



2020 319 Application Form

PART A—GENERAL INFORMATION

Project Name Miller Creek/Singletree Park Restoration

Sponsor Name Missoula Valley Water Quality District

Registered with the Secretary of State? Y

Registered with SAM? Y

Duns # 137780685

Does your organization have liability insurance? Y

Primary Contact Elena Evans

Signatory Travis Ross

Title Hydrogeologist

Title Water Quality District Supervisor

Address 301 West Alder St.

Address 301 West Alder St.

City Missoula State MT Zip Code 59802

City Missoula State MT Zip Code 59802

Phone Number 406-258-3495

Phone Number 406-258-4890

Email Address eevans@missoulacounty.us

Email Address tross@missoulacounty.us

Signature 

Signature 

Technical and Administrative Qualifications

The Missoula Valley Water Quality District (MVWQD), organized under the Missoula City-County Health Department, has successfully implemented and managed a number of grants from the Department of Environmental Quality, the Department of Natural Resources, and the Bureau of Mines and Geology. The Health Department currently manages a complex budget composed of local taxes and state and federal grants on different fiscal years. This administrative expertise will aid in successfully implementing this grant. Further, successful relationships with an array of technical experts can be utilized to augment the expertise at the MVWQD.

Past and Current Projects

Project Name	Grant or Contract Amount	Funding Entity (<i>entity name/program, contact person, phone, email</i>)	Completion Date
Volunteer Water Quality Monitoring	\$ 3,000.00	DEQ/Volunteer Monitoring, Katie Makarowski, (406) 444 – 3507, kmkarowski@mt.gov	11/30/2019
Miller Creek - Raising the profile, setting the stage	\$ 4,000.00	DEQ/Bitterroot Planning Grants, Hannah Riedl, (406) 444 - 0549, hannah.riedl@mt.gov	10/31/2019
Miller Creek WRP	\$ 8,000.00	SWCDM/Watershed Restoration Plans, Jessica Makus, 406-443-5711, mail@macdnet.org	12/31/2017

FUNDING REQUEST

319 Funds Requested (<i>including administrative fee</i>)	<input type="text" value="\$ 180,000.00"/>	Administrative Fee (<i>not to exceed 10% of total 319 funding request</i>)	<input type="text" value="\$ 0.00"/>
State Cash Match	<input type="text" value="\$ 100,000.00"/>	Total Non-Federal Match	<input type="text" value="\$ 274,000.00"/>
Local Cash Match	<input type="text" value="\$ 4,000.00"/>		
In-Kind Match	<input type="text" value="\$ 170,000.00"/>		
Federal Funds	<input type="text"/>		
Other Funds (<i>not 319, not match, not federal</i>)	<input type="text"/>		
Total Project Cost	<input type="text" value="\$ 454,000.00"/>		

PART B—PROJECT INFORMATION

Part B must be filled out separately (*including providing separate attachments*) for each project included in your application. Use the following examples to help determine when to lump and when to split projects. If additional clarification is needed, contact Mark Ockey, at 406-444-5351 or mockey@mt.gov.

Splitting Examples (fill out multiple Part B's)

- 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 coral 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 (sub-project) Name Miller Creek/Singletree Park Restoration

Total Project Cost Include costs already incurred, as well as anticipated costs, from all sources, for all aspects of the project.

\$ 454,000.00

Latitude 46.781791 Longitude -113.994891

Latitude _____ Longitude _____

Latitude _____ Longitude _____

Map Y

12 Digit HUC #(s) 170102051601

Waterbody Name from 2018 List of Impaired Waters Miller Creek

Probable Causes of Impairment to be Addressed Sediment and temperature

Waterbody Name from 2018 List of Impaired Waters _____

Probable Causes of Impairment to be Addressed _____

Project Summary - Briefly describe the **nature and extent** of the problem, the **root causes** of the problem, and your **proposed solution**.

Nature and extent - Singletree Park is a County Conservation Park with a goal being to demonstrate the benefits of a healthy riparian corridor. MVWQD has been unable to establish riparian plants within the park because Miller Creek often over tops the road crossing and flows down the road. This lack of successful planting is not due to lack of effort as MVWQD and the Clark Fork Coalition both participated in watering and weeding plants. Singletree Road was not constructed appropriately, similar to many other roads such as forest service roads, impeding water quality efforts. The road is classified as a non-maintained county road. This means there was right of way that was deeded in the platting. Although the public right of way was created, the county did not accept the road as part of the county maintained network, likely due in part to substandard construction. The crossing effectively serves as a check dam and prohibits the stream from adapting to changing sediment or flow regimes by locking the longitudinal profile in place at this location and ultimately impacting the whole stream's ability to respond and adapt. Direct impacts are easily seen directly downstream in the park. With limited establishment of riparian plants and entrainment of sediment, this reach contributes significantly to Miller Creek's sediment and temperature impairments.

Root causes - Miller Creek is unable to transport sediment through the Singletree Lane Crossing, altering the longitudinal profile of Miller Creek. Constrained by undersized culverts, Miller Creek cannot geomorphically flux water and sediment downstream. As a result there is a large plug (~1185 cubic yards) of sediment behind the culvert. This causes the water to back up, increase the height of the stream so when it over tops the road, it is highly erosive and reworks the width of the floodplain below. The lack of established riparian vegetation and road within the floodplain make it difficult for the stream to maintain course and stay within a single channel. The result is an increased sediment load and temperatures through this reach.

Solution - 1) Work with neighbors to establish easements to move Singletree Lane out of the floodplain. 2) Construct a new bridge over Miller creek appropriate for the geomorphology 3) Reestablish riparian habitat within Singletree Park and the width of the floodplain 4) Create educational signs adjacent to the restoration reach and an associated video of the progress 5) Monitor for success

Continuation of previous or ongoing activity? If "Yes", please explain the relationship.

Beginning in 2014, MVWQD, with assistance from the Clark Fork Coalition, planted riparian vegetation in Singletree Park and watered and weeded this project for 5 years. Successful establishment of a riparian zone was thwarted due to channel constriction upstream through undersized culverts. Unstable conditions, including flooding and stream avulsion, eroded plantings. Downstream of the crossing there is not a well defined channel and the stream often uses the road at high water. This project was identified in our WRP as well as through an assessment conducted by the Clark Fork Coalition. When we held an open house to gather input regarding key areas of concern on Miller Creek, this area was often highlighted by Miller Creek residents. The issue has also been before the CD, MVWQD, and commissioners for over 14 years. Landowners adjacent to the park have written letters of support.

Watershed Restoration Plan (WRP) and authoring entity

Miller Creek Watershed Restoration Plan - Missoula Valley Water Quality District

Letter of support from WRP authoring entity? If "No", please explain.

N We support our effort in implementing our WRP and a letter of support would be redundant.

How will this project implement recommendations in the WRP?

Sediment - This project would take all actions put forth in the Miller Creek WRP nonpoint source management measures (except improving agricultural stream crossings) by modifying channel to allow access from the floodplain, moving an unpaved road out of the floodplain, using channel structure where allowed to stabilize banks, implement stormwater BMPs on the road and establishing riparian vegetation.

Temperature - Building a bridge or bottomless culvert and providing more space for high flows would enable successful riparian establishment in the park that was previously unsuccessful. This would also increase channel flow as there would not be ponding throughout the floodplain behind the roadbed. The project would also allow and encourage access to the floodplain in this reach improving channel morphology. These were identified in the WRP as the actions needed to improve temperature impairments in Miller Creek.

Nonpoint Source Goals

Removing a road that is unpaved and in the floodplain is identified in the 2017 Nonpoint Source Management Plan under Forest Road Construction and Use. Although this road is not being used for forestry, it was built without the appropriate BMPs and continues to impede water quality. Similar to forest roads, this road is needed for the public to access Singletree Park and for residents to access their homes. It was built prior to crucial subdivision road requirements. Luckily, landowners are willing to place easements on their land in order to move the road out of the floodplain.

The location of this project in a Missoula County Park will aid in the Nonpoint Source Goal of educating recreationalists about the potential of their impact on water quality. Buy-in from neighbors will also further educational goals by spreading the importance of riparian health (Alteration of Suburban and Urban Riparian and Wetland Areas). MVWQD will further this understanding through educational signs at the park and an educational video campaign to encourage visits to the park and further engagement with landowners in the Miller Creek.

