Montana Department of Environmental Quality

Section 319 Grant - Final Proposal Form

FY2015 Final Proposals are due Monday, September 29, 2014

Section I: General Information

Project Title: Watershed Improvement through Sediment Reduction in Upper Sleeping Child Creek and Rye Creek

Project Sponsor Information

Sponsor Name: Bitter Root Water Forum

County: Ravalli

Website: www.brwaterforum.org

Tax Identification #: 43-2000515

DUNS #: 148485423

SAMs #: 4L8C7

Primary Contact		Signatory	
Title	Executive Director	Title	Board President
Address	1801 N First St	Address	1801 N First St
City	Hamilton	City	Hamilton
State	Montana	State	Montana
Zip Code	59840	Zip Code	59840
Phone Number	406-375-2272	Phone Number	406-375-2272
Fax Number	na	Fax Number	na
E-mail Address	heather@brwaterforum.org	E-mail Address	schultz_dv@msn.com
Signature		Signature	

Project Location

Watershed Name or HUC #: Bitterroot Watershed

TMDL Planning Area: Bitterroot

(1) Waterbody Name from 2014 List of Impaired Waters: Sleeping Child Creek

(1) Probable Cause(s) of Impairment: Silviculture Activities, Agriculture, Highway/Road/Bridge Runoff

(2) Waterbody Name from 2014 List of Impaired Waters: Rye Creek

(2) Probable Cause(s) of Impairment: Silviculture Activities, Forest Roads (Road Construction and Use)

(3) Waterbody Name from 2014 List of Impaired Waters:

(3) Probable Cause(s) of Impairment:

Activity 1 Name	Road Decommissioning	Latitude (1)	46° 1'59.15"N	Longitude (1)	113°49'59.36"W
Activity 2 Name		Latitude (2)		Longitude (2)	
Activity 3 Name		Latitude (3)		Longitude (3)	

Nonpoint Source (NPS) Information

Which WRP does the project implement?: Bitterroot

What is the WRP status?: DEQ-Accepted

Does the project implement recommendations in a TMDL?: Yes

Waterbody Type: River/Stream

Functional Category: Sediment Control

1st Pollution Category	Silviculture (Road Construction/Maintenance)	Percent of Total (%)	80
2nd Pollution Category	Construction (Highways/Roads/Bridges)	Percent of Total (%)	20
3rd Pollution Category		Percent of Total (%)	
4th Pollution Category		Percent of Total (%)	

Project Funding

319 Funds Requested	$133,500.00	Does the project sponsor have any open 319 contracts?	Yes
Matching Funds		Project Title	Bitterroot Watershed Restoration Planning
State Cash Match	$25,000.00	DEQ Contract Number	212054
Local Cash Match	$48,000.00	319 Award	$21,000.00
In-Kind Match	$43,250.00	Projected Closing Date	December 31, 2014
Total Match	$116,250.00	Project Title	
Other Federal Funds	$53,500.00	DEQ Contract Number	
Total Project Budget	$303,250.00	319 Award	
Administrative Fee	$13,000.00	Projected Closing Date	

Project Description

Methods: Please describe the specific activities of this project.

Watershed improvements will involve full and partial recontour of 14-18 miles of roads. Natural drainage will be established at all crossings to reestablish hydrologic connections. Decommissioned roads will be seeded with native grasses, fertilized with organic fertilizer, and mulched with weed free straw mulch and woody debris where available. All activities will reduce sediment loading and improve beneficial uses. Monitoring will be done to determine project effectiveness. Educational outreach will be conducted through interaction with the community regarding NPS pollution and solutions.

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

Physical treatments will include full and partial recontouring of 14-18 miles of roads, removal of at least 19 stream-crossing culverts to reestablish natural drainage at stream crossings and reestablish hydrologic connection. The recontoured roads will be seeded with native grasses, treated with organic fertilizers, and mulched with weed free straw and woody debris where available. This project will improve stream conditions by reducing sediment inputs into Upper Sleeping Child and Rye Creeks. Soil productivity and infiltration will be improved by returning 14-18 miles of roads (about 45 acres) back to the productive land base. Habitat potential for Westslope Cutthroat Trout and Bull Trout will be improved by a reduction in chronic fine sediment.

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

Sleeping Child Creek and Rye Creek are both 303(d)-listed and have completed TMDLs for sediment. To reduce the amount of sediment entering impaired streams and improve water quality, the Bitterroot National Forest (BNF) is actively working on "Darby Lumber Lands Phase 1", a project proposing to decommission approximately 68 miles of road, store of 46 miles of road, and decompact 10 miles of jammer and skid trails over 6 years. The "Phase 1" project area includes about 23,000 acres with 10 sections of heavily impacted former railroad lands. BRWF is proposing to complete Sections 1, 3, and 11, restoring 14-18 miles of roads, in partnership with BNF.

These railroad sections were previously owned by the Darby Lumber Company. Throughout the 1980's and 1990's the area was heavily roaded and clear cut. In addition to high road density and clear cutting, much of the area burned at high intensity during the fires of 2000, exacerbating chronic sediment loading from road-related sources. The road systems in these sections were not designed with resource protection in mind and have received little to no maintenance since completion of clear cutting. The road beds are eroding, culverts are plugged (some have blown out), and sediment is being delivered directly to stream systems.

Section 1 is considered by BNF hydrologists and soil scientist to be one of the highest priorities for watershed treatment in the overall project area. The road system is particularly degraded in this area and is impacting the headwaters of Sleeping Child Creek. The headwaters area supports a viable local population of Bull Trout, a Federally-listed threatened species, and is mapped as critical habitat for the species. Both Sleeping Child and Rye Creeks contain Westslope Cutthroat Trout, a USFS Region 1 Sensitive Species. Treating Sections 3 and 11 will address similar concerns and advance the overall goals of sediment reduction and habitat enhancement within each watershed. By partnering with BNF to assist in restoration work we will ensure that significant progress is made on Phase 1 in the next five years, allowing for additional phases to be developed and completed in a more timely manner.

BRWF will also conduct education and outreach to inform the Bitterroot community about local NPS pollution and solutions.

