



FUTURE FISHERIES IMPROVEMENT PROGRAM GRANT APPLICATION

All sections must be addressed, or the application will be considered invalid



I. APPLICANT INFORMATION

A. Applicant Name: Trout Unlimited – Paul Parson

Mailing Address: 312 N. Higgins, Suite 200

City: Missoula State: MT Zip: 59802

Telephone: (406) 218-8635 E-mail: paul.parson@tu.org

B. Contact Person (if different than applicant): SAME

Address: _____

City: _____ State: _____ Zip: _____

Telephone: _____ E-mail: _____

C. Landowner and/or Lessee Name (if different than applicant): Lolo National Forest

Mailing Address: 24 Fort Missoula Road

City: Missoula State: MT Zip: 59804

Telephone: (406) 329-3750 E-mail: traci.sylte@usda.gov

II. PROJECT INFORMATION

A. Project Name: Flat Creek Tailings Removal and Floodplain Restoration

River, stream, or lake: Flat Creek

Location: Township: 17N Range: 26W Section: 22, 23 and 27

Latitude: 47.21320 Longitude: -114.88600 *Within project (decimal degrees)*

County: Mineral

B. Purpose of Project:

The purpose of the Flat Creek Tailings Removal and Floodplain Restoration project is to cleanup an abandoned mine site. The project will remove contaminated mine tailings from the banks and floodplain along Flat Creek, rebuild the floodplain and revegetate the site. Through this work, the habitat and riparian corridor along Flat Creek will be greatly improved.

- C. Brief Project Description (attach additional information to end of application). Please include the anticipated construction schedule:

Flat Creek is located near the town of Superior and has a history of extensive mining in the drainage. Heavy metal contamination originated from the Iron Mountain Mine, which produced lead, zinc, copper, and silver. The EPA placed the site on the Superfund Program's National Priorities List in 2009. Ownership along the impacted reaches of Flat Creek consists of private lands, USFS administered lands and former ASARCO lands now managed by MDEQ (Montana Environmental Trust) and EPA.

In 2017, the Montana DEQ implemented a removal action within the Iron Mountain mining district upstream of the current USFS project area. The tailings were excavated and placed into the nearby Wood Gulch repository. Trout Unlimited and the Forest Service have partnered to reclaim sites occupied by the contaminated materials on USFS land by removing mining wastes and heavy metals that were deposited from the tailings impoundments on Trust lands upstream. In addition, the Forest Service and TU have agreed to take actions that rehabilitate and enhance stream and floodplain functions and improve fisheries habitat within the effected portions of Flat Creek on National Forest System lands.

The project design was completed for the USFS in 2022. Through a competitive bidding process, Haskins Excavation from Superior was selected as the contractor to perform the repository construction, tailings removal and floodplain restoration. Repository cell construction at the Wood Gulch site was completed in December of 2022 and approximately 65% of the tailings along Flat Creek removed through the 2023 season. During November of 2023, the floodplain was rehabilitated along the reclaimed portions of Flat Creek.

During the 2023 removal process, the USFS and Trout Unlimited discovered tailings volumes exceeded the design estimated amounts throughout the project area, requiring additional work in 2024. With roughly 35% of the tailings remaining along the creek and floodplain, work will continue in 2024 with additional repository cell construction, tailings removal and floodplain restoration.

To complete the project in 2024, the USFS is providing approximately \$595,000 to TU through partnership agreements. The Montana DNRC is providing approximately \$100k through the RDG program through a partnership with the Mineral County Conservation District and TU. The project will begin in the early summer with repository cell construction. Tailings removal and rough floodplain grading will occur during the summer of 2024. Floodplain restoration and revegetation will be completed in the fall of 2024.

- D. What was the cause of habitat degradation and how will the project correct the cause?

A stamping mill was located near Flat Creek and the associated waste rock and tailings were deposited along the nearby hillslopes and floodplains. Timber crib dams were constructed throughout the floodplain along Flat Creek to facilitate the tailings impoundments. In addition to older flood events that initially distributed tailings along four miles of Flat Creek, contaminants redistributed in August 2000, following a 9,000-acre forest fire and subsequent runoff. As such, the tailings from the mine were/are an ongoing source of heavy metals to the creek.

By removing the tailings from the streambanks and floodplain the source of pollution will be significantly reduced. By reconstructing the floodplain to proper dimensions with roughness and vegetation, natural processes will be restored.