The project demonstrates the value of collaboration through MVWQD's partnership with Missoula County Parks, Missoula County Public Works, the Clark Fork Coalition, the Missoula Weed District, the Missoula Conservation District, and Montana Fish Wildlife and Parks. If we are successful with this grant, we will also reach out to see if partnership opportunities are available with the University of Montana, the Watershed Education Network, and local children's groups (Boy Scouts, Girl Scouts, 4-H, etc.).

Partners and Roles

Landowner(s)

Name

Jane and Janet Mortiz - 9480 Singletree Lane
Craig Torgrimson - 9450 Singletree Lane
Chris, Tonya, Reece, and Avery Fink - 9460 Singletree Lane

Letter of Support Attached?

 Y

 Y

 Y

Other Partners

Name

Role

Letter of Support Attached?

Clark Fork Coalition	Pursuing complementary restoration upstream, partner in educational goals and ongoing revegetation efforts
Missoula Conservation District	Partner in educating and informing citizens of Missoula County about the value of riparian and stream health
Fish, Wildlife and Parks	Partner in water quality, fish passage, riparian health efforts on Miller Creek
Missoula County Parks	Support in restoration of Singletree Park

 Y

 Y

 Y

 Y

 N

 N

Planning and Coordination

Planning and coordination includes permitting, design development, landowner agreements, volunteer labor recruitment, partnering and collaboration, alignment with watershed planning efforts, procurement and oversight of contractors, etc.

Planning Activities Already Completed	Documentation Attached?
Miller Creek Conceptual Plan-Surveying and initial assessment of engineering requirements for cost estimate	<input type="checkbox" value="Y"/>
Discussions with landowners - see letters of support	<input type="checkbox" value="Y"/>
Application for a DNRC Planning Grant	<input type="checkbox" value="Y"/>
Miller Creek - Raising the profile, setting the stage (DEQ planning grant)	<input type="checkbox" value="Y"/>
	<input type="checkbox" value="N"/>
	<input type="checkbox" value="N"/>

Task Description

Engineering and design of the crossing will need to occur so easements can be secured from neighboring landowners to finalize Singletree Lane crossing and construction out of the floodplain. Missoula County will provide the legal and administrative oversight to finalize these easements and agreements once the engineering plans are finalized. Landowners are dedicated to this step as demonstrated by their willingness to donate land to move the road. Once plans are finalized, the necessary permits can also be secured. Having these steps in place will ensure that the construction time line can be determined according to different requirements with sufficient time to successfully complete the project.

Deliverables

- Easements documented in county records
- Engineering plans
- Approved permits
- Construction timeline

Funding

319 Funds	<input type="text" value="\$ 26,400.00"/>
Non-Federal Match	<input type="text" value="\$ 30,000.00"/>
Federal Funds	<input type="text" value="\$ 0.00"/>
Other Funds	<input type="text" value="\$ 0.00"/>
Total Cost	<input type="text" value="\$ 56,400.00"/>
Is Match Secured	<input type="checkbox" value="N"/>

Timeline Contract signature - Dec 2020

Match Source In-kind (secured) and DNRC Planning (not -secured)

Project Implementation

Task Description

This project is the appropriate next step as it will demonstrate the value and importance of riparian vegetation on Miller Creek in a park that can be accessed by all residents of Miller Creek. Downstream improvements largely hinge upon small landowners cooperating to improve riparian health. By implementing this project, the benefit of upstream restoration and improved water quality will connect to lower reaches in Miller Creek as the upper and lower reaches will again be ecologically connected. A bridge or bottomless arch crossing will be built over Miller Creek and Singletree Lane will be moved out of the floodplain onto easements from neighboring landowners. Construction will occur according to permits (124, Floodplain, County Parks, etc.) and construction BMPs meticulously adhered to in order to limit contributions of sediment to Miller Creek. Following construction, revegetation of the riparian and floodplain will occur. The old road bed will be ripped or treated in order to reduce the impact of compaction. Where possible, depending upon level of engineering or reclassification of floodplain, passive structures such as beaver mimicry structures will be used to develop channel morphology. Weeding and watering will occur until vegetation is established.

Deliverables

-Copy of construction plans
 -Before and after photo points as well as pictures throughout construction
 -Riparian Revegetation Plan

Funding

319 Funds	\$ 153,600.00
Non-Federal Match	\$ 225,000.00
Federal Funds	\$ 0.00
Other Funds	\$ 4,000.00
Total Cost	\$ 382,600.00
Is Match Secured	N

Timeline Dec 2020 - June 2023

Match Source In-kind (Secured), Future Fisheries, RRGL Planning,

Appropriate Next Step

After the bridge or bottomless arch is installed and the road reconstructed out of the floodplain, our focus can turn to riparian restoration and maintenance. Ongoing maintenance will likely occur after the contract has expired. In our prior effort, we partnered with the Clark Fork Coalition to water and weed the park and we anticipate partnering again in the same effort. The Missoula Weed District has also introduced goats trained to eat leafy spurge into the valley and we would hope to partner to reduce weed infestations in the park. The collaborative effort between landowners, state entities, Missoula County, and nonprofits would also provide a template for establishing other riparian efforts further down valley on Miller Creek.

Sustainability

Although expensive, this project is a sustainable solution toward improving water quality in Miller Creek. Removing the road from the floodplain will result in long lasting improvements to water quality in Miller Creek. The infrastructure put in place will have a lifespan of over 50 years. Establishment of a healthy riparian area will be self-sustaining after a few years of watering and weed management. Miller Creek will have access to its floodplain and more room to move than previously, ensuring Miller Creek can respond to sediment pulses and climate change.

Natural Processes

The hydraulic assessment will allow us to design the crossing to accommodate as much change as possible with an overflow area to allow for greater movement of Miller Creek across the floodplain. By allowing the stream to access all of the floodplain in the park and removing the road, natural processes can occur through this reach. Hopefully, we will be able to encourage complex channel morphology and dynamic processes through the appropriate revegetation and depending upon permitting, beaver mimicry structures.

Project Effectiveness Evaluation

Task Description

Bridge and road design will be evaluated for effectiveness by photo monitoring and engineering assessment after the first high flow. Riparian effectiveness will be evaluated by survival rate and photo monitoring for growth. MVWQD will also continue to conduct water quality monitoring upstream and downstream of the site for nutrients, chloride and TSS to see if we can identify improvements and quantify load reductions. Stream gaging above and below the site will also include temperature monitoring to be compared with TMDL numbers.

Deliverables

- Photos of progress throughout the construction process and final photos and as-builts
- Riparian map and survival rates with photo documentation
- Comparison of 2019 water quality monitoring data and estimate of sediment load reduction
- Estimate of temperature and sediment reductions

Funding

319 Funds	\$ 0.00
Non-Federal Match	\$ 6,000.00
Federal Funds	\$ 0.00
Other Funds	\$ 0.00
Total Cost	\$ 6,000.00
Is Match Secured	Y

Timeline December 2020 - June 2023

Match Source In-kind

The Bigger Picture

Other Natural Resources

This project will aid fisheries resources by removing a barrier and increasing habitat. The increased riparian area will serve as an important corridor for migratory animals and a reprieve for animals from increasing human presence and activity in the valley. Increased engagement from neighbors and Missoula County Weed District in this area will also decrease the presence of invasive species as we actively manage the establishment of the riparian area.

Climate Resiliency

A stream that is connected to its floodplain and has a functioning riparian area will be more resilient to climate change. Moving the road out of the floodplain will also ensure that residents have access even the hydrograph for Miller Creek becomes flashier or the uplands experience more rain on snow events.

Public Visibility

The project is located in a County Park with a highly motivated neighborhood invested in moving this project forward. We also hope to use the project to demonstrate how enjoyable a fully functioning riparian area can be to other community members in Miller Creek. After the riparian area is established, we will host tours and highlight this project.

Point Source / Nonpoint Source Relationships

This project will reduce nonpoint sources. It will provide improved water quality to the Bitterroot River which flows into the Clark Fork River shortly after Miller Creek enters it and where there are a number of point sources.

Source Water Protection

Missoula Water purchased water rights for Miller Creek in order to pull groundwater from wells in the lower reach of Miller Creek. Our project at Singletree Lane Park will allow Miller Creek to establish a single channel and convey more water downstream at all flows. Miller Creek loses water to groundwater in the lower reaches and some of this ultimately becomes Missoula Water and is supplied to nearby homes.

