

Revised: 6/5/15 (310 form 270). Form may be downloaded from: www.dnrc.mt.gov/licenses-and-permits/stream-permitting	AGENCY USE ONLY: Application # _____ Date Received _____ Date Accepted _____ / Initials _____ Date Forwarded to DFWP _____
<i>This space is for all Department of Transportation and SPA 124 permits (government projects).</i>	
Project Name _____	
Control Number _____	Contract letting date _____
MEPA/NEPA Compliance <input type="checkbox"/> Yes	<input type="checkbox"/> No If yes, #14 of this application does not apply.

JOINT APPLICATION FOR PROPOSED WORK IN MONTANA'S STREAMS, WETLANDS, FLOODPLAINS, AND OTHER WATER BODIES

Use this form to apply for one or all local, state, or federal permits listed below. The applicant is the responsible party for the project and the point of contact unless otherwise designated. "Information for Applicant" includes agency contacts and instructions for completing this application. To avoid delays, submit all required information, including a project site map and drawings. Incomplete applications will result in the delay of the application process. Other laws may apply.

The applicant is responsible for obtaining all necessary permits and landowner permission before beginning work.

<input checked="" type="checkbox"/>	<u>PERMIT</u>	<u>AGENCY</u>	<u>FEE</u>
	310 Permit	Local Conservation District	No fee
X	SPA 124 Permit	Department of Fish, Wildlife and Parks	No fee
X	Floodplain Permit	Local Floodplain Administrator	Varies by city/county (\$25 - \$500+)
X	Section 404 Permit, Section 10 Permit	U. S. Army Corps of Engineers	Varies (\$0 - \$100)
	318 Authorization 401 Certification	Department of Environmental Quality	\$250 (318); \$400 - \$20,000 (401)
	Navigable Rivers Land Use License, Lease, or Easement	Department of Natural Resources and Conservation, Trust Lands Management Division	\$50, plus additional fee

A. APPLICANT INFORMATION

NAME OF APPLICANT (person responsible for project): City of Missoula
 Has the landowner consented to this project? Yes No
 Mailing Address: 435 Ryman Street
 Physical Address: Missoula, MT 59801
 Day Phone: 406-552-6263 Evening Phone: _____
 E-Mail: mvaliant@ci.missoula.mt.us

NAME OF LANDOWNER (if different from applicant): City of Missoula
 Mailing Address: 435 Ryman Street
 Physical Address: Missoula, MT 59801
 Day Phone: 406-552-6263 Evening Phone: _____
 E-Mail: mvaliant@ci.missoula.mt.us

NAME OF CONTRACTOR/AGENT (if one is used): Rob Roberts, Trout Unlimited
 Mailing Address: 312 N. Higgins, suite 200, Missoula, MT 59802
 Physical Address: _____
 Day Phone: 406-540-2944 Evening Phone: _____ E-Mail: rroberts@tu.org

B. PROJECT SITE INFORMATION

NAME OF STREAM or WATER BODY at project location Rattlesnake Creek
 Nearest Town Missoula
 Address/Location: Rattlesnake Creek
 Section 22, Township 13N, Range 19W County Missoula
 Longitude 46.875487°, Latitude -113.979833°

The state owns the beds of certain state navigable waterways. Is this a state navigable waterway? Yes or No. If yes, send copy of this application to appropriate DNRC land office – see Information for Applicant.

ATTACH A PROJECT SITE MAP OR A SKETCH that includes: 1) the water body where the project will take place, roads, tributaries, landmarks; 2) a circled “X” representing the exact project location. IF NOT CLEARLY STATED ON THE MAP OR SKETCH, **PROVIDE WRITTEN DIRECTIONS TO THE SITE.**

C. PROJECT INFORMATION

1. **TYPE OF PROJECT** (check all that apply)

