Trout Unlimited
REQUEST FOR PROPOSAL (RFP)

RFP Number:	RFP Title:
Governor Basin 2022	Governor Basin Time Critical Removal Action

ISSUER INFORMATION	
Contact: Tanner Banks, Project Manager - Trout Unlimited (970) 390-9492; tanner.banks@tu.org	**Issue Date:** 09/27/2021

INSTRUCTIONS TO CONTRACTORS	
Return Sealed OR Electronic Proposal to:	Trout Unlimited 1103 S 3rd St Montrose, CO 81401 tanner.banks@tu.org
RFP Response Due Date and Time:	11/12/21 Midnight

CONTRACTORS MUST COMPLETE THE FOLLOWING	
Contractor Name/Address:	**Authorized Contractor Signatory:**
Contractor Phone Number:	**Printed Name of Signatory:**
Contractor Email Address:	**Contractor FAX Number (if applicable):**

CONTRACTORS MUST RETURN THIS COVER SHEET WITH RFP RESPONSE

INSTRUCTIONS TO CONTRACTORS

It is the responsibility of each Contractor to:

Follow the format required in the RFP when preparing your response. Provide point-by-point responses to all deliverables in a clear and concise manner.

Provide complete answers/descriptions. Read and answer **all** questions and requirements. Don't assume TU or evaluator/evaluation committee will know what your company capabilities are or what items/services you can provide, even if you have previously contracted with TU. The proposals are evaluated based solely on the information and materials provided in your response.

Use the forms provided, i.e., cover page, cost proposal, etc.

Submit your response on time. Note all the dates and times listed in the Schedule of Events and within the document and be sure to submit all required items on time. Late proposal responses will NOT be accepted.

The following items MUST be included in the response to be considered responsive.

Failure to include any of these items may result in a nonresponsive determination.

1. Signed Cover Sheet

2. Cost Proposal

3. Bid Response Proposal (including point by point response to Contractor qualifications/informational requirements)

SCHEDULE OF EVENTS

EVENT	DATE
RFP Issue Date:	09/27/21
On-Site Pre-Bid:	10/8/21
RFP Response Due Date:	11/12/21
Intended Date for Contract Award:	11/23/21

PROJECT OVERVIEW AND INSTRUCTIONS

PROJECT OVERVIEW

Trout Unlimited (hereinafter referred to as "TU") through a partnership Ouray Silver Mines, Uncompahgre Watershed Partnership, the Colorado Natural Resource Damage Program, and the United States Forest Service (USFS or FS hereafter), is seeking a contractor to provide equipment, labor and materials for abandoned mine lands reclamation at the Terrible and Virginius Mines work near the town of Ouray, CO. The Contractor will complete work associated with six main Tasks that include; **1**) Road improvements, material generation, channel construction for Terrible 3 adit, **2**) Grading of the Terrible 1 and 3 waste dumps, consolidation of the Terrible 1, drain and muck out sediment pond, **3**) Construction of the western drainage and completion of the eastern drainage, **4A**) Cap and cover the Terrible 1 and 3 with Virginius waste rock, grad and install erosion controls on Terrible 2, **4B)** reclamation area consistent with 4A; reduction in cap acreage and supplementation of in-situ soil remediation, **5**) Final consolidation and installation of In-situ amendments to Virginius Tailings; Construct USFS parking area, **6**) Deconstruct temporary culverts and install two Rolling Dip road crossings. The total footprint of the removal action is estimated at 10.47 acres, with 8.96 acres on Ouray Silver Mines property and 1.51 acres on USFS lands. A more complete description of the supplies and/or services sought for this project is in the Mineral Park Project Plan section below.

NOTE: A portion of the scope of work (SOW) proposed herein will be on USFS property and is pending approval. The complicated mixed-ownership nature of this project could cause delays for approval. By responding to this RFP, the Contractor acknowledges that all, or a portion of the work might be cancelled or postponed to 2023. It is our intention to complete the full SOW included in this RFP during the 2022 field season, but USFS/EPA approval and budgetary constraints could postpone part of the work to 2023.

SINGLE POINT OF CONTACT

From the date this Request for Proposal (RFP) is issued until a Contractor is selected and the selection is announced, all contact regarding the project shall be directed to:

Tanner Banks
Project Manager - Trout Unlimited
1103 S 3rd St, Montrose, CO 81401
(970) 390-9492
tanner.banks@tu.org

SUBMITTING A PROPOSAL

Contractors must submit a copy of the Proposal by email or sealed mailing envelope with the following contents: Signed copy of the RFP Cover Sheet, Cost Proposal and Bid Response Proposal. All proposals are due by date listed in Schedule of Events by (midnight). Late proposals will not be considered, and all costs incurred in responding to this RFP will be borne by the Contractor. Contractors failing to comply with these instructions may be subject to point deductions. TU may also choose to not evaluate, may deem nonresponsive, and/or may disqualify from further consideration any proposals that do not follow this RFP format, are difficult to understand, are difficult to read, or are missing any requested information.

The highest scoring Contractor will be the prime Contractor upon contract award and shall be responsible, in total, for all work of any subcontractors and equipment operators. All subcontractors, if any, and operators of specific equipment along with their experience must be included in the proposal. TU reserves the right to approve all subcontractors and equipment operators. The Contractor shall be responsible to TU for the acts and omissions of all subcontractors, operators, or agents and of persons directly or indirectly employed by such subcontractors, and for the acts and omissions of persons employed directly by the Contractor. Further, nothing contained within this document or any contract documents created as a result of any contract awards derived from this RFP shall create any contractual relationships between any subcontractor and TU. TU prefers to pay for services performed or work delivered after it is accomplished, but regular payments based upon the passage of time is also an option. Proposals will be evaluated on “best value” as specified below.

1.0 Proposal Requirements

The **Bid Response Proposal** must address the following items:
The following will be considered the minimum contents of the proposal:

1. Signed RFP Cover Sheet
2. Provide the responders full company name and address, indicate a main contact person with title and phone number, Federal I.D. number and Colorado tax I.D. number (if applicable).
3. A proposal that documents complete description of construction services to be provided. The following schedule of costs shall be used to develop a lump sum, fixed-firm cost estimate for work associated with each line item/deliverable unless otherwise noted as time and materials for a corresponding Task.
    a. Proposals and attention to detail will be heavily weighted by review committee.
    b. Total MOB/DEMOB costs need to be explained; lack of line-item costs will not fulfill this RFP.
4. Project schedule and a detailed work plan that will identify the major tasks to be accomplished and be used as a scheduling and managing tool, as well as the basis for invoicing.
5. A list of personnel who will conduct the project and be part of the on-site crew. This list **MUST** include personnel that will be conducting work on-site with detail of their training, work experience. No change in personnel assigned to the project will be permitted without approval of TU's project manager.
6. Listing and information about any suppliers or subcontractors used.
7. Completion of the attached Cost Proposal for each specified task or line item. Hourly fees should be included where requested in case overages or change orders are necessary for additional scopes of work.

PRE-QUALIFICATION of Experience:

a. To qualify for this job, the Contractor must show that applicable experience at high alpine abandoned mine cleanup projects. This would include moving, handling, and grading at least 15,000 cubic yards of mine waste and/or tailings.
b. Pre-Qualifications should also include revegetation success at mine sites over 10,000 feet.
c. Ability to develop and provide a site-specific Health and Safety Plan before beginning work.
d. Provide a list of relevant past/present projects similar in scope to work described herein along with Contractor's background.

