2026 On-the-Ground Project Application Form

General Information

Project Name: Canyon Creek Restoration Phase 2

Applicant Name: Ashley Brubaker, Trout Unlimited

Is your organization registered with the Montana Secretary of State? Y

Explanation: Each applicant must be registered with the Montana Secretary of State to do business in the state of Montana. Registration with the Secretary of State may be completed via the following website: https://sosmt.gov/business/

Is your organization registered with the federal System for Award Management (SAM)? Y

Explanation: Each applicant is required to register with SAM. To register or check your organization's status, go to https://sam.gov/content/home. If you get an "Unsupported Browser" error, copy, and paste the link into a Google Chrome browser window.

Primary Contact	Ashley Brubaker	Title	Project Manager
Address	627 E Peach St.	City / State / Zip Code	Bozeman / MT / 59715
Phone Number	(303)915-9282	Email	ashley.brubaker@tu.org
Signature	Ashley Brubaker — Digitally signed by Ashley Brubaker Date: 2026.02.10 12:01:48 -07'00'		

Explanation: This is the person who DEQ would routinely contact to discuss project progress, billing, etc.

Signatory	Casey Hackathorn	Title	Montana State Director
Address	312 N Higgins Ave., Ste 200	City / State / Zip Code	Missoula / MT / 59802
Phone Number	(406)546-5680	Email	casey.hackathorn@tu.org
Signature	Digitally signed by Casey Hackathorn Date: 2026.02.20 09:39:21 -07'00'		

Explanation: This is the person who can legally sign contracts and other binding documents on behalf of the applicant (e.g., a board chair)
Note: The primary contact, signatory and landowner must sign the application. Signatures must be either signed electronically, or wet-signed, scanned and sent electronically.

Landowner Name	Greg Avis (printed and signed, submitted as seperate attachment)
Landowner Signature	
Landowner Name	
Landowner Signature	
Landowner Name	
Landowner Signature	

Explanation: Landowner signatures are required. **Signing the application does not obligate the landowner to implement a project.** Instead, it is an indication that the landowner has read the application and agrees, in principle, with the project concept and goals.

Your organization's Unique Entity Identifier number (UEI #) | 051698132

Explanation: Each applicant is required to have a current UEI number. The UEI number replaces the old DUNS number. If your organization had a DUNS number, you should have received a notification from the federal government indicating that your DUNS number has been changed to a UEI number. If you did not receive this notification, or if you never had a DUNS number, you will need to go to the federal government's System for Award Management (SAM - https://sam.gov/content/home) to obtain your UEI number. DEQ recommends starting this process early as it is very time-consuming, requires providing documentation-sometimes with follow-up requests for additional information, and can take up to 2 months to complete. If you need assistance, you may contact the federal help desk at 866-606-8220 Monday-Friday 8:00 a.m. through 8:00 p.m. EST.

Does your organization have adequate liability insurance for the risks associated with your project? | N

Explanation: Each applicant must have or obtain liability insurance coverage meeting the requirements stated in the Draft Sample Contract and/or requirements negotiated based on the appropriate level of risk associated with the project.

Describe the technical and administrative skills your organization will use to effectively and efficiently complete your proposed project(s).

Trout Unlimited (TU) is a nationwide coldwater conservation organization that has been working to restore streams and protect fisheries since the 1950s. TU's Montana staff includes 10 project managers working across western Montana to implement on-the-ground stream restoration projects, plus other staffers with expertise in policy, water law, instream flow and water rights, grant administration and accounting. TU has a proven track record through projects including the Rattlesnake Dam removal, Ninemile Creek restoration, Phase I and II of Dry Creek Restoration, and the Reese Creek instream flow project. TU's Upper Yellowstone and Shields River Project Manager will leverage this organizational expertise, plus her 10-plus years working in stream restoration and fisheries research to achieve project objectives and improve stream function in phase 2 of the Canyon Creek restoration project.

Budget Form

Please fill out the On-the-Ground Project Budget Template (Excel file). Cells highlighted in yellow may be edited to fit the needs of your particular project. DEQ uses a template to construct nonpoint source grant contracts. The Budget Template contains tasks and typical deliverables that match up with the grant contract template. Please see the Example Contract and Scope of Work Template for a more detailed look at typical task requirements and deliverables.

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.

Splitting Examples (fill out multiple Project Forms)

- Stream restoration work occurring on two separate streams..
- Two projects with significantly different sets of project partners.
- Two projects that address substantially different pollution sources (e.g., one project move a corral off of a streambank, and another removes mine tailings, with both projects being on the same property).

Lumping Examples

- Contiguous stream restoration work spanning multiple land parcels.
- Three 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)

Project Form

A separate Project Form (including providing separate attachments) must be submitted for each project included in your application

Project Name: Canyon Creek Restoration Phase 2

Required Attachments in Addition to This Form

- [x] Letter of support from the organization that created or sponsored the creation of the DEQ-accepted Watershed Restoration Plan or the Tribe that created the EPA-approved Tribal Nonpoint Source Management Plan (*if applicable).*
- [x] Letter of support from EACH landowner associated with the proposed project area (*if applicable).*
- [x] Budget Table (see Microsoft Excel Template).
- [x] **Detailed Project site map(s)** Attach a map or set of maps showing the location and size of proposed activity if a site has been predetermined. The map scale must be between 1:1,000 and 1:12,500. The map(s) must have an aerial photo background (e.g., USDA NAIP photography, Google Earth imagery, etc.). The map(s) must show the latitude, longitude, site name, and landowner for the activity site. The map(s) should also identify waterbodies affected by the pollution that the activity is designed to address. (*This is in addition to adding points of the project location to the website on page 4*).

Optional Attachments

Attach additional items and information that could help reviewers better understand your project. Information could describe public health risks, opportunities to leverage other funding sources, etc. However, application reviewers may have limited time available, and excessively long, optional attachments might not get reviewed. Do not attach copies of TMDL documents, TMDL implementation evaluations, Watershed Restoration Plans, Tribal Nonpoint Source Plans, or large comprehensive studies. The following attachments may be included. Please no more than 20 pages.

- [ ] Project Design Plans/Drawings
- [ ] Preliminary Engineering Reports / Site Evaluations
- [ ] Landowner Agreements / Construction Permits / Floodplain Permits
- [x] Site photos
- [x] Additional Letters of Support
- [ ] Other: _____
- [ ] Other: _____
- [ ] Other: _____

Project Area

Please provide as detailed a description of the project area as possible.

List the counties in which the project will be located.

Park County

List the 12-digit Hydrologic Unit Codes (HUCs), sometimes referred to as Sixth Code HUCS, in which the project will take place. Use the following link to help assist you in determining the HUCs: https://apps.nationalmap.gov/viewer/

Canyon Creek (100700030501)

Project Location Map

In addition to providing your own project site map, please go to the following website and follow the instructions to add your project location to the map.

https://gis.mtdeq.us/portal/apps/storymaps/stories/42f4a668285c4ef6aa94b1623f10df57

Connection to a Previous or Ongoing Project

Is this project tied to a previous or ongoing project? If so, please describe the connection.