- | | | |
|---|--|--|
| <input type="checkbox"/> Bridge/Culvert/Ford Construction | <input type="checkbox"/> Fish Habitat | <input type="checkbox"/> Mining |
| <input type="checkbox"/> Bridge/Culvert/Ford Removal | <input type="checkbox"/> Recreation (docks, marinas, etc.) | <input type="checkbox"/> Dredging |
| <input type="checkbox"/> Road Construction/Maintenance | <input type="checkbox"/> New Residential Structure | <input type="checkbox"/> Core Drill |
| X Bank Stabilization/Alteration | <input type="checkbox"/> Manufactured Home | <input type="checkbox"/> Placement of Fill |
| <input type="checkbox"/> Flood Protection | <input type="checkbox"/> Improvement to Existing Structure | <input type="checkbox"/> Diversion Dam |
| <input type="checkbox"/> Channel Alteration | <input type="checkbox"/> Commercial Structure | <input type="checkbox"/> Utilities |
| <input type="checkbox"/> Irrigation Structure | <input type="checkbox"/> Wetland Alteration | <input type="checkbox"/> Pond |
| <input type="checkbox"/> Water Well/Cistern | <input type="checkbox"/> Temporary Construction Access | <input type="checkbox"/> Debris Removal |
| <input type="checkbox"/> Excavation/Pit | Other | |

2. **PLAN OR DRAWING** of the proposed project **MUST** be attached. **This plan or drawing must include:**

- a plan view (looking at the project from above)
- dimensions of the project (height, width, depth in feet)
- location of storage or stockpile materials
- drainage facilities
- an arrow indicating north
- a cross section or profile view
- an elevation view
- dimensions and location of fill or excavation sites
- location of existing or proposed structures, such as buildings, utilities, roads, or bridges

3. **IS THIS APPLICATION FOR** an annual maintenance permit? Yes x No
 (If yes, an annual plan of operation must be attached to this application – see “Information for Applicant”)

4. **PROPOSED CONSTRUCTION DATE.** Include a project timeline. Start date 11 / 01 / 2019
 Finish date 12 / 15 / 2019 Is any portion of the work already completed? Yes x No
 (If yes, describe the completed work.)

5. **WHAT IS THE PURPOSE** of the proposed project?

During the spring of 2018, high flows eroded approximately 150 feet of the streambank along Rattlesnake Creek in Greenough Park. The erosion undermined a City trail in Greenough Park and necessitated the construction of a temporary fence around the site to protect public safety. At the current time, the near vertical streambank is raw and unvegetated and contributes fine sediment to the stream channel at higher flows and during rain events.



6. **PROVIDE A BRIEF DESCRIPTION** of the proposed project.

The proposed project will leave the existing cobble, boulder toe of the streambank in place and reslope the streambank above the high water mark to facilitate vegetation growth and stability. The existing streambank alignment will be maintained. Excess fill material will be hauled from the project site. Live cuttings of willows,

dogwood and other vegetation will be placed at the toe of the slope along with brushy material to provide roughness and long term bank stability. Container stock plantings and grass seed will be incorporated into the hillslope. At the same time, two 10 inch drainage culverts will be replaced under the existing asphalt trail to facilitate drainage of a stormwater seep along the trail and daylighted along the new streambank. The project will be completed during November and December when low seasonal flows will minimize any impact to Rattlesnake Creek and recreational use in the park is infrequent. The trail along the streambank will not be rebuilt pursuant to project activities.

7. **WHAT IS THE CURRENT CONDITION** of the proposed project site? Describe the existing bank condition, bank slope, height, nearby structures, and wetlands.

The project footprint is approximately .1 acres. There are no structures or wetlands in the project footprint. The streambanks are approximately vertical and between 5 and 7 feet high and comprised primarily of rock, raw soil and ornamental grasses. An existing streambank toe is comprised of cobbles and boulders and likely the result of natural sorting and previous development or streambank alteration from past activities. An existing footbridge is located approximately 100 feet downstream of the lower project site.



8. **PROJECT DIMENSIONS.** How many linear feet of bank will be impacted? How far will the proposed project encroach into and extend away from the water body?

The project footprint is approximately .1 acres. 200 linear feet of the western streambank above the ordinary high water mark on Rattlesnake Creek will be resloped and revegetated.

9. **VEGETATION.** Describe the vegetation present on site. How much vegetation will be disturbed or covered with fill material during project installation? (Agencies require that only vegetation necessary to do the work be removed.) Describe the revegetation plan for all disturbed areas of the project site in detail.

Existing vegetation within the project construction extent at the Rattlesnake Creek site includes lawn and pasture grass and noxious weed monoculture. There are relatively few remaining riparian shrubs or tree species located along the Rattlesnake Creek banks in the project site.



Revegetation will include using live willow cuttings at a rate of at least 3 per foot and planting nursery-grown stock grown from seeds collected in the area, as well as broadcast seeding all bare ground surfaces following construction. Planting will occur on the restored bankfull floodplain, floodplain terrace, and upland zones. Seeding will occur on .1 acres of floodplain and uplands, with site-appropriate native seed mixes which include both rhizomatous and bunchgrass species.

