

FUTURE FISHERIES IMPROVEMENT PROGRAM GRANT APPLICATION

(Please fill in the highlighted areas)

all sections (IA, IB, IC, etc.) must be addressed or the application will be considered invalid

I. APPLICANT INFORMATION

- A. Applicant Name: Jim Olsen
- B. Mailing Address: 1820 Meadowlark Lane
- C. City: Butte State: MT Zip: 59701
- Telephone: 533-8451 E-mail: jimolsen@mt.gov
- D. Contact Person: Same as above
- Address if different from Applicant: _____
- City: _____ State: _____ Zip: _____
- Telephone: _____ E-mail: _____
- E. Landowner and/or Lessee Name (if other than Applicant): USDA Forest Service, Beaverhead-Deerlodge National Forest
- Mailing Address: 420 Barrett St
- City: Dillon State: MT Zip: 59625
- Telephone: 683-3900 E-mail: kweiner@fs.fed.us

II. PROJECT INFORMATION*

- A. Project Name: Bender Creek Fish Barrier
- River, stream, or lake: Bender Creek
- Location: Township: 1S Range: 23E Section: 12
- Latitude: 45.758645 Longitude: 113.652633 *within project (decimal degrees)*
- County: Beaverhead
- B. Purpose of Project:
Conserve a non-hybridized (100% pure) population of westslope cutthroat trout by isolating them from non-native brook trout.
- C. Brief Project Description: _____

Westslope cutthroat trout (WCT) in the upper Missouri River drainage occupy less than 5% of their historically occupied habitat. Many of the remaining populations are at risk of extirpation due to small population size and the threats of competition, predation and hybridization with non-native trout species. There are a total of 47 remaining WCT populations in the Big Hole drainage. Of the 47, at least 39 are considered at risk (an additional 5 have unknown population status). An at risk population is one that is not likely to persist over the long-term because of poor habitat, small population size and/or the presence of non-native species. Once a population is extirpated the unique adaptation that have been developed over millennia are lost which could affect the ability of the species as a whole to persist through time. If conservation actions are not taken, more populations will be lost. Projects which restore WCT are necessary to ensure the continued survival of the species in the Big Hole drainage and elsewhere. The restoration goal for WCT east of the Continental Divide (Upper Missouri River Basin upstream from and including the Judith River) is to restore WCT to 20% of the historic distribution (FWP Statewide Fisheries Management Plan 2012). In the Big Hole River drainage where WCT historically occupied approximately 2,141 miles of stream the restoration goal is roughly 400 miles of streams restored to westslope cutthroat trout. One of the primary goals in the Memorandum of Understanding for the Conservation of Westslope Cutthroat trout is to conserve existing populations of WCT in their natal habitat

Bender Creek is home to a 100% pure population of westslope cutthroat trout that is isolated to less than ½ mile of stream in the headwaters of the drainage (Figure 1). Brook trout are also present in the stream and have eliminated the native cutthroat except in the headwaters where fewer than 50 cutthroats remain. Brook trout have also recently invaded the headwaters of the stream so it is highly likely that if no restoration action is taken this native population of cutthroat trout will be extirpated within the next 5-10 years. The goal of this project is to conserve the native cutthroat in Bender Creek through the construction of a fish barrier at the crossing of Bender Creek Road. The barrier would be constructed of treated lumber and would be placed immediately upstream of the bridge crossing (Figure 2 and 3, see also attached design drawings). The barrier design would be similar to the barrier on McVey Creek in the Big Hole Drainage (Figure 4) which has kept brook trout from recolonizing the stream upstream for 5 years since its construction. The pond created upstream of the barrier would be small (0.09 acres) due to the higher gradient nature of the stream and the incised nature of the floodplain in this area. Fill and riprap for the barrier would be obtained on site from adjacent hill slopes along the Bender Creek Road. Riprap would be placed downstream of the structure and a riprap apron will be placed in the bed of the stream immediately downstream of the structure to prevent undercutting. A metal screen will be constructed by FWP personnel (see Figure 4). The screen would prevent fish from leaping the barrier at higher flows. All disturbed areas would be reclaimed. The expected lifespan of a treated wood fish barrier is 30-40 years. Once the fish barrier is in place westslope cutthroat trout would be salvaged from the stream and brook trout would be removed using rotenone. After brook trout are removed the native westslopes would be reintroduced to Bender Creek. A fish barrier placed at the Bender Creek Road will increase the amount of habitat occupied by westslope cutthroat trout in Bender Creek from ½ mile to over 4 miles and aid in reaching the overall goal of restoring 400 miles of stream for cutthroat trout in the Big Hole and will conserve a non-hybridized population of westslope cutthroat trout in their natal habitat that would likely otherwise be extirpated by non-native brook trout.

