FUTURE FISHERIES IMPROVEMENT PROGRAM GRANT APPLICATION

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

I. APPLICANT INFORMATION

A. Applicant Name: George Grant Trout Unlimited

Mailing Address: PO Box 563

City: Butte State: MT Zip: 59711

Telephone: N/A E-mail: president@ggtu.org

B. Contact Person (if different than applicant): Alex Leone

Address: Same as above

City: State: Zip:

Telephone: 406-396-5284 E-mail: flyguymt84@gmail.com

C. Landowner and/or Lessee Name (if different than applicant): Anaconda-Deer Lodge County

Mailing Address: ADLC Courthouse First Foor, Planning Department, 800 Main Street

City: Anaconda State: MT Zip: 59711

Telephone: 406-563-4015 E-mail: Chamming@adlc.us

II. PROJECT INFORMATION

A. Project Name: Lower Fifer Gulch Stream Restoration Project

River, stream, or lake: Fifer Gulch and Warm Springs Creek

Location: Township: 05N Range: 11W Section: 33

Latitude: 46.141262 Longitude: -112.985192 *Within project (decimal degrees)*

County: Anaconda-Deer Lodge

B. Purpose of Project:

The overarching objective of the Fifer Gulch Stream Restoration Project is to restore and enhance aquatic and riparian conditions and enhance wild fish habitat at the confluence of Fifer Gulch and Warm Springs Creek (near Anaconda). In particular, the currently ditched and incised lower Fifer Gulch channel will be restored to a sinuous channel with a focus on the restoration of connectivity between the channel and adjacent floodplain (see attached conceptual design drawings). The project will result in over 1,000 feet of restored stream channel and the establishment of 5 acres of wetlands. Another long-term goal of this project is to establish a youth fishing opportunity at the project site, located just on the edge of urban Anaconda. Most importantly, Fifer Gulch and Warm Springs Creek both support robust populations of wild fish and this project will enhance and increase the habitat available.

C. Brief Project Description (attach additional information to end of application):

The Fifer Gulch drainage emerges on the flanks of Mount Haggin and the Anaconda Range just southwest of the urban core of Anaconda. The upper portion of Fifer Gulch flows through an aspen dominated forest, while its lower reaches traverse through beaver complexes (Figure 1) and two former water supply reservoirs before entering Anaconda and crossing under Highway 1. At this point, the stream is channelized (Figure 2) all the way to its confluence with Warm Springs Creek (approximately 650 feet). Water supplies in Fifer Gulch are significant and the stream supports westslope cutthroat, brown, and brook trout, as well as a host of wildlife species. Seasonal streamflow monitoring conducted in 2020-2021 showed that flows in Fifer Gulch range from over 30cfs during peak flow in the spring, to 2-3 cfs during baseflow periods. Anaconda Deer Lodge County (ADLC) controls all senior water rights in Fifer Gulch.

Adjacent to the channelized lower reach of Fifer Gulch – and fed by groundwater – an unnamed spring creek emerges and flows 600 feet to its confluence with WSC. The spring creek has a consistent flow of 1-2 cfs, with water temperatures in the 44-50°F range throughout summer. Like Fifer Gulch, the spring creek is ditched directly into Warm Springs Creek, just downstream of the Fifer-WSC confluence (Figure 3). It has no associated water rights.

George Grant Trout Unlimited (GGTU) has been working with Fish Wildlife and Parks (FWP), Water and Environmental Technologies (WET) and River Design Group (RDG) on a plan to connect and re-naturalize these channelized and incised waterways, adding over 1,000 feet of meandering stream, new fish habitat, spawning opportunities and over 5 acres of wetlands. This project will combine water supplies in both Fifer Gulch and the unnamed spring creek. This will augment baseflows and increase water quality in the restored Fifer channel and ultimately Warm Springs Creek. The project, which is being spearheaded by volunteers with GGTU, will also push cold spring creek water into Fifer Gulch, which will help thermally regulate the water in the system before it flows into WSC.

In addition to fish habitat and thermal refuge, there is also potential to add a recreational component to the project by integrating a “kids fishing area” into the project. This would involve the construction of several purpose-built fish habitat structures that would provide fish cover and an easy spot for a kid to cast a line and connect with nature, all within walking/biking distance to town.

Although this project is being spearheaded by GGTU, we have numerous project partners including the Anaconda Trails Society, Clark Fork Coalition, the Anaconda Sportsmen and the Public Land and Water Association (PLWA). In addition, the Anaconda-Deer Lodge board of commissioners approved the project on May 2nd, 2023 with a unanimous 5-0 vote. We also have the support of one of Montanas best fisheries biologists, Caleb Uerling and his guidance has been invaluable.

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

As with most of the water sources in the Warm Springs Creek drainage, significant mining and smelting activities resulted in the channelization and modification of water supplies in the Fifer Gulch drainage. Beginning in the late 1890's and continuing through the 1930's water supplies in Fifer Gulch were utilized in both the smelter operations and eventually, Anaconda's public water supply. At the lower reaches of Fifer Gulch, water was historically impounded in a series of small reservoirs. A flash flood that occurred on Fifer Gulch in 1938 destroyed one of the lower storage reservoirs, vastly reducing the capacity of the municipal and industrial system.

The reach of the Fifer Gulch system immediately upstream of Anaconda is currently dominated by a series of beaver dams that worked to effectively reestablish a small amount of natural storage in the middle of the historic reservoirs (see figure 1). Downstream of the historic reservoirs, water in Fifer Gulch is channelized through a neighborhood on the west end of Anaconda before crossing underneath Highway 1 and entering the project site (approximately 700 feet upstream of Fifer's confluence with Warm Springs Creek). According to historical photos, this section of Fifer Gulch (and the associated spring creek) have both been channelized since at least the late 1950's when a subdivision was platted upstream of the project site.

The section of Warm Springs Creek in the vicinity of the Fifer Gulch confluence was heavily modified and impaired by historic mining activities, most significantly an old railroad line that ran west of Anaconda to the lime quarry. In addition to maintaining berms on WSC, the Anaconda Company used to cut back and control the riparian vegetation. Although Warm Springs Creek has naturally recovered and improved since the Anaconda Company days, significant impairments remain throughout the system.

This project will work to restore ecological stream function in Fifer Gulch (and the unnamed spring creek) in addition to improving and restoring connectivity between lower Fifer Gulch, the adjacent floodplain and Warm Springs Creek. The project also has the potential to augment refugia habitat on the mainstem of Warm Springs Creek as well. Due in large part to historic smelting activities, there aren't any other perennial tributaries that connect to Warm Springs Creek downstream of the West Valley (other than Fifer Gulch).

E. Length of stream or size of lake that will be treated (project extent): 1000 feet on Fifer Gulch

Length/size of impact, if larger than project extent (e.g., stream miles opened): 5 acres of wetland created

F. Project Budget Summary:

Grant Request (Dollars):	**$**	**154,730**
Matching Dollars:	**$**	**116,000**
Matching In-Kind Services:*	**$**	**16,250**
Other Contributions (not part of this app)	**$**	
Total Project Cost:	**$**	**286,980**

**salaries of government employees are not considered matching contributions*

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 fish biologist support). List any other project partners:

See attached letters of support. Project partners include Anaconda-Deer Lodge County, the Clark Fork Coalition, Montana Trout Unlimited and the Anaconda Sportsmen

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.*

This project is located on Anaconda Deer Lodge property next to important water supply infrastructure (municipal wells) and the County frequently visits the project location. GGTU has received support from the County on the project and will be coordinating with ADLC to ensure that the project is protected and maintained. Access will be controlled at the beginning of the project to ensure that the riparian ecosystem has an opportunity to recover. Ongoing maintenance needs are anticipated to be minimal after the vegetation has been established.

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.*

Limited grazing was allowed on portions of the project site until 2022 (when grazing was officially prohibited). The County no longer allows any grazing in the project area.

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?

The project will be monitored by both GGTU volunteers and FWP to access project benefits. FWP did limited population sampling in both Fifer Gulch and the associated spring creek in 2021 that can be used broadly as pre-project data. FWP has committed to collecting post project data as well. GGTU also plans to work with volunteers to track riparian habitat conditions over time. The Natural Resources Damage Program and the Clark Fork Coalition (CFC) monitored flows and water temperatures pre-project. CFC will be collaborating with GGTU for post project flow and water temperature monitoring efforts.

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

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

A host of fish species will benefit from this project including those resident species that were sampled by FWP in 2021. According to FWP biologist Caleb Uerling, the fish assemblage present in lower Fifer Gulch and the spring creek are representative of the population makeup in the adjacent section of Warm Springs Creek. Brown trout were the predominant species sampled in 2021 but the creek also contained significant numbers of cutthroat and rainbow-cutthroat hybrids. FWP also sampled Columbia slimy sculpin, brook trout and longnose sucker. Migratory bull trout are known to inhabit this section of Warm Springs Creek although none were found in lower Fifer during the 2021 sampling effort.

