

JOINT APPLICATION FOR PERMITS

U.S. ARMY CORPS OF ENGINEERS - IDAHO DEPARTMENT OF WATER RESOURCES - IDAHO DEPARTMENT OF LANDS

Authorities: The Department of Army Corps of Engineers (Corps), Idaho Department of Water Resources (IDWR), and Idaho Department of Lands (IDL) established a joint process for activities impacting jurisdictional waterways that require review and/or approval of both the Corps and State of Idaho. Department of Army permits are required by Section 10 of the Rivers & Harbors Act of 1899 for any structure(s) or work in or affecting navigable waters of the United States and by Section 404 of the Clean Water Act for the discharge of dredged or fill materials into waters of the United States, including adjacent wetlands. State permits are required under the State of Idaho, Stream Protection Act (Title 42, Chapter 38, Idaho Code and Lake Protection Act (Section 58, Chapter 13 et seq., Idaho Code). In addition the information will be used to determine compliance with Section 401 of the Clean Water Act by the appropriate State, Tribal or Federal entity.

Joint Application: Information provided on this application will be used in evaluating the proposed activities. Disclosure of requested information is voluntary. Failure to supply the requested information may delay processing and issuance of the appropriate permit or authorization. **Applicant will need to send a completed application, along with one (1) set of legible, black and white (8 1/2"x11"), reproducible drawings that illustrate the location and character of the proposed project / activities to both the Corps and the State of Idaho.**

See Instruction Guide for assistance with Application. Accurate submission of requested information can prevent delays in reviewing and permitting your application. Drawings including vicinity maps, plan-view and section-view drawings must be submitted on 8-1/2 x 11 papers.

Do not start work until you have received all required permits from both the Corps and the State of Idaho

FOR AGENCY USE ONLY							
USACE NWW-	Date Received:		<input type="checkbox"/> Incomplete Application Returned		Date Returned:		
Idaho Department of Water Resources No. 29-20174	Date Received: 4/14/2021		<input type="checkbox"/> Fee Received DATE:		Receipt No.:		
Idaho Department of Lands No.	Date Received:		<input type="checkbox"/> Fee Received DATE:		Receipt No.:		
INCOMPLETE APPLICANTS MAY NOT BE PROCESSED							
1. CONTACT INFORMATION - APPLICANT Required:				2. CONTACT INFORMATION - AGENT:			
Name: David Dressel				Name:			
Company: Idaho Department of Fish and Game				Company:			
Mailing Address: 1345 Barton Road				Mailing Address:			
City: Pocatello		State: ID	Zip Code: 83204		City:		State: Zip Code:
Phone Number (include area code): 208-236-1250		E-mail: david.dressel@idfg.idaho.gov		Phone Number (include area code):		E-mail:	
3. PROJECT NAME or TITLE: Mink Creek Restoration				4. PROJECT STREET ADDRESS:			
5. PROJECT COUNTY: Bannock CO.		6. PROJECT CITY: Pocatello		7. PROJECT ZIP CODE: 83204		8. NEAREST WATERWAY/WATERBODY: Mink Creek	
9. TAX PARCEL ID#:		10. LATITUDE: 42.67362 LONGITUDE: -112.40829		11a. 1/4:	11b. 1/4:	11c. SECTION:	11d. TOWNSHIP: T. 8 S
12a. ESTIMATED START DATE: Aug 1, 2021		12b. ESTIMATED END DATE: November 2022		13a. IS PROJECT LOCATED WITHIN ESTABLISHED TRIBAL RESERVATION BOUNDARIES? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES Tribe:			
13b. IS PROJECT LOCATED IN LISTED ESA AREA? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES				13c. IS PROJECT LOCATED ON/NEAR HISTORICAL SITE? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES			
14. DIRECTIONS TO PROJECT SITE: Include vicinity map with legible crossroads, street numbers, names, landmarks. From Pocatello Idaho head south on Bannock Highway and continue onto Mink Creek Road. In approximately 7 miles turn onto South Fork Mink Creek Road. Continue for 1 mile until you reach the south end of the project boundary.							
15. PURPOSE and NEED: <input type="checkbox"/> Commercial <input type="checkbox"/> Industrial <input type="checkbox"/> Public <input type="checkbox"/> Private <input checked="" type="checkbox"/> Other Improve habitat for SGCN species and trout while improving riparian area Describe the reason or purpose of your project; include a brief description of the overall project. Continue to Block 16 to detail each work activity and overall project. The goal of this project will be to increase and improve the available habitat for species of greatest conservation need (SGCN), big game, upland game and fish species in Idaho. With the use of low-tech process based restoration methods we plan to restore the currently incised portions of the streams and add complexity in the form of braided channels and deep water refugia that will benefit SGCN, trout and big game animals.							

