



2026 On-the-Ground Project Application Form

General Information

Project Name

Applicant Name

Is your organization registered with the Montana Secretary of State?

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)?

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 Title

Address City State Zip Code

Phone Number Email

Signed by: 2/18/2026

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

Signatory Title

Address City State Zip Code

Phone Number Email

DocuSigned by: 2/18/2026

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

Signed by: 2/20/2026

Landowner Name

Signed by: 2/19/2026

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 #)

CSRCLKWLHNT7

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?

Y

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).

This application is submitted by the Big Hole Watershed Committee (BHWC), a 501(c)(3) nonprofit organization dedicated has five years of experience recruiting, training, and supervising restoration crews to implement innovative solutions to nonpoint source pollution, including projects completed in partnership with BHWC. Project administration and compliance will be supported by Associate Director Tana Lynch, who has more than 11 years of experience managing state grants. Since 2001, BHWC has successfully administered 13 Montana DEQ 319 contracts totaling \$1,656,436, demonstrating a strong track record of responsible grant management and measurable water quality outcomes.

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:

Required Attachments in Addition to This Form

- 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).
- Letter of support from EACH landowner associated with the proposed project area (if applicable).
- Budget Table (see Microsoft Excel Template).
- 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
- Site photos
- 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.

Madison 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/>

12-100200041305

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.

This project is designed as a stand-alone effort to directly address sediment loading and channel instability originating from an unnamed canyon east of Sandy Hollow, providing immediate water quality benefits to the adjacent Big Hole River. The scope is intentionally focused on this discrete, high-priority source area, which periodically delivers significant sediment pulses during high-intensity precipitation and rain-on-snow events.

While the broader middle and lower Big Hole River corridor includes additional canyons in need of stabilization, this project targets one priority reach with a strategic, site-specific approach. By implementing proven stabilization techniques in this setting, the project will serve as a replicable model for addressing similar sediment sources in adjacent canyons. It will be independently funded, permitted, and executed, while generating lessons learned to inform future watershed-scale stabilization efforts.

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)

Middle and Lower Big Hole - Big Hole Watershed Committee

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

The Big Hole Watershed Committee is the author of the Middle and Lower Big Hole River Watershed Restoration Plan. Our Letter of Support for the project is attached.

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

Big Hole River

Probable causes of impairment to be addressed

Episodic deposition of substantial sediment into the Big Hole River

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

Description of identified threat

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?
Montana Department of Natural Resources (DNRC)	Rock and quarry for materials	<input checked="" type="checkbox"/>
		<input type="checkbox"/>
		<input type="checkbox"/>
		<input type="checkbox"/>

Project Partner	Contributions to Project	Letter of Support Attached?
Montana Madison County Road Commission	Moving of Rock from Quarry to road	<input checked="" type="checkbox"/>
ABCW Ranch	Woody material for Sediment capture Structures, Heavy Equipment, Operator and Labor for Section C. Labor for Section A	<input checked="" type="checkbox"/>
Community of Dillon, MT	16 hours through Volunteer Service (20 people)	<input checked="" type="checkbox"/>
US Fish and Wildlife Service		<input checked="" type="checkbox"/>
		<input type="checkbox"/>

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	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
*Final Project Designs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Consultation With Potential Regulators	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Necessary Permits	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Cultural Resources Inventory (<i>if relevant</i>)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other: <input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other: <input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other: <input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

****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).

No engineered designs will be needed for this project. Preliminary designs have been completed as part of the budgeting and planning process to date and will have occurred prior to the execution of a contract.

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

The Montana Department of Natural Resources and Conservation (DNRC) has advised that a Land Use License (LUL) will be required for this project. BHCW has obtained the necessary application materials and is prepared to submit and secure the permit promptly upon contract execution, pending funding.

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)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Final Landowner Agreement(s)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Grazing Management Plan	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other: <input type="text" value="Land Use License"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other: <input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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:

BHWC will develop and implement a quantitative effectiveness monitoring plan to evaluate sediment reduction and channel stabilization outcomes across Sections A–C. Baseline conditions will be documented prior to construction and compared to post-implementation conditions immediately after construction, at six months, and at one year using fixed photo points, permanent cross-sections, longitudinal profile measurements, and drone-derived imagery to assess sediment storage, channel morphology, and vegetation establishment.

Project success criteria are time-bound and measurable. At one year post-construction, at least 70% of sediment capture structures, grade controls, and the estimated 66 Zuni water-spreading structures will be functioning as designed; if functionality falls below 60%, repairs or design modifications will be implemented. Sediment storage targets include approximately 300 cubic feet in Section A and 500 cubic feet in Section C within the first year, along with measurable bed aggradation and reduced headcut progression. Native vegetation plantings will achieve a minimum 60% survival rate at one year, with supplemental planting triggered if survival drops below 50%. Monitoring results will be summarized in quarterly, annual, and final reports to support adaptive management and transparent communication with funders and stakeholders.

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 States Forest Service Photo Point Monitoring Handbook”.*
 - *[Riparian survey.]*
 - *[Other.]*

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

BHWC will coordinate closely with the DEQ Contract Manager to ensure all required and recommended monitoring protocols are incorporated into the project. In addition to the effectiveness measures described above, BHWC will expand the Monitoring Plan as needed to include additional metrics—such as detailed vegetation mortality tracking, sediment capture quantification, or other water quality indicators—to fully document project outcomes. This collaborative approach will ensure compliance with DEQ expectations and provide comprehensive data to evaluate project performance.

Project Implementation Task

Provide a **detailed 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.*

This stand-alone project will reduce nonpoint source sediment delivery from an unnamed ephemeral canyon intersecting Burma Road east of Sandy Hollow in the lower Big Hole River near Twin Bridges by installing low-tech, process-based grade control and sediment capture features, stabilizing active headcuts, and hardening the road–channel interface. All practices will be designed to meet Montana DEQ 319 minimum design standards and applicable NRCS conservation practice standards (including 410, 584, and 342), with final design, survey, hydrologic sizing, drawings, planting plans, and permitting completed in fall–winter 2025 and construction implemented in late summer–fall 2026 during low-flow conditions.

Work is organized into three sections. Section A (~0.31 miles of confined ephemeral channel, 6–12 feet wide) will include hand installation of 66 Zeedyk-style one-rock dams at riffle crests and shallow knick points and 33 rock sediment capture structures keyed into the bed and banks to reduce flow velocity, promote localized aggradation, and store fine sediment; downstream splash pads will be installed where substrates are erodible. Section B (the Burma Road crossing) will treat approximately 0.25 acres of invasive weeds, armor the downslope road prism with geotextile and keyed-in rock to prevent chronic sediment delivery, and establish deep-rooted native vegetation on margins and benches to reinforce soils and confine deposition within stable, maintainable areas. Materials will be sourced from a nearby DNRC pit, with coordination support from ABC Ranch and the Madison County Road Department for traffic and safety. Section C (approximately 250 feet upstream and 350 feet downstream of the road, adjacent to the Big Hole River) will include installation of eight machine-built woody-rock sediment capture structures, keyed into the channel using cottonwood logs and angular rock to aggrade the incised bed, arrest headcuts, and increase sediment storage capacity. Natural colonization is expected in Section C as bed elevations recover.

