2021 319 Application Form

General Information

Project Name: North Burnt Fork Creek Restoration on Lee Metcalf National Wildlife Refuge

Sponsor Name: Trout Unlimited

Registered with the Secretary of State? Y

Registered with SAM? Y

Duns #: 051698132

Does your organization have liability insurance? Y

Primary Contact	Christine Brissette
Title	Special Projects Manager
Address	312 North Higgins, Suite 200
City	Missoula
State	M
Zip Code	59802
Phone Number	406-544-9649
Email Address	cbrissette@tu.org
Signature	Christine Brissette Digitally signed by Christine Brissette DN: cn=Christine Brissette, o=Trout Unlimited, ou, email=christine.brissette@tu.org, c=US Date: 2020.11.13 12:38:41 -07'00'

Signatory	Christine Brissette
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Technical and Administrative Qualifications

This project which was initially developed by Trout Unlimited in partnership with Montana Fish Wildlife and Parks fisheries biologists and US Fish and Wildlife Service staff (Lee Metcalf National Wildlife Refuge manager and Bull Trout Recovery Coordinator). A restoration design engineer will be contracted through a competitive process for survey, design and construction oversight. Christine Brissette, project manager for Trout Unlimited, will be responsible for project management, monitoring, reporting and will lead public outreach efforts in coordination with the USFWS. Trout Unlimited grants accountant, Catherine Redfern, will manage the budget for this grant and matching funds, and will be responsible for invoicing. Staff with the MT DEQ 319 program have visited the project site and supported its development through funding, public meetings and discussion.

Past Projects

Project Name	Grant or Contract Amount	Funding Entity *(entity name/program, contact person, phone, email)*	Completion Date
Fishtrap Creek Habitat Enhancement (Design, Construction oversight)	$ 14,000.00	Lower Clark Fork Watershed Group Brita Olsen, Coordinator 208-304-3852, brita@lowerclarkforkwatershedgroup.org	7/31/2020
West Fork Bitterroot Fish Screen Installation	$ 30,630.00	Montana FWP, Future Fisheries Program Michelle McGree, Coordinator 406-444-2432, mmcgree@mt.gov	8/4/2020
American Gulch Mine Reclamation & Restoration	$ 85,454.00	Helena-Lewis & Clark National Forest Steve Opp, Minerals Program Manager 406-449-5201, james.s.opp@usda.gov	7/1/2020

Budget Summary*

		Other Funding	Federal Match	Non-Federal Match	319 Funding Request	Total Cost
	Education and Outreach	$ 500	$ 0	$ 3,000	$ 0	$ 3,500
	Project Administration	$ 2,116	$ 0	$ 7,763	$ 9,900	$ 19,779
	Total	$ 2,616	$ 0	$ 10,763	$ 9,900	$ 23,279
	Project 1 Name	North Burnt Fork Creek Restoration on LMNWR				
	Project Planning	$ 15,000	$ 0	$ 7,500	$ 20,000	$ 42,500
	Landowner Agreements, O & M	$ 400	$ 0	$ 0	$ 0	$ 400
Project 1	Project Implementation	$ 0	$ 0	$ 54,400	$ 76,000	$ 130,400
	Other Activities	$ 0	$ 0	$ 0	$ 0	$ 0
	Project Effectiveness Monitoring	$ 0	$ 0	$ 0	$ 3,000	$ 3,000
	Total	$ 15,400	$ 0	$ 61,900	$ 99,000	$ 176,300
	Project 2 Name					
	Project Planning					$ 0
	Landowner Agreements, O & M					$ 0
Project 2	Project Implementation					$ 0
	Other Activities					$ 0
	Project Effectiveness Monitoring					$ 0
	Total	$ 0	$ 0	$ 0	$ 0	$ 0
	Project 3 Name					
	Project Planning					$ 0
	Landowner Agreements, O & M					$ 0
Project 3	Project Implementation					$ 0
	Other Activities					$ 0
	Project Effectiveness Monitoring					$ 0
	Total	$ 0	$ 0	$ 0	$ 0	$ 0
	Total	$ 18,016	$ 108,900	$ 72,663	$ 108,900	$ 199,579

Fields outlined in black **on this page will auto-populate from other sections of the application form. Fields outlined in red **on this page** will not auto-populate. You must manually transfer the information for fields outlined in red.*

Education and Outreach

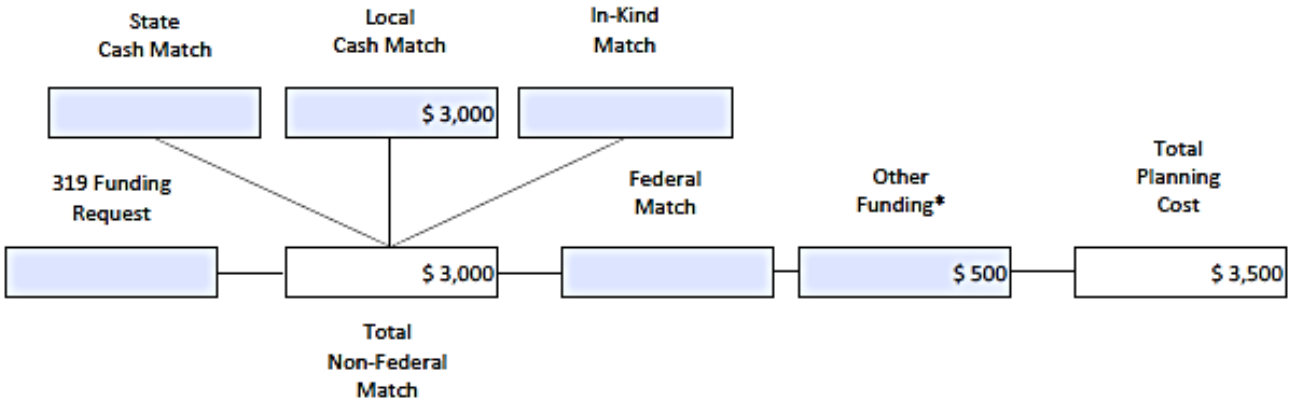
DEQ recognizes that developing good projects often requires a considerable amount of time and effort up front to build relationships and trust with individual landowners and stakeholder groups. To promote the development of future projects, DEQ is encouraging project sponsors to use up to $5,000 in 319 funding for education and outreach to develop and capitalize on these critical relationships. DEQ encourages applicants to incorporate on-the-ground projects into education and outreach efforts through on-site demonstrations and project tours. 319 funding may not be used to pay for food and beverages, or for honorariums and gifts. Education and outreach activities funded by 319 or used as match for 319 funding must adhere to all of the eligibility requirements outlined in the annual Call for Applications document.

Education and Outreach Deliverables *(Identify the education and outreach activities you will engage in and methods you will use to document their completion.)*

Our project is located along a popular walking trail on Lee Metcalf National Wildlife Refuge (the Refuge), which sees 200,000+ visitors annually. For this reason, this project is not only an outstanding opportunity for education and outreach, but relies on outreach to build community support for its success. We intend to engage in outreach in the following project phases:

1) Planning and design: Agency partners, the Refuge and TU have developed three restoration design alternatives that meet water quality and fisheries needs. We intend to engage the community (e.g. visitors to the Refuge, local wildlife conservation groups) through virtual public meetings and site tours to present these alternatives and solicit feedback to help select and/or modify our final design.

2) Construction and post-project: Signage along the walking trail will describe the water quality, riparian and fisheries values of the project, our approach, and partnerships involved in completing the work. We will emphasize the value of projects designed to support natural river, stream and riparian processes, as well as the benefits of opening fish passage. Our target audience is visitors to the Refuge (e.g. community members, school groups). TU and the Refuge will also use social media, earned media and site tours during and immediately following construction, to reach broader audiences about the myriad benefits of this project.



Match Source	West Slope and Bitterroot Chapters, Trout Unlimited	Secured	✓
Match Source		Secured	
Match Source		Secured	
Match Source		Secured	

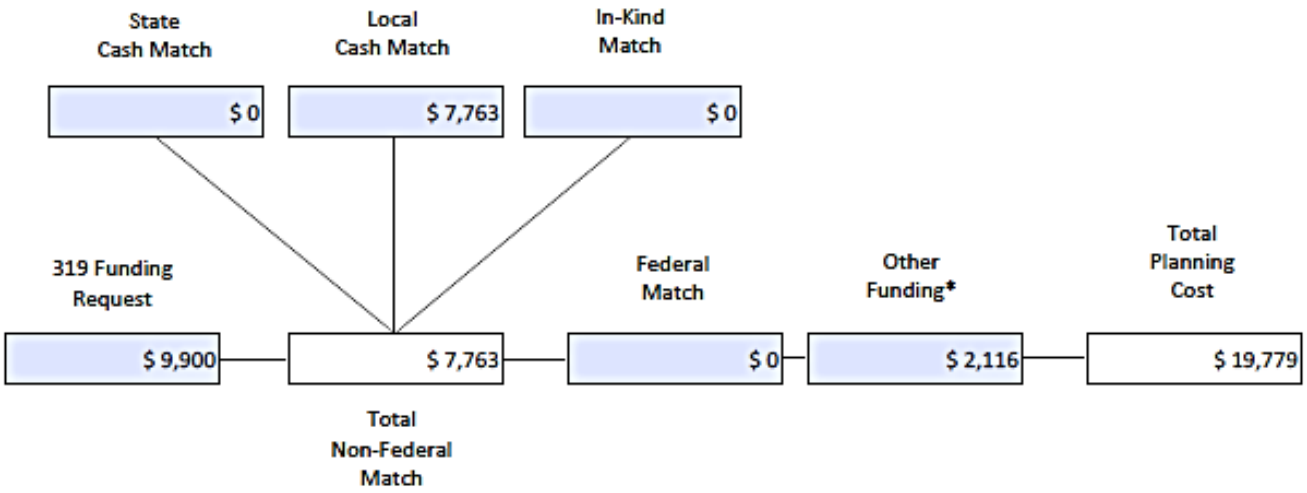
**Use this space to record any funding that will be used to support creation of the task deliverables, but will not be reported as match. The purpose of this information is to give application reviewers a clearer understanding of the total amount of funding required to complete a task.*

Project Administration

Project administration includes book keeping, invoicing, interim/annual/final report preparation, office supplies, rent, communications, etc. Up to 10% of the total requested 319 funds for your entire application can be used to pay for project administration. However, like all other tasks, payment is by reimbursement for actual expenses incurred.

Project Administration Deliverables *(Include interim/mid-year, annual, and final reports, as well as invoicing and office necessities.)*

We will fulfill all reporting requirements for this grant, including interim, annual and final reports and quarterly invoices. An administration fee of 10% of the 319 grant request will be used to support these activities. TU's negotiated indirect rate of 13.74% will be applied to all match sources.



Match Source	Bitterroot/Westslope Chapters of Trout Unlimited	Secured	✓
Match Source	Private	Secured	✓
Match Source		Secured	
Match Source		Secured	

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Project Form

A separate Project Form ***(including providing separate attachments)*** must be submitted for each project included in your application. Use the following examples to help determine when to lump and when to split projects. For additional assistance, contact Mark Ockey at mockey@mt.gov.

Splitting Examples (fill out multiple Project Forms)

- Stream restoration work occurring on two separate streams, on parcels owned by two separate individuals
- Two projects with significantly different sets of project partners
- Two projects that address substantially different pollution sources (e.g., one project that moves a corral off of a stream, and another to remove mine tailings, with both projects being on the same 800-acre recreational property)

Lumping Examples

- Contiguous stream restoration work spanning multiple land parcels
- 3 projects that address similar sources of pollution on a single land parcel (e.g., moving a corral off a stream, implementing a grazing management plan, and relocating a manure storage facility out of the floodplain, all on the same ranch)
- A mini-grant program designed to address numerous failing septic systems scattered throughout a watershed

Project Name North Burnt Fork Creek Restoration on Lee Metcalf National Wildlife Refuge

Project Location

Latitude 46.53971 Longitude -114.09496

Latitude Longitude

Latitude Longitude

12-digit HUC(s) # Burnt Fork Bitterroot River: 1701020513

☑ **Project site map** attached, showing the location of all proposed on-the-ground restoration

Project Planning and Purpose

Select the Watershed Restoration Plan that your project will help implement.