Section II: Background Information

A: Statement of Need and Intent

BRWF chose to pursue this project because it is the most significant action we can take to make immediate and lasting improvements to water quality in Sleeping Child Creek and Rye Creek by reducing excess sediment delivery to the streams. Both creeks provide critical habitat for Westslope Cutthroat trout, and Sleeping child Creek provides spawning habitat for bull trout and neither creek is meeting it's beneficial use for aquatic life.

Through the development of the Bitterroot's WRP we identified road decommissioning paired with watershed improvements (recontouring, seeding, culvert removal, etc) as the most effective means to produce measurable results within Sleeping Child and Rye Creeks. Because the headwaters of these 303(d) impaired streams are on Forest Service lands, it makes great sense that we would partner with the Bitterroot National Forest

The significance of this project--for water quality, the local community, and the Bitter Root Water Forum--can not be understated. The Bitterroot is renowned for fly-fishing and the amount of tourism dollars that it generates in our communities is significant. However, water quality is threatened in many areas--over 38 creeks in the Bitterroot watershed are listed as impaired by DEQ and do not meet at least one of their beneficial uses. Reducing the amount of sediment in Rye Creek--one of the largest contributors of sediment to the sediment impaired mainstem of the Bitterroot--will help move Rye Creek closer to de-listing and reduce the amount of sediment entering the mainstem. Sleeping Child is another great example of a watershed where we can make significant strides toward achieving the beneficial use of aquatic life, restoring habitat for bull trout, and ultimately de-listing the Creek bringing about gains for water quality, the community, and DEQ.

Beyond being an incredible project to improve water quality and existing stream conditions within the Bitterroot community, a project of this size and scope will be a great boon to BRWF. An opportunity to partner with BNF, partners who are well versed in this type of project, will allow BRWF to pursue the largest scale project that we have attempted to date, greatly adding to a resume of successful restoration projects over the last four years. With support of BNF, FWP, TU, and UM we will be well positioned for success, enabling more significant projects like this in the future, positively impacting water quality for years to come.

B: Collaborative Effort

Partner	Role
Bitterroot National Forest	Assistance in project planning, execution, and monitoring. BNF has driven this project forward for years and in appreciation of partnership has committed to assisting BRWF in project implementation, monitoring of culvert removal, and future project monitoring.
MT Fish, Wildlife & Parks	Assistance in execution and monitoring. FWP is excited at the prospect of large scale restoration on critical habitat and will assist as needed in project implementation and monitoring, working closely with UM students to plan ongoing monitoring efforts.
University of Montana	Faculty and students at UM will assist in monitoring and assessing restoration efforts and will likely contribute significant time towards volunteer restoration days.
Trout Unlimited (local and state)	TU, both the local and state chapters, have expressed interest in the completion of this project and will likely contribute cash match as well as volunteers for restoration days.

Additional Information (Collaborative Effort)

"Watershed Improvement through Sediment Reduction in Upper Sleeping Child Creek and Rye Creek" will catalyze strong and lasting partnerships within the Bitterroot watershed, leading to increased amounts of on the ground restoration over the next five years and beyond. Currently, BRWF, BNF, and MT FWP are housed in the same office building allowing for easy collaboration, including the ability to meet on short notice, discuss projects, strategize for implementation, and quickly solve problems as they arise. We have no doubt that this opportunity to work together will be a successful pairing, assisting all groups in meeting targets for water quality standards.

C: Project Planning and Management

Funding Organization	Award Amount	Project Description	Project Status	Contact Information
MT DEQ	$21,000	Work with local stakeholders to develop a Watershed Restoration Plan for priority tributaries in the Bitterroot watershed; conduct education and outreach on NPS issues and solutions; public involvement assistance for Bitterroot River Watershed TMDLs. All tasks were completed successfully before 6/30/14 with the exception of the last, kept open upon request from DEQ.	Final deliverable will be completed on 9/22/14; contract will close soon after	Katie Eiring Water Quality Specialist, DEQ (406) 444-0549
MT DEQ	$19,000	Design a minimum of two projects addressing NPS pollution on priority streams as outlined in the Bitterroot's WRP; conduct site visits to highlight NPS issues and solutions; coordinate and implement volunteer days for NPS pollution solutions.	Completed in June 2014	Katie Eiring Water Quality Specialist, DEQ (406) 444-0549
USDA, by way of the Bitterroot National Forest	$54,915	Decrease stream temperatures in an overly warm tributary to the East Fork of the Bitterroot River by planting 1,500 native shrubs to provide shade, installing 955 feet of coir log bundles to promote establishment of woody vegetation and slow bank erosion, installing 1,000 live willow cuttings, depositing three large woody debris structures, and installing 5,600 feet of riparian fencing.	Completed in 2013	Matt Gordon Grants and Agreements Specialist BNF (406) 363-7140
USDA, by way of the Bitterroot National Forest	$27,302	Reduce sediment delivery to the sediment impaired Threemile Creek by installing a culvert to convey roadside ditch runoff, applying crushed aggregate to reduce road surface erosion, and working with the County Roads Department to apply dust abatement to the surface of the road once per year over the course of three summers.	Initial project completed in 2012, dust abatement completed in 2014	Matt Gordon Grants and Agreements Specialist BNF (406) 363-7140

Additional Information (Planning and Management)

BRWF regularly relies on technical expertise from Chris Clancy, FWP fisheries biologist and BRWF board member; Ed Snook, BNF Hydrologist and BRWF board member; Tom Parker, Environmental Consultant at Geum Environmental Consulting in Hamilton; Al Pernichele, Bitterroot River Water Commissioner and BRWF board member, and our contract managers at DEQ.

For this project, we will work closely with Cole Mayn, Soil Scientist / Soil, Water, Fisheries, & Heritage Staff for BNF and one pf the project leads for "Darby Lumber Lands", and Marilyn Wildey, Hydrology Technician for BNF, who has done extensive monitoring in the Bitterroot and is prepared to assist BRWF with project oversight--especially on areas involving culverts and crossings--and monitoring.

Through past successes with DEQ projects and mentoring from then contract manager, Laura Andersen, BRWF Executive Director Heather Mullee has significant experience in the management and administration of DEQ 319 contracts.