Phase 2 of the Canyon Creek restoration project is immediately upstream of Phase 1, which received DEQ 319 funding in 2025 and is scheduled to begin implementation in summer 2026. Phase 2 intends to address the concrete dam structure that is a contributing factor in the degradation of the phase 1 reach. Additionally, TU holds an instream flow lease on Canyon Creek, ensuring water stays in the creek throughout the irrigation season. This project is also part of an ongoing watershed-wide restoration effort led by the Park County Water Initiative, and was ranked as a high priority project in the group's project identification and prioritization effort. The landowners are also working with Trout Unlimited on a restoration project in Brackett Creek, one tributary to the north of Canyon Creek and additional restoration work is occurring on Bangtail Creek, one tributary to the south, by a TU partner organization, which will result in decreased non-point source pollution in three adjacent tributaries.

TU will be beginning the ground portion of a culvert and diversion survey in the Shields Basin in summer 2026. Though the concrete structure in this project was identified ahead of this survey, it will serve as an example of the type of degradation undersized culverts and instream barriers can cause and what potential solutions can look like.

Project Purpose

Select the watershed restoration plan or tribal nonpoint source plan that your project will help implement (please type in if missing from list) (*Not required for HAB reduction projects)*

Shields River - Shields River Watershed Group

Y — Letter of support from author, or if the author was contracted, the author sponsor, attached? *(If no, explain why below.)*

IMPAIRMENT LISTINGS: Projects that address water quality impairments on Montana's 2020 List of Impaired Waters are preferred though not a requirement. Funding may be used for projects that protect waterbodies that are demonstrated to be healthy.

Waterbody name from the 2020 List of Impaired Waters	Shields River (Cottonwood Creek to mouth)
Probable causes of impairment to be addressed	Sedimentation/Siltation, Streambank Modifications/destabilization
Waterbody name from the 2020 List of Impaired Waters	
Probable causes of impairment to be addressed	

HEALTHY WATERSHEDS: While project funding is prioritized to addressing known impairments, funding can be used to protect healthy waters from becoming impaired.

Name of healthy waterbody to be protected	Canyon Creek
Description of identified threat	Sediment from hillslope and streambank erosion, lack of riparian vegetation and floodplain connectivity limiting water storage and sediment filtration and deposition on floodplain
Name of healthy waterbody to be protected	
Description of identified threat	

Project Partners

Identify each of the project partners and describe their contribution to the project. Include landowners, land managers, project designers, funders, and your own organization. Indicate whether each partner, other than your organization, has provided a letter of support. (*Note: each landowner must provide a letter of support if project site(s) have been predetermined.*)

Landowner	Contributions to Project	Letter of Support Attached?
Greg and Anne Avis	Providing access to project and materials, overall coordination and support.	☑
		☐
		☐
		☐

Project Partner	Contributions to Project	Letter of Support Attached?
Montana Fish, Wildlife & Parks	Will assist with project related monitoring including fish surveys and genetic analyses.	☑
Park County Water Initiative	Has listed this project as a high priority in the Shields basin, will continue to connect partner organizations/agencies to support the project.	☐
Joe Brooks Trout Unlimited (local TU chapter)	Will provide volunteers for project revegetation and hand work.	☐
Amanda McAllister (Ranch Manager)	Will provide time and labor to support the project.	☐
		☐

Project Coordination and Planning Task

This task would include completion of all applicable planning tasks from the list below, as well as coordination and oversight of the efforts of all project partners.

Identify the status of the following project planning tasks, where applicable.

	Completed?	Copy Attached?	To Be Completed Pre-Contract (Oct 2026)?	To Be Completed as Contract Deliverable?
*Draft Project Designs	☐	☐	☑	☑
*Final Project Designs	☐	☐	☐	☑
Consultation With Potential Regulators	☐	☐	☐	☑
Necessary Permits	☐	☐	☐	☑
Cultural Resources Inventory *(if relevant)*	☐	☐	☐	☐
Other:	☐	☐	☐	☐
Other:	☐	☐	☐	☐
Other:	☐	☐	☐	☐

***See Call for Applications Section 5.1 for minimum design standards.*

Describe any additional project planning that *will have been completed prior* to execution of a contract (October 2026).

The process for project designs will begin prior to contract execution including site surveys and landowner coordination. This will not be completed prior to contract execution.

Describe any additional project planning and coordination that will need to be completed after the execution of a contract (October 2026).

After the execution of a contract, TU will complete project designs, obtain necessary permits, issue a Request for Proposals to hire a qualified construction contractor and go to construction.

Landowner Agreement Task

DEQ includes the following language in every nonpoint source contract involving on-the-ground activities:

Contractor shall submit signed landowner agreement(s) verifying that Contractor and DEQ staff may access the project site, at reasonable times and with prior notification, for the purposes of project planning, implementation, and post-implementation monitoring. The agreement(s) must ensure appropriate operation and maintenance of all structures, vegetation, and management measures for the life of the project (typically 10 years). If grazing will be allowed within the project area, the agreement(s) must include a sustainable management plan for livestock grazing, designed to protect and enhance riparian function. If a signed landowner agreement does not meet the above-stated minimum requirements, Contractor shall negotiate an amended agreement with the landowner that ensures appropriate operation and maintenance of all structures, vegetation, management measures, and includes a sustainable management plan for any livestock grazing for the life of the project (typically 10 years).

Identify the status of the following landowner agreement tasks, where applicable.

	Completed?	Copy Attached?	To Be Completed Pre-Contract (Oct 2026)?	To Be Completed as Contract Deliverable?
Draft Landowner Agreement(s)	☐	☐	☐	☑
Final Landowner Agreement(s)	☐	☐	☐	☑
Grazing Management Plan	☐	☐	☐	☑
Other:	☐	☐	☐	☐
Other:	☐	☐	☐	☐

Project Effectiveness Monitoring Task

If you will be conducting any on-the-ground implementation work, you will be required to complete the monitoring activities described in the task language below, as applicable. Describe below how you plan to determine the effectiveness of your project. Project effectiveness success criteria should be time-bound and assess each project objective quantitatively. Success criteria should clearly define adaptive management thresholds. Examples may include: a minimum 25% decrease in sediment/nitrogen/phosphorus load within 2 years; a 70% survival rate of containerized plantings after one year.

If you are applying for nonpoint source grant funding for project design only, and not for project implementation, you may either skip this task, or describe below which parts of this task you intend to complete:

TU will work with DEQ to determine an appropriate monitoring strategy for Canyon Creek Restoration Phase 2. The monitoring plan may include the following metrics:

1. Photo point monitoring.
2. Revegetation plant survival.
3. Channel stability indicators such as longitudinal profiles or channel cross sections.
4. Other metrics as appropriate.

