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# Animas River Corridor Project Proposal

Town of Silverton



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# Animas River Corridor

## 1. Executive Summary

Project Name: Animas River Corridor (ARC) Project

Project Description:

The Animas River Corridor Project intends to restore over six acres of fens, along with 10 acres of riparian wetlands and over one and a half miles of river restoration while improving over 13.5 acres of floodplain connectivity. The project also includes one mile of walking trails and improved recreational water access adjacent to the river and restored areas. All of these areas have been impacted from legacy mining.

The Animas River corridor in Silverton remains a prime location for application of the Natural Resources Damages (NRD) funding due to (1) its exclusion from the Bonita Peak Mining District (BPMD) superfund site, (2) the impacted natural resources along the river corridor, (3) the benefit of restoration and rehabilitation to downstream users, (4) the significant community buy-in and visioning for restoration and appropriate recreation access along the river corridor, and (5) the connection of the river corridor restoration and use to other community projects. The work in this proposal comes from long-standing planning and community visioning through the Animas River Corridor (ARC) Revitalization Project.

Since 2015, the Town of Silverton, San Juan County and many community members have dedicated countless hours of their time and expertise to manage the aftermath of the Gold King Mine release. This time and effort lead to a reduction in staff and community capacity to pursue other community benefits, projects, and goals. The use of NRD funding in Silverton demonstrates a commitment by the Trustees to support a rural, isolated, and economically disadvantaged community that has been significantly affected by legacy mining. The NRD funds present an opportunity to restore degraded resources and to rectify natural resource loss and increase recreational capacity by improving and restoring this iconic river reach in a way the community can be proud of and enjoy. The Silverton community has long asked for protection, restoration, and appropriate recreational use of the river corridor as demonstrated in the 2006 Animas River Corridor Plan, the 2019 Silverton Area Trails Plan, and the 2022 Silverton Compass Master Plan – this important project can now realize that community-driven effort through the support of the Trustees.

Project Offeror: Town of Silverton

Project Contact: Gloria Kaasch-Buerger, CPM, Town Administrator,  
[townadministrator@silverton.co.us](mailto:townadministrator@silverton.co.us), 970-880-4087

Total Project Cost: \$5,042,471

Amount of NRD Funding Requested: \$1,720,000

Matching Fund Sources, Type, Value and Status:

The Town of Silverton anticipates utilizing the Kendall Mountain R&PP land value of \$1.18 million as a grant match. To secure additional funds for this project, we have identified a variety of additional funding sources, including:

- GOCO for additional trails, signage, and bridges
- GOCO for planning and capacity grants
- EPA's Recreation Economy for Rural Communities for planning and technical assistance
- Colorado RESTORE
- The Nature Conservancy
- Trout Unlimited
- Colorado Parks and Wildlife
- North American Wetlands Conservation Act
- Biophilia
- Equitable Community-Designed Outdoor Spaces
- Colorado Outdoor Equity Grant Program
- Non-Motorized Trails Grants

The Animas River Corridor Project remains a well-positioned project that matches many of the funding priorities of both restoration and recreational use for state and federal funding partners.

Signature of the Authorized Offeror:



Gloria Kaasch-Buerger, Silverton Town Administrator

## 2. Scope of Work

### Target Natural Resource(s):

The Animas River corridor in Silverton (Figure 1) stretches from the Lackawanna Mill site to the confluence with Mineral Creek. This stretch of river should serve as a recreational hub, but sits idle due to the impacts of legacy mining. In the heart of this river corridor is the confluence with Cement Creek, a tributary of the Animas River that drains many legacy mine sites, including Gold King Mine and the Gladstone Interim Wastewater Treatment Plant.

Legacy mining has significantly impacted the natural resources and the community of Silverton. This includes negative impacts to its water supply, degradation of natural resources including streams and wetlands, as well as the ability to safely recreate due to poor water quality or dangerous historic mining sites. Legacy mining has had direct impacts on this stretch of river. The confluence with Cement Creek brings acidic (<pH4) metal laden waters into the heart of the Silverton river corridor.

This leads to precipitation of heavy metals into the river bed and banks, while the redirection of both Cement and the Animas river has increased degradation of riparian wetlands, and loss of access to a key recreational space both due to degraded water quality and lack of physical access to the river corridor.

The primary natural resources that will benefit from the proposed project include the riverien, riparian wetlands and fens. Legacy mining impacted these systems through direct degradation via dredging, mining, and depositing of mine tailings, as well as indirect degradation through river channels being rerouted for roads, or wetland hydrology being augmented via changes in groundwater hydrology with the introduction of new roads, railways, or new groundwater flow paths within mines. These natural resources are critical for both the ecosystems and human communities that depend on them. These streams transport water supplies, provide critical habitat, transport and distribute nutrients and carbon, and provide recreation opportunities. Wetlands and fens provide critical habitat, store water during high flow periods, release water during high demand periods, reduce metal concentrations, cycle nutrients, support recreation via wildlife habitat, and store immense amounts of carbon.

This restoration effort includes four categories: river and riparian wetland restoration, fen restoration, engineered wetlands, and improved recreational access. To restore the stream and riparian wetlands, we will utilize Low-Tech Process Based Restoration (LT-PBR) to encourage floodplain connectivity, slow down the water, encourage growth of riparian vegetation, and hopefully recruit beavers from the nearby colonies to reduce maintenance needs. We will also utilize traditional restoration methods to harden sections of the stream where infrastructure needs to be protected. We will also utilize local native seeds and willow stakes to increase wetland vegetation.

To restore the degraded fen, we first create a test plot for seeds and clones to see which will prove most successful in this harsh environment. We will then utilize the multi-year dataset of groundwater that has been collected by the Mountain Studies Institute (MSI) to quantify the variation in groundwater levels. We will then excavate to the appropriate depth, storing the removed peat on site to create an upland spruce island, while also creating a new pool and vegetated areas. Using the test plot, we will then plant the seeds and clones, and repeat seeding and planting annually.

To improve recreational access and water quality, we propose to route Cement Creek into an engineered wetland, via a longitudinal bifurcation on the Animas. This engineered wetland will be designed to handle Cement Creek, but will likely need an overflow outlet during high flow. The engineered wetland will be placed on an abandoned floodplain of the Animas (Figure 2). As there are many deposits of heavy metals in the streambed, we will place a sediment trap at the bottom of the project site during any instream work to ensure that metals are not being mobilized downstream.

While the bifurcation and engineered wetland will improve water quality in the river corridor, we plan to revitalize recreational access by improving trails, bridges, and river access points. As Silverton has almost no low intensity trail access, this will be a major improvement to recreational access in San Juan County.

The Animas River Corridor (ARC) Project proposes to restore these damaged resources affected by legacy mining and provide appropriate recreational access along the river corridor for overall community benefit. The ARC project intends to restore over six acres of fens, along with restoring 10 acres of riparian wetlands and over one and a half miles of river restoration while improving over 13.5 acres of floodplain connectivity. The project also includes one mile of walking trails and bridges adjacent to the river and restored areas. Project maps below depict two concepts for visualization:

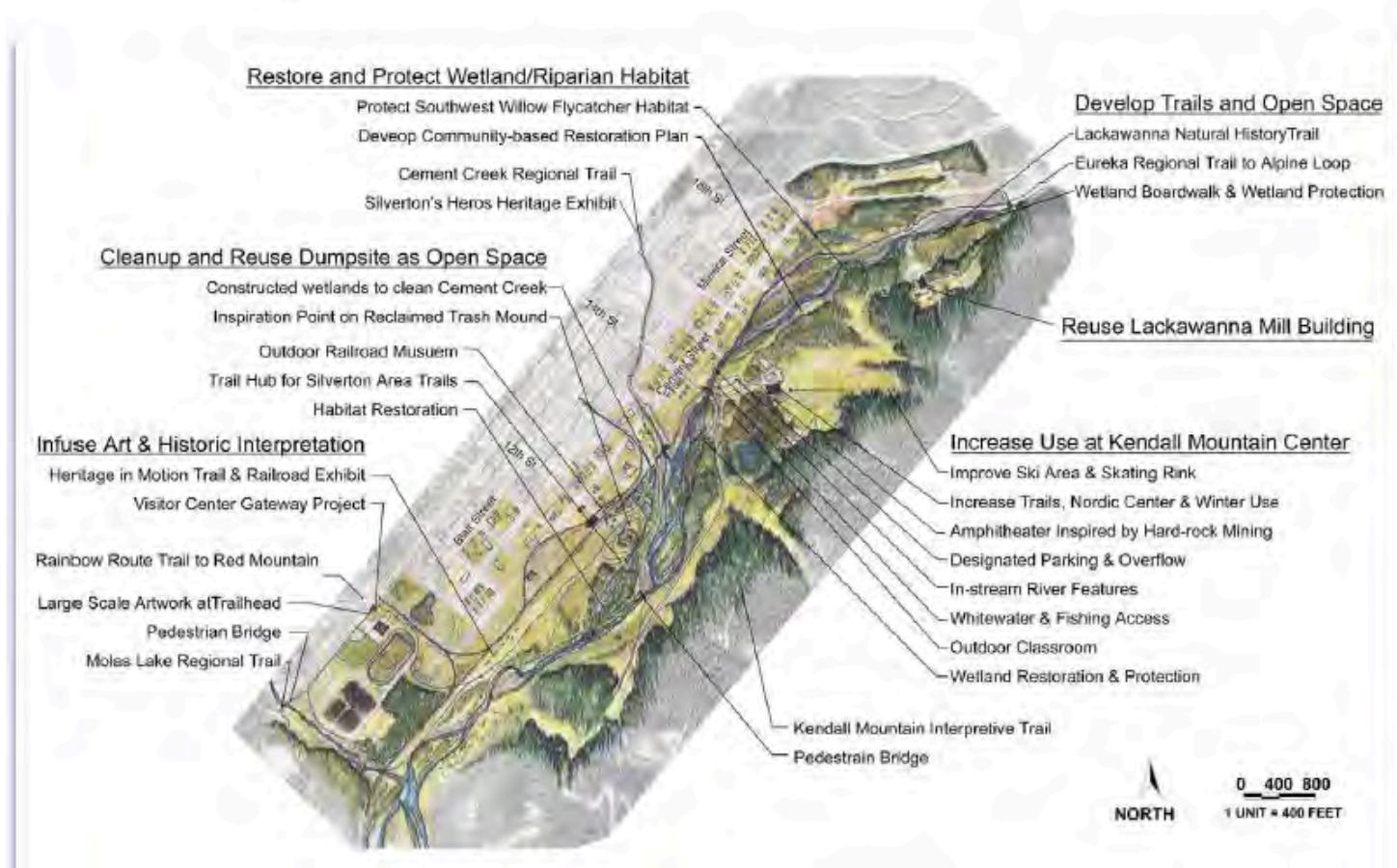


Figure 1. Original Concept Map from Animas River Corridor Project

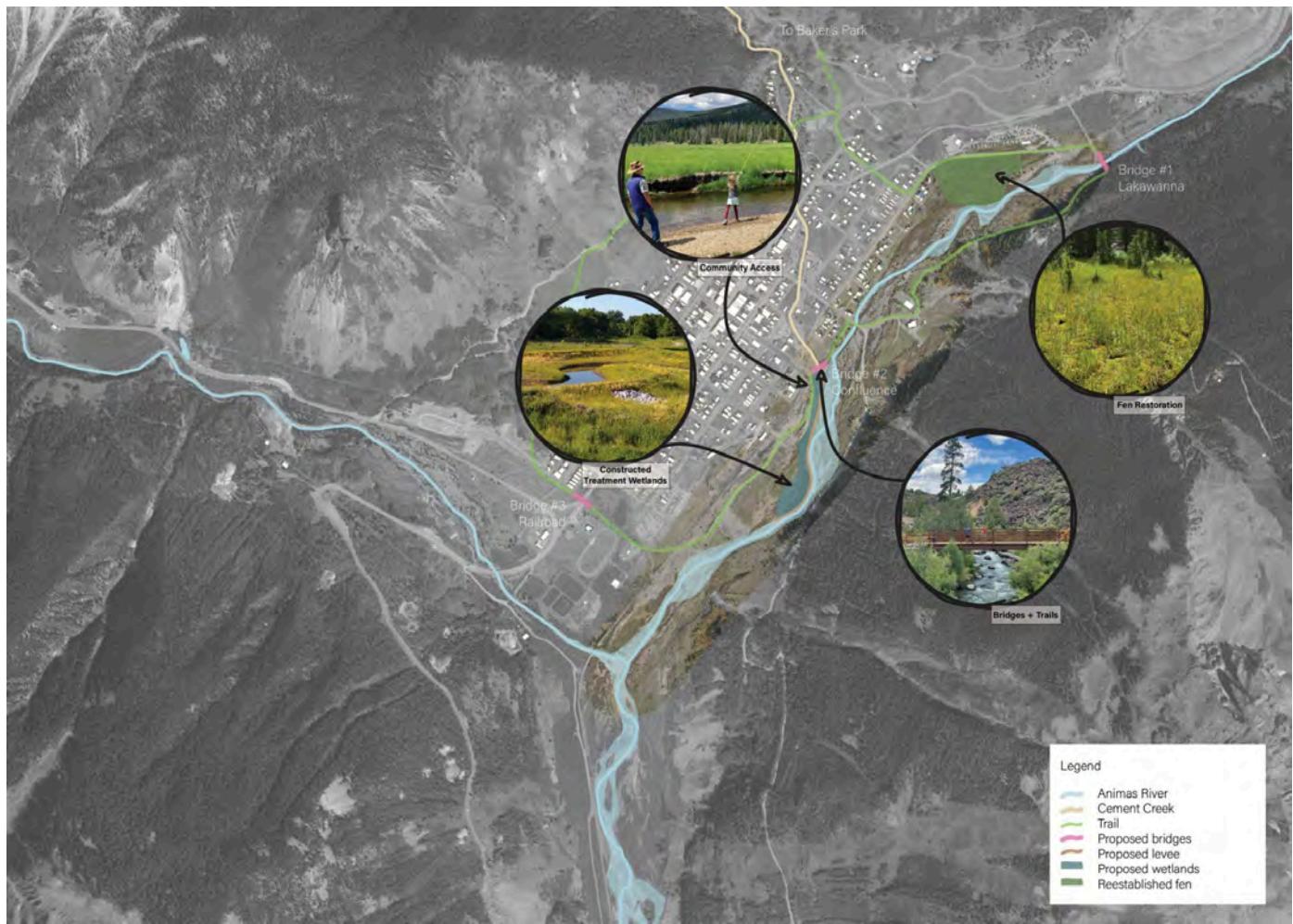


Figure 2. Renderings from Ramboll Engineering depicting restored areas and recreational access

## Objectives:

The overall ARC project goal includes: to improve the ecological function and recreational opportunities along the Animas River Corridor. To accomplish these goals we propose seven objectives: (1) Complete design and engineering, (2) complete needed permits, (3) construction of Animas river bifurcation and treatment wetland, (4) complete instream and riparian wetland restoration, (5) complete fen restoration, (6) complete trails and bridge construction, (7) monitoring and reporting. Table 1 documents the estimated timeline. This phased approach allows the bifurcation to occur before the instream and riparian wetland restoration, thus ensuring the new infrastructure is protected and to allow for time to observe how these systems change with the new bifurcation. Likewise the fen restoration occurs after the instream and riparian wetland restoration to allow for the system to adjust. Finally we will install trails and bridges. Monitoring will take place before, during, and after all restoration efforts to understand and track the restoration efforts.