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

The restored Fifer Gulch channel will provide a host of fish habitat improvements. From an increase in overall channel length to improved water quality and corollary improvements in Warm Springs Creek fish habitat. Due to the incredibly incised nature of the Fifer and Spring Creek channels (see Figures 2 and 3), the current riparian community is inhibited by a lack of connectivity between the channel and the floodplain. The current riparian community in the lower Fifer Gulch channel is dominated by decadent and decaying cottonwood trees. The adjacent floodplain is dominated by pasture grasses. This project will re-establish connectivity and promote both riparian and wetland vegetative communities both along the channel and in the adjacent floodplain. This project also includes the construction of several purpose-built riffle pool structures that incorporate boulders and woody debris.

One of the secondary components of the projects is the construction of a backwater feature on Warm Springs Creek at the former confluence of Fifer Gulch (see design maps for details). This feature will add an important off-stream habitat component with the potential to provide up to 0.5 acres of enhanced open water-emergent-shrub wetland complexes.

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

This project will augment and enhance fish habitat and increase overall stream length. As the limited population data from FWP shows, the impaired and channelized Fifer Gulch and unnamed spring creek already support a diverse array of trout and other native fish, even in the degraded and channelized current state. This project will only work to improve habitat conditions and should help buffer overall fish populations. In the short term, we are expecting that increases in overall channel length and connectivity to high quality water from the spring creek will result in increases to the lower Fifer system's carrying capacity. In the longer term, we hope that the re-establishment of overall stream and floodplain function will promote and enhance cold water refugia habitat for critical native and wild fish populations (including bull trout).

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.

Although fish habitat is a primary goal of this project, GGTU is also excited about the recreational component. One of the longer-term goals of this project is to create a small stream fishing experience for kids in Anaconda. The restored Fifer Gulch channel will include several riffle pool structures that incorporate boulders and woody debris. These structures are designed to not only augment fish habitat but provide a spot for a kid to cast a line. As many of us that live in Anaconda can attest to, Warm Springs Creek is wadeable for only the most experienced and hearty anglers. This project will open up over 1,000 feet of stream that was mostly inaccessible to angling due to the large berms and straightened channel. In addition to the project site itself, ADLC owns a significant portion of the WSC riparian corridor downstream of the project area and that is frequently fished. One of the goals of this project is to augment fish habitat in lower Fifer Gulch (for the kids) and provide a benefit to the Warm Springs Creek fish populations (for the adults).

The proposed project location sits on the edge of the urban area of Anaconda in an area that is easily accessible, but tremendously underutilized. As stated, restoring this creek will enable the public, but local youth in particular, to access a productive fishery thereby promoting healthy living through outdoor activities.

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

ADLC maintains a trail system and parking lot immediately adjacent to the Fifer project site. Although there won't be any trails developed at the project site itself, another longer-term goal of the Fifer project is to connect this recreational amenity with the broader Anaconda Parks and Trails system. This project will also boost riparian and wetland habitat by adding over 5 acres of wetland habitat. One of the most important aspects of this project is the public access opportunities. This is currently an underutilized section of habitat-rich public land.

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

The project will not impact any water rights. ADLC controls all of the water in the Fifer Gulch system as a municipal water right (as a backup water supply).

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

No, the project is located on public (ADLC) property and will be accessible for all. However, fishing opportunities on lower Fifer will be designed for kids.

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

No, there was no historic mining in the project area. Due to the institutional controls stemming from CERCLA, soil disturbance of this magnitude triggers the Administrative Development Permit process to ensure the exposed dirt isn't contaminated with heavy metals, but this is standard practice in ADLC and will not trigger any additional costs (permitting or construction).

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: *Alex Leone* Date: 11/15/2023

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

BUDGET TEMPLATE SHEET FOR FUTURE FISHERIES PROGRAM APPLICATIONS

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* **								
Conceptual design & initial cost estimates	1	Lump Sum	$19,700.00	$ 19,700.00		19,700.00		$ 19,700.00
Field Assessment and survey	1	Lump Sum	$17,266.00	$ 17,266.00		17,266.00		$ 17,266.00
Engineeering and design	1	Lump Sum	$16,970.00	$ 16,970.00		16,970.00		$ 16,970.00
Permitting (404, LOMR, 310 & 318)	1	Lump Sum	$46,857.50	$ 46,857.50		46,857.00		$ 46,857.00
Construction Management	1	Lump Sum	$2,000.00	$ 2,000.00		2,000.00		$ 2,000.00
				$ -				$ -
			Sub-Total	$ 102,793.50	$ -	$ 102,793.00	$ -	$ 102,793.00
Travel								
Mileage				$ -				$ -
Per diem				$ -				$ -
			Sub-Total	$ -	$ -	$ -	$ -	$ -
Construction Materials****								
Excavate, haul and place floodplain backfill	2770	Cubic Yards	$6.00	$ 16,620.00	16,620.00			$ 16,620.00
Furnish wood	1	Lump Sum	$12,000.00	$ 12,000.00		12,000.00		$ 12,000.00
Furnish riffle boulders	45	Cubic Yards	$50.00	$ 2,250.00		2,250.00		$ 2,250.00
Furnish streambed and streambank aluvium	745	Cubic Yards	$10.00	$ 7,450.00	7,450.00			$ 7,450.00
Construct channel streambed	680	Linear Feet	$25.00	$ 17,000.00	17,000.00			$ 17,000.00
Construct log step pool	4	Each	$1,500.00	$ 6,000.00	6,000.00			$ 6,000.00
Construct vegetated wood matrix type 1	2035	Linear Feet	$18.00	$ 36,630.00	36,630.00	15,207.00		$ 51,837.00
Construct vegetated wood matrix type 2	325	Linear Feet	$30.00	$ 9,750.00	9,750.00			$ 9,750.00
Construct side channel	400	Linear Feet	$4.00	$ 1,600.00	1,600.00			$ 1,600.00
Furnish willow cuttings	10000	Each	$1.00	$ 10,000.00	10,000.00			$ 10,000.00
Riparian and upland broadcast seeding	1	Lump Sum	$1,500.00	$ 1,500.00	1,500.00			$ 1,500.00
Install floodplain roughness	0.4	Per Acre	$1,700.00	$ 680.00	680.00			$ 680.00
				$ -				$ -
			Sub-Toal	$ 121,480.00	107,230.00	29,457.00		$ 136,687.00
Equipment, Labor, and Mobilization								
Mobilization, GPS equipement, crew per diem	1	Lump Sum	$26,000.00	$ 26,000.00	26,000.00			$ 26,000.00
Construct and imporve existing access road and staging areas	1	Lump Sum	$2,000.00	$ 2,000.00	2,000.00			$ 2,000.00
Construct and decomission clearwater diversion	1	Lump Sum	$1,500.00	$ 1,500.00	1,500.00			$ 1,500.00
Salvage, preserve and transplant existing vegetation	1	Lump Sum	$4,000.00	$ 4,000.00	4,000.00			$ 4,000.00
Clear and grub site	1	Lump Sum	$4,000.00	$ 4,000.00	4,000.00			$ 4,000.00
Construct wetlands and backwater alcove	1	Lump Sum	$4,000.00	$ 4,000.00	4,000.00			$ 4,000.00
Stormwater discharge general constuction permit/ local development permit	1	Lump Sum	$6,000.00	$ 6,000.00	6,000.00			$ 6,000.00
				$ -				$ -
				$ -				$ -
				$ -				$ -
				$ -				$ -
				$ -				$ -

(Revised 11/15/2023)

BUDGET TEMPLATE SHEET FOR FUTURE FISHERIES PROGRAM APPLICATIONS

				$ -				$ -
				$ -				$ -
				$ -				$ -
				$ -				$ -
			Sub-Total	$ 47,500.00	$ 47,500.00	$ -	$ -	$ 47,500.00
			TOTALS	$ 271,773.50	$ 154,730.00	$ 132,250.00	$ -	$ 286,980.00

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)
George Grant Trout Unlimited	$ 2,000.00	$ 70,000.00	$ 72,000.00	Y
The Charlotte Martin Foundation	$ -	$ 20,000.00	$ 20,000.00	Y
The Anaconda Sportsmen	$ -	$ 1,000.00	$ 1,000.00	Y
Montana Trout Unlimited	$ -	$ 5,000.00	$ 5,000.00	Y
Western Native Trout Initiative	$ -	$ 20,000.00	$ 20,000.00	N
Anaconda Deer Lodge County	$ 14,250.00	$ -	$ 14,250.00	Y
	$ -	$ -	$ -	
	$ -	$ -	$ -	
TOTALS	$ 16,250.00	$ 116,000.00	$ 132,250.00	

OTHER CONTRIBUTIONS

(contributions not associated with the application)

CONTRIBUTOR	IN-KIND	CASH	TOTAL	Secured? (Y/N)
	$ -	$ -	$ -	
	$ -	$ -	$ -	
	$ -	$ -	$ -	
	$ -	$ -	$ -	
	$ -	$ -	$ -	
	$ -	$ -	$ -	
	$ -	$ -	$ -	
	$ -	$ -	$ -	
TOTALS	$ -	$ -	$ -	

Fifer Gulch Stream Restoration Project Map

Figure 1- Lower Fifer Gulch channel approximatley 500 feet upstream of the confluence with Warm Springs Creek. Note the berms and straightened channel.