16. DETAILED DESCRIPTION OF EACH ACTIVITY WITHIN OVERALL PROJECT. Specifically indicate portions that take place within waters of the United States, including wetlands: Include dimensions; equipment, construction, methods; erosion, sediment and turbidity controls; hydrological changes: general stream/surface water flows, estimated winter/summer flows; borrow sources, disposal locations etc.:

This proposed project will take place in the Portneuf watershed on the South and West forks of Mink Creek. These two streams are ephemeral and/or intermittent streams that feed into the main stem of Mink Creek. The intended practices will include a combination of low-tech process based restoration techniques including the use of beaver dam analogs (BDAs) and post assisted log structures (PALS). In addition, possible beaver translocation will take place on the West fork. The objectives of this project are to (1) repair major stream incision, (2) improve habitat for Species of Greatest Conservation Need (SGCN), big game and Yellowstone cutthroat trout, (3) recharge ground water and (4) prolong the period at which surface water is available

The South fork restoration project will include 35 PALS and 20 BDAs in 6 separate complexes along a 2-mile stretch of stream. With the current beaver activity immediately upstream of the proposed project area, the beaver will migrate to the project area and aid in overall riparian health. The West fork will include up to 30 instream low-tech structures including 20 PALS and 10 BDAs. Specific locations of in-stream structures will be determined at the onset of the project. The West fork will also include the translocation of beavers to aid with additional dam construction and wetland health. The hand built LTPBR structures will aid in repairing channel incision by forcing widening of channel bed and aggradation. In addition, LTPBR methods will help increase channel-floodplain connectivity and improve overall stream health. All structures will be built by hand with the use of a hydraulic post driver, untreated wooden posts and woody debris found on site. The hydraulic post driver will be used to install untreated wooden posts to BDA and PALS to increase the stability of the structures.

These structures have been shown to increase habitat availability for trout and SGCN and does not degrade water quality. With a relatively new rotating grazing system coupled with increased pooling of water we aim to increase the available habitat for wildlife and decrease the dry up period for these streams. We hope to make these wetlands more resilient to drought and recharge ground water storage

17. DESCRIBE ALTERNATIVES CONSIDERED to AVOID or MEASURES TAKEN to MINIMIZE and/ or COMPENSATE for IMPACTS to WATERS of the UNITED STATES, INCLUDING WETLANDS: See Instruction Guide for specific details.

We anticipate no negative consequences in response to our riparian restoration project on either the West or South forks of Mink creek. The construction of BDAs and PALS will use untreated wood posts coupled with on site materials and mimic the natural process of a beaver dam system. These proposed restoration actions will benefit the Waters of the United States and wetlands by mimicking and promoting a healthy riparian stream system.

18. PROPOSED MITIGATION STATEMENT or PLAN: If you believe a mitigation plan is not needed, provide a statement and your reasoning why a mitigation plan is NOT required. Or, attach a copy of your proposed mitigation plan.

Mitigation will not be required as the project will not negatively impact habitat or water quality. In addition, our proposed riparian restoration techniques will mimic the wetland forms that are found in healthy streams and rivers.

19. TYPE and QUANTITY of MATERIAL(S) to be discharged below the ordinary high water mark and/or wetlands:

Dirt or Topsoil:	_____ 15	cubic yards
Dredged Material:	_____ 0	cubic yards
Clean Sand:	_____ 0	cubic yards
Clay:	_____ 0	cubic yards
Gravel, Rock, or Stone:	_____ 0	cubic yards
Concrete:	_____ 0	cubic yards
Other (describe): woody material	_____ 271	cubic yards
Other (describe): _____	_____ 0	cubic yards
TOTAL:	_____ 286	cubic yards

20. TYPE and QUANTITY of impacts to waters of the United States, including wetlands:

Filling:	_____ 0	acres	_____ 0	sq ft.	_____ 286	cubic yards
Backfill & Bedding:	_____ 0	acres	_____ 0	sq ft.	_____ 0	cubic yards
Land Clearing:	_____ 0	acres	_____ 0	sq ft.	_____ 0	cubic yards
Dredging:	_____ 0	acres	_____ 0	sq ft.	_____ 0	cubic yards
Flooding:	_____ 0	acres	_____ 0	sq ft.	_____ 0	cubic yards
Excavation:	_____ 0	acres	_____ 0	sq ft.	_____ 0	cubic yards
Draining:	_____ 0	acres	_____ 0	sq ft.	_____ 0	cubic yards
Other:	_____ 0	acres	_____ 0	sq ft.	_____ 0	cubic yards
TOTALS:	_____ 0	acres	_____ 0	sq ft.	_____ 286	cubic yards

21. HAVE ANY WORK ACTIVITIES STARTED ON THIS PROJECT? NO YES If yes, describe ALL work that has occurred including dates.

22. LIST ALL PREVIOUSLY ISSUED PERMIT AUTHORIZATIONS:

23. YES, Alteration(s) are located on Public Trust Lands, Administered by Idaho Department of Lands

24. SIZE AND FLOW CAPACITY OF BRIDGE/CULVERT and DRAINAGE AREA SERVED: _____ Square Miles

25. IS PROJECT LOCATED IN A MAPPED FLOODWAY? NO YES If yes, contact the floodplain administrator in the local government jurisdiction in which the project is located. A Floodplain Development permit and a No-rise Certification may be required.

26a. WATER QUALITY CERTIFICATION: Pursuant to the Clean Water Act, anyone who wishes to discharge dredge or fill material into the waters of the United States, either on private or public property, must obtain a Section 401 Water Quality Certification (WQC) from the appropriate water quality certifying government entity.
See Instruction Guide for further clarification and all contact information.