- E. Length of stream or size of lake that will be treated (project extent): 1,200 feet

Length/size of impact, if larger than project extent (e.g., stream miles opened): 4 miles total project

F. Project Budget Summary:

Grant Request (Dollars):	\$ 53,310.00
Matching Dollars:	\$ 704,748.73
Matching In-Kind Services:*	\$ 5,000.00
<i>*salaries of government employees are not considered matching contributions</i>	
Other Contributions (not part of this app)	\$ 50,000 (Survey- Design Previously Completed)
Total Project Cost:	\$ \$763,706.40

G. Attach itemized (line item) budget – see *budget template*

H. Attach project location map(s) that include:

- ☒ Extent of the project, including context (relation to major landmark or town)
- ☒ Indication of public and private property
- ☐ Riparian buffer locations and widths (if applicable) and grazing locations

I. Attach project plans:

- ☒ Detailed sketches or plan views with the location and proposed restoration
- ☒ Pre-project photographs (GPS location strongly recommended)
- ☐ If water leasing or water salvage is involved, attach a supplemental questionnaire (<https://myfwp.mt.gov/getRepositoryFile?objectID=36110>)

J. Attach letters or statements of support (e.g., landowner consent, community or public support, and FWP fisheries support). List any other project partners:

Lolo National Forest
Montana DNRC
Mineral County Conservation District

III. MAINTENANCE AND MONITORING (attach additional information to end of application):

- A. A 20-year maintenance commitment is required*. Please confirm that you will ensure this protection and describe your approach. Attach any relevant maintenance plans.

Yes ☒ No ☐

**If it is a water leasing project, describe the length of the agreement.*

The Lolo National Forest is committed to the success of these restoration projects with fisheries and hydrology staff.

TU has included post project maintenance in all reclamation plans for projects in the Middle Clark Fork drainage and has continued to monitor projects. TU has full time staff dedicated to project planning and these maintenance activities, including seasonal field technicians.

Additionally, as part of a Superfund/CERCLA mine cleanup, project partners are committed to project monitoring to assess effectiveness.

- B. Will grazing be part of or adjacent to the project? If so, describe or attach land management plans, including short term and long-term grazing regimes. If the landowner is not the applicant, please describe their involvement in the project. *If you want assistance with grazing plan development, note your need.*

No, grazing will not be part of or adjacent to the project.

- C. Will the project be monitored to determine if goals were met? If so, what are the short-term and long-term plans to assess benefits and lessons learned? Were pre-project data collected? Will monitoring information be shared with FWP?

Yes, the project will be monitored for pollutants by the EPA. Pre-project sampling documented contamination in the stream adjacent tailings, water from Flat Creek and the stream substrate.

The USFS and TU will monitor the floodplain, stream and vegetation for success.

Fisheries monitoring was conducted pre-project by FWP and the Lolo National Forest. Post-project monitoring will be conducted by the Lolo National Forest and FWP.

IV. PROJECT BENEFITS (attach additional information to end of application):

- A. What species of fish will benefit from this project?

Fish populations within Flat Creek include primarily native westslope cutthroat trout and brook trout. Flat Creek has a natural fish passage barrier approximately 3 miles upstream of the project with a population of westslope cutthroat trout above the barrier. This population of cutthroat trout supplements the Middle Clark Fork.

- B. How will the project protect or enhance wild fish habitat?

The primary enhancement for fish habitat will be the removal of mine tailings from the banks and floodplain of Flat Creek. Additionally, the project will enhance wild fish habitat through floodplain creation and revegetation. Recruitment of spawning gravels will increase due to the floodplain creation and reduced energy within the stream.

- C. What is the expected improvement to fish populations, both short term and long term? How might the project translate to angler success?

With the removal of contamination along the creek, fish populations are expected to improve. Additional vegetation and proper floodplain dimensions will also improve spawning habitat. Angler success should increase due to this project as Flat Creek is a tributary to the Clark Fork.

- D. Will the project increase public fishing opportunity for wild fish and, if so, how? Is public fishing allowed onsite? If not, describe how the public would access the project benefits.

Yes. The project is approximately 0.5 miles from the town of Superior and the confluence with the Clark Fork River. The mine waste cleanup and improved habitat will improve the fishery in Flat Creek. The stream is on public land and easily accessible for wade fishing. With the confluence of the Clark Fork less than a mile downstream, the trout population in Flat Creek supplements the Clark Fork River.

- E. Aside from angling, what local or large-scale public benefits will be realized from this project?

This project will improve water quality through lead and arsenic removal, sediment reduction and improved hydrology, which will directly benefit downstream water users and the community of Superior. Improved fishing will benefit anglers and improved wildlife habitat in the watershed for deer, elk, moose, turkey and small game will improve public hunting.

- F. Will the project interfere with water or property rights of adjacent landowners? (explain):

No, the project will not interfere with water or property rights of adjacent landowners.

- G. Will the project result in the development of commercial recreational use on the site (including paid access)? Explain:

No. The project is entirely on public land. Access to the stream is by foot only and commercialized recreation is not common in Flat Creek.