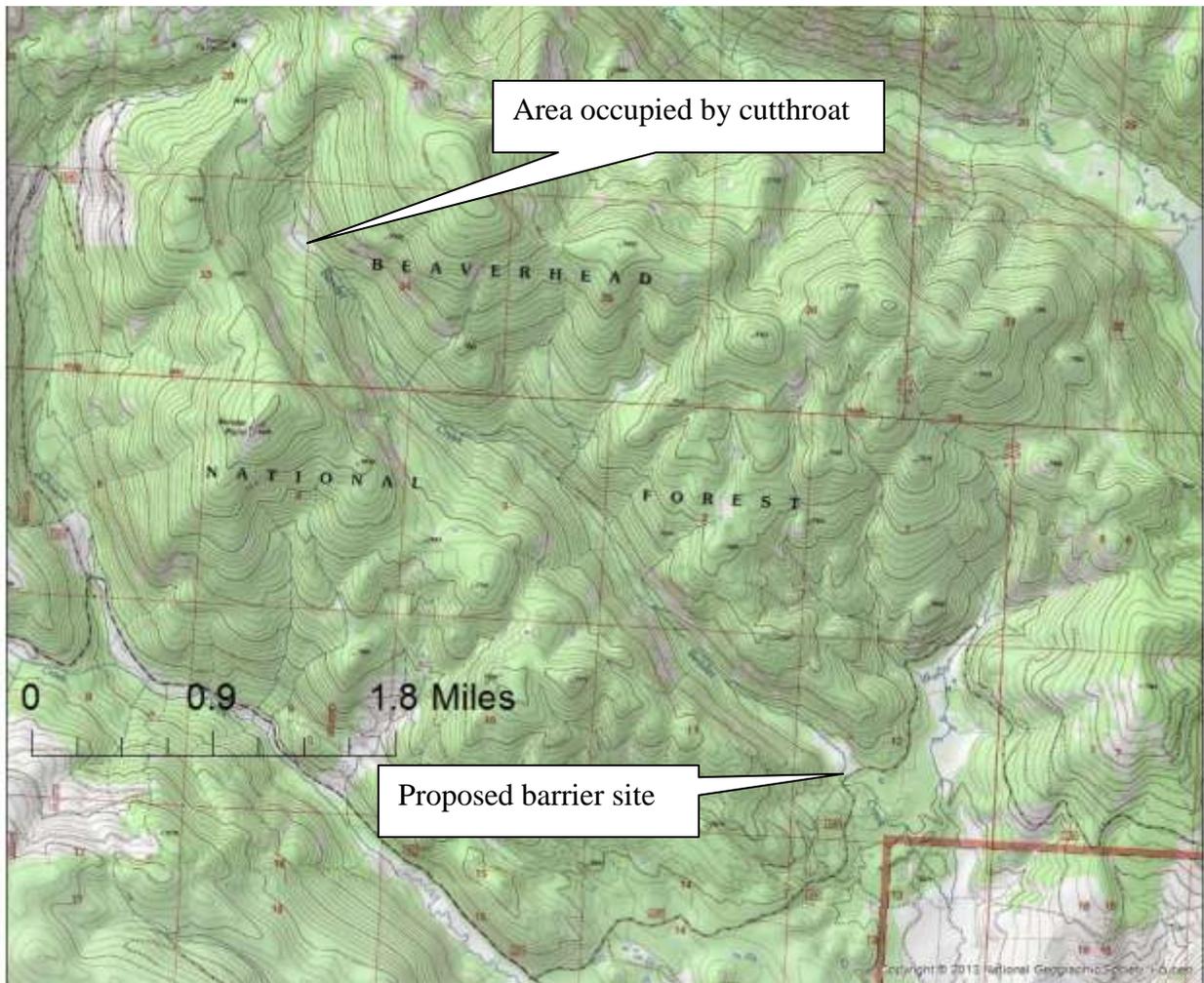