Example Task Language

Contractor shall, in consultation with the DEQ Project Manager, develop a reasonable method or set of methods for evaluating and reporting on the effectiveness of the project in addressing water quality issues. Contractor shall complete a monitoring plan to guide monitoring activities. Contractor shall complete the following monitoring activities:

- *Estimate the sediment load reductions (tons/year) achieved through implementation of the proposed restoration activities and management practices.*
- *Estimate the nitrogen load reductions (pounds/year) achieved through implementation of the proposed restoration activities and management practices.*
- *Estimate the phosphorus load reductions (pounds/year) achieved through implementation of the proposed restoration activities and management practices.*
- *For projects designed to address pollution from pollutants other than nitrogen, phosphorus and sediment, evaluate and report on the effectiveness of the project in addressing water quality issues.*
- *Contractor shall collect data, as directed by the DEQ Project Manager, to be used in estimating sediment, nitrogen, and phosphorus load reductions (and for harmful algal bloom reduction projects, carbon sequestration/emissions reductions) achieved through implementation of restoration activities and management practices designed to address these pollutants.*
- *Use the following measures to evaluate the sustainability of restoration activities and management practices:*
    - *[Vegetation mortality rate.]*
    - *Pre- and post-construction photo point monitoring consistent with the "Oregon Watershed Enhancement Board Guide to Photo Monitoring" methodologies, or a similar published photo point monitoring method accepted by DEQ. The U.S. Forest Service provides additional photo point monitoring guidance in the "United Stated Forest Service Photo Point Monitoring Handbook".*
    - *[Riparian survey.]*
    - *[Other.]*

Please describe any additional monitoring you intend to do as part of the project.

Canyon Creek restoration phase 1 includes an intensive monitoring survey. Though the phase 2 dam location is not included in the phase 1 monitoring study, the monitoring reach ends at the dam location.

Project Implementation Task

Provide a d**etailed description of the solution you are proposing** to implement to address a nonpoint source pollution problem.

- Describe the practices you intend to design and/or implement to solve the problem (what, where, when, how much or how many).
- Describe the anticipated maintenance needs (what, where, who, how long).
- Refer to the minimum design standards in the Call for Applications.
    - *Please fill out this section to the best of your ability, even if you are only seeking funding for project design.*

The Canyon Creek restoration project is a mulit-phased project to decrease non-point source pollution, improve fish habitat, and increase lateral and longitudinal connectivity in Canyon Creek. In 2025 DEQ allocated funding to conduct Canyon Creek Restoration and Monitoring Phase 1 consisting of implementing low-tech process-based restoration techniques in approximately 1.5 miles of Canyon Creek to increase floodplain connection, lateral connectivity, and beaver colonization, and decrease non-point source pollution. Phase 1 implementation will begin in summer 2026. Phase 2, the subject of this proposal, is located at the upstream extent of the Phase I project reach, where an old cement dam with two small, partially plugged culverts is a primary cause of stream degradation through the downstream phase 1 reach. Fish passage is impeded as the small culverts are frequently blocked by sediment or beavers, and the culverts are perched above the water surface with insufficient conditions for fish passage at low flows and possibly high flows. The sediment deposition above the dam and the fire hose effect created by the small culvert diameter has elevated erosion rates directly downstream of the dam, causing the stream to incise for nearly 1 mile downstream through the phase 1 reach, limiting floodplain connectivity, riparian vegetation, channel complexity, and adding fine sediment to the sediment-impaired Shields River. Additionally, the sediment and beaver activity blocking the remaining culvert has forced the stream to find a new path. In 2024 the stream began migrating to the left (north) of the channel, spilling over a low spot in the cement dam and cutting a new channel through grass and fine sediment. With little deep-rooted vegetation in this immediate area, this will lead to further channel instability and erosion.

To reverse stream and riparian damages caused by the dam, and to prevent further impairments, TU will hire an engineer to complete project survey and design in spring/early summer 2026. Conceptual designs are to remove the cement dam and install grade control structures to prevent a headcut forming in the channel due to the elevation gradient upstream and downstream of the dam. This will result in a connected channel with a natural, gradual slope suited to the stream's geomorphic setting. TU is prioritizing project solutions throughout the Shields basin that allow continued working lands activities. This location is used for grazing, and developing a grazing management plan that allows continued grazing into the future without permanent fencing or negative impacts to the stream is a priority for TU and the landowners. Part of this plan will be to maintain a stream crossing at or near the current location of the concrete structure, which currently serves as the only crossing site in the vicinity. Crossing designs will be included in final project designs, but will likely be a constructed riffle ford or similar wet crossing using natural materials that does not impede natural channel function. After completion of construction, disturbed areas will be seeded with native grasses and revegetated with native riparian species including willow stakes, alders, and cottonwoods.

In addition to sediment pollution in Canyon Creek, this project will increase passage for native Yellowstone cutthroat trout (YCT). As part of project development for phase 1 and 2 of Canyon Creek Restoration work, TU and USGS conducted fish survey across approximately 12 miles of Canyon Creek and its tributaries. Survey results showed an increase in YCT numbers from the previous 2001 survey, and genetic analysis recently confirmed that there is no hybridization with rainbow trout occurring in this population. Coordination between TU and FWP has determined that dam removal will improve conditions for YCT in Canyon Creek by removing a passage barrier and increasing instream habitat connectivity.

Education, Outreach and Training Task

To get good projects on the ground, trained staff and board members and educated, enthusiastic landowners are required. To promote the development of future projects, DEQ encourages project sponsors to use up to $5,000 per project of funding to support training and conduct education and outreach. Example training topics might include: project management, public procurement, technical writing, GIS, water quality monitoring, web design, public speaking, human resource management, photo journalism, UAV (drone) piloting, financial management, and restoration techniques. Education and outreach activities might include targeted landowner outreach, conducting project site tours for local landowners, tabling at community events, holding a watershed festival, providing stipends and travel reimbursements for speakers and participants to attend a nonpoint source pollution prevention workshop, or generating articles for social media. The primary requirement for training and outreach is clearly explaining how the activity generates behavior change to address nonpoint source pollution. Funding may not be used to pay for food and beverages, or for honorariums and gifts.

Describe the education and outreach activities or training you will complete to promote behaviors or facilitate future efforts to reduce nonpoint source pollution. Additionally, identify the goals of the training/education and outreach activities.

The Shields Valley Watershed Group, the Park County Water Initiative, and the Joe Brooks TU chapter will be primary partners in communicating information about this project. The TU project manager will work with TU's communications team to engage local media and share project outcomes through TU social media including Instagram, newsletters, and blog posts. Local TU chapters including the Madison-Gallatin chapter in Bozeman and the Joe Brooks chapter in Livingston will also help share project results through their newsletters and social media, and through presentations at chapter meetings. TU will also work with the Park County Water Initiative and the local TU chapter in Livingston to recruit volunteers to assist with restoration activities.

During the Brackett Creek restoration project construction in 2025 TU offered project tours to members of the watershed group and conservation district. Offering tours during construction allows landowners interested in NPS projects on their property to gain a greater understanding of what project work can look like, and to see the whole range of before-during-immediately after stream and bank conditions. Similar mid-construction tours will be offered on this project to promote understanding of the work being conducted, and how it can relate to future work in other locations.