Table 1. Timeline of objectives by year and quarter.

Objective	2026				2027				2028				2029				2030				2031				
	Q1	Q2	Q3	Q4																					
Design and Engineering																									
Permitting																									
Construction of treatment wetland																									
Instream and riparian wetland restoration																									
Fen restoration																									
Trails and bridge construction																									
Monitoring and reporting																									

## Operational Plan:

The Animas River Corridor (ARC) Project in this proposal is the culmination of years of both natural resource degradation and community input and effort to address these damages. In 2006, the Animas River Corridor Revitalization Plan was one of six national Demonstration Projects supported by the Federal Partnership Mine-Scarred Lands (MSL) Initiative. This effort resulted in the community-driven plan for restoration and reuse of legacy mining projects along the Animas River Corridor and other sites in San Juan County. While the community has made progress on some of the efforts to achieve the 2006 Animas River Corridor Revitalization Project, the effects of the 2015 Gold King Mine spill exacerbated challenges to restore and provide community benefit to sites damaged from legacy mining. Since 2015, the Town of Silverton, San Juan County and many community members have dedicated countless hours of their time and expertise to manage the aftermath of the Gold King Mine release. This time and effort lead to a reduction in staff and community capacity to pursue other community benefits, projects, and goals. The NRD funds present a significant opportunity to restore degraded resources and to rectify natural resource loss and increase recreational capacity by improving and restoring this iconic river in a way the community can be proud of and enjoy. The operational plan for the Animas River Corridor includes the following tasks:

### Task 1: Design and Engineering

The Animas River Corridor Revitalization Plan has been in development for over a decade, is included in the Town of Silverton Compass Master Plan and has strong community support. This plan serves as the backbone for the design of this proposal. Additionally, the Animas Headwaters Ecological Action Division (AHEAD) identified this area as a priority for restoration as well. AHEAD is a collaborative group, including community members, natural resource managers, ecologists, environmental groups, and recreation industry professionals focused on addressing the needs of San Juan County as it transitions from an economy based on extractive industries to one of outdoor recreation and tourism. The AHEAD has mapped and prioritized the headwaters for ecological restoration projects that aim to increase the climate resilience of these sensitive and critical systems.

Although there are preliminary designs already in place, we need final designs and engineering, particularly for the bifurcation and treatment wetland. We are currently pursuing matching funds to accomplish this. We are currently working with Ramboll to design and develop engineering needs for levees, treatment wetlands, walkways, boardwalks, and bridges. Full engineering would be done based on contract award, while the final design documents with professional engineer stamp are anticipated to be submitted by the end of Q3 of 2026 (table 1). Once the final designs for the levees, and treatment wetlands are complete, we will complete the designs for instream and wetland restoration in house.

### **Task 2: Permitting**

This project would entail permitting from the U.S. Army Corps of Engineers (USACE), including a nationwide permit 27 and a pre construction notice with the USACE. Permits will need to include full wetland delineations as well as ordinary high-water mark, designs of all structures, and access points. These projects are intentionally staggered to allow for time for both the generation of the permit applications as well as time for them to be processed by the respective agencies. These steps cannot be covered by NRD funds, and matching funds will be used to accomplish them. We will also work with adjacent land owners on easements - multiple landowners are eager to partner on this project. We anticipate this task being completed by the end of Q2 of 2027 (Table 1).

### **Task 3: Construction of Treatment Wetland**

A levee will bifurcate Cement Creek from the Animas River, improve water quality in the Animas River corridor, and protect homes and infrastructure. This levee will run from the confluence of Cement Creek with the Animas, 0.2 miles downstream to an abandoned floodplain on the river to the right of the Animas, where it will discharge into the treatment wetland.

The treatment wetland will use passive treatment technologies including naturally existing biogeochemical processes to precipitate or remove dissolved metals. This system will rely on gravity to move water through the system, requiring little to no chemical additions by mimicking the natural processes of wetlands. There are multiple types of passive systems that we can implement, including: aerobic and anaerobic wetlands; anoxic limestone drains, ponds or channels; vertical flow systems; and permeable reactive barriers. These systems utilize biogeochemical processes to immobilize metals out of the water column and can include the following processes: formation and subsequent precipitation of metal hydroxides or oxides; microbial sulfate reduction, which then creates metal sulfides, reactions and adsorption on organic materials; cation exchange; microbial reduction of dissolved iron and iron hydroxides; and direct uptake by wetland vegetation. We will work with the selected engineering firm to evaluate and select the most appropriate system for the flows and metal concentrations present.

The project team recognizes that many metal precipitants exist in the river bed and banks of the Animas River and Cement Creek, which could be mobilized downstream during construction activities. To mitigate this impact, we plan to implement a sedimentation catchment system during instream construction activities.

#### **Task 4: Instream and Riparian Wetland Restoration**

Instream and riparian wetland restoration will utilize LT-PBR methods to encourage natural processes and feedback loops that generate and sustain high functioning riverine and riparian wetlands. We will create woody, permeable structures called Post Assisted Log Structures (PALS) by driving wood posts into the substrate and then filling with woody material. These structures mimic the natural processes of wood accumulation and beaver dams, which in turn increase stream channel complexity by moving water onto the floodplain, increasing sinuosity of the stream, and creating new braided systems. These structures aim to stimulate two positive feedback loops. The first is recruitment of local beaver populations that live both upstream and downstream of the reach. The goal would be for them to colonize the side channels, expanding wetland habitat and stimulating riparian vegetation growth due to an increase in the water table elevation created from beaver ponds. The second is to encourage riparian plant recruitment into the channel itself. With the structures in place, water will be pushed onto the floodplain, enhancing riparian growth, while also bringing in more woody debris into the channel, stimulating more flow onto the floodplain, hence creating a positive feedback loop.

The staging will be at the beginning of access routes. In some cases, rock material will be used when more appropriate to protect homes, bridges, and other infrastructure. Planting of native seeds, clones, and willow poles will also encourage vegetation growth and wetland stabilization.

#### **Task 5: Fen Restoration**

Wetlands and peatlands are keystone habitats. They serve as critical infrastructure for both the environment and the communities that depend upon them. They store dramatic amounts of carbon, reduce floods, store water, cycle metals, and over 80 percent of species in Colorado spend at least some portion of their life cycle in wetlands. The wetlands and river system in Silverton has been dramatically damaged by legacy mining for over a century. This includes placer mining, disposal of tailings and waste material, dredging, and channelization. The Animas River corridor is an ecological hub, hosting moose, beaver, many types of birds, and some fish above the confluence with Cement Creek. Many residents try to walk the banks of the river, but are limited by access and large amounts of degradation. Our plan is to revitalize these systems through ecohydrological restoration, while also providing access for restoration in response to the damage to this corridor from legacy mining.

To restore the degraded fen, we will remove overburden until equilibrium is reached with the groundwater table. We will calculate the depth using the multi year dataset of groundwater data in

the fen. The excavation will take place in a circular manner, with swamp mats, to reduce the impact of the heavy machinery. We estimate that we will remove 300 cubic yards of material from the site, which will be used to make an upland spruce island. After excavation we will plant seeds and clones, and protect the site from erosion with erosion prevention materials (jute matt, hay, etc.). Considering the harshness of the site, with a low pH and deposition of many heavy metals, we will create test plots for vegetation before excavation to determine which plants will be most successful.

### **Task 6: Trails and Bridge Construction**

Access to the river has been reduced dramatically from legacy mining, channelization of the river, and deposition of tailings and waste materials. In order to restore these damages, we also propose to install walking trails and bridges that allow the community access to the resource that has been degraded for over a century, while protecting the sensitive areas being restored. These trails would provide ADA access from the center of town, near the drop off for the Durango & Silverton Narrow Gauge Railroad. These trails will also connect to the Town of Silverton's comprehensive Perimeter Trail plans and ultimately provide connectivity and accessibility for both residents and visitors. Trail access has been identified as a high priority in both resident and visitor surveys.

### **Task 7: Follow-up Restoration and Monitoring**

Follow-up efforts and staggered restoration efforts promote likelihood of restoration success. We will build off the last year's efforts as well as shore up existing structures or vegetation cover. Monitoring allows us to understand what methods are effective and efficient in this multi-year project.

Monitoring will include drone flights to capture changes in topography and vegetation distributions, mapping of stream beds to understand changes in geomorphology, mapping and tracking vegetation, and fluxes of methane and carbon dioxide for peatlands.

### **Outcomes/Milestones**

Outcomes and milestones include: restoration over six acres of fens at the six sites along with restoring 10 acres of riparian wetlands and over one and a half miles of river restoration while improving over 13.5 acres of floodplain connectivity. We will also install over a mile of ADA accessible walking trails and pedestrian bridges for connectivity.

### **Partners**

*Please see the Appendix for Letters of Support*

As the offeror, the Town will oversee the overall scope of the project. The town will also solicit bids from interested parties to support components of this project based on contract award.

Mountain Studies Institute (MSI) has been a long-standing partner in restoration planning, design, operations, and monitoring in the region. The Town of Silverton will work directly with MSI, and Dr. Rod Chimner, a global wetland restoration specialist and professor at Michigan Technological

University. MSI and Dr. Chimner have over two decades of experience restoring wetlands across the San Juan Mountains and have been collecting data on these sites for the past three years, providing a critical baseline dataset to assist with design and monitoring.

The town of Silverton has also worked closely with Ramboll Americas Engineering Solutions, Inc. (Ramboll) on a Multipurpose Brownfield Grant in Silverton and the town solicited Ramboll's services in preparing the engineer's cost estimate and design schematics. Please see Appendix for Ramboll's statement of experience.

Since this area includes various public and private parcels, this project will partner with San Juan County, the Bureau of Land Management (BLM), the Durango & Silverton Narrow Gauge Railroad, and private landowners. This project is also closely aligned with priorities coming out of the Southwest Colorado Conservation Outdoor Recreation Roundtable (SCORR) and the AHEAD group.

### **Type and Name(s) of Donors**

For partner contributions, we are working with the Bureau of Land Management to coordinate the conveyance of over 90 acres of land under the Reclamation and Public Purposes Act, with an estimated value of \$1.18 million. To secure cash matching funds for this project, we hope to submit to the Bureau of Reclamation (BOR) WaterSMART if it is funded at the federal level. We are also currently meeting with the U.S. Fish and Wildlife Service staff and they have identified the North American Wetlands Conservation Act 2026-1 matching grant program as a good fit. We are also exploring the RESTORE funding through the National Fish and Wildlife Foundation. We anticipate applying for the remaining cash funds needed to complete design, permitting, installation and monitoring of stream and wetland restoration through these funding sources. We have also identified the potential for funding for planning through the EPA's Rural Economies Planning Program or a Brownfield's grant. To facilitate additional recreational components of the project, the Town will pursue funding with GOCO and accessibility partners. Please see the Executive Summary for additional potential grants to support this project.

### **Construction Designs, Drawings, and Schedule**

The historic plan and conception plans for this site are seen in Figure 1 and Figure 2 (above). A major focus of the proposed work will be the bifurcation of Cement Creek from the Animas River and the the design and construction of an engineered treatment wetland. Figure 3 (below) presents a conceptual design of this bifurcation and engineered treatment wetland.