2.0 Approach to Providing Services

Responders are encouraged to propose additional tasks or activities if they will substantially improve the results of the project. These items should be separated from the required items on the cost proposal.

3.0 *Experience and Personnel*

The Contractor must Identify personnel who will work on this project, their roles/responsibilities for the project, and their experience and qualifications for this work. No changes in personnel assigned to this project in response to this request for proposal (RFP) will be permitted without approval by a TU project manager. Personnel specified in response to this RFP should be the actual staff performing the work on-site, identify the Contractor's experience performing the Section 1.0 restoration techniques, specifically related to mine restoration projects. Trout Unlimited reserves the right to terminate the contract at any point if identified Key personnel are removed from the project for any reason. Trout Unlimited may also terminate the services of the Contractor at any point if the Contractor fails to fulfill requirements of the agreed upon signed contract. In this case, termination shall take effect immediately upon serving notice to the Contractor by Trout Unlimited.

If the Contractor feels that any deliverable is beyond their expertise, an appropriate subcontractor should be hired for specialized work. Subcontractor selection should be specified in final bid document.

Title 8-17-101, C.R.S., as amended applies to this contract and states that eighty percent of the laborers employed on each project must be Colorado labor. "Colorado labor" means any person who is a resident of the State of Colorado at the time of employment, without discrimination as to race, color, creed, sex, age or religion." The rate of wages to be paid for all laborers and mechanics shall be in accordance with the laws of Colorado. The Contractor shall at all times enforce strict discipline and good order among his employees and shall not employ on the work any unfit person or anyone not skilled in the work assigned to him.

4.0 Insurance

The Contractor will carry a minimum liability insurance of ($2,000,000), including general liability ($2,000,000) and automotive coverage ($2,000,000) and workers compensation (statutory) covering the services performed for TU and described in this contract. The Contractor shall have TU named as an additional insured on this policy and shall provide TU with a certificate of insurance documenting this coverage prior to mobilization.

5.0 Compensation and Payment

A. TU shall compensate the Contractor for services in accordance with the schedule as found in this document. All Tasks should be bid on a ***<u>Fixed-Firm</u>***, not-to-exceed price using the attached *Cost Proposal* spreadsheet. The *Cost Proposal* sheet should be utilized by the Contractor to further break down the costs of their bid that will allow TU to compare bids and establish costs that might occur outside the scope of this RFP.

B. No payments shall be made for work done prior to the entry of official Contract and a Notice to Proceed is provided by Trout Unlimited.

C. The Contractor will be **required** to seek the approval of TU for any modifications or change orders to the finalized budget. Trout Unlimited has the option to add extra work if deemed necessary to successfully complete the project. The value of the extra work or change shall be determined in by using the Cost Proposal spreadsheet provided by the Contractor on a time and materials basis.

   Change order work shall be adjusted and considered separately from work either added or omitted. The amount of adjustment for work omitted shall be estimated at the time it is authorized, and the agreed adjustment will be deducted from the original amount. Both parties will be required to sign a binding document for change orders associated with this project.

D. As the Contractor you agree to pay your own self-employment and income taxes, and that, as a non-employee, you are not eligible for worker's compensation or other employee benefits.

The Cost Proposal shall include an estimate of work hours and cost for each of the tasks described in the **Deliverables and Line Items** section.

Estimated Quantities

The Contractor understands and agrees that:

(a) The quantities and measurements set forth in the ***Deliverables and Line Items Section*** are in no case exact and in some instances the exact quantities and measurements are impossible to determine until after conditions have become known during construction;

(b) The quantities shown in the ***Deliverables and Line Items Section*** are for use as a basis for comparing bids only;

(c) Trout Unlimited does not expressly, or by implication, agree that the actual amount of work performed, or material furnished or installed will correspond therewith;

(d) During the progress of the work Trout Unlimited may find it advisable and shall have the right to make changes in locations of portions of the work, to omit portions of the work and to increase or decrease the quantities, as may be deemed necessary or desirable;

(e) Under no circumstances or conditions will the Contractor be paid anything on account of anticipated profits upon the work or any portion thereof covered by the Contract which is not actually performed;

(f) Under no circumstances or conditions will the Contractor be paid more than the unit price bid for any item of the Bid because the actual quantity is greater or less than the quantity shown in the Bid or Bid Schedule, and

(g) Measurements have been made in sufficient detail to establish general shapes and dimensions. The locations and dimensions of vertical and horizontal openings and depths of materials shown on the documents as waste material, soil and unconsolidated material and rock material are approximate measurements only and shall be verified by excavation.

6.0 References

The Contractor should provide references for previously completed projects, especially with respect to the Pre-Qualification requested

7.0 Project Schedule

Project partners would permit field work to start as early as award date, or once access is attained. The target for completion of the work is no later than September 15th, 2020. There is a virtual pre-bid meeting for this project one week after RFP solicitation. TU and USFS Staff highly encourage Contractors interested in bidding this job attend the virtual pre-bid. If the Contractor has any questions or concerns relating to the content of this RFP, please contact Tanner Banks.

1. RFP released to contractor list – *Monday, September 27th, 2021*
2. Due to the timing of the RFP Issue Date and Response Date, and Site location, TU feels it is extremely important for Contractor to attend this on-site pre-bid meeting. The pre-bid is scheduled for *Friday, October 8th,* 2021. Contractors that **DO NOT** attend **WILL NOT BE CONSIDERED** in the bidding process. Contractors should bid this job as ***Fixed-Firm*** for Tasks 1 through 6 using the attached ***Cost Proposal***.

   Pre-bid: *Meet at the large parking area south of Ouray, on Highway 550 at 9:00 am. 4x4 vehicles are required and carpooling is encouraged. We will leave the parking area at 9:15; plan for this pre-bid to take most of the day.*
3. Final bid for project proposals submitted to TU by Midnight on *Friday, November 12th, 2021*
   a. *Final date for questions is Friday November 5th.*
4. It is anticipated that the evaluation and selection will be completed by *Tuesday, November 23rd, 2021*

8.0 Evaluation of Proposals

The contract will be awarded on the basis of proposals received, and after consideration of Contractor's ability to provide the required services, quality of personnel, extent and quality of relevant experience, price and any other factors deemed pertinent by the project partners.

<u>Proposal Evaluation</u>

All responses received by the deadline will be evaluated by pertinent representatives of project partner organizations. In some instances, an interview may be part of the evaluation process. A point scale will be used to create the final evaluation recommendation. The factors on which proposals will be judged are:

1. Expressed understanding of project objectives.
2. Qualifications/experience of key personnel working on the project.
3. Cost breakdown including hourly rates, estimated time and material costs.
4. References and past performances
5. Quality of Proposal, creativity, and recommendation of anticipated restoration concepts.

All proposals will initially be classified as either “responsive” or “nonresponsive.” Proposals may be found nonresponsive at any time during the procurement process if any of the required information is not provided; the submitted price is found to be excessive or inadequate as measured by criteria stated in the RFP; or the proposal is not within the plans and specifications described and required in the RFP. If a proposal is found to be nonresponsive, it will not be considered further.