Healthy Watersheds

Removing the current crossing, which serves as a check dam will also strengthen the projects and work being conducted upstream and downstream. Miller Creek is currently unable to geomorphically respond to large sediment pulses or changes in grade. Allowing the stream more freedom will enable continuity in this response upstream and downstream.

PART C—EDUCATION AND OUTREACH

Task Description

An educational sign will be placed on site providing an explanation of the restoration that was conducted, the value of riparian areas, and identify ways that citizens can aid in improving water quality. This material and story of the project will be compiled into a video that will serve as a public service announcement and be distributed on social media.

Deliverables

-Photo of educational sign
-Link to video
-Estimate of number of people reached

Funding

319 Funds	\$ 0.00
Non-Federal Match	\$ 4,500.00
Federal Funds	\$ 0.00
Other Funds	\$ 0.00
Total Cost	\$ 4,500.00
Is Match Secured	N

Timeline December 2023-June2023

Match Source In-kind

PART D—PROJECT ADMINISTRATION

Task Description

Administer the grant through record keeping, accounting, and report writing.

Deliverables

-Accounting of expenditures and associated match
-Quarterly and final reports

Funding

319 Funds	\$ 0.00
Non-Federal Match	\$ 4,500.00
Federal Funds	\$ 0.00
Other Funds	\$ 0.00
Total Cost	\$ 4,500.00
Is Match Secured	Y

Timeline Duration of the project

Match Source Local Taxes

Letters of Support

October 4, 2019

Water Protection Bureau
Montana Department of Environmental Quality
1520 E. Sixth Avenue
P.O. Box 200901
Helena, MT 59620-0901

RE: Miller Creek – Singletree Lane – 319 Non-point Source Project Application

Dear Review Committee,

I am writing to support the Missoula Valley Water Quality District's application for 319 funding for the Miller Creek/Singletree Lane and Park Restoration Project.

This project seeks to replace an undersized culvert and a roadbed that are within the floodplain of Miller Creek and restore native plant communities. This project is a highlighted need within the approved Watershed Restoration Plan for Miller Creek. During annual high runoff, the creek overtops the existing, under-sized culverts and flows down approximately 400 feet of gravel road, transporting sediment to this impaired stream. Frequent flooding and sediment deposition have exacerbated the problem.

This project is located adjacent to Missoula County park land (designated as conservation park). It is an excellent opportunity to improve riparian health, public safety and stream health. This project complements existing work by groups such as the Clark Fork Coalition and Bitterroot Water Forum which are also working to address impairments of this stream.

In my 2 short years in this neighborhood I have witnessed Miller Creek completely deteriorate throughout the entire Singletree Lane park area. I have witnessed the creek dry up twice this past month (Sept 2019) alone. Miller Creek is in dire need of repair to restore; flows, fish health, and access. In the spring of 2018, many of us were virtually cut off from our homes due severe flooding. Since that flooding our road (Singletree Ln.) has become more of a riverbed. The amount of sediment left behind from the flooding has changed the makeup of the road significantly. We would love to see this creek and the fish population thrive again!

Thank you for considering Miller Creek/Singletree for your Restoration Project.

Sincerely,

Chris, Tonya, Reece, and Avery Fink

**9460 Singletree Ln
Missoula, MT 59803**

October 4, 2019

Water Protection Bureau
Montana Department of Environmental Quality
1520 E. Sixth Avenue
P.O. Box 200901
Helena, MT 59620-0901

RE: Miller Creek – Singletree Lane – 319 Non-point Source Project Application

Dear Review Committee,

I am writing to support the Missoula Valley Water Quality District's application for 319 funding for the Miller Creek/Singletree Land and Park Restoration Project.

This project seeks to replace an undersized culvert and a roadbed that are within the floodplain of Miller Creek and restore native plant communities. This project is a highlighted need within the approved Watershed Restoration Plan for Miller Creek. During annual high runoff, the creek overtops the existing, under-sized culverts and flows down approximately 400 feet of gravel road, transporting sediment to this impaired stream. Frequent flooding and sediment deposition have exacerbated the problem.

This project is located adjacent to Missoula County park land (designated as conservation park). It is an excellent opportunity to improve riparian health, public safety and stream health. This project complements existing work by groups such as the Clark Fork Coalition and Bitterroot Water Forum which are also working to address impairments of this stream.

This project will go towards improving water quality in the Bitterroot River as well at improving the fishery in the Miller Creek watershed.

Additionally, during the spring runoff, Singletree Lane becomes virtually impassible to vehicles that are not four wheel drive which is a safety concern if emergency services were to be needed.

Sincerely,

Craig Torgrimson
9450 Singletree Lane
Missoula Mt 59803
craigtorgimson@yahoo.com
406-370-2804

October 4, 2019

Water Protection Bureau
Montana Department of Environmental Quality
1520 E. Sixth Avenue
P.O. Box 200901
Helena, MT 59620-0901

RE: Miller Creek – Singletree Lane – 319 Non-point Source Project Application

Dear Review Committee,

I am writing to support the Missoula Valley Water Quality District's application for 319 funding for the Miller Creek/Singletree Land and Park Restoration Project.

This project seeks to replace an undersized culvert and a roadbed that are within the floodplain of Miller Creek and restore native plant communities. This project is a highlighted need within the approved Watershed Restoration Plan for Miller Creek. During annual high runoff, the creek overtops the existing, under-sized culverts and flows down approximately 400 feet of gravel road, transporting sediment to this impaired stream. Frequent flooding and sediment deposition have exacerbated the problem.

This project is located adjacent to Missoula County park land (designated as conservation park). It is an excellent opportunity to improve riparian health, public safety and stream health. This project complements existing work by groups such as the Clark Fork Coalition and Bitterroot Water Forum which are also working to address impairments of this stream.

The quality of Miller Creek, in general, and the fishery sorely need this project. Most of the natural pools that were in Miller Creek Park area are gone. During high flow, the flooding of the road not only creates an issue with personal travel, and emergency services access, but also increases sediment deposit in Miller Creek.

Sincerely,

Larry & Janet Moritz
9480 Single Tree Lane



Region 2 Headquarters
3201 Spurgin Road
Missoula, MT 59804
Phone 406-542-5506

Water Protection Bureau
Montana Department of Environmental Quality
1520 E. Sixth Avenue
P.O. Box 200901
Helena, MT 59620-0901

RE: Miller Creek – Singletree Lane – 319 Non-point Source Project Application

Dear Review Committee,

I am writing in support of Missoula Valley Water Quality District's application for funding related to the Singletree Lane/Miller Creek Restoration Project. This site has been problematic for local landowners and from an aquatic resource perspective for many years. The proposed project seeks to develop technical information for replacement of an undersized culvert, relocate a road bed that is within the active Miller Creek floodplain, and enhance riparian condition along Miller Creek.

In terms of water quality and overall stream function, Miller Creek is correctly classified as impaired and has an approved Watershed Restoration Plan. This project site was highlighted within a recent assessment completed by the Clark Fork Coalition through a 2018 DNRC RRGL Planning Grant. At a larger scale, several collaborative stream restoration initiatives are also underway on various segments of the stream.

At the Single Tree Lane site, the stream frequently overtops the existing, undersized culverts and flows down ~400 feet of gravel road, transporting large quantities of sediment and nutrients directly to the stream, along with significant flooding of adjacent residential properties and their only access route. This site also lies directly adjacent to a designated Missoula County Conservation Park.

In terms of aquatic resource value, Miller Creek is an important tributary to the lower Bitterroot River that provides a source of trout recruitment for a multi-million dollar sport fishery that receives more than 50,000 days of angler use each year. In addition, Miller Creek supports resident westslope cutthroat trout and other wild trout populations within the project reach.

I encourage you to support this project as it offers an excellent opportunity to provide multiple benefits to Miller Creek, including improved water quality, fish passage, riparian health, and public safety. In addition, the project complements other ongoing work in the basin. Please feel free to contact me if you would like additional information on the project or Miller Creek aquatic resource values.

Sincerely,

William Ladd Knotek 
Fisheries Management Biologist



MISSOULA CONSERVATION DISTRICT

www.missoulacd.org

October 10, 2019

Eric Trum
MT DEQ – 319 Nonpoint Source Project Program
1620 E 6th Ave
Helena, Montana 59601

RE: Miller Creek – Singletree Lane 319 Nonpoint Source Grant

Dear Mr. Trum,

Missoula Conservation District supports Missoula Valley Water Quality District's application for a Nonpoint Source Project grant for the Singletree Lane/Miller Creek Restoration Project.