10. **MATERIALS.** Describe the materials proposed to be used. Note: This may be modified during the permitting process. It is recommended you do not purchase material until all permits are issued.

Cubic yards/Linear feet	Size and Type	Source
Willows - 200 linear feet	3 per foot	Local

Brushy material

2 per foot

Imported

11. **EQUIPMENT.** List all equipment that will be used for construction of the project. How will the equipment be used on the bank and/or in the water? Note: Make sure equipment is clean and free of weeds, weed seeds, and excess grease before using it in the water waterway. To prevent the spread of aquatic invasive species, to the extent practical, remove mud and aquatic plants from heavy machinery and other equipment before moving between waters and work sites, especially in waters known to be infested with aquatic invasive species. Drain water from machinery and let dry before moving to another location.

A contractor has not yet been selected for this project, and the exact types of equipment are unknown at this time. Typical equipment used for this type of work includes a small excavator, while dump trucks will be used to haul in brush and haul away excess fill material.

12. **DESCRIBE PLANNED EFFORTS TO MINIMIZE PROJECT IMPACTS.** Consider the impacts of the proposed project, even if temporary. What efforts will be taken to:

- Minimize erosion, sedimentation, or turbidity?

All activity will occur above ordinary high water mark and be conducted during low flow conditions to minimize turbidity.

- Minimize stream channel alterations?

No activity will occur within the existing streambed and the existing streambank alignment will be maintained.

- Minimize effects to stream flow or water quality caused by materials used or removal of ground cover?

Removal of ground cover includes ornamental grasses and noxious weeds. In the long term, the project will improve water quality through the elimination of a fine sediment source and through revegetation efforts.

- Minimize effects on fish and aquatic habitat?

The project will be constructed during low flows and does not affect the existing streambed or stream alignment. In the long term, revegetation efforts should improve fish and aquatic habitat.

- Minimize risks of flooding or erosion problems upstream and downstream?

The project does not change the existing streambed or stream alignment. The project increases floodplain width through the removal of vertical, eroding streambanks and bank resloping to provide stability and greater channel capacity at high flows.

- Minimize vegetation disturbance, protect existing vegetation, and control weeds?

Few areas of riparian vegetation exist within the project footprint. Upstream and downstream of the project area, vegetation preservation areas have been identified and will be marked clearly to avoid disturbance by equipment. Prior to construction, weed infestations will be sprayed and/or mowed to limit new growth and seed dispersal.

13. **WHAT ARE THE NATURAL RESOURCE BENEFITS** of the proposed project?

The project will remove a fine sediment sources, increase riparian vegetation and increase streambank stability.

14. **LIST ALTERNATIVES** to the proposed project. Why was the proposed alternative selected?

Alternatives include the use of riprap or other hardened structures to provide streambank stability. The project was selected based upon the improvements to floodplain capacity, revegetation, water quality and aesthetics.

D. ADDITIONAL INFORMATION FOR SECTION 404, SECTION 10, AND FLOODPLAIN PERMITS ONLY.

If applying for a Section 404 or Section 10 permit, fill out questions 1-3. If applying for a floodplain permit, fill out questions 3-6. (Additional information is required for floodplain permits – See "Information for Applicant.")

1. Will the project involve placement of dredged (excavated) and/or fill material below the ordinary high water mark, in a wetland, or other waters of the US? If yes, what is the surface area to be filled? How many cubic yards of fill material will be used? Note: Wetland delineations are required if wetlands are affected.

No.

2. Description of avoidance, mitigation, and compensation (see Information for Applicant). Attach additional sheets if necessary.
3. List the names and address of landowners adjacent to the project site. This includes properties adjacent to and across from the project site. (Some floodplain communities require certified adjoining landowner lists).

N/A

4. List all applicable local, state, and federal permits and indicate whether they were issued, waived, denied, or pending. Note: All required local, state, and federal permits, or proof of waiver must be issued prior to the issuance of a floodplain permit.

Applied: Montana FWP 124 permit, USACE 404 permit, City of Missoula Floodplain Development Permit

5. Floodplain Map Number FIRM 30063C1215E

6. Does this project comply with local planning or zoning regulations? Yes No

E. SIGNATURES/AUTHORIZATIONS -- Each agency must have original signatures signed in blue ink.

After completing the form, make the required number of copies and then sign each copy. Send the copies with original signatures and additional information required directly to each applicable agency.