Anticipated maintenance will include semiannual inspections during years 1–3 (post-runoff and fall), as well as post-storm assessments to address flanking, crest adjustments, tie-in extensions, splash pad repairs, and sediment capacity management. Vegetation in Section B will be monitored to achieve at least 60% first-year survival, with replanting, supplemental watering (as feasible), and annual invasive species control as needed. Years 4–5 will transition to annual inspections and targeted repairs. BHWC will lead inspections, light maintenance, effectiveness monitoring (including fixed photo points and drone documentation), and reporting to ensure long-term project performance and measurable reductions in sediment delivery to the Big Hole River.

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.

BHWC will use video footage, aerial imagery, time-lapse, and before-and-after photos to conduct public education and outreach. We will showcase project progress/results on our website, social media, newsletters, and monthly public meetings. Additionally, we will install a large on Burma Road explains the project and non-point source issues addressed with the project.

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.

Big Hole Valley/watershed residents, community members, and river users/recreationists. This project is supported by the ABCW Ranch,, Neighbors' ranch adjacent to the project site. ABCW Ranch wants to work with BHWC's collaborative partnership "web" to improve the conversation and habitat values of this location. This is a large landowner in the area whose participation in this type of restoration will hopefully influence neighboring properties to implement green infrastructure and restoration projects of their own. Furthermore, compelling imagery and communication of project benefits to the river, fish, wildlife, and the recreational community should inspire additional nonpoint source pollution prevention work within the Big Hole watershed.

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

BHWC recently hired a Communications Specialist, Karly Noetzel to get the message out to increase the awareness and understanding of nonpoint source pollution issues among residents and community members of Southwest Montana. This investment into our staff will increase our capacity to support engagement in riparian habitat restoration efforts, and to empower individuals with the knowledge and skills necessary to implement conservation practices on their own properties. We will track various metrics to assess the reach and impact of our outreach effort including engagement on social media platforms (the number of likes, shares, comments, and followers gained). Attendance at public meetings and events will be recorded to gauge community

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

	4Q 2026	1Q 2027	2Q 2027	3Q 2027	4Q 2027	1Q 2028	2Q 2028	3Q 2028	4Q 2028	1Q 2029	2Q 2029	3Q 2029
Project Coordination and Planning Task	✓	✓	✓									
Landowner Agreement Task	✓											
Project Effectiveness Monitoring Task	✓		✓		✓							
Project Implementation Task	✓		✓		✓							
Education, Outreach and Training Task	✓	✓	✓	✓	✓							
Project Administration Task	✓	✓	✓	✓	✓							

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.

The Burma Road Sediment Capture Project provides benefits beyond water quality by intercepting sediment before it reaches the Lower Big Hole River, protecting aquatic habitat, recreation-based income, and downstream water clarity. It also supports channel stability and reduces the risk of costly emergency repairs at the Burma Road crossing—improving public safety and lowering financial strain on Madison County.

By slowing and spreading runoff in a storm-prone ephemeral drainage, the project reduces erosion and infrastructure risk while limiting invasive weed spread at the road–channel interface. Increased sediment storage near the river benefits downstream fisheries and wildlife.

Through transparent implementation, public engagement, and coordination with the Madison County Road Department and DNRC, the project demonstrates how targeted nonpoint source pollution reduction can strengthen environmental, economic, and community resilience at a watershed scale.

BUDGET

DEQ PROPOSED BUDGET

	319 Funds	State Cash Match	Local Cash Match	In-Kind Match	Federal Funds	Total Costs
Task 1: Project Planning	\$12,700.00					\$12,700.00
Task 2: Land Owner Agreements	\$10.00					\$10.00
Task 3: Project Effectiveness Monitoring	\$4,000.00					\$4,000.00
Task 4: Project Implementation	\$75,400.00			\$51,570.88		\$126,970.88
Task 5: Education and Outreach	\$5,200.00					\$5,200.00
Task 6: Project Administration (10%)	\$9,731.00					\$9,731.00
Total Requested	\$107,041.00	\$0.00	\$11,873.87	\$51,570.88	\$0.00	\$158,611.88

McCartneyProjectArea

	319 Funds	Match	Local Cash Match	In-Kind Match	Federal Funds	Total Costs
Task 1: Project Planning	\$5,200.00					\$5,200.00
Task 2: Land Owner Agreements	\$5.00					\$5.00
Task 3: Project Effectiveness Monitoring	\$0.00					\$0.00
Task 4: Project Implementation	\$44,300.00			\$30,454.48		\$74,754.48
Task 5: Education and Outreach	\$0.00					\$0.00
Task 6: Project Administration (10%)	\$4,950.00					\$4,950.00
Total Requested	\$54,455.00	\$0.00	\$3,509.31	\$30,454.48	\$0.00	\$84,909.48

Burma RoadProjectArea

	319 Funds	State Cash Match	Local Cash Match (WCS)	In-Kind Match	Federal Funds	Total Costs
Task 1: Project Planning	\$7,500.00					\$7,500.00
Task 2: Land Owner Agreements	\$5.00	\$320.00				\$325.00
Task 3: Project Effectiveness Monitoring	\$4,000.00					\$4,000.00
Task 4: Project Implementation	\$33,900.00			\$21,116.40		\$55,016.40
Task 5: Education and Outreach	\$5,200.00					\$5,200.00
Task 6: Project Administration (10%)	\$5,060.50					\$5,060.50
Total Requested	\$55,665.50	\$320.00	\$9,724.36	\$21,116.40	\$0.00	\$77,101.90

**LETTERS
OF
SUPPORT**



Dillon Unit
840 N. Montana Street
Dillon, MT 59725
(406) 683-6305

Montana DEQ Headquarters
2401 Colonial Drive
Helena, MT 59601

02/10/2026

Re: Letter of Support – Burma Road, Big Hole River Sediment Containment Project (brought by The Big Hole Watershed Committee)

To Whom It May Concern,

The Montana Department of Natural Resources and Conservation (DNRC) supports the Big Hole Watershed Committee's proposed Burma Road, Big Hole River Sediment Containment Project in Madison County. DNRC recognizes the Big Hole River as an exceptional statewide resource and supports practical, on-the-ground actions that protect water quality, sustain working lands, and improve watershed resilience.

High-intensity rain and rain-on-snow events periodically mobilize large volumes of sediment from the unnamed canyon crossing Burma Road, delivering material to the Big Hole River and creating recurring impacts to downstream water quality and aquatic habitat. These events also damage the County Road prism and require emergency maintenance that can further mobilize fine sediments. The proposed approach—stabilizing the road-channel interface and constructing grade control/sediment containment structures above and below the road—is a sound, field-proven strategy to intercept sediment at the source and reduce chronic nonpoint sediment loading to the river.

DNRC also supports this project because it will provide benefits beyond sediment reduction. In one of the most arid regions of Montana, capturing sediment within the gully system will help rebuild channel grade, slow runoff, and increase infiltration. By retaining finer materials and associated organic matter on-site, the



proposed structures can improve soil water holding capacity and promote natural revegetation, helping keep moisture on the landscape longer and increasing overall watershed function.

This project reflects the kind of partnership-driven, outcome-focused watershed work DNRC values. The Big Hole Watershed Committee has demonstrated capacity to coordinate landowners and agencies and to plan and implement projects with attention to construction quality, erosion control, weed management, and post-project stewardship. DNRC appreciates that the proposed design elements (keyed-in structures, scour protection, ramped upstream faces, and revegetation planning) are intended to reduce failure risk and improve performance during large precipitation events.