Selection and award will be based on the Contractor's proposal and other items outlined in this RFP. Submitted responses may not include references to information located elsewhere, such as Internet websites or libraries, unless specifically requested. Information or materials presented by Contractors outside the formal response or subsequent discussion/negotiation or best and final offer, if requested, will not be considered, will have no bearing on any award, and may result in the Contractor being disqualified from further consideration.

9.0 Project Description

Introduction and Site Background

The Virginius and Terrible Mines sit at the head of Governor Basin (Site), the headwaters of Sneffles Creek, and later Canyon Creek, which is a tributary to the Uncompahgre River. The Site is situated 8 miles northwest of the town of Ouray, in Ouray County, Colorado (Site Coordinates = Lat: 37.96835, -107.77420) (Figure 1). This project is characterized as a cap and cover, focused on three waste dumps and redirecting flows from the draining adit at the Terrible Mine, with the borrow source originating from the Virginius Mine. In addition to the cap and cover, drainage controls and a modified wetland will address water on-site, and a small portion of the Site will receive in-situ soil amendments and revegetation.

Site Access and Location

Ownership of Site is predominantly Ouray Silver Mines Incorporated (OSMI), with a portion of work taking place on the Uncompahgre National Forest. The Site is accessed via Camp Bird Road (Rd 361 in Figure 1), which turns into County Road 26, which is taken to just past the Atlas Mill and Tailings area. From the confluence area of Yankee Boy Creek and Governor Creek, Governor Basin Road is the final access road to the Site.

Directions to the Site are:

1. From Ouray, take HWY 550 to Camp Bird Road (CR 361). Stay on Camp Bird Road past the Camp Bird Mine, the Revenue Mine and the Atlas Mill site.
2. Continue on what is now CR 26 until you reach the Yankee Boy and Governor Basin road junction. Proceed northwest on Governor Basin Road.
    - This road is narrow with steep sections and small creek crossings. **4-Wheel drive is required on this section. Full-size pickups can make it up this road.**

*Access is depicted in Figure 1.

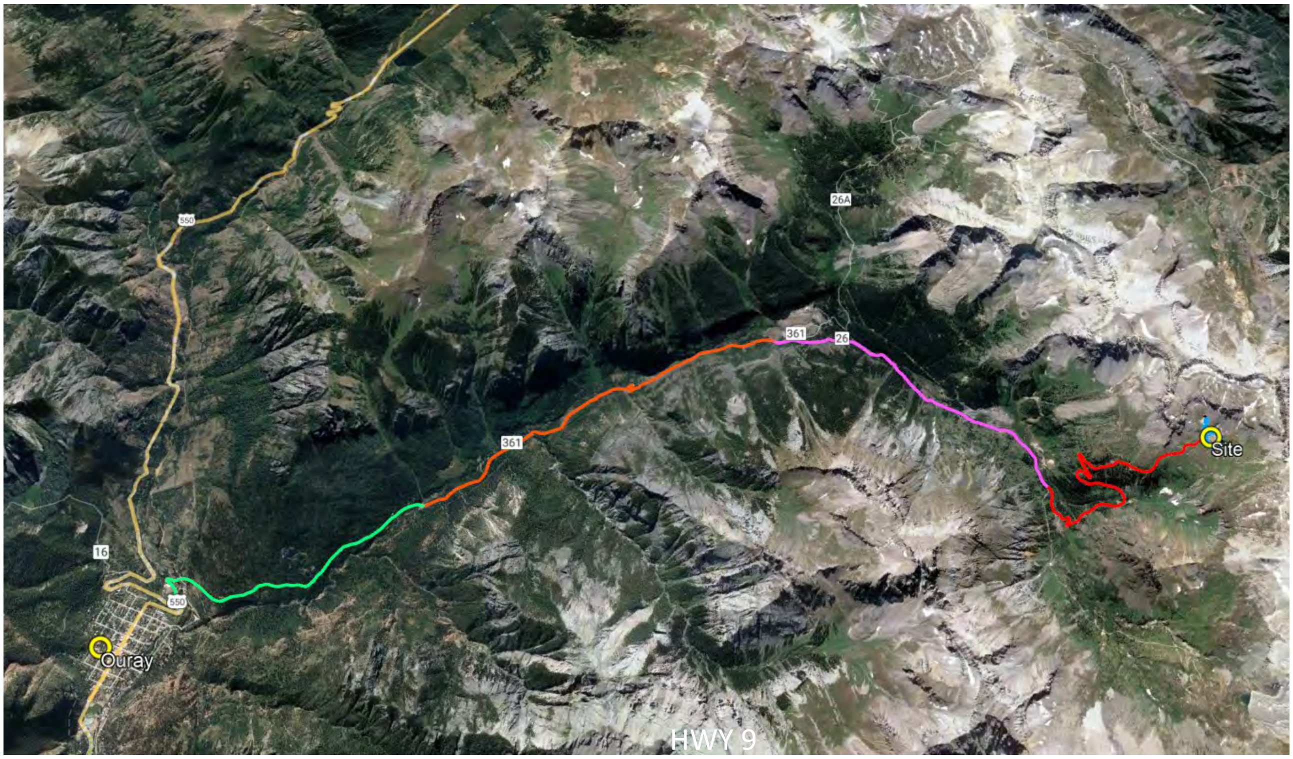


Figure 1. The Governor Basin (Site) in relation to Ouray.
The (Site) is approximately 8 miles west of Ouray below the San Sophia Ridge.
Green = Hwy 550 to Angel Creek Campground; Orange = Angler Creek to second staging area adjacent to OSMI's Revenue Mine; Purple = second staging area to start of Governor Basin Rd; Red = Governor Basin Rd to the Site.

The staging area for the Site is located at Angel Creek Campground 2 miles from the HWY 550 turnoff; material deliveries and equipment offload will take place here. Materials that can be hauled on a gooseneck or any combination trailer will stage 5 miles further, adjacent to the Revenue Mine on County Road 26. From this area, materials will need to be ferried in articulating haul trucks, tracked dump trucks, or full-size pickup trucks. From the second staging area, the Site is 3 miles of steep and rocky 4-wheel drive roads. The staging area is 2.63 miles from the Mineral Park Site (Figure 2a). This is a popular four-wheeling location, and care needs to be taken by the Contractor when hauling equipment and materials from the staging area to the Site and vice versa.

***** It will be the Contractor's duty to actively maintain the staging area and keep the Site clean throughout construction, which will include daily mitigation of litter. Additionally, the Contractor will be responsible for reclaiming the staging area before demobilizing equipment from the Site – the Site should appear as it was before the project began.

* For material deliveries, where feasible, TU requests the use of super sacks and/or enclosed products to make transport easier and decrease incidental loss.

Figure 2a. Staging Area 2 miles from HWY 550; this area is accessible to lowboys and material deliveries.