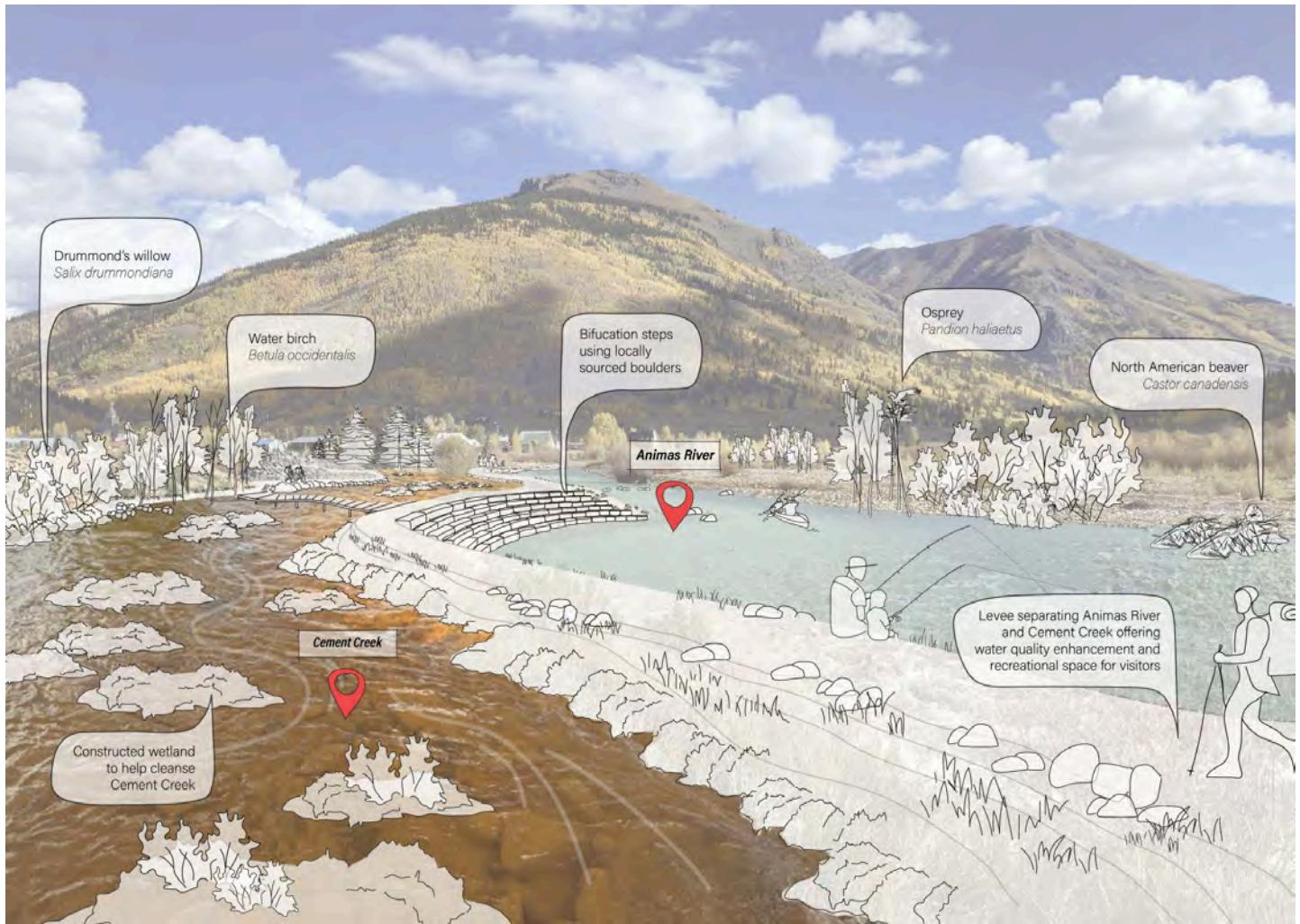
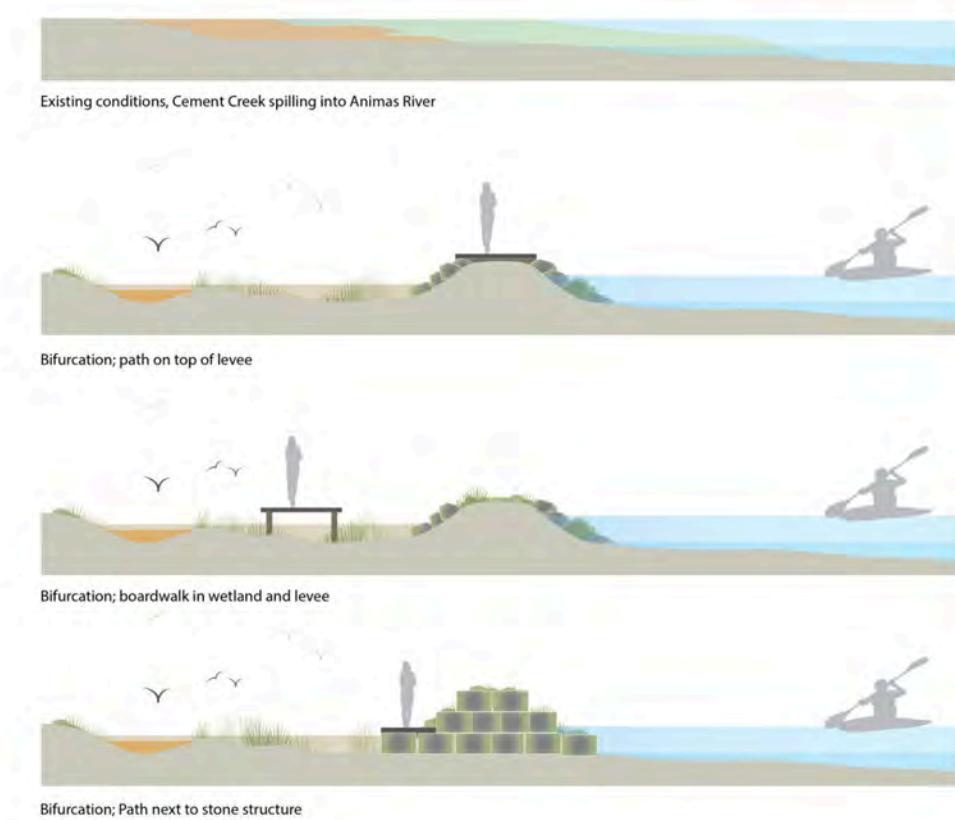


Figure 3: Representation of the restored area with improved water quality and enhanced community river access.

Figure 4 below shows conceptual designs for the levee itself. Currently there are jetties in place that encourage hydrologic mixing of the Animas River and Cement Creek, but the mixing does not fully occur until much lower down in the river reach, leading to significant concerns about recreating in the acidic and metal laden waters. Conditions as is are depicted in the top panel of Figure 4, where there is visible discoloration and metal precipitants on the river bed and bank. The three following panels depict options for where the trails can exist in relation to the levee.



*Figure 4: Levee and bifurcation option of Cement Creek support enhanced recreational access and engineered wetland design to improve water quality*

The levee and engineered treatment wetland requires further engineering and design. The appropriate documentation, with a professional engineering stamp, will be provided upon contract award and negotiations.

Initial designs for the instream and riparian wetland restoration can be seen in Figures 5 and 6 in the Appendix. Most of the work will utilize PALS to generate geomorphic changes in the river, increasing the water table, and encouraging the generation of side channels. No structures will be placed in the main channel that pose a threat to recreation.

### **Operation, Maintenance and Monitoring (OMM) Requirements**

Our proposed restoration methods are ideal as they minimize maintenance by encouraging natural processes to take over and stabilize the system. Nonetheless, we propose some ongoing maintenance during the installation of the PALS and in the following years. As seen in Table 1, we plan to follow up every year, for four years to maintain these structures, track vegetation, and enhance vegetation in the wetlands via seeding and planting. Six and 12 month inspections will occur via site visits to document the condition and size of the structures and during the building season, PALS will be repaired if necessary. We will also track the site via drone and on the ground surveying. We will know

if the project is successful if we are able to increase the number of side channels, increase water table levels, and increase vegetation cover. The engineered treatment wetland and levees will be inspected by the hired engineering firm at the six and 12 month intervals. There will be minimal maintenance needed at the engineered treatment wetland to ensure proper function, but not more than once every five years.

Funding for long term maintenance and monitoring is being pursued through the U.S. Fish and Wildlife and Colorado Parks and Wildlife wetland grants.

### Permits/Approvals/Certifications

Full engineering designs, with professional engineer's stamps, will be provided for the levees and engineered treatment wetlands. We have had initial designs and budgets generated by Ramboll, but plan to put this out to bid if funded.

We will also need a Nationwide Permit number 27 for voluntary restoration under the United States Army Corps of Engineers as this is waters of the United States and under their jurisdiction. We will also need a pre-construction notice permit. We have already begun this process by collecting aerial imagery of the site, have come up with designs for the stream and wetland restoration, and have some of the wetland delineations already completed.

### Project Schedule

*Subject to contract negotiations, award, and engineering plans and design*

Objective	2026				2027				2028				2029				2030				2031				
	Q1	Q2	Q3	Q4																					
Design and Engineering																									
Permitting																									
Construction of treatment wetland																									
Instream and riparian wetland restoration																									
Fen restoration																									
Trails and bridge construction																									
Monitoring and reporting																									

### Monthly Invoice and Status Report

The monthly invoice will present a detailed line-item breakdown of expenditures by approved budget category, including personnel, materials, and contracted services. A narrative status report will accompany the invoice, summarizing activities completed, performance metrics achieved, and any deviations from the project timeline. Quantitative data will be organized in tables or charts for ease of review by city leadership and grant administrators, with comparisons to monthly or cumulative targets as applicable.

## **Project Documentation and Deliverables**

- 1. Planning and Design Phase**
  - A. Final Engineering Design Package**
    - i. Stamped design drawings for levees, treatment wetland, boardwalks, and bridges
    - ii. Detailed construction specifications and engineering calculations
    - iii. Digital and hard copy design files
  - B. Hydrological and Site Assessment Reports**
    - i. Groundwater and surface water data analysis (e.g., fen restoration equilibrium levels)
    - ii. Sediment transport and quality assessments
    - iii. Pre-construction topographic maps and ecological condition baselines
  - C. Permitting Documentation**
    - i. USACE Nationwide Permit 27 application and pre-construction notice
    - ii. Wetland delineations and Ordinary High-Water Mark (OHWM) documentation
    - iii. Easement agreements with landowners
  - D. Public Engagement and Review Summaries**
    - i. Community meeting materials, feedback summaries, and integration logs
    - ii. Updates and reviews from stakeholder groups such as AHEAD, SCORR, and local government entities
- 2. Construction Phase**
  - A. Construction Management Plan**
    - i. Site access, staging, and safety plans
    - ii. Sediment and erosion control strategies
    - iii. Construction timeline and sequence of work
  - B. Construction Progress Reports (monthly/quarterly)**
    - i. Summary of completed work against schedule  
Labor hours, materials used, and contractor performance
    - ii. Documentation of environmental compliance and best practices followed
  - C. Photo Documentation and Aerial Imagery**
    - i. Before, during, and after construction site photos
    - ii. Drone imagery for key milestones
  - D. As-Built Drawings and Certification**
    - i. As-built plans reflecting final construction conditions
    - ii. Certification by licensed engineers
- 3. Restoration and Vegetation Phase**
  - A. Vegetation and Habitat Installation Reports**

Species planted, quantities, and locations

    - i. Survival rates from test plots and planting phases
    - ii. Adaptive management notes and follow-up planting schedules

**B. Materials and Methods Log**

- i. Documentation of log structures (PALS), erosion control materials, and rock armoring
- ii. Methods used for fen restoration and instream features

**4. Trails and Public Access Phase**

**A. Trail and Bridge Construction Reports**

Design and implementation plans for walking trails and pedestrian bridges

- iii. ADA compliance verification per Perimeter Trail Engineering Plans
- iv. Public access signage and education materials

**5. OMM (Operations, Maintenance, and Monitoring) Phase**

**A. Long-Term Monitoring Plan**

- i. Annual monitoring schedule and metrics (e.g., vegetation, stream morphology, water quality)
- ii. UAV/drone survey protocols and analysis framework
- iii. Greenhouse gas (GHG) flux protocols for peatland monitoring

**B. Annual Monitoring Reports**

- i. Comparative analysis of restoration effectiveness over time
- ii. Identification of maintenance needs or adaptive interventions
- iii. Updated maps and aerial imagery

**C. Maintenance Logs**

- i. Inspections of restored features, trails, bridges, and treatment wetlands
- ii. Repairs completed and future maintenance scheduled

**D. Post-Restoration Evaluation Report (Final Deliverable)**

- i. Summary of ecological, recreational, and community outcomes
- ii. Lessons learned and recommendations for future projects
- iii. Cumulative analysis of NRD funding impacts

**6. Administrative and Financial Deliverables**

**A. Monthly Invoices and Status Reports**

- i. Detailed breakdown of expenditures and progress updates for each task
- ii. Budget vs. actual tracking with narrative justifications
- iii. Supporting documentation (timesheets, receipts, subcontractor reports)

**B. Quarterly and Final Grant Reports**

- i. Comprehensive narrative of project milestones, challenges, and achievements
- ii. Documentation of matching fund expenditures and in-kind support

**C. Audit-Ready Financial Records**

- i. Complete ledger of all transactions, contracts, and subaward
- ii. Compliance with federal and state grant management requirements

### 3. Budget Spreadsheet

*See Appendix for full budget details.*

The entire ARC project estimate is \$5,042,471, which includes engineering, permitting, design, oversight, and project management. The request to the NRD Trustees is \$1,720,000, with the intention that this funding will support additional grant matches (see above for identified sources) for a variety of promising restoration, water quality, and recreational use funding. By funding the ARC project, the Trustees have the opportunity to turn a \$1.72 million investment into a \$5 million project that restores damages, preserves natural resources, and provides an important community asset. Staffing details depend on project partners, to be identified post contract award.