In summary, the Burma Road Sediment Containment Project will:

- Reduce sediment delivery to the Big Hole River by intercepting and storing material before it reaches live water.
- Support watershed resilience in an arid landscape by retaining sediment that improves moisture storage and promotes revegetation.
- Help protect aquatic habitat and the Big Hole's renowned cold-water fishery by reducing turbidity and fine sediment inputs.
- Complement ongoing local efforts to maintain safe, functional rural transportation while minimizing water-quality impacts from recurring storm damage.

Thank you for considering support for this important project for the Big Hole watershed.

Sincerely,



Tim Egan

Dillon Unit Manager

406.925-7074 | Email: tegan@mt.gov.



MADISON COUNTY BOARD OF COMMISSIONERS

P.O. BOX 278

VIRGINIA CITY, MT 59755

Commissioners

Duke W. Gilman
Ronald E. Nye
William A. Todd

e-mail: madco@madisoncountymt.gov
www.madisoncountymt.gov

Phone: (406) 843-4277
Fax: (406) 843-5517

.....
December 2, 2025

Re: Support for 319 Grant – Burma Road Sediment Capture Project

To Whom It May Concern,

The Madison County Commission strongly supports the Big Hole Watershed Committee’s (BHWC) 319 Grant request for the Burma Road Sediment Capture Project. Madison County’s economy and quality of life depend on both a healthy Big Hole River fishery and reliable rural transportation. This project advances both by stabilizing an upslope unnamed channel, capturing sediment before it reaches Burma Road or live water, and reducing nonpoint source pollution to the Big Hole River.

Burma Road is a critical corridor for residents, ranching and agriculture, emergency response, and recreation. Periodic runoff has historically moved fine sediment and gravel downslope, depositing an estimated 50 cubic yards on the roadway, posing safety hazards, incurring costly grading and repairs, and affecting downstream water quality.

The proposed sediment basins, energy dissipation, stabilized outfalls, and targeted road and channel grading are practical, science-based solutions suited to our landscape and maintenance realities. Intercepting and settling sediment at the source will reduce the frequency of routine grading and emergency repairs, allowing limited county resources to be redirected to other priority needs.

Equally important, the project will deliver measurable ecological benefits. By lowering turbidity and fine sediment inputs, it will protect the Big Hole’s cold-water fishery, including clean spawning gravels, macroinvertebrate communities, and oxygen exchange in streambed gravels—values that drive our recreation and tourism economy and support local businesses and tax revenues.

This effort reflects the consensus-driven, multi-stakeholder approach we value. BHWC has a proven record of managing DEQ 319 projects, coordinating landowners and partners, and delivering accountable, on-budget results. Their technical capacity in planning, permitting, contracting, construction oversight, and monitoring gives us confidence that the project will meet nonpoint source reduction goals while aligning with county road operations. BHWC’s commitment to data stewardship and post-project monitoring will help quantify sediment reductions and inform adaptive management.

Madison County Roads intends to assist with in-kind support, as feasible within seasonal workload and safety protocols, and subject to acceptable landowner or other agreements as necessary. We will coordinate with BHWC on:

- Mobilizing and operating graders, loaders, or excavators
- Hauling and staging aggregate or riprap
- Limited traffic control during construction
- Construction timing to minimize disruption

We will participate in pre-construction meetings, review site plans for compatibility with existing road profiles and drainage, and expedite any required county right-of-way approvals while maintaining safety and engineering standards. After construction, we welcome a summary of results.

In summary, the 319 Burma Road Sediment Capture Project will:

- Improve public safety and reduce maintenance liabilities by stabilizing this unnamed drainage and intercepting sediment before it damages the roadbed or reaches live water.
- Protect water quality and aquatic habitat by reducing turbidity and fine sediment to the Big Hole River.
- Strengthen the fishery that underpins recreation, tourism, and our local economy while supporting day-to-day agricultural mobility.
- Leverage public funds efficiently through a proven partnership model with County in-kind contributions.

We recommend this project without reservation and commit to reasonable in-kind support, subject to scheduling, safety considerations, and compliance with all applicable regulatory and permitting requirements. Thank you for your consideration. We look forward to working with BHWC and partners to deliver these important improvements for Burma Road and the Big Hole River.

Sincerely,



Duke W. Gilman
District 1 Commissioner



Ronald E. Nye
District 2 Commissioner



William A. Todd, Chairman
District 3 Commissioner

Board of Commissioners, Madison County



Big Hole Watershed Committee
PO Box 21
Divide, MT 59727
(406) 960-4855
info@bhwc.org
bhwc.org

Steering Committee

Dean Peterson- Chair

Rancher- Upper Big Hole

JM Peck- Vice Chair

Rancher- Lower Big Hole

Roy Morris- Secretary

George Grant Trout Unlimited

Steve Luebeck- Treasurer

Sportsman

Governing Board

Dave Ashcraft

Rancher- Lower Big Hole

Sean Claffey

The Nature Conservancy

Peter Frick

Rancher- Upper Big Hole

Jim Keenan

Butte-Silver Bow Water Dept.

Eric Thorson

Fishing Guide & Outfitter

John Jackson

Beaverhead County

Rancher- Upper Big Hole

Diane Hutton

Resident- Retired USFS

Liz Jones

Rancher- Middle Big Hole

Mark Kambich

Rancher- Middle Big Hole

Erik Kalsta

Rancher- Lower Big Hole

Randy Smith

Rancher- Lower Big Hole

Jim Hagenbarth

Rancher- Lower Big Hole

Phil Ralston

Rancher- Middle Big Hole

John Reinhardt

Rancher- Middle Big Hole

Mark Raffety

Rancher- Lower Big Hole

February 13, 2026

Dear Ms. Gilmore,

On behalf of the Big Hole Watershed Committee (BHWC), we are pleased to offer our strong support for the proposed Burma Road Sediment Capture Project. As the developer of the DEQ-accepted Watershed Restoration Plan that addresses this reach of the Big Hole River, BHWC recognizes this project as a high-priority action aligned with watershed restoration goals.

Recurring high-intensity storm and rain-on-snow events mobilize substantial sediment from the unnamed canyon crossing Burma Road, delivering fine sediment directly to the river. The 2023 event highlighted the severity of this issue, resulting in road closure, emergency maintenance, and continued downstream sediment loading. These episodic inputs impair aquatic habitat by smothering fish redds and macroinvertebrate communities, increasing turbidity, reducing channel complexity, and accelerating head-cutting in the ephemeral drainage.

The proposed installation of grade control and sediment capture structures, channel stabilization, revegetation, and improvements to the road-stream crossing interface directly address the root causes identified in the Watershed Restoration Plan. By confining deposition to maintainable basins and reducing erosive energy, the project will improve channel stability, protect aquatic resources, and reduce long-term infrastructure and maintenance costs while limiting invasive weed spread along the corridor.

This project represents a strategic, watershed-scale investment in water quality, habitat protection, and infrastructure resilience. BHWC fully supports its implementation and appreciates the collaborative efforts to advance meaningful, science-based restoration in the Big Hole watershed.