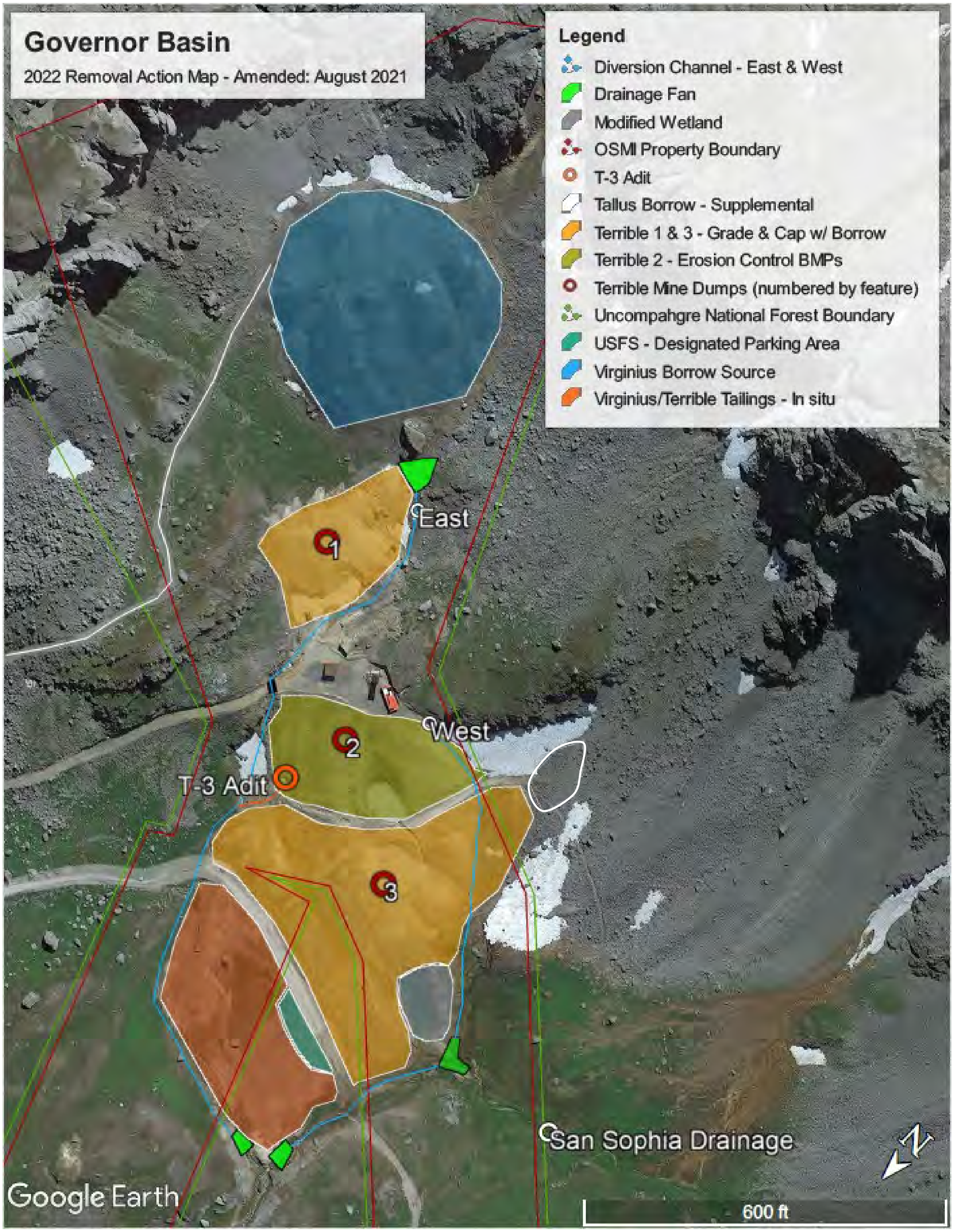
Figure 2b. Second Staging Area – stage equipment and material in the gray polygon.

Governor Basin - Site Conditions

Figure 3. Looking down on the Terrible waste dumps and Terrible 3 adit discharge from the OSMI permit boundary area.

Figure 4. Looking up at the Terrible waste dumps and the Virginius borrow (gray overburden below the ridgeline) from the confluence of the San Sophia drainage.

Final Design



Governor Basin - 2022 Project Plan

TASK 1: Road Improvements, Channel Construction and Culvert Install, Redirect Adit Discharge

Figure 5 illustrates the estimated 2,000 linear feet of road improvements and borrow area preparation. Because material generation and hauling make up a large portion of this project, road improvements will be required. From the lower portion of the access road, the Contractor should plan to take the road cut down a depth up to two feet in areas to widen the road at least two feet on corners and pinch-points. Fill generated in this road cut should be used to backfill portions of the road that are too steep or where bedrock is exposed. As part of the construction of this road, the Contractor will need to maintain the road through construction and rebuild the road prism after completion of the removal action. This road needs to be a total of 12 feet wide along straight sections, 14 feet wide around low-radius turns, and 18 feet wide at tight-radius turns. If possible, grade should not exceed a 20% slope.

Install 600 feet of silt fencing at the northern portion of the Site prior to excavation.

In addition to road improvements, Task 1 will require the grading and sorting area at the Virginius Borrow. A 6-inch grizzly will be required to sort material slated for diversion channels. We've estimated that the Contractor will need to sort 6,000 cubic yards of Virginius waste rock (borrow) to generate rock for channels. Processing the borrow material should begin as soon as possible. At the same time that material is generated at the borrow, a crew will start prepping the lower portion of the West Diversion. The Terrible 3 adit discharge will need to be confined to a temporary drainage control to limit dispersal of flows and entrainment of sediments. To accomplish this, TU is proposing that the Contractor build a temporary culvert bridge, made up of two 18 in by 20 ft HDPE corrugated plastic culverts. The culverts should be installed at the entrance to the Site, and backfilled to support hauling. Downslope and once enough D50 of 8" is generated from the borrow, crews will begin construction of the Western Diversion Drainage Fan and channel. **Because of the metals contamination throughout the Site, contractors need to spec a sorting bucket/skeleton bucket and respective excavator; this is not negotiable**. All mine wastes and tailings will be removed down to native soils and stockpiled at the Terrible 3 waste dump to be graded during Task 2 and 3. The diversion fan will be 20 ft wide x 30 feet long and should be tailored to fit the existing conditions. Channels will be a total of 10 ft wide; 3 ft channel bottom with a 3:1 slope. The channel up to Governor Basin Road will be lined with 45-mil EPDM and lined with d50 of 8 inches.

Working up from the culvert bridge installed at Governor Basin Rd, we anticipate tailing and waste rock depths too deep to excavate to clean fill. Excavation of material in this channel alignment will focus on removing a small waste dump from flow path, and consolidating and shaping a channel to capture Terrible 3 adit discharge. This channel will maintain a 10 ft width until it reaches the adit portal, where a teardrop shape should be excavated to a width of 15 ft. On the downhill side of the teardrop, eight 2-3 ft boulders will be placed to buttress the adit channel intake area and neck into the channel. This rock will be procured on-site. From the adit intake to outlet of the channel at the road will receive 35 CY of clay bedding (4-6" bedding) to prevent punctures in the liner. Clay can be sourced through AC Materials in Fairplay, CO, or Tomichi Materials in Gunnison, CO. On top of the clay, 45 mil EPDM rubber liner will be installed to reduce leaching of Terrible 3 adit discharge into underlaying material. The liner will be covered with rip-rap generated from the Borrow.

The total construction of channel for this task is 685 feet, with liner underlayment throughout. Clay bedding will be used in the 185 foot section from the road crossing to the adit due to the anticipated underlayment of angular rock.

Figure 5: Road Improvements to the borrow area depicted by the white line.