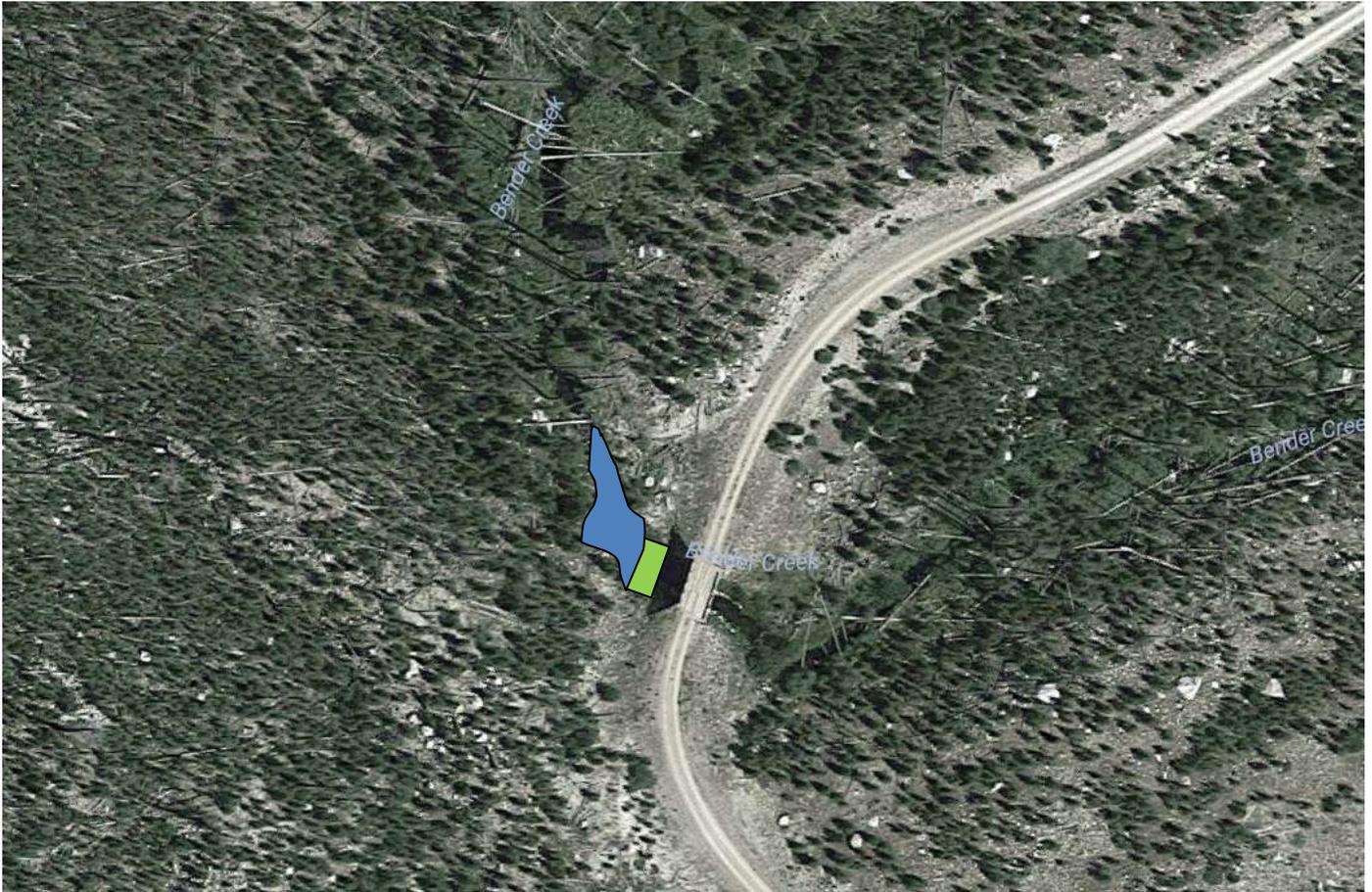