Budget Category	Total
PERMITTING, DESIGN, CONSTRUCTION OVERSIGHT	\$490,000
GENERAL	\$85,000
EROSION CONTROL	\$95,000
FEN RESTORATION	\$44,332
RIPARIAN/WETLAND RESTORATION	\$947,236
TREATMENT WETLAND	\$99,790
CEMENT CREEK BIFURCATION	\$937,000
BRIDGES	\$122,194
TRAILS	\$191,986
OPTIONAL ITEMS	\$1,525,425
CONTINGENCY (20% of construction)	\$504,507
TOTAL	\$5,042,471

### 4. Public Communications Strategy

The Animas River Corridor Revitalization Project included significant community engagement and support, with multiple town meetings, forums, and visioning sessions. The Animas River Corridor

Revitalization Project was further supported during the Town of Silverton Compass Master Plan process in 2022. Multiple vision sessions and priority sessions with the community indicated support to fund and carry out the original Animas River Corridor Revitalization Plan. This is a plan the community has asked for and wanted for a long time and the NRD funds are an excellent opportunity to both restore important ecological damages that the community cares about and provide appropriate recreational use the community has been wanting. The Silverton community has long asked for protection, restoration, and appropriate recreational use of the river corridor as demonstrated in the 2006 Animas River Corridor Plan, the 2019 Silverton Area Trails Plan, and the 2022 Silverton Compass Master Plan – this important project can now realize that community-driven effort.

As a municipality, the Town of Silverton will provide multiple opportunities through public meetings and info sessions for public input and information sharing as this project progresses. Key regional working groups for engagement also include: the Community Advisory Group (CAG), the AHEAD stakeholders, and the SCORR.

## **5. Relationship to Ranking Criteria:**

### **a. Likelihood of Success:**

This project aims to restore streams, wetlands, fens, and provide recreational opportunities that have been degraded due to the century of legacy mining. Our restoration goal includes over six acres of fens along with restoring 10 acres of riparian wetlands and over one and a half miles of river restoration while improving over 13.5 acres of floodplain connectivity. We will also install over a mile of walking trails and two pedestrian bridges for connectivity. We also hope to improve water quality through the bifurcation of Cement Creek from the Animas River into an engineered treatment wetland. MSI has over 20 years of experience restoring streams and wetlands in the high alpine of San Juan County. In addition, we will also partner with Dr. Rod Chimner, a global wetland restoration specialist who just recently published a new restoration book on restoring high alpine systems. MSI and its team has the skills, equipment and operations to implement and manage the restoration efforts and is familiar with an adaptive management style to work in these harsh and dynamic environments.

### **b. Multiple Natural Resource Benefits**

The ARC project represents an exemplary funding opportunity to improve multiple types of natural resources that have been damaged by legacy mining. These improvements include restoring streams, wetlands, fens, and recreational opportunities. In a community hard hit by both the economic and environmental impacts of legacy mining, Silverton has prioritized reviving the river corridor as a place of natural beauty and recreation. As noted by our letters of support, this will also have an educational impact by providing a space for our preschool and K-12 school to work alongside MSI,

learning about environmental and geosciences in a hands-on manner, while creating a future space for outdoor learning. This stretch of river also rarely has residents or visitors experience its wonder due to poor water quality and lack of accessible trails. The NRD funding for this project could create a big impact in a small community.

### **c. Project Utilizes Multiple Approaches**

This project will utilize multiple styles of restoration including Low-Tech Processed based stream and wetland restoration, alongside more traditional methods of restoration to ensure homes and bridges are protected. We will also implement techniques developed in the San Juan mountains to restore a degraded fen. The improvements will also utilize engineered treatment wetlands to improve water quality, while a land transfer will also aid in the area we are able to improve and protect.

### **d. Long-term Project Benefits**

We anticipate that this work will benefit generations to come - this is a legacy project. The methods of restoration lean heavily into natural processes, decreasing ongoing maintenance, while improving the long-term benefits to the community of Silverton and downstream stakeholders. We expect to see long lasting wetland habitat sustained, improvements in water quality from an engineered treatment wetland, and improved recreational opportunities and access.

### **e. Project Alignment with Regional Planning**

The ARC project has had long-standing support and alignment with regional land management plans. The ARC directly fits into the BLM R&PP Plan of Management and Development, is closely aligned with the AHEAD regional workgroup priorities, and is well-suited to the stakeholder priorities emerging from the SCORR, which is tied to GOCO strategic funding priorities. The ARC has also been locally prioritized in the 2006 Animas River Corridor Plan, the 2019 Silverton Area Trails Plan, and the 2022 Silverton Compass Master Plan.

### **f. Protection of Implemented Project**

The area we propose to restore has some protections under the jurisdiction of the United States Army Corps of Engineers. The Town of Silverton also has a plan of management and development with the BLM for the conveyance of the R&PP lands that includes a restriction to only use the land for recreational and public use. According to the Plan of Development with the BLM, it can be used for a Public Park, Open Space, Public Recreation Facility, Educational Institution, and Areas Subject to Natural Hazards. This use must continue after the conveyance or the BLM has the right to take back the land. The land is zoned Public which also ensures that the town will remain the steward of the land and can ensure appropriate use. This Public district is designed to accommodate public and quasi-public uses and activities such as parks, open spaces, trails, community centers, or public safety facilities. It is intended for application in the areas identified for recreation in the Master Plan. The area was also closed to motorized vehicles via Ordinance 2019-01.

### **g. Project Benefit versus Expected Cost**

This project uses multiple types of restoration practices, including Low-Tech Process Based Restoration methods, which tend to be more cost effective than traditional methods of restoration. Most of the restoration efforts will result in benefits being observable within the first year of implementation and are expected to have long term, sustained benefits. Further, this project not only addresses damaged natural resources along the headwaters of an important river corridor, it also restores a neglected, but prioritized recreational asset in a small, rural community.

### **h. Non-NRDs Match**

The Town of Silverton anticipates utilizing the Kendall Mountain R&PP land value of \$1.18 million as a grant match. The permitting, engineering and project management cost of the ARC project is estimated at \$480,000, which is an additional cash match once secured.

### **i. Multiple Partners**

The ARC project represents long-standing collaboration between numerous partners. The project planning and design has involved the Town of Silverton, San Juan County, Bureau of Land Management, Mountain Studies Institute, Ramboll, GOCO, and private landowners who are conservation-minded. The partnerships are critical to success.

### **j. Monitoring**

Monitoring will consist of aerial drone surveys, with on-the-ground RTK surveys to map and track changes in the geomorphology and connectivity of the floodplains. This type of monitoring, alongside the staged approach, allows us to understand and predict how the systems are responding to our efforts and allows us to address any problems as they arise.

### **k. Disproportionately Impacted Community**

Silverton's score on the CDPHE Enviroscreen tool is 10.54. Trustees should also consider several other factors that contribute to our disproportionately impacted status:

- Public lands account for 80 percent of county lands, which has property tax revenue and infrastructure implications (e.g., the county road and bridge budget maintains infrastructure to public lands)
- The Gold King Mine spill and resulting impacts consumes significant community leadership capacity, which means less capacity for other projects
- San Juan County has an estimated 800 residents/infrastructure rate payers; our visitorship includes millions, which puts a disproportionate burden on our public infrastructure (roads, water, sewer, trash).

# Appendices

## Description of the Offeror's Organization

As of 2025, the Town of Silverton, Colorado, has an estimated population of approximately 707 residents. Situated at an elevation of 9,318 feet in the San Juan Mountains, Silverton is the sole incorporated municipality and county seat of San Juan County. Silverton's population is predominantly White (approximately 78%), with Hispanic or Latino residents comprising about 18% of the community. The median age is around 41 years, indicating a mature population. The median household income in Silverton is approximately \$73,750, slightly below the Colorado state median. The poverty rate stands at about 16.8%, which is higher than the state average.

The Town of Silverton, located in San Juan County, Colorado, is a historic mountain community defined by its legacy of hard rock mining and its ongoing transition toward a sustainable, tourism-based economy. Once a booming mining hub in the late 19th and early 20th centuries, Silverton's economy was built on the extraction of precious and base metals that contributed to the growth of the region—and to the eventual degradation of its natural resources. Generations of mining left behind a complex legacy of environmental contamination, including abandoned mine lands, tailings piles, and impaired waterways.

In response to the challenges posed by this legacy—and with a vision for a more resilient future—Silverton has undertaken a community-driven transformation. The town is actively shifting toward an outdoor recreation and tourism-based economy with over 4 million visitors a year. Visitors are drawn to its stunning alpine setting, historic charm, and recreational assets. In recent years, Silverton has also experienced an influx of remote workers, artists, and entrepreneurs seeking a high quality of life in a scenic and culturally rich environment. This diversification of residents and economic activity is helping to revitalize the community, even as it grapples with the long-term effects of environmental degradation.

Central to this transition is the 2022 Compass Master Plan, a comprehensive roadmap for sustainable growth and development. This plan was created through an inclusive public engagement process, with over 40% of Silverton residents participating—a remarkably high rate for any community, let alone one as small and rural as Silverton. The plan outlines goals for environmental restoration, economic diversification, public health, and infrastructure, reflecting the community's shared values and priorities.

**Describe prior experience with projects of similar scope and complexity. Describe previous experience with regard to each proposed project category or collaboration with organizations that have expertise in those areas. Provide evidence that the Offeror possesses the necessary financial, material, equipment, facility, and personnel resources and expertise or the ability to obtain them. Provide evidence that the organization meets the eligibility requirements of Section II.C.I.**

Over the past four years, Town Administrator Gloria Kaasch-Buerger has successfully overseen the award and management of more than \$6 million in grant funding for the Town of Silverton. Under her leadership, the Town has developed the organizational capacity and financial infrastructure necessary to effectively manage large-scale projects. This includes the adoption of comprehensive financial policies and operational procedures to oversee complex initiatives involving multiple contractors, funding sources, and reporting requirements.

The Mountain Studies Institute (MSI) as well as our collaborators have extensive experience in the methodologies proposed in these projects. MSI has been restoring wetlands and fens in the San Juan Mountains for over twenty years and has many examples of successful projects. One to highlight is the Chattanooga Fen restoration project which restored a fen degraded by dredging. We have also been leaders in stream restoration in Southwest Colorado and have several successful projects in the Mancos River Watershed. We have all the implementation and monitoring equipment needed to be successful in this project including a hydraulic post pounder, hand tools, chain saws, drones, flow meters, gas flux meters, and vehicles.

**Offeror agencies, organizations, and individuals must meet the following standards of responsibility:**

*i. The Offeror selected must be responsible for project costs, including personnel, fringe benefits, supplies, operating expenses, travel, equipment, and capital items. The Offeror must provide the necessary financial, material, equipment, facility, personnel resources, and expertise to meet all contractual requirements and provide all services requested herein. Offeror must provide evidence that it possesses the necessary resources; or must present acceptable plans to subcontract for them; or must document commitment from, or an explicit arrangement with, a satisfactory source to provide them.*

We are fully prepared to meet all contractual requirements outlined in this opportunity. With the support of Mountain Studies Institute, we have access to critical expertise, facilities, and personnel necessary for successful project implementation. Additionally, we have already engaged a professional engineering firm to ensure the technical feasibility of the project and to assist with planning and execution. Our team has the financial, material, and logistical resources to cover all project costs, including personnel, fringe benefits, supplies, travel, and equipment. Where needed,

we have established clear subcontracting plans and formal commitments from partners to ensure that all required services and resources are secured and available for the duration of the project.

***ii. The Offeror must present a resume indicating experience with analogous projects and or the capacity to perform the scope of work. The resume shall include the project description and objectives, the contracting entity, the cost of the project, the schedule for implementation, cost overruns and technical difficulties encountered. In addition, the Offeror shall indicate its experience with developing funding sources for matching with the NRD funds.***

**Gloria Kaasch-Buerger** brings over 15 years of leadership and project management experience across non-profit, government, and corporate sectors. In her current role as Town Administrator for the Town of Silverton, Colorado (2021–Present), she has overseen and successfully implemented complex, multi-million-dollar infrastructure, housing, and community development projects. Her proven ability to lead projects from conception to completion demonstrates clear capacity to fulfill the scope of work described.

The town of Silverton has partnered with MSI to lead the restoration efforts related to this project. MSI is capable and prepared to meet all technical requirements that have been proposed in this project. MSI has a long standing history of very successful restoration efforts in the San Juan Mountains, and will be bolstering this experience further by partnering with Dr. Rod Chimner, a global wetland expert. MSI and its partners have all the equipment needed to complete this work including mini excavators, hydraulic post pounders, chainsaws, hand tools, drones, gas flux meters, and GIS software. MSI has a strong administrative team and has the systems and financial needs in place to receive and manage this grant. MSI has a strong track record of grant writing and is able to find multiple funding sources to achieve match requirements.

Our primary restoration leads will include Dr. Jake Kurzweil, and Dr. Rod Chimner. An explanation of their experience is provided below.

**Dr. Rod Chimner** is a Professor of Wetland Ecology at Michigan Technological University and an MSI research associate. Dr. Chimner is an expert on mountain fen restoration and will serve as the lead restoration ecologist. Dr. Chimner has been conducting research in peatland ecology and restoration for 30 years (<https://www.researchgate.net/project/Mountain-Peatland-Ecology-and-Restoration>). Currently, Dr. Chimner has projects in Colorado restoring two fens near Silverton with the BLM and several mountain fens in Colombia and Ecuador, plus several ongoing wetland/peatland restoration projects in the Great Lakes region and Indonesia.

