

Section I: General Information

Project Title Muddy Creek Tributaries Riparian Improvements

Project Sponsor Information

Sponsor Name Sun River Watershed Group

Tax Identification # 81-0527250

County Teton and Cascade

Website http://www.sunriverwatershed.org/

DUNS # 140878120

Primary Contact Alan Rollo

Signatory John Chase

Title Coordinator

Title board member

Address 816 Grizzly Drive

Address 816 Grizzly Drive

City Great Falls State Montana Zip Code 59404

City Great Falls State Montana Zip Code 59404

Phone Number 406-727-4437

Phone Number 406-453-5097

Fax Number 406-727-3741

Fax Number 406-727-3741

E-mail Address arollo7@msn.com

E-mail Address johnchase01@gmail.com

Signature _____

Signature _____

Project Location

Statewide ☐ *If project is not statewide please complete the rest of this section.*

How is project related to a TMDL? Implementing a TMDL

Watershed Name or HUC # Sun River

TMDL Planning Area

Sun River Watershed

Project 1 Name	<u>Riparian Projects on MC2</u>	Latitude (1)	<u>47° 40' 24.04" N</u>	Longitude (1)	<u>111° 42' 28.67" W</u>
Project 2 Name	<u>Riparian Projects on Spring Coulee</u>	Latitude (2)	<u>47° 40' 05.03" N</u>	Longitude (2)	<u>111° 48' 52.59" W</u>
Project 3 Name	<u>Riparian Projects on Tank Coulee</u>	Latitude (3)	<u>47° 36' 50.31" N</u>	Longitude (3)	<u>111° 48' 55.53" W</u>
Project 4 Name	_____	Latitude (4)	_____	Longitude (4)	_____
Project 5 Name	_____	Latitude (5)	_____	Longitude (5)	_____

Nonpoint Source (NPS) Information

319 Project Category Watershed Restoration

Waterbody Type

River/Stream

Functional Category Riparian Projects

Is waterbody on the 2010 Impaired Waters List?

Yes

1st Pollution Category Agriculture (Grazing Related Sources)

Percent of Total (%) 80

2nd Pollution Category Hydromodification (Removal of Riparian Vegetation)

Percent of Total (%) 20

3rd Pollution Category _____

Percent of Total (%) _____

4th Pollution Category _____

Percent of Total (%) _____

Project Funding

319 Funds Requested

Does the project sponsor have any open 319 contracts?

Matching Funds

State Match

State In-Kind Match

Local Funds

Other Match

Total Matching Funds

Other Federal Funds

Total Project Budget

Advance Requested* Administrative Fee

**Advances require additional justification and DEQ approval.*

Project Title

DEQ Contract Number

319 Award

Projected Closing Date

Project Title

DEQ Contract Number

319 Award

Projected Closing Date

Project Description

Methods: Please describe the specific activities of this project.

To move towards the desired TMDL nutrient and sediment goals on Muddy Creek and its tributaries, producers will install 5,000 feet of riparian fencing and 10 off-stream livestock watering systems at ten sites. Educational outreach programs will include one annual meeting, one area tour, two newsletters, and two livestock/grazing management workshops reaching at least 100 landowners. MSU Extension will assist SRWG monitor nutrients and sediment levels at five sites over two year project period.

Objectives: Please describe the specific/measurable objectives that will ensure the achievement of the project goal(s).

The project objective is to implement riparian management projects to reduce the amount of animal waste, nutrients and sediment that directly enters Muddy Creek and its tributaries in order to move towards the TMDL targets of 50 ug/L total phosphorus, 650 ug/L total nitrogen, <960 mg/L TDS, and 29,959 tons per year of suspended sediment. The SRWG will also reach out to 100 landowners in the area to discuss the benefits for them and resource to improve the health of the public waters.

Overview: Please provide a brief summary of the proposed project.