Figure 2- The lower portion of the unnamed spring creek channel about 50 feet upstream of it's confluene with Warm Springs Creek.

Figure 3- The Fifer Gulch channel upstream of urban Anaconda is dominated by a series of beaver complexes that support a robust suite of aquatic and terrestrial wildlife species.

Figure 4- Pre project photo of Fifer Gulch at the beginning of the proposed restoration reach, approximately 1000 feet upstream of Fifer's confluence with Warm Springs Creek. As you can see there are various pieces of old infrastructure that may be inhibiting passage at certain levels.

Figure 5- The confluence of Fifer Gulch and Warm Springs Creek (water is flowing from left to right). Note the incised channel and berms at the confluence.

Water & Environmental TECHNOLOGIES

480 East Park Street | Butte, Montana 59701
(406)782-5220
info@waterenvtech.com
waterenvtech.com

RDG RIVER DESIGN GROUP

236 Wisconsin Avenue | Whitefish, Montana 59937
(406) 862-4927
info@riverdesigngroup.com
riverdesigngroup.com

Fifer Gulch Stream Restoration Project

Anaconda, Montana

Prepared for:

The George Grant Chapter of Trout Unlimited
PO BOX 563
Butte, Montana 59703

April 26, 2022

Date: April 26, 2023

To: George Grant Chapter of Trout Unlimited Board of Directors

From: Water & Environmental Technologies and River Design Group, Inc.

Subject: **Fifer Gulch Stream Restoration Project Conceptual Design**

The objective of the Fifer Gulch Stream Restoration Project is to restore and enhance aquatic and riparian habitat throughout the project reach, which extends from Highway 1 east to the Fifer Gulch confluence with Warm Springs Creek. In particular, the ditched and channelized Fifer Gulch Creek will be restored to a sinuous channel with a focus on the restoration of aquatic habitat as well as riparian floodplain habitat. The upstream 900 feet of Fifer Gulch Creek will exhibit a hydrologically connected floodplain at bankfull flow events, with an average gradient of 0.39%. A step-pool system with an average slope of 3.0% will be constructed in the most downstream 300-foot section of the restored Fifer Gulch Creek. This reach will feature log step pools with rock footers for additional grade control redundancy. The step pools will transition the channel longitudinally to the confluence with Warm Springs Creek. In addition, an unnamed spring-fed ditch to the south will be restored to a sinuous spring creek and will route flow north into Fifer Gulch Creek at approximately Station 4+00 on the restored Fifer Gulch alignment. The conceptual design plan set for the Fifer Gulch Stream Restoration Project is included as **Attachment 1**.

The restored Fifer Gulch Creek is a gravel dominated, slightly entrenched, alternating riffle-pool stream type (C4 stream type) transitioning to a step-pool, moderately entrenched, B4 stream type. The alignment and floodplain profile ties into existing shrub and forested vegetation communities to the greatest extent possible. Fifer Gulch Creek stream length will be increased by 63%, from 670 feet of straightened ditch to 1,090 feet of restored riverine habitat. In addition, up to 4 acres of connected floodplain habitat will be created which will support emergent, scrub-shrub, and forested wetland communities. A total of 850 feet of existing ditch will be plugged, and up to 0.5 acres of enhanced open water-emergent-shrub wetland complexes will be created along the existing stream alignments to be plugged, including a Warm Springs Creek alcove if desired for added habitat benefit and fish refugia.

The restored Unnamed Spring Creek will contribute flow to Fifer Gulch directly upstream of a planned crossing, which will allow the establishment of one single hardened ford crossing on the restored Fifer Gulch Creek for access to the west side of the creek. The existing pump house to the south will remain undisturbed within its existing fence line. A day use picnic facility area is also incorporated at a downstream ditch plug site, which can incorporate shade tree planting and other recreational facility elements if desired.

An engineer's cost opinion was developed for the Fifer Gulch Stream Restoration Project that provides both low and high construction cost estimates and includes a 10% contingency cost. The anticipated construction costs are separated by bid item and

estimated quantities are provided. The construction cost estimate ranges from $151,107.00 to $211,167.00 as detailed in **Attachment 2**.

Environmental permitting requirements for the Fifer Gulch Stream Restoration Project will consist of various streamside permits involving multiple agencies. Anticipated permits include:

- Section 404 permit from the U.S. Army Corps of Engineers (Corps) and accompanied 401 Certification;
- Floodplain Development Permit from Anaconda-Deer Lodge County (ADLC);
- Montana Natural Streambed and Land Preservation Act – 310 permit from the local Conservation District (CD);
- Short-Term Water Quality Standard for Turbidity – 318 authorization from Montana Department of Environmental Quality (DEQ);
- Local Development Permit from ADLC; and
- Stormwater Discharge General Construction Permit from DEQ.

The Section 404 permit, Floodplain Development Permit, 310 Permit, and 318 authorization can be submitted through a single Joint Application (For Proposed Work In Montana's Stream, Wetlands, Floodplains & Other Water Bodies (Joint Application)) submittal.

The Corps will likely permit this project under a Nationwide Permit (NWP) 27 – Aquatic Habitat Restoration, Establishment, and Enhancement Activities. The project is located within Bull Trout critical habitat and Section 7 consultation with the U.S. Fish and Wildlife Service (USFWS) will be covered under the Corps' programmatic Biological Assessment (BA) for Standard Local Operating Procedures for Endangered Species (SLOPES). A site-specific BA is not anticipated. A wetland assessment and ordinary high-water mark (OHWM) delineation will be required to complete the permit application. As part of the initial wetland/OHWM delineation the current stream impairments require documentation and need to be compared to a reference reach. The application will also detail measurable wetland performance criteria and a monitoring plan to ensure wetland restoration success. A condition of NWP 27 is to quantify that wetland acreage post-construction equals or is greater than existing, pre-construction wetland acreage. Typically, the Corps requires evidence that there are no cumulative wetland losses after the 3rd growing season. This can be accomplished by a post-construction ground delineation or drone flight wetland interpretation map with ground truth verification. Section 404 permitting tasks and anticipated timeframes are detailed in the table provided in **Attachment 3** and permitting costs are included in the cost proposal included in **Attachment 4**.

Review of the effective FEMA Flood Insurance Rate Map (FIRM) shows that Fifer Gulch is currently unmapped but is within the flood fringe of the Warm Springs Creek Zone AE Special Flood Hazard Area (SFHA). At a minimum, the floodplain development permit will require a hydrologic and hydraulic analysis by an engineer to assess the effects of the proposed project on the Warm Springs Creek 100-year base flood elevation (BFE), flood flows, and flood velocities. Upon completion of the analysis, the next step of permitting can be determined. Currently, the restoration project has a couple of areas of proposed enhancements (e.g., constructed wetland, backwater wetland, etc.) and bisects an area

mapped as Zone C (i.e., the area is above the 500-year BFE). Because the work would alter the SFHA boundary, a revision to the FIRM may be required and is referred to as a Letter of Map Revision (LOMR). A LOMR must be preceded by an approved alteration of the designated floodplain from the DNRC and subsequently an amendment to the SFHA. Verification by FEMA if a LOMR is required will be done as part of the hydrologic and hydraulic analysis. Floodplain permitting tasks and anticipated timeframes are detailed in the table provided in **Attachment 3,** and permitting costs and FEMA review fees are included in the cost proposal included in **Attachment 4**.

Of note, because Fifer Gulch is unmapped and is within the Warm Springs Creek flood fringe according to the FEMA Detailed Study, a Conditional Letter of Map Revision (CLOMR) is not applicable.

The local Conservation District will likely require an on-site visit to review the project and 310 permit application, typically this site visit is conducted with a Conservation District Board Member, a Montana Fish Wildlife and Parks (FWP) Fisheries Biologist and project representative. It is anticipated that the fisheries biologist will approve the 318 authorization during the site inspection and 310 Permit approval process. The 310 permitting and 318 authorization effort and anticipated timeframes are incorporated into the Joint Application Submittal Task detailed in the table provided in **Attachment 3** and permitting costs are included in the cost proposal included in **Attachment 4**.