- H. Is this project associated with the reclamation of past mining activity?

Yes, this project is part of the Flat Creek Iron Mountain Mine Superfund/CERCLA site.

Each approved project applicant must enter into a written agreement with Montana Fish, Wildlife & Parks specifying terms and duration of the project. The applicant must obtain all applicable permits prior to project construction. A competitive bid process must be followed when using State funds.

V. AUTHORIZING STATEMENT

I (we) hereby declare that the information and all statements to this application are true, complete, and accurate to the best of my (our) knowledge and that the project or activity complies with rules of the Future Fisheries Improvement Program.

Applicant Signature: Paul Parson *Paul Parson* Date: 11/15/23

Submittal: **Applications must be signed and received on or before November 15 and May 15 to be considered for the subsequent funding period.** Late or incomplete applications will be rejected.

Mail to: FWP Future Fisheries Fish Habitat Bureau PO Box 200701 Helena, MT 59620-0701	Email: Future Fisheries Coordinator FWPFFIP@mt.gov (electronic submissions must be signed) For files over 10MB, use https://transfer.mt.gov and send to mmcgree@mt.gov
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Flat Creek tailings removal and restoration
BUDGET TEMPLATE SHEET FOR FUTURE FISHERIES PROGRAM APPLICATIONS

007-2024

Both tables must be completed or the application will be returned

PROJECT COSTS					CONTRIBUTIONS			
WORK ITEMS (Itemize by Category)	NUMBER OF UNITS	UNIT DESCRIPTION*	COST/UNIT	TOTAL COST	FUTURE FISHERIES REQUEST	MATCH (Cash or Services)**	OTHER (Not part of this application)	TOTAL
Personnel***								
Survey	1	Lump Sum	\$9,000.00	\$ 9,000.00			9,000.00	\$ 9,000.00
Design	1	Lump Sum	\$41,000.00	\$ 41,000.00			41,000.00	\$ 41,000.00
Engineering				\$ -				\$ -
Permitting				\$ -				\$ -
Oversight	48 days		\$640.00	\$ 30,720.00	15,360.00	15,360.00		\$ 30,720.00
Maintenance	10 days		\$200.00	\$ 2,000.00		2,000.00		\$ 2,000.00
		Sub-Total		\$ 82,720.00	\$ 15,360.00	\$ 17,360.00	\$ 50,000.00	\$ 82,720.00
Travel								
Mileage	2880 miles		\$0.66	\$ 1,886.40		1,886.40		\$ 1,886.40
Per diem	24 days		\$100.00	\$ 2,400.00		2,400.00		\$ 2,400.00
		Sub-Total		\$ 4,286.40	\$ -	\$ 4,286.40	\$ -	\$ 4,286.40
Construction Materials****								
Repository Excavation	21000 cy		\$5.00	\$ 105,000.00		105,000.00		\$ 105,000.00
Repository Gravel Layer (12" Depth)	1.4 Acres		\$60,000.00	\$ 84,000.00		84,000.00		\$ 84,000.00
Repository Subsoil Layer (24" depth)	1.4 Acres		\$19,500.00	\$ 27,300.00		27,300.00		\$ 27,300.00
Repository Topsoil Layer (12" Depth)	1.4 Acres		\$55,000.00	\$ 77,000.00		77,000.00		\$ 77,000.00
Floodplain Backfill	12000 cy		\$8.00	\$ 96,000.00		96,000.00		\$ 96,000.00
Mine Tailings Removal	17000 cy		\$12.00	\$ 204,000.00		204,000.00		\$ 204,000.00
Tree and Shrub Plantings	4500 each		\$6.50	\$ 29,250.00		29,250.00		\$ 29,250.00
Willow Cuttings	7500 each		\$1.10	\$ 8,250.00	8,250.00			\$ 8,250.00
Grass Seeding	150 lb		\$17.00	\$ 2,550.00	2,550.00			\$ 2,550.00
Topsoil/Mulch	250 cy		\$25.00	\$ 6,250.00	6,250.00			\$ 6,250.00
Floodplain Wood and Brush	1500 each		\$2.00	\$ 3,000.00		3,000.00		\$ 3,000.00
								\$ -
								\$ -
				\$ -				\$ -
		Sub-Total		\$ 642,600.00	\$ 17,050.00	\$ 625,550.00	\$ -	\$ 642,600.00
Equipment, Labor, and Mobilization								
Mobilization	1	Lump Sum	\$4,000.00	\$ 4,000.00		4,000.00		\$ 4,000.00
Clearing and Grubbing	2.5 acres		\$1,500.00	\$ 3,750.00		3,750.00		\$ 3,750.00

Flat Creek tailings removal and restoration
BUDGET TEMPLATE SHEET FOR FUTURE FISHERIES PROGRAM APPLICATIONS