TASK 2: Initial Grading on Terrible 1 & 3 Waste Dumps, Consolidating Terrible 1, Draining and Removing Mine Waste from the Sediment Pond

Figure 6 illustrates the treatment areas for Task 2. Initial grading of the Terrible 1 will require removing the knuckle of the waste dump to shallow slopes of the pile to safely navigate the feature with a dozer. Graded material should be pushed uphill towards the bottom of the Virginius borrow as opposed to downhill – OSMI permit area sits below the Terrible 1. The plan for the Terrible 1 is to reduce the risk of this material shifting into Task 3's channel. In preparation for channel work, the Terrible 1 pile should be pulled back from the natural flow path on the western margin. Figure 6 depicts this action.

Similar steps will be taken for the Terrible 3 waste dump, which has a larger surface area and grade that is much larger and shallower. The Contractor will have sufficient space to grade this area, and for that reason, there is no specific grading plan. The general concept will be to take out large valleys and crests of waste rock that are currently there, and tie the new grade to the run-on/run-off channels. An additional consideration of the removal action would be to consolidate a portion of the Terrible 1 waste dump into the Terrible 3 polygon. This step should be explored if the Contractor feels it's a better removal action alternative than regrading and capping the entire Terrible 1 waste dump in-situ.

The final step in Task 2 will be to slowly drain the sediment retention pond, consolidate mine waste from within the feature, and construct a modified wetland. Because of Task 1's rerouting of the Terrible 3 adit discharge, this pond will no longer have source water. The current pond dimensions: 100 ft long x 45 ft wide x 3.5 average depth. Based on those dimensions, it the pond houses an estimated 117,000 gallons of water. Draining the pond can be done by slowly over several days by pumping water into a downstream subbasin containing crushed limestone. This step is at the recommendation of CDPHE, but will not require a CDPHE discharge permit because water quality parameters are not substantive to cause acute impacts to downstream water quality. Once the pond is drained, the feature should be mucked out and consolidated into the Terrible 3 polygon. According to the removal action plan, the sediment pond will be partly decommissioned to become a modified wetland. This wetland will grow from a 100 ft x 45 ft lap pool/pond to a shallow wetland with an approximate surface area of 9,185 sq/ft; roughly doubling the surface area of the wetland. Once the pond has reached an average depth of 2 feet, bentonite should be mixed at 25% with 75% borrow and incorporated into the bottom and margins of the pond to a depth of 4-6". Bentonite can be sourced from Randy Kendall at H&H Clay in Fruita, CO. What remains of the 700 CY of borrow will backfill to the pond once the 400 lbs of 4-6-2 has been incorporated into that material. Once the borrow material is place, the average depth of the constructed wetland should be 1 foot. Grade on the downslope margins of the constructed wetland should be such that when inundated, water will be captured by the adjacent diversion channels constructed in Task 3.

As the final step in constructing the wetland, sod mats will be installed to help retain water and promote revegetation. North Fork Native Plants will be supplying 24 wetland sod mats, 15 ft long x 3 ft wide (total length equals 360 ft). Sod mats will be delivered to the Site by the supplier, but the Contractor will need to install with the help of TU project manager(s). Figure 7 crudely depicts the constructed wetland perimeter for the sake of competitive bidding. TU will procure a more detailed design for the constructed wetland.

Figure 6: Terrible 1 and 3 grading area polygon and sediment basin, which will become a modified wetland feature.

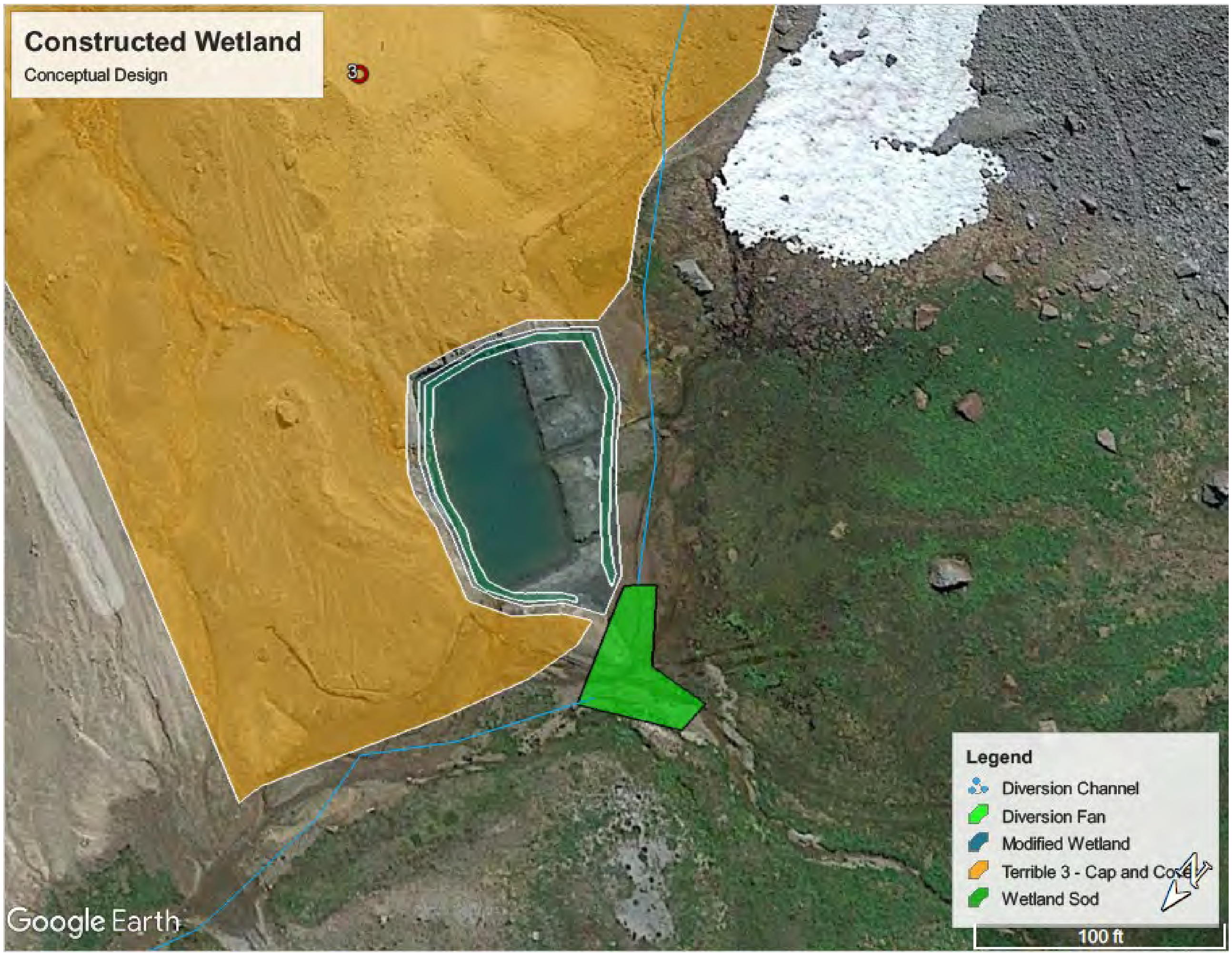


Figure 7: Zoomed into the constructed wetland.