The following information is requested by IDEQ and/or EPA concerning the proposed impacts to water quality and anti-degradation:

- NO YES Is applicant willing to assume that the affected waterbody is high quality?
- NO YES Does applicant have water quality data relevant to determining whether the affected waterbody is high quality or not?
- NO YES Is the applicant willing to collect the data needed to determine whether the affected waterbody is high quality or not?

26b. BEST MANAGEMENT PRACTICES (BMP's): List the Best Management Practices and describe these practices that you will use to minimize impacts on water quality and anti-degradation of water quality. All feasible alternatives should be considered - treatment or otherwise. Select an alternative which will minimize degrading water quality

We do not anticipate any negative consequences from the construction of BDAs and PALS, However, during the construction of in-stream structures a valid effort will be used to minimize the time it takes to install structures in streams. These structures will be composed primarily of natural materials and will not negatively effect or alters the habitat or water quality of streams.

Through the 401 Certification process, water quality certification will stipulate minimum management practices needed to prevent degradation.

27. LIST EACH IMPACT to stream, river, lake, reservoir, including shoreline: Attach site map with each impact location.

Activity	Name of Water Body	Intermittent Perennial	Description of Impact and Dimensions	Impact Length Linear Feet
Beaver Dam Analogs	South Fork Mink Creek	Intermittent	approximate dimensions: 8' wide, 4' tall, 3' wide	125
Post-assisted Log Structures	South Fork Mink Creek	Intermittent	approximate dimensions: 8' wide, 4' tall, 3' wide	75
Beaver Dam Analogs	West Fork Mink Creek	Intermittent	approximate dimensions: 8' wide, 3' tall, 3' wide	115
Post-assisted Log Structures	West Fork Mink Creek	Intermittent	approximate dimensions: 8' wide, 3' tall, 3' wide	70
TOTAL STREAM IMPACTS (Linear Feet):				385

28. LIST EACH WETLAND IMPACT include mechanized clearing, fill excavation, flood, drainage, etc. Attach site map with each impact location.

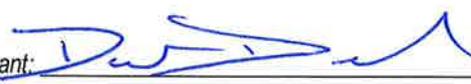
Activity	Wetland Type: Emergent, Forested, Scrub/Shrub	Distance to Water Body (linear ft)	Description of Impact Purpose: road crossing, compound, culvert, etc.	Impact Length (acres, square ft linear ft)
TOTAL WETLAND IMPACTS (Square Feet):				

29. ADJACENT PROPERTY OWNERS NOTIFICATION REQUIREM: Provide contact information of ALL adjacent property owners below.

Name: United States Forest Service Mailing Address: 4350 S Cliffs Dr. City: State: Zip Code: Pocatello ID 83204 Phone Number (include area code): E-mail:	Name: Mailing Address: City: State: Zip Code: Phone Number (include area code): E-mail:
Name: Mailing Address: City: State: Zip Code: Phone Number (include area code): E-mail:	Name: Mailing Address: City: State: Zip Code: Phone Number (include area code): E-mail:
Name: Mailing Address: City: State: Zip Code: Phone Number (include area code): E-mail:	Name: Mailing Address: City: State: Zip Code: Phone Number (include area code): E-mail:
Name: Mailing Address: City: State: Zip Code: Phone Number (include area code): E-mail:	Name: Mailing Address: City: State: Zip Code: Phone Number (include area code): E-mail:

30. SIGNATURES: STATEMENT OF AUTHORIZATION / CERTIFICATION OF AGENT / ACCESS

Application is hereby made for permit, or permits, to authorize the work described in this application and all supporting documentation. I certify that the information in this application is complete and accurate. I further certify that I possess the authority to undertake the work described herein; or am acting as the duly authorized agent of the applicant (Block 2). I hereby grant the agencies to which this application is made, the right to access/come upon the above-described location(s) to inspect the proposed and completed work/activities.

Signature of Applicant:  Date: 4/12/2021

Signature of Agent: _____ Date: _____

This application must be signed by the person who desires to undertake the proposed activity AND signed by a duly authorized agent (see Block 1, 2, 30). Further, 18 USC Section 1001 provides that: "Whoever, in any manner within the jurisdiction of any department of the United States knowingly and willfully falsifies, conceals, or covers up any trick, scheme, or disguises a material fact or makes any false, fictitious, or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious or fraudulent statements or entry, shall be fined not more than \$10,000 or imprisoned not more than five years or both".

Mink Creek Restoration Project – Streambed Alteration Permit
Supplemental Information
Item 14 - Location Map