Section III: Project Components

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

The education and outreach component for this project is twofold, focusing on youth education--both in and out of classrooms--and adult education in the community. We believe students are the future decision makes and have the ability to influence the future of resource management as well as assist in the education of their parents.

To educate students, we will use the Earth Stewardship Program, a collaborative effort with other natural resource professionals that reaches 300+ 7th grade students with enhanced watershed education, informing students about NPS pollution and solutions. We will also lead water quality monitoring trips with students in an effort to get them more deeply engaged in water quality.

To educate adults, we will update our e-news (which reaches a list of 450 people and growing), send information in our newsletter, and invite participants to play an active role in the restoration process through volunteer days where citizens will be able to experience NPS pollution solutions in action, giving them a real sense of improvements that can be made in our watershed and how they can make a difference (using up to 50 volunteers).

BRWF will also use opportunities like Riverfest in the 'Root--a festival to celebrate and share information about our river, which averages 500 attendees; the Bitterroot River Clean Up--which uses 75+ volunteers; the Ravalli County Fair--where over 350 people stopped at our booth in 2014; and presentations to local service groups and clubs, like Kiwanis and the Sula Club, reaching 100+ people; to educate citizens about NPS pollution and solutions, using specific examples of work being done in Upper Sleeping Child and Rye Creek, and inviting people to get involved directly through volunteer days, taking a hands on approach to restoration.

C: Operation and Maintenance

Physical treatments will include full and partial recontouring of 14-18 miles of roads, removal of at least 19 stream-crossing culverts to reestablish natural drainage at stream crossings and reestablish hydrologic connection, seeding with native grasses, treating with organic fertilizers, and mulching with weed free straw and woody debris where available. Operation will involve the inspection of restoration work, monitoring design features, and instructing the excavator pilot to ensure work is of the highest quality - including a reasonably consistent gradient, laying banks back, scattering woody debris, and making sure bedding material is laid out for culverts. We will ensure that technical expertise is available, especially during culvert removal and work near stream crossings This will include oversight from a hydrologist and/or fisheries biologist at BNF. These practices will occur from July-October 2015 and June-October 2016.

Maintenance will include inspection, determining whether vegetation is being established, and readjusting treatments and/or reseeding and re-mulching as necessary. Because work will take place on Forest Service land, gaining access will not be an issue.

No work will be done in the floodplain, so coordination with Ravalli County Floodplain Manager Brain Wilkinson will not be necessary.

We will work with the Bitterroot Conservation District to secure a 310 permit for proposed work in or near streams.

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

During and post-project monitoring--including vegetation monitoring and photo-point monitoring--will be done to determine project effectiveness. Our vegetation monitoring plan will involve a representative mixture of sites, featuring a variety of aspects including elevation, shade and relative moisture, with a specific focus and consideration given to stream crossings. Vegetation monitoring will include photo-points, plant counts, and plant height and densities, and will take several days in each field season starting in 2016. Even though the DEQ contract will expire in 2017, BRWF will monitor sites in 2017 and 2018, using project contribution dollars potentially provided by Trout Unlimited or Future Fisheries. UM students will also conduct ongoing monitoring of restoration projects as part of a study on the effects of restoration techniques in Rye Creek. Success will be determined by gaging the amount of reestablished vegetation, using numbers of surviving plants and their size, and by enacting the measures needed to reach estimated sediment load reductions as determined by WEPP models used before project implementation.

Section IV: Scope of Work

Task 1 Title: Physical Treatment and Revegetation

Description

Physical treatments for road restoration will include working with an excavator to complete a mix of full and partial recontouring of 14-18 miles of roads. Culverts will be removed and natural drainage will be established at all crossings to reestablish hydrologic connection. The decommissioned roads will be seeded with native grasses, fertilized with organic fertilizers, and mulched with weed free straw mulch and woody debris where available.

Deliverables

1) Full or partial recontouring of 14-18 miles of roads decommisioned by the Forest Service
2) Removal of 14-20 culverts to reestablish natural drainage and hydrologic connection
2) Seeding, fertilizing, mulching and (where available and applicable) woody debris deposits along 14-18 miles of roads

Task 1 Funding

319 Funds	$88,000.00
Non-Federal Match	$55,000.00
Other Federal Funds	$42,500.00
Total Cost	$185,500.00
Is Match Secured?	No

Timeline: July 2015-October 2016

Match Source: Potentially BRTU, MT TU, and/or Future Fisheries

Task 2 Title: Implementation Monitoring and Oversight

Description

Implementation monitoring and oversight will involve having a BRWF and, as necessary, BNF representative on site to direct heavy equipment operators during ground moving work. Monitoring and oversight will include monitoring design features and instructing the excavator pilot to ensure that work is of the highest quality - including a reasonably consistent gradient, laying banks back, scattering woody debris, and making sure bedding material is laid out for culverts. Technical expertise will be made available, especially during culvert removal and work near stream crossings. This will include oversight from a hydrologist and/or fisheries biologist at BNF. .

Deliverables

1) consistent and well-executed recontours on decommissioned roads
2) documentation of best practices used near stream crossings

Task 2 Funding

319 Funds	$12,500.00
Non-Federal Match	
Other Federal Funds	$6,000.00
Total Cost	$18,500.00
Is Match Secured?	No

Timeline: Spring 2015-Fall 2016

Match Source: Bitterroot National Forest

Task 3 Title Effectiveness Monitoring

Description

During and post-project monitoring--including vegetation monitoring and photo-point monitoring--will be done to determine project effectiveness. Our vegetation monitoring plan will involve a representative mixture of sites, featuring a variety of aspects including elevation, shade and relative moisture, with a specific focus and consideration given to stream crossings. Vegetation monitoring will include photo-points, plant counts, and plant height and densities, and will take several days in each field season starting in 2016. Even though the DEQ contract will expire in 2017, BRWF will monitor sites in 2017 and 2018, using project contribution dollars potentially provided by Trout Unlimited or Future Fisheries. UM students will also conduct ongoing monitoring of restoration projects as part of a study on the effects of restoration techniques in Rye Creek. Success will be determined by gaging the amount of reestablished vegetation, using numbers of surviving plants and their size, and by enacting the measures needed to reach estimated sediment load reductions as determined by WEPP models used before project implementation.