Sincerely,

Pedro Marques
Executive Director
Big Hole Watershed Committee

**MAPS/
DESIGNS**



CurrentProjects

Burma Road Project

Burma_Road_Big_Hole_Sediment_Reduction (6) — Points

- One Rock Dam
- SCS # 5 Photo point
- SCS # 6 Photo Point
- SCS #4 Photo Point
- SCS #7 Photo Point
- SCS #8 Photo Point
- SCS Rock
- SCS Site #1 Photo Point
- SCS Site #2 photo point
- SCS Site #3 Photo Point

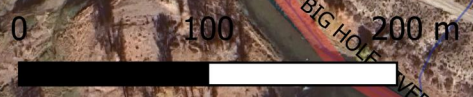
Hydro

- Final Big Hole Geodatabase ImpairedStreams
- Final Big Hole Geodatabase NHDFlowline copy

Ownership, Watershed Boundaries

- BIGHOLECADASTRAL2023_Nov
- MERIDIAN MINERALS CORP
- RAFFETY MICHAEL CLARK
- STATE OF MONTANA
- USDI BUREAU OF LAND MANAGEMENT

Google Satellite



Burma Road Sediment Control Project

Burma Road Sediment Control Project

BIG HOLE RIVER
BIG HOLE RIVER
Big Hole River

OTHER ATTACHMENTS

Burma Road Sediment Capture Project

Big Hole River Restoration

Author: Nolan Salix-Big Hole Watershed Committee. A 501 (c) (3) nonprofit

Lead Implementation Organization: Big Hole Watershed Committee

Potential Grant Funding Source: [MT DEQ 319 Grant](#)

Current Draft Date: 09.02.25

Primary contact: Nolan Salix, BHWC

850 Chreston Lane, Dillon, MT 59725

Phone: 406-925-3643

Email: nsalix@bhwc.org

Project Location: East of Glen off the Burma Road on the way to Twin Bridges east of Sandy Hollow.

Location is as follows:

Northernmost coordinate: 45°26'52.14"N, 112°32'39.07"W.



Burma Road Sediment Reduction

East of Sandy Hollow along the Big Hole River



Figure 1. Aerial imagery of the Big Hole River in 1995, 2008, and 2014 showing aggradation of the channel along the northern stream bed.

Project Goal: Reduce sediment delivery from the Burma Road canyon to the Big Hole River by installing grade control and sediment capture structures, stabilizing head cuts, reshaping and revegetating eroding channel segments, and improving the road–stream crossing interface to confine future deposition to maintainable, non-eroding catchment basins.

Problem Statement: Approximately every 5-10 years (according to nearby ranchers), high-intensity rain or rain-on-snow events mobilize large volumes of sediment from an unnamed canyon crossing Burma Road (state and county-managed lands) into the Big Hole River. The most recent event in 2023 deposited debris across the county road and into the river. The road bed itself was de-stabilized causing this crucial transportation corridor to close for multiple days. Emergency road maintenance pushed sediment off the roadway into the downstream channel, where it continues to erode and feed fine sediment to the Big Hole. Consequences include:

1. Smothering of fish redds and macroinvertebrate habitat
2. Increased turbidity through the increase of sediment
3. Loss of channel complexity and stability, lack of grade controls in the ephemeral channel.
4. Recurrent disturbance events increase maintenance costs by: Encouraging invasive weeds along the corridor; Concentrating and conveying sediment between road and stream; Forming an incised, head-cutting channel below the road crossing that lacks vegetation and structural resistance

Watershed Context and Watershed Restoration Plan Consistency: The Middle–Lower Big Hole Watershed Restoration Plan and the DEQ’s Total Maximum Daily Load (TMDL) identifies high water temperatures, a lack of riparian vegetation, and elevated sediment loads as priority water quality concerns. This project directly addresses sediment loading and channel instability in a tributary/canyon immediately adjacent to the Big Hole River, reducing episodic sediment pulses that impair the Big Hole’s aquatic habitat and function. The project complements ongoing Big Hole Watershed Committee (BHWC) riparian restoration actions by pairing upland/ephemeral-channel sediment control with riparian revegetation and bank stabilization techniques demonstrated to be effective elsewhere in the Big Hole.

Waterbody Status Receiving water: Big Hole River (Middle–Lower). The watershed is identified in the WRP for high sediment and temperature concerns, with tributary inputs and riparian degradation as contributing factors.

Project Plan



■	Control Area outside of Project Area, Notice the amount of trees in the channel
■	Section A, This is the reach we will hand-build 35 to 40 <i>Sediment Capture Structure</i>
■	Section B, County Road and project intersect. Treat the weeds then armor the downstream road bed with weed barrier, rock and native vegetation.
■	Section C, There are 8 <i>Sediment Capture Structures</i> that are created incorporating large woody debris and rocks. 4 on each side of the road. Heavy Equipment on each side of the road.

Measurable Objectives

1. Install an estimated 66 *One Rock Dams* and 33 *Sediment Control Structures with Rocks* on approximately one mile of channel. These will be hand-built structures.
2. 8 machine-built *Sediment Capture Structures with Large Woody Debris*. An estimated 500 Cubic feet of sediment storage in Section C.
3. Four of each of the above 8 *Sediment Capture Structures* will be placed on each side of the road with the use of cottonwood logs and rocks to aggrade the ephemeral stream channel for the 350 linear feet of incised channel below the road and 250 feet above the road (Section C); Native plants adjacent to the channel will naturally move into the channel. There will be no planting or seeding for this section.
4. *Sediment Capture Structures* (SCS) are designed to slow flows, trap fines, and aggrade the channel. Zeedyk-style one-rock dams estimated <10 inches of sediment behind the structure, and the rock <18 inches of sediment. Woody SCS are estimated to hold <30 ft³ when full. 300 Cubic Feet of sediment captured in the control structure in section A. The estimated 66 structures are water-slowing and spreading structures that will reduce the erosive energy of this system during these flash events.

Road Intersection in Section B: Treat the .25 acres of invasive weeds

Project Approach and Methods

The project area is organized into three treatment sections (see Appendix A).

Section A: Upper Confined Ephemeral Channel (sediment transport reach; 6–20 ft. wide) .31 miles long

- Methods
 - 66 *One-Rock Dams* at riffle crests to slow flow and retain fines. These are hand-built small-scale structures that hold up to 10 vertical inches of sediment each
 - 33 *Rock Sediment Capture Structures* keyed into banks and channel bed. See Figure 6 and Figure 7. The goal of creating these structures is to slow water and store water and sediment in traps, allowing channel vegetation to take root. These are hand-built, medium-sized structures trapping an estimated 18 vertical inches of sediment.
 - Materials: Rock from adjacent state lands (DNRC pre-approval) and ABCW Ranch-supplied woody debris. Structures will be keyed into banks and bed for stability and include downstream splash pads when erodible substrate to prevent undercutting. See figure 7.

Section B: Road–Channel Interface (Burma Road crossing)

- Revegetate and armor the road slope as the channel interfaces with the county road on the downslope side. Plant road slopes with deep-rooted native species, use a weed barrier and rocks to stabilize the channel as it moves down the road slope.
- Rock sourced from nearby DNRC pit
- Delivery by ABCW ranch.
- Installation by contractor.

Section C: Build four large sediment capture structures on each side of the road. These structures will require machine work to create *Woody and Rock Sediment Capture Structures* that will hold sediment up to 30 vertical inches of sediment. (4 estimated). These *Sediment Capture Structures* will help stream aggradation for 350 linear feet of channel directly adjacent to the Big Hole River. These structures are designed to reduce entrenchment and hold sediment before it enters the Big Hole River.

Education and Outreach Building on BHWC's established communications model:

- Status/media: Regular social media and web updates demonstrating sediment capture principles and results, with before/after visuals and event response summaries.
- Newsletter: One BHWC newsletter featuring a project profile and outcomes.