The Local Administrative Development Permit will be required during construction as well as a Stormwater Discharge General Construction Permit. Typically, these permits are acquired and administered by the selected construction contractor; therefore, cost estimates were not provided in the cost proposal. These costs are incorporated into the engineer's construction cost opinion provided in **Attachment 2**.

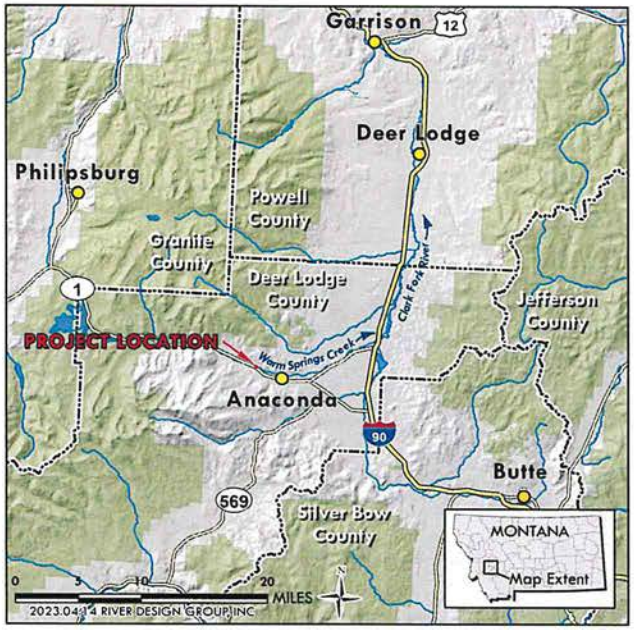
Several additional tasks are required to move from the conceptual planning phase to preliminary and final design including developing the necessary bid documents. Additional field assessments and surveys will be required to complete the design, including stream cross-sections, longitudinal profiles, and channel tie-in analysis. Following survey and data analysis preliminary and final plan sets will be required along with final bid documents. The tasks and associated costs to develop the final design are included in **Attachment 4**, along with associated permitting tasks and costs. Total engineering and permitting costs for the project are estimated at $81,093.50 placing the range of the total project cost (construction and professional services) between $232,200.50 and $292,260.50.

Attachment 1

Fifer Gulch Stream Restoration Project
Conceptual Design Plan Set

FIFER GULCH STREAM RESTORATION PROJECT
CONCEPTUAL DESIGN PLAN SET

FIFER GULCH VICINITY MAP



LEGAL DESCRIPTION: S33,T05N R11W, P.M., M
ANACONDA-DEERLODGE COUNTY, MONTANA

PROJECT PARTNERS

GEORGE GRANT CHAPTER OF TROUT UNLIMITED
PO BOX 563
BUTTE, MONTANA 59701

PROJECT DESCRIPTION

THE FIFER GULCH WATERSHED IS LOCATED SOUTH OF ANACONDA, MONTANA. THE DRAINAGE ORIGINATES ON THE FLANKS OF MOUNT HAGGIN, IMMEDIATELY TO THE EAST OF HEARST LAKE AND ICEHOUSE GULCH DRAINAGES AND DIRECTLY SOUTHWEST OF THE URBAN CORE OF ANACONDA. THE UPPER PORTION OF FIFER GULCH FLOWS THROUGH AN ASPEN DOMINATED FOREST, WHILE ITS LOWER REACHES TRAVERSE THROUGH TWO OLD WATER SUPPLY RESERVOIRS BEFORE ENTERING ANACONDA. AS FIFER GULCH ENTERS ANACONDA, IT IS CHANNELIZED DOWNSTREAM OF STUMPTOWN ROAD AND FLOWS NORTHEAST UNDER HIGHWAY 1 AND THROUGH THE PROJECT AREA BEFORE ENTERING WARM SPRINGS CREEK.

RIVER DESIGN GROUP (RDG) AND WATER & ENVIRONMENTAL TECHNOLOGIES (WET) WERE RETAINED BY GEORGE GRANT CHAPTER OF TROUT UNLIMITED (GGTU) TO CREATE A CONCEPTUAL STREAM AND FLOODPLAIN DESIGN ENCOMPASSING 720 FEET OF STRAIGHTENED FIFER GULCH CREEK, WITH THE OBJECTIVE OF RESTORING AND ENHANCING AQUATIC AND RIPARIAN HABITAT. THE PROJECT INCLUDES FIFER GULCH CREEK AND AN UNNAMED SPRING CREEK DIRECTLY TO THE WEST OF WARM SPRING CREEK. THE STREAM AND FLOODPLAIN RESTORATION DESIGN WILL UTILIZE EXISTING HIGH QUALITY RIPARIAN VEGETATION TO THE GREATEST EXTENT POSSIBLE AND WILL PROVIDE A WIDE ARRAY OF FISH HABITAT. THIS CONCEPTUAL DESIGN INCORPORATES PURPOSE-BUILT FISH HABITAT STRUCTURES AND STREAM RESTORATION TECHNIQUES ACKNOWLEDGING THE CONSTRAINTS OF THE ANACONDA - DEER LODGE COUNTY INFRASTRUCTURE.

DRAWING INDEX

1.0 COVER SHEET AND NOTES
2.0 EXISTING CONDITIONS
3.0 SITE PLAN AND PROFILE
4.0 RELATIVE ELEVATION MAP
4.1 EARTHWORK MAP

STANDARD OF PRACTICE

RIVER DESIGN GROUP, INC. WORKS EXCLUSIVELY IN THE RIVER ENVIRONMENT AND UTILIZES THE MOST CURRENT AND ACCEPTED PRACTICES AVAILABLE FOR PLANNING AND DESIGN OF RIVER, FLOODPLAIN, AND AQUATIC HABITAT RESTORATION PROJECTS. CURRENT STANDARDS FOR THE DESIGN OF RESTORATION PROJECTS VARY DEPENDING ON PROJECT GOALS.

REUSE OF DRAWINGS

RDG RIVER DESIGN GROUP

WET Water & Environmental TECHNOLOGIES

COVER SHEET AND NOTES

FIFER GULCH STREAM RESTORATION PROJECT
ANANCONDA, MONTANA

NO.	DATE	BY	DESCRIPTION	CHK
*	04/15/23	NW	CONCEPTUAL DESIGN	NW

PROJECT NUMBER
RDG-22-279

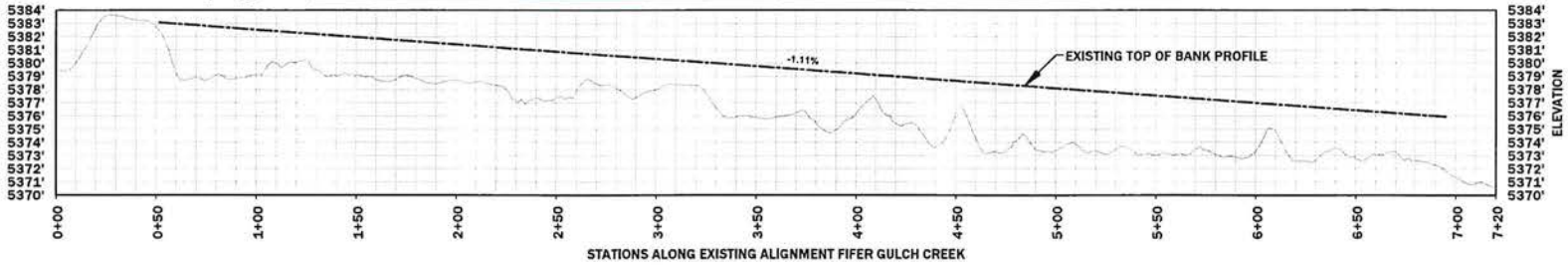
DRAWING NUMBER
1.0

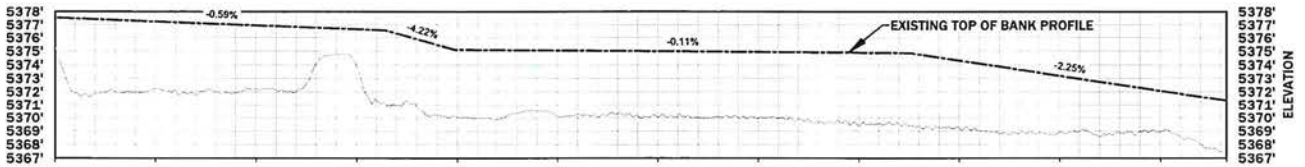
Drawing 1 of 5

M:\Projects\2022\RDG-22-279 Fifer Gulch Stream Restoration\CAD\2023-4-15 FG Concept - Plan View.dwg

1 FIFER GULCH CREEK PLAN VIEW

1" = 20'





2 FIFER GULCH CREEK PROFILE VIEW

1" = 20'

M:\Projects\2022\RDG-22-279 Fifer Gulch Stream Restoration\CAD\2023-4-15 FG Concept - Plan View.dwg

