

Section I: General Information

Project Title Lake Helena WRP Implementation Project

Project Sponsor Information

Name	<u>Lewis & Clark County Water Quality Protection District</u>	Tax Identification Number	<u>81-6001383</u>
Address	<u>316 North Park Ave, Room 230</u>	Website	<u>www.lccountymt.gov/health/water</u>
City	<u>Helena</u>	State	<u>Montana</u>
		Zip Code	<u>59623</u>
		County	<u>Lewis & Clark</u>
Primary Contact	<u>Jennifer McBroom</u>	Signatory	<u>Andy Hunthausen</u>
Title	<u>Outreach and Watershed Coordinator</u>	Title	<u>Lewis & Clark County Commission Chair</u>
Phone Number	<u>406-457-8584</u>	Phone Number	<u>406-457-8304</u>
Fax Number	<u>406-447-8398</u>	Fax Number	<u>406-447-8370</u>
E-mail Address	<u>jmcbroom@lccountymt.gov</u>	E-mail Address	<u>ahunthausen@lccountymt.gov</u>
Signature	<u></u>	Signature	<u></u>

Project Funding

319 Funds Requested	<u>\$187,888.00</u>	Does the project sponsor have any open 319 contracts?	<u>Yes</u>
Matching Funds		Project Title	<u>Lake Helena Watershed Restoration Project</u>
State Cash Match	<u></u>	DEQ Contract Number	<u>211072</u>
Local Cash Match	<u>\$50,000.00</u>	319 Award	<u>\$160,000.00</u>
In-Kind Match	<u>\$75,260.00</u>	Projected Closing Date	<u>December 31, 2015</u>
Total Match	<u>\$125,260.00</u>	Project Title	<u></u>
Other Federal Funds	<u>\$0.00</u>	DEQ Contract Number	<u></u>
Total Project Budget	<u>\$313,148.00</u>	319 Award	<u></u>
Administrative Fee	<u>\$18,788.00</u>	Projected Closing Date	<u></u>

Project Location

Which WRP does this project implement?	<u>Lake Helena</u>	What is the status of the WRP?	<u>Under Development</u>
Does the project address impairments in a TMDL?	<u>Yes</u>	12 Digit HUC #(s)	<u>10030101504</u>
(1) Waterbody Name from 2014 List of Impaired Waters	<u>Prickly Pear Creek</u>		
(1) Probable Cause(s) of Impairment to be addressed (ex. metals)	<u>sediment, nutrients, temperature, metals</u>		
(2) Waterbody Name from 2014 List of Impaired Waters	<u>Sediment impaired streams within Lake Helena Watershed</u>		
(2) Probable Cause(s) of Impairment to be addressed (ex. metals)	<u>sediment, alteration in vegetative cover</u>		
Activity 1 Name	<u>Tryan restoration project</u>		
Latitude (1)	<u>46.65398</u>	Longitude (1)	<u>-111.97964</u>
Activity 2 Name	<u>BMP landowner Assistance</u>		
Latitude (2)	<u>46.67362</u>	Longitude (2)	<u>-111.97569</u>

Section II: Project Description

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

The overall goal of this project is to provide assistance in improving the water quality of specific creeks outlined in the Lake Helena Watershed Restoration Plan.

1. Improve the stream function and water quality on approximately 2100 linear feet of a lower Prickly Pear Creek reach (Tryan Ranch).
2. Provide funding assistance to small landowners to implement sediment best management practices (BMPs) on local creeks.
3. Monitor major restoration project according to DEQ standards.
3. Conduct outreach and education about project activities and water quality issues of the watershed.

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

The methods used for the Tryan restoration project along Prickly Pear Creek to address water quality problems will consist of the placement of tree revetments, rock, root wads, revegetation transplants and plantings, riparian fencing, grazing management, and stream channel realignment. Types of sediment Best Management Practices (BMPs) to be considered for Task 2 include remote watering alternatives, water gaps, riparian fencing, revegetation of riparian zone, riparian and/or cropland buffers, streambank improvements, and grazing management plans.

Summary: Provide a brief summary of the project.

Stream banks along lower Prickly Pear Creek have little or no riparian vegetation present with eroding banks due to grazing by livestock and stream channel incising and with limited floodplain connection. The methods described above will be used along approximately 2100 linear feet of the stream to reduce erosion and improve water quality. Prickly Pear Creek in this part of the watershed is a priority area within the the Lake Helena Watershed Restoration Plan. A restoration project was completed just this year on 2400 feet of the channel upstream from the proposed project. Additional restoration work that is proposed for directly downstream will have similar results such as a reduction of temperature, sediment, erosion and potentially nutrient loading. The pollution that enters the stream at this site affects water quality, aquatic and wildlife habitat. In addition, task 2 would provide opportunities to conduct smaller projects that address sediment by installing best management practices with landowners assistance provided throughout the watershed on impaired streams. This task would address a watershed wide sediment priority proposed in the Lake Helena Watershed Restoration Plan. The Lake Helena Watershed Group has been an essential part of the outreach and educational efforts for the restoration work within the watershed through their newsletters, meeting presentations, volunteer and landowner activities. Water Watchers is an educational program that provides water quality and pollution information to all 4th and 5th graders in the Helena and East Helena School Districts.

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

The following monitoring will be done before and after construction. The Load Reduction Estimation Guide (Guide) used complies with the US Environmental Protection Agency requirement on annual nitrogen, phosphorus and sediment load reductions. Through monitoring, the goal is to reduce the above listed pollution. Photopoint visual documentation will provide for bank improvements along with BEHI measurements.