**Dr. Jake Kurzweil** is the hydrologist for MSI and adjunct professor at Fort Lewis College and will be the project manager. Dr. Kurzweil's expertise is in watershed systems science with expertise in wetland and spring systems, hydrologic monitoring and modeling, and restoration. Dr. Kurzweil has

successfully developed large-scale prioritization plans for spring and wetland systems in coastal California (Kurzweil et. al 2021) across multiple landowners both public and private demonstrating the recent efficiency of large-scale efforts. Additionally, Dr. Kurzweil is currently working on multiple restoration efforts in the SW including process-based restoration of stream channels in the Mancos watershed of Colorado as well as assisting on the restoration for multiple high alpine fens in the San Juan mountains of Colorado with Dr. Chimner.

Below is a list of relevant restoration projects

- **Chattanooga fen** - MSI and Dr. Chimner designed and implemented the Chattanooga Fen project that restored 1,482 linear feet of anthropogenic ditches to improve the hydrologic regime of Chattanooga Fen. The restoration plan consisted of: building and installing check-dams, filling select ditch sections with peat and excelsior bales, and revegetating 450 square feet of bare peat. Transplanted native vegetation plugs and mulch were used to promote the growth of new vegetation and deter frost heaving. This successful project saw 2.27 acres of restored fen and is now incorporated into the surrounding system which has led to the recolonization of the area by multiple beavers.
- **Ophir fen** - MSI and Dr. Chimner designed and implemented the restoration of the Ophir fen near Silverton Colorado, which is a unique iron fen located at almost 12,000ft on Ophir pass, CO. The Ophir Pass Fen project combined the use of heavy equipment and hand work to grade 0.32 acres of bare area, infill 200 linear feet of ditches, install check-dams, and transplant and seed 0.53 acres of native vegetation. The project is still ongoing and will ultimately restore the hydrologic regime (3.62 acres), reduce erosion and sedimentation into Mineral Creek, and revegetate 0.53 acres of exposed bare peat.
- **Developing Mountain Fen Restoration Techniques** - Dr. Chimner conducted 4 years of research to develop restoration techniques for restoring ditches, gullies, and vegetation in mountain peatlands in Colorado. These techniques were fundamental to restoring fens in the San Juans (Chimner, R.A. 2011). Restoring sedges and mosses into frost-heaving iron fens, San Juan Mountains, Colorado. Mires and Peat 8: Art. 7. (Online: [http://www.mires-and-peat.net/map08/map\\_08\\_07.htm](http://www.mires-and-peat.net/map08/map_08_07.htm)).
- **Grasshopper fen** - Dr. Chimner conducted a site visit and wrote restoration plans for restoring a fen with a gulley located in the San Juan Mountains, Colorado. The fen was restored by the US Forest Service starting in 2019.
- **Warren Lakes fen** - Dr. Chimner conducted a site visit in 2011 and wrote a restoration plan for restoring a fen with ditches and frost-heaving soil for the US Forest Service.
- **Tambillios fen** - Dr. Chimner assessed and designed a restoration plan to restore a ditched and gullied fen in Huascarán National Park, Peru funded by USAID. The fen was restored in October 2015 by blocking 120 m of the ditch by hand with 22 wooden check dams that ranged

in size from 1–4 m wide, and 0.4–1.5 m high by researchers and local community members (Planas-Clarke et al. 2020).

- **Guatavita fen** - Dr. Chimner is working with Colombian peat scientists to develop a restoration plan and restore a very large, ditched peatland in the Colombian Andes. Restoration is scheduled to occur in 2023.
- **Pictured Rocks** - Dr. Chimner designed and restored a steeply eroding section of riparian ecosystem in 2015 along a river in Pictured Rocks National Lakeshore, Michigan.
- **Peepsock wet meadow** - Dr. Chimner conducted a site assessment and designed and conducted the restoration of a wet meadow in Houghton, MI (2020-2023). The wet meadow was degraded from altered hydrology and invasive species and was funded by the Great Lakes Restoration Initiative.
- **Ecuador fens** - Dr. Chimner (2016-current) has conducted training workshops and helped design fen restoration projects in the Ecuador Andes degraded by ditching and overgrazing (e.g., Suarez et al. 2022). Funding by USAID.
- **Forested wetland creation** - Dr. Chimner worked with the Michigan Department of Transportation in 2008 to design and help restore two forested wetlands for wetland mitigation credit. MDOT forested wetlands design and restoration (Kangas et al. 2016).
- **Forested wetland creation** - Dr. Chimner designed and conducted experiments (2018-2022) to develop techniques to create forested wetlands on post-mining sites.
- **Indonesian tropical peatland restoration** - Dr. Chimner collaborated on several peatlands' restoration projects in Indonesia (2017-current), including writing a restoration plan, conducting a workshop, and conducting restoration experiments (e.g., Tata et al. 2022.).

## Additional Figures

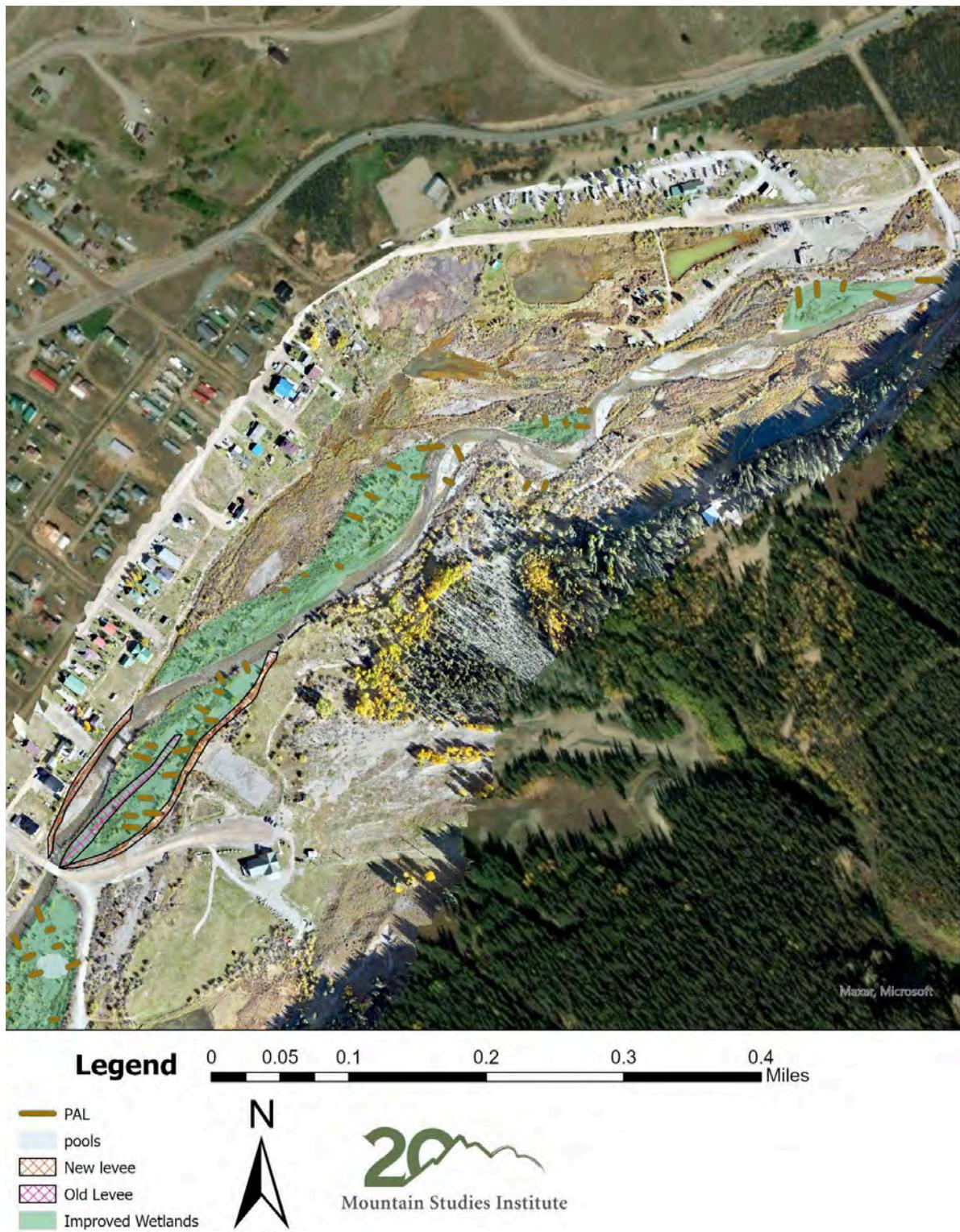


Figure 5: Design for instream and riparian wetland restoration of the upper half of the reach in Silverton.



Figure 6: Design for instream and riparian wetland restoration of the lower half of the reach in Silverton.

## **Full Budget Table**

1. Construction Budget
2. Design and Permit Budget
3. Total Project Budget
4. Engineering Budget Memo
5. Broker's Opinion of Value

ITEM #	ITEM DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL PRICE	LABOR COST	EQUIPMENT	CONTRACTUAL	SUPPLIES
<b>GENERAL</b>									
MOBILIZATION		1	LS	\$50,000.00	\$50,000.00	\$25,000.00	\$25,000.00		
CONSTRUCTION SURVEYING	LAYOUT AND STAKING	1	LS	\$10,000.00	\$10,000.00	\$7,500.00	\$2,500.00		
CONSTRUCTION ZONE TRAFFIC CONTROL	TRAFFIC CONTROL	1	LS	\$5,000.00	\$5,000.00	\$3,500.00	\$1,500.00		
REMOVAL OF DEBRIS	REMOVAL OF DEBRIS	1	LS	\$10,000.00	\$10,000.00	\$5,000.00	\$5,000.00		
CLEARING AND GRUBBING	CLEARING AND GRUBBING	2.00	AC	\$5,000.00	\$10,000.00	\$7,500.00	\$2,500.00		
<b>EROSION CONTROL</b>									
SITE EROSION CONTROL	ITEM, DELIVERY, LABOR, OVERHEAD	1	LS	\$50,000.00	\$50,000.00	\$20,000.00	\$5,000.00		\$ 25,000.00
SEDIMENT BASIN AND SEDIMENT CURTAIN	ITEM, DELIVERY, LABOR, OVERHEAD	1	LS	\$25,000.00	\$25,000.00	\$15,000.00	\$10,000.00		
VEHICLE TRACKING PAD	ITEM, DELIVERY, LABOR, OVERHEAD	4	EA	\$5,000.00	\$20,000.00	\$4,000.00			\$ 16,000.00
<b>FEN (1.52 ACRES)</b>									
SOIL REMOVAL AND RELOCATION	16" OF TOPSOIL ACROSS 1.52 AC FOR FEN	2	AC	\$26,666.00	\$40,532.32	\$24,319.39	\$16,212.93		
WETLAND SEED	ITEM, DELIVERY, LABOR, OVERHEAD	1.52	AC	\$1,000.00	\$1,520.00	\$760.00			\$ 760.00
ASPEN EXCELSIOR	ITEM, DELIVERY, LABOR, OVERHEAD	1.52	AC	\$1,500.00	\$2,280.00	\$1,140.00			\$ 1,140.00
<b>WETLAND &amp; RIPARIAN (22.15 ACRES)</b>									
SOIL REMOVAL AND RELOCATION	6" OF SUBSTRATE ACROSS 22.15 acres	7,146	CY	\$30.00	\$214,380.00	\$128,628.00	\$85,752.00		
TOPSOIL REPLACEMENT AND TRANSPORT	6" OF TOPSOIL ACROSS 22.15 acres	7,146	CY	\$75.00	\$535,950.00	\$160,785.00	\$160,785.00		\$214,380.00
UNCLASSIFIED EXCAVATION AND GRADING	EXCAVATION AND GRADING	6	AC	\$10,000.00	\$60,000.00	\$30,000.00	\$30,000.00		
WETLAND/RIPARIAN SEED (BROADCAST)	ITEM, DELIVERY, LABOR, OVERHEAD	22.15	AC	\$1,000.00	\$22,150.00	\$11,075.00			\$ 11,075.00
WILLOW CUTTINGS	ITEM, DELIVERY, LABOR, OVERHEAD	9,716.00	EA	\$1.00	\$9,716.00	\$7,772.80			\$ 1,943.20
ASPEN EXCELSIOR	ITEM, DELIVERY, LABOR, OVERHEAD	11.00	AC	\$1,500.00	\$16,500.00	\$8,250.00			\$ 8,250.00
BRUSH TRENCHES	ITEM, DELIVERY, LABOR, OVERHEAD	300.00	LF	\$15.00	\$4,500.00	\$2,250.00			\$ 1,000.00
POST ASSISTED LOG STRUCTURE	ITEM, DELIVERY LABOR, OVERHEAD, OVERSIGHT	110.00	EA	\$764.00	\$84,040.00	\$54,626.00	\$21,010.00		\$ 8,404.00
<b>CEMENT CREEK TREATMENT WETLANDS (2.85 ACRES)</b>									
SOIL REMOVAL AND RELOCATION	6" OF SUBSTRATE ACROSS 2.85 acres	2,307	CY	\$30.00	\$69,210.00	\$41,526.00	\$27,684.00		
GRADING	GRADING	3	AC	\$6,500.00	\$18,525.00	\$9,262.50	\$9,262.50		
WETLAND SEED	ITEM, DELIVERY, LABOR, OVERHEAD	2.85	AC	\$1,000.00	\$2,850.00	\$1,425.00			\$ 1,425.00
ASPEN EXCELSIOR	ITEM, DELIVERY, LABOR, OVERHEAD	2.85	AC	\$1,500.00	\$4,275.00	\$2,137.50			\$ 2,137.50
BRUSH TRENCHES	HARVESTING, INSTALLATION	300.00	LF	\$15.00	\$4,500.00	\$2,250.00	\$1,250.00		\$ 1,000.00
WILLOW CUTTINGS	HARVESTING, INSTALLATION	430.00	EA	\$1.00	\$430.00	\$344.00			\$ 86.00
<b>CEMENT CREEK BIFURCATION</b>									
EXCAVATION & FOUNDATION PREPARATION		27000	CY	\$26.00	\$702,000.00	\$351,000.00	\$351,000.00		
EROSION CONTROL FABRIC		1000	SY	\$10.00	\$10,000.00	\$5,000.00			\$ 5,000.00
POURED CONCRETE WALL/STACKED STONE BLOCKS	ITEM, DELIVERY, LABOR, OVERHEAD	900	EA	\$250.00	\$225,000.00	\$81,000.00			\$144,000.00
<b>BRIDGES</b>									
PRE-ENGINEERED BRIDGE FOR RIVER CROSSING -South Bridge	PRE-ENGINEERED BRIDGE 42'L x 8'W	42	LF	\$2,238.00	\$122,194.80	\$18,194.80	\$10,000.00		\$ 94,000.00
<b>TRAILS</b>									
CLEARING AND GRUBBING	CLEARING AND GRUBBING	0.60	AC	\$5,000.00	\$3,000.00	\$2,400.00	\$600.00		
SITE PREPARATION & GRADING	SITE PREPARATION AND GRADING	0.60	AC	\$6,500.00	\$3,900.00	\$2,340.00	\$1,560.00		
ADA ACCESSIBLE RAMPS	48-INCH WIDE ADA COMPLIANT RAMPS	2.00	EA	\$50,000.00	\$100,000.00	\$54,000.00			\$ 46,000.00
COMPACTED GRAVEL TRAIL- 48-INCH WIDE- ADA COMPLIANT	COMPACTED PEA GRAVEL, 6-INCH THICK	2,934.00	SY	\$29.00	\$85,086.00	\$41,076.00			\$ 44,010.00