The Muddy Creek drainage is approximately 200,000 acres in size with 1/3 dry cropland, 1/3 range and 1/3 irrigated crops. Muddy Creek is 42 miles long receiving approximately 50,000 acres of irrigated runoff from Greenfields Irrigation District. Entering Muddy Creek are six major streams/coulees that contribute large amounts of sediment and nutrients that end up in lower Sun River. With assistance from its partners, the SRWG has monitored water quality in Muddy Creek and its tributaries to define the primary locations and causes of these problems. As a result, SRWG has documented that over the past 20 years the SRWG and partners have made positive reductions in sediment from Muddy Creek into the lower Sun River by decreasing the annual sediment loads from an average 200,000 tons per year in 1995 to less than 30,000 tons/year in 2005.

The majority of the erosion control and riparian projects have taken place on the mainstem of Muddy Creek. In 2011 the SRWG started working on nutrients, sediments and salinity problems on upper Muddy Creek tributaries above the town of Power. These projects include riparian improvements and off-stream livestock watering systems that function to reduce sediment and nutrients from entering Muddy Creek.

This new project will take a multi-faceted approach to reducing nutrient and sediment on three other major tributaries of Muddy Creek. The first action is to install 5,000 feet of riparian fencing and ten off-stream livestock watering systems at ten riparian project sites; the second is to educate 100 other landowners through educational programs on simple grazing management practice changes that, if implemented, would improve riparian conditions at another 20 sites; and the third is to monitor at the mouth of each of these tributaries, and at sites on Muddy Creek both above and below these three tributaries in order to document water quality changes. MSU Extension will assist SRWG train volunteers on effective monitoring to document water quality changes.

The proposed project supports the activities addressed in the Sun River Watershed Restoration Plan by addressing animal wastes, nutrients and sediment entering Muddy Creek and its tributaries.

A: Statement of Need and Intent

The Sun River is a major tributary of the Missouri River entering at the city of Great Falls. Per the state 303(d) list, MSU sponsored research studies and a Department of Environment Quality assessment, the lower Sun River below the mouth of Muddy Creek is impaired for nutrients, siltation, salinity, flow alterations, bank erosion and habitat alterations - primarily due to agriculture practices. These impairments impact the aquatic life, cold-water fisheries, recreation activities and drinking water in the Sun River. Muddy Creek, a major tributary entering near Vaughn, is the key contributor of nutrients, salinity and sediment to the Sun River. Per the Sun River TMDL Plan (page 28), Muddy Creek is non-supporting for aquatic life, fisheries and swimming. Per Sections 6.0, 8.0, and 9.0 of the Sun TMDL, Muddy Creek water quality levels for salinity, nutrients and sediment are the key reasons for the condition of non-supporting beneficial uses.

Currently, the SRWG and partners are making positive reductions in sediment in Muddy Creek and lower Sun River by decreasing the annual loads from an average 200,000 tons per year in 1995 to less than 30,000 tons/year in 2005. For the past 15 years, the SRWG has actively monitored flow levels and sediment load at many sites in the Sun River and its tributaries with help from watershed partners including MSU Extension Water Quality specialists, Bureau of Reclamation and the SRWG Water Quality Workgroup. The SRWG has identified several methods to address impairments using agricultural Best Management Practices (BMPs) in several major Muddy Creek tributaries. A prime BMP is Irrigation Water Management (IWM) that has decreased irrigation return flow released into tributaries, subsequently reducing Muddy Creek stream bank erosion. Specific sites with the highest contaminant levels based on MSU studies were selected for monitoring.

To achieve the nutrient and sediment improvements, the project will install riparian fencing and off-stream livestock watering systems at ten sites of the 30 sites that exist on the Muddy Creek drainage. These BMPs will improve the Muddy Creek water quality and reduce the pollutants flowing into the lower Sun River. SRWG has researched other funding programs, including USDA-EQIP, to install these BMPs, but none appear applicable. Other programs do not fit due to restrictions on project size, landowner qualifications, and timeliness. The identified practices will implement and support the Sun TMDL and sections 3, 4 and Appendix 8 of the 2012 Montana Nonpoint Source (NPS) Management Plan. Specifically included from the NPS Management plan are sections: 3.1.1 Agriculture Strategy 3: Facilitate activities to reduce NPS pollution through financial assistance for on-the-ground activities; Section 4 Educational activities to increase awareness and activities to reduce pollution; and Appendix A BMPS including off-stream watering facilities and riparian fencing.