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

The outreach and education components would reach a variety of community members from elementary school age children to adults. The outreach components will communicate through various outlets about local restoration projects that have been conducted including the the positive results that occur after such project. Newsletters, meetings, watershed festivals, and the Water Watchers program are all events that highlight work being done in the area and are great activities to address nonpoint pollution to get the information across to a wide range of ages and members of the public.

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

Partner	Role
Rick and Laurie Tryan	Landowner
Fish, Wildlife and Parks	Project Partner, possible funder
Lake Helena Watershed Group	Project Partner
Northwestern Energy	Project Partner, possible funder
Various Landowners	Project Partners
Local non-profits groups	possible funding

Section III: Scope of Work

Task 1 Title Tryan restoration project

319 Funds	<input type="text" value="\$132,000.00"/>
Non-Federal Match	<input type="text" value="\$50,000.00"/>
Other Federal Funds	<input type="text"/>
Total Cost	<input type="text" value="\$182,000.00"/>
Timeline	<u>July 2016 to June 2019</u>

Description

Goals of the project work on approximately 2100 linear feet of stream will result in a reduction of soil erosion, lower stream water temperature, and sedimentation. Methods described above will be used in accordance with the site design involving stream restoration. Also the project will include riparian fencing of the stream channel area with grazing management planning for the site. Documentation of completion will be determined by the site manager and O&M of the project will be outlined in the landowner agreement between the project sponsor and the landowner that will be DEQ approved.

Task 2 Title BMP landowner Assistance

319 Funds	<input type="text" value="\$20,000.00"/>
Non-Federal Match	<input type="text" value="\$40,000.00"/>
Other Federal Funds	<input type="text"/>
Total Cost	<input type="text" value="\$60,000.00"/>
Timeline	<u>July 2016 to June 2019</u>

Description

Installation of sediment BMP's such as water gaps, riparian fencing, remote watering, riparian planting and vegetative buffers will be conducted with watershed landowners. The goal of the BMPs will be to reduce the rate of erosion which will ultimately reduce sediment entering the stream and potentially reduce temperatures in streams (revegetation) and nutrient loading (grazing management) also. The project will provide a financial assistance for the BMP installation with willing landowners including a match requirement.

Task 3 Title Monitoring

319 Funds	<input type="text" value="\$2,000.00"/>
Non-Federal Match	<input type="text" value="\$5,000.00"/>
Other Federal Funds	<input type="text"/>
Total Cost	<input type="text" value="\$7,000.00"/>
Timeline	<u>2017 to June 2019</u>

Description

Before and after soil monitoring for nutrients using the MSU Extension protocols will take place at the Tryan Project. In addition BEHI measurements will be conducted and the establishment of photopoints for a progressive record of the project changes will be established. Monitoring of the project will be in accordance with a DEQ-approved Sampling and Analysis Plan (SAP).

Task 4 Title Outreach and Education

319 Funds	<input type="text" value="\$15,100.00"/>
Non-Federal Match	<input type="text" value="\$30,288.00"/>
Other Federal Funds	<input type="text"/>
Total Cost	<input type="text" value="\$45,388.00"/>
Timeline	<u>term of the grant 2016-19</u>

Description

Several outreach and education events will take place to increase watershed awareness that will include water watchers, watershed festival, newsletters, and watershed group mailings. Educational and outreach activities promote understanding of water quality issues with an emphasis on nonpoint source pollution and its causes. Project outreach will involve communications with landowners to solicit participation in Task 2 involving installation of land management BMPs. The Tryan restoration project will be featured in newsletter articles, presentations, and site tours.

Task 5 Title Administration

319 Funds	<input type="text" value="\$18,788.00"/>
Non-Federal Match	<input type="text"/>
Other Federal Funds	<input type="text"/>
Total Cost	<input type="text" value="\$18,788.00"/>
Timeline	<u>term of the grant 2016-19</u>

Description

Management of project funds and meeting grant reporting obligations. The project administrative budget of 10% will cover the County administrative fee.

Task 6 Title Administration

319 Funds	<input type="text"/>	Description
Non-Federal Match	<input type="text"/>	
Other Federal Funds	<input type="text"/>	
Total Cost	<input type="text"/>	
Timeline	<input type="text"/>	

Task 7 Title

319 Funds	<input type="text"/>	Description
Non-Federal Match	<input type="text"/>	
Other Federal Funds	<input type="text"/>	
Total Cost	<input type="text"/>	
Timeline	<input type="text"/>	

Task 8 Title

319 Funds	<input type="text"/>	Description
Non-Federal Match	<input type="text"/>	
Other Federal Funds	<input type="text"/>	
Total Cost	<input type="text"/>	
Timeline	<input type="text"/>	

Task 9 Title

319 Funds	<input type="text"/>	Description
Non-Federal Match	<input type="text"/>	
Other Federal Funds	<input type="text"/>	
Total Cost	<input type="text"/>	
Timeline	<input type="text"/>	

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

The projects included within this proposal primarily address the impairment from sediment and sedimentation of water bodies within the Lake Helena Watershed. Sediment is the most common pollutant found in the watershed and the primary human-caused sources as listed by the TMDL document are dirt roads, agriculture, timber harvest, and streambank erosion in order of importance. The projects will likely focus on agriculture and streambank erosion as contribution factors to impairments and are two the top four listed causes. However, in addressing sediment and by improving grazing management through remote watering or water gap installation(s) and riparian fencing to prevent livestock impacts to the streams, we will also be addressing a major nutrient source of impairment. If woody riparian vegetation can be reestablished through these projects will also be addressing the temperature impairment listed for Prickly Pear Creek.

The WQPD has had previous experience in implementing both major stream restoration projects such as proposed for the Tryan project and landowner BMP assistance program as proposed with previous funding from EPA. Both types of projects have been very successful in engaging landowner participation in addressing NPS pollution and actually reducing the targeted pollutants within the projects.