Animas River Corridor Project  
Design and Permitting Budget  
\*\*Note: these expenses are not allowed under NRD funding and will be sought elsewhere. Please see project narrative.

ITEM #	ITEM DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL PRICE
SOIL TESTING	FIELD SAMPLING, LAB RESULTS,	1	LS	\$50,000.00	\$50,000.00
TOPO SURVEY	TOPOGRAPHIC SURVEY TO OBTAIN	83	AC	\$1,000.00	\$83,000.00
100% DESIGN AND SPECS & ENVIRONMENTAL PERMITTING	CWA 404 AND 401/ USFWS ESA/	1	LS	\$325,000.00	\$325,000.00
CONSTRUCTION OVERSIGHT		160	HOUR	\$200.00	\$32,000.00
			<b>TOTAL</b>		<b>\$490,000.00</b>

Animas River Corridor Project  
Total Budget by Category

PERMITTING, DESIGN, CONSTRUCTION OVERSIGHT	GENERAL	EROSION CONTROL	FEN RESTORATION	RIPARIAN/WETLAND RESTORATION	TREATMENT WETLAND	CEMENT CREEK BIFURCATION	BRIDGES	TRAILS	OPTIONAL ITEMS	CONTINGENCY (20%)	TOTAL
\$490,000.00	\$85,000.00	\$95,000.00	\$44,332.32	\$947,236.00	\$99,790.00	\$937,000.00	\$122,194.80	\$191,986.00	\$1,525,425.00	\$504,507.82	\$5,042,471.94

## MEMO

Project name Silverton NRD Proposal Support  
Project no. 1940112739  
Client Town of Silverton  
To Gloria Kaasch-Buerger, CPM  
Dayna Kranker  
Prepared by Sara Copp Franz, PWS, CERP  
Approved by David Heinze, PE

Ramboll Americas Engineering Solutions, Inc. (Ramboll) is pleased to present this memorandum as part of our ongoing collaboration with the Town of Silverton (Town) on preparing materials to assist in obtaining Natural Resources Damage Assessment funds for the Animas River Corridor Revitalization Project. The primary objective of this project is to remediate and revitalize the degraded two-mile segment of the Animas River that passes through Silverton. This section has been adversely affected by historical activities, including abandoned dumpsites, mining operations, wetlands dewatering, river channel dredging and most recently the Gold King mine release. Our goal is to improve the ecological health of this corridor while promoting recreation, historic preservation, and community engagement through artistic expression.

Date April 18, 2025

Ramboll  
1999 Broadway  
Suite 2225  
Denver, CO 80202  
USA

T+1 303 382 5460  
F+1 303 382 5499  
<https://ramboll.com>

## 1 Company information

**Ramboll's mission as a sustainable society consultant is to minimize negative impacts and maximize positive effects on the environment, creating sustainable societies where people and nature thrive. This purpose guides our ambitions, everyday behavior, and dedication to creating value for our stakeholders. In Colorado and the West, Ramboll maintains a robust team of ecological services professionals, led by Sara Copp Franz. Our exceptionally well-qualified and diverse staff includes professional wetland scientists, professional engineers and geologists, certified ecologists, fluvial geomorphologists, wildlife and fisheries biologists, hydrologists, watershed specialists, water quality specialists, and more. Ramboll's global practice is focused on delivering science and engineering services dedicated to conservation, protection, and restoration of the natural environment, and fostering balance between nature and human use. For over 20 years, Ramboll has been providing high-quality environmental and engineering solutions to both public and private sector clients in Colorado. Ramboll has a reputation for solving difficult challenges and providing high-quality technical services. Our terrestrial and aquatic ecologists, wildlife biologists, and restoration experts offer comprehensive, nature-based solutions to survey, permit, design, restore, reclaim, rehabilitate, and monitor our surroundings to create resilient and sustainable landscapes. Our Team's expertise in stream ecology, site-specific**

restoration, and innovative bioengineering techniques enable clients to achieve project goals on complex sites while serving as models for industry peers, the community, and regulatory agencies. As a full-service company, we assist clients through all phases of projects, from system evaluation and problem identification to solution design, implementation, regulatory permitting, and long-term monitoring.

## 2 Background

We understand that the Town has wanted to revitalize the area along the Animas River through town for decades. The Animas River Corridor Revitalization Project (2006) was one of six national Demonstration Projects being supported by the Federal Partnership Mine-Scarred Lands (MSL) Initiative. This interagency partnership is working with local communities to explore approaches to mine cleanup and community revitalization. San Juan County, Colorado was selected to receive technical assistance to develop a plan to clean up and reuse mining properties along the Animas River. The project focused on two mixed public and private ownership project sites, one of which is a two-mile section of the Animas River through the Town of Silverton, the only incorporated town and San Juan County seat. The two-mile segment of the Animas River that passes through the town of Silverton is degraded from abandoned dumpsites, prior mining activities, dewatering of wetlands, and river channels dredged for flood control and gravel mining and most recently from the Gold King mine release. The goal of the Animas River Corridor Revitalization Plan was for town and county residents to develop an action plan that incorporates remediation, ecological restoration, recreation development, historic preservation, and **the arts**. **The plan's focus is the protection, improvement, and expansion of riparian ecosystems (vegetation, wetlands, habitat); development of recreational amenities (trails, winter sports, whitewater accessibility); expansion of community art and performance spaces; and development of interpretative exhibits of San Juan County's mining, railroad and mountain heritage. It is important that historical preservation and artistic expression are incorporated into all activities.** The Town also updated their Area Trails Plan in 2019, **and the primary goal of this plan is to diversify the community's recreation economy while simultaneously improving the quality of life for residents through the development of non-motorized trails for hikers, bikers, and equestrians.** Secondly, the plan aims to document existing trails to preserve public access. A third goal is to identify key unofficial trails and provide support to the Bureau of Land Management (BLM) and the United States Forest Service (USFS) for inclusion into their trails systems, so these trails may benefit from exposure in official trail maps and be eligible for assistance from these agencies.

## 3 Natural Resources Damage Assessment (NRDA)

In May 2023, the Colorado Natural Resources Trustees approved a \$5 million settlement with the federal government to resolve natural resource damages claims at the Bonita Peak Mining District Superfund Site, including damages from the 2015 Gold King Mine blowout. The settlement will enable the trustees to fund projects to restore damaged natural resources from the spill and other releases of hazardous substances within the Bonita Peak Mining District (BPMD) Superfund Site. The Trustees will consult with regional stakeholders—including local governments, not-for-profit groups, and community members—to solicit proposals, and allocate the money for environmental restoration projects.

#### 4 Cost Estimate

This memorandum provides context for the submitted schematic design cost estimates developed to support the Town's proposal to the Colorado Natural Resources Trustees and other grant agencies. We understand the Town's goal to keep restoration costs reasonable in collaboration with the other entities submitting grant applications. While restoration project costs in Silverton can vary, our experience shows that restoration costs in the Front Range are significantly higher. However, discussions with the Mountain Studies Institute have identified potential cost savings in certain areas, such as using local sources, volunteers, and eliminating containerized planting, among other strategies.

Additionally, the cost of bifurcating Cement Creek will vary depending on the final design. The rendering presents both the most optimistic and the most expensive bifurcation options, while the cost estimate reflects a lower-cost option. Ramboll did not estimate the highest-cost option, as we believe it could hinder the Town's chances of securing grants due to the high costs of concrete, boardwalks, and earth moving.

If the Town is successful in obtaining a grant and the project proceeds, we recommend reassessing the focus areas and overall scope to achieve the desired goals using the available funds. Furthermore, Ramboll suggests going out to bid on these items, which will likely be required as part of a grant contract. Please note that unit costs and total costs, especially for grading and excavation, may be higher than our initial estimate. Ramboll recognizes the importance of this project in restoring damages to the natural resources in the Town of Silverton and commit to working with the Town to restore as much of the Animas River Corridor with the funds that are available.



To: Gloria Kassch-Buerger, Silverton Town Administrator  
From: Justin Osborn, Realtor & Accredited Land Consultant  
Date: February 6, 2025  
Subject: Valuation for 2 BLM Properties Near Kendall

Gloria,

Thank you for reaching out to me regarding my opinion of the current market value for the BLM tracts known as Tract A (68.65 acres) and Tract B (24.06 acres). See attached map I created showing the two parcels. Note that my acreage sizes are estimates, and the two parcels would need to be surveyed in order to determine the exact acreage.

Here are the recent land sales in Silverton I'm looking at as comparable sales:

<u>Parcel #</u>	<u>Closing Date</u>	<u>Acres</u>	<u>Selling Price</u>	<u>Price Per Acre</u>
Parcel # 48290000010033	10/10/24	61.92*	\$405,000	\$6,541/acre
Parcel # 47770140040116	9/27/2024	11.19	\$277,000	\$24,754/acre
Parcel # 48290190010006	8/29/2024	17.94	\$485,000	\$27,035/acre
Parcel # 47730310050041	5/28/2024	10.33	\$235,000	\$22,749/acre

\* Undevelopable land due to floodplain and wetlands

Due to the difference in size of the two BLM parcels, economies of scale are going to be a factor. The larger acreage parcel is going to be valued at a lower price per acre, and the smaller acreage parcel is going to be valued at a higher price per acre.

Opinion of Value for Tract A is \$10,000/acre = \$680,650

Elevation range of 9250' - 9720' makes this less usable and less valuable per acre than Tract B

Opinion of Value for Tract B is \$21,000/acre = \$505,260

Elevation range of 9300' – 9360' makes this very usable and more valuable per acre than Tract A

Please note these are my opinions of value based on the current real estate market at this time. If you need a formal appraisal, I've got good land appraisers I can recommend. Please let me know if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Justin Osborn".

Justin Osborn, Realtor & Accredited Land Consultant  
The Wells Group Real Estate Brokerage  
Email: [Justin@wellsgroupdurango.com](mailto:Justin@wellsgroupdurango.com)  
Cell: 970-946-3935

## **Application/Assurances**

If applicable, provide proof of organizational status. If the Offeror claims non-profit tax-exempt status under section 501 (c)(3) of the IRS code, then the Offeror shall submit proof of status.

The applicant is a local municipal government. Not applicable.

## **Letters of Support**

1. Resolution 2025-09 A Resolution of the Town of Silverton Supporting a Grant Application for Natural Resources Damages Funds
2. San Juan County Letter of Support
3. San Juan Development Association Letter of Support
4. Bureau of Land Management Letter of Support
5. Silverton Public Schools Letter of Support
6. Silverton Family Learning Center Letter of Support
7. Silverton Senior Center Letter of Support
8. Bonita Peak Mining District Community Advisory Group Letter of Support
9. Great Outdoors Colorado Letter of Support
10. Southwestern Water Conservation District Letter of Support
11. Kingfisher Wild Land Trust Letter of Support
12. Mountain Studies Institute Letter of Support



## RESOLUTION NO. 2025-09

### **A RESOLUTION OF THE TOWN OF SILVERTON SUPPORTING A GRANT APPLICATION FOR NATURAL RESOURCES DAMAGES FUNDS TO ADVANCE THE ANIMAS RIVER CORRIDOR PROJECT PLAN**

WHEREAS, the Animas River is a vital environmental, recreational, and cultural resource for the Town of Silverton and the surrounding region; and

WHEREAS, the Animas River Corridor Project Plan, adopted by the Town in 2019 with overwhelming community support, outlines a comprehensive vision for restoring and revitalizing the river corridor, particularly in response to long-standing environmental degradation, including the 2015 Gold King Mine Spill; and

WHEREAS, the Animas River Corridor Project is also identified as a key priority in the Town of Silverton's 2022 Compass Master Plan, further emphasizing the Town's commitment to sustainable natural resource management and community-driven revitalization; and

WHEREAS, the Natural Resources Damages Funds (NRD Funds), facilitated through the Bonita Peak Mining District Superfund process, are intended to support restoration projects that address injuries to natural resources caused by releases of hazardous substances; and

WHEREAS, the Town of Silverton is seeking \$1.72 million in NRD Funds to implement key elements of the Animas River Corridor Project Plan; and

WHEREAS, the required non-federal match for the grant will be met through the conveyance of approximately 92 acres of land from the Bureau of Land Management (BLM), whose appraised value will serve as the matching contribution; and

WHEREAS, the proposed project will provide long-term environmental, ecological, recreational, and economic benefits to the Town of Silverton and the broader Animas River watershed;

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF TRUSTEES OF THE TOWN OF SILVERTON, COLORADO:

#### **Section 1. Support for Grant Application**

The Town of Silverton hereby expresses its strong support for the application for \$1,720,000.00 in Natural Resources Damages Funds to implement the Animas River Corridor Project Plan.