007-2024

Constructed Floodplain	2.5	acres	\$5,000.00	\$ 12,500.00	12,500.00			\$ 12,500.00
Temporary Signage and Traffic Control	1	Lump Sum	\$1,200.00	\$ 1,200.00		1,200.00		\$ 1,200.00
4000-Gallon Water Truck	50	Load	\$85.00	\$ 4,250.00		4,250.00		\$ 4,250.00
Tree and Shrub Planting - Seeding	140	hours	\$60.00	\$ 8,400.00	8,400.00			\$ 8,400.00
				\$ -				\$ -
				\$ -				\$ -
				\$ -				\$ -
				\$ -				\$ -
				\$ -				\$ -
				\$ -				\$ -
				\$ -				\$ -
			Sub-Total	\$ 34,100.00	\$ 20,900.00	\$ 13,200.00	\$ -	\$ 34,100.00
TOTALS				\$ 763,706.40	\$ 53,310.00	\$ 660,396.40	\$ 50,000.00	\$ 763,706.40

OTHER REQUIREMENTS:

All of the columns in the budget table and the matching contribution table MUST be completed appropriately or the application will be invalid. Please see the example budget sheet for additional clarification.

*Units = feet, hours, inches, etc. Do not use lump sum unless there is no other way to describe the costs.

**Can include in-kind materials. Justification for in-kind labor (e.g. hourly rates used). Do not use government salaries as match. Describe here or in text.

***The Review Panel suggests that design and oversight costs associated with a proposed project not exceed 15% of the total project budget. If design and oversight costs are in excess of 15%, applications may require a justification or minimum of two competitive bids for the cost of undertaking the project. For projects that include a maintenance request, it must not exceed 10% of the total project cost.

****The Review Panel recommends a maximum fencing cost of \$1.50 per foot. Additional costs may be the responsibility of the applicant and/or partners.

Additional details:

APPLICATION MATCHING CONTRIBUTIONS

(do not include requested funds or contributions not associated with the application)

CONTRIBUTOR	IN-KIND	CASH	TOTAL	Secured? (Y/N)
USFS	\$ -	\$ 594,748.73	\$ 594,748.73	Y
Westslope Chapter Of Trout Unlimited	\$ -	\$ 10,000.00	\$ 10,000.00	Y
Montana DNRC - Mineral County Conservation District	\$ -	\$ 100,000.00	\$ 100,000.00	Y
Trout Unlimited	\$ 5,000.00	\$ -	\$ 5,000.00	Y
	\$ -	\$ -	\$ -	
	\$ -	\$ -	\$ -	

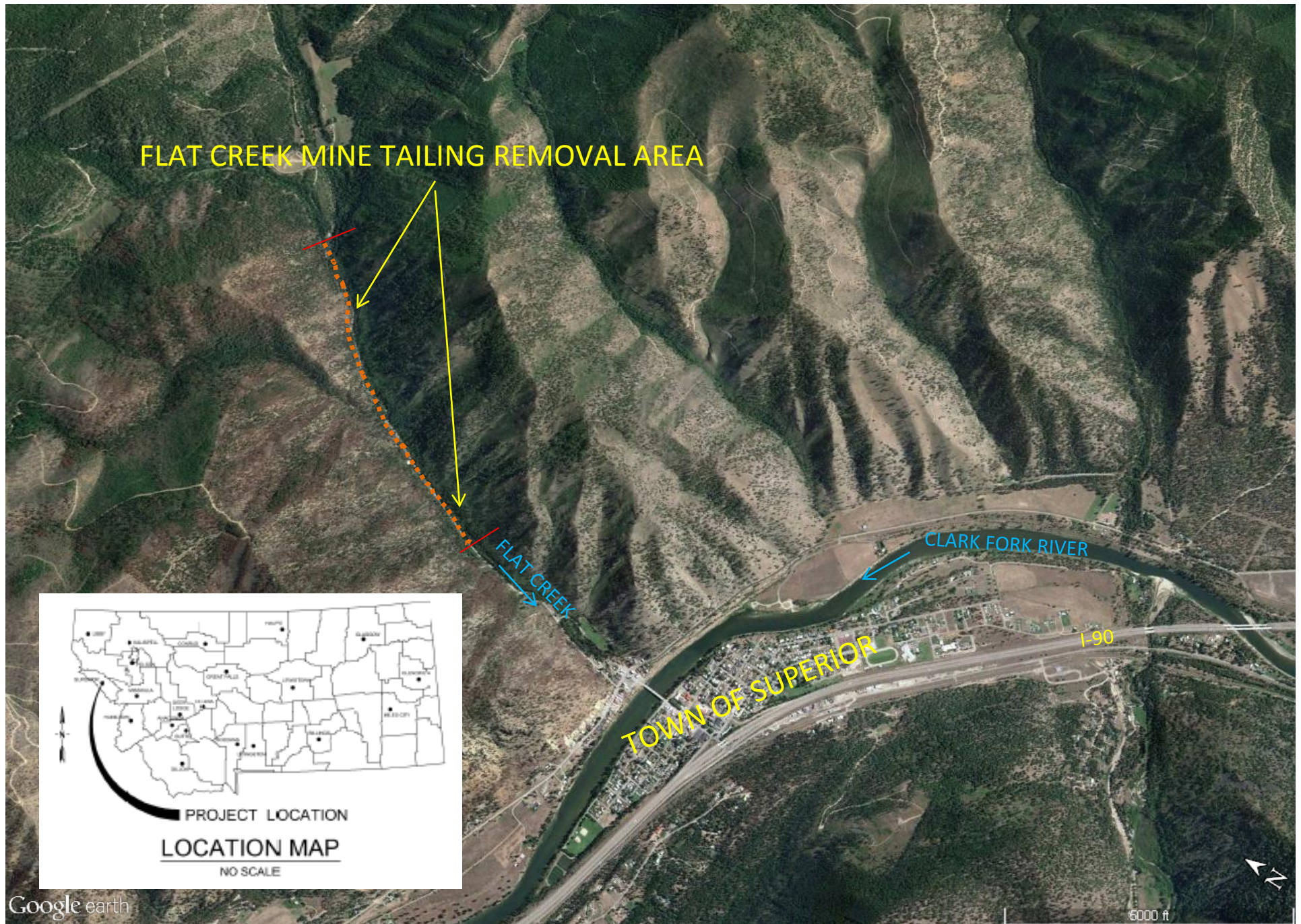
Flat Creek tailings removal and restoration