- Public meetings: Present at least three BHWC monthly meetings (design, construction, and monitoring phases).
- Video: Produce a short project video highlighting sediment reduction, habitat co-benefits, and partnerships (County, DNRC, neighbors, youth crews).

Big Hole Watershed Committee capacity and partner support.

- BHWC Governing Board: 21-member multi-stakeholder board.
- Staff:
 - Pedro Marques, Executive Director (15+ years implementing large restoration projects; 10 years with BHWC)
 - Nolan Salix, Restoration Program Technician, (4 years working on BHWC restoration projects with The Youth Employment Program.)
 - Tana Nulph, Associate Director (10+ years managing state grants).
- Grants experience: The Big Hole Watershed Committee has successfully managed DEQ 319 contracts delivered on time, reporting, and outcomes.
- BHWC stakeholders and the Governing Board support sediment reduction and natural water storage projects that benefit Arctic grayling, native trout, and sage-grouse habitats.
- AGRP/USFWS and Montana FWP support projects that reduce sediment and improve cold-water habitat resilience in the Big Hole. This project complements future connectivity and riparian cooling efforts.
- TNC and SMSP support watershed-scale restoration to enhance at-risk species habitat and ecosystem resilience. Local businesses and contractors will be engaged where possible to maximize community benefit.

Monitoring and Evaluation

- Baseline
 - Establish photo points throughout Sections A–C. Before and after photographs at 12 sites.
 - Initial Drone Flight
- Post-work measurements:
 - Large sediment transportation events are on average 10-year events and will likely not happen during the duration of this project.
 - Installed capacity of all sediment capture structures
 - Photo points
- Performance Targets
 - ≥70% of one-rock dams and Sediment Control Structure (SCS) with grade controls functioning as designed after the first two runoff seasons (no flanking, maintained crest).
 - Measurable bed aggradation behind structures if there is flow (Sections A and C). See Appendix C Chart for the estimated depth of aggradation behind each type of structure.
 - Elimination of head cuts in Section C through aggradation in the channel.
 - Reporting: Incorporate monitoring results in annual and final reports; share summaries at BHWC meetings and via outreach.

Project Administration Deliverables

- Budget; Attachment E, High-level Estimation
- Billing Statement; Attachment F, Billing statement with each status, mid-year, annual, and final report.
- Schedule: annual report by December 15; draft final report 15 days before contract end; final report per DEQ schedule.

- Coordination: Regular communication with the Montana Department of Environmental Quality, the project manager throughout.
- Final reports are due no later than 120 days after the end of the period of performance for the grant.
- Grant funds for the Installation of structures will be fully expended in the first 2 years after the grant is awarded.
- Contracts awarded, and work accomplished in Section B may take up to 2 years.
- There will be no charges to the grant 4 years after the award is received.

Education and Outreach Deliverables

- One BHWC newsletter feature on the project.
- Three BHWC public meetings with project updates/results.
- One outreach video highlighting sediment reduction and riparian recovery outcomes.
- Permitting, Compliance, and Environmental Considerations
- Coordinate with Montana DNRC for rock sourcing and state lands access/authorizations.
- Cultural resources review as required for ground disturbance on state or county property.
- Erosion and sediment control Best Management Practices during construction; weed management per integrated plan.
- Operations, Maintenance, and Long-Term Sustainability
- Section B: Work with the Madison County Road Department to help us create and implement the design.
- Annual inspections of rock/log structures for the first 3 years; repair/augment as needed (volunteer days, and/or contract crews).
- Adaptive management: Replace failed structures, adjust spacing, and add vegetative treatments where monitoring indicates need.
- Weed control: Two growing seasons of follow-up minimum, with spot treatments in years 3–5.
- Spread native seed mix on south slope or Burma Road Prism.
- Design and permitting: Most if not all designs and permits will be accomplished before application date.
- Materials mobilization and volunteer training: Months 1–24 months.
- Construction window 1 (hand-built structures in Section A; Large Sediment Control Structure within Section C): Months 1-24 months.
- Construction window 2 (Section B; bank regrading/revegetation in Section C): Months 6-24 months
- Monitoring and adaptive maintenance: Months application–36 months.
- Education and outreach materials and video production. 12-24 months
- Madison County Road Department (In-Kind) participation in construction operations, pre-grant to 24 months
- Additional partner support (In-Kind, TNC/SMSP technical support.) Pre-grant to 24 months.

Project Partners

Burma Road Big Hole Restoration Sediment Reduction Facilitator:

Lead Implementation Organization Big Hole Watershed Committee

Big Hole Watershed Committee
Pedro Marques, Executive Director
Po Box 21
Divide, MT 59727

Nolan Salix, Big Hole Watershed Committee, Restoration Program Technician,
850 Chreston Lane, Dillon, Mt, 59725
Cell Phone: 406.925.3643
Email: sagesteppecon@gmail.com

Karley Noetzel, Big Hole Watershed Committee, Media Director,
Email: knoetzel@bhwc.org
Cell Number: (808) 854-6344
Additional partner organizations:

Montana State Lands (DNRC)

Tim Egan, Unit Manager, Conservation Specialist with the Montana Department of Natural Resources and Conservation
Email: TEgan@mt.gov
Cell Phone: 406. 581.3927

Montana Madison County Roads Commission:

Shane Escott
sescott@madisoncountymt.gov
Phone number: (406) 596-0177

Ray Rowberry
rrowberry@madisoncountymt.gov

ABCW Ranch

Contact Person, General Manager: Kasha Kidrick
Email: kashkidrick@gmail.com
Phone: 406. 750.6171

Sediment Capture Structures or Zeedyk Structure

These structures are inspired by the Zuni Tribe

Before



Figure 2: Here is the current valley bottom with thin soil and exposed bedrock in Section A

After



Figure 3: Here is an artist's rendition of what this site will look like in Ten Years. Notice the rock and wood *Sediment Catchment Structure*



Figure 4: Here is another point in Section A. Notice the Juniper that are able to grow on the side of the trail outside of the disturbance area.



Figure 5: Here is another artist's rendering of what this area will look like in 4 to 6 years. Again notice the *Sediment Capture Structure* made of Rocks and woody debris

These illustrations are for the upper *Sediment Control Structures* predominately created out of rock. See Figure 4 and Figure 6 showing the *Sediment Catchment Structures* that will capture sediment and slow down the erosive power of the water. Rocks can be sourced from state land adjacent to the project area. Woody debris will be sourced through ABCW Ranch.

Sediment Capture Structure

These are large Zuni (Zeedyk structure's that are designed to capture sediment.)