Deliverables

1) Vegetation count, height, and Photo-Point Monitoring during two field seasons
2) WEPP Modeling to set metrics for determining project success
3) Monitoring datasets from UM students

Task 3 Funding

319 Funds	$10,000.00
Non-Federal Match	$7,500.00
Other Federal Funds	$3,500.00
Total Cost	$21,000.00
Is Match Secured?	Yes

Timeline Spring 2016-Fall 2018

Match Source UM students and faculty, in-kind contibutions

Task 4 Title NPS Pollution & Solution Education

Description

We will educate students and adults about NPS Solution and Education. To educate students we will use the Earth Stewardship Program, a collaborative effort with other natural resource professionals that reaches 300+ 7th grade students with enhanced watershed education, informing students about NPS pollution and solutions. We will also lead water quality monitoring trips with at least 200 of these students annually in an effort to get them more deeply engaged in water quality.

To educate adults, we will update our e-news (which reaches a list of 450 people and growing), send information in our newsletter, and invite participants to play an active role in the restoration process through volunteer days where citizens will be able to experience NPS pollution solutions in action, giving them a real sense of improvements that can be made in our watershed and how they can make a difference (using up to 50 volunteers).

BRWF will also use opportunities like Riverfest in the 'Root--a festival to celebrate and share information about our river, which averages 500 attendees; the Bitterroot River Clean Up--which uses 75+ volunteers; the Ravalli County Fair--where over 350 people stopped at our booth in 2014; and presentations to local service groups and clubs, like Kiwanis and the Sula Club, reaching 100+ people; to educate citizens about NPS pollution and solutions, using specific examples of work being done in Upper Sleeping Child and Rye Creek, and inviting people to get involved directly through volunteer days, taking a hands on approach to restoration.

Deliverables

1) educate 300 students annually through Earth Stewardship, with at least two lesson plans focused on NPS pollution and water quality
2) lead water quality monitoring for 200+ students
3) a minimum of three e-news reports on NPS issues and solutions, including calls to action
4) a minimum of two newsletter addressing NPS issues and solution, including calls to action
5) a minimum of six volunteer days to engage citizens in active restoration through seeding and mulching
6) use Riverfest in the 'Root to inform citizens about NPS issues and solutions
7) a minimum of two presentations to educate citizens about NPS issues and provide a call to action

Task 4 Funding

319 Funds	$10,000.00
Non-Federal Match	$52,750.00
Other Federal Funds	$1,500.00
Total Cost	$64,250.00
Is Match Secured?	No

Timeline July 2015-June 2017

Match Source Local businesses, foundation grants, in-kind contributions

Task 5 Title Project Administration

Description

Contractor shall oversee and administrate the open contract and act as a liaison between BRWF and MTDEQ. Contractor shall prepare and submit requests for reimbursement, match, status reports, annual reports, and a final report as needed by MTDEQ.

Deliverables

1) Status Reports and Billing
2) Annual Reports and Billing
3) Final Report and Billing

Task 5 Funding

319 Funds	$13,000.00
Non-Federal Match	$1,000.00
Other Federal Funds	
Total Cost	$14,000.00
Is Match Secured?	Yes

Timeline July 2015-June 2017

Match Source BRWF Board President Dave Schultz, in-kind contribution

Task 6 Title

Description

Deliverables

Task 6 Funding

319 Funds	
Non-Federal Match	
Other Federal Funds	
Total Cost	
Is Match Secured?	

Timeline

Match Source

Task 7 Title

Description

Deliverables

Task 7 Funding

319 Funds	
Non-Federal Match	
Other Federal Funds	
Total Cost	
Is Match Secured?	

Timeline

Match Source

Task 8 Title

Description

Deliverables

Task 8 Funding

319 Funds	
Non-Federal Match	
Other Federal Funds	
Total Cost	
Is Match Secured?	

Timeline

Match Source

Task 9 Title

Description

Deliverables

Task 9 Funding

319 Funds	
Non-Federal Match	
Other Federal Funds	
Total Cost	
Is Match Secured?	

Timeline

Match Source

Task 10 Title

Description

Deliverables

Task 10 Funding

319 Funds	
Non-Federal Match	
Other Federal Funds	
Total Cost	
Is Match Secured?	

Timeline

Match Source

Section V: Supporting Documents

A: Detailed Project Budget

Task Number and Specific Action	319 Funds	State Cash Match	Local Cash Match	In-Kind Match	Federal Funds	Total Costs
1: Recontouring of 14-18 miles of roads	$70,000	$20,000	$27,000		$35,000	$152,000
1: Removal of 14-20 culverts	$13,000	$2,500	$1,500		$5,000	$22,000
1: Seeding, fertilizing, mulching and/or woody debris	$5,000	$2,500	$1,500		$2,500	$11,500
2:Oversight for consistent & well-executed recontours	$12,000				$5,000	$17,000
2: Documentation of BMPs used near stream crossings	$500				$1,000	$1,500
3: Vegetation and Photo Point monitoring	$9,000				$1,000	$10,000
3: WEPP Modeling to set metrics for project success	$1,000				$2,500	$3,500
3: Monitoring datasets from UM students				$7,500		$7,500
4: Educate 300 students annually through esp	$1,000		$4,000	$10,000	$1,500	$16,500
4: Lead water quality monitoring for 400+ students	$2,000		$2,000	$2,500		$6,500
4: minimum of three e-news reports on NPS issues	$500			$250		$750
4: minimum of two newsletters addressing NPS issues	$1,500			$1,000		$2,500
4: minimum of six volunteer days to engage citizens	$3,500			$4,500		$8,000
4: Use Riverfest to inform citizens about NPS issues	$1,250		$12,000	$15,000		$28,250
4: Two presentations to educate citizens about NPS poll.	$250			$1,500		$1,750
5: Status Reports and Billing	$8,000			$1,000		$9,000
5: Annual Reports and Billing	$3,500					$3,500
5: Final Report and Billing	$1,500					$1,500
TOTAL	$133,500	$25,000	$48,000	$43,250	$53,500	$303,250