B: Collaborative Effort

Partner	Role
MSU Extension	With SRWG, write a SAP that clearly describes the what, when and who for water quality monitoring as part of this project. Train volunteers how to take samples.
Teton Conservation District	Partner with SRWG to sponsor 2 landowner workshops and one tour that will demonstrate cost-effective alternatives for grazing management in riparian areas along Muddy Creek tribs.
Greenfields Irrigation District	Provide the labor and equipment to help landowners install ten off-stream water projects
Landowners 1-10	Provide the labor to install and maintain 5,000 feet riparian fencing and ten off-stream water projects

Additional Information (Collaborative Effort)

Since the SRWG was formed in 1994 by local landowners and agencies to address all water quality and water quantity issues in the watershed, it has successfully managed approximately 10 grants per year. The SRWG will also continue to use Lewis & Clark and Cascade Conservation Districts as major partners for educational support of this watershed effort. Other key agencies that are part of the Sun River Water Quality Workgroup that will evaluate success of this and future projects include DEQ, DNRC, FWP, BoR, USGS, BLM, and MSCA. The SRWG and GID are also working on other larger, long-term projects that will complement this project, including pipelines; in-canal control gates; on-farm irrigation improvements, and pump backs.

Funding Organization	Award Amount	Project Description	Project Status	Contact Information
Bureau of Reclamation	\$95,000	<u>Evaluate</u> possible water conservation options to find win-win solutions for agriculture and fisheries. Primary BoR contacts are now gone and SRWG is just finishing up report.	almost complete. Waiting for BoR approval of final report.	BoR - Jim Forseth 406-247-7684 jforseth@usbr.gov
Bureau of Land Management	\$5,000	Funding support for the SRWG and TRWG water quality monitoring programs. Funds are used to pay for lab samples and USGS monitoring.	complete	BLM - Mike Philbin 406-896-5041 mphilbin@blm.gov
Department of Environmental Quality	\$100,000	To achieve the nutrient and sediment improvements, the project will install riparian fencing and off-stream livestock watering system at eight sites on the upper Muddy Creek drainage. To achieve the salinity improvements it is necessary to implement a shallow ground water investigation irrespective of ownership.	50% completed	DEQ - Mark Ockey 406-444-5351 mockey@mt.gov
Department of Natural Resources and Conservation	\$10,000	An edited SRWG Water Management plan that will include a prioritized list of water savings projects acquired from the BoR study.	complete	DNRC - Dave Martin 406-444-4253 damartin@mt.gov
National Association of Counties	\$23,700	The Elk Creek project was able to improve riparian habitat on 1,000 acres, improve riparian conditions on 2.5 miles of stream, improve water quality by reducing erosion, and eliminated 3 fish barriers.	complete	NACo - Carrie Clingan 202-661-8871 cclingan@naco.org

Additional Information (Planning and Management)

The SRWG will lead this project using previous experience in grant management, including several NPS/319 projects, to improve water quality issues on the Sun River. The SRWG used this experience to determine the current cost estimates. NPS/319 grant funds will be just one part of the funding solution. The partners are helping through significant in-kind resource donations and cash contributions to keep existing real-time monitoring in-place. Spreading the expenses around is the only way to resolve this complicated issue. It is far less expensive and more efficient to reduce wastewater flow in the upper watershed than addressing all the eroding banks on the Sun and tributaries created by fluctuating flow levels.

The SRWG coordinator, who has 20 years of experience with 319 grant on-the-ground projects, will meet frequently with the landowners to track project progress and help with educational events. The SRWG board and coordinator will submit draft grazing contracts to DEQ for review prior to final signatures.