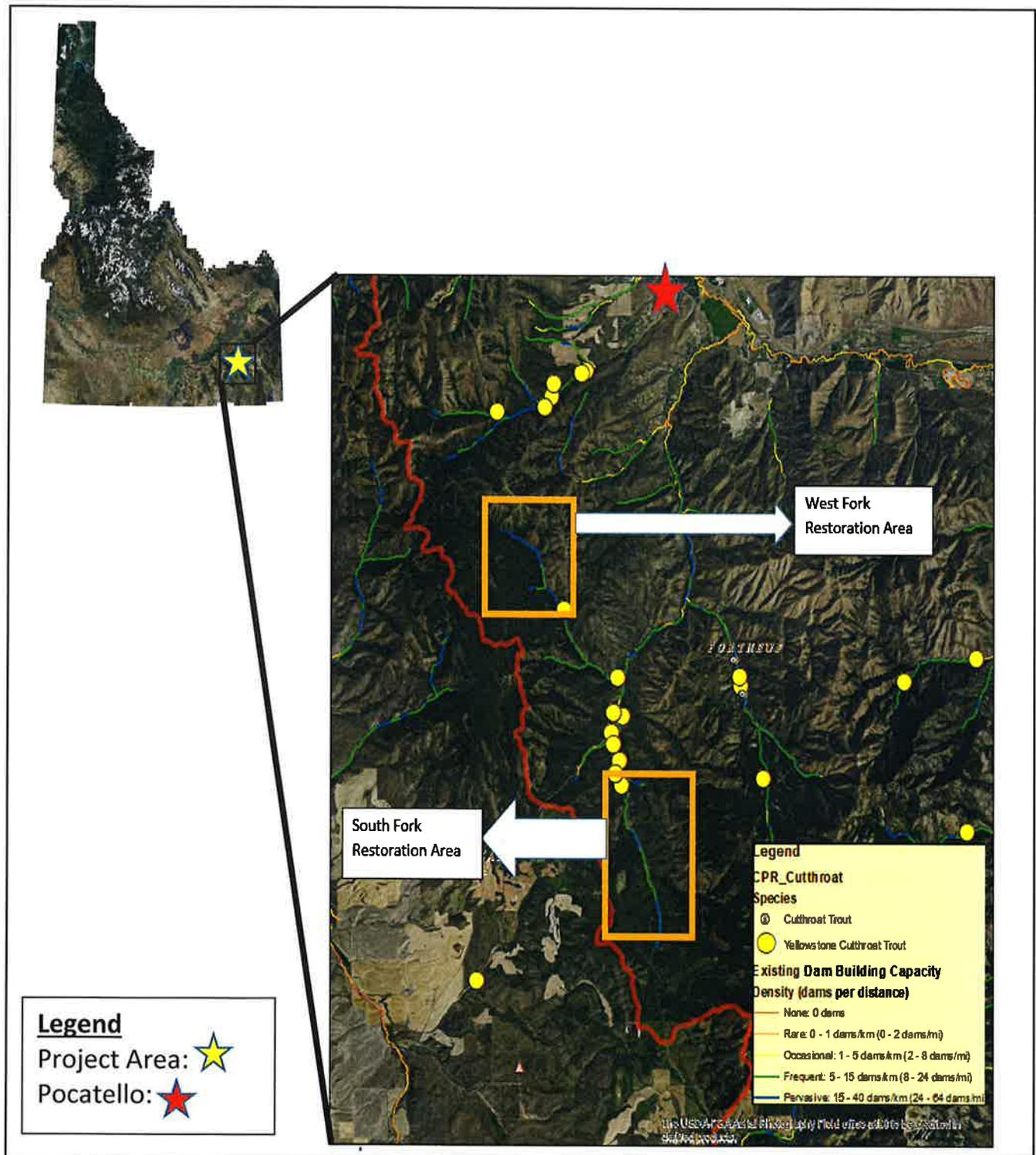


Figure 1. Proposed project area along the South and West forks of Mink Creek.