Figure 6 Top view of Sediment Capture Structure

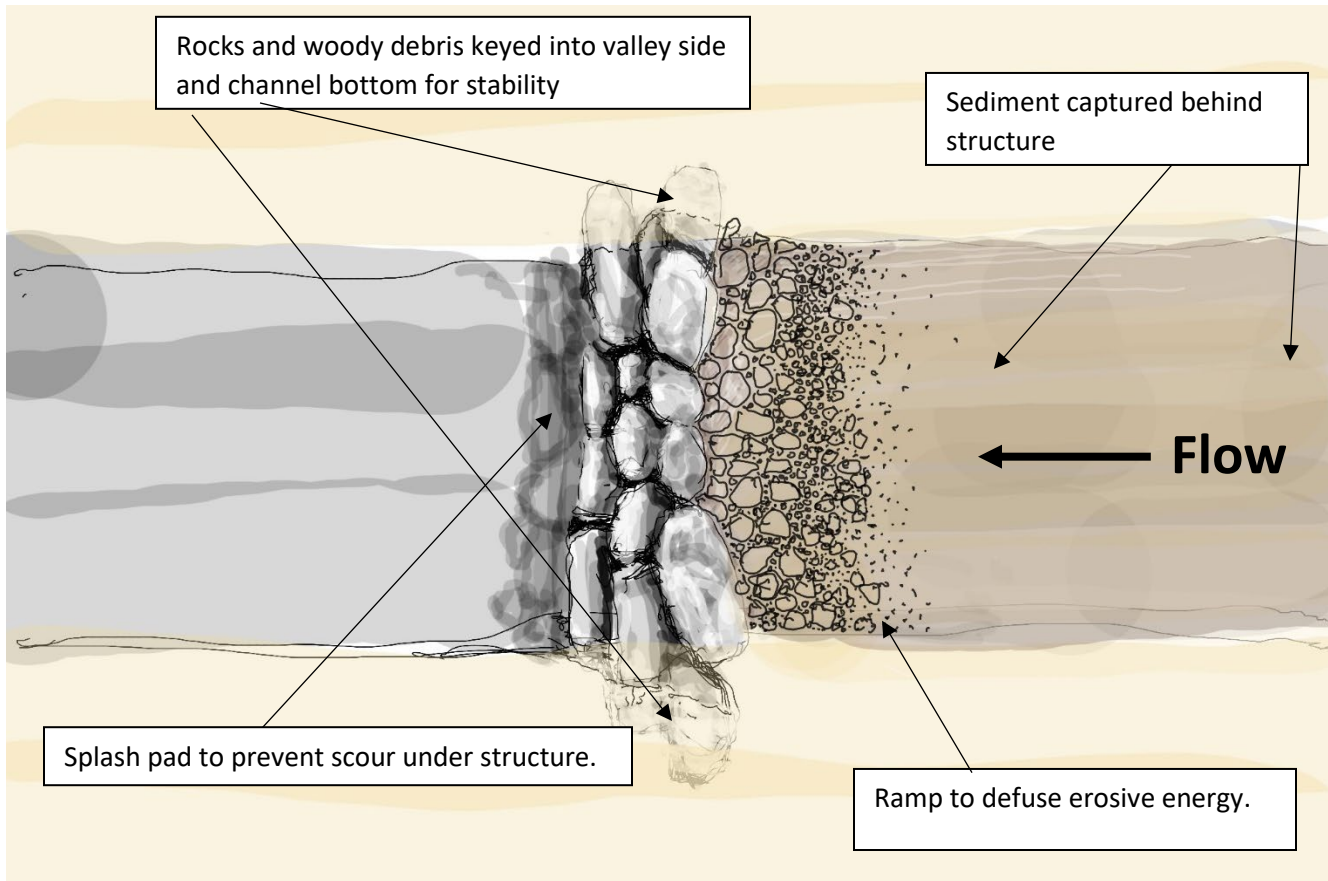
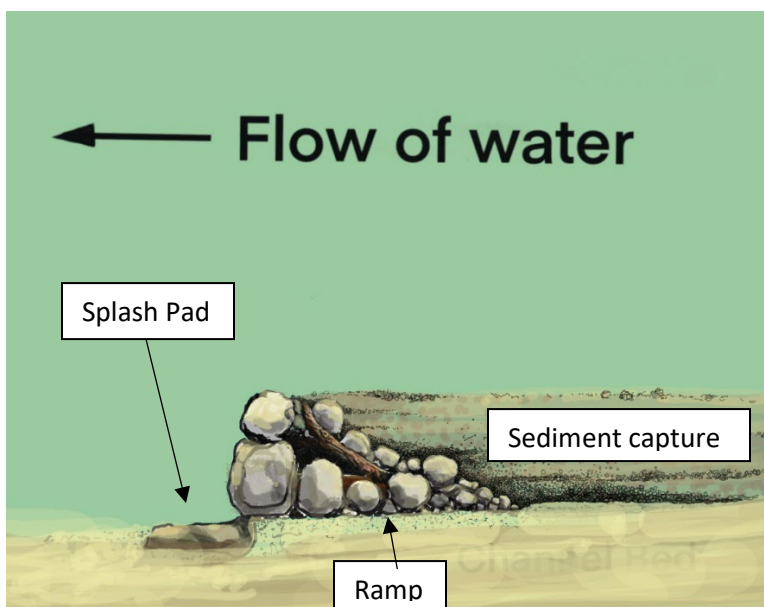
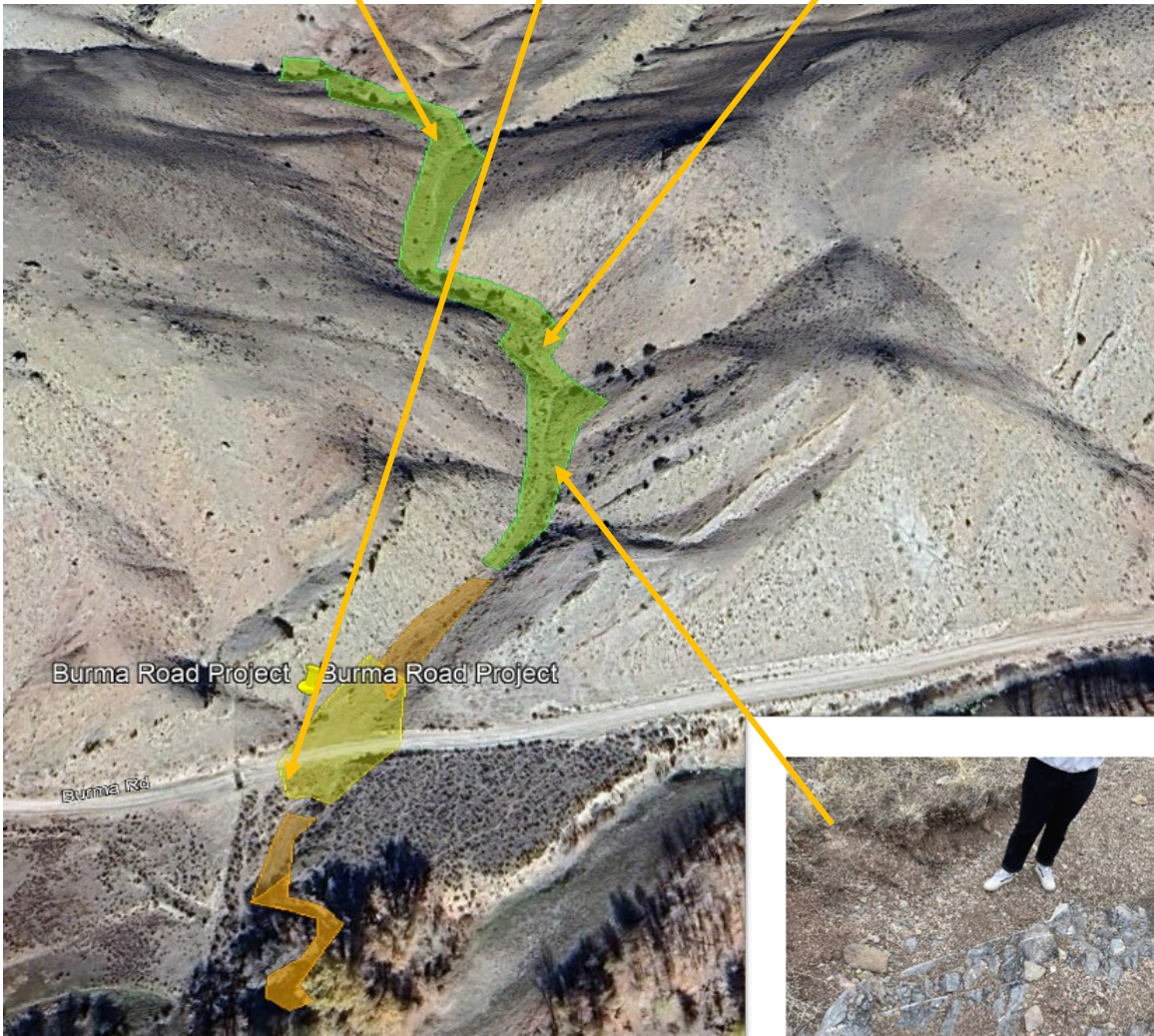