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	Spring 2015	Summer 2015	Fall 2015	Winter 2016	Spring 2016	Summer 2016	Fall 2016	Winter 2017	Spring 2017	Summer 2017	Fall 2017
Task 1: Physical Treatment and Revegetation	☐	■	■	☐	■	■	■	☐	☐	☐	☐
Task 2: Implementation Monitoring and Oversight	☐	■	■	☐	■	■	■	☐	☐	☐	☐
Task 3: Effectiveness Monitoring	☐	☐	☐	☐	■	☐	■	☐	■	☐	■
Task 4: NPS Pollution & Solution Education	☐	■	■	■	■	■	■	■	■	■	☐
Task 5: Administration	☐	■	■	■	■	■	■	■	■	■	☐
	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
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Please ensure that you submit a **project map(s)** and **letters of support (at least 3)** 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: Draft of amended WRP (if applicable)**

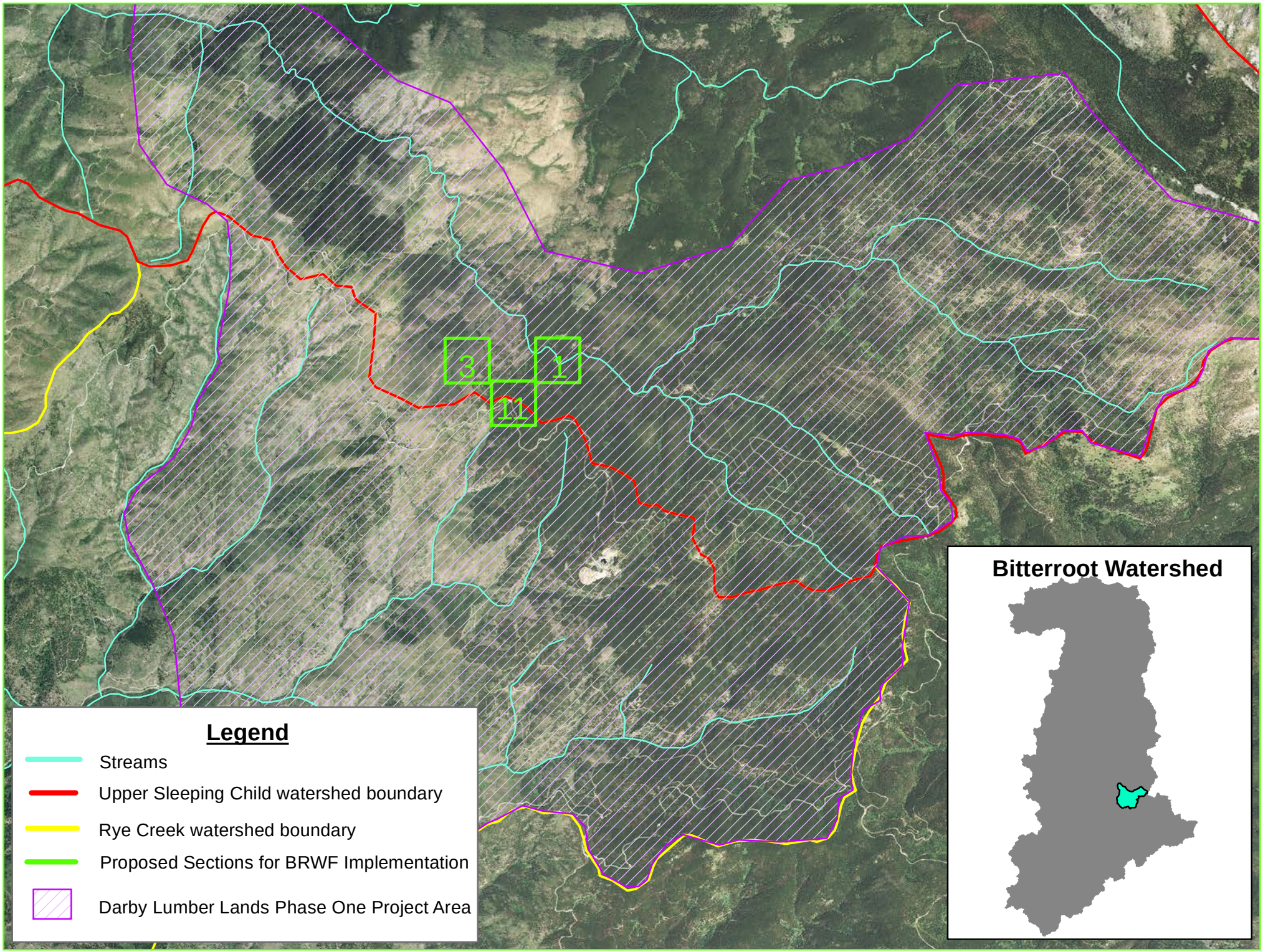
☑ **H: Photos**

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

Since providing our initial application we were informed of cash-funding available from the Bitterroot National Forest (BNF) that will go far beyond the initially proposed in-kind contributions. The exact amount is not yet confirmed, but we are confident that it will allow us to get a larger number of miles of roads improved throughout the course of this project. We also have a verbal agreement as well as a written pledge on the attached letter of support, that significant match dollars will be provided from the Bitterroot Chapter Trout Unlimited.