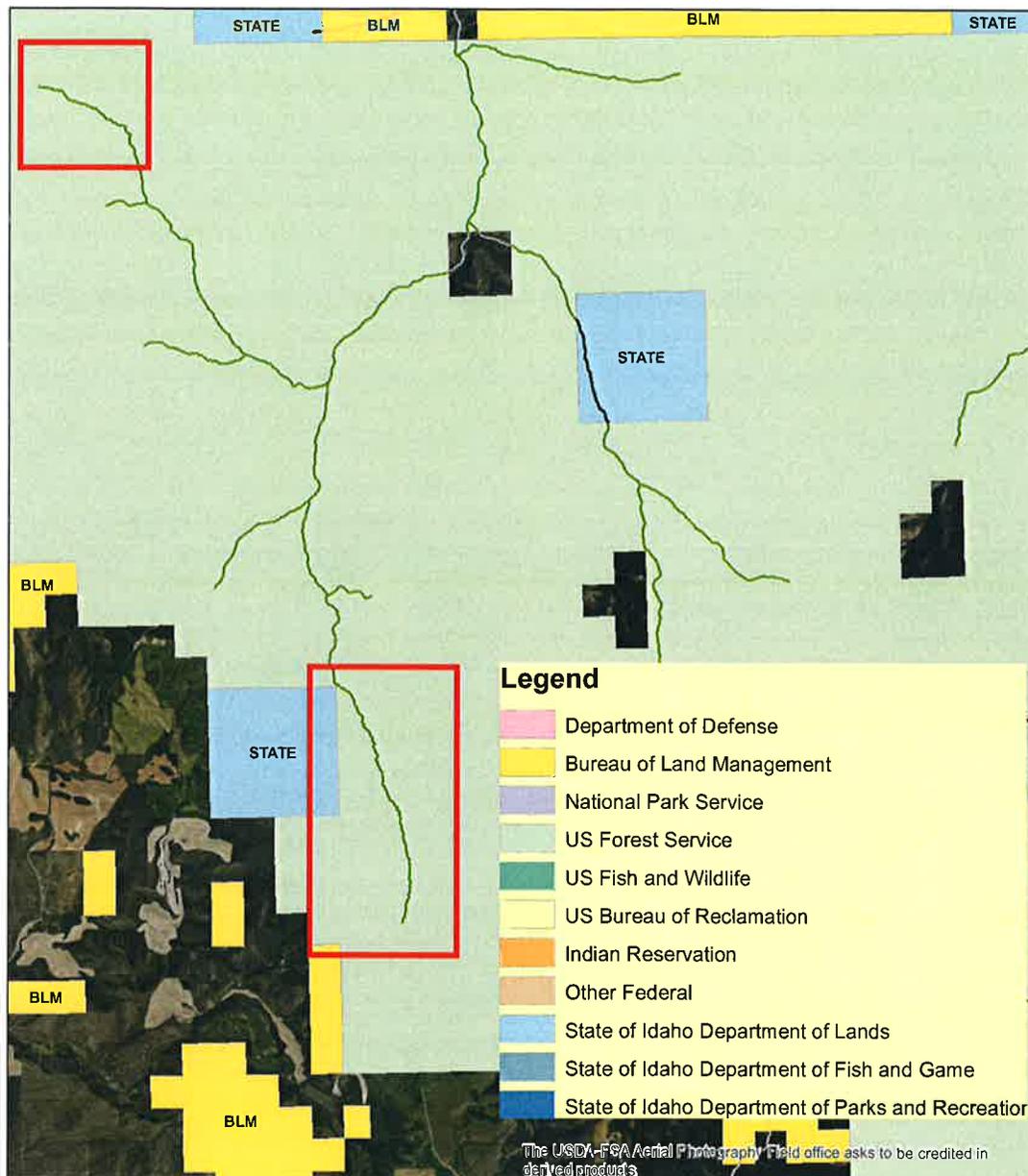


Figure 2. Land ownership map of project area. All lands along the South and West forks of Mink Creek are owned by the US Forest Service. All structures will be built on Forest Service lands.

Item 16 – Detailed Description

The project will include the planning, design, construction and monitoring of an estimated 55 low tech instream restoration structures (35 PALS, 20 BDAs) along South fork Mink Creek and 30 structures (20 PALS, 10 BDAs) on the West fork Mink Creek. The exact locations of the individual structures will be determined at the onset of the project. However, individual stream stretches where the structures will be built has been delineated (Fig 3). The South fork will contain six individual stretches along two miles of stream where structures will be built (Fig 3). In addition, the West fork will contain three individual

stretches where BDAs and PALS will be built. Streamflow measurements will be taken prior to any BDA or PALS construction (July-September) and results will be reported to IDWR.

All structures will be built by hand using untreated wood posts (3" diameter), locally sourced woody material and some sediment. A hydraulic post-driver will be used to drive the untreated posts into the streambed to add stability to the structures. Both locally sourced willows and conifers will be used to increase the stability and create semi-permeable structures. A combination of channel spanning BDAs (Fig. 4), channel spanning PALS, mid channel PALS and bank attached PALS (Fig 5) will be constructed to widen stream bed, increase braided channels and increase the available habitat for wildlife.