Bitterroot - Bitter Root Water Forum

Y Letter of support from author entity attached? *(if no, explain why below.)*

Waterbody name from the 2018 List of Impaired Waters North Burnt Fork Creek

Probable causes of impairment to be addressed Sediment, Total Nitrogen & Total Phosphorus

Waterbody name from the 2018 List of Impaired Waters Bitterroot River

Probable causes of impairment to be addressed Temperature

or*

Name of healthy waterbody to be protected

Description of identified threat to non-impairment status

Name of healthy waterbody to be protected

Description of identified threat to non-impairment status

**While the majority of the available 319 project funding is dedicated to addressing known impairments, EPA is allowing states to use a limited amount of funding to protect non-impaired waters (healthy waters) from becoming impaired.*

Community Participation and Support

Landowner	Contributions to Project	Letter of Support Attached?
Lee Metcalf National Wildlife Refuge (USFWS)	Staff in-kind salary (NEPA, project planning, public outreach, maintenance of planting and fencing)	☑
		☐
		☐
		☐

Partner	Role	Letter of Support Attached?
Montana Fish Wildlife and Parks	Planning. MFWP has been a key partner in assessing the fisheries value of this project and determining viable design alternatives.	☑
US Fish and Wildlife Service (Ecological Services, Bull Trout Recovery)	Planning. The proposed removal of the fish passage barrier at the mouth of North Burnt Fork Creek helps fulfill USFWS's Bull Trout Recovery strategy. The headwaters of North Burnt Fork Creek support one on the strongest Bull Trout populations in the Bitterroot.	☐
Design & Engineering firm(s)	Design: River Design Group was contracted to develop conceptual designs and complete a channel migration assessment of the Bitterroot River. TU and partners will use a competitive RFQ process to select a Design and Engineering firm to complete final survey and design for the project.	☐
Private/non-profit donors	Bitterroot & Westslope Chapters of Trout Unlimited and several private donors have expressed their support and financial commitment to this project based on its benefits to trout populations.	☐

Other Community/Stakeholder Support

1) Bitter Root Water Forum: BRWF and TU have worked together to develop a strategy to reduce sediment and nutrient sources to North Burnt Fork Creek, as outlined in the 2019 WRP. Our proposed project works builds on BRWF efforts upstream to fulfill this strategy. BRWF staff have attended site visits to LMNWR and are be engaged stakeholders.
2) MDEQ 319 program: Since 2018, TU and the Refuge have discussed this project with MDEQ staff who have visited the site, provided feedback on project development and financially supported initial project planning efforts.
3) Whitetail Golf Course (downstream landowner): Whitetail Management staff have been part of planning discussions and will weigh in on final designs. No proposals will negatively impact their water rights or land use.

Project Description

Describe the nature and extent of the nonpoint source problem you are trying to address, the root causes of the problem, and your proposed solution.

This project will address sediment and nutrient impairments to North Burnt Fork Creek and temperature impairments to the Bitterroot River through revegetation and removal of hydrologic modifications that have disrupted natural processes of streamflow, flooding, sediment transport and vegetation recruitment. It will also reconnect fish passage between the Bitterroot River and North Burnt Fork Creek, historically a major Bitterroot spawning tributary. Our proposal will address two root causes to nonpoint source problems:

1. North Burnt Fork Creek/Bitterroot River Revegetation: The riparian area along North Burnt Fork Creek on the Refuge is dominated by reed canary grass. This lack of bank stability and overhead cover increases sedimentation and nutrient inputs while reducing overhead shade just before the creek enters the Bitterroot River. North Burnt Fork Creek currently flows through an abandoned Bitterroot River channel that the Bitterroot is actively eroding towards. Based on average erosion rates of 28 ft/year (see attached channel migration analysis) the Bitterroot River will recapture this channel in apx. 17 years. For this reason, we will not invest in substantial channel restoration, but will instead use weed fabric, fencing and planting to establish a native cottonwood-willow community along the right bank of North Burnt Fork Creek (the future right bank of the Bitterroot River). This approach aims to accomplish the following:

- Reduce nutrient and sediment pollution in North Burnt Fork Creek by reducing bank erosion and increasing nutrient buffering and processing capacity along 0.5 miles.
- Provide shade to 0.5 miles of North Burnt Fork creek just before it enters the Bitterroot River, which will eventually provide shade and stability directly to the Bitterroot River following channel migration.

2. Removal of Hydrologic Modifications: Our project focuses on the lower 1.8 miles of North Burnt Fork Creek, a reach that is highly altered. Specifically, the creek has been ditched and redirected through a series of abandoned Bitterroot River channels and a relic check dam structure splits flow into two paths, limiting flow and fish passage. This structure has also aggraded fine sediment, altering both channel morphology and habitat quality upstream. Finally, a series of levees bisect the Bitterroot River floodplain throughout the project area, reducing river-floodplain connectivity. The attached maps and photos show the locations and impacts of these modifications. This proposal aims to:

- Remove the check dam structure and establish a self-regulating channel that maximizes water quality and fisheries benefits (temperature, overhead cover and fish passage). Three channel alignment alternatives were developed by River Design Group for review by stakeholders (see attached). A simple bridge will be built to maintain user access.
- Reconnect year-round fish passage between the Bitterroot River and North Burnt Fork Creek.
- Remove portions of existing levees to allow the Bitterroot River floodplain to activate in high water, enabling water and sediment storage, seed recruitment, and reducing erosion rates along the Bitterroot River. Specific levee removals will depend upon user access needs (e.g. a paved, ADA-compliant walking trail follows one levee and will likely remain).

Is this project a continuation of a previous project? If so, please explain the connection.

The proposed project is part of an overall strategy, described in the Bitterroot WRP, to reduce sediment and nutrient inputs to North Burnt Fork Creek and reduce temperatures in the Bitterroot River. TU and the Bitter Root Water Forum have completed, and are actively planning, several projects as part of this basin-wide strategy. Additionally, this project is part of a strategy, developed by USFWS and MFWP, to selectively reconnect fish passage between the Bitterroot River and North Burnt Fork Creek for a range of species, including ESA-listed Bull Trout.

Development of the WRP strategy for the Burnt Fork and this project was partially supported by 319 Planning funds and the DEQ Volunteer Monitoring Program in 2019 (used to collect temperature, water quality and flow measurements in the Lower Burnt Fork and develop the WRP) and 2020 (used to conduct a channel migration assessment and develop conceptual design alternatives).

Tasks and Budget

DEQ uses a standard template to develop scopes of work for 319 contracts. The tasks below match up with DEQ standard scope of work template. Some tasks might not be applicable to your project. Please leave the non-applicable tasks blank. If your project doesn't fit the task outline, use the task labeled "Other" to describe your project.

Task 1 - Project Planning Deliverables *(Include such things as completing project designs, conducting site evaluations, obtaining permits, organizing volunteers, conducting scoping meetings, etc. Identify specific deliverables that will be submitted.)*

Following on-site monitoring and several stakeholder meetings, TU contracted River Design Group in fall 2020 to complete conceptual designs and cost estimates for three restoration alternatives (attached). Our next planning tasks and deliverables are described below. Planning activities occurring prior to 319 contracting in summer/fall 2021 are listed as "Other Funding".

1) Stakeholder outreach and selection of a design alternative: Stakeholder outreach with Agency personnel, Refuge visitors and conservation partners to evaluate the three proposed restoration alternatives, solicit feedback, and select a one alternative for final design (Winter 2020-2021)

2) Selection of a Design & Engineer Consultant: Advertisement, review and selection of a consultant to complete final survey, design and construction oversight. (Winter 2020-2021)

3) Final Survey & Design: A topographic survey will allow the selected consultant to develop a final restoration design (deliverable) required for permitting, bidding and construction. (Summer/Fall 2021)

4) Permitting: All three alternatives will require permit review by the Army Corps of Engineers, Montana Fish Wildlife and Parks and Montana DEQ (Fall-Winter 2021)

State Cash Match	Local Cash Match	In-Kind Match	319 Funding Request	Federal Match	Other Funding*	Total Planning Cost
	$ 7,500		$ 20,000		$ 15,000	$ 42,500

Total Non-Federal Match: $ 7,500

Match Source	Bitterroot & Westslope Chapters of Trout Unlimited	Secured	✓
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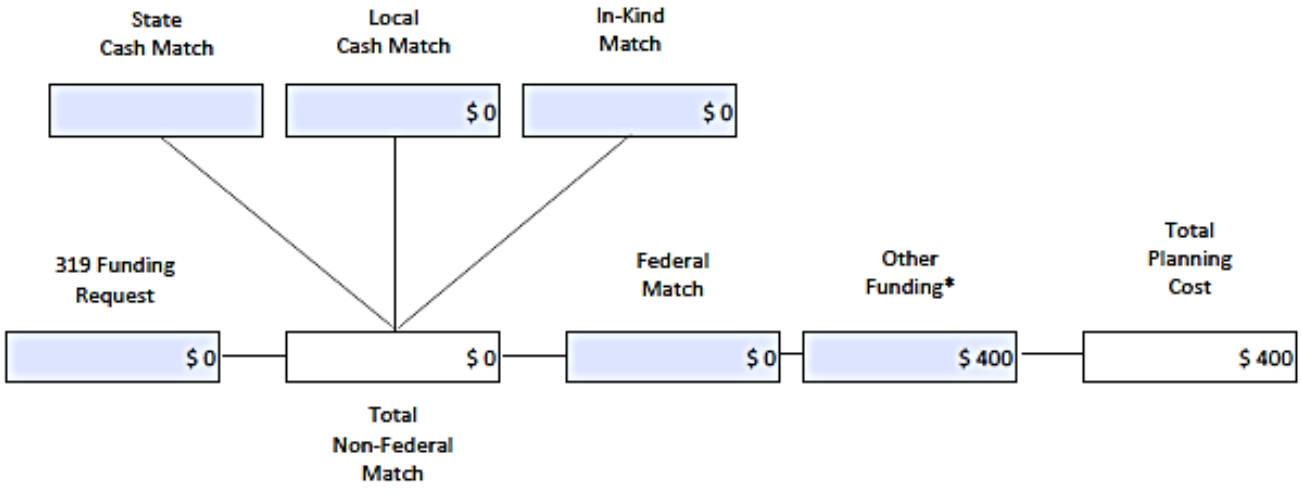
Landowner Agreements, Operation and Maintenance

This task only applies to projects involving on-the-ground activities. DEQ periodically evaluates the effectiveness of each on-the-ground project. To accomplish this, DEQ requires a process be in place to allow periodic access to the project site. The landowner agreement should also specify the roles of each project partner in the design, implementation and continued operation of on-the-ground pollution prevention practices. DEQ does not require the use of a specific landowner agreement template. In some situations, existing agreements between the project sponsor and the landowner may be sufficient.

Task 2 - Landowner Agreements, Operation and Maintenance Deliverables *(Include such things as landowner/sponsor communication, and draft and final agreements.*

The Refuge, and specifically the project area, are open to the public and accessible to MDEQ staff at any time.

Trout Unlimited and the Refuge (landowner) will enter into an agreement outlining roles in design, implementation and long-term maintenance of the project to ensure project objectives are met. This agreement will be developed once a design alternative is selected, and submitted to MDEQ. Because this will occur before 319 awards are signed, this expense is listed as "other funding."