TASK 3: Construct the Western Drainage Channel and complete the Eastern Drainage Channel

Task 3 will focus on connecting the channel constructed during Task 1, to the upper attainment fan that will be situated into bedrock at the tow of the Virginius Borrow. To complete the Eastern channel to the upper attainment fan, 680 linear feet of channel will be constructed. A large boulder will mark the uppermost portion of the eastern channel. The constructed attainment fan should start below the boulder; bedrock in this area will be the tie-in points for at perimeter of the channel. Bedrock will also dictate the longitudinal and cross-sectional slope of the fan and surface water channel. The Cost Proposal calls out 10 rock/boulder check dams as part of the 680 feet of channel construction. Those check dams will be sourced with large rock from the adjacent talus slope and/or the existing bedrock within the channel margin. Channel slopes will range from 10% to 55%. Discussions on the feasibility of constructing channel through steeper sections will be encouraged during the October 8th pre-bid.

The western diversion will originate along the snowfield shown in Figure 8, beneath the "West" icon. The tie-in point for the western channel will be a partially collapsed adit portal not shown in Figure 8. This channel will match cross-section areas of the eastern channel up to the oversized drainage fan. The drainage fan that attenuates flow from the west channel and the San Sophia will require 90 CY of material, twice as much as drainage fans we've spec'd on past projects. This drainage fan will be taper from 15-ft at channel entrance to 30-ft at its widest point and excavated to a max depth of 4 feet, then taper back down to 15-ft where it will outlet into the northern portion of constructed channel. The northern segment of the West channel will be a total of 15-ft wide, with a base of 6-ft and berms at 3:1 slope, to increase flow capacity. A diversion fan at the northern margin of the West channel completed with an outlet into Governor Creek. All material generated through channel excavation will be consolidated in Terrible 3.

Figure 8: The remaining 680 ft of the Eastern Channel and construct 815 ft of the Western Channel.

TASK 4A: Cap Terrible 1 and 3 with Virginius Borrow, Minor Grading and Erosion Controls on the Terrible 2

Based on Task 2 grading of the Terrible 1 and 3 waste dumps, and after construction of surface water channels in Task 3, the Contractor will begin placing Virginius Cap material on both features. Quantities for this step in the Cost Proposal are based on an average cap depth of 1-foot, with any material sizes that are not adequate for surface water channels. In total, the surface area of cap is 3.78 acres. We estimate for a 1-ft cap with 15% contingency, 7,025 CY of borrow needs to be generated. For hauling, assuming 15 tons per truck, with two haul trucks, we expect to haul 500 loads to cap the features. At the pre-bid, TU is open to suggestions on whether Terrible 1 should be capped by dozing material from the footing of the Virginius Borrow, but as it stands, we are planning to generate material from the top of the borrow and work down. This will help prevent destabilization of the toe of this feature.

The Terrible 2 waste dump averages slopes between 50% and 65%. This waste dump is also situated above the Terrible 3 adit and Monongahela adit portals. The Terrible 3 is partially collapsed and drains for the majority of spring and summer. The Monongahela is fully collapsed with a large subsidence and infrequently drains. Because of the complexity of portals associated with the Terrible 2, reclamation of this 1.2-acre feature will focus on regrading and blending slopes into the Terrible 3. The western edge of the Terrible 2 waste is the steepest portion and, at current slopes, will not sustain wattles or erosion control fabric. To promote the long-term success of erosion control measures, the Contractor should plan to grade this feature where applicable.

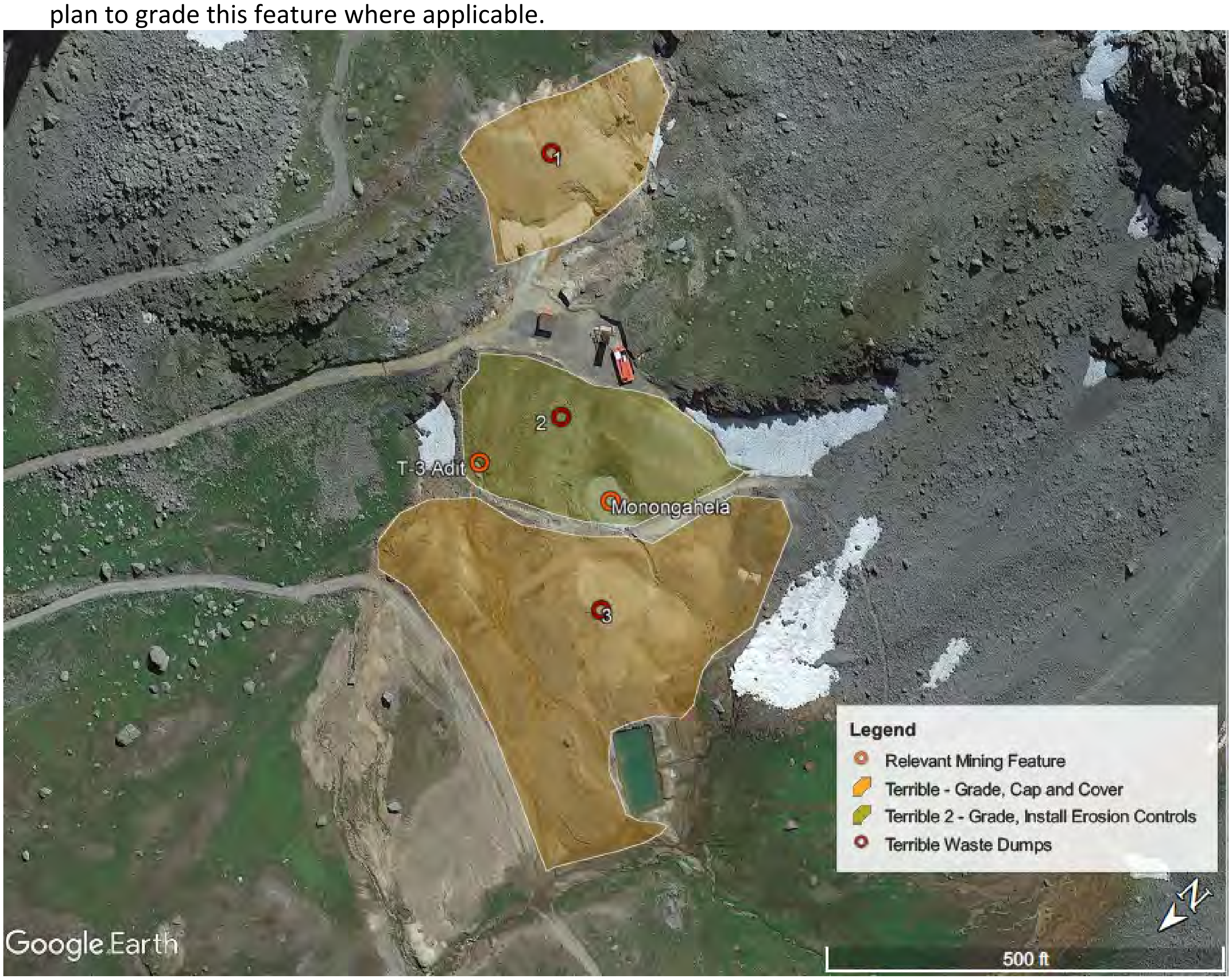


Figure 9: Task 4 remediation area; Terrible 1 and 3 receive an average of 1-ft cap from Virginius Borrow and sections of the Terrible 2 are graded to support erosion control measures.