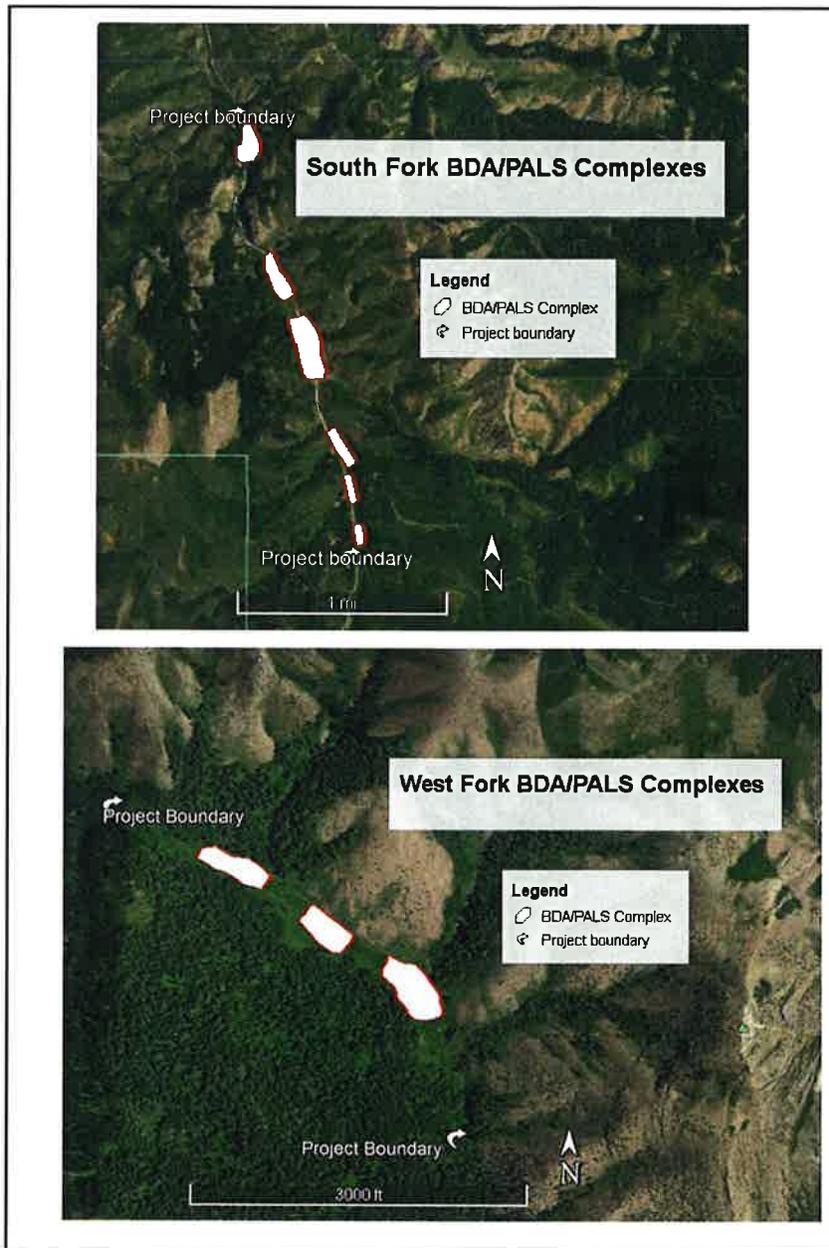


Figure 3. Locations of individual stretches or treatment areas where beaver dam analogous and post assisted log structures will be built. An estimated maximum number of 55 PALS and 30 BDAs will be constructed.

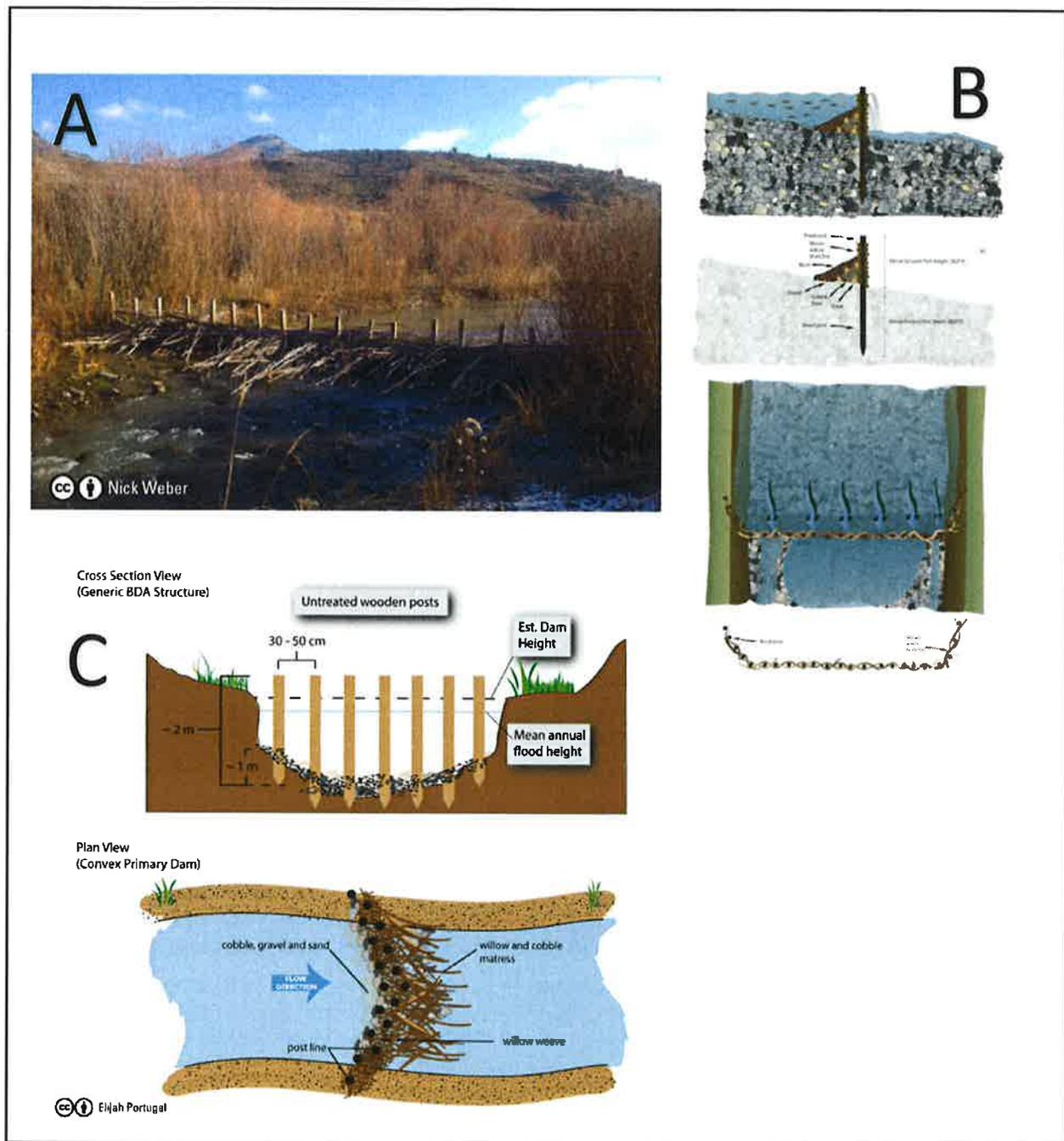


Fig 4. Image of channel spanning beaver dam analog that will be constructed on the South and West forks of Mink Creek (A). Image B shows the pooling of water that will create fish and amphibian habitat and (C) shows the cross section and plan view of the BDA constructed with untreated posts.