The MSU Extension is very experienced in writing SAPS and training volunteers on water quality monitoring. They will take the lead in making sure all monitoring tasks are successfully accomplished.

For successful grant management, the watershed coordinator, with oversight from the SRWG Executive Committee, will track and ensure project success at every step. Coordinator was certified in 2009 in contract and grants management through BSPPA.

Section III: Project Components

A: Education and Outreach: Please briefly describe the education and outreach component of this proposal and the target audience.

The key to the educational and outreach of the Muddy Creek project is to reach at least another 100 landowners to demonstrate what is and is not working for riparian projects so other landowners can complete projects on their own. To reach these other landowners the SRWG will: 1) host an annual meeting in Great Falls to review completed projects, 2) host a tour of completed and possible future projects, 3) compile and print two newsletters reaching 5,000 landowners to inform them of project results and other possible riparian tools, and 4) host two land use and management workshops to educate landowners of land use options.

Once all fencing and off-stream water systems are installed and the ground water investigation has been initiated, the second phase will be tracking riparian health and coordinating watershed monitoring efforts. The third phase will be workgroup meetings with all partners to evaluate progress and direction. The fourth phase will be information dissemination to the general public and all partners on project success and what could use improvement. The Final report will be available as a historical document demonstrating the success.

C: Operation and Maintenance

The landowners will be responsible for the long-term operations and maintenance (O&M) for the new fences and off-stream watering system. A contract will be signed between SRWG and each landowner that outlines commitments and obligations over the life of the project (10 years). Maintenance for life of practice will be specified in this contract between landowners and SRWG. DEQ will provide written approval of the grazing management plans prior to start of each on-the-ground project. The pump O&M will follow the operating manual from the equipment contractor. The Coordinator will annually verify equipment is in place and functioning. If repair is needed on the fence or water system, the producers will be responsible.

D: Monitoring: Please briefly describe the monitoring component of this proposal.

1. A comprehensive Sampling and Analysis Plan (SAP) will be developed by MSU Extension and SRWG describing the specifics of who, when and what will be accomplished for monitoring associated with this specific project. The SAP will compliment the new SRWG Quality Assurance Project Plan (QAPP) being written right now. Water quality monitoring will include testing nutrients and sediment at five sites four times per year for two years on Muddy Creek and its tributaries to document change. The results of this monitoring will help SRWG know if the projects are having any immediate change in water quality conditions. This information will then be used to determine the need for a longer term monitoring program and need for additional water quality projects.
2. Data management, compilation, reporting, and monitoring activities will follow requested DEQ format and protocol. All water quality monitoring data collected will be submitted to DEQ using the most current upload process.
3. For each on-the-ground project SRWG will use photo points to document changes at specific project sites in land use, riparian and stream conditions. Data will be used to estimate project success of riparian improvement.
4. Educational and outreach results will be tracked by the number of people attending the training events and the number of landowners that actually use the training tools to change their riparian management practices. Comments from participants will be used to modify future training events.

Section IV: Scope of Work

Task 1 Title **Sampling and Analysis Plan (SAP)**

Description

Prior to commencing field work, contractor will develop a Sampling and Analysis Plan (SAP) to guide field activities and monitoring plans outlined in Tasks 2. This plan will be developed jointly by MSU and SRWG and must be approved in writing by the DEQ QA/QC Officer and the DEQ Contract Liaison prior to the commencement of field work and monitoring associated with this project. The SAP will compliment the new SRWG Quality Assurance Project Plan (QAPP). Water quality monitoring will include testing nutrients and sediment on Muddy Creek and its tributaries to document change. 319 grant funds will be used to pay MSU Extension at \$2,000 and SRWG coordinator at \$1,000 to help SRWG write SAP and train volunteers. In-kind support will be SRWG board to help write SAP.

Deliverables

A completed SAP that ensures consistent and appropriate monitoring is accomplished by the volunteers.