The statements contained in this application are true and correct. The applicant possess' the authority to undertake the work described herein or is acting as the duly authorized agent of the landowner. The applicant understands that the granting of a permit does not include landowner permission to access land or construct a project. Inspections of the project site after notice by inspection authorities are hereby authorized.

APPLICANT (Person responsible for project):

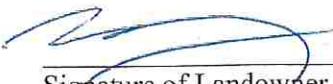
Print Name: City of Missoula _____

 _____
Signature of Applicant Date

9-5-19

LANDOWNER:

Print Name: City of Missoula _____

 _____
Signature of Landowner Date

9-5-19

Morgan Valliant

10. **MATERIALS.** Describe the materials proposed to be used. Note: This may be modified during the permitting process. It is recommended you do not purchase material until all permits are issued.

Size and Type

Source

Material	Quantity	Size and Type	Source
Willows – 200 linear feet	600, 3 per foot	3 per foot - primarily Salix Exigua	Local
Container Stock	50	1 gallon – Salix, Dogwood, Serviceberry, Woods Rose	City Nursery
Brushy Material – stems, branches	20 cubic yards	Mixed conifer and maple	Onsite
Clean fill – soil, gravel	40 cubic yards	6 inch minus	On site from cutbank excavation
Boulders	20	12-30 inch diameter	Onsite
Trees	2	Maple	Onsite
Erosion Fabric	200 feet	C125BN or similar, coconut coir	Contractor
Drainage Culverts	60 feet	10 inch CMP	Contractor



3201 Spurgin Road
Missoula, MT 59804
September 19, 2019

City of Missoula
Attn: Morgan Valiant
435 Ryman St.
Missoula, MT 59801

SUBJECT: Permit No. SPA - 35-19 R-2
Waterbody: Rattlesnake Creek
Project Name: Greenough Park bank stabilization
Water Code: 06-5149

Dear City of Missoula:

Montana Fish, Wildlife & Parks has reviewed the proposed project in Rattlesnake Creek. The project is approved provided it is carried out in accordance with the information in the application and all general and any special listed below.

GENERAL CONDITIONS

1. Complete work affecting a streambed or stream bank in an expeditious manner to avoid unnecessary impacts to the stream.
2. Limit the clearing of vegetation to that which is absolutely necessary for construction of the project. Take precautions to preserve existing riparian vegetation. Salvage and reuse native vegetation where possible.
3. Install and maintain erosion control measures where appropriate to protect aquatic resources. Do not clear and grub land adjacent to streams prior to installing proper erosion and sedimentation controls. Conduct all work in a manner that minimizes turbidity and other disturbances to aquatic resources.
4. Plan temporary construction facilities to:
 - a. Minimize disturbance to stream banks, stream bank vegetation, and the streambed by locating staging or storage facilities at least 50' horizontally from the highest anticipated water level during construction;
 - b. not restrict or impede fish passage in streams; and
 - c. not restrict any flow anticipated during *use*.
5. Provide sediment controls for drainage from topsoil stockpiles, staging areas, access roads, channel changes, and instream excavations.
6. Isolate work zones from flowing and standing waters to prevent turbid water and sediments from being discharged into streams or other drainages that flow directly into the stream. Divert flowing waters around the work zone.
7. Do not spill or dump material into streams. Store and handle petroleum products, chemicals, cement and other deleterious materials in a manner that will prevent their entering streams.
8. Do not allow wash water from cleaning concrete-related equipment or wet concrete to enter streams.

9. Do not operate mechanized equipment in any stream or flowing water unless special authorization is obtained. If special authorization is granted, the following conditions apply:
- a. Powerwash all equipment allowed in a stream prior to entering the stream channel.
 - b. Clean and maintain all equipment so that petroleum-based products and hydraulic fluids do not leak or spill into the waterway.
10. Reclaim streambeds and stream banks as closely as possible to their pre-disturbed condition.
11. Restore disturbed stream banks to their natural or pre-disturbed configuration to match adjacent ground contours or as specified in the project plans. Stabilize, reseed, and re-vegetate disturbed areas. Install and maintain long-term biodegradable erosion-control measures to protect these areas until adequate vegetation has been established.
12. Restore temporary access routes and any temporarily disturbed areas to original conditions, including original contours and vegetation.
13. Dispose of any excess material generated from the project above the ordinary high water mark and in an area not classified as a wetland.