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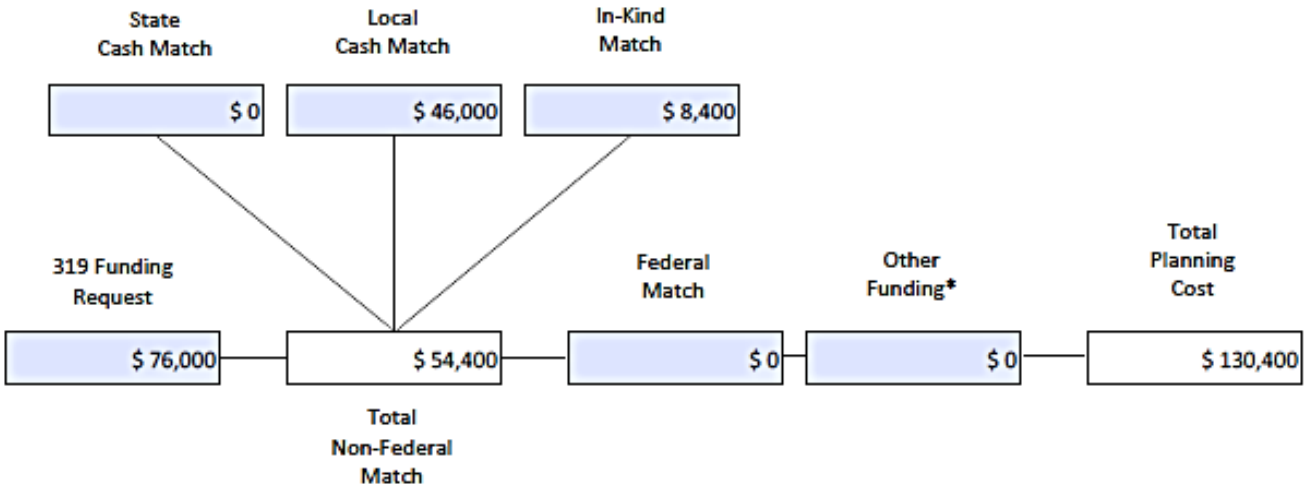
Task 3 - Project Implementation Deliverables *(Include such things as construction oversight, implementation of on-the-ground restoration practices, preparation and submittal of as-built drawings, etc.)*

Project implementation will consist of the following:
• Implementation of the final design: A construction firm will be hired through competitive bidding to implement the final design. This will include construction of a clearwater diversion, excavation of sediment aggraded behind the check dam, removal of the check dam, localized bank and bed stabilization to eliminate headcutting risk, vegetation salvage, wetland development in abandoned channels and levee removal. Jackson Contractor Group has donated the construction of a bridge to maintain user access at the current check dam location. It will be designed to be removable when Bitterroot channel migration approaches the structure.
• Oversight of volunteer days: TU and Refuge staff will oversee volunteer days for the North Burnt Fork Revegetation efforts, including weed matting, planting and fencing.
• Construction oversight: The contracted design engineer and Trout Unlimited staff will provide construction oversight

TU will submit as-built plans and pre/post construction photopoints to MDEQ to demonstrate completion of project implementation.



Match Source	Jackson Contractor Group	Secured	✓
Match Source	Bitterroot & Westslope Chapters of TU	Secured	✓
Match Source	Private	Secured	✓
Match Source	Volunteer planting days, donated materials (in-kind)	Secured	✓

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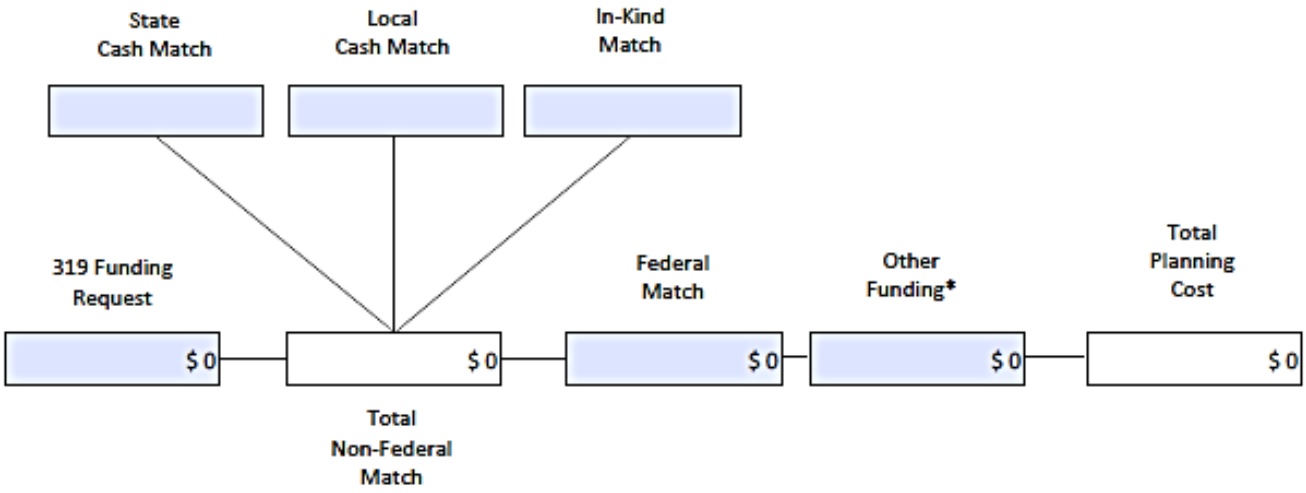
Other Activities

Use this task if the activities you are proposing are outside the scope of the typical design/implement/monitor process. Provide sufficient details to enable application reviewers to successfully compare the nonpoint source pollution reduction benefits of your project to those of other projects in the applicant pool.

Task 4 - Project Deliverables *(Include activities you will complete and the products you will submit to demonstrate completion.)*

None



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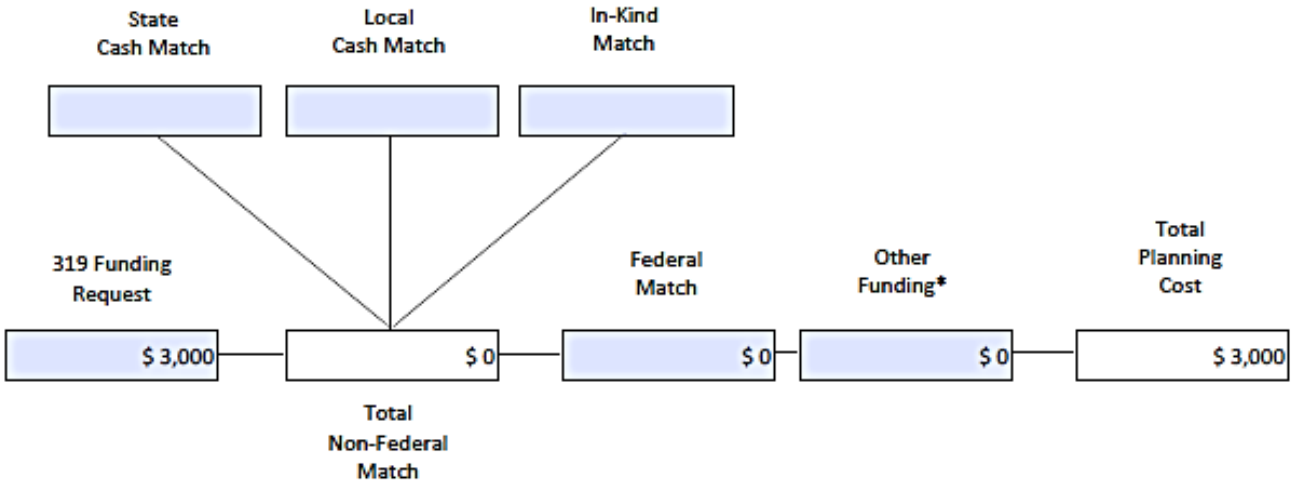
Project Effectiveness Monitoring

The short duration (1-3 years) and limited spatial extent (often just a few hundred yards) of most 319-funded projects frequently precludes the use of traditional water chemistry monitoring as a means of evaluating project effectiveness. Instead, DEQ encourages project sponsors to use simpler, more qualitative tools. Typically, this will include pre- and post-construction photo point monitoring, vegetation mortality measurements, and perhaps modeling to estimate pollution load reductions. Please contact one of the DEQ Nonpoint Source Program staff for guidance relative to your specific project.

Task 5 - Project Effectiveness Monitoring Deliverables *(Identify the specific tools and products you will use to evaluate and demonstrate the effectiveness of your project in reducing nonpoint source pollution.)*

Photopoint monitoring: Photopoints will be used to document changes in the riparian community, including establishment of native riparian vegetation, reduction of reed canary grass, wetland development and in-stream habitat conditions.

Vegetation monitoring: Vegetation planting and fencing success will be monitored using a plot-based approach recording live/dead (mortality rate), height and species composition.



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Water Quality Benefits and Sustainability

Explain why the project is an appropriate next step for making progress towards removing a pollutant/waterbody combination from Montana's 2018 Impaired Waters List or preventing a healthy waterbody from becoming impaired?

TU, the Bitterroot Water Forum and many other partners have invested substantial efforts towards developing a plan to reduce impairments and improve watershed health in the Burnt Fork drainage. The Bitterroot WRP lists the following Management Measures as next steps towards these goals, all of which this project will enable: Riparian revegetation, removing barriers to connectivity (including the barrier on LMNWR), implementing channel complexity projects to create habitat for important fish species, building on current traction in the basin with education, outreach and collaboration between groups. The proposed project has also been a goal for the Refuge, MFWP and the USFWS Bull Trout Recovery program for over a decade.

Will your project address a major local source of nonpoint source pollution? Explain.

Yes. This project will reduce sediment and nutrient loading in North Burnt Fork Creek and temperature loading in the Bitterroot River. We will accomplish this through revegetation (bank stabilization and creation of shade) and removal of hydrologic modifications (check dam and levee structures).

Describe the long-term, sustainable benefits your project will have on water quality.

This project is designed to encourage and utilize natural processes to enhance water quality (e.g. riparian revegetation, floodplain reconnection). By relying on natural processes, we ensure that our impacts will be self-regulating and long-lasting. Additionally, the Refuge has a vested interest, through their mission and Comprehensive Plan, to ensure that the investment made on their land is maintained, and that the benefits endure.

Explain how your project will promote self-maintaining natural, ecological, and social processes that protect water quality.

An explicit goal of our project is to re-establish self-maintaining stream and river processes that protect water quality including bank stabilization through revegetation, floodplain reactivation and elimination of artificial controls to streamflow that redirect water, cause excessive aggredation and reduce river-flood connectivity. The three design alternatives we are considering all reflect our interest in these processes and our acceptance of natural channel migration of the Bitterroot River. Because this project will occur on a publicly-accessible and well-loved property, partners have thought carefully about how to maximize the huge potential for public input and outreach of this project. Genuine public engagement in planning will ensure that the project has community support, which, accompanied by outreach, will promote its long-term success and encourage similar work in other impaired waters.

Nonpoint Source Goals and Success Metrics

Nonpoint source pollution goal	Action that will be taken to reach the goal	Metric used to measure success
Reduce sediment and nutrient loading to North Burnt Fork Creek	- Revegetation of 0.5 miles of North Burnt Fork Creek to stabilize banks and improve riparian buffering - Remove hydrologic controls (check dams and levees) to promote natural sediment aggredation/deposition and nutrient processing.	- Area (acres)/or length of riparian corridor revegetated - Plant survival and growth rates - Length of levees removed/area of floodplain reconnected - Project contributes to "Measurable Milestone #36" in Montana's Nonpoint Source Management Plan
Reduce Temperature loading to the Bitterroot River	- Revegetate 0.5 miles of North Burnt Fork Creek to provide shade to the creek just before it enters the Bitterroot River. This revegetated bank will eventually be the right bank of the Bitterroot River, once the River migrates to its eastern extent.	- Area (acres)/or length (miles) of riparian corridor revegetated - Plant survival and growth rates - Project contributes to "Measurable Milestone #36" in Montana's Nonpoint Source Management Plan
Eliminate hydrologic modifications	- Remove the relic check dam structure that splits North Burnt Fork Creek flow, aggrades sediment and poses a fish passage barrier - Remove select levees on the Bitterroot floodplain to encourage River-Floodplain connectivity.	- Length of creek without hydrologic modifications - Length of levees removed/area of floodplain reconnected - Miles of fish habitat reconnected - Project contributes to "Measurable Milestone #36" in Montana's Nonpoint Source Management Plan
Educate the public about water quality and solutions to NPS pollution	- Signage, site visits, public outreach and earned media about the goals and benefits of the project. - Public engagement in project planning	- Number of signs created - Number of public meetings/site tours and attendance therein - Number of volunteers participating in volunteer events - Number of articles and social media posts and views/shares of this media. - - Project contributes to "Measurable Milestone #19" in Montana's Nonpoint Source Management Plan

Project Education and Outreach

Describe the educational benefits of your project. Will the project inspire additional nonpoint source pollution prevention work within the watershed?