Identify the specific target audience and method of delivery. Additionally, describe how the proposed training and/or education and outreach will increase local capacity and interest for addressing/promoting behavior change to reduce nonpoint source pollution.

The target audience of education and outreach about this project includes local community members, landowners, restoration practitioners, land managers and fisheries professionals. This project coincides with TU's culvert/diversion/barrier survey effort in the Shields basin that will begin in summer 2026, so landowners who may need instream structure upgrades or removals will be targeted for project outreach and tours. This targeted outreach will begin with presentations to the watershed group and/or conservation district and will continue with site visits for interested parties. Though this structure/barrier was not identified as part of the survey effort, it may serve as an example of what barrier removal could look like on the ground, and help to communicate the process through final results to other landowners.

Describe how you will evaluate the effectiveness of the proposed activities.

Education and outreach goals include increased understanding of methods, costs, benefits, outcomes, and partnerships involved in nonpoint source pollution reduction and stream restoration. This will be accomplished through revegetation volunteer work days and presentations to and conversations with local community groups. This is a part of an ongoing effort to increase awareness of and desire for restoration projects, and effectiveness of this outreach will be measured by the number of people reached.

Project Administration Task

Please use the task description below as a guide when calculating your budget for project administration. DEQ typically includes these requirements in every nonpoint source grant contract, with only minor variation. Funding applied to the Project Administration Task on each project must not exceed 10% of the total amount of funding requested, or $12,000, whichever is lower.

Example Task Language

Contractor shall oversee and be accountable for the completion of all tasks. Contractor shall maintain regular contact with the DEQ project manager. Contractor shall prepare and submit Status Reports, Final Reports and Attachment B Billing Statements according to the format and schedule described below.

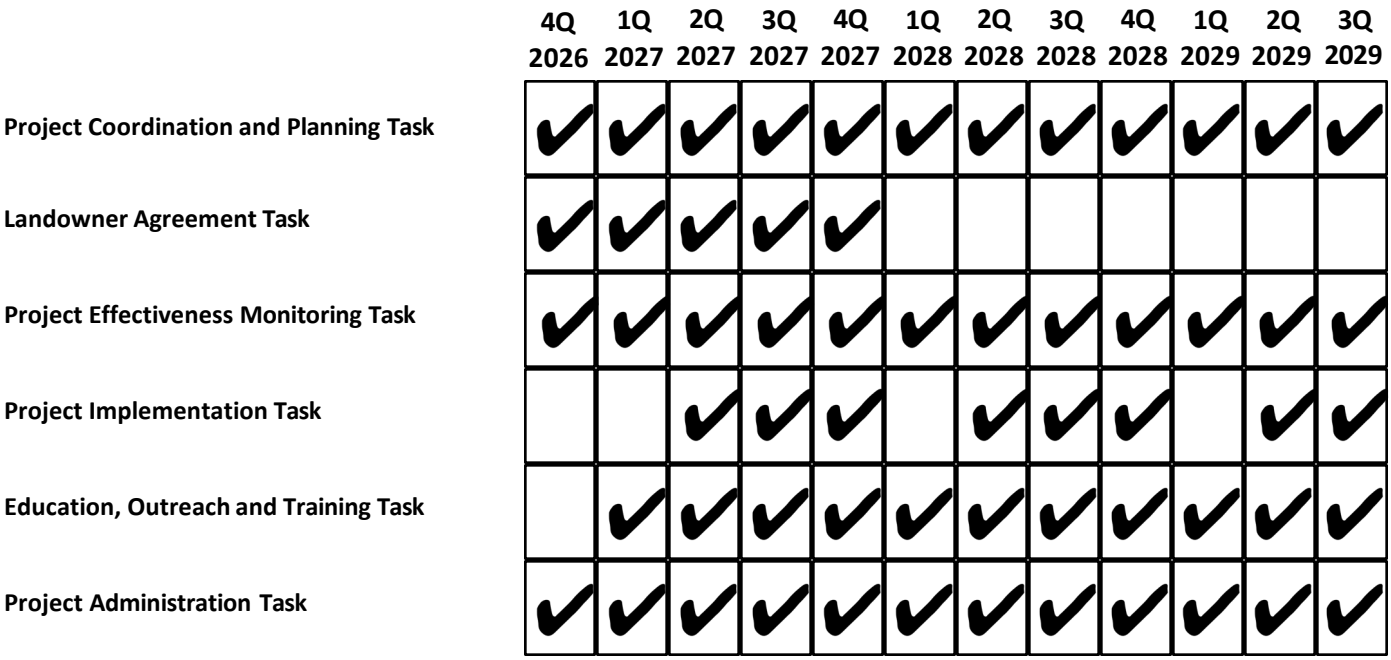
Report Format

- *Contractor shall submit each Attachment B Billing Statement, Status Report and Final Report using the most current reporting guidance and templates provided by the DEQ project manager.*
- *Contractor shall ensure each Status Report and Final Report contains adequate documentation to justify accompanying reimbursement requests and match reporting, to the satisfaction of the DEQ project manager.*
- *Contractor shall ensure that the Final Report is a standalone document describing all contract activities and containing copies of all contract deliverables (even if the deliverables were previously submitted).*

Reporting Schedule

- *Status Reports: Due June 15th and December 15th of each year the Contract is in effect, and each time an Attachment B Billing Statement is submitted.*
- *Draft Final Report: Contractor shall submit a complete draft Final Report for DEQ review and comment at least 15 days prior to the contract expiration date.*
- *Final Report: Contractor shall submit a Final Report, addressing DEQ comments on the draft Final Report, on or before the Contract expiration date.*
- *Attachment B Billing Statements: Contractor shall submit an Attachment B Billing Statement with each Status Report, or Final Report submitted to DEQ while the Contract is in effect. To maintain cash flow, Contractor may submit interim Attachment B Billing Statements as frequently as monthly during the term of the Contract. However, each interim Attachment B Billing Statement must be accompanied by an Interim Report.*

Project Timeline



Co-Benefit Considerations

DEQ is committed to carrying out nonpoint source pollution reduction projects within engaged communities where the impact stretches beyond improving water quality. DEQ will award additional points in the scoring form where co-benefits extend beyond the project. Below are a few examples of how projects might exemplify co-benefits.

- Project will reduce economic hardship such as from livestock mortalities, cost and energy needs to treat municipal drinking and wastewater treatment, or loss of income from recreation
- Project will benefit underserved markets
- Project will improve or create equitable access to a clean and healthy environment
- Project planning included consultation with Tribal Nations
- Project will improve flood and drought resilience of the landscape
- Project impacts will benefit a downstream community and other natural systems (e.g., drinking water sources, human health, wildlife habitat, etc)

Please use this section to highlight co-benefits your project may have.