RDG river design group

WET Water & Environmental TECHNOLOGIES

EXISTING CONDITIONS

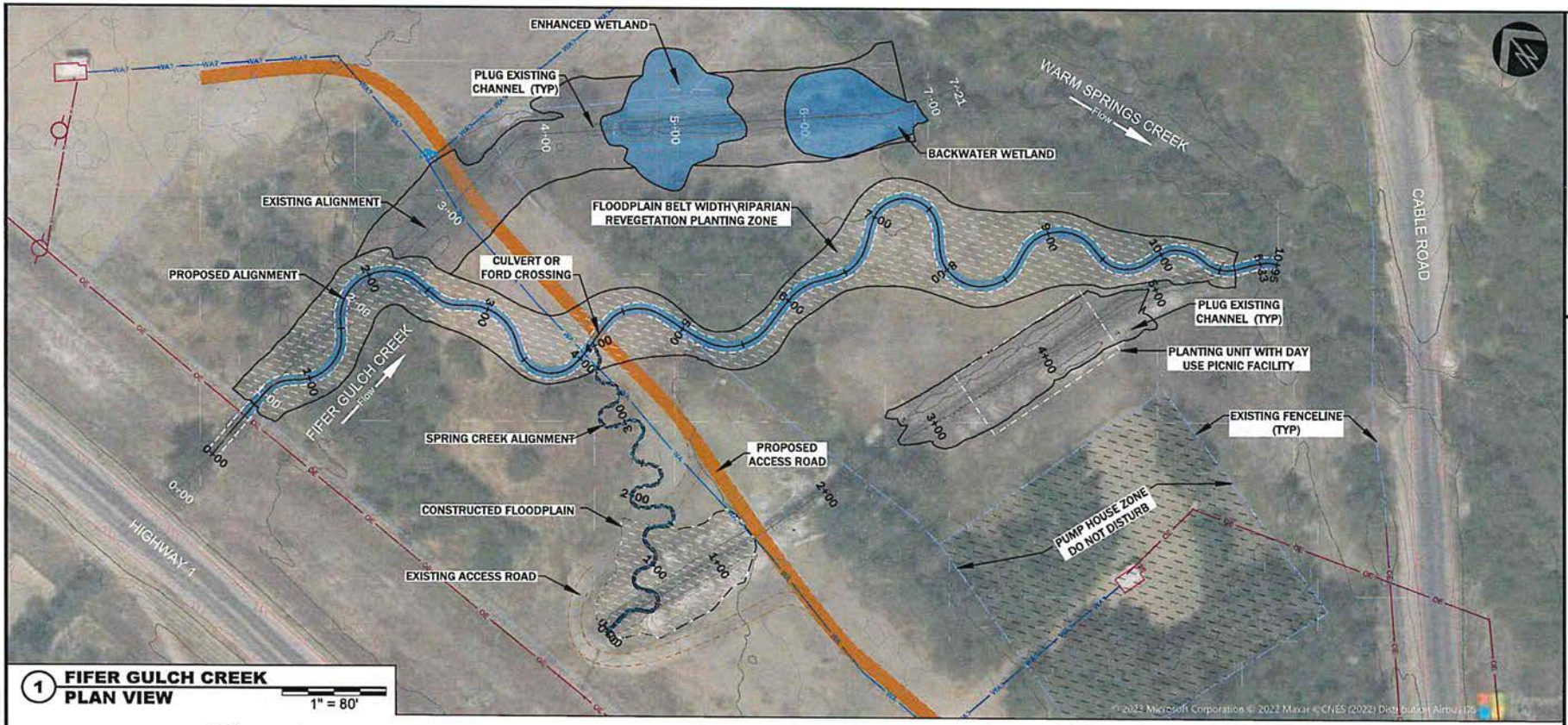
FIFER GULCH STREAM RESTORATION PROJECT
ANANCONDA, MONTANA

NO.	DATE	BY	DESCRIPTION	CHK
*	04/15/23	NW	CONCEPTUAL DESIGN	NW

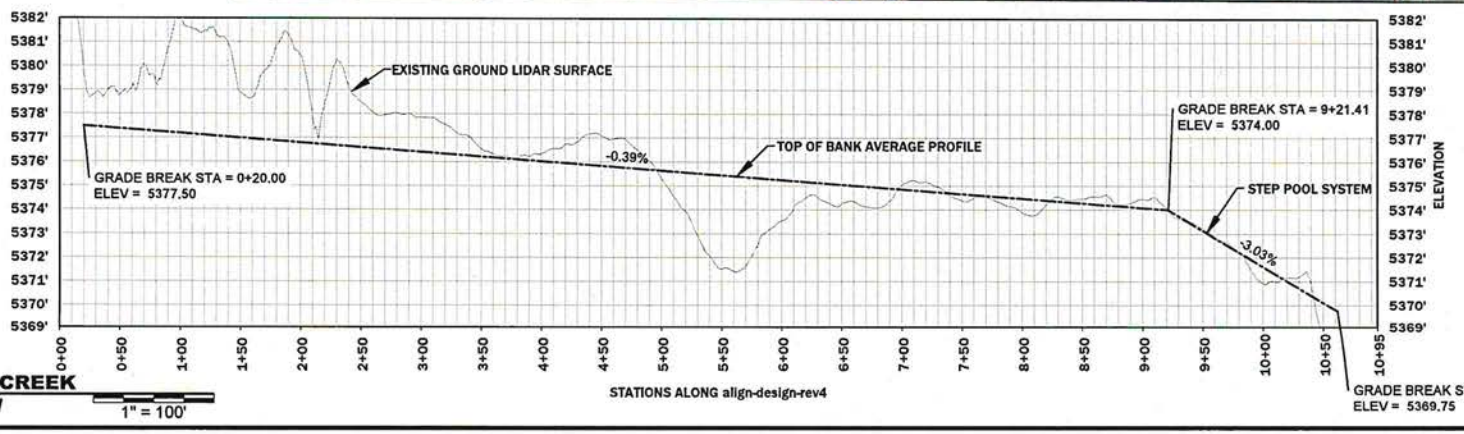
PROJECT NUMBER
RDG-22-279

DRAWING NUMBER
2.0

Drawing 2 of 5



1 FIFER GULCH CREEK PLAN VIEW 1" = 80'



2 FIFER GULCH CREEK PROFILE VIEW 1" = 100'

RDG RIVER DESIGN GROUP

Water & Environmental TECHNOLOGIES

PLAN AND PROFILE

FIFER GULCH STREAM RESTORATION PROJECT
ANANCONDA, MONTANA

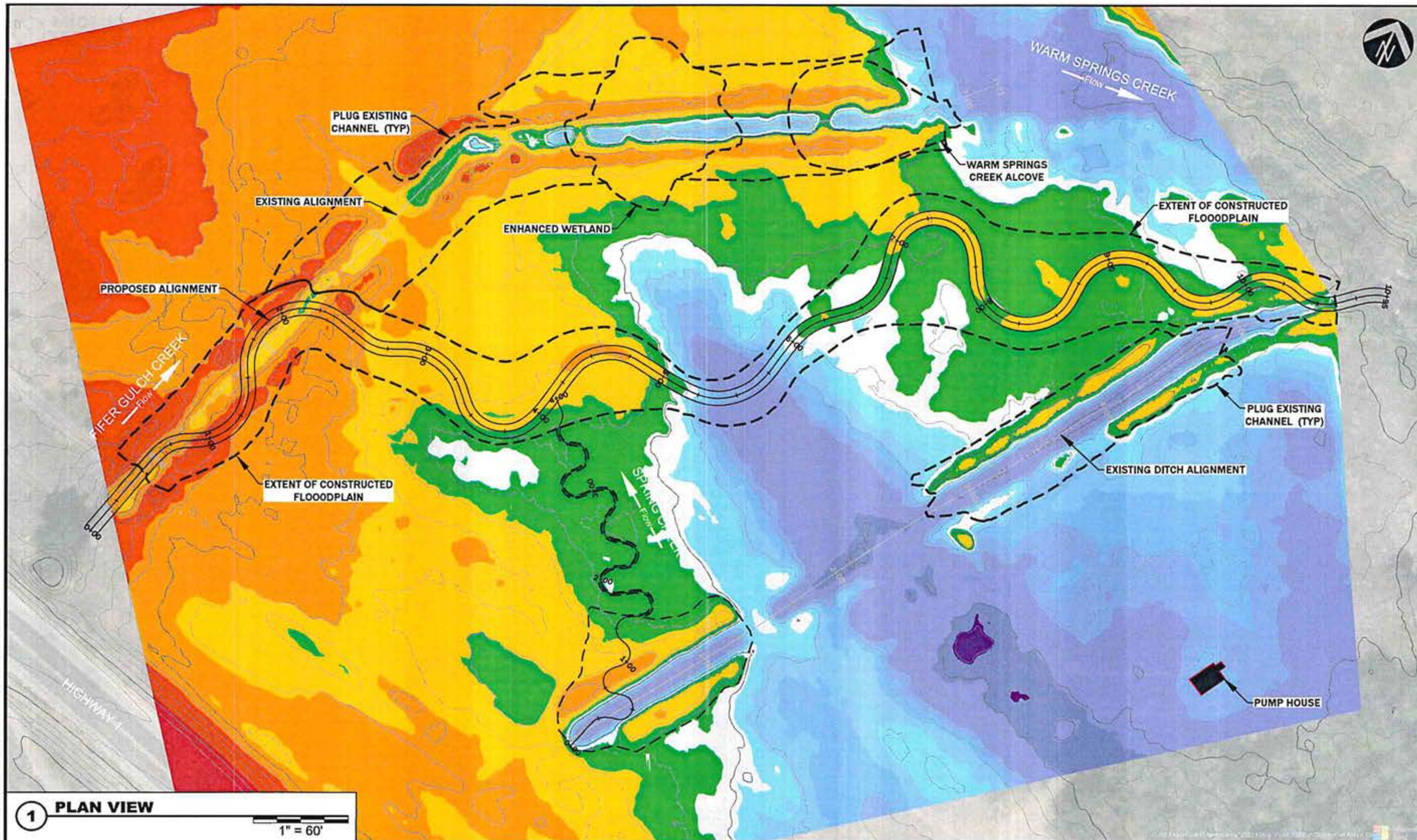
NO.	DATE	BY	DESCRIPTION	CHK
*	04/15/23	NW	CONCEPTUAL DESIGN	NW