The public nature of this project, occurring along a well-used walking trail on a National Wildlife Refuge, makes it an exemplary opportunity for education and outreach. Through site tours, signage along trail systems, earned media and public engagement in planning, we plan to educate the public about the benefits of this project and thus inspire similar work in other impaired streams.

Bigger Picture Benefits

Describe your project's benefits to each of the items below. If there are no associated benefits, type "NA" for "not applicable".

Benefit to additional natural resources (e.g. native fisheries, threatened and endangered species, wetlands, etc).

North Burnt Fork Creek was historically a major spawning tributary for fish, including Bull Trout (ESA-listed as Threatened) and Cutthroat Trout (Montana Species of Concern). Passage between the Bitterroot River and North Burnt Fork Creek has been seasonally obstructed by a check-dam structure and channel re-routing for decades. This project will re-establish year-round fish passage, an explicit goal for MFWP and USFWS's Bull Trout Recovery program.

Additionally, the Refuge is currently a haven for riparian dependent bird, mammal, reptile and amphibian species. This project will increase and improve the quality of riparian and wetland habitat for these species.

Addressing climate resiliency and hazard mitigation.

This project aims to reduce temperatures in lower Burnt Fork Creek (and thus the Bitterroot River) and remove obstacles to fish passage, both of which are essential climate resiliency actions. Additionally, our designs promote natural processes of flooding, sediment mobilization/deposition and riparian vegetation recruitment, all of which have been reduced in the Bitterroot River corridor through channel armoring and straightening to protect structures built in the floodplain. Protection and enhancement of naturally functioning, river-floodplain corridors are essential to climate resiliency and hazard reduction.

Provides direct public recreational access or aesthetic benefit.

The Refuge hosts 200,000+ visitors annually, and this project will occur on one of the Refuge's most popular walking trails. Our designs will maintain public access to this area by constructing a bridge where the existing check-dam structure sits (proposed for removal). Revegetation will improve aesthetics and overall riparian and wetland habitat quality, likely improving the experience of birders and other naturalists who visit the site. Finally, this walking area is threatened by natural channel migration of the Bitterroot River. While our project does not aim to stop this erosion, the removal of select levees to encourage River-floodplain access will likely slow erosion and prolong user access by reducing shear stress on the eroding bank.

Reduces pollutant loading above a permitted point source in a manner that could contribute to future economic benefit for a downstream Montana community.

N/A

Directly helps protect a drinking water source.

N/A

Benefit to socially disadvantaged populations.

The Refuge is regularly visited by the public and school groups who represent a wide range of economic, social and racial backgrounds. Through outreach and signage, we expect this project to reach populations that do not typically have access to conservation or restoration projects.

Additional Attachments

Attach additional items that could help reviewers better understand your project. Items could include site photos, design drawings, site evaluations, permits, etc. Please be conscious of reviewers' time, as they may not have time to read lengthy studies and reports. List all additional attachments below.

- [x] Site maps and photos
- [x] Channel Migration Analysis
- [x] Letters of Support (3)
- [x] Alternatives assessment
- [ ]
- [ ]
- [ ]
- [ ]

Letters of Support

PO Box 1247
178 S. 2nd St
Hamilton, MT 59840

(406) 375-2272

brwaterforum.org

Montana Department of Environmental Quality
Watershed Protection Bureau
PO Box 200901
Helena, MT 59620

10/29/2020

Dear Review Committee,

The Bitter Root Water Forum is writing to offer its support of Trout Unlimited's 319 proposal for restoration of the North Burnt Fork Creek at Lee Metcalf. We have been a part of the discussions towards developing this project for some time and are looking forward to seeing it come to fruition.

North Burnt Fork has long been a priority stream for the Water Forum due to its water quality issues and potential for restoration activities. The Bitter Root Land Trust has completed a number of conservation easements in the watershed, further protecting conservation values and improving conservation opportunities. The Water Forum is in the process of completing a number of other water quality improvement projects on the Burnt Fork and nearby priority streams, and this project will compound the investments DEQ made into those projects.

Further, the proposed work will make important contributions towards achieving the goals laid out in the Bitterroot WRP, which we authored. We specifically identified riparian revegetation, removing passage barriers, and increasing channel complexity as some of the most important on-the-ground restoration techniques for addressing water quality issues in the Burnt Fork. We are pleased to note that the proposed project employs all three of these methods.

As mentioned in the WRP, expanding education and outreach activities is key to our ongoing success in this subbasin; the fantastic educational opportunities this project provides will actively help us reach our goals in this department. We have worked with Project Manager Christine Brissette and TU on other projects, she has kept us involved in the development of this project, and we have every confidence that this project will be completed successfully.

Regards,

Heather Barber

Heather Barber
Executive Director
Bitter Root Water Forum

United States Department of the Interior

FISH AND WILDLIFE SERVICE

Lee Metcalf Wildlife Refuge
4567 Wildfowl Lane
Stevensville MT, 59870
(406) 777-5552

November 4, 2020

Department of Environmental Quality
1520 East 6th Avenue
Helena, MT 59601

Dear Department of Environmental Quality Official:

I am writing this letter in support of Trout Unlimited's (TU) assistance to Lee Metcalf National Wildlife Refuge's (Refuge) pursuit of re-connecting North Burnt Fork Creek to the Bitterroot River in its historical channel. The Refuge fully supports the proposed project as it accomplishes a number of the resource goals identified in our 2012 Comprehensive Conservation Plan. Specifically, the project would:

1) Restore natural topography, surface water flow patterns, and channel integrity across the Bitterroot floodplain within the Refuge;

2) Remove relic infrastructure that stores sediment and impedes natural hydrology;

3) Provide an opportunity to interpret to the public the value of natural river migration and ecological processes.

The project would enhance water quality, allow for a robust riparian corridor, and enhance native fish habitat by eliminating dewatered sections of North Burnt Fork Creek.

TU has worked tirelessly with other stake holders including the USFWS Ecological Services, Montana Department of Fish, Wildlife, and Parks, the Bitterroot Water Forum, and others to move the project to this proposed status.

The Refuge fully supports the project and moving the North Burnt Fork Creek and Bitterroot River interface toward this more ecologically sustainable condition. Please contact me if I can be further assistance.

Sincerely,

Tom Reed
Refuge Manager

FWP.MT.GOV

THE **OUTSIDE** IS IN US ALL.

November 6, 2020

Montana Department of Environmental Quality
Attn: 319 Review Committee
Watershed Protection Bureau
PO Box 200901
Helena, MT 59620

RE: Support for Trout Unlimited's 319 Proposal for North Burnt Fork Creek

Dear Review Committee,

I would like to express my support for Trout Unlimited's (TU) 319 proposal to restore North Burnt Fork Creek on the Lee Metcalf National Wildlife Refuge. As the fisheries management biologist for Montana Fish, Wildlife & Parks in the Bitterroot Valley, I am familiar with this location and have been actively involved in working with TU and the US Fish and Wildlife Service to find the best restoration solution for this highly altered reach. Returning the creek to a more natural state will benefit water quality by improving bank stability and increasing shade cover. It will also allow for more natural sediment transport through the reach. This will improve fish habitat and restore connectivity to the Bitterroot River. The Bitterroot River is actively migrating to the east near this location and is projected to reach the project site within 20 years based on erosion rate calculations. This project would allow this natural migration to continue but improve habitat conditions along the river when it reaches it.

North Burnt Fork Creek where it flows through the Lee Metcalf National Wildlife Refuge is visited by many people daily. The stream flows through one of the main walking trails available to the public, and it gets abundant use by walkers, naturalists, bird watchers, and anglers. This project would alter the way this area has looked for many years and it represents a great opportunity for outreach and education to inform people of how projects like this can done to benefit stream and fishery health. Based on my past experiences working with TU on other projects, I am confident that they will execute the North Burnt Fork project in a manner that aligns closely with both DEQ's and FWP's goals.

Sincerely,

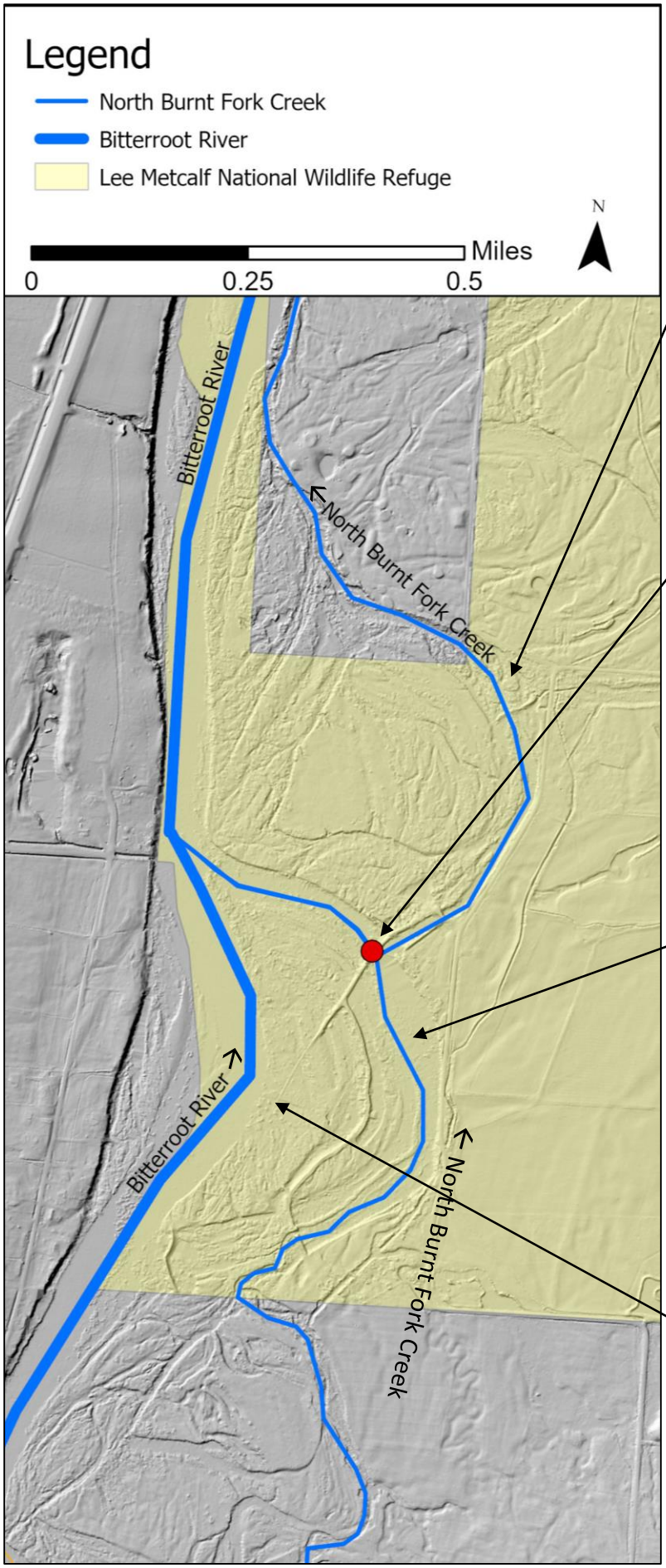
Jason Lindstrom

Jason Lindstrom – Fisheries Biologist
Montana Fish, Wildlife & Parks
1801 N. First St.
Hamilton, MT 59840
Ph# (406) 363-7169

Supplemental Attachments

Current Conditions:

North Burnt Fork Creek on
Lee Metcalf National Wildlife Refuge



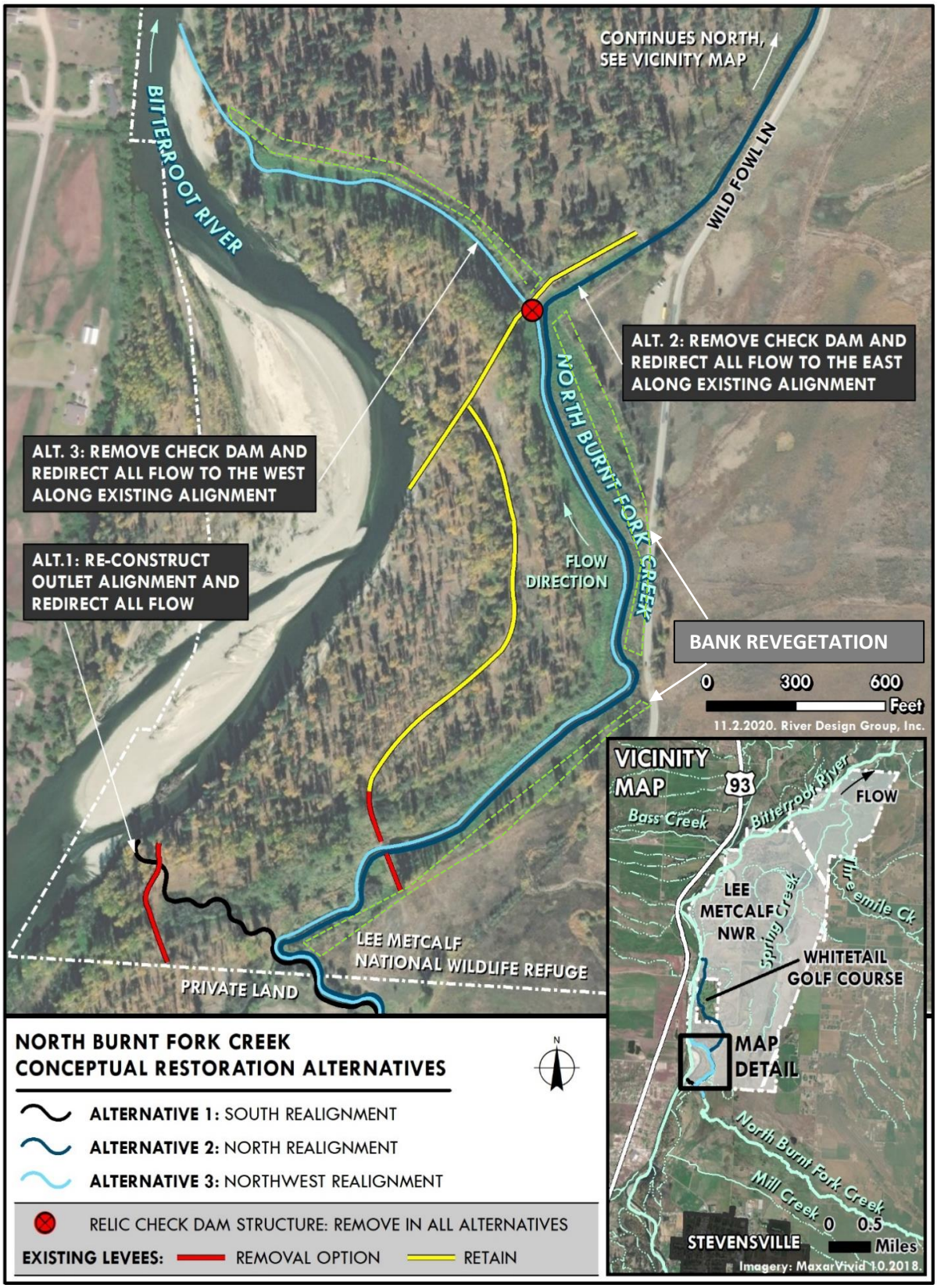
The northern channel of North Burnt Fork Creek, downstream of the channel split, which dewaters most summers.

Relic check dam posing a fish passage barrier and altering natural streamflow and sediment mobilization.

Sediment accumulated above the check dam structure. Reed canary grass comprises the vegetated cover.

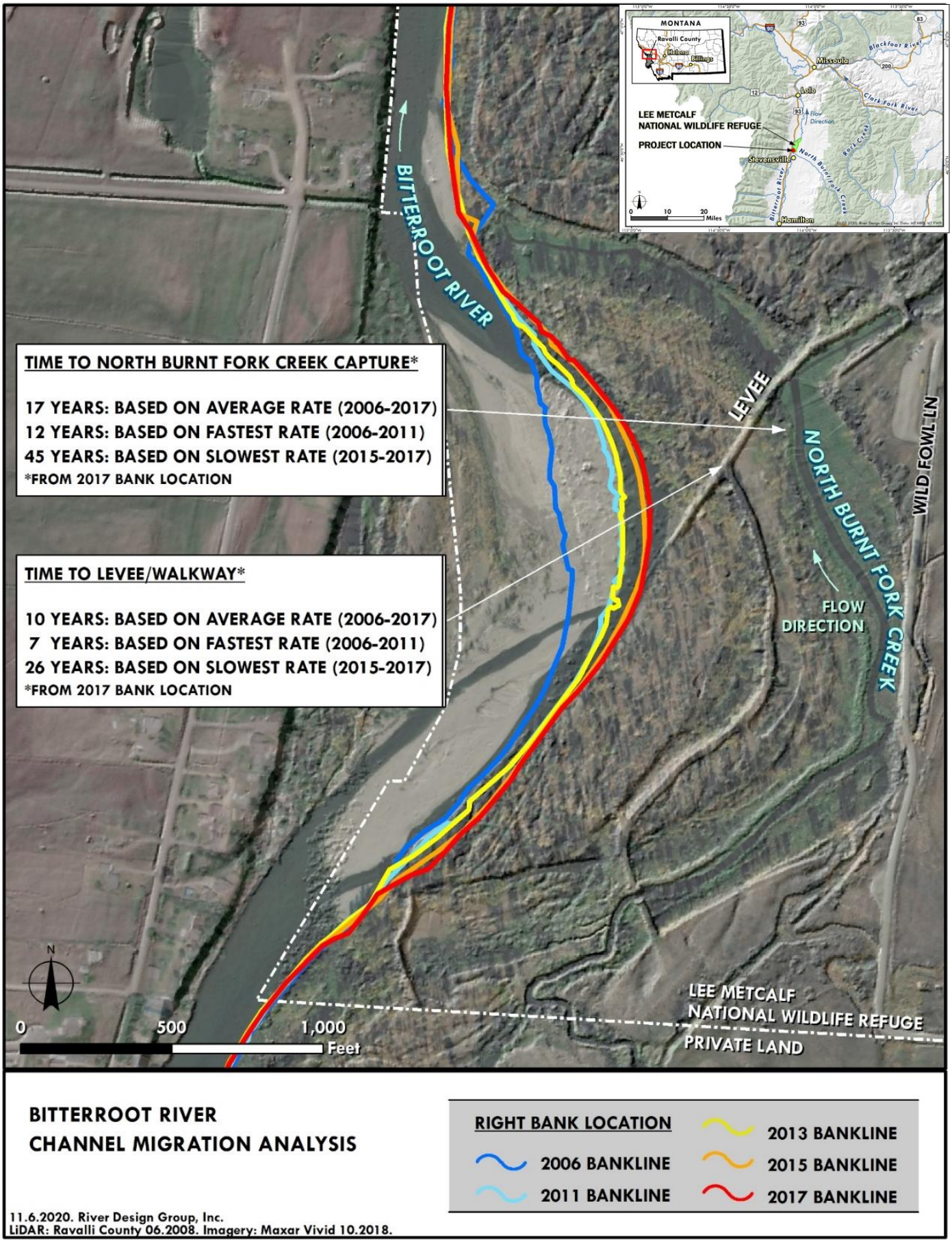
Natural channel erosion along the Bitterroot River. The river is expected to migrate to the current North Burnt Fork Channel in apx. 17 years.

Conceptual Design: Channel Realignment and Revegetation (North Burnt Fork Creek)



This map presents the conceptual designs developed by River Design Group for stakeholder evaluation. It includes:

- Three feasible Channel Realignment Alternatives, all of which involve 1) Removal of the relic check dam structure; 2) Excavation of aggraded sediment behind the existing check dam; 3) Basic bank stabilization and channel grade control to prevent head-cutting and erosion; and 4) Construction of wetlands in any newly abandoned channels.
- Bank Revegetation along the right (east) bank consisting of weed mat, fencing and planting to establish a willow-cottonwood community and replace existing reed canary grass.
- Existing levees (red) to be assessed for removal, balancing the ecological benefits of floodplain activation with user access.



Results from a channel migration study by River Design Group estimating the number of years before Bitterroot River migration 1) compromises the existing levee/trail system, and 2) reaches the current North Burnt Fork channel. Because erosion is episodic, the average erosion rate (28 ft/year) is being considered for planning of this project

North Burnt Fork Creek Restoration Alternatives Assessment

Prepared for

Trout Unlimited

312 North Higgins Avenue, Suite 200

Missoula, MT 59802

TROUT UNLIMITED

Prepared by

RDG

RIVER DESIGN GROUP

November 2020

www.riverdesigngroup.com

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Contents

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1 Introduction

1.1 Project Overview

North Burnt Fork Creek originates in the Sapphire Mountains on the east side of the Bitterroot Valley and is a tributary of the Bitterroot River in southwest Montana (Figure 1-1). North Burnt Fork Creek, from the confluence with South Burnt Fork Creek to the mouth of the Bitterroot River, is listed as impaired for total nitrogen, total phosphorus, and sediment (Montana Department of Environmental Quality, 2014). This project, located on the Lee Metcalf National Wildlife Refuge (Refuge), will improve water quality through revegetation while removing a substantial barrier to fish migrating between the Bitterroot River and North Burnt Fork Creek, historically a major spawning tributary in the lower Bitterroot River watershed.

This report presents three alternative alignments for the North Burnt Fork Creek channel after the existing barrier is removed, and opportunities to reconnect the Bitterroot River with its floodplain. Revegetation opportunities are not discussed but will be an integral part of any final design. The barrier is a relic check-dam structure that bifurcates North Burnt Fork Creek, impeding fish passage and impairing sediment transport. The majority of streamflow passes over the check dam structure with seasonal flows northward through a narrow, intermittent channel. The check dam structure has caused upstream aggradation of channel sediments, primarily sand and small gravel. Sediment deposition has altered channel geometry, impaired habitat