This project seeks to resolve sediment and temperature impairments in Miller Creek by addressing much needed replacement of a poorly constructed and undersized crossing (double culverts) and a road bed that are within the floodplain of Miller Creek. This creek is classified as impaired and has an approved Watershed Restoration Plan. This project is also a highlighted need within a recent assessment completed by the Clark Fork Coalition through a 2018 DNRC RRGL Planning Grant:

The crossing with Singletree Lane has caused **major sediment issues** in this reach. A large plug of sediment has deposited upstream and downstream of the crossing due to the fact that the aged, double barrel culverts at the crossing are severely undersized and partially plugged (see fish passage survey results and photos). Based off of the size of the sediment plug, this issue appears to have been ongoing for decades. Approximately **1185 cubic yards** of sediment have been deposited upstream of the crossing, and much more has been deposited downstream. The channel has avulsed downstream of the crossing, and a portion of the water was flowing into Singletree Lane at the time of survey (July 18, 2018).

During annual high runoff, the creek overtops the existing, under-sized culverts and flows down the 400 feet of gravel road, transporting sediment to this impaired stream. During these conditions, access to residential properties are significantly impacted.

This project is located adjacent to Missoula County park land (designated as conservation park). It is an excellent opportunity to improve riparian health, public safety and stream health. This project complements existing work by groups such as the Clark Fork Coalition and Bitterroot Water Forum which are also working to address impairments of Miller Creek.

Missoula Conservation District Supports this project as it will address a much-needed long-term solution at this site. The crossing is poorly constructed and adjacent private property owners have sought stream permits conduct work for short-term solutions to continue to have access to their properties. This project will help reach a long-term solution that limits sediment issues, improves water quality, protects riparian corridors on public property, and protects fish and wildlife in an important tributary to the Bitterroot Watershed.

Sincerely,

Tim Hall
Chair

200 West Broadway Street
Missoula, Montana 59802-4292



**Parks, Trails
& Open Lands**

MISSOULA COUNTY 

PK-2019-12

October 28, 2019

Water Protection Bureau
Montana Department of Environmental Quality
1520 E. Sixth Avenue
P.O. Box 200901
Helena, MT 59620-0901

RE: Miller Creek – Singletree Lane – 319 Non-point Source Project Application

Dear Review Committee,

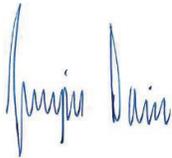
I am writing to support the Missoula Valley Water Quality District's application for 319 funding for the Miller Creek/Singletree Land and Park Restoration Project.

This project seeks to replace an undersized culvert and a roadbed that are within the floodplain of Miller Creek and restore native plant communities. This project is a highlighted need within the approved Watershed Restoration Plan for Miller Creek. During annual high runoff, the creek overtops the existing, under-sized culverts and flows down approximately 400 feet of gravel road, transporting sediment to this impaired stream. Frequent flooding and sediment deposition have exacerbated the problem.

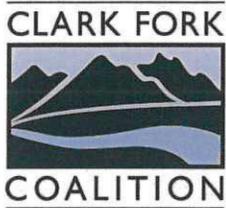
This project is located adjacent to Missoula County park land (designated as conservation park). It is an excellent opportunity to improve riparian health, public safety and stream health. This project complements existing work by groups such as the Clark Fork Coalition and Bitterroot Water Forum which are also working to address impairments of this stream.

As the land manager of the adjacent park parcel, we are especially eager to restore the riparian ecosystem within the park. Completing this work will not only lead to improved ecosystem health but also a much safer situation for surrounding residents whom, during high-water years, end up traversing through the flooded channel. Thank you for considering this important project in your review.

Sincerely,



Juniper Davis
Program Manager



October 8, 2019

Water Protection Bureau
Montana Department of Environmental Quality
1520 E. Sixth Avenue
P.O. Box 200901
Helena, MT 59620-0901

RE: Miller Creek – Singletree Lane – 319 Non-point Source Project Application

Dear Review Committee,

I am writing to support the Missoula Valley Water Quality District's application for a planning assistance grant for the Singletree Lane/Miller Creek Restoration Project.

This project seeks to develop technical information for replacement of an undersized culvert and a road bed that are within the floodplain of Miller Creek. This creek is classified as impaired and has an approved Watershed Restoration Plan. This project is also a highlighted need within a recent assessment completed by the Clark Fork Coalition through a 2018 DNRC RRGL Planning Grant:

*The crossing with Singletree Lane has caused **major sediment issues** in this reach. A large plug of sediment has deposited upstream and downstream of the crossing due to the fact that the aged, double barrel culverts at the crossing are severely undersized and partially plugged (see fish passage survey results and photos). Based off of the size of the sediment plug, this issue appears to have been ongoing for decades. Approximately **1185 cubic yards** of sediment have been deposited upstream of the crossing, and much more has been deposited downstream. The channel has avulsed downstream of the crossing, and a portion of the water was flowing into Singletree Lane at the time of survey (July 18, 2018).*

During annual high runoff, the creek overtops the existing, under-sized culverts and flows down the 400 feet of gravel road, transporting sediment to this impaired stream. During these conditions, access to residential properties are significantly impacted.

This project is located adjacent to Missoula County park land (designated as conservation park). It is an excellent opportunity to improve riparian health, public safety and stream health. This project complements existing work by groups such as the Clark Fork Coalition and Bitterroot Water Forum which are also working to address impairments of this stream.

The Clark Fork Coalition is working to reduce sediment sources and increase habitat for aquatic organisms in the 6 miles of Miller Creek above the proposed project at Single Tree Lane. This project is a good complement to the Coalition's restoration efforts in the basin and we strongly support it.