BUDGET TEMPLATE SHEET FOR FUTURE FISHERIES PROGRAM APPLICATIONS

007-2024

	\$ -	\$ -	\$ -	
	\$ -	\$ -	\$ -	
TOTALS	\$ 5,000.00	\$ 704,748.73	\$ 709,748.73	

OTHER CONTRIBUTIONS				
(contributions not associated with the application)				
CONTRIBUTOR	IN-KIND	CASH	TOTAL	Secured? (Y/N)
Montana DNRC	\$ -	\$ 25,000.00	\$ 25,000.00	Y
USFS	\$ -	\$ 25,000.00	\$ 25,000.00	Y
	\$ -	\$ -	\$ -	
	\$ -	\$ -	\$ -	
	\$ -	\$ -	\$ -	
	\$ -	\$ -	\$ -	
	\$ -	\$ -	\$ -	
	\$ -	\$ -	\$ -	
TOTALS	\$ -	\$ 50,000.00	\$ 50,000.00	



Existing Conditions Along Flat Creek Tailings Removal and Restoration Site



Dispersed Tailings encompass the floodplain along Flat Creek



Closeup of dispersed tailings mixed with stream gravels along Flat Creek



Dispersed Tailings eroding into Flat Creek



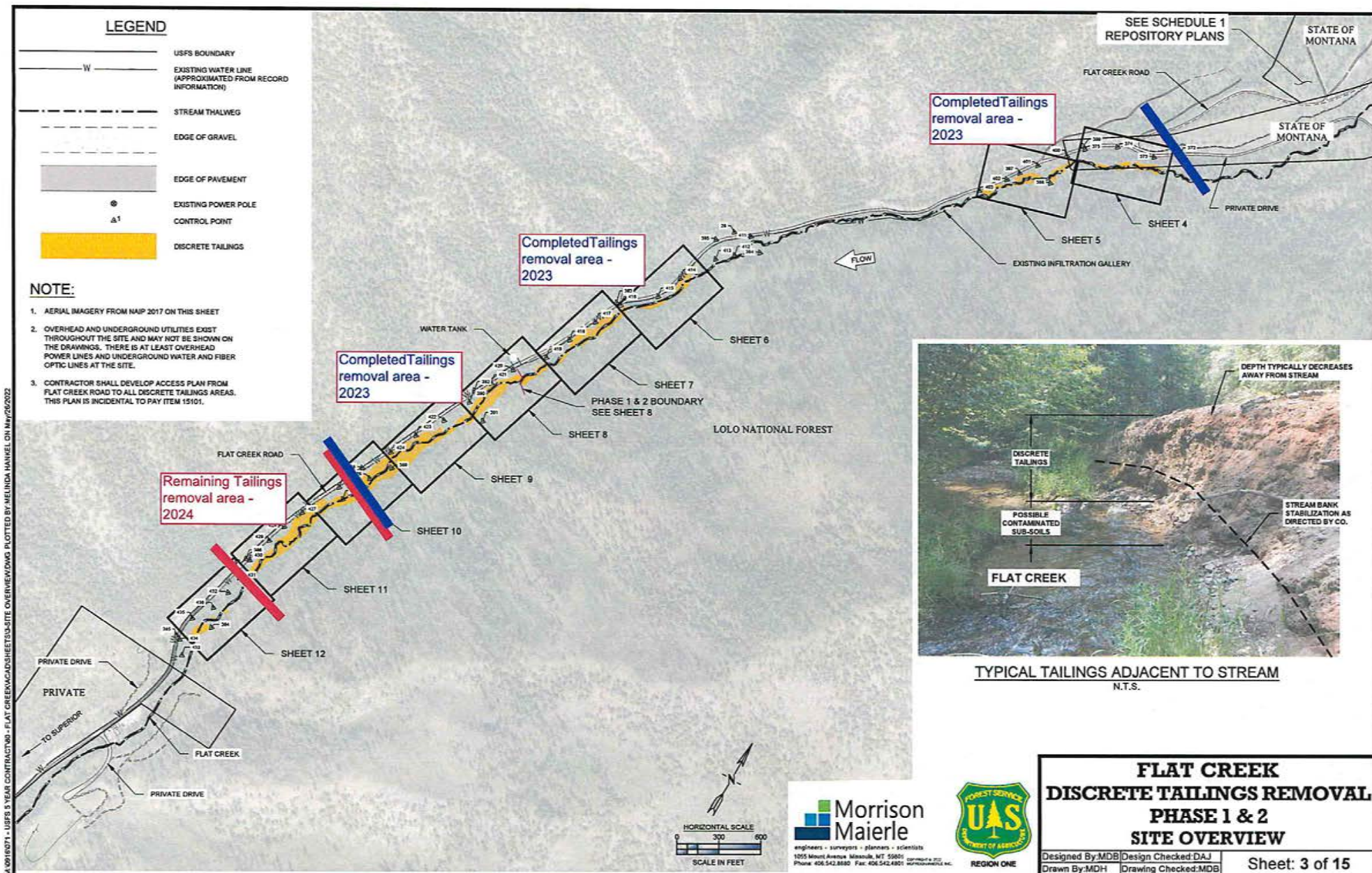
Sampling Trench Showing contaminated layers of tailings and sediment