Task 1 Funding

319 Funds	\$3,000.00
Non-Federal Match	\$3,000.00
Other Federal Funds	
Total Cost	\$6,000.00
Is Match Secured?	Yes

Timeline June 2013 - December 2013

Match Source SRWG

Task 2 Title **Install livestock BMPs at ten sites to reduce animal waste entering Muddy Creek**

Description

Producers install and maintain total 5,000 feet of 4-strand riparian fencing (\$5/ft) = \$25,000 AND install and maintain ten new livestock waters (Richie type water system with pump and pipe at \$2,500 materials each = \$25,000) at 10 sites along Muddy Creek tributaries. Grazing management plans will be approved by DEQ prior to project commencing. \$3,000 SRWG coordinator time at \$25 per hour to oversee riparian projects for a total of \$53,000. GID and landowner in-kind support will be the labor and equipment to install fence and water systems.

Water quality benefits will be estimated by SRWG and landowner calculating reduction of 1) nitrogen and phosphorus loads in lbs/yr and 2) sediment loads in cubic yards into the Muddy Creek.

10 landowners have agreed to accomplish and provide their in-kind support projects but have not signed formal contract yet.

Deliverables

Ten completed BMP projects that include 5,000 feet of riparian fencing, ten off-stream waters and signed grazing management plans. Also estimated water quality benefits.

Task 2 Funding

319 Funds	\$53,000.00
Non-Federal Match	\$50,000.00
Other Federal Funds	
Total Cost	\$103,000.00
Is Match Secured?	No

Timeline Fall 2013 - spring 2014

Match Source GID and landowners

Description

Monitor water quality using guidelines developed in Task 1- SAP and assess each project listed in Task 3. Volunteers trained by MSU Extension will take nutrients and sediment grab samples at five sites four times per year for two years on Muddy Creek and tribs to document change. Samples will be sent to a certified lab for analysis. Data will be entered into DEQ database and using a trends tracking tool developed by MSU Extension, SRWG will evaluate if riparian projects are meeting their water quality objectives. For each on-the-ground project 'before and after' project photo-points will be used to document changes over time. Photos will then be taken yearly after project installation.

319 grant funds include paying for: 1) lab samples at \$10 per Nitrogen, Nitrate + Nitrate; \$10 per Nitrogen, Total Kjeldahl; \$15 per Total Nitrogen; \$10 per Total Phosphorus and \$8 per Suspended Sediment at 5 sites x 4 times per year x 2 years = \$2,120; 2) \$2,000 for MSU Extension to train volunteers and ensure first sampling round is accomplished correctly and 3) \$2,000 for SRWG coordinator time to assist volunteers and enter data into DEQ database. In-kind support will be two volunteers taking samples at 5 sites, 4 times per year over 2 years at \$20 per volunteer \$1,600 labor plus \$1,000 for mileage. SRWG coordinator will provide \$2,000 in-kind for photo-point monitoring of each site.

Deliverables

Nutrient and sediment water quality data above, at and below Choteau acquired, entered into DEQ database, analyzed for results. Before and after photos of all on-the-ground projects.

Task 3 Funding

319 Funds	\$6,120.00
Non-Federal Match	\$4,600.00
Other Federal Funds	
Total Cost	\$10,720.00
Is Match Secured?	Yes

Timeline June 2013 - May 2015

Match Source SRWG

Task 4 Title Education and outreach to SRWG Landowners

Description

The SRWG with assistance from Teton County Extension accomplish education and outreach projects by: 1) annual meeting in Great Falls for 100 landowners to receive updates on projects (\$1,000 319-grant for room rental and speaker travel); 2) two newsletters to 5,000 producers on project results (\$2,000 - 319 grant for copies and postage), 3) tour of watershed conditions (\$1,000 319-grant for tour bus and handouts); 4) two land use workshops to educate landowners and others interested about new technology and projects that are beneficial to the watershed (\$1,000 319-grant for room rental and speaker travel); and 5) \$1,000 319-grant for coordinator educational work. Cash support of \$2,000 for newsletter and in-kind support will be for speakers time, landowner attendance, and financial donations for meals for each training event = \$20,000.