As with most non-point source projects, Canyon Creek Restoration Phase 2 has multiple co-benefits. Removing the concrete structure across the stream will benefit Yellowstone cutthroat trout in several ways, including 1) decreasing fine sediment in the stream will increase clean gravels, benefiting trout spawning, invertebrate habitat, and groundwater exchange, and 2) the structure is currently impeding fish passage, and is a complete barrier at some, if not all, flows, restricting fish movement through the reach. Removing the structure will allow fish and other aquatic organisms to move up- and downstream freely at all flows. Wildlife other than fish will also benefit from improved stream function, including birds, bats, deer, beaver, muskrat, moose, and elk. Finally, a healthy and intact riparian zone can decrease the spread of wildfire, and can provide important wildlife refuge during fires.

BUDGET

2026 Nonpoint Source Pollution Reduction Application - On-the-Ground Project Budget Template

Project Title:								
Instructions	**Tasks and Potential Deliverables**	**Funding Request***	**Non-Federal Match****	**Other Funding*****	**Match Source**	**Match Secured? (Y/N)**	**Total Project Cost**	**Additional Information********
This task includes completion of all planning tasks and coordination and oversight of the efforts of all project partners. Provide a detailed budget and add a row if needed.	**Project Planning**							
	Preliminary site investigation data and site maps			$ 10,000.00			$ 10,000.00	Will be completed prior to contract date
	Required Permits	$ 1,000.00					$ 1,000.00	
	Draft Project Designs			$ 20,000.00			$ 20,000.00	Will be underway prior to contract date
	Final Project Designs	$ 10,000.00					$ 10,000.00	
							$ -	
							$ -	
	Total	$ 11,000.00	$ -	$ 30,000.00			$ 41,000.00	
This task includes costs for developing and managing landowner agreements and developing grazing management plans as applicable. Provide a detailed budget and add a row if needed.	**Landowner Agreements**							
	Draft Landowner Agreement					N	$ -	
	Final Landowner Agreement	$ 200.00	$ 50.00		landowner in-kind		$ 250.00	
	Grazing Management Plan	$ 300.00	$ 400.00		Ranch Manager and landowner in-kind		$ 700.00	
							$ -	
							$ -	
	Total	$ 500.00	$ 450.00	$ -			$ 950.00	
This task includes costs for developing and implementing a monitoring plan to evaluate effectiveness to reduce nonpoint source pollution. See example contract template or application instructions for required monitoring activities. Provide a detailed budget and add a row if needed.	**Effectiveness Monitoring**							
	Draft Monitoring Plan	$ 400.00					$ 400.00	
	Final Monitoring Plan	$ 400.00					$ 400.00	
	Written Summary of all Monitoring Activities	$ 500.00					$ 500.00	
							$ -	
							$ -	
							$ -	
	Total	$ 1,300.00	$ -	$ -			$ 1,300.00	
This tasks includes all costs for implementation of the plans developed in the Project Planning task. If you are requesting funding for design only, leave this task blank. Provide a detailed budget and add a row if needed.	**Project Implementation**							
	Materials and hauling	$ 50,000.00					$ 50,000.00	Including channel reconstruction materials and revegetation materials
	Labor	$ 10,000.00	$ 12,500.00		American Rivers	Y	$ 22,500.00	
	Heavy equipment and operator	$ 170,000.00	$ 10,000.00		Jackson Hole One Fly	N	$ 180,000.00	
	Construction oversight	$ 20,000.00	$ 2,000.00		Private contribution	N	$ 22,000.00	
	Travel	$ 730.00					$ 730.00	Ten trips, 100 miles round trip @ $0.73/mile
	Photo documentation	$ 250.00			Private contribution	N	$ 250.00	
	Landowner recommendation letter		$ 100.00		landowner in-kind		$ 100.00	
	Supplies	$ 1,000.00					$ 1,000.00	
	Willow cuttings		$ 5,000.00		Landowner In-kind	Y	$ 5,000.00	
	Revegetation		$ 6,000.00		Volunteers	Y	$ 6,000.00	
	Total	$ 251,980.00	$ 35,600.00	$ -			$ 287,580.00	
This task includes costs to develop and improve organizational capacity and to incorporate education and outreach into each on-the ground projects. Provide a detailed budget and add a row if needed.	**Education and Outreach**							
	Volunteer Coordination	$ 500.00	$ 500.00		Volunteer from TU Chapter		$ 1,000.00	
	Event/Tour Planning						$ -	
	Outreach/Publication materials	$ 250.00					$ 250.00	
							$ -	
							$ -	
	Total	$ 750.00	$ 500.00	$ -			$ 1,250.00	
Funding applied to Project Administration task must not exceed 10% of the total amount of funding requested per project, or $12,000, whichever is lower. Project admin includes normal business expenses and reporting requirements.	**Administration**							
	Mid/Annual/Interim Reports and Billing Statements	$ 6,000.00					$ 6,000.00	
	Draft/Final Report and Billing Statement	$ 6,000.00					$ 6,000.00	
	Communication with DEQ						$ -	
							$ -	
							$ -	
	Total	$ 12,000.00	$ -	$ -			$ 12,000.00	
		Funding Request*	**Non-Federal Match****	**Other Funding*****			**Total Project Cost**	
	Grand Totals	$ 277,530.00	$ 36,550.00	$ 30,000.00			**$ 344,080.00**	

*Funding Request - Must not exceed $300,000 and must be at least $125,000 for harmful algal bloom reduction projects

**Non-Federal Match - Can include in-kind materials.
***Other Funding - Include federal match here, or, for example, other funding that is supporting the project but cannot be reported as match on this grant because it is matching another funding source.

****Additional Information - Use to specify non-federal match and other funding sources, or use to justify cost if needed (e.g., hourly rates, rental costs, etc.)

LETTERS OF SUPPORT

Park Conservation District

Local, Common Sense Conservation

5242 Highway 89 South
Livingston, MT 59047

(406) 223-1048 www.parkcd.org parkcd.310permitting@gmail.com

January 15th, 2026

MT Department of Environmental Quality
319 Nonpoint Source Program
1520 E. Sixth Avenue
PO Box 200901
Helena, MT 59620

Re: 319 Grant Program Proposal- Letter of Support for Canyon Creek Restoration Project-Phase 2

Dear Montana DEQ staff,

The Park County Conservation District and Shields Valley Watershed Group would like to extend support for Trout Unlimited's DEQ 319 funding proposal for phase 2 of a stream restoration project on Canyon Creek in the Shields River watershed in Park County, MT. Canyon Creek provides important habitat for native Yellowstone cutthroat trout, and TU is working with the landowners and MT FWP to improve this habitat to further the conservation of the species and improve natural stream function and watershed health. The second phase of the Canyon Creek restoration project will remove a large concrete structure that is almost entirely damming the creek. Over the past 50 years, this structure has disrupted the streamflow and created downcutting in immediate downstream channel. More recently, the stream has created a new unstable channel around the structure through fine, highly erosive sediments. TU is proposing to remove the structure and install grade control to restore natural stream function and reduce downcutting and erosion directly downstream of the structure.

The Conservation District has worked with TU on other projects throughout Park County and has found they have the capacity and technical expertise to plan and execute effective on the ground stream restoration projects that benefit the fish, the watershed, and the local community. Thank you for your ongoing support of non-point source reduction projects in the Shields River Valley.