TASK 4B: Cap Terrible 1 and one acre of Terrible 3 with Virginius Borrow, In-situ stabilization of two acres on Terrible 3, Minor Grading and Erosion Controls on Terrible 2

Task 4 has been broken out into two parts to differentiate the cost and feasibility of removal actions specific to the Terrible 3 waste dump. Due to the amount of material generation, hauling, and grading required to cap this 3.78-acre feature with 1-ft of Virginius Borrow, a secondary option was created to understand the benefits of in-situ amendments versus cap and cover. Refer to Figure 9 for the reclamation area. TU, UWP, and OSMI will elect either 4A or 4B; the Contractor will only be expected to complete one or the other as part of the removal action.

Option b will still require that the Terrible 1 feature be capped with Virginius Borrow, and up to 1 acre of the Terrible 3 will receive the cap material along the slope of the Terrible 2 dump. This 1 acre cap along the Terrible 2 toe will buffer the two features and reduce erosion of the Terrible 2 onto the Terrible 3 in-situ feature, should this option be elected. Due to the low pH of the Terrible 3 soils, soil amendments are high, which will require more material staging and hauling from the upper staging area that is adjacent to the Revenue Mine. Despite this, the number of trips will decrease substantially in option B compared to option A.

In-situ Amendments (See Tab 4B in Cost Proposal):

- 30 tons of Limestone Crusher Fines;
- 175 tons of Pulverized Limestone (CaCo3) from Colorado Lime;
- 5,000 lbs of *Richlawn 4-6-2*;
- 8,000 lbs of *TriGanics Biotic Soil* Amendment (100 lbs per 100 gallons of water);
- 120 gallons of *Lot*-125 (Mixed @ 10:1)
- 240 bales of Aspen Woodstraw

The attached Cost Proposal details amendment quantities. Under Labor and Equipment, the Contractor should note that a Hydroseeder will be required to properly apply soil amendments to the scale of the Terrible 3 feature. The water required to apply soil amendments hydraulically can be sourced on-site.

Task 5: Final Consolidation and Installation of In-situ Soil Amendments to Viginius Tailings; Construct USFS Parking Area

After grading portions of the Terrible 2, and installing biodegradable wattles perpendicular to the slope, this feature and the Virginius tailings will receive soil amendment applications. The amendments include: (quantities are presented as line-items in Task 5 of the Cost Proposal)

- 20 tons of Limestone Crusher Fines (CaCo3);
- 95 tons of Pulverized Limestone (CaCO3);
- 5,600 lbs of *Richlawn 4-6-2*;
- 4,500 lbs of *TriGanics Biotic Soil* Amendment (100 lbs per 100 gallons of water);
- 115 gallons of *Lot*-125 (Mixed @ 10:1)
- 120 bales of Aspen Woodstraw

The Contractor will be responsible for the application of all soil amendments to the Virginius Tailings. Amendments like Lot-125 need to be diluted and hydroseeded or applied mechanically. TU would prefer that ALL soil amendments be diluted with water sourced on-site and hydroseeded. Soil amendments will then be incorporated to a depth of one foot. TU provided seed will be applied to portions of the Terrible 2 and Virginius Tailings. The final step of Task 5 is to broadcast agricultural straw and wood straw to Terrible 2 and Virginius Tailings.

Approximately 0.25 acres of the Virginius tailings will become a parking lot for recreational traffic along Governor Basin Road. To reduce the risk of exposure in the parking area, the Contractor will consolidate tailings from the proposed polygon. After excavating the 0.25-acre area to native soils and consolidating that material into the adjacent in-situ remediation area, the Contractor will cap the parking lot feature with 1-ft of Virginius borrow and grade to allow nose-in parking. To deter recreationists from driving on and recreating in the adjacent reclaimed tailings area, the Contractor will install 450 linear feet of buck and rail fence. Buck for this fence should be 5 feet tall with rail lengths no longer than 12 ft, expecting a foot of overlap on each buck. In total, the Contractor will install 45 buck sections at 10 ft spacing. Each section will have 3 rails, and each buck should have a cross-member at its footing for structural support. Bucks should be fastened together using lag bolts. Rails should be attached to bucks using 6-8-inch nails. Timber screws will not suffice for any portion of the fence assembly.

The attached Cost Proposal details amendment quantities. Under Labor and Equipment, the Contractor should note that a Hydroseeder will be required to properly apply soil amendments to the scale of the Virginius Tailings feature. The water required to apply soil amendments hydraulically can be sourced on-site.

Figure 10: Task 5 in-situ remediation, USFS parking area estimated at 0.25-acres, and installation of buck and rail fencing.

Task 6: Deconstruct Task 1 Culverts and Install Two Rolling Dip Road Crossings

The final step of the Governor Basin removal action will be to remove the culverts installed as part of Task 1's temporary road crossing and subsequently construct two rolling dip road crossings (Figure 11). A rolling dip will be installed at the eastern channel's road crossing and at the western channel's road crossing. The dimensions of the structure are provided in Figure 11. Material totals are broken down in the Cost Proposal.

As the final steps for this removal action, the Virginius Borrow and the access road to the Borrow will need to be reclaimed. We do not expect to grade of the entire feature, but the Contractor will need to ensure slopes are tapered, and the feature will shed snowmelt and water without impacted downslope reclamation or functions withing the OSMI permit area. Regrading the road prism on the access road will be the final step before demobilization.

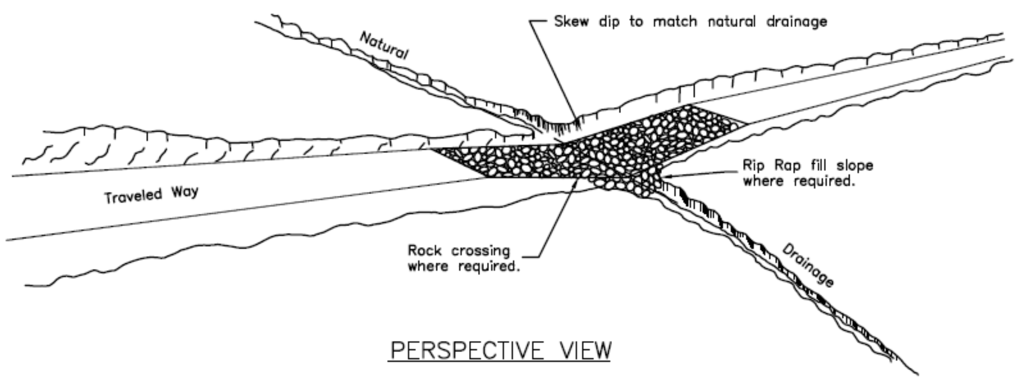


Figure 12A)

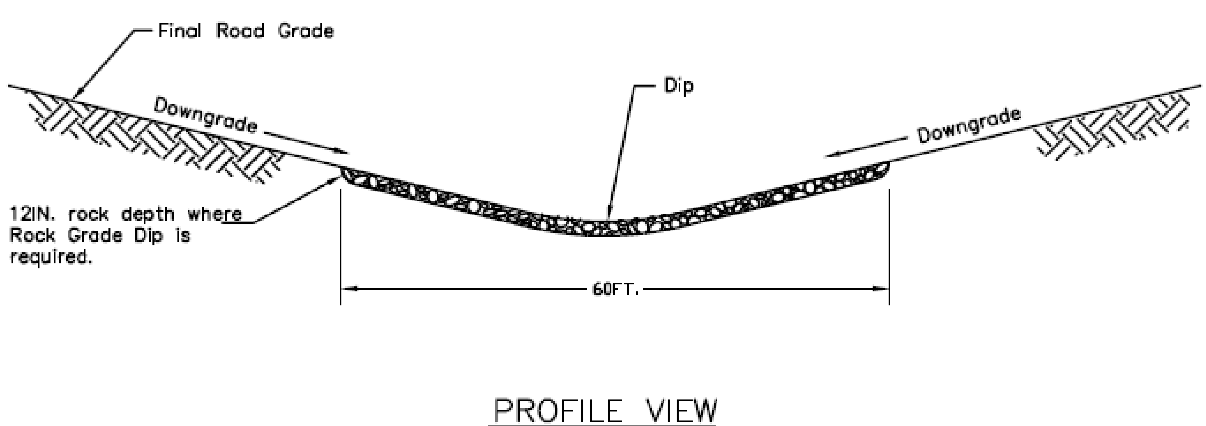


Figure 12B)