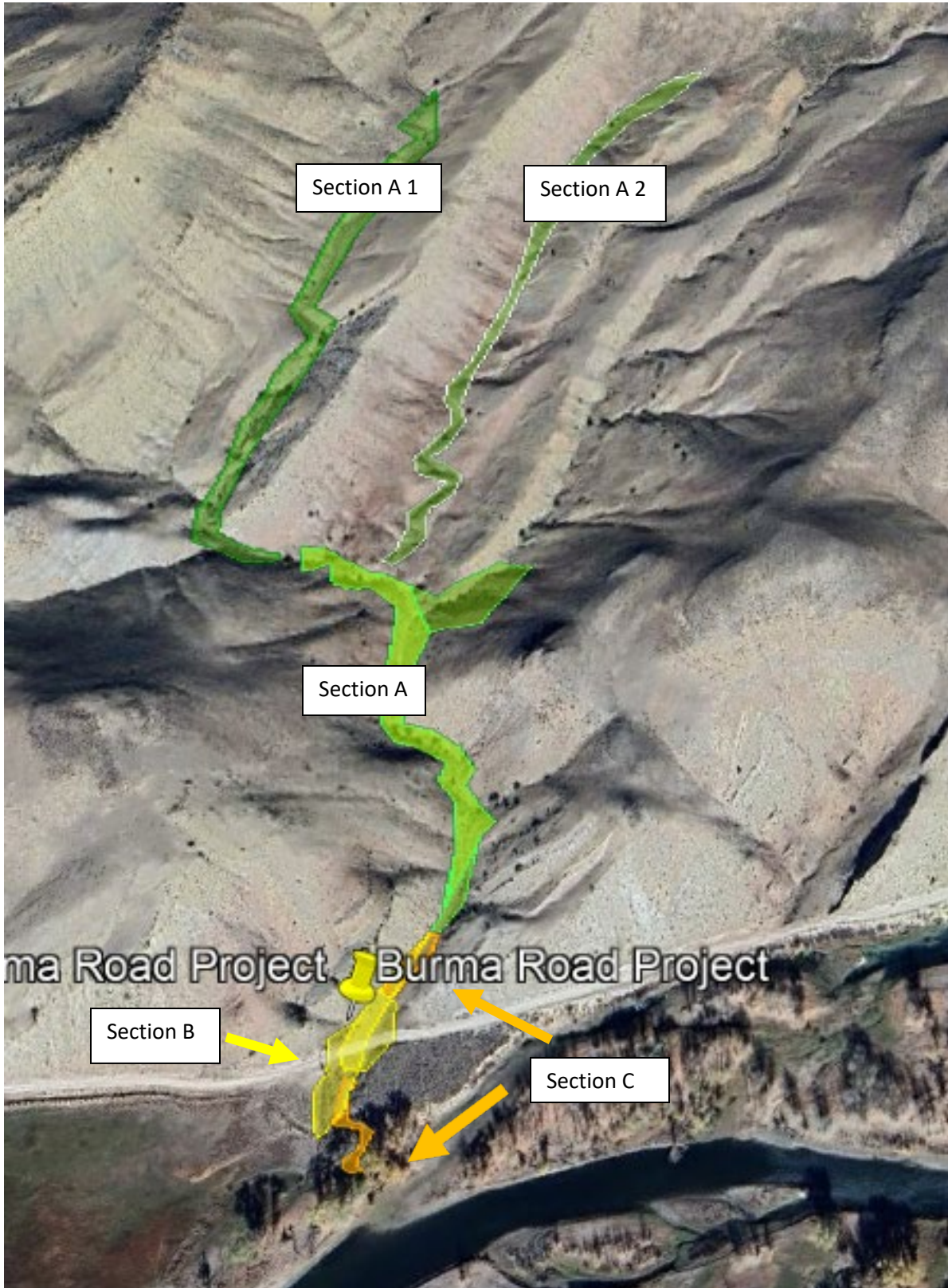
Figure 7 Side view of Flow of Water



Appendix B

Site Photographs





Schedule spreadsheet

Section A Sediment Control Structures Rock (Hand-Built)

ABC Ranch or DEQ	ABC/Sage Steppe Conservation Employees	Labor Hours for hand-built Sediment Control Structures	480 hours of labor	5/1/27	10/30/28	05/18/27	80 Oversight of design installation. 20 hours of collaboration	Sage Steppe Conservation Bid	One labor crew of 6 employees for two weeks.	Two weeks of wo	0%	\$17,670.43
Big Hole Watershed Committee	Community Volunteers through Sage Steppe Con	Volunteers labor for the Burma Road Project	160 hours	8/1/26	10/30/28	4/22/2027 Earthday	20 hours building 10 hours preparation	Sage Ste...	Volunteer Day Federal Value is \$34	Two days during life of grant with 10 people each. for eight hours.	0%	\$5,560.00
DEQ	BHWC	Monitoring	n/a	Pre-grant	End of Grant	Ongoing	40 hours		This is initial Drone Flight, Before a	Two days during life of grant with 10 people each. for eight hours.	0%	?

Section B County Road/Canyon Interface

DEQ Grant funding Contractor	Contractor	Heavy Equipment with operator	Contact John Whittingham for Estimate	4/1/27	11/1/27	4/15/27	30 hours		See the Details given in the Design provided in the 319 grant		0%	Coming
ABC Ranch	ABC Ranch	Rock Shorting and transportation	Need Estimate?	10/1/26	4/1/25	10/26	10 hours		Details of task here		0%	Need an estimate of the value of moving this rock
BHWC	BHWC	Design with input from John	Need to call John	09/23/25	12/01/25	11/01/25	10 hours		Talk with John, an Illustration of the Road bank with the size class of rocks			
Montana DNRC	Donated Rock	Rock Pit	N/A	N/A	N/A	N/A	2 hours		Contact Tim Egan about use of Rock pit		0%	Need an estimate of value of the rock for Match
DEQ	BHWC	Compliance and Monitoring	N/A	N/A	N/A	N/A	10 hours		This is BHWC Restoration Specialist checking for contractor complianc			?

Section C Sediment Control Structures Rock and Wood (Heavy Equipment)

ABC Ranch		Rock Shorting and transportation		10/1/26	4/1/25	10/26	60 hours		This is the building of these 8 structures		0%	Need estimate of costs for match
DEQ	BHWC	Quality Control and Monitoring	N/A	N/A	N/A	N/A	10 hours		This is BHWC Restoration Specialist checking for contractor complianc			?