PO Box 7593
Missoula, MT
59807

T: 406.542.0539
F: 406.542.5632

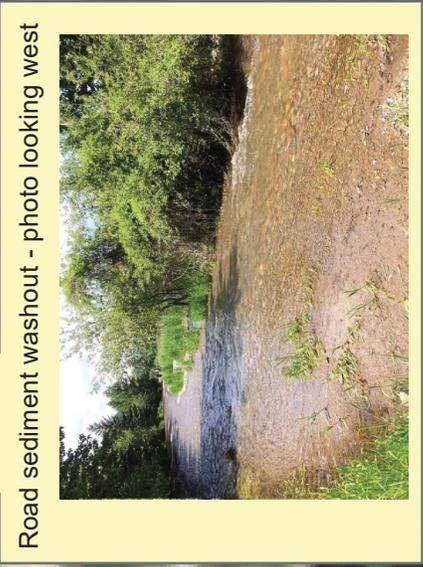
Sincerely,



Jed Whiteley
Project Manager, Clark Fork Coalition

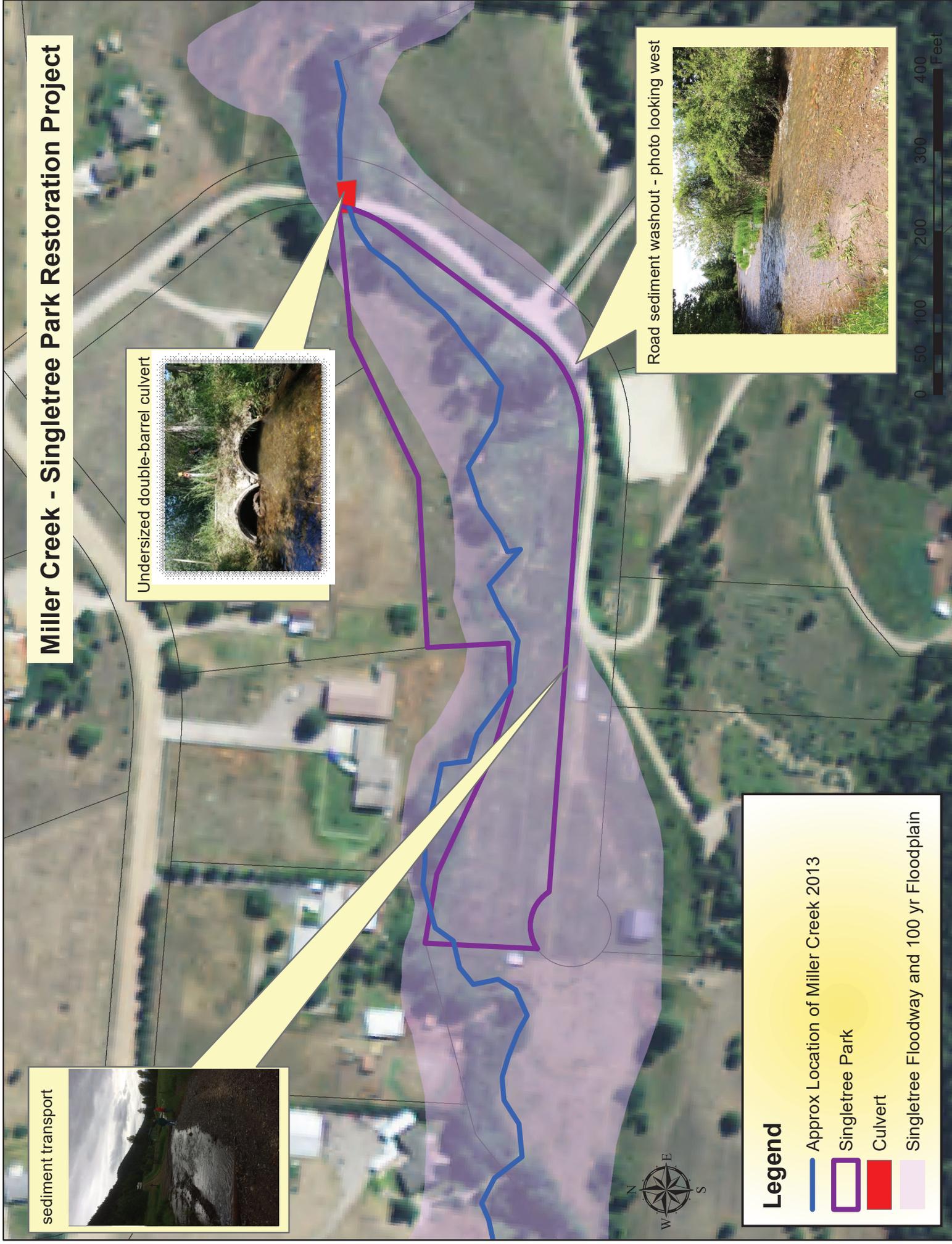
Maps, Designs, Other Attachments

Miller Creek - Singletree Park Restoration Project



Legend

- Approx Location of Miller Creek 2013
- Singletree Park
- Culvert
- Singletree Floodway and 100 yr Floodplain



Funding Opportunity

DNRC 2019/2020 RRGL Planning Grant-Fall 2019

DNR RPG Applicant Info 2019

Applicant Information

Government Entity Name (city, district, etc.):* Missoula Valley Water Quality District

Location

County:* Missoula

Project Location Latitude (In Decimal Degrees ONLY)* 46.781791

Project Location Longitude (In Decimal Degrees ONLY)* -113.994891

State Senate District:* 45

State House District:* 89

Contact Information

Authorized Representative

Name:* Travis Ross

Title Water Quality District Supervisor

Mailing Address:* 301 W Alder St., Missoula, MT 59802

Phone:* 258-4964

Email Address:* tross@missoulacounty.us

Primary Contact

Primary Contact Name:* Elena Evans

Primary Contact Title Hydrogeologist

Primary Contact Mailing Address:* 301 W Alder St., Missoula, MT 59802

Primary Contact Phone:* 258-3495

Primary Contact Email Address:* eevans@missoulacounty.us

Engineer or the Technical or Professional Consultant

Name: Molly Davidson

Firm Name: Morrison-Maierle

Eng Mailing Address: 1055 Mount Ave, Missoula, MT 59801

Eng Phone: 406-542-4825

Eng Email Address: mdavidson@m-m.net



DNR RPG Project Description 2019

Planning Grant Project Title:* Miller Creek/Singletree Park Restoration

Proposal Abstract

1. Provide a brief summary of the proposed planning project which highlights the renewable resource benefits.* Two severely undersized culverts on Singletree Lane have created a sediment pinch point which has resulted in the aggradation of ~1185 cubic yards of sediment above Singletree Lane. Downstream the channel often avulses, frequently flooding Singletree Lane. Previous riparian planting has been unsuccessful due to ongoing change resulting from Miller Creek's inability to geomorphically respond and flux sediment downstream. An improved road crossing, moving Singletree Lane out of the floodplain, and riparian restoration would enable Miller Creek to establish a channel, provide fish and wildlife habitat benefit, decrease sediment and temperature surface water quality impairments, decrease ongoing maintenance to Singletree Lane, and increase the safety of landowners accessing their homes.

Resource and Citizen Benefits

1. Describe the proposed benefits and impacts to the renewable resource(s) of this project. *
 - Improve aquatic habitat
 - Improve and increase riparian habitat
 - Increase service as a wildlife corridor
 - Improve water quality
 - Increase water quantity by maintaining flow in channel with riparian buffer
 - Decrease sediment contribution by moving road out of active floodplain
 - Increase ability of stream to geomorphically respond by moving road out of floodplain
 - Public education regarding riparian health and natural resource benefits
 - Increased channel stability resulting in less erosion of private land
 - Providing an example of cooperative effort to create mutual benefit for Miller Creek and neighborhood
 - Reduce weeds and spread of weeds
2. Describe the public benefits resulting from the proposed project. Resource-based recreation; or Public Health & Safety.*

Public benefits include: Economic benefit to community, county, or state, in the form of jobs or increased revenue; Resource-based recreation; or Public Health & Safety.

 - Increase resource-based recreation through use of County Park downstream
 - Decrease ongoing maintenance of Singletree Lane by County and residents
 - Allow for year-round emergency service access to Singletree Lane residents

Technical Summary

1. Describe the actions that have led to this planning project. Provide a summary of the project history. Example: Resources identified in a Strategic Plan or updates needed for a water treatment system. *

Residents of Singletree Lane have highlighted the access issues that they have in the Spring to County Commissioners and County Public Works for several years. Recently, assessment work through a Watershed Restoration Plan conducted by the Missoula Water Quality District and internal County



Public Works and County Parks planning efforts have identified Singletree Lane as impairing stream health and resident access.

Further, this project was highlighted as a need within a recent assessment completed by the Clark Fork Coalition through a 2018 DNRC RRGL Planning Grant: *The crossing with Singletree Lane has caused **major sediment issues** in this reach. A large plug of sediment has deposited upstream and downstream of the crossing due to the fact that the aged, double barrel culverts at the crossing are severely undersized and partially plugged (see fish passage survey results and photos). Based off of the size of the sediment plug, this issue appears to have been ongoing for decades. Approximately **1185 cubic yards** of sediment have been deposited upstream of the crossing, and much more has been deposited downstream. The channel has avulsed downstream of the crossing, and a portion of the water was flowing into Singletree Lane at the time of survey (July 18, 2018).*

The Missoula Valley Water Quality District recently organized meetings with Missoula County Public Works, Missoula County Parks and local residents to identify interest and available resources to bring to the table to find a solution. This planning grant would leverage this collaborative effort to make important structural changes to improve natural resource benefits provided by Miller Creek and the Singletree Park.

Environmental Evaluation

1. Does the proposed planning action result or lead to any adverse environmental impacts after project implementation? * No

If yes, please describe:

Attachments

Planning Project Summary:

Additional Documentation (as needed).

Project Map:

Attach project map (if available).

DNR RPG Project Type 2019

Type of Project Planning Grant

Project Type:* Restoration Plan – Technical narrative would include floodplain delineation, geomorphic analysis and engineering alternatives

If applying for an Other resource contracted services, please describe:

Other type applications are limited to \$5,000 and include: Capital Improvements Plans, Growth Plans, Studies, or other management tools.



Does the applicant have an administrative order or other compliance issue that needs to be addressed?*

No

If yes, please explain:

DNR RPG Proposed Timeline 2019

Planning grants must be completed within a year of when a grant contract is executed.

Will the proposed project be completed within a year of when the grant contract is executed?*

Yes

Provide project schedule below:

Grant Award: December 2019

Contracting and Project Kickoff: Jan 2020

Data collection: Feb-April 2020

Report composition and outreach to stakeholders: March – April 15 2020

Final Report May 14, 2020

Timeline Attachment

Attach timeline document.