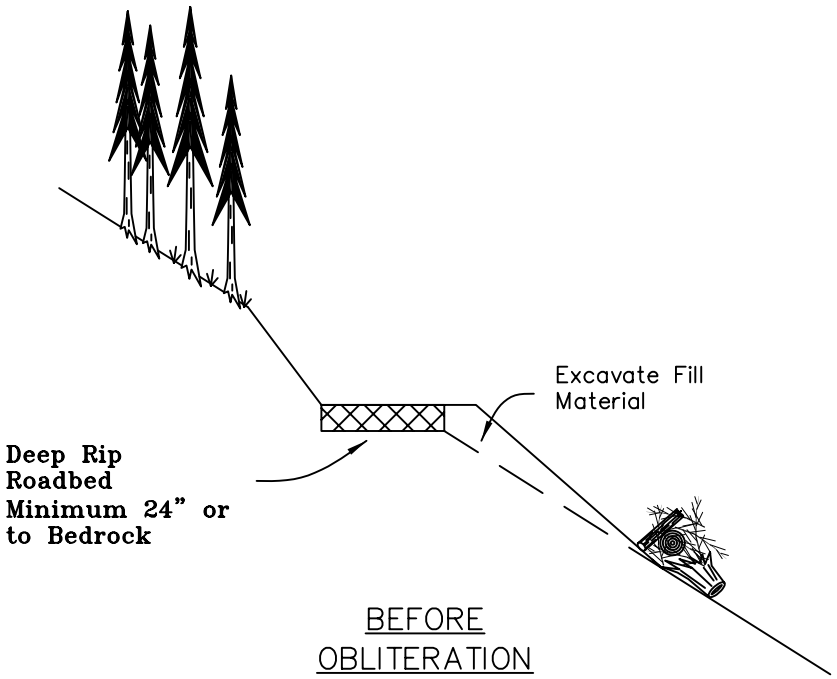
After submitting our first proposal, we were encouraged to "Describe how erosion/sediment has been documented" and "Identify the problem being addressed." In 2011, the Bitterroot Temperature and Tributary Sediment Total Maximum Daily Loads and Framework Water Quality Improvement Plan stated that, "A comparison of existing data to target values suggest elevated levels of sediment in Rye Creek and macroinvertebrate data indicate possible effects to aquatic life. An assessment of riparian condition and near-stream land uses (conducted concurrently with this study) supports this conclusion. " Table 5-66 "Rye Creek Sediment TMDL" in the same document lists sediment loading from roads at 64 tons/year with an allowable amount of 24 tons/year suggesting a needed reduction of 63%. MT DEQs hosted website, CWAIC, lists Rye Creek as not supporting aquatic life, with a probable cause of sedimentation and a probable source as silviculture activities and forest roads. Table 5-67 "Sleeping Creek Sediment TMDL" in the same document lists sediment loading from roads at 31 tons/year with an allowable amount of 11 tons/year suggesting a needed reduction of 63%. CWAIC, lists Sleeping Child Creek as not supporting aquatic life, with a probable cause of sedimentation and a probable source as silviculture activities, agriculture, highway/road/bridge runoff. Watershed Improvement through Sediment Reduction in Upper Sleeping Child Creek and Rye Creek will directly address the problems of silviculture activities, roads, and road/bridge runoff, leading to an overall reduction in sediment loading in both Sleeping Child and Rye Creeks.