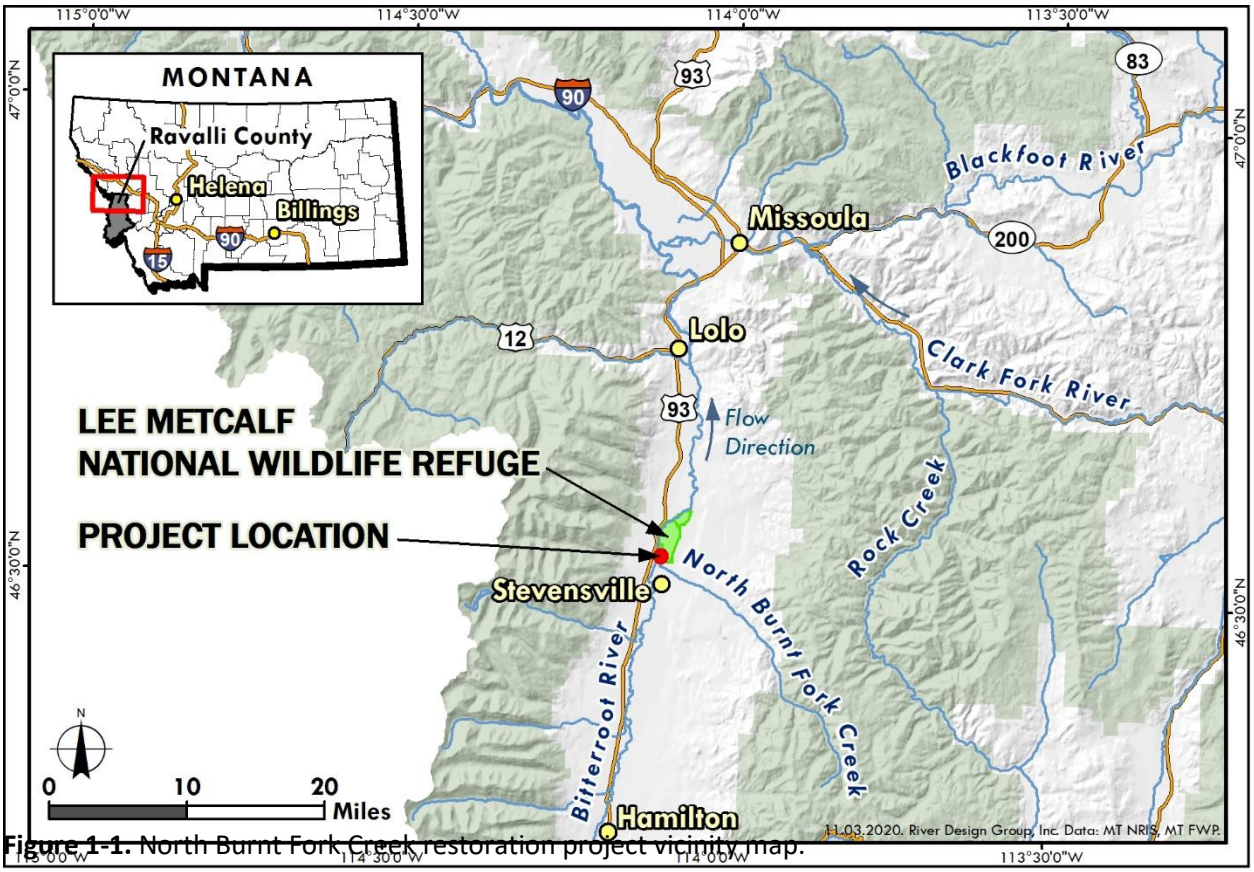

Figure 1-1. North Burnt Fork Creek restoration project vicinity map.

conditions, and converted historical shrub and forested riparian community types to grass monocultures that outcompete native vegetation.

Figure 1-2. The existing relic check dam structure (left) and view upstream showing deposition of fine sediments, altered channel geometry, and impaired aquatic and riparian habitat conditions (right).

In addition to these impairments, an existing levee system brackets the west side of the project area. The levee provides flood protection for the Refuge and has been compromised by accelerated river bend migration and erosion. Opportunities to remove portions of the levee system to reactivate forested floodplain surfaces and side channel habitats have been identified. Partial levee removal would increase floodplain connectivity and restore natural riverine process including the transport and distribution of flow, nutrients, and sediment across these relic floodplain surfaces.

Figure 1-3. View of accelerated river bend migration and erosion, compromising the flood levee and walking path on the Refuge.

1.2 Project Goals and Objectives

Trout Unlimited (TU), in coordination with the Refuge and project stakeholders, have identified the following goals for this project:

- Restoring lower North Burnt Fork Creek, maximizing benefits to stream temperature, flow and riparian habitat.
- Improving aquatic and riparian habitat for fish, birds and the wide range of other species that rely on the Refuge. This will be achieved through bank revegetation.
- Removing barriers to fish, providing full passage between the Bitterroot River and lower North Burnt Fork Creek including 3.5 miles of habitat.
- Re-establishing the hydrologic connection between the Bitterroot River and its floodplain, improving floodplain habitat and natural processes.
- Improving visitor recreational experience with accessible walking paths and enhanced habitat for wildlife viewing and hunting.
- Engaging with the public through project design, decision-making and education about the benefits of this project to fish and wildlife.
- Reducing ongoing maintenance for Refuge personnel.

2 Restoration Alternatives

Three alternatives for the restoration of North Burnt Fork Creek were developed and are illustrated on Figure 2-1:

- Alternative 1 South Realignment: Reconstruct confluence alignment and redirect all flow.
- Alternative 2 North Realignment: Remove check dam and redirect all flow to the east along existing alignment.
- Alternative 3 Northwest Realignment: Remove check dam and redirect all flow to the west along existing alignment.

Under all action alternatives, the existing check dam and fish passage barrier would be removed and a footbridge installed to maintain public access to the Refuge trail system. The option to remove a portion of the existing flood levee to reconnect floodplain surfaces would also be evaluated in further detail. Partial levee removal may retard current rates of river channel migration by dissipating flood energy across a broader, forested floodplain surface compared to existing conditions. Increasing floodplain connectivity would likely decrease stream power and channel shear stress during flood flows, reducing energy and river bend migration rates through this reach of the Bitterroot River. The geomorphic and hydrologic effects of partial levee removal would need to be evaluated in further detail with one and two-dimensional hydraulic modeling.

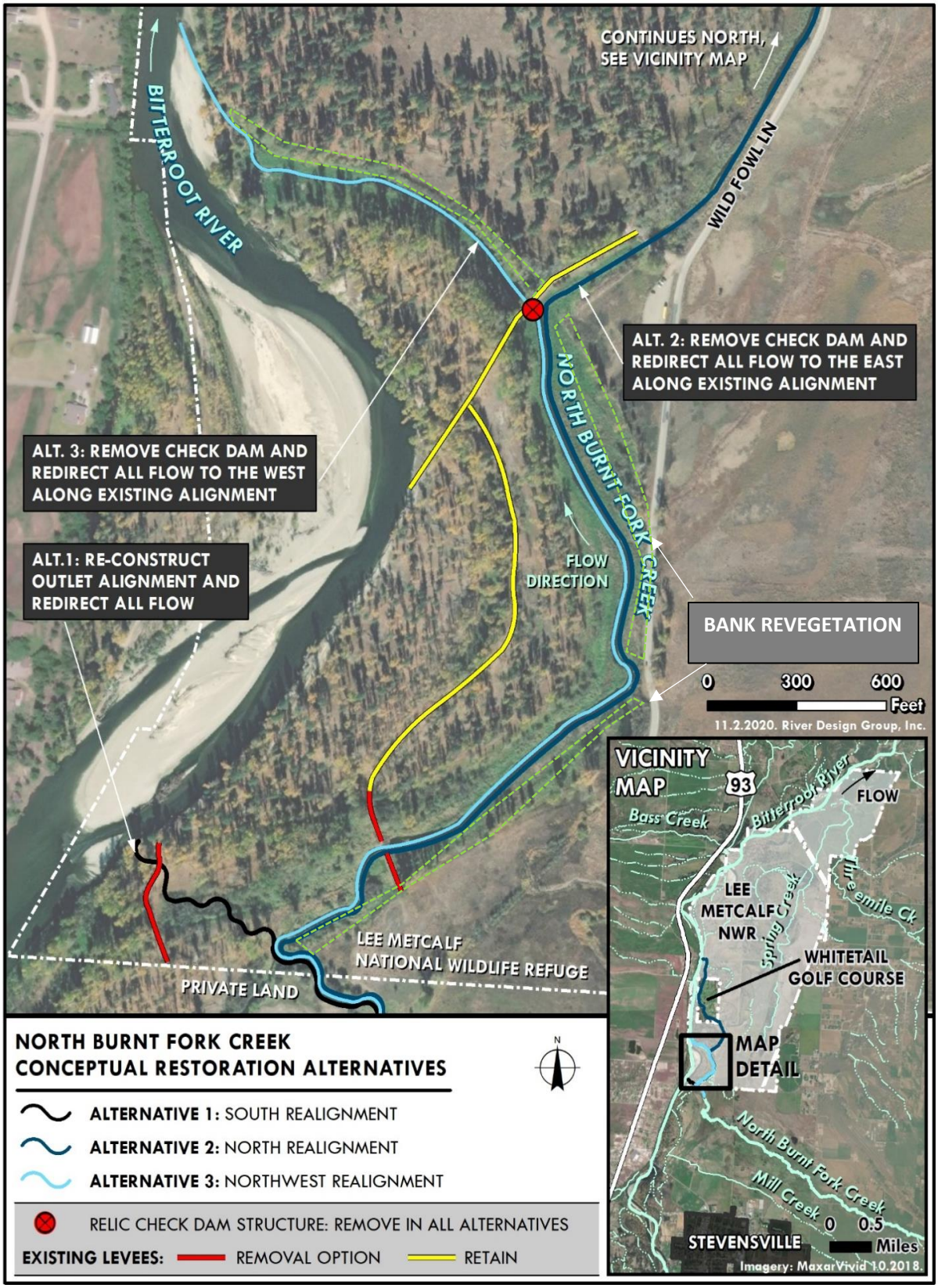

Figure 2-1. Alternatives being considered for the North Burnt Fork Creek restoration project.

2.1 Alternative 1: South Realignment

Alternative 1 would relocate the confluence of North Burnt Fork Creek with the Bitterroot River in the southwest corner of the Refuge, as shown on Figure 2-1. Approximately 700 feet of channel would be constructed, and 1.6 acres of riparian floodplain and streambank restored. A low gradient, sinuous, low width-to-depth ratio channel would be constructed with complex riffle and pool sequences. A portion of the existing flood levee would be breached to accommodate the new channel and floodplain corridor. Under this alternative, the existing North Burnt Fork Creek channel on the Refuge would be partially plugged to create off-channel emergent and shallow to deep open water oxbow wetlands. Similar to Alternatives 2 and 3, the existing check dam structure would be removed, and the option to remove portions of the existing flood levee would be further evaluated, as shown on Figure 2-1.

A summary of the advantages and disadvantages of Alternative 1 are summarized in Table 3-1.

Table 3-1. Alternative 1 advantages and disadvantages.

Advantages	Disadvantages
• Eliminates an existing fish passage barrier and restores fluvial connectivity • Reduces flood hazards risk to Refuge infrastructure including parking areas, trails, and public access points • Creates an estimated 3.7 acres of wetland habitat by converting the existing channel to emergent and open water wetland • Removes an existing flood levee in the southwest corner of the Refuge, reconnecting acres of historical floodplain habitat	• Reduces stream length by approximately 3,200 feet (1.5 acres) from existing conditions • Increases implementation costs compared to Alternatives 2 and 3 • Potentially increases flood risk to the Refuge by partially removing the existing flood levee • Restoration work may extend upstream on private land which will require landowner engagement • Eliminating flows to the north may be of concern to downstream landowners and Refuge visitors. This alternative would involve extensive public outreach and stakeholder input

2.2 Alternative 2: North Realignment

Alternative 2 would eliminate the split channel conditions or channel bifurcation at the existing check dam structure and consolidate all flows to the north channel alignment while eliminating the existing northwest channel alignment, as shown on Figure 2-1. The existing check dam structure would be removed, and the northwest existing channel alignment would be partially plugged to create off-channel emergent and shallow to deep open water oxbow wetlands. The north channel alignment is approximately 1.4 miles in length and receives substantial cold groundwater inputs from the shallow aquifer. These inputs may benefit stream temperatures in North Burnt Fork Creek and the Bitterroot River. Sediment transport capacity and competency

may be a limiting factor with this alternative given the extremely low gradient nature of the existing channel. In addition, consolidating all North Burnt Fork Creek flows to this channel may increase flood risk to private lands located to the east and north of the Refuge. Options to remove portions of the existing flood levee would be evaluated, as shown on Figure 2-1.

A summary of the advantages and disadvantages of Alternative 2 are summarized in Table 3-2.

Table 2-2. Alternative 2 advantages and disadvantages.

Advantages	Disadvantages
• Eliminates an existing fish passage barrier and restores fluvial connectivity • Creates an estimated 1.5 acres of wetland habitat by converting the existing northwest channel to emergent and open water wetland • Removes an existing flood levee in the southwest corner of the Refuge, reconnecting acres of historical floodplain habitat • Northwest channel intercepts cold groundwater inputs that may benefit surface water temperatures of the Bitterroot River • Lower implementation cost compared to Alternative 1	• Reduces stream length by approximately 1,600 feet (0.3 miles) from existing conditions by converting the existing northwest channel to wetland habitats • Potentially increases flood risk to the Refuge and private lands located north and east of the Refuge due to consolidation of all flows in one channel • The low energy gradient of the channel may impair sediment transport capacity and competency, leading to channel aggradation, increased flood risk and maintenance requirements.