Cannot show landowner in-kind commitment for training until project is completed.

Deliverables

More informed landowners on how riparian projects can fit their operation through one tour, two newsletters, two workshops, one annual meeting.

Task 4 Funding

319 Funds	\$6,000.00
Non-Federal Match	\$20,000.00
Other Federal Funds	
Total Cost	\$26,000.00
Is Match Secured?	No

Timeline June 2013 - May 2015

Match Source SRWG, Teton CD, and landowners

Description

Accounts and invoices in proper order and available for review by contracting officer. Signed billing statements, quarterly progress reports, annual reports and a final project report submitted in a timely way. Reports will include: expense tracking, project progress, goal attainment, and obstacles that may affect project success. SRWG will contribute \$5,000 cash match that will pay for coordinator time for contract administration. In-kind support will be SRWG Executive Committee for grant oversight.

Deliverables

A successful 319 grant project that helps improve water quality in the Teton River that documents the effort through complete reports and invoices.

Task 5 Funding

319 Funds	<input type="text" value="\$5,400.00"/>
Non-Federal Match	<input type="text" value="\$7,000.00"/>
Other Federal Funds	<input type="text"/>
Total Cost	<input type="text" value="\$12,400.00"/>
Is Match Secured?	<input type="text" value="Yes"/>

Timeline	<u>June 2013 - May 2015</u>	Match Source	<u>SRWG</u>
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Task 6 Title _____

Description

Deliverables

Task 6 Funding

319 Funds	<input type="text"/>
Non-Federal Match	<input type="text"/>
Other Federal Funds	<input type="text"/>
Total Cost	<input type="text"/>
Is Match Secured?	<input type="text"/>

Timeline	_____	Match Source	_____
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Section V: Supporting Documents

A: Detailed Project Budget

	Cash Match			In-Kind Match				
Task Number and Specific Action	Private	State	Federal	Private	State	Federal	319 Funds	Total Costs
Task 1. SAP								
- MSU help write SAP							\$2,000	\$2,000
- Coordinator help write SAP							\$1,000	\$1,000
- SRWG board help write SAP				\$3,000				\$3,000
Task 2. 10 BMP projects								
- BMP project materials							\$50,000	\$50,000
- GID installing off-stream waters				\$15,000				\$15,000
- Landowners labor to install				\$35,000				\$35,000
- coordinator oversee projects							\$3,000	\$3,000
Task 3. Monitoring								
- Lab costs							\$2,120	\$2,120
- MSU train volunteers							\$2,000	\$2,000
- Volunteer monitoring				\$2,600				\$2,600
- Photo point monitoring				\$2,000				\$2,000
- coordinator helping volunteers							\$2,000	\$2,000
Task 4. Education and outreach								
- One tour - 40 people				\$6,400			\$1,000	\$7,400
- Two newsletters - 5,000 people	\$2,000			\$3,000			\$2,000	\$7,000
- Two workshops - 50 people				\$2,600			\$1,000	\$3,600
- Annual meeting - 100 people				\$6,000			\$1,000	\$7,000
- Coordinator help above training							\$1,000	\$1,000
Task 5. Administration	\$5,000			\$2,000			\$5,400	\$12,400
<u>TOTAL</u>	<u>\$7,000</u>			<u>\$77,600</u>			<u>\$73,520</u>	<u>\$158,120</u>

B: Project Milestone Table: Please complete the following Project Milestone Table by entering task numbers and titles in the left hand column, then check the box(es) for the appropriate quarter(s) and year(s) in which the task will take place.

Milestone	2QT 2013	3QT 2013	4QT 2013	1QT 2014	2QT 2014	3QT 2014	4QT 2014	1QT 2015	2QT 2015	3QT 2015	4QT 2015	1QT 2016
1. SAP	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. 10 BMP projects	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Monitoring	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Education and outreach	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Administration	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please ensure that you submit a project map(s) and letters of support along with this Final Application form. If design drawings are available please provide those as well. For on-the-ground work please include copies of the applicable permits.