Sincerely,

Dustin Homan
Board Chair
Park Conservation District

Montana Department of Environmental Quality
319 Nonpoint Source Project Program
1520 E. Sixth Avenue
P.O. Box 200901
Helena, MT 59620

February 5, 2025

To 319 Nonpoint Source Project Program,

I am writing in support of Trout Unlimited's Canyon Creek restoration project phase 2 application for DEQ 319 funding. This project will decrease future bank erosion and channel incision, improve fish passage, and improve the overall resiliency of the stream. Our family has supported Trout Unlimited for over 10 years and has partnered with them to maintain instream flows through water leases in Canyon, Brackett, and Bangtail Creeks. We have had many conversations about our shared goals to improve fish habitat and watershed resiliency and are pleased to partner with them on stream restoration and habitat improvement projects on our ranch. We enthusiastically support this project to decrease sediment input to the stream and improve fish habitat and passage. The completed project will provide long-lasting improvements to wild and native trout habitat and will reduce non-point source pollution in the Shields River basin. We thank you for considering these projects for funding.

Sincerely,

Greg Avis

Montana Fish, Wildlife & Parks
Region 3 Headquarters
1400 S 19th Avenue
Bozeman, MT 59718

February 18, 2026

Montana Department of Environmental Quality
Nonpoint Source Project Program
1520 E. Sixth Avenue
Helena, MT 59620

Dear DEQ 319 selection panel,

This letter is to express Montana Fish, Wildlife & Parks (FWP) support for Trout Unlimited's (TU) project proposal to the Department of Environmental Quality's (DEQ) 319 funding program. TU's project proposal for the Canyon Creek Restoration phase 2 project will contribute to increased stream form and function in Canyon Creek and improve fish passage for native Yellowstone cutthroat trout.

FWP is working closely with TU on the proposed project. The project will remove a small concrete dam with an undersized culvert that impedes the movement of Yellowstone cutthroat trout. After removal, a grade control will be installed to prevent head cutting and improve fish passage.

TU has worked with FWP on other projects in the Shields River to improve the health of the watershed and benefit native Yellowstone cutthroat trout populations. TU has extensive stream restoration experience and has been a valued partner with FWP and other state and federal agencies, local landowners, and partner organizations to ensure these projects are successful.

FWP encourages funding of this request for TU.

For further questions, please reach out to the following FWP personnel.

Scott Opitz, fisheries biologist (406-223-3951, sopitz@mt.gov)
Jen Smitham, R3 comment coordinator (406-495-3262, jsmitham@mt.gov)

