319 Nonpoint Source Preliminary Project Proposal

FY2016 Project Proposals are due Monday, July 27, 2015

Section I: General Information

Project Title: Watershed Restoration Demonstration - Ramshorn Creek

Project Sponsor Information

Name: Ruby Valley Conservation District/Ruby Watershed Council
Tax Identification Number: 84-0414745

Address: 402 S. Main St
Website: www.rvcd.org

City: Sheridan
State: Montana
Zip Code: 59749
County: Madison

Primary Contact
Primary Contact: David Stout
Title: Big Sky Watershed Corpsmember
Phone Number: (406) 842-5741 x105
Fax Number: N/A
E-mail Address: ruby.bswc@gmail.com
Signature: X

Signatory
Signatory: Gary Giem
Title: RVCD Board Chairman
Phone Number: (406) 596-0920
Fax Number: N/A
E-mail Address: giem@3rivers.net
Signature: X

Project Funding

319 Funds Requested: $119,760.00

Does the project sponsor have any open 319 contracts? Yes

Matching Funds

State Cash Match	$2,400.00
Local Cash Match	
In-Kind Match	$79,044.00
Total Match	$81,444.00
Other Federal Funds	$3,000.00
Total Project Budget	$204,204.00
Administrative Fee	$9,980.00

Project Title: Miller Ranch Ruby River Channel Restoration
DEQ Contract Number: 212058
319 Award: $104,500.00
Projected Closing Date: October 31, 2015

Project Title:
DEQ Contract Number:
319 Award:
Projected Closing Date:

Project Location

Which WRP does this project implement? Ruby River

What is the status of the WRP? Under Development

Does the project address impairments in a TMDL? Yes

12 Digit HUC #(s) 10020003

(1) Waterbody Name from 2014 List of Impaired Waters
Ramshorn Creek

(1) Probable Cause(s) of Impairment to be addressed (ex. metals)
Sediment, Metals, Channel Manipulation

(2) Waterbody Name from 2014 List of Impaired Waters

(2) Probable Cause(s) of Impairment to be addressed (ex. metals)

Activity 1 Name: Placer Mining Floodplain Restoration

Latitude (1): 45.2455
Longitude (1): -112.7638

Activity 2 Name:

Latitude (2):
Longitude (2):

Section II: Project Description

Goals and Objectives: Describe the overall goal and specific objectives for this project.

This project will restore streambank and floodplain for placer mining affected channel on Ramshorn Creek to reduce sediment loading. The proposed work on Ramshorn Creek will serve as a model for floodplain restoration on similarly impaired streams throughout the Ruby River watershed. The project will begin the TMDL implementation process for Ramshorn Creek as well as a major effort to reconnect riparian habitat and restore stream function from the stream's headwaters to its confluence with the Ruby River.

Methods: Describe the approach selected to address/correct the problem(s), e.g. types of BMPs to be installed, and other important activities.

Reconstruct floodplain bench at elevation of presently forming point bar. Revegetate bank toe with bio-engineered soil lift containing cottonwood and willow species to create riparian buffer. Slope upland deposits to meet grade of newly constructed bench. Relocate excavated placer material to upland site.

Summary: Provide a brief summary of the project.

The Ruby Watershed Council (RWC) will complete its WRP in July 2015 and is applying for 319 funds to implement restoration activities on Ramshorn Creek beginning in 2016. This project will serve as a demonstration for similar projects which will implement TMDL allocations throughout the Southern Tobacco Root Mountains in the Ruby River watershed. Many of these drainages have been altered dramatically by historical placer mining.

This project will intercept highly erosive placer mining deposits through which the stream channel is actively evolving. In addition to removing fine sediment, the project will also reestablish floodplain and riparian buffer between the stream and upland sediment sources. Aerial imagery from 1995 to 2014 shows a rapid loss of floodplain forest and buffer surrounding the stream. Riparian species including cottonwoods, willows, and sedges are establishing themselves elsewhere in the floodplain but are absent on the placer deposits. Currently the plant community on the placer deposits consists of invasive or undesirable grasses and is highly erosive.

Monitoring: Describe the monitoring you will conduct to measure project effectiveness.

Sediment load reductions will be estimated based on modeling and the volume of erosive material removed from the stream's trajectory. It is not expected that measurable water quality improvements will occur within the timeframe of this project. Baseline data (stream cross-sections, fish population data, macroinvertebrate data) has been collected as of July 2015. Additional monitoring will occur at 4 sites on Ramshorn Creek at a 5-year interval or more frequently as needed. Photo point monitoring and riparian vegetation surveys will be used to monitor channel evolution and establishment of woody riparian species. A thermograph will collect continuous temperature data below the proposed project area.

Education and Outreach: Briefly describe the education and outreach component of this project and the target audience.

RWC will use this site as a demonstration project to educate the community and landowners about the importance of riparian ecosystems as sites for sediment capture, improving water quality, reducing erosion, and improving and protecting fisheries and habitat. Moreover, this project will serve as a demonstration of methods which can restore floodplain function in streams where disturbance associated with placer mining inhibits natural stream evolution.