Authorizing Statement

This form is located in the funding opportunity, at the bottom of the page, under "attachments". Your application will not be accepted until we receive this document.

I have printed, signed and mailed in the authorizing statement*

2019 RPG Budget

Match Funding

Please enter the source and amount of match funding that may be used for completing the proposed activity, not including the RRGL Planning Grant funds. Click the "Add" button in this section to list the funding sources for the planning grant.

Please indicate if the alternate sources of funding are other than cash, such as in-kind services.

Funding Source: Missoula County

Funding Source Amount: \$20,000

Funding Source: In-kind from the Missoula Valley Water Quality District and Missoula County Public Works

Is the funding source committed? Yes

If No, explain why the funding is not committed

Funding Source: Montana DEQ/EPA 319 Funds



Funding Source Amount: \$23,100

Funding Source: Cash

Is the funding source committed? No

If No, explain why the funding is not committed

Applications for 319 funding are due 11/1.

DNRC Amount Requested

Add funding requested from the DNRC Planning Grant by selecting "Edit" in the upper right hand corner of the screen.

Amount Requested: \$15,000

Total Budget \$58,100

DNR RPG General Attachment Form 2019

2019 DNR RPG Authorizing Statement

I hereby declare that the information included in and all attachments to this application are true, complete, and accurate to the best of my knowledge.*

An authorized agent representing the applicant, usually the chief elected official, must, by his or her signature, verify that this application is authorized as presented.

I further declare that, on behalf of (Applicant), I am legally authorized to enter into a grant agreement with the Department of Natural Resources and Conservation to obtain funding if this application is approved. I understand that all grant funding must be authorized by the Department of Natural Resources and Conservation.*

Select your full name from the drop down to authorize the grant agreement.

Will you be printing the authorizing Statement from the Authorization Statement Link section and mailing a signed copy to DNRC?

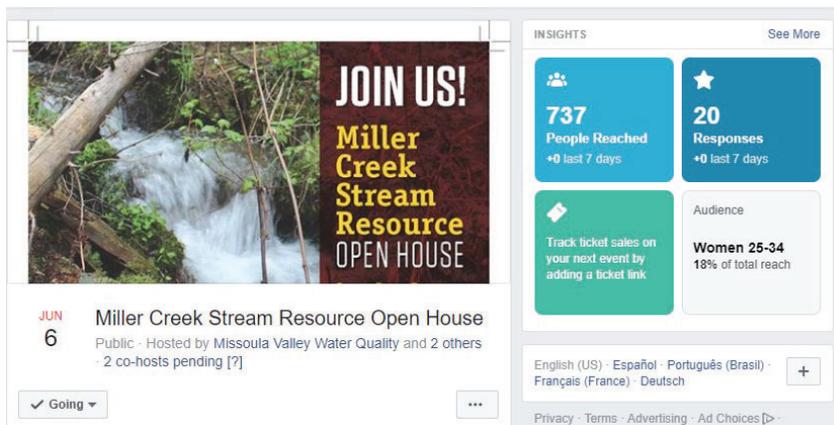
*Failure to do so will prevent the application to be considered for funding.**



Miller Creek – Raising the Profile, Setting the Stage Final Report

The Missoula Valley Water Quality District undertook an effort to raise the profile of Miller Creek water quality and stream health among watershed residents. The goal was that in doing so, the stage would be set for future restoration success. In order to promote stream health and local interest, we hosted the “Miller Creek Stream Resource” open house at a local brewery.

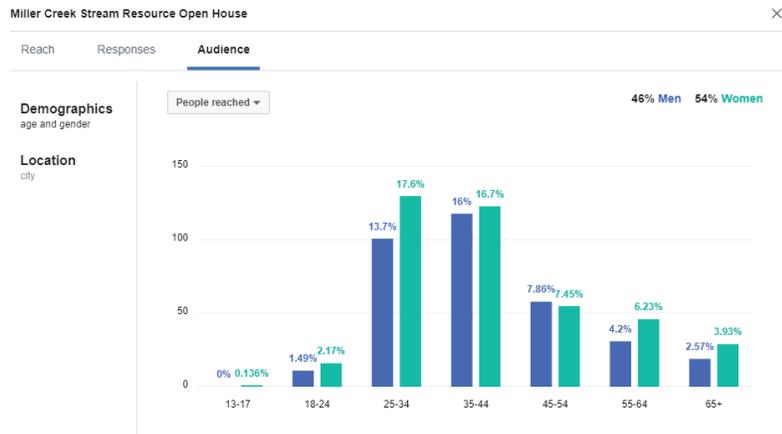
Outreach - Every address in the watershed was sent a postcard inviting them to join us for the event and to visit a website with a compilation of resources from the MVWQD and partners (Missoula Weed District, Missoula Conservation District, and the Clark Fork Coalition). This initial outreach resulted in an influx of calls to all partners regarding different questions pertaining to water. These questions ranged from trying to figure out if they could pump water from the creek to understanding and then addressing 310 violations. In many ways, the mailing served an important function in reminding people of different local agencies and resources. We also used Facebook Ads to reach out to people who live in the Miller Creek Watershed. Given the limited geographic scope we were working within, we were able to reach a large number of residents through Facebook.



The screenshot shows a Facebook event page for "Miller Creek Stream Resource Open House" on June 6. The event is public and hosted by Missoula Valley Water Quality and 2 others, with 2 co-hosts pending. The event image features a stream and the text "JOIN US! Miller Creek Stream Resource OPEN HOUSE". The "INSIGHTS" section displays the following data:

Metric	Value	Change
People Reached	737	+0 last 7 days
Responses	20	+0 last 7 days

The audience insight shows that 18% of the total reach is for Women aged 25-34. There is also a prompt to track ticket sales on the next event by adding a ticket link. The page includes a language selector (English (US), Español, Português (Brasil), Français (France), Deutsch) and a "Going" button.



Event – We hosted the Miller Creek Stream Resource Open House on June 6th at the Great Burn Brewery. In addition to the Missoula Valley Water Quality District, the Missoula Weed District, Missoula Conservation District and the Clark Fork Coalition all staffed tables with different resources. We solicited for names of those interested in receiving emails about other events, joining group email lists, or forming a watershed group. We collected six names of people interested and followed up with those interested in different aspects of the groups work. In addition to providing an opportunity for watershed residents to convene, the open house served as an opportunity for staff from the different organizations to have conversations about different goals and resources that strengthened all of our work in the Miller Creek watershed. Issues that arose from these conversations, highlighted the issues of non-management of HOA riparian areas, issues with Singletree Lane and Singletree Park, and resources to combat weeds and invasive species. Although, we did not reach as many residents as we had hoped, we were able to take advantage of providing further outreach to other patrons of the brewery. Overall, this was a successful event. In the future, it might be better to table at a school in the area or in the Walmart parking area as the brewery was not necessarily on the way home for everyone. Without a natural gathering place that is watershed specific, it was hard to identify a place to gather. The summer is also a time when many people are traveling or have different schedules with childcare or work. A fall or spring event may have had higher attendance.

Planning – We had discussions with Geum about putting together a riparian plan for some of the HOA land but discovered at the open house that the HOAs in Miller Creek are inactive and it would be difficult to identify anyone who had history with or could convene an HOA meeting. The issue that everyone identified as an issue in Miller Creek was Singletree Lane. MVWQD has planted a number of riparian plants in the park and worked with the Clark Fork Coalition to water and weed the area. The issues upstream with the crossing, however, made it difficult for

these plants to establish. The stream often moves across the floodplain, sometimes taking over the road, and reworks deposits and sedimentary structures. Without a primary channel, the stream reworked some of the plants. Discussions with County Parks personnel and Singletree Lane residents indicated that they may be willing to come to the table to find solutions to ongoing flooding and an impaired stream. As a result of these discussions, we talked with Public Works to determine background and history of the road. It is a “non-maintained” county road. This means that the land was deeded from private to public in subdivision but that the county does not take responsibility for maintenance. Private landowners were interested in participating but past efforts had resulted in 310 violations and further impaired the stream. Although there were some solutions that Public Works could come up with to lessen the flooding and impact of flooding on access, none of these would have truly restored function to the stream. With this in mind, the MVWQD decided to approach residents to see if they might be willing to provide easements and fully restore the stream by removing the road from the floodplain. Landowners were interested but wanted to know what that might mean for their properties. In order to determine what it would mean as far as cost and the size of easements to put a proper crossing in and move the road higher on the landscape, we worked with Morrison-Maierle to provide an initial scope of work (provided below). The concept became the foundation for our 319 application.