SPECIAL CONDITIONS

1. None.

Note: This permit is valid for **one year** from the date of receipt.

318 AUTHORIZATION REVIEW

I have reviewed the above project on behalf of the Montana Department of Environmental Quality (DEQ) pursuant to the Montana Water Quality Act Short-term Water Quality Standards for Turbidity 75-5-318 MCA:

- This project **will not** increase turbidity if completed according to the conditions listed in the 310 or 124 permit. Therefore, application to DEQ for a 318 authorization **is not** required.
- Impacts to the physical and biological environment from turbidity generated as a result of this project are uncertain. Therefore, the applicant must contact the Montana Department of Environmental Quality, 1520 East Sixth Avenue, Box 200901, Helena, MT 59620-0901, (406 444-3080) to determine project specific narrative conditions required to meet short-term water quality standards and protect aquatic biota.
- Turbidity generated from this project is expected to be short-term and have only temporary and minor impacts on the physical and biological environment. Therefore, compliance with the conditions stated in **DEQ's Short Term Water Quality Standard for Turbidity Related to Construction Activity**, as well as other conditions listed in the 310 or 124 permit, are appropriate for this project.

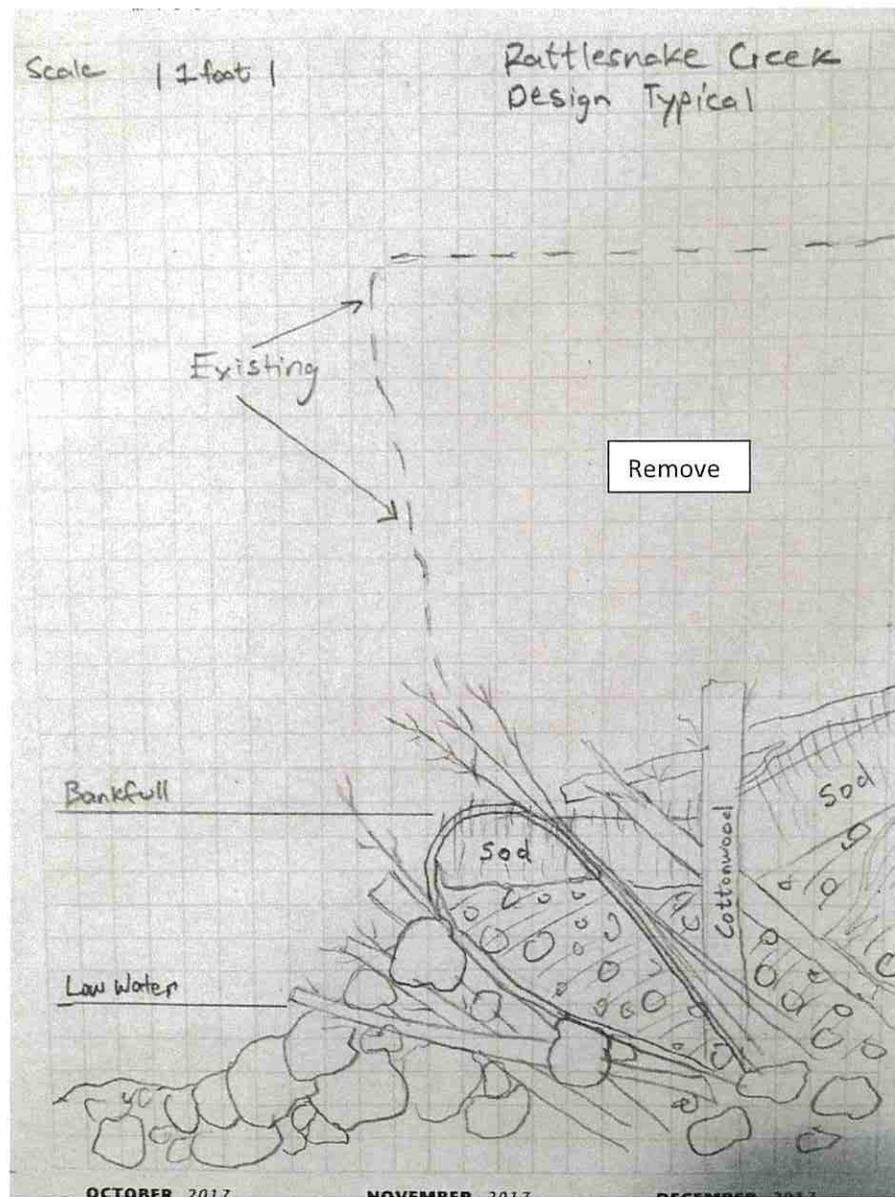
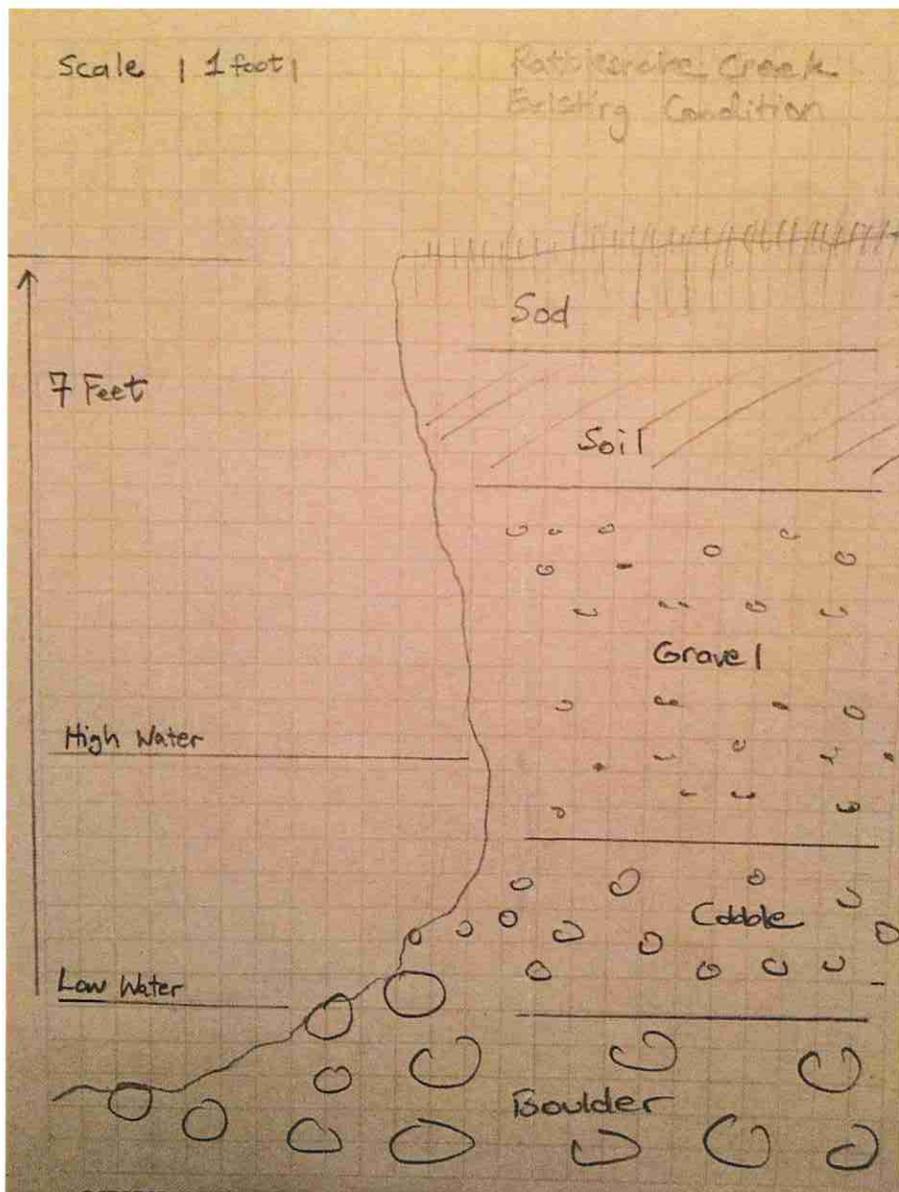
Sincerely,



Patrick Saffel
Fisheries Manager

Cc: Missoula County CD
Trout Unlimited, Attn: Rob Roberts, 312 N. Higgins, suite 200, Missoula, MT 59802

Rattlesnake Creek Streambank Revegetation



Legend
Project Area

Rattlesnake Creek
Greenough Park Streambank Revegetation
(Aerial view shows site conditions in 2016)

Drainage Culvert Replacements

Revegetation

PROJECT EXTENT

80 ft



Rattlesnake Creek

Greenough Park Streambank Revegetation

(Aerial view shows site conditions in 2016)

Drainage Culvert Replacements

Legend

 Project Area

Google Earth



80 ft