#### **Section 2. Alignment with Community Plans and Priorities**

The proposed project directly supports the goals and objectives of both the Animas River Corridor Project Plan, adopted in 2019, and the Town's 2022 Compass Master Plan, reflecting

the community's clear and ongoing priorities for environmental restoration and stewardship of the Animas River corridor.

**Section 3. Matching Contribution**

The Board acknowledges that the required grant match will be provided through the appraised value of approximately 92 acres of land to be conveyed by the Bureau of Land Management valued at \$1,185,910.

**Section 4. Commitment to Implementation**

The Town commits to working collaboratively with regional, state, and federal partners to implement the project in a timely and responsible manner and to ensure that the environmental restoration and community benefits of the project are fully realized.

**Section 5. Effective Date**

This Resolution shall take effect immediately upon its adoption.

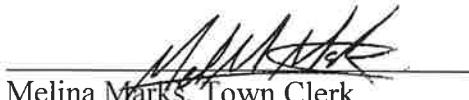
RESOLVED, APPROVED, AND ADOPTED this 28<sup>th</sup> day of April, 2025.

TOWN OF SILVERTON, COLORADO



Dayna Kranker, Mayor

ATTEST:



---

Melina Marks, Town Clerk



# SAN JUAN COUNTY COLORADO

1557 GREENE STREET  
P.O. BOX 466  
SILVERTON, COLORADO 81433  
PHONE/FAX 970-387-5766 [admin@sanjuancolorado.us](mailto:admin@sanjuancolorado.us)

San Juan County Board of Commissioners  
P.O. Box 466  
Silverton, CO 81433

May 14, 2025

To the Trustees of the Natural Resources Damages Fund:

On behalf of the San Juan County Board of Commissioners, we write to express our strong support for the Town of Silverton's Animas River Corridor Project, a critical and community-driven initiative that directly addresses restoration of long-damaged natural resources and improves public access to one of the region's most significant waterways.

This project represents the culmination of decades of work by the Animas River Stakeholders Group and the Community Advisory Group (CAG) and is rooted in a broad community and stakeholder collaboration. The Animas River Corridor Project directly restores impaired natural resources by improving water quality, stabilizing riparian areas, and repairing degraded riverbanks. It also enhances community access and recreational opportunities through the construction of thoughtfully designed trails, bridges, and interpretive features that promote sustainable and respectful use of the river corridor.

The Animas River flows through the heart of Silverton and has long been impacted by the legacy of mining. San Juan County and the Town of Silverton have been disproportionately affected by these historic activities, and we believe the Animas River Corridor Project is a highly appropriate and timely application of Natural Resources Damages (NRD) funding. The project will not only restore ecological health, but will also support our local economy by attracting visitors, improving recreational infrastructure, and contributing to the vibrancy and resilience of our community.

The San Juan County Commissioners also support the broader set of projects proposed by the NRD Regional Working Group, and we endorse the Animas River Corridor Project as a priority effort within that portfolio. We urge the Trustees to consider this project for NRD funding and recognize its potential to deliver lasting environmental, recreational, and economic benefits to our region.

Thank you for your consideration, and for your ongoing commitment to restoring the natural resources of southwest Colorado.

Sincerely,

Austin Lashley, Chairman  
San Juan County Board of Commissioners



# SAN JUAN DEVELOPMENT

May 1, 2025  
Natural Resource Damages Fund  
Board of Trustees  
1300 Bradway, 10th Floor  
Denver, CO 80203

RE: Support for the Town of Silverton's Application to the Natural Resource Damages Fund for the Animas River Corridor Project

To Whom It May Concern,

On behalf of San Juan Development Association (SJDA), I am pleased to express our strong support for the Town of Silverton's application to the Natural Resource Damages (NRD) Fund for the Animas River Corridor (ARC) Revitalization Project.

As an organization focused on promoting the long-term economic vitality and livability of our community, SJDA views this project as a critical opportunity to align environmental restoration with local economic development goals. Each year, Silverton welcomes more than 400,000 visitors via the Durango & Silverton Narrow Gauge Railroad, making tourism the backbone of our local economy. These visitors arrive with expectations of natural beauty, recreational access, and a welcoming community environment—expectations that are directly impacted by the condition of our river corridor.

Unfortunately, the Animas River through Silverton—particularly the segment between the Lackawanna Mill site and the confluence with Mineral Creek—has suffered decades of degradation from legacy mining, including wetland loss, river channelization, and poor water quality, especially downstream of the Cement Creek confluence. These impacts have not only harmed our natural resources but have also limited the potential for river-based recreation and public enjoyment—key economic drivers for mountain communities like ours.

The ARC Project will directly support Silverton's economic future by revitalizing over 1.5 miles of river corridor, restoring 16+ acres of wetlands and floodplain, and constructing one mile of walking trails and two pedestrian bridges to encourage recreational use and tourism. The project complements the community's long-term vision for downtown and river corridor improvements, enhancing the visitor experience while creating quality-of-life improvements for residents. Moreover, restoration of these natural systems will support downstream water quality and regional recreational economies far beyond Silverton.

Town beautification is a core priority for the San Juan Development Association, and the ARC Project represents a rare opportunity to link ecological restoration with visual and functional improvements to one of Silverton's most prominent natural assets. From improving habitat and hydrology to creating accessible walking paths and scenic overlooks, this project embodies the kind of investment that helps sustain and grow small-town economies.

We respectfully urge you to support the Town of Silverton's application. This project will not only restore damaged resources but also serve as a catalyst for economic revitalization, tourism enhancement, and community pride.

Sincerely,

Sarah Moore  
Director and Main Street Manager  
San Juan Development Association  
Silverton, CO  
970-316-2129



# United States Department of the Interior



BUREAU OF LAND MANAGEMENT  
Gunnison Field Office  
2500 E New York Ave  
Gunnison, Colorado 81230

In Reply Refer To:  
1703 (CO-S06)

May 23, 2025

Mark Rudolph  
Bonita Peak Mining District NRD Project Manager  
Colorado Department of Public Health and Environment  
Hazardous Materials and Waste Management Division  
4300 Cherry Creek Drive South  
mark.rudolph@state.co.us

Re: Bonita Peak Mining District NRD Solicitation for Project Proposals – Letter of Support

Dear Mr. Rudolph:

I am writing to express my strong support for the projects submitted by the local workgroup for funding to support mining reclamation projects in the Animas River Basin in Colorado through the Bonita Peak Mining District Natural Resources Damage Funds (NRD).

The Bureau of Land Management (BLM) Gunnison Field Office has participated in and tracked the developments related to the NRD funding and we have a vested interest in the sites proposed for restoration. I am deeply impressed by the NRD workgroup participants' commitment to environmental stewardship and their dedication to support these mining mitigation and reclamation projects.

While we are supportive of all proposed projects, the Upper Animas Stream and Wetland Restoration Project and the Animas River Corridor project are of critical importance to the ecological health of our watershed as these directly work to restore our headwaters, providing improvements to the ecological function for upstream and downstream stakeholders. These aspects of the project align with the BLM's priorities regarding sustaining the health and diversity of public lands. The Mountain Studies Institutes (MSI) and Town of Silverton's (TOS) improvements to an injured resource, as outlined in their grant application, demonstrate a thorough understanding of the challenges involved and a commitment to implementing effective and sustainable solutions.

Specifically, the BLM is supportive of the restoration of high alpine fens and wetlands and streams along the Animas River near Silverton. The BLM is working through the process of transferring the Kendall Mountain Recreation and Public Purposes Lease area to the Town of Silverton with a goal of transferring this property in early 2026.

This parcel is key to the Animas River Corridor project. The BLM will also work directly with MSI on the restoration of an alpine fen in California Gulch that has been degraded by mass wasting events stimulated by mining and road access.

The NRDA settlement funds provide a significant opportunity for the Upper Animas River watershed, as it will support restoration of water resources impacted by past mining activities. We are excited by the opportunities these settlement funds are providing southwestern Colorado. Thank you for your consideration of this worthy proposal.

If you would like to discuss further, please contact me at (970) 642-4941 or [jkaminsky@blm.gov](mailto:jkaminsky@blm.gov).

Sincerely,

Jon F. Kaminsky  
Field Manager  
Gunnison Field Office

PO Box 128  
1160 Snowden Street  
Silverton, CO 81433  
[www.silvertontschool.org](http://www.silvertontschool.org)



Kim White, Superintendent  
Phone: (970)387-5543  
Fax: (970)387-5791  
[supt@silvertontschool.org](mailto:supt@silvertontschool.org)

May 13, 2025

Dear Trustees of the Natural Resources Damages Fund,

On behalf of the Silverton School District, I am writing to express our strong support for the proposed Animas River Corridor Restoration Project. This transformative initiative will restore critical wetlands and improve recreational access along the Animas River Corridor, directly benefiting the youth and families of Silverton, as well as our community as a whole.

The Animas River Corridor holds significant ecological, historical, and recreational value. Unfortunately, legacy mining practices have had a lasting impact on this area, degrading the water quality and limiting access to this important natural resource. The proposed project represents a vital step forward in restoring the health of the river ecosystem and enhancing recreational opportunities for Silverton's residents and visitors.

From an educational perspective, this project presents invaluable opportunities for our students. The restoration efforts will create safe, accessible spaces for students and their families to enjoy outdoor activities such as wading, fishing, kayaking, and paddleboarding. Furthermore, the planned trails and bridges will provide additional avenues for physical activity, including walking, running, and biking, all of which are vital for the healthy development of our students.

Additionally, the ongoing wetland restoration work offers meaningful opportunities for student engagement through volunteerism and citizen science initiatives. By involving youth in hands-on environmental restoration efforts, we can foster a deep sense of environmental stewardship and community pride, providing them with real-world learning experiences that complement their classroom education.

The Animas River Corridor Restoration Project aligns with the long-standing vision and efforts of the Silverton community to revitalize and restore the river corridor for public benefit. The Silverton School District has witnessed firsthand the positive impact that outdoor recreation and community-driven projects have on the well-being of our students and families, and we believe that this project will further strengthen our community ties.

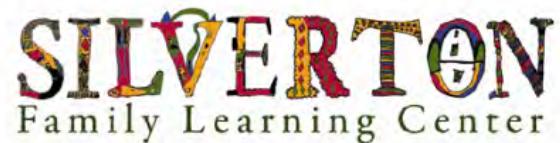
We strongly encourage the Trustees of the Natural Resources Damages Fund to approve funding for this critical project, which will not only restore a vital natural resource but also provide lasting benefits to our youth, the environment, and the entire Silverton community.

Thank you for your time and consideration of this important initiative.

Sincerely,

*Kim White*

Superintendent  
Silverton School District



Dear Mark Rudolph,

We are writing to express our strong support for the Animas River Corridor (ARC) Project submitted by the Town of Silverton for funding through the Bonita Peak Mining District Natural Resources Damage Funds.

As the Board of Directors of Silverton Family Learning Center, we have followed the development of the Animas River Corridor Project and the community visioning sessions related to river restoration and recreational access. Our center serves the youngest members of our community, children ages 0-5, and we are deeply impressed by the commitment to environmental stewardship demonstrated in this project and its potential to create meaningful early learning opportunities.

While we are supportive of all proposed projects, the Animas River Corridor Project is of critical importance to early childhood development in our community. The project's focus on restoring damaged wetlands, improving water quality, and providing safe recreational access aligns perfectly with our nature-based educational philosophy. Even our youngest learners benefit immensely from safe, accessible outdoor spaces where they can explore, discover, and connect with nature during their most formative years.

Specifically, we are particularly supportive of the creation of safe walking trails and pedestrian bridges, which will allow families with young children to safely experience the river environment together. The wide, accessible pathways will accommodate strollers and provide secure spaces for toddlers to practice walking skills while experiencing nature. The restoration of wetlands will create opportunities for our youngest community members to observe wildlife, explore natural textures, and develop sensory awareness in a safe, controlled setting.

The Animas River Corridor Project will benefit all learners in Silverton. For our early childhood program, it will provide an exceptional outdoor classroom where children can develop curiosity, wonder, and respect for the natural world. For elementary and secondary students in our community, it will offer hands-on learning opportunities about ecological restoration, watershed science, and environmental stewardship. For all residents, it creates a living laboratory to observe and appreciate our local ecosystem.

By creating these accessible natural spaces, the project supports our center's commitment to nature-based early childhood education and helps build a foundation for environmental stewardship from the earliest ages. Research consistently shows that positive experiences in nature during early childhood foster lifelong environmental awareness and appreciation.