Item 19 – Type and Quantity of materials discharged below the ordinary high-water mark

Wood material and posts: On the South fork of Mink Creek we estimate the average structure to be approximately 8 ft wide, 4 ft tall, and 3 ft wide = $96 \text{ ft}^3 = 3.5 \text{ cubic yards} * 55 \text{ structures} = 193 \text{ cubic yards}$.

In the West fork of Mink Creek we estimate the average structure to be approximately 8 ft wide, 3 ft tall, and 3 ft wide = $72 \text{ ft}^3 = 2.6 \text{ cubic yards} * 30 \text{ structures} = 78 \text{ cubic yards}$.

South Fork: $\sim 0.5 \text{ yds/BDA} * 20 \text{ BDAs} = 10 \text{ cubic yards}^*$

West Fork: $\sim 0.5 \text{ yds/BDA} * 10 \text{ BDAs} = 5 \text{ cubic yards}^*$

Total: 271 cubic yards woody material

15 cubic yards sediment

*No sediment is required for building post-assisted log structures.

Addressing Concerns Outlined in the 2019 Memo Processing Joint Applications for Permit Proposing Beaver Dam Analogs and Post Assisted Log Structures.

This section addresses the guidance from the Idaho Department of Water Resources for processing streambed alteration permits that include Beaver Dam Analogs (BDAs) and Post-assisted Log Structures (PALS). Following guidance from conversations with IDWR we have included additional details and justification for our proposed actions on South and West forks of Mink Creek. Numbers refer to the points outlined in the memo entitled *Processing Joint Applications for Permit Proposing Beaver Dam Analogs and Post Assisted Log Structures*.

1. Our permit application identifies a 2-mile stretch along the South fork Mink Creek and a 1-mile stretch along the West fork Mink Creek. Our stream restoration methods include the construction of BDAs and PALS and the translocation of beavers in the West fork only. We have proposed a maximum of 85 structures. Specific locations of structures have not been delineated in this permit application but will be determined before the onset of the project. However, individual stream stretches have been identified for both the West and South forks Mink Creek. The specific locations of BDAs and PALS will be chosen by 1.) location of unmaintained natural beaver dams, 2.) access to location and, 3.) the location at which the BDA or PALS will have the greatest benefit to accomplish the goals of the project. Along the proposed stream reach we suggest that the specific location is less important than the total number of structures and structure types, since highly precise structure location *does not exert a strong influence on how structures are likely to influence downstream water delivery*. All structures will be built as described in this application. We propose to submit an as-built report to IDWR immediately following implementation of this project that identifies the precise location of all instream structures. In addition, we request an exemption to only building BDAs and PALS outside of the irrigation season. The South fork has a seasonal road closure between November 15th – May 15th and the transporting of equipment would be extremely difficult if we are not able to begin construction inside of the irrigation season. In addition, the West fork is extremely access

limited and the closest road will be inaccessible late in the season. These two streams typically turn ephemeral in July and we propose to be able to construct BDAs and PALS from July-November.

2. The South Fork Mink Creek has an estimated mean annual flow of 4.9 cfs and an estimated 30 day 5 year low flow of 0.4 cfs (StreamStats, USGS). The West Fork Mink Creek has an estimated mean annual flow of 9.59 cfs and an estimated 30 day 5 year low flow of 0.5 cfs (StreamStats, USGS). Both of these forks are tributaries of the main stem of Mink Creek which has an estimated mean annual flow of 35.1 cfs (StreamStats, USGS). We will measure flows at the top and bottom of the restoration areas prior to, during, and after the restoration project and report those results to IDWR.
3. We do not propose building structures that will back up water above the annual mean high water mark during baseflow conditions. We do not anticipate PALS forming ponds or forcing water above the ordinary high-water mark and will have a negligible effect on water flow conditions. Beaver dam analogs do have the potential to temporarily decrease downstream flows as ponds are filled. A typical situation is shown in Table 1 and Table 2 for the South fork and West fork, respectively. We use a permeability value of 0.5 to indicate during construction, it is typical for 50% of the flow to continue to flow downstream.

Table 1 – Time to fill a typical BDA on the South fork of Mink Creek based on a pond with dimensions: width= 8 ft, length = 10 ft, depth = 3 ft. Flows higher than the low flow estimate of 0.4 cfs would reduce the fill time for each pond and therefore reduce the cumulative hours of reduced flow.

Pond Volume (cu ft)	Q (cfs)	Structure Permeability	Time to Fill (min)	No. BDAs	Cumulative Hours of Reduced flow
240	0.4	0.5	20	20	6.6

Table 2 – Time to fill a typical BDA on the West fork of Mink Creek based on a pond with dimensions: width = 8 ft, length = 10 ft, depth = 3 ft. Flows higher than the low flow estimate of 0.5 cfs would reduce the fill time for each pond and therefore reduce the cumulative hours of reduced flow.