Figure 1. Map of Bender Creek which is located approximately 15 miles northwest of Wisdom MT.



Proposed fish barrier location (rectangle) and anticipated pond upstream of structure (polygon).



Figure 2. Proposed barrier would be located immediately upstream of this bridge.



Figure 3. McVey Creek fish barrier which is nearly identical to the barrier proposed on Bender Creek.

The habitat is in good shape. The area was burned in a fire in 2008 but there are few remaining impacts to the integrity of the habitat in the stream.

G. What public benefits will be realized from this project?:

The public benefits through the conservation of a native stock of non-hybridized westslope trout in their natural habitat. Expanding the cutthroat trout population downstream an additional 3.5 miles will greatly increase the probability of long term persistence of the population.

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

No

I. Will the project result in the development of commercial recreational use on the site?: (explain):

No

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

No

Each approved project sponsor must enter into a written agreement with the Department specifying terms and duration of the project.

IV. 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:

Date:

Sponsor (if applicable):

***Highlighted boxes will automatically expand.**

**Mail To: Montana Fish, Wildlife & Parks
Habitat Protection Bureau
PO Box 200701
Helena, MT 59620-0701**

**E-mail To: Michelle McGree
mmcgree@mt.gov
(electronic submissions **MUST** be signed)**

**Incomplete or late applications will be rejected and returned to applicant.
Applications may be rejected if this form is modified.**

*****Applications may be submitted at anytime, but must be signed and received by the Future Fisheries Program Officer in Helena before December 1 and June 1 of each year to be considered for the subsequent funding period.*****

BUDGET TEMPLATE SHEET FOR FUTURE FISHERIES PROGRAM APPLICATIONS

Both tables must be completed or the application will be returned

WORK ITEMS (ITEMIZE BY CATEGORY)	NUMBER OF UNITS	UNIT DESCRIPTION*	COST/UNIT	TOTAL COST	CONTRIBUTIONS			
					FUTURE FISHERIES REQUEST	IN-KIND SERVICES**	IN-KIND CASH	TOTAL
Personnel***								
Survey				\$ -				\$ -
Design				\$ -				\$ -
Engineering				\$ -				\$ -
Permitting				\$ -				\$ -
Oversight				\$ -				\$ -
				\$ -				\$ -
			Sub-Total	\$ -	\$ -	\$ -	\$ -	\$ -
Travel								
Mileage				\$ -				\$ -
Per diem				\$ -				\$ -
			Sub-Total	\$ -	\$ -	\$ -	\$ -	\$ -
Construction Materials****								
Lumber, rock				\$ 6,604.00	2,000.00		4,604.00	\$ 6,604.00
Steel for Screen				\$ 342.00			342.00	\$ 342.00
				\$ -				\$ -
				\$ -				\$ -
				\$ -				\$ -
			Sub-Total	\$ 6,946.00	\$ 2,000.00	\$ -	\$ 4,946.00	\$ 6,946.00
Equipment and Labor								
Equipment Time				\$ 7,865.00	2,000.00		5,865.00	\$ 7,865.00
Labor				\$ 7,189.00	2,000.00		5,189.00	\$ 7,189.00
				\$ -				\$ -
				\$ -				\$ -
			Sub-Total	\$ 15,054.00	\$ 4,000.00	\$ -	\$ 11,054.00	\$ 15,054.00
Mobilization								
Included in labor cost estimate (see attached quote)				\$ -				\$ -
				\$ -				\$ -
				\$ -				\$ -
				\$ -				\$ -
			Sub-Total	\$ -	\$ -	\$ -	\$ -	\$ -
TOTALS				\$ 22,000.00	\$ 6,000.00	\$ -	\$ 16,000.00	\$ 22,000.00

BUDGET TEMPLATE SHEET FOR FUTURE FISHERIES PROGRAM APPLICATIONS

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 for calculations). Describe here or in text.

Reminder: Government salaries cannot be used as in-kind match

***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 must include a minimum of two competitive bids for the cost of undertaking the project.

****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.

MATCHING CONTRIBUTIONS (do not include requested funds)

CONTRIBUTOR	IN-KIND SERVICE	IN-KIND CASH	TOTAL	Secured? (Y/N)
FFIP	\$ -	\$ 6,000.00	\$ 6,000.00	N
Montana Trout Foundaiton	\$ -	\$ 5,000.00	\$ 5,000.00	N
SW Montana RAC (Forest Service Funding)	\$ -	\$ 6,000.00	\$ 6,000.00	N
George Grant Chapter Trout Unlimited	\$ -	\$ 5,000.00	\$ 5,000.00	N
	\$ -	\$ -	\$ -	
	\$ -	\$ -	\$ -	
	\$ -	\$ -	\$ -	
	\$ -	\$ -	\$ -	
	\$ -	\$ -	\$ -	
	\$ -	\$ -	\$ -	
TOTALS	\$ -	\$ 22,000.00	\$ 22,000.00	

JIM OLSEN FWPBENDER CRK FISH BARRIERCOST ESTIMATE

1) <u>MATERIALS - TREATED LUMBER, INCLUDES ADDITIONAL ROCK FOR STRUCTURE</u>	<u>\$6,604.00</u>
2) <u>EQUIPMENT TIME – GETTING EQUIP. ROCK, AND MATERIALS TO SITE. DEWATERING SITE, EXCAVATOR TIME INSTALLING STR.</u>	<u>\$7,865.00</u>
3) <u>LABOR – TRAVEL TIME, BUILD STR. DEWATERING, INSTALLATION</u>	<u>\$7,189.00</u>
	<u>TOTAL - \$21,658.00</u>

VIC HAGER
RE MILLER & SONS
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