Partners and Roles: Identify the project partners and their roles.

Partner	Role
Ruby Valley Conservation District	Project Coordination
The Nature Conservancy	Initial Project Feasibility and Design
Montana Fish, Wildlife, & Parks	Technical Assistance
Tom Bartoletti	Landowner

Section III: Scope of Work

Task 1 Title: Final Project Design and Permitting

319 Funds	$15,000.00
Non-Federal Match	$2,560.00
Other Federal Funds	
Total Cost	$17,560.00
Timeline	7/2016-12/2016

Description

The project is currently at a 40% engineered design (designs available for review upon request). 319 funds will cover costs to complete project design and secure project permitting. RWC will employ a contractor to bring designs to a final and approved state. RWC will work with the contractor and RVCD to secure all permitting required for the project.

Task 2 Title: Floodplain and Streambank Restoration Work

319 Funds	$80,000.00
Non-Federal Match	$60,054.00
Other Federal Funds	
Total Cost	$140,054.00
Timeline	7/2016-7/2017

Description

The project will rebuild 0.29 acres of floodplain and re-grade 0.65 acres of highly erosive material. This will restore approximately 1 acre of floodplain forest and riparian buffer. The bank toe will be protected with a bio-engineered soil lift. Willow, cottonwood, and other riparian species will be planted in the newly constructed floodplain. The resloped material will be amended with a clean fill and seeded with a native plant mixture. The proposed work will intercept non-point erosion, dissipate stream energy and settle sediments, and allow further groundwater recharge and woody species establishment throughout the floodplain.

Task 3 Title: Project Monitoring

319 Funds	$3,000.00
Non-Federal Match	$2,400.00
Other Federal Funds	$3,000.00
Total Cost	$8,400.00
Timeline	7/2016-7/2017

Description

Project monitoring will take place on a 5-year interval according to the monitoring plan and schedule outlined in the WRP. This project will implement additional monitoring inside that interval to gage conditions prior to project implementation. Additional monitoring will include photo point monitoring and riparian vegetation surveys to monitor channel evolution and woody species recruitment. Funding will support costs associated with conducting vegetation surveys, collecting photo points data, and coordinating volunteers.

Task 4 Title: Education and Outreach

319 Funds	$1,800.00
Non-Federal Match	$6,200.00
Other Federal Funds	
Total Cost	$8,000.00
Timeline	7/2016-7/2017

Description

RWC will use this site as a demonstration project to educate the community and landowners about the importance of riparian ecosystems as sites for sediment capture, improving water quality, reducing erosion, and improving and protecting fisheries and habitat. Funding will support hosting public tours and landowner workshops to promote BMPs associated with the project as well as volunteer training as part of the monitoring program.

Task 5 Title: Project Coordination

319 Funds	$9,980.00
Non-Federal Match	$8,070.00
Other Federal Funds	
Total Cost	$18,050.00
Timeline	7/2016-7/2017

Description

Funds will cover task-specific management duties for the Ruby Valley Conservation District/Ruby Watershed Council. These duties include but are not limited to procuring contractors, managing sub-contracts, and coordinating with project partners and volunteers.

Task 6 Title Grant Administration

319 Funds $9,980.00

Non-Federal Match $2,160.00

Other Federal Funds

Total Cost $12,140.00

Timeline 7/2016-7/2017

Description

The RWC Restoration Coordinator and RVCD Administrator will be responsible for contract administration. The Coordinator will document hours, track allowable costs, and provide necessary contract-related deliverables to Montana DEQ. The Administrator will work with the Coordinator and DEQ contract staff to provide detailed invoices and other financial deliverables to DEQ.

Task 7 Title

319 Funds

Non-Federal Match

Other Federal Funds

Total Cost

Timeline

Description

Task 8 Title

319 Funds

Non-Federal Match

Other Federal Funds

Total Cost

Timeline

Description

Task 9 Title

319 Funds

Non-Federal Match

Other Federal Funds

Total Cost

Timeline

Description

Comments: Use the space provided for any additional information that may not have been captured elsewhere in this proposal form.

Additional project collaborators and technical partners include: U.S. Forest Service Beaverhead-Deerlodge National Forest, U.S. Bureau of Land Management, U.S. Natural Resources Conservation Service, Applied Geomorphology, Inc., Gillalin Associates, Inc., Sundog Ecological, Inc., Montana Conservation Corps, and Big Sky Watershed Corps.

Initial riparian surveys to identify project work were conducted by a partnership of BLM, NRCS, and the Ruby Valley Conservation District. Project feasibility and preliminary design was funded by The Nature Conservancy and provided by a team of hydrologists and geomorphologists from Applied Geomorphology, Inc., Gillalin Associates, Inc., and Sundog Ecological, Inc. Miller Recreational, Inc. provided cost estimates for project work.

Future monitoring efforts will be performed as a partnership between USFS, MT FWP, and private citizens led and coordinated by RVCD personnel. Baseline monitoring was performed by USFS and MT FWP personnel in partnership with private landowners and RVCD.