☒ **C: Project Map**

☒ **D: Letters of Support**

☐ **E: Design Drawings**

☐ **F: Applicable Permits**

G: Comments: Please use the space provided for any additional information that may not have been captured by this application form.

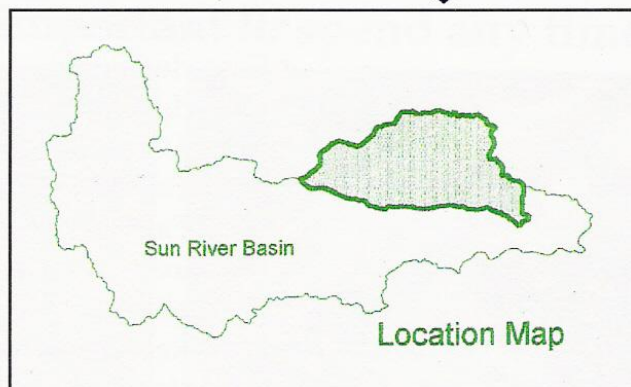
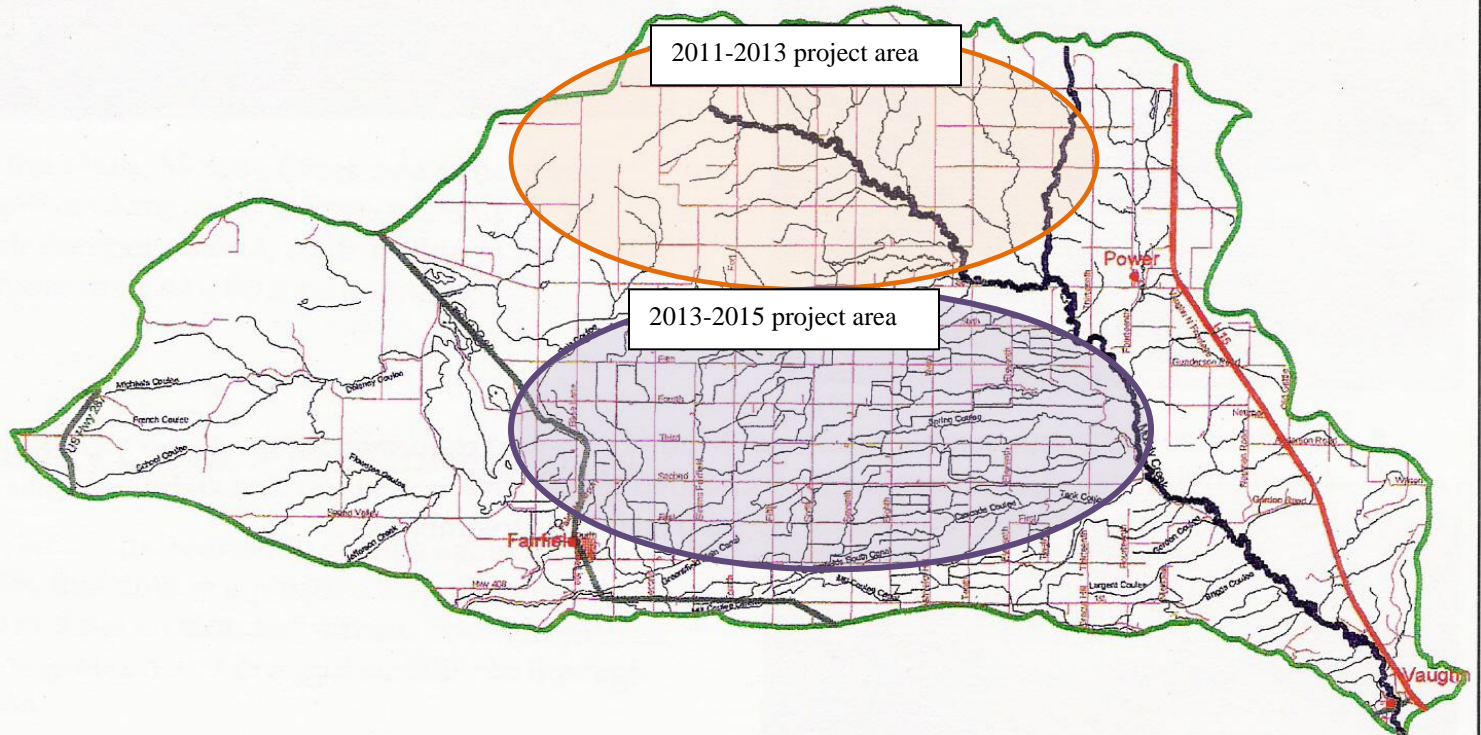
The SRWG has several studies to justify project locations including MSU Extension Muddy Creek and tributaries water quality evaluation; Montana Bureau of Mines and Geology Fairfield Bench and Muddy Creek evaluation; NRCS riparian evaluations; and Bureau of Reclamation evaluations.