These settlement funds provide a significant opportunity for our watershed and our educational programs, as they will support restoration projects for water resources impacted by mining activities while creating valuable learning spaces for children of all ages. We are excited by the opportunities these settlement funds are providing southwestern Colorado and the families of our community. Thank you for your consideration of this worthy proposal.

Sincerely,

The Board of Directors  
Silverton Family Learning Center

May 7, 2025

**Silverton Senior Center**  
PO Box 488  
Silverton, CO 81433

**May 2, 2025**

**To the Trustees of the Natural Resources Damages Fund:**

On behalf of the Silverton Senior Center, I am writing to express our full support for the Town of Silverton's Animas River Corridor (ARC) Project proposal. This long-standing, community-driven initiative represents an important step toward both restoring our natural resources and creating a more accessible and inclusive outdoor environment for all residents—particularly older adults.

The ARC Project promises to transform the Animas River corridor, a historically underutilized asset, into a vibrant space that provides safe and accessible recreational opportunities for people of all ages and abilities. For Silverton's senior population, improved connectivity and accessibility along the river corridor will make a profound difference. The project includes enhancements to walking and biking infrastructure that will allow older adults to safely enjoy the natural beauty of the area, encouraging active lifestyles and greater community engagement.

By expanding access to trails, fishing spots, bird-watching areas, and paddling opportunities, the ARC Project will not only improve quality of life for our seniors but also restore and protect the natural environment that is vital to our community's identity and well-being. These improvements are critical to ensuring that all residents—regardless of age—can access and benefit from this vital resource.

The Silverton Senior Center urges your favorable consideration of this proposal. We believe the ARC Project is a wise and much-needed investment in the health, resilience, and future of our town.

Sincerely,  
Keri Metzler

Director  
Silverton Senior Center

Bonita Peak Community Advisory Group  
Bonita Peak Mining District Superfund

May 23, 2025

Mark Rudolph  
Bonita Peak Mining District NRD Project Manager  
Colorado Department of Public Health and Environment  
Hazardous Materials and Waste Management Division  
4300 Cherry Creek Drive South  
mark.rudolph@state.co.us

Re: Bonita Peak Mining District NRD Solicitation for Project Proposals – Letter of Support

Dear Mr. Rudolph,

The Bonita Peak Mining District Community Advisory Group (CAG) strongly supports the projects submitted by the local workgroups for funding to support mining reclamation projects in the Animas River Basin in Colorado through the Bonita Peak Mining District Natural Resources Damage Funds (NRD).

At the CAG, we have been following the NRD workgroup process and have direct knowledge of some of the proposed reclamation sites. We have been impressed by the NRD workgroup participants' commitment to environmental stewardship and their dedication to support mining impacted water mitigation and reclamation projects throughout the Animas River drainage basin.

The CAG is supportive of all the proposed projects as they address long-term damage that has occurred throughout the Animas basin. We are excited about the Upper Animas and the Town of Silverton proposals due to the location in the Upper Animas drainage area. The Town of Silverton's Animas River Corridor Project is an excellent project as it has long-standing community support and buy-in (as evidenced by the community approved Animas River Corridor Plan and long standing support by CAG and Animas River Stakeholders Group). It directly restores damaged natural resources, including 7 acres of fens, and 18 acres of riparian wetlands and creates multiple use recreational opportunities and access through improved water quality, fish habitat, trails, and bridges. The Upper Animas proposal addresses the restoration needs in San Juan County where natural resources are critical habitat and have become a major economic driver for outdoor recreation.

We appreciate the opportunities these settlement funds are providing southwestern Colorado for restoration projects that address water resources impacted by mining

activities. Thank you for considering these worthy proposals.

Sincerely,

Chara Ragland, Ph.D., Chair, Bonita Peak CAG  
Parker Newby, Vice-Chair, Bonita Peak CAG



Mike Wight, Southwest Program Officer  
[mwight@goco.org](mailto:mwight@goco.org), (720)-576-4062

May 13<sup>th</sup>, 2025

Mark Rudolph  
BPMD NRD Project Manager  
Colorado Department of Public Health and Environment Hazardous  
Materials and Waste Management Division  
4300 Cherry Creek Drive South  
Denver, CO 80246-1530

Dear Mr. Rudolph,

I am writing to express Great Outdoors Colorado's (GOCO) support for the Bonita Peak Mining District Natural Resource Damages Trust Fund stakeholder group's project proposals. Ongoing stakeholder meetings have resulted in a community-supported, watershed-wide list of projects intended to address recent and historic hazardous substance releases from the Bonita Peak Mining District. The proposed projects will restore the natural resources injured from the legacy of mining-related impacts in the upper Animas watershed.

GOCO was created by a voter approved constitutional amendment in 1992 to distribute a portion of state lottery proceeds to preserve and enhance the state's parks, trails, wildlife, rivers, and open spaces. Since our inception, GOCO has distributed over \$1.4 billion in support of 5,800 projects across all of Colorado's 64 counties.

The five projects identified by the NRD stakeholder group in this proposal represent a collaboratively developed suite of timely efforts which together will positively impact public access and recreation, improve wildlife habitat, restore degraded stream banks, and improve water quality throughout the Animas River basin in Colorado. The selected projects showcase clear alignment with GOCO's values of Resource Conservation, Outdoor Stewardship, Community Vitality, and Equitable Access. The benefits to residents, visitors, wildlife, and natural resources include improved river function, increased public access for outdoor recreation, positive contributions to the tourism economy and improved resiliency of wildlife and habitat in Southwest Colorado.

The NRD stakeholder group is a diverse, community-led collaborative displaying leadership in project planning and implementation with a strong track record of success in watershed management and recreation development. GOCO applauds this effort and respectfully requests approval of this NRD proposal. Please do not hesitate to reach out with any questions.

Sincerely, *Mike Wight*

1900 Grant St. | Ste. 725 | Denver, CO 80203 | 303-226-4500 | GOCO.org



## THE SOUTHWESTERN WATER CONSERVATION DISTRICT

Developing and Conserving the Waters in the  
SAN JUAN AND DOLORES RIVERS AND THEIR TRIBUTARIES  
West Building – 841 East Second Avenue  
DURANGO, COLORADO 81301  
(970) 247-1302

05-08-2025

Mark Rudolph

Bonita Peak Mining District NRD Project Manager  
Colorado Department of Public Health and Environment  
Hazardous Materials and Waste Management Division  
4300 Cherry Creek Drive South  
[mark.rudolph@state.co.us](mailto:mark.rudolph@state.co.us)

Re: Bonita Peak Mining District NRD Solicitation for Project Proposals – Letter of Support

Dear Mark Rudolph,

I am expressing my strong support for the projects submitted by the local workgroup for funding to support mining reclamation projects in the Animas River Basin in Colorado through the Bonita Peak Mining District Natural Resources Damage Funds (NRD).

At the Southwestern Water Conservation District, I have been participating in their meetings and following their collaborative efforts throughout the region. I am deeply impressed by the NRD workgroup participants' commitment to environmental stewardship and their dedication to support these mining mitigation and reclamation projects.

Established by legislative action in 1941, the Southwestern Water Conservation District (SWCD) was created to protect, conserve, and manage the waters of the San Juan and Dolores River Basins. The collaborative and far-reaching nature of these projects reflects SWCD's ongoing mission to support regional water users and safeguard the water resources of the San Juan River Basin.

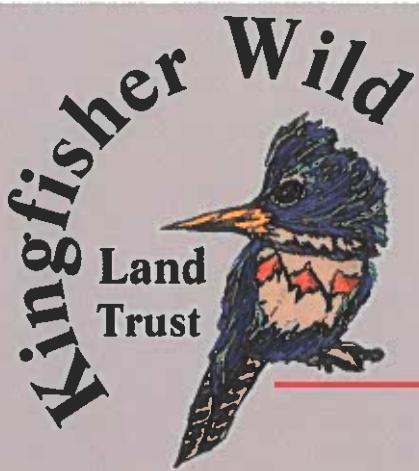
We are excited by the opportunities these settlement funds are providing southwestern Colorado, they will provide significant opportunity for the Animas Watershed. Thank you for considering this worthy proposal.

Sincerely,

*Monika Rock*

Monika Rock

Programs Coordinator



.....for the love of wild.

May 29, 2025

Mark Rudolph

Bonita Peak Mining District NRD Project Manager  
Colorado Department of Public Health and Environment  
Hazardous Materials and Waste Management Division  
4300 Cherry Creek Drive South  
mark.rudolph@state.co.us

Re: Bonita Peak Mining District NRD Solicitation for Project Proposals – Letter of Support

Dear Mark Rudolph,

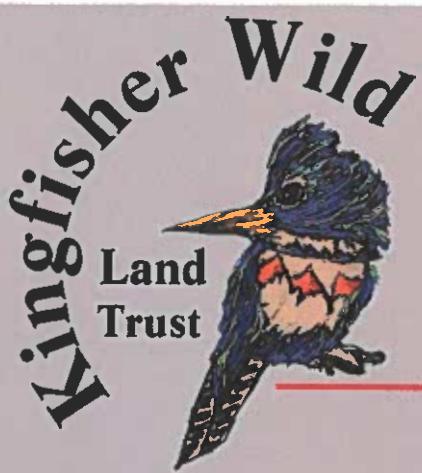
I am writing to express my strong support for the projects submitted by the local workgroup for funding to support mining reclamation projects in the Animas River Basin in Colorado through the Bonita Peak Mining District Natural Resources Damage Funds (NRD).

Kingfisher Wild Land Trust, a Silverton-based 501(c)(3), has participated in the NRD workgroup and has direct knowledge of the proposed reclamation sites. Kingfisher Wild owns/manages properties within the proposed Animas River Corridor restoration area. The intent of that ownership/management has, all along, been to restore natural function and to protect into perpetuity those properties. We are deeply impressed by the NRD workgroup participants' commitment to environmental stewardship and their dedication to support these mining mitigation and reclamation projects.

While we are supportive of all proposed projects, the Upper Animas Stream and Restoration Project and the Animas River Corridor project are of critical importance to the ecological health of our watershed, mitigating the negative impacts of historical mining activities, and for creating watershed resilience to future changes. These aspects of the project align with Kingfisher Wild's priorities regarding riparian health and habitat enhancement. The Town of Silverton (TOS) and Mountain Studies Institute's (MSI) improvements to an injured resource, as outlined in their grant application, demonstrate a thorough understanding of the challenges involved and a commitment to implementing effective and sustainable solutions.

331 E. 18th St.  
Silverton CO 81433

kingfisher.wild.land.trust@gmail.com



.....for the love of wild.

Specifically, we are particularly supportive of their innovative approach to addressing mining impacts and their focus on restoring hydrological function to the affected area. It will improve water quality in the Animas River and downstream of the Animas as well as improve habitat connectivity for common and T&E species alike.

The NRDA settlement funds provide a significant opportunity for our watershed, as it will support restoration projects for water resources impacted by mining activities. We are excited by the opportunities these settlement funds are providing southwestern Colorado. Thank you for your consideration of this worthy proposal.

With Appreciation,

On Behalf of the Board of Kingfisher Wild Land Trust

Lisa Merrill  
President

331 E. 18th St.  
Silverton CO 81433

[kingfisher.wild.land.trust@gmail.com](mailto:kingfisher.wild.land.trust@gmail.com)



# Mountain Studies Institute

SAN JUAN MOUNTAINS COLORADO

5/30/2025

Mark Rudolph  
Bonita Peak Mining District NRD Project Manager  
Colorado Department of Public Health and Environment  
Hazardous Materials and Waste Management Division  
4300 Cherry Creek Drive South  
mark.rudolph@state.co.us

Re: Bonita Peak Mining District NRD Solicitation for Project Proposals – Letter of Support

Dear Mark Rudolph,

I am writing to express my strong support for the projects submitted by the local workgroup for funding to support mining reclamation projects in the Animas River Basin in Colorado through the Bonita Peak Mining District Natural Resources Damage Funds (NRD).

I have been working directly with the stakeholders in both San Juan and La Plata County to help support projects that will improve natural resources damaged by legacy mining. I am deeply impressed by the NRD workgroup participants' commitment to environmental stewardship and their dedication to support these mining mitigation and reclamation projects.

While we are supportive of all proposed projects, this letter is intended to outline our technical support commitment to the Animas River Corridor (ARC) project. This project is of critical importance to the ecological health of the watersheds in the San Juan Mountains as it aims to restore our headwaters, providing a large lift to improve ecological function for both upstream and downstream stakeholders. The Mountain Studies Institute was founded in Silverton over 20 years ago with a mission to empower communities and land managers to create resilient systems through applied earth and life sciences. This mission strongly aligns with the ARC's objectives of improving, restoring, and preserving riverine and riparian systems, while also improving recreational opportunities. With over 20 years of improvement, and supporting innovative alpine restoration, MSI is well positioned to support the Town of Silverton in this effort.

These settlement funds provide a significant opportunity for our watershed, as it will support restoration projects for water resources impacted by mining activities. We are excited by the opportunities these settlement funds are providing southwestern Colorado. Thank you for your consideration of this worthy proposal.



# Mountain Studies Institute

SAN JUAN MOUNTAINS COLORADO

Sincerely,

*Jake Kurzweil* 5/30/2025

**Jake Kurzweil**

PhD, Hydrologist

Associate Director of Water Programs

1315 Snowden st, Silverton, CO 81433

C: 415.302.9450

[www.mountainstudies.org](http://www.mountainstudies.org)

*I recognize that I am a guest in the homeland territory of the Ute, Dine' and Ancestral Puebloan peoples. I extend my respect and gratitude to the many indigenous people who call these lands home.*