2.3 Alternative 3: Northwest Realignment

Alternative 3 would eliminate the split channel condition or channel bifurcation at the existing check dam structure and consolidate all flows to the existing northwest channel alignment, eliminating the north channel alignment (Figure 2-1). The existing check dam structure would be removed, and the north channel alignment would be partially plugged to create off-channel emergent and shallow to deep open water oxbow wetlands. The northwest channel alignment is approximately 0.3 miles (1,600 feet) in length, supports high quality instream habitat, and flows through a forested floodplain riparian area to its confluence with the Bitterroot River. The existing check dam has formed a depositional wedge of sediment upstream of the structure. The depth, upstream and downstream elevation differential, and longitudinal extent of the deposit is unknown at this time and will be characterized during design investigations. The characterization will help determine a range of both passive and active restoration strategies appropriate for Alternative 3.

Under Alternative 3, the north channel alignment on the Refuge would be partially plugged and converted to off-channel emergent and shallow to deep open water wetlands. Other options include maintaining the north channel as a floodplain side channel that would be activated during

flood flows. Similar to Alternatives 2 and 3, options to remove portions of the existing flood levee would be evaluated, as shown on Figure 2-1.

A summary of the advantages and disadvantages of Alternative 3 are summarized in Table 3-3.

Table 2-3. Alternative 3 advantages and disadvantages.

Advantages	Disadvantages
• Eliminates an existing fish passage barrier • Restores fluvial connectivity and hydraulic and sediment transport characteristics of North Burn Fork Creek in the vicinity of the existing check dam structure • Reduces flood risk to the Refuge and private lands located north and east of the Refuge due to consolidation of all flow in northwest channel. • Removes an existing flood levee in the southwest corner of the Refuge, reconnecting acres of historical floodplain habitat • Lower implementation cost compared to Alternative 1	• Reduces stream length by approximately 7,400 feet (1.4 miles) from existing conditions by converting the existing north channel to wetland habitats. This northern channel currently dewaters for about 1/3 of its length before groundwater contributions initiate flow. • Eliminating seasonal flows in north channel may be of concern to downstream landowners, though flow data collection demonstrates no negative impact due to substantial groundwater contributions along this reach and downstream landowners have been involved in planning efforts to date. This alternative would involve additional public outreach and stakeholder input.

3 Cost Estimates and Next Steps

3.1 Cost Estimates

This section provides preliminary costs estimates for the range of alternatives described in Section 3. The estimates are considered to be within +/-25% of actual costs. Cost estimates can be refined following selection of a preferred action alternative. Design and engineering costs are a percentage of the total estimated construction costs, and include field surveying, preliminary and final drawings, specifications, and preparation and submittal of all regulatory permits including the Montana Natural Streambed and Land Preservation Act (310 Permit), County Floodplain Development Permit, Federal Clean Water Act (404 Permit), and Short-Term Water Quality Standard for Turbidity (318 Authorization).

4.1.1 Alternative 1 Cost Estimate

Table 4-1 includes a cost estimate for Alternative 1. The table includes estimated construction items, quantities, unit prices, and a total price to complete the work.

Table 4-1. North Burnt Fork Creek Alternative 1 cost estimate.

Item	Description	Estimated Quantity	Unit	Unit Price ($)	Total Price
1	MOBILIZATION, GPS EQUIPMENT, STAGING, ACCESS ROADS	1	LS	$20,000.00	$20,000.00
2	CONSTRUCT AND DECOMMISSION CLEARWATER DIVERSIONS	1	LS	$3,000.00	$3,000.00
3	SALVAGE, PRESERVE AND TRANSPLANT EXISTING VEGETATION	1	LS	$5,000.00	$5,000.00
4	EXCAVATE, LOAD & HAUL LEVEE FILL TO CREATE WETLAND PLUGS	2,000	CY	$6.00	$12,000.00
5	REMOVE EXISTING CHECK DAM STRUCTURE, STABILIZE BANKS	1	LS	$12,500.00	$12,500.00
6	CONSTRUCT CHANNEL STREAMBED	700	LF	$75.00	$52,500.00
7	CONSTRUCT LARGE WOOD STRUCTURES	12	EA	$1,500.00	$18,000.00
8	CONSTRUCT VEGETATED WOOD MATRIX TYPE 1	1,100	LF	$18.00	$19,800.00
9	CONSTRUCT VEGETATED WOOD MATRIX TYPE 2	300	LF	$25.00	$7,500.00
10	WETLAND DEVELOPMENT - PLUG CONSTRUCTION, GRADING	1	LS	$5,000.00	$5,000.00
11	INSTALL BEAVER DAM ANALOGS IN ABANDONED CHANNEL	20	EA	$350.00	$7,000.00
12	ENGINEERING, PERMITTING, CONSTRUCTION MANAGEMENT	1.0	LS	$32,460.00	$32,460.00
	Total Cost Estimate			**$194,760.00**	

4.1.2 Alternative 2 Cost Estimate

Table 4-2 includes a cost estimate for Alternative 2. The table includes estimated construction items, quantities, unit prices, and a total price to complete the work.

Table 4-2. North Burnt Fork Creek Alternative 2 cost estimate.

Item	Description	Estimated Quantity	Unit	Unit Price ($)	Total Price
1	MOBILIZATION, GPS EQUIPMENT, STAGING, ACCESS ROADS	1	LS	$20,000.00	$20,000.00
2	CONSTRUCT AND DECOMMISSION CLEARWATER DIVERSIONS	1	LS	$3,000.00	$3,000.00
3	SALVAGE, PRESERVE AND TRANSPLANT EXISTING VEGETATION	1	LS	$5,000.00	$5,000.00
4	EXCAVATE, LOAD & HAUL LEVEE FILL TO CREATE WETLAND PLUGS	2,000	CY	$6.00	$12,000.00
5	REMOVE EXISTING CHECK DAM STRUCTURE, STABILIZE BANKS	1	LS	$12,500.00	$12,500.00
6	CONSTRUCT CHANNEL STREAMBED	150	LF	$75.00	$11,250.00
7	CONSTRUCT LARGE WOOD STRUCTURES	2	EA	$1,500.00	$3,000.00
8	CONSTRUCT VEGETATED WOOD MATRIX TYPE 1	500	LF	$18.00	$9,000.00
9	CONSTRUCT VEGETATED WOOD MATRIX TYPE 2	100	LF	$25.00	$2,500.00
10	WETLAND DEVELOPMENT - PLUG CONSTRUCTION, GRADING	1	LS	$5,000.00	$5,000.00
11	INSTALL FLOODPLAIN ROUGHNESS	2	AC	$1,500.00	$2,250.00
12	ENGINEERING, PERMITTING, CONSTRUCTION MANAGEMENT	1.0	LS	$24,200.00	$24,200.00
	Total Cost Estimate			**$109,700.00**	

4.1.3 Alternative 3 Cost Estimate

Table 4-3 includes a cost estimate for Alternative 3. The table includes estimated construction items, quantities, unit prices, and a total price to complete the work.

Table 4-3. North Burnt Fork Creek Alternative 3 cost estimate.

Item	Description	Estimated Quantity	Unit	Unit Price ($)	Total Price
1	MOBILIZATION, GPS EQUIPMENT, STAGING, ACCESS ROADS	1	LS	$20,000.00	$20,000.00
2	CONSTRUCT AND DECOMMISSION CLEARWATER DIVERSIONS	2	LS	$3,000.00	$6,000.00
3	SALVAGE, PRESERVE AND TRANSPLANT EXISTING VEGETATION	1	LS	$5,000.00	$5,000.00
4	EXCAVATE, LOAD & HAUL LEVEE FILL TO CREATE WETLAND PLUGS	2,000	CY	$6.00	$12,000.00
5	REMOVE EXISTING CHECK DAM STRUCTURE, STABILIZE BANKS	1	LS	$12,500.00	$12,500.00
6	CONSTRUCT CHANNEL STREAMBED	300	LF	$75.00	$22,500.00
7	CONSTRUCT LARGE WOOD STRUCTURES	4	EA	$1,500.00	$6,000.00
8	CONSTRUCT VEGETATED WOOD MATRIX TYPE 1	450	LF	$18.00	$8,100.00
9	CONSTRUCT VEGETATED WOOD MATRIX TYPE 2	150	LF	$25.00	$3,750.00
10	WETLAND DEVELOPMENT - PLUG CONSTRUCTION, GRADING	1	LS	$5,000.00	$5,000.00
11	INSTALL FLOODPLAIN ROUGHNESS	2	AC	$1,500.00	$3,000.00
12	INSTALL BEAVER DAM ANALOGS IN ABANDONED CHANNEL	5	EA	$350.00	$1,750.00
13	ENGINEERING, PERMITTING, CONSTRUCTION MANAGEMENT	1.0	LS	$26,400.00	$26,400.00
	Total Cost Estimate			**$132,000.00**	

3.2 Next Steps

This report presented concepts for improving and enhancing natural resource conditions at the Lee Metcalf National Wildlife Refuge. The restoration strategies presented in this report are intended to address the project goals established by project partners. Following selection of a preferred action alternative, next steps will include conducting all necessary investigations including field surveys, developing restoration concepts including preliminary and final design drawings, initiating a public process to garner input from the local community and agencies,

preparing all necessary permit applications, and complying with all required environmental rules and regulations including the National Environmental Policy Act.

4 References

Montana Department of Environmental Quality (DEQ). 2014. Bitterroot Watershed Total Maximum Daily Loads and Water Quality Improvement Plan.

ATTACHMENT E – GOVERNOR'S EXECUTIVE ORDER NO. 15-2018

Applicants for 319 Project Funding must comply with Governor's Executive Order No. 15-2018. A copy of the Order, along with a copy of the Declaration Form and a link to the Disclosure Template are provided below.

STATE OF MONTANA
OFFICE OF THE GOVERNOR
EXECUTIVE ORDER No. 15-2018

EXECUTIVE ORDER REQUIRING DISCLOSURE OF DARK MONEY SPENDING FOR ENTITIES DOING BUSINESS WITH THE STATE OF MONTANA

WHEREAS, in 2010, the U.S. Supreme Court's *Citizens United* decision allowed unlimited direct spending by corporations in elections;

WHEREAS, two years later, the Supreme Court invalidated Montana's own Corrupt Practices Act, which had banned direct corporate spending in elections;

WHEREAS, following *Citizens United*, there was an explosion in corporate spending in elections, much of which was funneled through so-called "dark money" organizations that conceal the source of funds used to influence an election;

WHEREAS, at the same time, the Supreme Court has endorsed the salving power of transparency in elections, holding that public disclosure can increase public confidence in government decision-making and prevent corruption from taking hold;

WHEREAS, since *Citizens United*, states—including Montana through its Disclose Act—have created innovative disclosure programs to shine light on dark money in elections;

WHEREAS, the Supreme Court in *Citizens United* observed that "[w]ith the advent of the Internet, prompt disclosure of expenditures can provide shareholders and citizens with the information needed to hold corporations and elected officials accountable for their positions and supporters. Shareholders can determine whether their corporation's political speech advances the corporation's interest in making profits, and citizens can see whether elected officials are '"in the pocket" of so-called moneyed interests.'" 558 U.S. 310, 370-71 (2010) (citing *McConnell v. FEC*, 540 U.S. 93, 259 (2003) (opinion of Scalia, J.); *FEC v. Mass. Citizens for Life, Inc.*, 479 U.S. 238, 261 (1986));

WHEREAS, the Supreme Court also praised the role of commercial relationships in promoting disclosure, noting that shareholder objections "can be more effective today because modern technology makes disclosures rapid and informative," and that "[t]he First Amendment protects political speech; and disclosure permits citizens and shareholders to react to the speech of corporate entities in a proper way. This transparency enables the electorate to make informed decisions and give proper weight to different speakers and messages." *Id.*;

WHEREAS, disclosure promotes First Amendment values by keeping the public informed and enabling the public to make informed assessments of their government, and at the same time disclosure fights corruption in government;

WHEREAS, Montanans also enjoy a constitutional right to know, which entitles Montanans to examine both the decisions of government and the forces brought to bear on those decisions;

WHEREAS, while the Montana legislature has a set of lobbying rules, there are fewer pay-to-play restrictions for entities seeking to do business with state government;

WHEREAS, disclosure rules for state procurement are essential to secure Montanans' right to know surrounding these important government functions;

WHEREAS, disclosure rules for state procurement prevent corruption, promote confidence in government, and inform the public of the operations of government;

WHEREAS, the public has an interest in comprehensive, aggregate information about government contractors' participation in elections;

WHEREAS, federal courts have routinely upheld anti-corruption measures, including contribution prohibitions and disclosure requirements, for entities doing business in front of the government;

WHEREAS, both before and after *Citizens United*, the Supreme Court has endorsed the importance of strong disclosure rules and questioned whether "'uninhibited, robust, and wide-open' speech can occur when organizations hide themselves from the scrutiny of the voting public"—rather, the Court has stated that disclosure favors the "First Amendment interests of individual citizens seeking to make informed choices in the political marketplace." *McConnell*, 540 U.S. at 197;

WHEREAS, it is the responsibility of government to ensure the integrity of its institutions;

WHEREAS, the public must have confidence that decisions made by government are not subject to undue political influence;

WHEREAS, the government of Montana purchases millions of dollars in services each year with public dollars; and

WHEREAS, as Governor, I have a responsibility to oversee executive branch procurement, I have an obligation to the public to ensure procurement decisions are freely and fairly made without any undue influence, and I have a duty to supervise the official conduct of all executive and ministerial officers.