No design drawings required or permits are required.

The SRWG would like a \$2,000 advance to help pay for miscellaneous expenses that come up during administration of the grant including postage, copies, and room rental.

Muddy Creek Watershed Map

Project Area Locations



<-- Great Falls

Specific Project Locations



Letters of Support and Commitment

Montana State University Extension Service



September 28th, 2012

Robert Ray, Manager
Watershed Protection Services
Water Quality Planning Bureau
Montana Department of Environmental Quality
P.O. Box 200901
Helena, MT 59620-0901

Dear Mr. Ray,

I am writing in support of the Sun River Watershed Group's 319 proposal, 'Muddy Creek Tributaries Riparian Improvements.' MSU Extension Water Quality (MSUEWQ) has been actively engaged with monitoring efforts in the Sun Watershed since 2004 and we have been continuously impressed with the degree of stakeholder buy-in that the watershed group has achieved.

The Sun River Watershed Group (SRWG) has one of the most dedicated volunteer monitors in the state with Rai Hahn and the Sun River Science Club. The consistent effort that Rai has put into the monitoring efforts over the past years has been incredible. The data resources that Rai's efforts have produced have informed watershed group members and provided a key set of baseline data for assessing long term trends in water quality. The SRWG has also made great strides in leveraging data collection from USGS, BOR, irrigation districts, and municipalities. We feel that the SRWG will benefit greatly from the recent completion of the Sun River Watershed Quality Assurance Plan (QAPP) and that volunteer monitoring data will become even more useful moving forward with advances in data quality assurance and data management for public use.

MSUEWQ feels that the collaborative citizen based data collection efforts occurring in the Sun coupled with the well established connection to stakeholders is a great recipe for positively affecting non-point source pollution behavior change in the watershed. We hope that you will give this proposal full consideration for funding.

Sincerely,

W. Adam Sigler
Montana State University
Extension Water Quality Associate Specialist
Phone: (406) 994-7381
Email: asigler@montana.edu
Website: <http://waterquality.montana.edu/>

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Mountains & Minds

Teton Conservation District

319 Grant Review Committee:

The Teton Conservation District has not held a meeting in the past three months due to the lack of a quorum so we have not officially taken a vote on supporting the Sun River Watershed Group's Muddy Creek 319-grant proposal. We hope to hold a meeting on Monday, October 1st at 6:00 PM at which time we will get a letter of support and commitment to you for the project.

Vicki Baker, Chair
Teton Conservation District

Greenfields Irrigation District

Date: Mon, 1 Oct 2012 08:22:42 -0600
From: grid@3rivers.net
To: arollo7@msn.com
Subject: Muddy Creek grant

Dear SRWG,

GID is in support of finding voluntary solutions to improve riparian conditions on tributaries to Muddy Creek. GID will, when possible, assist with installing off-stream waters in these water bodies.

Sincerely,
Bob Hardin,
GID Manager.