Watershed Improvement in Upper Sleeping Child Creek and Rye Creek

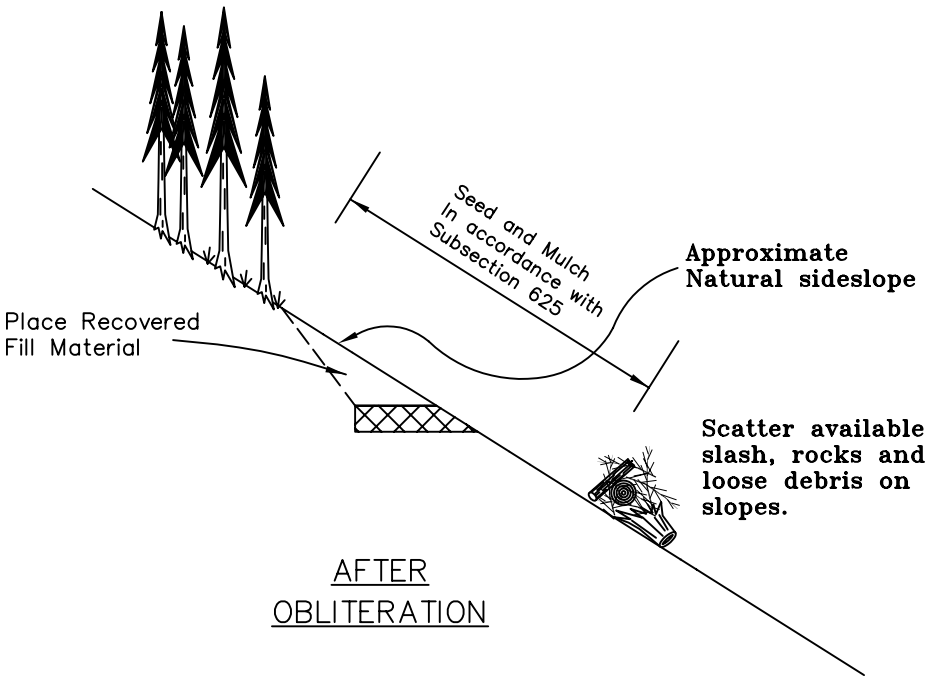


ROADWAY OBLITERATION, METHOD 1

Subsection 211.03



BEFORE OBLITERATION

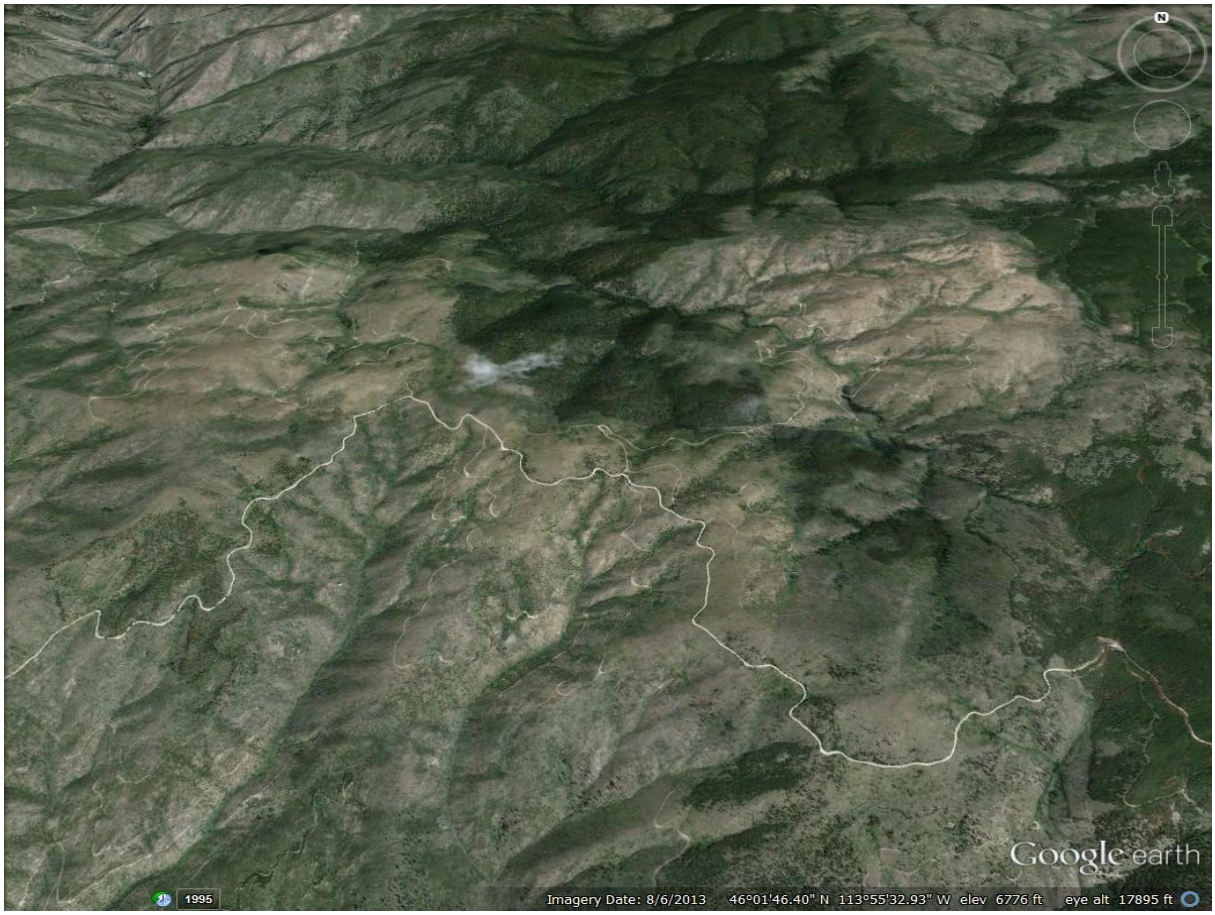


AFTER OBLITERATION

Subsection 211.03: A reasonable effort will be made to transplant established trees and brush into disturbed areas.

PROJECT NAME	SHEET	TOTAL
BITTERROOT NATIONAL FOREST	X	XX

Darby Lumber Lands, Proposed Project Area, Landscape View



Darby Lumber Lands, Proposed Project Area, Google Earth View

Road failure/Alluvial fan leading to Upper Sleeping Child, Section 1

Road Failure extending to Sleeping Child Creek, Section 1

Road and slope failure, Section 1

Road Failure, Section 1

USDA United States Department of Agriculture | Forest Service | Bitterroot National Forest | 1801 N. First Hamilton, MT 59840 406-363-7100

File Code: 2500
Date: September 12, 2014

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

Dear Mr. Ray,

The Bitterroot National Forest (BNF) strongly supports the Bitter Root Water Forum's 319 proposal, "Watershed Improvement through Sediment Reduction in Upper Sleeping Child Creek and Rye Creek".

Hydrologists from BNF assisted in the development of the "Bitterroot Watershed Restoration Plan" and we stand behind the recommendations listed to improve water quality and fish habitat in Bitterroot waterways. The specific actions recommended in "Watershed Improvement through Sediment Reduction in Upper Sleeping Child Creek and Rye Creek" will drastically improve water quality in Sleeping Child Creek, which supports a viable population of resident Bull trout, a Federally-listed threatened species, and Westslope Cutthroat trout, a Region 1 Sensitive Species. The location of proposed BRWF restoration work in the Upper Sleeping Child watershed is especially important as it is a relatively high elevation stream with lower water temperatures and higher habitat potential than in the lower watershed. Extending work into the Rye Creek drainage will also help improve habitat for Westslope Cutthroat and potentially help Bull Trout recovery in the drainage.

The Bitterroot National Forest is excited about partnering with BRWF to implement much needed restoration action in the impaired watersheds of Upper Sleeping Child and Rye Creeks. These watersheds have been identified as "Priority Watersheds" as part of the Watershed Condition Framework - an agency wide effort to improve watershed conditions. A large portion of watershed restoration work will be completed in recently acquired sections that were formerly owned and managed by the Darby Lumber Company. We are looking forward to the opportunity in this project to truly address watershed restoration needs at a landscape level.

Thank you for your time and consideration. Please feel free to contact me or my staff, Cole Mayn at (406)363-7155 if you have further questions.

Sincerely,

Julie K. King

JULIE K. KING
Forest Supervisor

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

September 11, 2014

Re: Support for the Bitter Root Water Forum's 319 application, "Watershed Improvement through Sediment Reduction in Upper Sleeping Child Creek and Rye Creek"

Dear Robert,

As a private citizen who lives on Rye Creek, I strongly support the Bitter Root Water Forum's (BRWF) 319 application, "Watershed Improvement through Sediment Reduction in Upper Sleeping Child Creek and Rye Creek".

For years, I have watched banks erode due to an unnatural level of sediment in the waters of Rye Creek. We have had the stream move over 30 feet closer to an expensive fence and orchard over the last several years, and feel the channel's rapid migration is largely due to high sediment loads from upstream. There are several locations on our property where the stream's movement is cutting into high banks, further increasing sediment load downstream. The stream carries a high level of sediment late into the flow season, suggesting a large annual contribution to the Bitterroot River. BRWF has received funding to implement a restoration project on our property and "Watershed Improvement through Sediment Reduction in Upper Sleeping Child Creek and Rye Creek" would be an incredibly complimentary project to enhance and protect the results on our place and protect eroding banks on other properties in the area.

Anything that can be done to reduce the high levels of sediment in Rye Creek is a good thing, and the intention of BRWFs project looks as if it will go a very long way to make drastic improvements to improve the health of Rye Creek and Upper Sleeping Child.