PROJECT NUMBER
RDG-22-279

DRAWING NUMBER
3.0

Drawing 3 of 5

M:\Projects\2022\RDG-22-279 Fifer Gulch Stream Restoration\CAD\2023-4-15 FG Concept - Plan View.dwg



(1) **PLAN VIEW**

1" = 60'

< -9.0'	-8.0'	-7.0'	-6.0'	-5.0'	-4.0'	-3.0'	-2.5'	-2.0'	-1.5'	-1.0'	-0.5'	0.5'	1.0'	1.5'	2.0'	2.5	3.0'	4.0'	5.0'	6.0'	7.0'	8.0'	9.0' >

DEPTH FROM EXISTING GROUND TO THE RDG CONCEPTUAL BANKFULL PROFILE

M:\Projects\2022\RDG-22-279 Fifer Gulch Stream Restoration\CAD\2023-4-15 FG Concept - BKF Heat Ramp.dwg

RDG RIVER DESIGN GROUP

Water & Environmental TECHNOLOGIES

RELATIVE ELEVATION MAP

BANKFULL VS. EXISTING GROUND

FIFER GULCH STREAM RESTORATION PROJECT

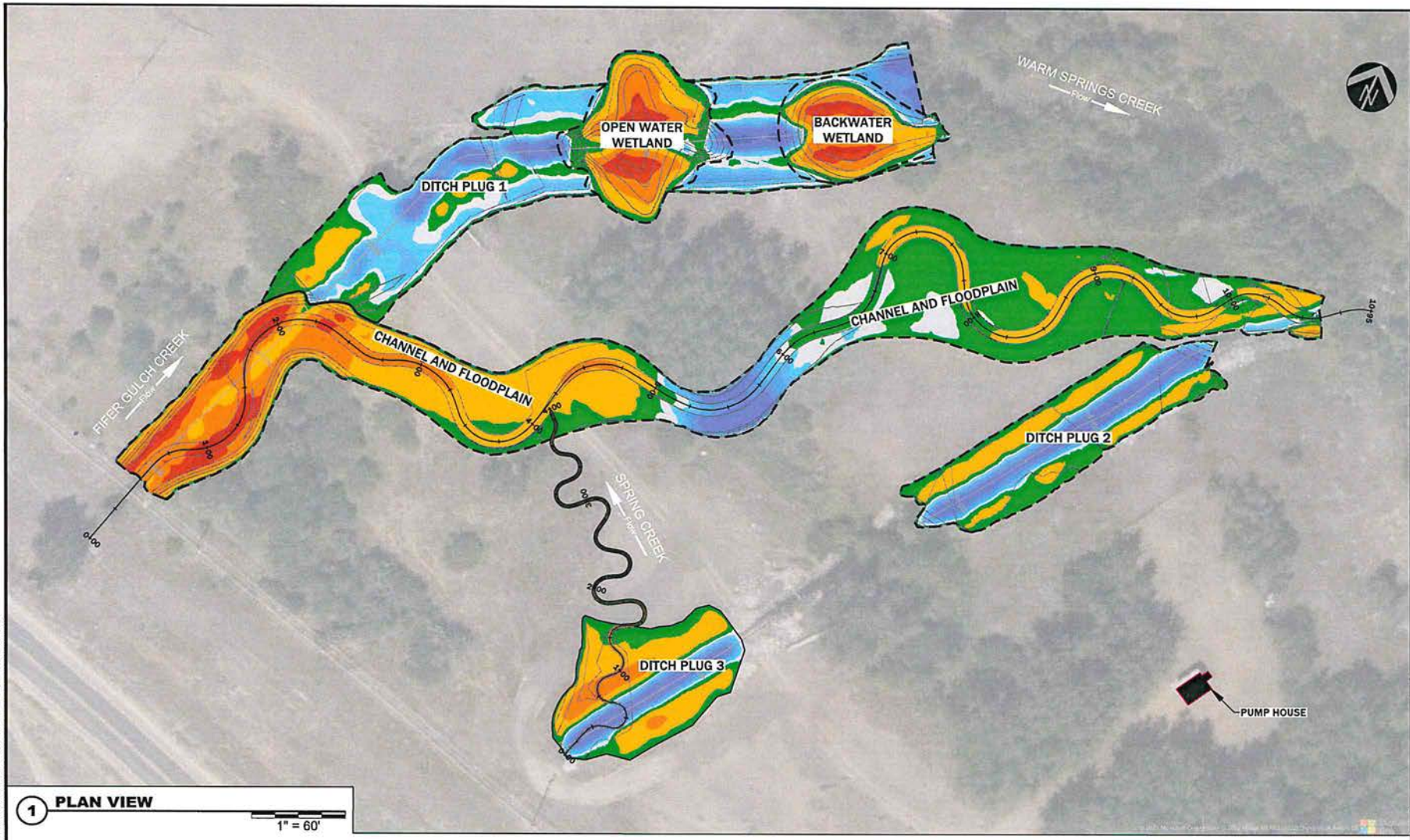
ANANCONDA, MONTANA

NO.	DATE	BY	DESCRIPTION	CHK
*	4/15/23	NW	CONCEPTUAL DESIGN	NW

PROJECT NUMBER
RDG-22-279

DRAWING NUMBER
4.0

Drawing 4 of 5



1 **PLAN VIEW**

1" = 60'

< -9.0' -8.0' -7.0' -6.0' -5.0' -4.0' -3.0' -2.5' -2.0' -1.5' -1.0' -0.5' 0.5' 1.0' 1.5' 2.0' 2.5 3.0' 4.0' 5.0' 6.0' 7.0' 8.0' 9.0' >

DEPTH FROM EXISTING GROUND TO THE RDG CONCEPTUAL DESIGN SURFACE

EARTHWORK VOLUMES

CUT (CY)	FILL (CY)
2,770	1,850

920 CY NET CUT

RDG RIVER DESIGN GROUP

Water & Environmental TECHNOLOGIES

EARTHWORK MAP

DESIGN VS. EXISTING GROUND

FIFER GULCH STREAM RESTORATION PROJECT

ANANCONDA, MONTANA

NO.	DATE	BY	DESCRIPTION	CHK
*	4/15/23	NW	CONCEPTUAL DESIGN	NW

PROJECT NUMBER RDG-22-279

DRAWING NUMBER 4.1

Drawing 5 of 5

M:\Projects\2022\RDG-22-279 Fifer Gulch Stream Restoration\CAD\2023-4-15 FG Concept - Heat Ramp.dwg