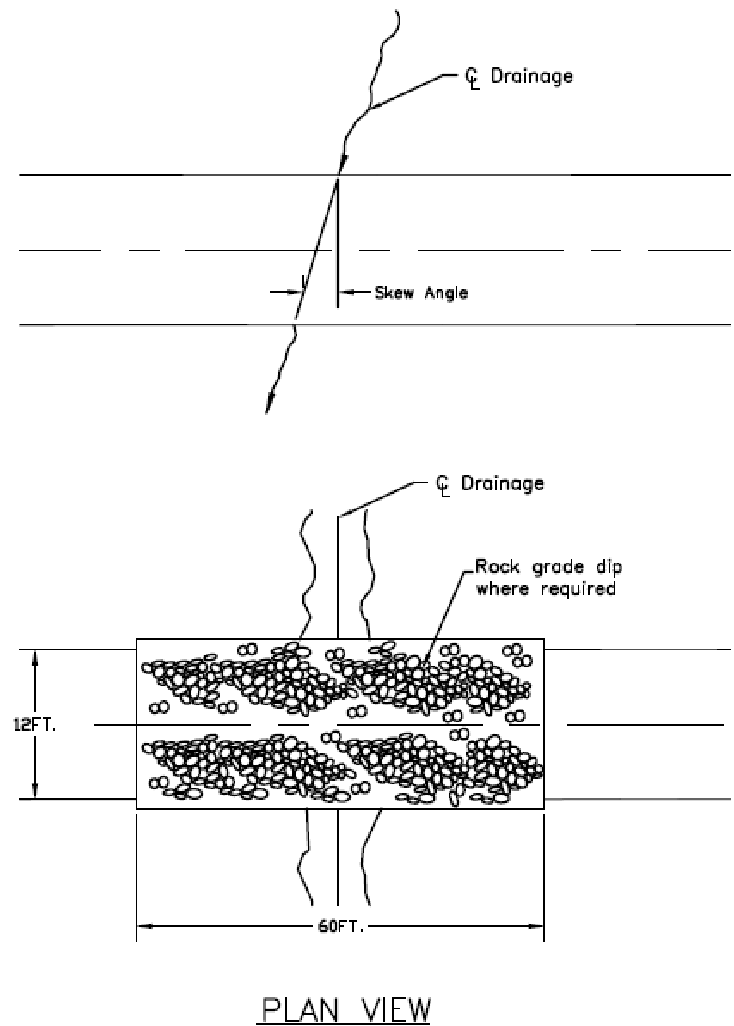


Figure 12C)

NOTES:

1. DETAILS SHOWN ARE FOR AN OUTSLOPE, INSLOPE, OR FLAT ROADBED WITHOUT A DITCH. GRADE DIP SHALL BE CONSTRUCTED IN A DITCH SECTION BY TRANSITIONING THE DITCH FROM NORMAL DEPTH TO NORMAL GRADE ELEVATION FOR A SUFFICIENT DISTANCE TO PROVIDE DRAINAGE.

2. GRADE DIPS SHALL BE OUTSLOPED A MINIMUM OF TWO (2) PERCENT AND A MAXIMUM OF FOUR (4) PERCENT.

3. GRADE DIP OUTLETS WILL BE CONSTRUCTED INCIDENTAL TO THE CONSTRUCTION OF THE DIP UNLESS OTHERWISE SPECIFIED.

4. CONSTRUCT GRADE DIP ALONG CENTERLINE OF EXISTING DRAINAGE, NOT TO EXCEED 30 DEGREE SKEW ANGLE.

5. ROCK FOR ROCK GRADE DIP SHALL BE PROVIDED BY THE CONTRACTOR. ROCK SHALL BE PIT RUN AND WELL GRADED WITH MAXIMUM PARTICLE SIZE OF FOUR (4) INCHES.

6. CONTRACTOR SHALL STAKE ALL GRADE DIPS AND OTHER DRAINAGE FEATURES.

Deliverables & Line Items

Please provide individualized costs for each deliverable and line items in the attached Cost Proposal. Governor Basin Removal Action reclamation work should begin as soon as weather permits in spring/summer of 2022. The target start date is July 15th.

COVID-19 Safety Requirements

USDA-wide guidance requires correct and consistent use of masks and physical distancing consistent with current CDC guidance. All USDA facilities and offices require distancing and use of masks.

Appropriate masks must be worn consistently. Masks must be worn while inside all federal buildings, while inside any private office spaces leased by USDA or the federal government, and while riding in USDA vehicles. Masks must be worn in common areas or shared workspaces (including open floorplan office space, cubicle embankments, conference rooms, and USDA vehicles). Masks should also be worn in outdoor shared spaces when physical distancing cannot be maintained.

Face Masks and other PPE USDA employees, on-site contractors, partners and volunteers must wear a mask that covers the nose and mouth in accordance with current CDC and OSHA guidance. CDC recommends the following: Non-medical disposable masks, masks that fit properly (snugly around the nose 3 and chin with no large gaps around the sides of the face), masks made with breathable fabric (such as cotton), masks made with tightly woven fabric (i.e., fabrics that do not let light pass through when held up to a light source), masks with two or three layers, and masks with inner filter pockets. USDA will not allow novelty/non-protective masks, masks with exhalation valves, or face shields as a substitute for masks. Please see communication section below detailing how USDA will inform USDA employees, on-site contractors, partners and volunteers about the mask rule.

Timeline

Construction activities are targeted to start as soon as weather permits in 2022, and after notice of proceed issued by project partners. Please provide an estimated timeline with bid response for each of the aforementioned Tasks. The start of work is also contingent on a signed contract being in place, establishment of a HASP, and Certificate of Insurance provided to TU. HASP should outline proper protocols, safeguards, and PPE to mitigate risks of COVID-19. The Contractor is also required to submit itemized costs/timeline for each deliverable in their respective bid package by completing the attached Cost Proposal sheet. It should be noted that a TU or USFS representative will be on-site for a majority of the construction activities to answer any questions and assist in field issues that may arise.

COST PROPOSAL

The Contractor shall fill out the attached Cost Proposal Spreadsheet and attach to the Bid Proposal. The Cost Proposal Spreadsheet has corresponding tabs for each of the above specified Tasks. The Cost Proposal will act as an estimate of number of hours and quantities for the basis of bid evaluation. Bids should include operator time, delivered material costs, laborer time, and any other applicable equipment or personnel time necessary to complete the corresponding Task. Any changes to final quantities for specific line items will be established during development of a contract and scope of work with the Contractor selected for the project.