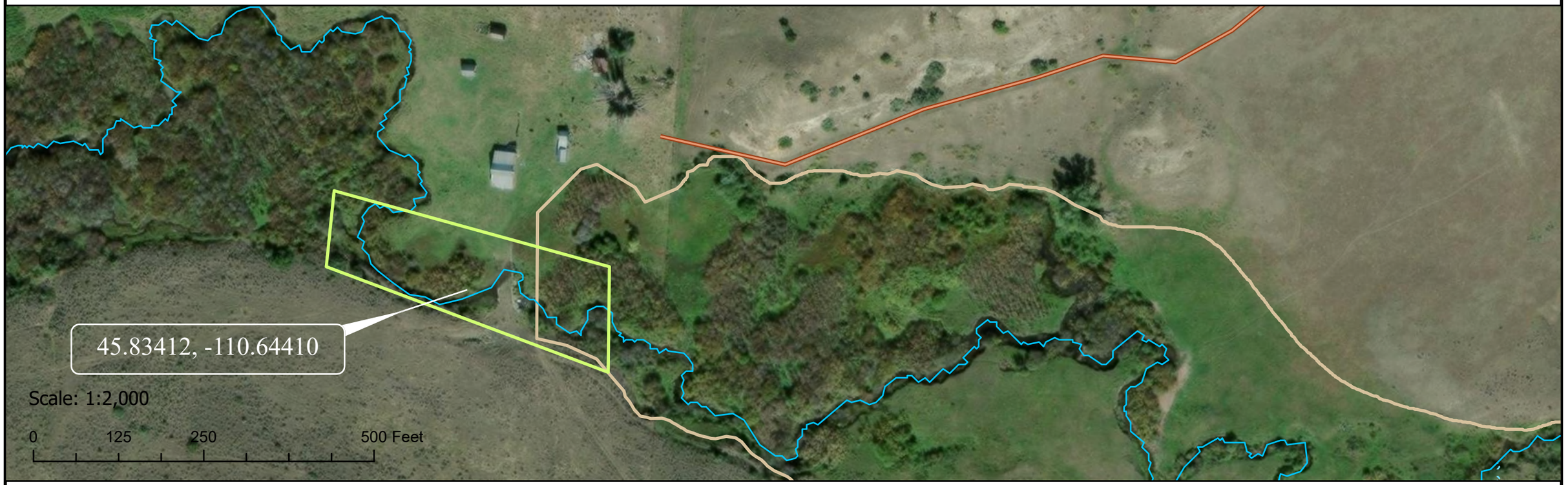
Sincerely,

Kelly Proffitt

Kelly Proffitt
Region 3 Supervisor

MAPS/ DESIGNS

Canyon Creek Restoration Phase 2

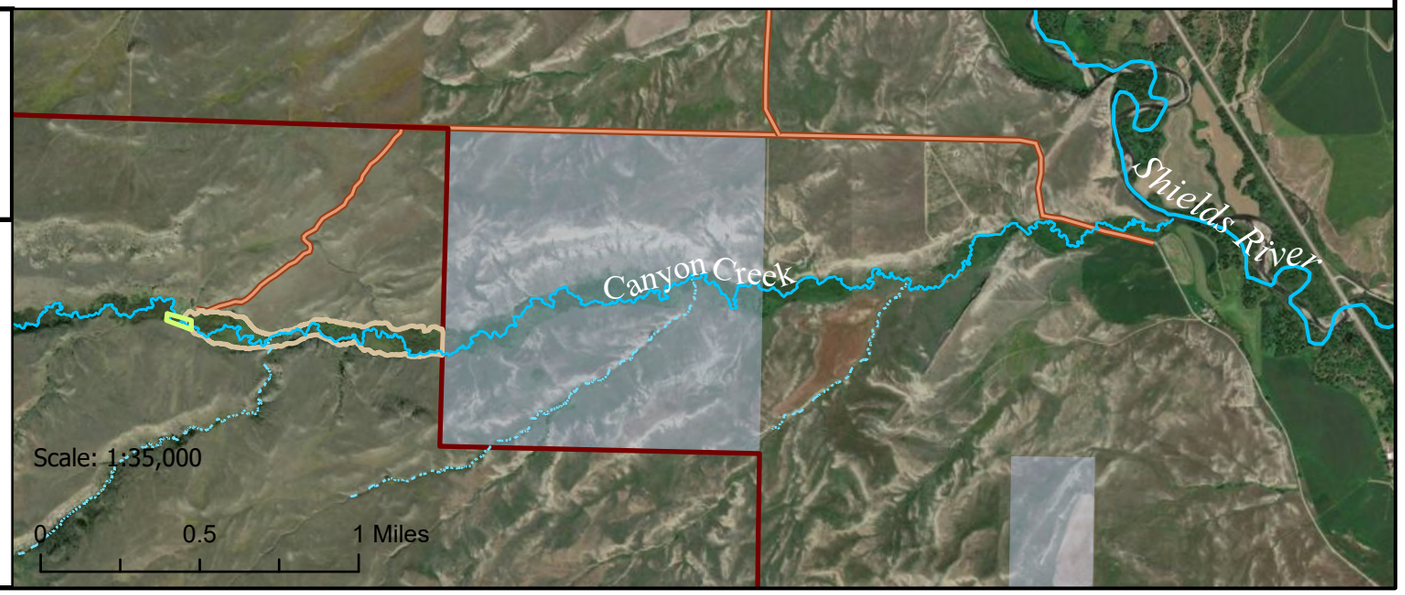


Canyon Creek Project Coordinates
Project Location: 45.83412, -110.64410
Confluence with Shields River: 45.83944, -110.57925

- Site Access
- ProjectArea
- Phase 1 Project Area
- 505 Ventures Ranch Boundary
- State Lands

TROUT UNLIMITED

N



Canyon Creek Restoration Phase 2 Photos

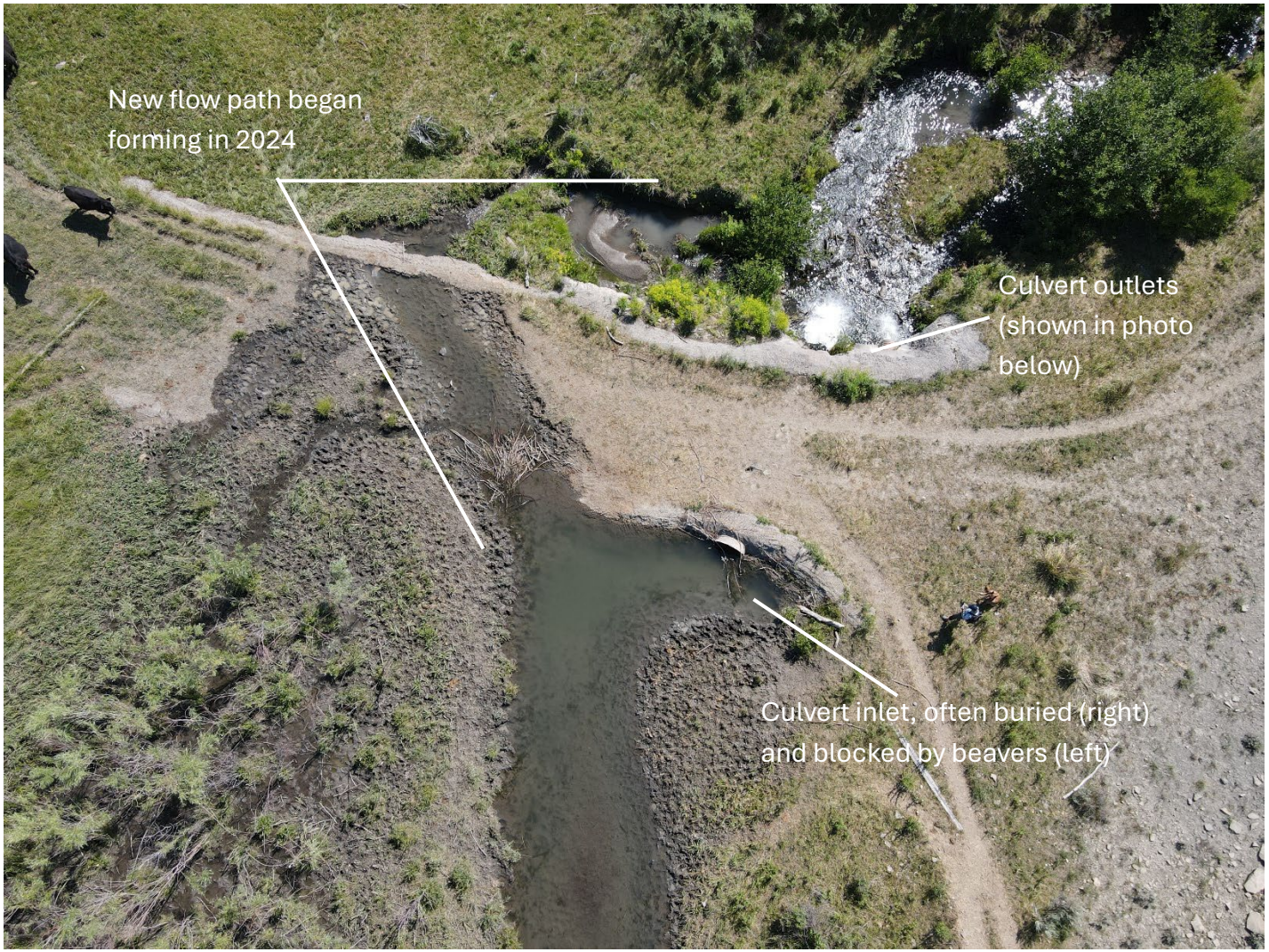


Figure 1. Drone photo of the concrete structure to be removed.

OTHER ATTACHMENTS

Figure 2. Culvert outlets.

Canyon Creek Restoration Phase I and Phase II Project Description

Background

Canyon Creek is a tributary of the Shields River with its headwaters at approximately 7,000 ft elevation in the Custer Gallatin National Forest in Park County, Montana. Canyon Creek's historic condition was likely heavily affected by beaver, whose impoundments would have created and maintained a high water table, a multi-threaded stream channel, and a valley wide riparian area. Through historic land use practices, an abandoned cement dam, and historic beaver removal, natural stream function has been disrupted and the stream has incised, increasing erosion, elevating nonpoint source sediment pollution, and degrading habitat for native Yellowstone cutthroat trout (YCT). Trout Unlimited (TU), USGS, and Montana Fish, Wildlife & Parks (FWP), are proposing a project to restore Canyon Creek to a state similar to historic conditions through removing the dam and using low-tech process-based restoration (LTPBR) techniques to aggrade the channel, reconnect the floodplain, decrease bank erosion, restore a valley-wide riparian zone, and increase habitat diversity for native YCT. On-the-ground and aerial imagery observations suggest that beaver have moved in and out of this reach of Canyon Creek over the last two decades. In 2022, no beaver were observed in the project reach, but in 2023 several new beaver dams had been built in the stream. However, in incised streams where high flows do not access the floodplain, beaver dam persistence is often low, and the positive effects of beavers on the system are limited (Ritter et al. 2023). This project will decrease bank erosion, reconnect the floodplain, restore a wide riparian zone, and improve habitat for beavers to maintain healthy stream conditions far into the future.