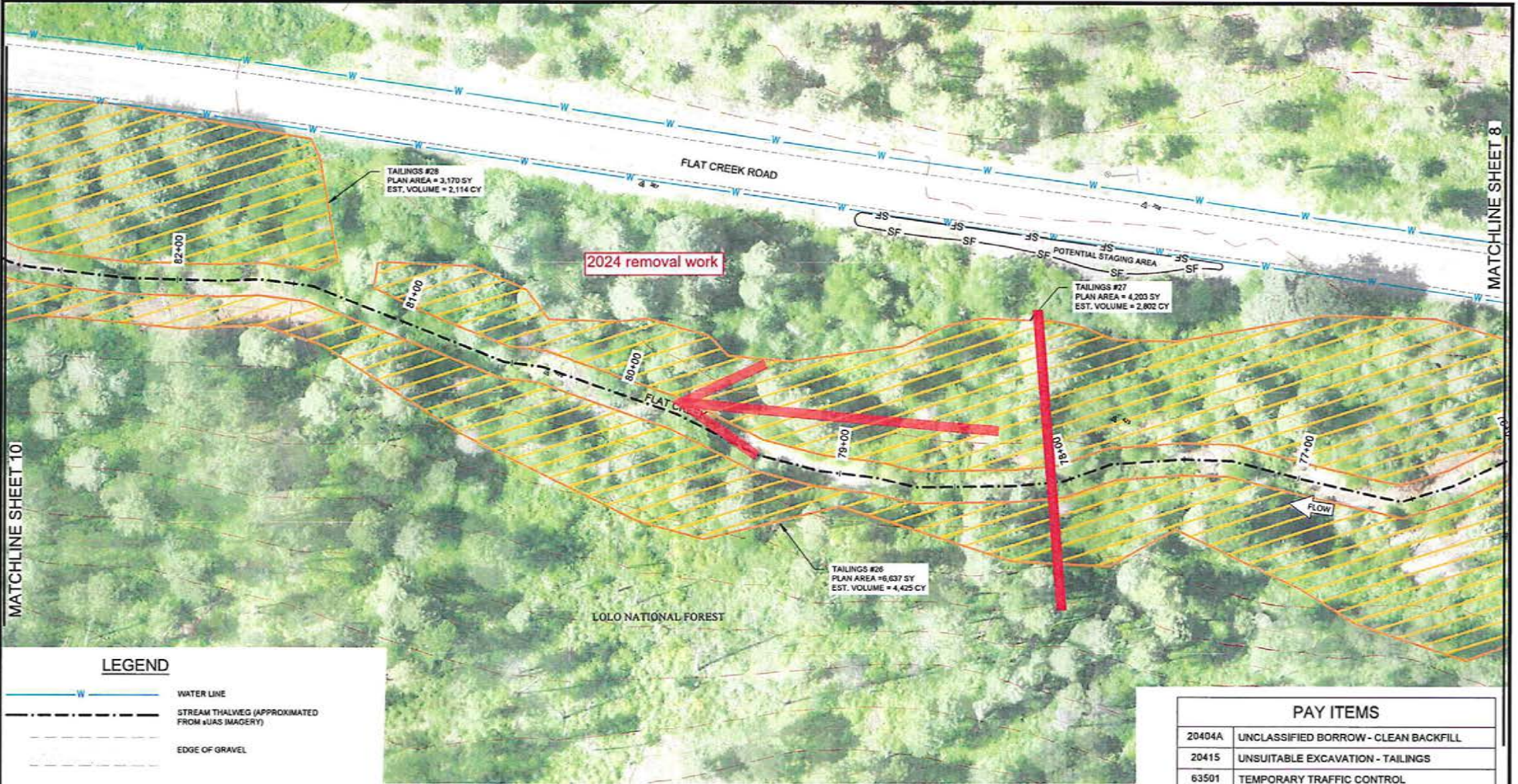


Dispersed Tailings surround both banks of Flat Creek



Vertical wall of tailings easily erode into Flat Creek



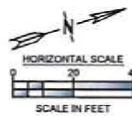


LEGEND

	WATER LINE
	STREAM THALWEG (APPROXIMATED FROM A/LAS IMAGERY)
	EDGE OF GRAVEL
	EXISTING MAJOR CONTOUR (10 FT)
	EXISTING MINOR CONTOUR (5 FT)
	EXISTING POWER POLE
	CONTROL POINT
	EXISTING TAILINGS

NOTE:

1. AERIAL IMAGERY FROM MORRISON-MAIERLE WAS COLLECTED ON 6/7/2019 ON THIS SHEET.
2. SILT FENCE SHALL BE PLACED ACCORDING TO EROSION CONTROL PLAN.
3. WATER LINE TO BE RETAINED AND PROTECTED BY CONTRACTOR DURING ALL FIELD OPERATIONS. MAINTAIN VERTICAL AND HORIZONTAL SEPARATION FROM WATER LINE DURING EXCAVATION TO MAINTAIN PIPELINE INTEGRITY.



Morrison Maierle
engineers - surveyors - planners - scientists
1055 Mount Avenue, Mascota, MT 59001
Phone 406.542.8880 Fax 406.542.4801



