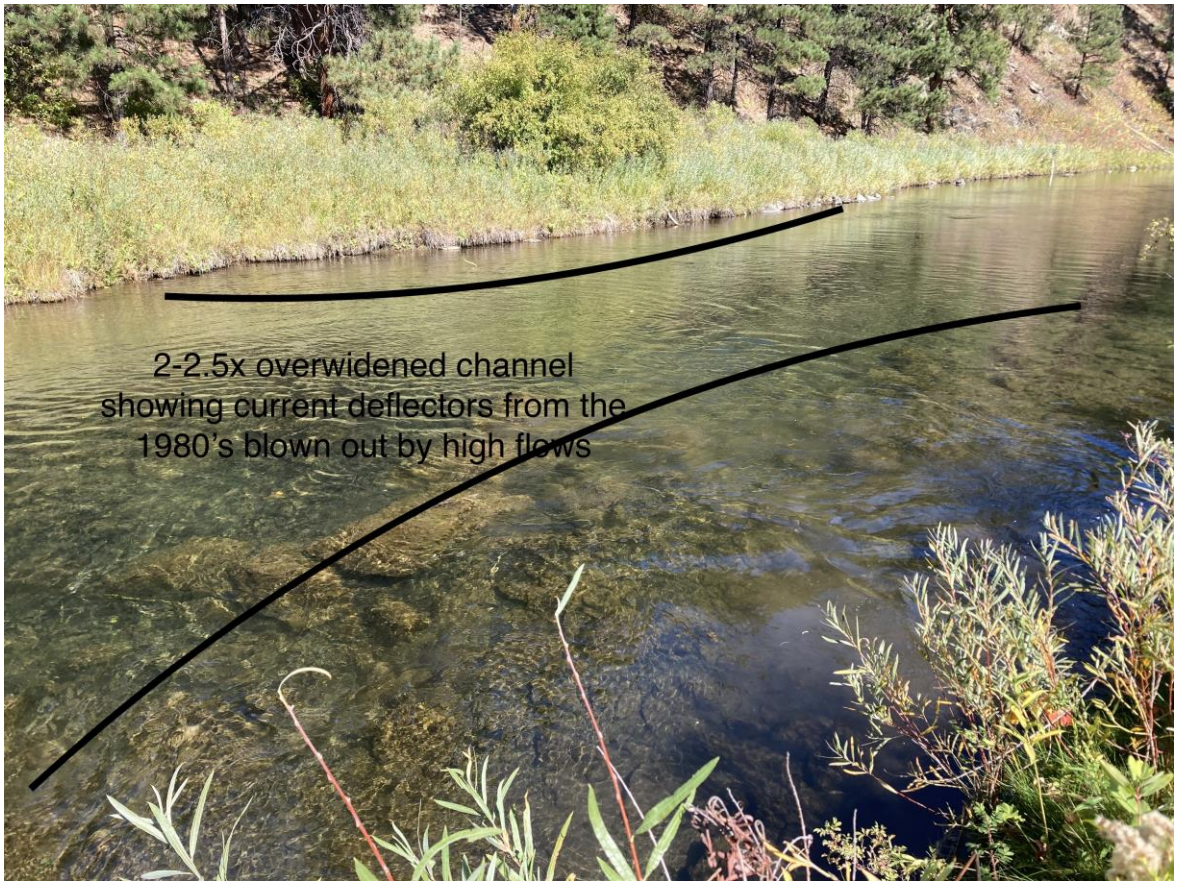

Figure B2. Photo from September 2024 showing overwide channel dimensions and lack of floodplain connectivity.

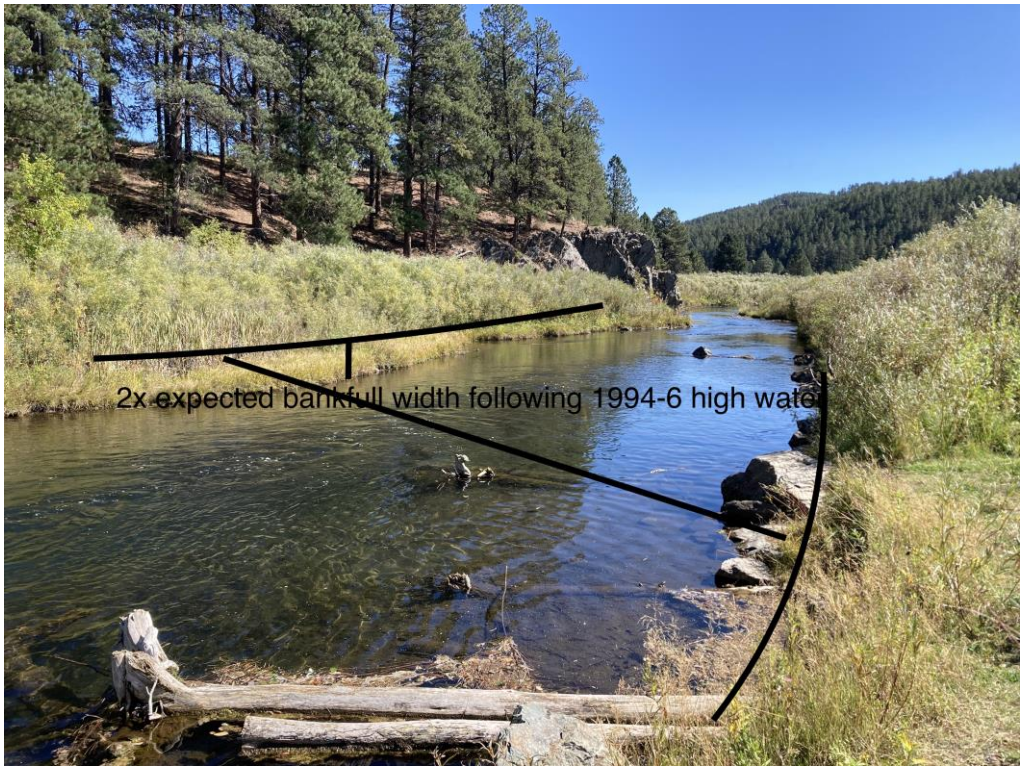

Figure B3. Photo showing bank scarp evidence of channel downcutting and past erosion with 2x overwidened channel from expected dimensions.

Figure B4. Photo from September 2024 showing 3x overwide channel, evidence of downcutting/erosion of channel banks and lack of floodplain connectivity.

Figure B5. Ten percent design level for two potential alternatives for stream restoration of approximately 2000 lineal feet of Rapid Creek below the USGS gage in Pactola Basin to restore appropriate dimension, profile and floodplain connectivity.