Attachment 2

Fifer Gulch Stream Restoration Project
Engineer's Cost Opinion

Fifer Gulch Stream Restoration Project
Cost Opinion
10/23/2023

BID ITEM	DESCRIPTION	ESTIMATED QUANTITY	UNIT	Engineers' Cost Opinion - Low Cost		Engineers' Cost Opinion - High Cost	
				UNIT PRICE	TOTAL PRICE	UNIT PRICE	TOTAL PRICE
1	MOBILIZATION, GPS EQUIPMENT, CREW PER DIEM	1	LS	$22,000.00	$22,000.00	$30,000.00	$30,000.00
2	CLEAR AND GRUB SITE	1	LS	$4,000.00	$4,000.00	$6,000.00	$6,000.00
3	CONSTRUCT AND DECOMMISSION CLEARWATER DIVERSION	1	LS	$1,000.00	$1,000.00	$1,500.00	$1,500.00
4	SALVAGE, PRESERVE AND TRANSPLANT EXISTING VEGETATION	1	LS	$3,000.00	$3,000.00	$5,000.00	$5,000.00
5	CONSTRUCT AND IMPROVE EXISTING ACCESS ROAD AND STAGING AREAS	1	LS	$1,500.00	$1,500.00	$2,000.00	$2,000.00
6	EXCAVATE, HAUL AND PLACE FLOODPLAIN BACKFILL	2,770	CY	$4.00	$11,080.00	$6.00	$16,620.00
7	FURNISH WOOD	1	LS	$10,000.00	$10,000.00	$15,000.00	$15,000.00
8	FURNISH RIFFLE BOULDERS	45	CY	$35.00	$1,575.00	$50.00	$2,250.00
9	FURNISH STREAMBED AND STREAMBANK ALLUVIUM	745	CY	$5.00	$3,725.00	$10.00	$7,450.00
10	CONSTRUCT CHANNEL STREAMBED	680	LF	$20.00	$13,600.00	$27.00	$18,360.00
11	CONSTRUCT LARGE WOOD STRUCTURES	0	EA	$1,500.00	$0.00	$2,000.00	$0.00
12	CONSTRUCT LOG STEP POOL	4	EA	$1,000.00	$4,000.00	$1,500.00	$6,000.00
13	CONSTRUCT VEGETATED WOOD MATRIX TYPE 1	2,035	LF	$16.00	$32,560.00	$20.00	$40,700.00
14	CONSTRUCT VEGETATED WOOD MATRIX TYPE 2	326	LF	$25.00	$8,150.00	$35.00	$11,410.00
15	CONSTRUCT SIDE CHANNEL	400	LF	$3.00	$1,200.00	$5.00	$2,000.00
16	CONSTRUCT WETLANDS AND BACKWATER ALCOVE	1	LS	$3,000.00	$3,000.00	$5,000.00	$5,000.00
15	FURNISH WILLOW CUTTINGS	10,000	EA	$1.00	$10,000.00	$1.25	$12,500.00
17	RIPARIAN AND UPLAND BROADCAST SEEDING	1	LS	$1,500.00	$1,500.00	$2,000.00	$2,000.00
18	INSTALL FLOODPLAIN ROUGHNESS	0.4	AC	$1,200.00	$480.00	$1,700.00	$680.00
19	GPS SITE CALIBRATION, CONSTRUCTION MANAGEMENT, DIRECT COSTS	1.0	LS	$0.00	$0.00	$0.00	$0.00
20	STORMWATER DISCHARGE GENERAL CONSTRUCTION PERMIT / LOCAL DEVELOPMENT PERMIT	1.0	LS	$5,000.00	$5,000.00	$7,500.00	$7,500.00
			Subtotal		$137,370.00		$191,970.00
			10% Contingency: ($)		$13,737.00		$19,197.00
			TOTAL ESTIMATE:($)		$151,107.00		$211,167.00

AC = Acres EA = Each SY = Square Yards Kgal = 1,000 Gallons
CY = Cubic Yards LF = Linear Feet LS = Lump Sum

Water & Environmental TECHNOLOGIES

RDG RIVER DESIGN GROUP

Attachment 3

Fifer Gulch Stream Restoration Project
Anticipated Permitting Time Frame

Fifer Gulch Stream Restoration Project - Anticipated Permitting Time Frame

Permit Tasks	Month 1				Month 2				Month 3				Month 4				Month 5				Month 6				Month 7				Month 8				Month 9				Month 10				Month 11				Month 12			
	Weeks				Weeks				Weeks				Weeks				Weeks				Weeks				Weeks				Weeks				Weeks				Weeks				Weeks				Weeks			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Section 404 Requirements (Corps Permitting)																																															
Wetland Assessment/OHWM Delineation/Reporting																																															
Document Current Stream Impairments & Reference Reach Comparison/Reporting																																														
Wetland Performance Monitoring (Timeline Not Shown, Work Anticipated Following Project Completion)																																														
Anticipated Agency Review Period																																														
Floodplain Development Permit																																														
Floodplain Cross-Sectional Survey																																														
Hydrologic & Hydraulic Analysis																																														
Letter of Map Revision (LOMR)																																														
Anticipated Agency Review Period & Correspondence																																														
Additional Permitting (310 & 318) & Joint Application Preparation																																														
Permit Write-Up & Submittal																																														
Local Conservation District Meeting																																														
Anticipated Agency Review Period																																														

Attachment 4

Fifer Gulch Stream Restoration Project
Field Work, Permit, and Final Design Cost Proposal

Fifer Gulch Stream Restoration Project Field Work, Permit, and Design Cost Proposal RGT RDG	Price	Units	Quantity	Subtotal	Anticipated Total Cost
Task 1. Field Assessment and Survey					
1.1 Administration					
1.1.1. Administration and Correspondence					$880.00
Senior Ecologist	$130.00	HOUR	4	$520.00	
Operations Manager	$90.00	HOUR	4	$360.00	
1.2 GPS Survey & Data Collection					
1.2.1. Cross-Sections, Longitudinal Profile					$7,346.00
Water Resource Engineer	$135.00	HOUR	24	$3,240.00	
Geomorphologist	$100.00	HOUR	24	$2,400.00	
Mileage, Lodging & Per Diem	$1,106.00	Ea	1	$1,106.00	
Equipment	$600.00	Ea	1	$600.00	
1.2.2. Channel Tie-In Analysis, Discharge					$1,880.00
Water Resource Engineer	$135.00	HOUR	8	$1,080.00	
Geomorphologist	$100.00	HOUR	8	$800.00	
1.2.3 Vegetation Survey					$2,600.00
Senior Ecologist	$130.00	HOUR	20	$2,600.00	
1.3 Data Processing					
1.3.1. GPS Data					$1,080.00
Water Resource Engineer	$135.00	HOUR	8	$1,080.00	
1.3.2. Geomorphic Data					$1,400.00
Principal Hydrologist	$150.00	HOUR	4	$600.00	
Geomorphologist	$100.00	HOUR	8	$800.00	
1.3.3. Vegetation Data					$2,080.00
Senior Ecologist	$130.00	HOUR	16	$2,080.00	
Task Sub-Total:					$17,266.00
Task 2. Engineering & Design					
2.1 Preliminary and Final Plan Sets and Drawings					
2.1.1. Preliminary Plan Set Production					$8,200.00
Senior Ecologist	$130.00	HOUR	8	$1,040.00	
Principal Hydrologist	$150.00	HOUR	4	$600.00	
Water Resource Engineer	$135.00	HOUR	16	$2,160.00	
AutoCAD Technician	$110.00	HOUR	40	$4,400.00	
2.1.2. Final Plan Set Production					$5,360.00
Senior Ecologist	$130.00	HOUR	8	$1,040.00	
Principal Hydrologist	$150.00	HOUR	4	$600.00	
Water Resource Engineer	$135.00	HOUR	8	$1,080.00	
AutoCAD Technician	$110.00	HOUR	24	$2,640.00	
2.1.3. Construction Cost Estimate					$690.00
Principal Hydrologist	$150.00	HOUR	1	$150.00	
Water Resource Engineer	$135.00	HOUR	4	$540.00	
2.2 Construction Bid Documents					
2.2.1. Bid Document Production					$2,720.00
Senior Ecologist	$130.00	HOUR	2	$260.00	
Principal Hydrologist	$150.00	HOUR	2	$300.00	
Water Resource Engineer	$135.00	HOUR	16	$2,160.00	
Task Sub-Total:					$16,970.00
Task 3. Permitting					
3.1 Section 404 Permit					
3.1.1. Wetland Assessment/OHWM Delineation					$4,176.00
Senior Biologist	$159.00	HOUR	8	$1,272.00	
Staff Biologist	$121.00	HOUR	24	$2,904.00	
3.1.2. Stream Impairments & Reference Reach Comparison					$1,680.00
Senior Biologist	$159.00	HOUR	6	$954.00	
Staff Biologist	$121.00	HOUR	6	$726.00	
3.1.3. Wetland Performance Monitoring					$2,904.00
Staff Biologist	$121.00	HOUR	24	$2,904.00	
3.2 Floodplain Permit					
3.2.1. Floodplain Cross-Sectional Surveys					$1,936.00
Staff Engineer	$121.00	HOUR	16	$1,936.00	
3.2.2. Hydrologic & Hydraulic Analysis					$8,656.00
Senior Engineer	$159.00	HOUR	24	$3,816.00	
Staff Engineer	$121.00	HOUR	40	$4,840.00	
3.2.3 Letter of Map Revision (LOMR)					$16,040.00
Senior Engineer	$159.00	HOUR	40	$6,360.00	
Staff Engineer	$121.00	HOUR	80	$9,680.00	
3.2.4 FEMA Review Fee (includes FIRM panel fee)	$8,000.00	Ea	1	$8,000.00	$8,000.00
3.3 Additional Permitting (310 & 318) & Joint Application Preparation					
3.3.1. Permit Write-Up & Submittal					$2,981.50
Senior Biologist	$159.00	HOUR	10	$1,590.00	
Staff Biologist	$121.00	HOUR	11.5	$1,391.50	
3.3.2. Local Conservation District Meeting					$484.00
Staff Biologist	$121.00	HOUR	4	$484.00	
Task Sub-Total:					$46,857.50
Total Costs:					$81,093.50
0% Contingency:					$0.00
Total Costs:					$81,093.50

FWP.MT.GOV

THE **OUTSIDE** IS IN US ALL.