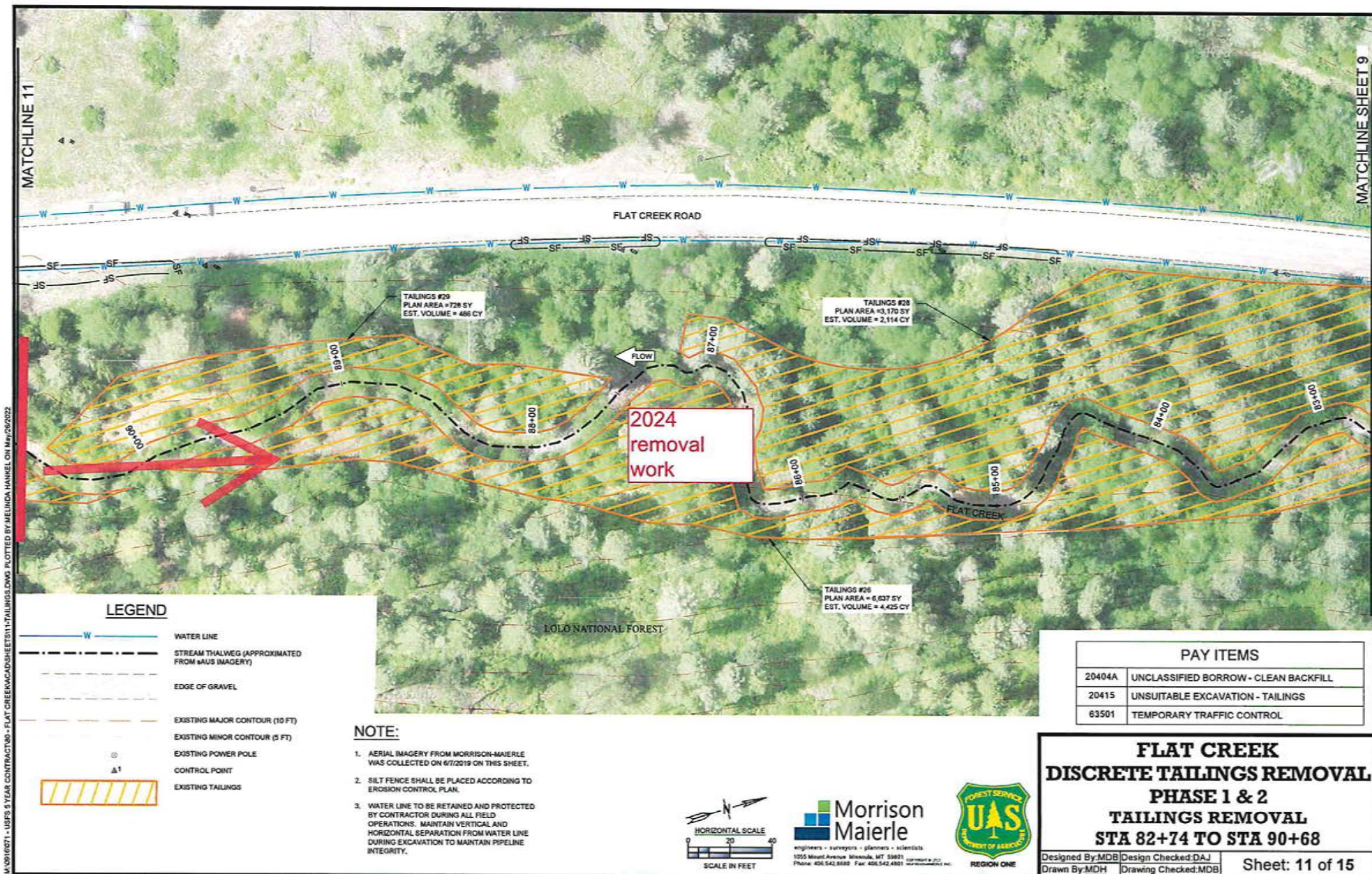
PAY ITEMS

20404A	UNCLASSIFIED BORROW - CLEAN BACKFILL
20415	UNSUITABLE EXCAVATION - TAILINGS
63501	TEMPORARY TRAFFIC CONTROL

FLAT CREEK DISCRETE TAILINGS REMOVAL PHASE 1 & 2 TAILINGS REMOVAL STA 76+05 TO STA 82+74

Designed By:MDB Design Checked:DAJ
Drawn By:MDH Drawing Checked:MDB

Sheet: 10 of 15





United States
Department of
Agriculture

Forest
Service

Lolo National Forest

Building 24, Fort Missoula
Missoula, MT 59804-7297
406 329-3750

November 10, 2023

Future Fisheries Improvement Program
c/o Michelle McGree
Montana Fish, Wildlife & Parks
P.O. Box 200701
1420 E. 6th Avenue
Helena, MT 59620-0701

RE: Trout Unlimited Funding Request for Flat Creek Mine Land Remediation and Stream Rehabilitation Project

Dear Panel Members:

Please accept this letter as the Lolo National Forest's support and endorsement of Trout Unlimited's application for Future Fisheries funding of our Flat Creek mine remediation and stream rehabilitation project. Working with the Mineral County Conservation District, Montana DNRC, and Montana DEQ, Trout Unlimited and LNF have partnered to reclaim sites occupied by contaminated materials by removing mining wastes and heavy metals that originated from the tailings impoundments on State Trust lands upstream. In addition, the Forest Service and TU have agreed to take actions that rehabilitate and enhance stream and floodplain functions and improve fisheries habitat within the affected portions of Flat Creek on National Forest System lands.

Flat Creek is a southerly flowing tributary entering the Clark Fork River at Superior, Montana. It is priority stream for remediation and restoration efforts because of extensive past mining and it is designated as a CERCLA (superfund) mine reclamation site. And, amazingly, because of its tight canyon and culvert barrier at the confluence, Flat Creek is relatively cold and holds substantive populations of genetically pure cutthroat, along with brook trout. We are in our last project phases and additional funding is really needed. Trout Unlimited and the Lolo National Forest have past experience in the Middle Clark Fork Drainage Creek drainage with many other successful mine reclamation projects, including spoil pile reclamation, mine tailings removal, stream channel reconstruction, revegetation and community outreach and education. We expect this project to have similar great results.

We really appreciate your consideration,

Sincerely,

/s/ Traci Sylte

Traci L. Sylte, PE/hydrologist
Watershed Program Manager
Lolo National Forest

/s/ Josh Schulze

Josh Schulze, Fisheries Biologist
Fisheries Program Manager
Lolo National Forest