Project Administration and Communication

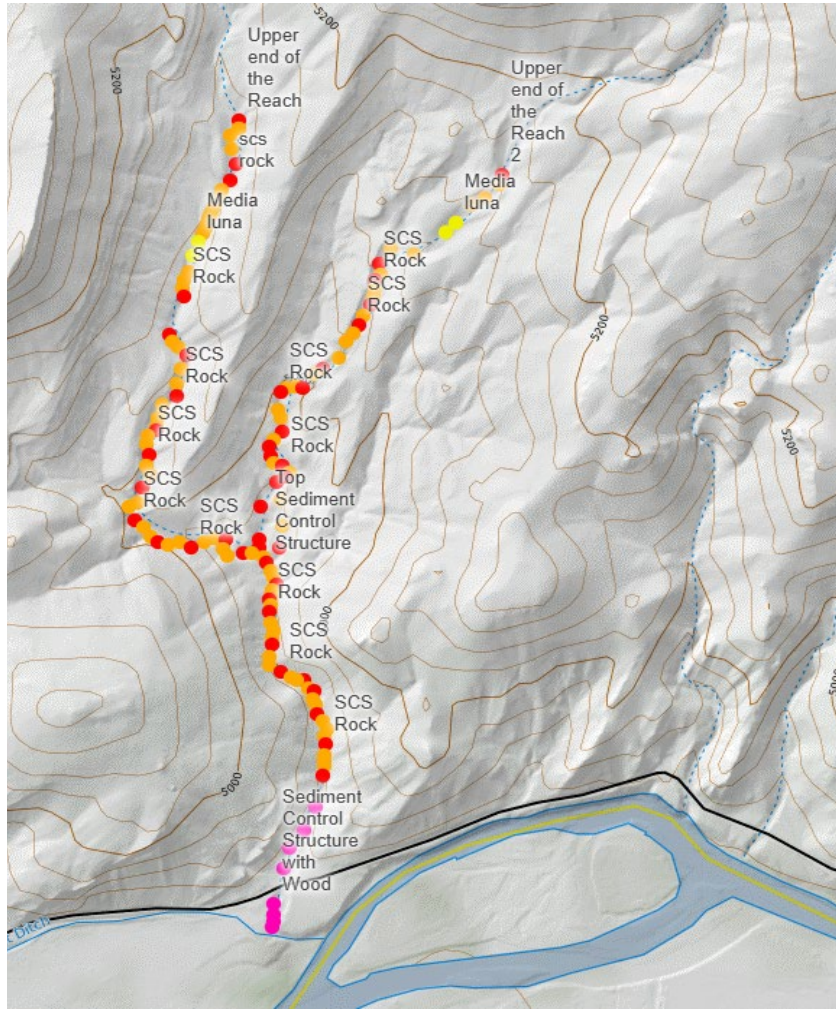
Big Hole Watershed Committee (BHWC)	BHWC	Design for all Sections	80	8/1/25	3/31/25	9/15/25	80 hours (40 as of 9.19.25)		Materials secured, labor estimated, design drawn up, logistics and metrics planned	Design in DEQ 31	48%	?
DEQ	BHWC	BHWC Meeting	0	Grant Funded	End of Grant	Spring in years 26, 27, 28	24 hours		This is where we BHWC, communicate to stakeholders about the project.	Community engagement		
DEQ 319	BHWC Public Relations	Media, presentation	0	5/1/26	10/31/28	01.01.26	80 hours		Work with Karly to produce a video describing this project		5%	





Section B road intersection design

Appendix D GPS Point Location on Cal Topo



Burma_Road_Big_Hole_Sediment_Reduction (1).kml



	Structure	Structure Name	Building Technique	Structure Description
	62	One Rock Dams	Hand built	Slow down water retain >10 inches or less of sediment
	4	Media Luna	Hand Built	Spread water out
	33	Sediment Control Structures with rock	Hand built	Slow down water retain >18 inches or less of sediment
	8	Sediment Control Structure	Mini-Excavator	Slow down water retain >30 inches or less of sediment
107 Estimated Structures				

Appendix E

Reference One Rock Dam Zuni Structures



Figure 2. One rock dam consists of a single layer of rocks approximately one rock high extending across a small, incised channel. One rock dams are placed at intervals along the incised channel to slow water flow and increase fine sediment retention. *These are smaller structures than the larger Sediment Control structures that are larger and more robust.* Image from NRCS Range Technical Note No. 40 (May 2018). *These structures can be built with rocks and woody debris as sediment and water catchment structures, similar to the above artist renderings*



Upper Price Creek, Carbon County extensive rock work to stabilize this wet meadow restoration project on Mud Creek. [Utah's Watershed Restoration Initiative](#). (Utah's Watershed Restoration Initiative, 2015)

Examples of arid Zuni or Zeedyk Structures installation



2012 installation with a bunch of volunteers at [Elkhorn/Las Delicias Watershed Restoration Demonstration Project](#), notice the arid quality of this site.

References:

[Grants Reporting and Tracking System \(GRTS,\) Reporting Web Page](#)

[Nonpoint Source Program and Grants Guidelines for States and Territories \(EPA 841-R-24-009\)](#)

Appendix F

Non-federal share 40% of the cost of project.

Administration cost 10%

Budget

Appendix G



INVOICE

Date: September 22, 2025

Invoice:

Due Date: October 22, 2025

Please include invoice Number on remittance

Project Title: Watershed Restoration Projects

Sponsor Reference Number: Agreement or Contract Number

Billed To:

[Redacted]

Telephone:

Remit To:

Big Hole Watershed Committee
P.O. Box 21
Divide, MT 59727-0021
Telephone: (406) 960-4855
Email: info@bhwc.org

Current Billing Period: Dates				
	<u>Awarded Budget</u>	<u>Current Amount</u>	<u>Cumulative Amount</u>	<u>Amount Remaining</u>
[Redacted]	\$0	\$0.00	\$0.00	\$0.00
[Redacted]	\$0.00	\$0	\$0	\$0.00
[Redacted]	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0
Current Billing Amount	→ \$0			

COST MATCH DOCUMENTATION ATTACHED

By signing this report, I certify to the best of my knowledge and belief that the report is true, complete, and accurate, and the expenditures, disbursements, and cash receipts are for the purposes and intent outlined in the award documents. I am aware that providing any false, fictitious, or fraudulent information, or omitting any material fact, may subject me to criminal, civil, or administrative penalties for fraud, false statements, or false claims, or otherwise. (U.S. Code, Title 18, Section I 00 I and Title 31, Sections 3729-3733 and 3801-3812)

Pedro Marques

BHWC Executive Director



BIG HOLE
WATERSHED COMMITTEE
Conservation Through Consensus.

COST MATCH REPORT

Project Title: Watershed Restoration Projects

Sponsor Reference Number: Agreement or Contract Number

Report Submitted to:

██████████
 ██████████
 ██████████

Telephone:

Email:

Report Submitted by:

Big Hole Watershed Committee ██████████
 P.O. Box 21
 Divide, MT 59727-0021
 Telephone: (406) 960-4855
 Email: info@bhwc.org

Current Billing Period: Sept 2, 2025- Oct 1, 2025			
	<u>Approved Budget</u>	<u>Current Period</u>	<u>Inception To Date</u>
Salaries/Labor (BHWC)	0	\$0.00	0
Other	\$0	\$0.00	0
TOTALS	\$0	\$0.00	\$0
Total Cost Share to Date	→ \$0		