Pond Volume (cu ft)	Q (cfs)	Structure Permeability	Time to Fill (min)	No. BDAs	Cumulative Hours of Reduced flow
240	0.5	0.5	16	10	2.7

4. Water rights along the South fork and West forks belong to the United States of America. All lands where the project will be implemented are owned by the US Forest Service. The US Forest Service is a collaborative partner on this project. There is one point of diversion (POD) 2.6 miles

5. A. Given the lack of water right concerns for this project and the difficulty in accessing the site in late Fall, we are proposing that there should not be a work-window restriction on when construction can be implemented. Pending the approval of this application, we hope to begin construction in late summer/early fall of 2021 and complete the project by November 2022.

C. We will measure streamflow upstream and downstream of the project area prior to, during and after implementation using a flow meter. We will also install temporary staff plates, consisting of a t-post and a yard stick to photo document water flow conditions. Monitoring efforts including water flow, temperature HOBO loggers, amphibian surveys and breeding bird surveys will take place before and after implementation of the project. The streamflow monitoring strategies are not only important to assess the success of our objectives but will allow us to determine if restoration structures are resulting in decreased downstream flows. We will provide this documentation to IDWR immediately following implementation.

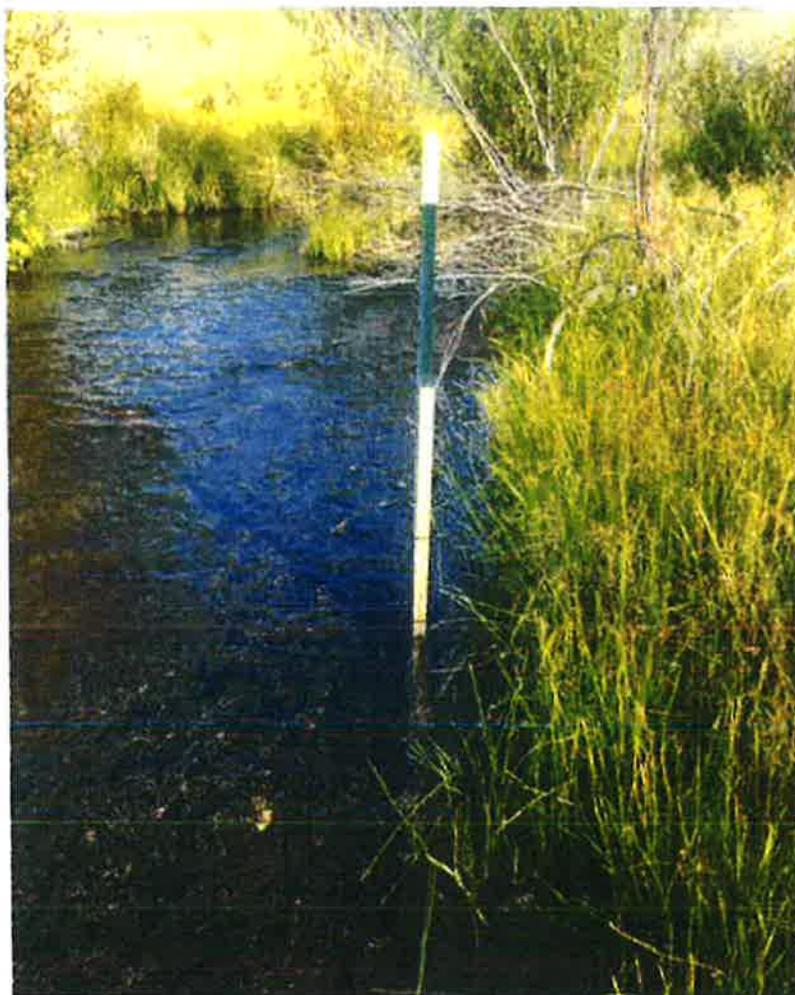


Fig 7 – Staff gage consisting of a t-post and yard stick. This will allow photo documentation of our perceived effects on downstream water delivery. These measurements will be taken before, during and after project implementation.



SCIENCE & ENVIRONMENT DIVISION

911 North 7th Ave P O Box 4169
Pocatello, Idaho 83205-4169
(208) 234-6225
www.pocatello.us/411/Science-Environment



March 31, 2021

TO: Idaho Dept. of Water Resources

RE: Mink Creek BDA/PAL/Beaver Relocation projects

The City of Pocatello is pleased to support IDF&G's proposed beaver mediated restoration project in the South Fork and West Fork of Mink Creek. Both projects are upstream of the City's Mink Creek stream diversion point. The project's goals of aquifer recharge, increased cold water stream flow during the summer, and associated habitat improvement for aquatic life and upland game are important to the City – and in line with the City's Portneuf River Vision Study's goals (adopted 2016).

This area is part of the City's primary aquifer recharge zone. Projects like this are instrumental to improving recharge and the sustainability of the City's drinking water supply.

The City has installed similar BDAs (permitted by IDWR/USACE) in the City Creek and Cusick Creek drainages and are excited to see more installed in the Portneuf Watershed.

If you have any questions about the City's interest in this project, please do not hesitate to contact me.

Sincerely,

Hannah Sanger
Science & Environment Administrator
cell: (208) 705-6360
email: hsanger@pocatello.us