Goal – Our hope is that restoration of the riparian area in Singletree Park after Singletree Lane is improved with a box culvert or bridge will serve as a springboard to pursue riparian restoration in other residential areas of Miller Creek. With the Singletree restoration work as a backdrop, we can have our next outreach event as a tour or potluck and hopefully gather more interested residents.

TO: Elena Evans, MVWQD
FROM: Molly Davidson, PE; Wyatt Hatch, EI
DATE: October 4, 2019
JOB NO.: 0674.014
RE: Upper Miller Creek Conceptual Plan
CC: Erik Dickson, Missoula County; Travis Ross, MVWQD; File

Urgent For Review Please Comment Please Reply For Your Use

Introduction:

This memorandum provides a summary of the proposed conceptual planning to address existing flood issues experienced along Miller Creek. The proposed project is located approximately 3.65 miles southeast of the Linda Vista Subdivisi19-1003on located in Missoula, Montana on Singletree Lane. The project latitude and longitude are 46°46'54.52"N and 113°59'41.28"W. At the proposed project location, Miller Creek is in a zone AE floodplain per the Federal Emergency Management Association (FEMA) Flood Insurance Rate Map (FIRM) panel 30063C1490E.

Problem:

During runoff events of any significance, water is observed to overtop Singletree Lane. In most cases, Singletree Lane overtops, and flow is observed to route down approximately 400 lineal feet of unimproved road surface before reentering Miller Creek downstream. As a result of overtopping, sediment from the road is mobilized and deposited within the floodplain and downstream creating undefined channels adding to an existing documented impairment of the stream. Sediment transport creates water quality challenges downstream and sediment aggradation has negative impacts to riparian vegetation. In addition, the condition of the road is degraded resulting in increased maintenance.

Cause:

Based on the problems described above, it is evident that the existing culverts do not have the capacity to convey runoff events. In addition, Singletree Lane's road alignment falls within the mapped floodplain. Undersized and misplaced infrastructure has created the problems experienced along Miller Creek at the proposed project location. To alleviate the problems a proposed project is required to replace and relocate inadequate infrastructure.

Proposed Action:

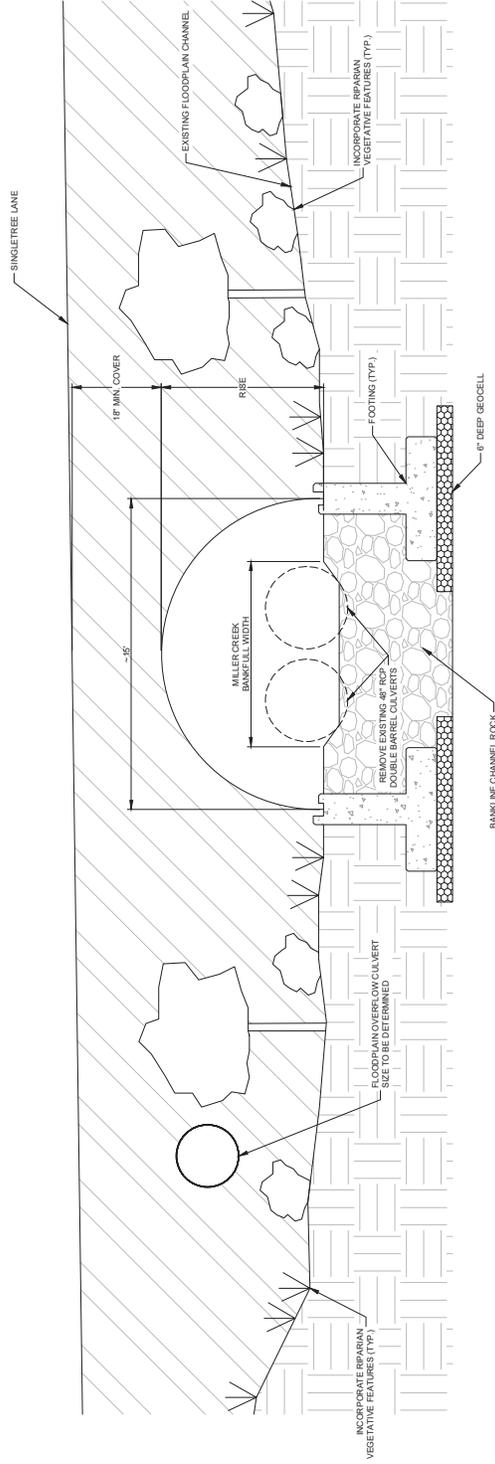
The proposed project objectives include providing adequate flow conveyance, removal of the existing road within the floodplain, stream and riparian restoration, and reduced road maintenance. Conceptual planning proposes minimizing effects within the floodplain to provide a no-rise scenario. The concept plan proposes removal of the existing culverts and installation of a free spanning bridge or bottomless arch with an overflow culvert for large flood events. The proposed infrastructure will span approximately 15 feet (minimum) at a width of 12 feet. The overflow culvert will be sized based on the results of a hydraulic model and is proposed as a corrugated metal culvert. The existing road (Singletree Lane) will be realigned to be removed from the floodplain after crossing the creek. Stream and riparian restoration will be completed to return the stream to its natural function and restore vegetation. A concept exhibit illustrating the proposed improvements compared to the effective floodplain is attached to this memo.

The effective study for the project area is FEMA Flood Insurance Study (FIS) for Missoula County and incorporated areas dated March 7, 2019. Per the FIS, the project location is in a detailed study area (Zone AE). Proposed infrastructure will be sized and designed to accommodate the 1% annual chance (AC) event of 675 cubic feet per second (cfs). In order to permit the project, a series of hydraulic models will be prepared to analyze the effects on the base flood elevations (BFE) of the proposed project compared to the existing conditions and effective BFE's. A duplicate effective, existing conditions, and proposed conditions model will be prepared.

Design and construction of the project will require topographic survey, hydraulics and hydrology analysis/modeling, permitting, design development (drawings, reports, technical specifications, and contract documents), bidding, construction administration, and project closeout. Construction will likely occur during periods of low flow (i.e. late summer to early fall). Anticipated permits include:

- Montana Fish, Wildlife and Parks SPA 124 Permit,
- Missoula County Floodplain Permit,
- United States Army Corps of Engineers (USACE) 404 Permit, and
- Montana Department of Environmental Quality (DEQ) 318 Authorization

Planning level costs for the proposed project, including construction and technical services, is estimated between **\$510,000** to **\$610,000**, depending on preferred stream flow conveyance structure.



SECTION A-A OPEN BOTTOM PIPE ARCH CULVERT DETAIL (1)
SCALE: N.T.S.

- NOTES:
- MILLER CREEK WILL BE MODELED AS A 1-DIMENSIONAL MODEL UTILIZING THE UNITED STATES ARMY CORPS OF ENGINEERS (USACE) PROGRAM HEC-RAS VERSION 5.0.7.
 - TWO (2) EXISTING 48-INCH REINFORCED CONCRETE CULVERTS (RCP) SHALL BE REMOVED AND REPLACED WITH BOTTOMLESS PIPE ARCH.
 - RIPARIAN VEGETATION TO BE INCORPORATED TO RESTORE THE STREAM CHANNEL. VEGETATION TO BE NATIVE SPECIES.