In conclusion, I am very supportive of local efforts to protect and restore our natural resources and believe "Watershed Improvement through Sediment Reduction in Upper Sleeping Child Creek and Rye Creek" is a compelling project that I would like to see on the ground in my watershed.

Sincerely,

Lee McAlpine

C. Lee McAlpine
Rye Creek resident

The University of Montana

Environmental Studies Program
Rankin Hall, University of Montana
Missoula, Montana 59812-4320
Phone: (406) 243-6273
Email: evst@mso.umt.edu
http://www.cas.umt.edu/evst

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

September 10, 2014

Re: Support for the Bitter Root Water Forum's 319 project proposal:
"Watershed Improvement through Sediment Reduction in Upper Sleeping Child Creek and Rye Creek"

Dear Mr. Ray:

My colleagues and I in the University of Montana Environmental Studies program strongly support the Bitter Root Water Forum's 319 proposal, "Watershed Improvement through Sediment Reduction in Upper Sleeping Child Creek and Rye Creek".

The specific actions called for in the above proposal have a strong chance of significantly improving water quality in Sleeping Child Creek, which supports viable populations of resident Bull trout, a Federally-listed threatened species, and Westslope Cutthroat trout, a Region 1 Sensitive Species. The area where BRWF proposes to work in the Sleeping Child watershed is especially valuable to these fish species as it is relatively high in elevation with lower water temperatures and higher habitat potential than in the lower watershed. Extending restoration work into the Rye Creek drainage will also help improve habitat for Westslope Cutthroat and potentially help Bull Trout recovery in the drainage.

UM faculty and students are interested in the opportunity to monitor/assess and compare current and future conditions in these watersheds. We are already meeting with BRWF, the Forest Service and the Montana Department of Fish, Wildlife and Parks to plan a long term evaluation of how this watershed responds to these, and other, restoration efforts in the area.

Thank you for your time and consideration. Please get in touch if you have further questions.

Sincerely,

Vicki Watson

Dr. Vicki Watson, Professor of Environmental Studies at UM
Vicki.watson@umontana.edu
406-243-5153

Montana Fish, Wildlife & Parks

Robert Ray, Watershed Protection Section Supervisor
Water Quality Planning Bureau
Department of Environmental Quality
P.O. Box 200901
Helena, MT 59620-0901
September 16, 2014

Dear Robert,

Montana Fish, Wildlife and Parks supports the Bitter Root Water Forum's 319 proposal, "Watershed Improvement through Sediment Reduction in Upper Sleeping Child Creek and Rye Creek".

MT FWP assisted in the development of the "Bitterroot Watershed Restoration Plan" and we stand behind the recommendations listed to improve water quality and fish habitat in Bitterroot waterways. The specific actions recommended in "Watershed Improvement through Sediment Reduction in Upper Sleeping Child Creek and Rye Creek" will improve water quality in Sleeping Child Creek, which supports a viable population of resident Bull trout, a Federally-listed threatened species, and Westslope Cutthroat trout, a Region 1 Sensitive Species. The area where BRWF is proposing to work in Sleeping Child is especially important as it is relatively high in elevation with lower water temperatures and higher habitat potential than in the lower watershed. Extending work into the Rye Creek drainage will also help improve habitat for Westslope Cutthroat.

MT FWP supports the efforts of BRWF to partner with the Bitterroot National Forest to implement restoration action in the impaired watersheds of Sleeping Child and Rye Creeks. We will support their efforts to procure additional funding to help BRWF meet the match as required by DEQ and believe that this project will be a good candidate for FWP's Future Fisheries Improvement Program.

Thank you for your time and consideration. Please don't hesitate to get in touch if you have further questions.

Sincerely,

Chris Clancy

Chris Clancy
Fisheries Biologist

MONTANA TROUT UNLIMITED
BITTERROOT CHAPTER

September 12, 2014

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

Re: Support for the Bitter Root Water Forum's 319 project proposal

Dear Robert,

The Bitter Root Chapter Trout Unlimited strongly supports the Bitter Root Water Forum's 319 proposal, "Watershed Improvement through Sediment Reduction in Upper Sleeping Child Creek and Rye Creek". It has been a long held belief in our chapter, that we should do what we can to help support the organizations in the Bitterroot Valley that compliment our mission. The Bitterroot Water Forum is one of those organizations.

We understand that the proposed project is a result of recommendations made in BRWFs WRP, which was developed with input from Montana TU, so we feel confident that actions being taken represent the priorities of TU, "To conserve, protect and restore North America's coldwater fisheries and their watersheds". Specifically, we believe that the size and scope of "Watershed Improvement through Sediment Reduction in Upper Sleeping Child Creek and Rye Creek" make it one of the most significant actions that can be taken to improve water quality in Sleeping Child Creek, which supports a viable population of resident Bull trout, a Federally-listed threatened species, and Westslope Cutthroat trout, a Region 1 Sensitive Species.

The area where BRWF is proposing to work in Sleeping Child is especially important as it is relatively high in elevation with lower water temperatures and higher habitat potential than in the lower watershed. Extending work into the Rye Creek drainage will also help improve habitat for Westslope Cutthroat and potentially help Bull Trout recovery in the drainage.

In addition to implementing high priority recommendations from BRWFs WRP, "Watershed Improvement through Sediment Reduction in Upper Sleeping Child Creek and Rye Creek" will advance initiatives from the 2012 Montana Nonpoint Source Management Plan Five-Year Action Plan and Priorities, specifically to

PO Box 262
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MONTANA TROUT UNLIMITED
BITTERROOT CHAPTER

"Encourage and fund WQIP and WRP directed NPS watershed restoration projects…" as well as spur active partnerships in the Bitterroot that will advance on the ground conservation for years to come.

As a chapter we are making it a fiscal priority for the next two years to help support the project and the Bitterroot Water Forum's activities in the project.

Thank you for your consideration. If I can help in any other way, please don't hesitate to get in touch.

Respectfully,

Ross Rademacher
Chapter President
Bitterroot Chapter Trout Unlimited

PO Box 262
Hamilton, MT 59840