The project reaches are located on the 505 Ventures Ranch approximately 4.5 miles upstream from the confluence with the Shields River. The Shields River Watershed Restoration Plan (WRP) identified Canyon Creek as fourth in sediment intensity from Hillslope erosion and identified riparian buffers as one of the most effective measures of decreasing sediment delivery to streams. Additional WRP-identified BMPs to reduce sediment from bank erosion that these projects will implement include revegetating denuded riparian zones with suitable native species, restoring floodplain connection, and improving woody vegetation density. The landowners lease their property for cattle grazing at a low density; development of a grazing management plan will identify and implement grazing BMPs.

Project Description

Phase I:
Phase I is scheduled for implementation beginning July 2026. This project is supported by Montana DEQ, the Jackson Hole One Fly Foundation, and 505 Ventures Ranch. Skip to the Phase II description below to see project description for the current DEQ 319 funding application.

Historic land use practices, beaver trapping/removal, and a cement dam across the creek have contributed to channel degradation in Canyon Creek. While the stream and associated riparian vegetation likely historically occupied the entire valley bottom – and still do in places – riparian vegetation is limited to a thin strip along the streambanks in a large portion of this reach, where shallow-rooted grasses are the primary vegetation beyond the thin riparian strip. Despite the channel incision, beaver activity in the last 10-15 years has kept parts of the floodplain active, and although incised, the section of stream immediately below the dam has a wide riparian area (Figure 1). This existing woody vegetation can provide important structural elements for beaver activities that will reconnect the active channel to this floodplain and promote natural water storage and diverse instream habitats for YCT. In this portion of the project reach, where the riparian zone is wide, but the single thread channel is incised, TU will use BDAs and PALs to push water into abandoned side channels, spreading channels across the valley bottom and decreasing erosive power of spring floods. Further downstream, where the channel is more heavily incised and the riparian zone is limited to the immediate channel banks, LTPBR methods will be used to aggrade the channel to a point where spring floods can overtop the banks and natural beaver dams can persist long-term. A riparian buffer will be established along channel margins lacking deep-rooted native vegetation once favorable hydrology for plant growth has been established.

Figure 1. Google Earth imagery from 2021 showing a wide riparian zone directly below the dam, and a narrow riparian zone further downstream.

Low-tech process-based restoration is the chosen method to restore the processes that will maintain a healthy functioning stream system appropriate to this ecological setting. The headwaters of Canyon Creek are characterized by a forested, narrow valley bottom channel, where large wood inputs in the form of a single tree may provide necessary instream structure. However, the identified project reach is characterized by a wide valley bottom within sagebrush uplands, where large wood would not have been a natural frequent input. The natural structure in this portion of Canyon Creek was likely driven by beaver activity and small wood in the form of alders and willows. This project intends to use strategic BDAs and PALs to make the stream more hospitable to beaver and allow the current population to thrive and expand.

This ~1.3 mile project location was identified as highest restoration priority on Canyon Creek through the 505 Ventures Ranch, but opportunities for habitat enhancement and floodplain reconnection exist throughout the ranch and on adjacent public land and downstream private land. This project represents an important opportunity to build collaborative relationships between state, federal, and private landowners, and will serve as a springboard for Phase II of the Canyon Creek restoration project, and similar stream restoration and nonpoint source pollution reduction efforts and conservation opportunities for Yellowstone cutthroat trout throughout the Shields River Valley.

This project has been selected for intensive monitoring to identify the effectiveness of LTPBR techniques and to improve understanding of potential management solutions and strategies to enhance riverscape health. TU has been working with the USGS, USFS, and FWP to identify upcoming LTPBR restoration projects for intensive monitoring to increase knowledge of the effectiveness of different restoration approaches across the landscape. The Canyon Creek restoration project has been identified as a high priority project for collaborative implementation of intensive stream restoration monitoring. This research aims to identify feasible short-term (e.g., floodplain connectivity) and long-term (e.g., changes in riparian vegetation, fish population responses) objectives that can iteratively provide feedback on restoration actions and inform future project design.

Phase II:
Phase II is the subject of the current (May 2026) DEQ 319 funding application.

At the upstream extent of the Phase I project reach, an old cement dam with two small, plugged culverts associated with an historic homestead is a primary cause of stream degradation through the reach. Fish passage is blocked for at least part of the year as the structure contains two undersized culverts, both of which are perched and frequently blocked by sediment accumulation and/or beaver activity. The sediment deposition above the dam and the firehose effect created by the small culvert diameter (Figure 2A) has elevated erosion rates directly downstream of the dam, creating channel incision that extends nearly one mile downstream (Phase I reach), limiting floodplain connectivity, riparian vegetation, channel complexity, and adding fine sediment to the sediment-impaired Shields River. Additionally, the sediment deposition above the structure and culvert blockage is forcing the stream to find a new path. The stream is migrating to the left (north) of the channel, spilling over a low spot in the cement dam and cutting a new channel through grass and fine sediment (Figure 2B,). With little deep-rooted vegetation in this immediate area, this will lead to further channel instability and erosion.

Figure 1. A) Looking upstream at the dam in 2022. Erosion underneath the cement structure is evident. B) In 2023 the stream began forming a new channel to the north of the existing channel and culvert.

Phase 2 project background data collection included fish sampling by TU and USGS crews in 2024. Crews electrofished Canyon Creek from the downstream state section upstream to the USFS boundary and collected approximately 100 YCT genetic samples throughout the length of the Creek. Montana Fish, Wildlife, and Parks conducted genetic analysis on these samples and determined that the population of YCT in Canyon Creek is

unhybridized and is protected by a diversion structure barrier near the mouth of the creek. The phase 2 project work will create a fully connected stream system during all flows for this isolated YCT population.

Timeline

Due to the presence of YCT, most in-stream field work (e.g. fish surveys, structure construction) will be conducted in late July – November. Work such as a beaver dam census and pre-construction habitat surveys may be conducted earlier. An estimated project timeline is shown in table 1.

Table 1. Estimated project timeline. This is not meant to be an all-encompassing list of activities, rather a general idea of the project pace and timing.

2026	Q1	• Phase I permitting and planning • Phase II planning and design
	Q2	• Phase I planning • Phase II planning and design
	Q3	• Phase I LTPBR implementation • Phase II survey • and design • Phase II preconstruction monitoring • Identification of future restoration reaches
	Q4	• Phase I LTPBR implementation • Phase II final designs, permitting
2027	Q1	• Phase II permitting, construction contractor procurement
	Q2	• Phase II permitting and planning
	Q3	• Phase II implementation • Phase I LTPBR implementation year 2 (as needed) • Phase I ongoing monitoring • Identification of future restoration reaches
	Q4	
2028	Q1	• Future project development
	Q2	• Phase II revegetation
	Q3	• Phase II revegetation and monitoring • Phase I monitoring and adaptive management
	Q4	• Future project development
2029 and beyond		• Continue post- construction monitoring to meet study objectives • Adaptive management as necessary • Continued work up- and down- stream of Phase I and II reaches

References

Ritter, T., M. McGree, D. Schmetterling, C. Gower, V. Boccadori. 2023. Beavers and Their Role in Riparian Restoration in Montana [White Paper]. Montana Fish, Wildlife & Parks.