SHEET SCALE: THESE PRINTS MAY BE REDUCED LINE BELOW MEASURE ONE INCH ON ORIGINAL DRAWING. ASHP SCALE ACCORDINGLY.	REVISIONS		PROJECT NUMBER 0874.014	SHEET NUMBER	DRAWING NUMBER EX-B		
	NO.	DESCRIPTION				BY	DATE
MORRISON MAIERLE engineers • surveyors • planners • scientists			MISSOULA MILLER CREEK DRAINAGE		MONTANA		
1545 MAIN STREET MISSOULA, MT 59801 406.542.8800 www.mml.net			DRAWN BY: JWEIL DESGN BY: JWEIL APPR BY: JWEIL DATE: 10/20/19		CONCEPT DETAILS		
COPYRIGHT © MORRISONMAIERLE, INC. 2019			G.P. REVIEW BY: _____ DATE: _____		MILLER CREEK DRAINAGE		



1055 Mount Avenue Ph: (406) 542-8880
 Missoula, Montana 59801 Fax: (406)-542-4801

**ENGINEER'S OPINION
 OF CONCEPTUAL COST***

Date: 10/3/2019
 Project #: 0674.014
 Project Name: Upper Miller Creek Concept Plan
 Engineer: M. Davidson, PE; Wyatt Hatch, EI

Planning Cost Estimate

Item No.	Description	Estimated Quantity	Unit	Unit Price	Total Cost
101	Taxes, Bonds, Insurance	1	LS	\$8,400	\$8,400
102	Mobilization and Demobilization	1	LS	\$15,400	\$15,400
103	General Requirements	1	LS	\$15,400	\$15,400
104	Diversion/Dewatering	1	LS	\$36,000	\$36,000
105	Clearing & Grubbing	3	AC	\$3,500	\$10,500
106	Removal of Existing Culverts	1	LS	\$4,000	\$4,000
107	Roadway Excavation	1,300	CY	\$40	\$52,000
108	Roadway Embankment	550	CY	\$40	\$22,000
109	Structure Excavation	85	CY	\$40	\$3,400
110	12' Wide Gravel Road	850	LF	\$45	\$38,250
111	Placed Channel Rock	20	CY	\$100	\$2,000
112	Grade Control Structure	3	EA	\$1,500	\$4,500
113	Precast Concrete Footings	1	LS	\$23,750	\$23,750
114	Bottomless Arch (12 Gauge)	25	LF	\$700	\$17,500
115	Overflow Culvert	1	EA	\$9,000	\$9,000
116	Channel Reshaping	1	LS	\$15,000	\$15,000
117	Signs	2	EA	\$750	\$1,500
118	Traffic Control	1	LS	\$3,500	\$3,500
119	Erosion Control	1	LS	\$15,000	\$15,000
120	Topsoil	1	LS	\$10,000	\$10,000
121	Stabilization/Riparian Restoration	3	AC	\$3,750	\$11,250
CONSTRUCTION SUB-TOTAL					\$318,350
CONTINGENCY & UNLISTED ITEMS					\$95,500
CONSTRUCTION TOTAL					\$413,850
ENGINEERING DESIGN					\$41,400
PERMITTING					\$16,000
CONSTRUCTION ADMINISTRATION					\$41,400
PROJECT TOTAL					\$512,650



engineers • surveyors • planners • scientists

INVOICE

MORRISON - MAIERLE, INC. - PO BOX 6147 - HELENA, MT 59604
OFFICE: 406-442-3050 - FAX: 406-495-3608-www.m-m.net

TIN 81-0217149

Missoula County
200 West Broadway
Missoula, MT 59802

Invoice Date : 9/27/2019
Date Written : 10/4/2019
Invoice # : 195302 **Grp:****
Project # : 0674.014.00

Msla Co - Upper Miller Ck Drainage

For professional services rendered through: 9/27/2019

Professional engineering services provided for Upper Miller Creek Drainage planning.

Total Project Fee authorized	3,000.00
Percent Complete as of 9/27/2019	100.00
Fee Earned To Date	<u>3,000.00</u>
Less Previous Billings	0.00
Amount Due This Invoice	<u><u>3,000.00</u></u>

Davidson, Molly R.

Amounts Are Due and Payable Upon Receipt of Invoice
Amounts 30 Days Overdue Are Subject To A Service Charge At The Maximum Legal Rate

CINCH2019

Amount Due (USD)
\$150.00

BILL TO
Missoula Valley Water Quality District
Travis Ross

tross@missoulacounty.us

Invoice Number: Cinch2018-00154
Invoice Date: May 29, 2019
Payment Due: July 13, 2019

PRODUCT/SERVICE	QUANTITY	PRICE	AMOUNT
Design & production Design & Production Miller Creek Postcard design	2	\$75.00	\$150.00
Total:			\$150.00
Amount Due (USD):			\$150.00



Cinch Design & Communications
328 North Rodney Street
Helena, Montana 59601
United States

Receipt for Water Quality District

Account ID: 617940794725



Payment Date
Jun 6, 2019, 1:05 PM

Payment Method
American Express*5007
Reference Number: EAL6TLJQE2

Transaction ID
2201246283321936-4461615

Product Type
Facebook

Paid

\$25.00 USD

You're being billed because you reached your \$25.00 billing threshold.

Campaigns

Engagement		
From May 29, 2019, 3:00 PM to Jun 6, 2019, 1:05 PM		\$25.00
US - 18+	1,743 Impressions	\$25.00

Facebook, Inc.
1601 Willow Road
Menlo Park, CA 94025-1452
United States

7272-000-480200 -

Search



Water Quality District (617940...

Account: Water Quality District

Transaction: 2201246283321936-4461615

Billing Summary

Amount Billed

\$25.00

Billing Reason
You're being billed because you reached your \$25.00 billing threshold.

Payment Date
Jun 6, 2019, 1:05 PM

Product Type
Facebook

Status
Paid

Engagement

From May 29, 2019, 3:00 PM to Jun 6, 2019, 1:05 PM

Ad Set Name

US - 18+

Totals

Results

1,743

1,743

Impressions

5/28/2019

Store: 1

Mike's Print and Copy

1605 South Ave W.

Missoula, MT 59801

(406) 728-3363

orders@montanacopy.com

Cashier

Item Name	Qty	Price	Ext Price
Postcards	250	\$0.45	\$112.50
pc			
		Subtotal:	\$112.50
		Local Sales Tax	0 % Tax: + \$0.00
RECEIPT TOTAL:			\$112.50

Credit Card \$112.50

American Express

Merchant # ***71722

Authorization #: 61747812438

Card: *****5007

Reference 85713026

Name ELENA EVANS

Type American Express

Amount **\$112.50**

X

Cardholder Signature

I agree to pay above amount according to card issuer's agreement

Thanks for shopping with us!



Store 20 Dir Allen Stewart

Main: (406) 549-5105 Rx: (406) 549-5127

2205 Oxford St

Missoula MT 59801

GEN MERCHANDISE

CRAYOLA MARKERSBLE	3.98
MANCO MASK TAPE	2.29
Regular Price	2.59
You Save	0.30--
Z INT STKY NOTES	3.29
2X2 STKY NOTES	1.99

TAX 0.00
**** BALANCE 11.55

Credit Purchase 06/06/19 16.31
CARD # *****5007
REF: 46001277178 AUTH: 00848834

PAYMENT AMOUNT 11.55

AL AMERICAN EXPRESS
AID A000000025010801
TVR 0000008000
TSI E800

AMEX

11.55

TOTAL
06/06/19

Report a Problem



JOIN US!

**Miller
Creek
Stream
Resource
OPEN HOUSE**

Great Burn Brewery
June 6th • 5-8PM

Missoula Valley Water Quality • Miller ...
Creek Stream Resource Open House
Published by Elena Evans (1)
Page Laid: May 28

Add a description

Tap Photo Add Location Edit

1

Like Comment Share

Write a comment



POB 1318
 Missoula, MT 59806-1318
 email: office@townemailer.com
 406-541-6245

Invoice

Date	Invoice #
5/30/2019	141749

Bill To
Missoula Valley Water 301 W Alder St Missoula, MT 59802

P.O. No. - Project	Terms
Miller Creek postcards	

Scope of Work	# Pieces	Description	Amount
Handling Fee	249	Sortation/Handling Fee	35.00
Actual Bulk Mail Postage		Bulk Mail Postage	58.25
Total			\$93.25



Missoula City-County Health Department

Water Quality District

301 W Alder | Missoula MT 59802-4123

www.missoulacounty.us/wqac

Phone | 406.258.4890

Fax | 406.258.4781

INVOICE – Miller Creek – Raising the Profile, Setting the Stage Letter of Agreement

DATE: October 31, 2019

TO: Montana Department of Environmental Quality, Helena, Montana

FROM: Missoula Water Quality District, 301 West Alder, Missoula MT 59802

Reference #: 4443-000-36421

Outreach

Postcard design	\$150.00
Postcard printing	\$112.50
Markers, Sticky Notes and Tape for Posters	\$11.55
Postcard mailing	\$93.25
Outreach Total	\$367.30

Planning

Conceptual Plan	\$3,000
-----------------	----------------

Staff Time

Hydrogeologist	18.7078 hours @ \$33.82/hour	\$632.70
----------------	------------------------------	-----------------

TOTAL DUE \$4,000.00