NOW, THEREFORE, I, STEVE BULLOCK, Governor of the State of Montana, pursuant to the authority vested in me under the Constitution and the laws of the State of Montana, including Title 2, Chapter 15 and Title 18, Chapter 4, do hereby order and direct the implementation of disclosure rules for executive branch contracting as follows:

I. POLICY

It is the policy of the executive branch that entities seeking to do business with the State of Montana must disclose contributions or expenditures they have made in elections, as detailed in this Executive Order.

II. DEFINITIONS

As used in this Executive Order, the following definitions apply:

1. "electioneering communication" means a paid communication that is publicly distributed by radio, television, cable, satellite, internet website, mobile device, newspaper, periodical, billboard, mail, or any other distribution of printed or electronic materials, that is made within 60 days of the initiation of voting in an election in Montana, that can be received by more than 100 recipients in the district in Montana voting on the candidate or ballot issue, and that:
    a. refers to one or more clearly identified candidates in that election in Montana;
    b. depicts the name, image, likeness, or voice of one or more clearly identified candidates in that election in Montana; or
    c. refers to a political party, ballot issue, or other question submitted to the voters in that election in Montana.

    The term does not mean:
    a. a bona fide news story, commentary, blog, or editorial distributed through the facilities of any broadcasting station, newspaper, magazine, internet website, or other periodical publication of general circulation unless the facilities are owned or controlled by a candidate or political committee;
    b. a communication by any membership organization or corporation to its members, stockholders, or employees;
    c. a commercial communication that depicts a candidate's name, image, likeness, or voice only in the candidate's capacity as owner, operator, or employee of a business that existed prior to the candidacy; or
    d. a communication that constitutes a candidate debate or forum or that solely promotes a candidate debate or forum and is made by or on behalf of the person sponsoring the debate or forum.

2. "covered expenditure" means:
    a. A contribution, expenditure, or transfer made by the contracting entity, any of its parent entities, or any affiliates or subsidiaries within the entity's control, that:
        i. is to or on behalf of a candidate for office, a political party, or a party committee in Montana; or
        ii. is to another entity, regardless of the entity's tax status, that pays for an electioneering communication, or that makes contributions, transfers, or expenditures to another entity, regardless of its tax status, that pays for electioneering communications; and
    b. The term does not include an expenditure made by the contracting entity, any of its parent entities, or any affiliates or subsidiaries within the entity's control made in the ordinary course of business conducted by the entity making the

expenditure; or investments; or expenditures or contributions where the entity making the expenditure or contribution and the recipient agree that it will not be used to contribute to candidates, parties, or electioneering communications.

3. "executive branch" refers to the departments and agencies subject to the Governor's executive authority as described in Article VI, Section 4 of the Montana Constitution and § 2-15-103, MCA.

III. DISCLOSURE REQUIREMENT

1. When soliciting for state procurement contracts, every contracting department and agency shall require all entities submitting offers for state government contracts with a total contract value of over $25,000 for services or $50,000 for goods to disclose "covered expenditures" that the contracting entity has made within two years prior to submission of their bid or offer. Certification that disclosure of this information has been made in a manner consistent with Department of Administration policies shall be required as a condition of submitting a bid or offer.

2. The disclosure of "covered expenditures" shall only be required whenever the aggregate amount of "covered expenditures" made within a 24-month period by the bidding or applying entity, any parent entities, or any affiliates or subsidiaries within the entity's control exceeds $2,500.

3. The final form of the disclosure required by this Executive Order shall be defined by the Department of Administration, but must include at a minimum:

    a. the full name and address of the person or entity to whom each expenditure is made;
    b. the date and amount of each expenditure;
    c. the purpose and description of each expenditure;
    d. in the case of an expenditure made for a direct campaign expenditure for express advocacy, if known at the time that the expenditure is reported, the name of each candidate, including the office held and office sought as applicable, whose election or defeat the expenditure advocates, or each ballot measure the passage or defeat of which the expenditure advocates; and
    e. in the case of an expenditure made to an entity that purchases electioneering communications, if known at the time that the expenditure is reported, the name of each candidate, including the office held and office sought as applicable, to whom the communication refers or each ballot measure to which the communication refers.

4. Any disclosure under this Executive Order must be made to the Department of Administration, or to the contracting department or agency, at the time of the contract bid or offer. If the disclosure is made to a department or agency other than the Department of Administration, the recipient department or agency must forward the disclosure to the Department of Administration. The Department of Administration will compile this

information and make it available in a searchable database on a public website, such as transparency.mt.gov.

5. For contracts that are 24 months or longer, the Department of Administration or the contracting department or agency will require an updated disclosure form from successful contracting entities every 12 months.

6. No contracting department or agency may discriminate between bidding or applying entities because of the content of an entity's expenditures or contributions disclosed under this Executive Order; however, departments or agencies may not award a contract with a total contract value of more than $25,000 for services or $50,000 for goods to any entity that does not complete the required certification under this Executive Order.

7. By September 1, 2018, the Department of Administration shall prepare such policies and issue such orders as are deemed necessary and appropriate to carry out this Executive Order. Such policies and orders must minimize the costs of compliance for contractors and shall not interfere with the ability of contractors, or their officers, or employees to engage in political activities to the extent otherwise permitted by law.

8. Each contracting department or agency shall cooperate with the Department of Administration in implementing this Executive Order and provide such information and assistance as the Department of Administration may require in the performance of its functions under this Executive Order.

Severability: if any provision, clause, or implementing policy ("provisions") of this Executive Order or application thereof to any person or circumstances is held invalid, such invalidity shall not affect other provisions or applications of the Executive Order which can be given effect without the invalid provision or application, and to this end the provisions of this Executive Order are declared to be severable.

This Order is effective immediately and its disclosure provisions shall apply to contracts resulting from solicitations and applications received on or after October 1, 2018.

GIVEN under my hand and the GREAT SEAL of the State of Montana this 8th day of June, 2018.

STEVE BULLOCK, Governor

ATTEST:

Corey Stapleton by Alisa Cottrell, dep

COREY STAPLETON, Secretary of State

ATTACHMENT F – DECLARATION FORM

Declaration Form
Dark Money Spending Disclosure Requirements

Contracting Entity shall comply with the State of Montana Executive Order No. 15-2018 requiring the disclosure of dark money spending.

Definitions. As used in this declaration form, the following definitions apply:

Electioneering Communication: A paid communication that is publicly distributed by radio, television, cable, satellite, internet website, mobile device, newspaper, periodical, billboard, mail, or any other distribution of printed or electronic materials, that is made within 60 days of the initiation of voting in an election in Montana, that can be received by more than 100 recipients in the district in Montana voting on the candidate or ballot issue, and that:

a. refers to one or more clearly identified candidates in that election in Montana;

b. depicts the name, image, likeness, or voice of one or more clearly identified candidates in that election in Montana; or

c. refers to a political party, ballot issue, or other question submitted to the voters in that election in Montana.

The term does not mean:

a. a bona fide news story, commentary, blog, or editorial distributed through the facilities of any broadcasting station, newspaper, magazine, internet website, or other periodical publication of general circulation unless the facilities are owned or controlled by a candidate or political committee;

b. a communication by any membership organization or corporation to its members, stockholders, or employees;

c. a commercial communication that depicts a candidate's name, image, likeness, or voice only in the candidate's capacity as owner, operator, or employee of a business that existed prior to the candidacy; or

d. a communication that constitutes a candidate debate or forum or that solely promotes a candidate debate or forum and is made by or on behalf of the person sponsoring the debate or forum.

In this definition, the phrase "made within 60 days of the initiation of voting in an election" means:

a. in the case of mail ballot elections, the initiation of voting occurs when official ballot packets are mailed to qualified electors pursuant to 13-19-206, MCA; or

b. in other elections the initiation of voting occurs when absentee ballot packets are mailed to or otherwise delivered to qualified electors pursuant to 13-13-214, MCA.

Contracting Entity: A bidder, offeror, or contractor.

Covered Expenditure means:

a. A contribution, expenditure, or transfer made by the Contracting Entity, any of its parent entities, or any affiliates or subsidiaries within the entity's control, that:

   i. is to or on behalf of a candidate for office, a political party, or a party committee in Montana; or

   ii. is to another entity, regardless of the entity's tax status, that pays for an Electioneering Communication, or that makes contributions, transfers, or expenditures to another entity, regardless of its tax status, that pays for Electioneering Communication; and

b. The term excludes an expenditure made by the Contracting Entity, any of its parent entities, or any affiliates or subsidiaries within the entity's control made in the ordinary course of business conducted by the entity making the expenditure; investments; or expenditures or contributions where the entity making the expenditure or contribution and the recipient agree that it will not be used to contribute to candidates, parties, or Electioneering Communication.

Solicitation Requirements. The Contracting Entity shall disclose Covered Expenditures that the Contracting Entity has made within two years prior to submission of its bid or offer.

The disclosure of Covered Expenditures is only required by the bidder/offeror whenever the aggregate amount of Covered Expenditures made within a 24-month period by the bidder/offeror, any parent entities, or any affiliates or subsidiaries within the bidder/offeror's control exceeds $2,500.

If the bidder/offeror meets the disclosure requirements, the bidder/offeror shall submit this signed declaration form indicating "Yes" AND the required disclosure form with its bid/proposal.

If the bidder/offeror does NOT meet the disclosure requirements, the bidder/offeror shall submit this signed declaration form with its bid/proposal indicating "No".

Annual Contract Requirements. The Contracting Entity agrees that if awarded a contract and the contract term exceeds, or has the potential to exceed 24

months, it must annually review and complete a new declaration form and disclosure form, if necessary.

☐ Yes- I have read, understand, and meet the disclosure requirements for the 24 months immediately preceding the submission of this form. I will complete the necessary disclosure form and submit it with this form.

Company Name (Clearly Printed):

_____

Authorized Signature:

_____

Date: _____

☒ No- I have read, understand, and do NOT meet the disclosure requirements. I certify that the Contracting Entity has not made Covered Expenditures in excess of $2,500 in the 24 months immediately preceding the submission of this form.

Company Name (Clearly Printed):

Trout Unlimited

Authorized Signature:

Christine Brissette

Date: 11/13/20

ATTACHMENT G – DISCLOSURE TEMPLATE

The Disclosure template only exists as a Microsoft Excel spreadsheet, compatible with a database operated by the Montana Department of Administration. To obtain a copy of the template, please visit the NPS Program website at http://deq.mt.gov/Water/SurfaceWater/NonpointSources. You may also contact Kristy Fortman (406-444-7425, kristy.fortman@mt.gov) for assistance.