Montana Fish, Wildlife and Parks - Region 2
3201 Spurgin Road
Missoula, MT 59804
(406) 542-5500
05-01-2023

Montana Fish, Wildlife and Parks
Future Fisheries Program, Attn: Michelle McGree
PO Box 200701
Helena, MT 59621

RE: Support for the Fifer Gulch Restoration Project

Fish, Wildlife and Parks (FWP) is in support of the Fifer Gulch Stream Restoration Project proposed by the George Grant Chapter of Trout Unlimited in cooperation with Anaconda-Deer Lodge County. Fifer Gulch and a nearby Spring Creek are tributaries to Warm Springs Creek, a prominent native and sport fish stronghold in the Upper Clark Fork, and the only basin supporting bull trout upstream of Flint Creek. Additionally, Fifer Gulch is one of the only connected tributaries to Warm Springs Creek downstream of Meyers Dam. Past sampling by FWP indicates Fifer Gulch currently supports low densities of westslope cutthroat trout, brown trout, brook trout and several native non-game species in the lower channelized reach. Upstream of the channelized reach Fifer Gulch supports higher densities of westslope cutthroat trout and brook trout.

The lower .12 miles of Fifer Gulch was historically ditched and channelized, severely limiting fish habitat, riparian vegetation, and stream function. This project aims to incorporate the Spring Creek into Fifer Gulch and restore the lower .12 miles of Fifer Gulch back to .2 miles of normal functioning stream channel and floodplain. Overall productivity of Fifer Gulch is unknown, however upstream less impacted sections of Fifer Gulch are much more productive for trout. Habitat and riparian cover are prominent limiting factors for trout production in lower Fifer Gulch. This project will restore habitat in lower Fifer Gulch and set the stream up for a more natural stream form and function going forward.

I believe this project meets the goals of the Future Fisheries Program by restoring the Fifer Gulch channel and riparian area and restoring wild native fish populations and their habitat in Fifer Gulch. We encourage you to reach out to Caleb Uerling, Fisheries Biologist, (406) 493-2694, Caleb.Uerling@mt.gov as the primary contact person with any questions or concerns about these comments.

Sincerely,

Randy Arnold
Regional Supervisor, Region 2

May 8, 2023

Future Fisheries Improvement Program

Re: Letter of support for George Grant Trout Unlimited FFIP application for Fifer Gulch restoration project

Dear FFIP board members,

Montana Trout Unlimited (MTU) appreciates the opportunity to provide this letter of support for the FFIP board's consideration of the George Grant chapter of Trout Unlimited's (GGTU) application for funding of the Fifer Gulch stream restoration project. MTU staff and volunteer leaders have reviewed the application, as well as done a site tour of the project area and the improvements it would make for riparian habitat, aquatic organisms, public recreation and fisheries in the Warm Springs Creek drainage and community of Anaconda.

Montana Trout Unlimited is a statewide organization with the mission of protecting, conserving and restoring coldwater fisheries and their watersheds in the state. Among other things, we prioritize wild and native fish conservation, improving instream flow and riparian habitat and advancing public access in Montana. Our organization is especially interested in engaging or supporting our 13 local, watershed-based chapters in leading similar work, such as that being proposed for Fifer Gulch by GGTU.

This project will restore a channelized and degraded section of both Fifer Gulch and an adjacent spring creek to their natural function and character. Doing so will improve fish passage, spawning habitat, late summer instream flows, riparian and aquatic habitat and public opportunity. The project has good community support, including the interest and early involvement by the Anaconda Deer Lodge County (ADLC) and our watershed partners – Clark Fork Coalition (CFC). As the GGTU proposal makes clear, "ADLC controls all senior water rights in Fifer Gulch and has expressed interest in supporting conservation projects in the watershed."

Recent investigation of Fifer Gulch for the purposes of the proposed project document that the creek and adjacent spring both provide consistent, year-round water sources and currently support populations of wild and native trout. For all these reasons, MTU fully supports this project for FFIP consideration. MTU also intends to contribute to this project through in-kind and direct funding.

Thank you for your consideration of this worthy fishery project,

David Brooks
Executive Director, Montana Trout Unlimited

P.O. Box 7186 • Missoula, MT 59807 • www.montanatu.org • 406.543.0054

From: garrett ouldhouse <oretgart@gmail.com>
Sent: Thursday, May 11, 2023 8:53:52 AM
To: Dave McKernan <robinmckernan17@gmail.com>
Cc: Chuck Stokke <cwcmstok@msn.com>
Subject: Fifer Creek Restoration

The Anaconda Sportsmen's Club is in support of this Restoration. The Project will ultimately enhance two channels into one viable Stream: offering 1000 ft. of Fish Habitat and fishable water with the intent of Kids having a good experience fishing. So close to town and structures within the stream to purposely hold and shelter fish. Kids will be able to catch them;which may entice them to keep fishing.

A great idea to join the Noname Spring with Fifer Creak with its constant flow and temperature: adding very good Fish Habitat for sustainable spawning development for both Spring and Fall Spawners.

Thanks for your consideration. Gary Ouldhouse ASC President

Reply Forward

Anaconda Trail Society PO Box 196, MT 59711

May 12, 2023

Subject: Support for Lower Fifer Gulch Stream Restoration Project

The Anaconda Trail Society would like to express their support for the Lower Fifer Gulch Stream restoration project.

The Anaconda Trail Society (ATS) strives to further trail development, connectivity, and recreational opportunities in Anaconda and surrounding areas. The location of this project and its planned access would be a great addition to the existing Washoe Park Trail System. With this stream restoration, the project would provide additional recreational enhancements which are essential to our community and its citizens.

The ATS believes that completion of this project will be of great benefit to the community, and we strongly support the Fifer Gulch Restoration Project. Thank you for consideration of the Anaconda Trail Society's input.

Sincerely,

Robin McKernan

Robin McKernan, Chair
Anaconda Trail Society.
Anacondatrailsociety@gmail.com
406-559-6262

PUBLIC LAND WATER ACCESS ASSOCIATION INC
PLWA · EST 1985 ·

November 15, 2023

Montana Fish Wildlife and Parks
Future Fisheries Program
1420 East Sixth Avenue
P.O. Box 200701
Helena, Mt 59620-0701

Re: Support for Lower Fifer Gulch Grant Proposal

To Whom It May Concern,

The Public Land Water Access Association (PLWA) would like to offer its support of the George Grant Chapter of Trout Unlimited (GGTU)'s proposal for the Lower Fifer Gulch Future Fisheries, and to support the recommendation for funding through the Montana Fish, Wildlife, and Parks Future Fisheries Program in addition to other funding sources.

PLWA is a statewide non-profit organization dedicated to maintaining, restoring, and perpetuating public access to the boundaries of all Montana's public land and waters. PLWA and GGTU are long-time partners in protecting and enhancing public recreational access.

Many of PLWA's members reside in SW Montana and enjoy fishing, hunting, and recreating in the Anaconda area. The project location is ideal for the planned development of a small parking lot, kids' fishing area, and recreational trail system that will connect the current trail system from Hefner's Dam to the Galen Highway. Projects that provide for public recreational services in urban areas such as this are essential to the state's park system and result in substantial public use. The project also fits well with natural resource restoration and recreational enhancement work that has already been completed, is on-going, and is planned in the Anaconda area.

GGTU has a successful track record in completing numerous grant projects similar to the Lower Fifer Gulch proposal. They also excel in managing the required design and construction services, and have already successfully worked with the county in planning this project.

Considering the substantial fishery and public access benefits of this project and GGTU's expertise in managing similar projects in the past, PLWA urges approval of funding for the Lower Fifer Gulch Future Fisheries Proposal. It offers a good investment of public funds and will be of great benefit to the community. Thank you for consideration of PLWA's input.

Sincerely,

Bernard Lea
President, PLWA

WWW.PLWA.ORG
@publiclandwateraccess
@plwamt
2100 FAIRWAY DR., #211
BOZEMAN, MT 59715
406-690-0960
PLWA@PLWA.ORG