

Warm Springs Creek fish passage
FUTURE FISHERIES IMPROVEMENT PROGRAM
GRANT APPLICATION
(please fill in the highlighted areas)

I. APPLICANT INFORMATION

- A. Applicant Name: Trout Unlimited
- B. Mailing Address: 111 N. Higgins Ave, Suite 500
- C. City: Missoula State: MT Zip: 59802
 Telephone: 406-541-1194 E-mail: _____
- D. Contact Person: Casey Hackathorn
 Address if different from Applicant: _____
 City: _____ State: _____ Zip: _____
 Telephone: 406-541-1194 E-mail: chackathorn@tu.org
- E. Landowner and/or Lessee Name (if other than Applicant): Beaverhead Deerlodge National Forest
 Mailing Address: 420 Barrett St
 City: Dillon State: MT Zip: 59725
 Telephone: 406-683-3916 E-mail: jbrammer@fs.fed.us

II. PROJECT INFORMATION*

- A. Project Name: Warm Springs Creek Fish Passage Improvement
 River, stream, or lake: Warm Springs Creek
 Location: Township: T05N Range: R13W Section: 19
 Latitude: 46.172904 Longitude: -113.156796 *within project (decimal degrees)*
 County: Deer Lodge
- B. Purpose of Project:
This project will reconnect 10 miles of migratory westslope cutthroat trout and bull trout habitat on Warm Springs Creek.
- C. Brief Project Description:

The project will improve fish passage on Warm Springs Creek to reconnect 10 miles of stream habitat by replacing an undersized culvert on a Forest Service road crossing on Warm Springs Creek with a precast concrete bridge. This structure is the top priority and the lower-most of five Warm Springs Creek culverts that need replacement on the Beaverhead-Deerlodge National Forest (BDNF) and will allow unimpeded fish movement into – and within – much of the headwaters of Warm Springs Creek, promoting access to 10 miles of suitable bull trout habitat. Future replacements of the remaining 4 culverts will add to the 10 miles of access provided by this project.

The Upper Warm Springs Creek subwatershed is part of the Warm Springs Creek local population of bull trout and replacing barrier culverts is listed as an action to address threats in the Columbia Headwaters Recovery Unit Implementation Plan for Bull Trout (USFWS 2015). This plan identifies actions needed for recovering the Endangered Species Act (ESA) listed bull trout. The BDNF conducted a survey of known culverts on fish-bearing streams in 2002 to assess their ability to pass fish and devise a priority list for replacing fish passage barriers. This culvert on Warm Springs ranked highest on the list for replacement.

Both Warm Springs and West Fork Warm Springs Creeks also support populations of westslope cutthroat trout, a Region 1 sensitive species and a State of Montana species of special concern. The need to implement this project is described in Forest Service policy on the management of sensitive and ESA listed species and the goals and objectives contained the Memorandum of Understanding and Conservation Agreement for Westslope Cutthroat Trout and Yellowstone Cutthroat Trout in Montana. The Warm Springs Creek watershed is listed as a priority tributary in the Montana Natural Resource Damage Program's Upper Clark Fork Restoration Plan and the program is a partner in funding the project.

D. Length of stream or size of lake that will be treated: 10 miles

E. Project Budget:

Grant Request (Dollars): \$ 43,703

Contribution by Applicant (Dollars): \$ 20,000 In-kind \$ 2,000
(salaries of government employees are not considered as matching contributions)

Contribution from other Sources (Dollars): \$ 111,107 In-kind \$ 24,000
(attach verification - See page 2 budget template)

Total Project Cost: \$ 200,810

F. Attach itemized (line item) budget – see template

G. Attach specific project plans, detailed sketches, plan views, photographs, maps, evidence of landowner consent, evidence of public support, and/or other information necessary to evaluate the merits of the project. If project involves water leasing or water salvage complete supplemental questionnaire (fwp.mt.gov/habitat/futurefisheries/supplement2.doc).

H. Attach land management and maintenance plans that will ensure protection of the reclaimed area.

III. PROJECT BENEFITS*

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

The entire native species assemblage in Warm Springs Creek will benefit from this project including bull trout and westslope cutthroat trout.

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

The project will both protect and enhance wild native fish habitat by reconnecting 10 miles of habitat and improving stream function at a road crossing.

C. Will the project improve fish populations and/or fishing? To what extent?:

The project will improve fish populations and fishing by improving access for migratory species from the mainstem to spawning habitats upstream.

D. Will the project increase public fishing opportunity for wild fish and, if so, how?:

The project will benefit Warm Springs Creek fish populations easily accessible to the public on Forest Service lands as well as improve recruitment to habitats downstream.

E. If the project requires maintenance, what is your time commitment to this project?:

The improved road crossing will be maintained by the Forest Service.

F. What was the cause of habitat degradation in the area of this project and how will the project correct the cause?:

The existing culvert is undersized creating a velocity barrier for fish, promoting bedload deposition upstream of the road crossing, and increasing scour downstream of the road crossing.

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

The public will benefit from an improved recreational fishery on public lands and through improved habitat for an ESA listed species in the watershed.

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: 11/30/2015

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**

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

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

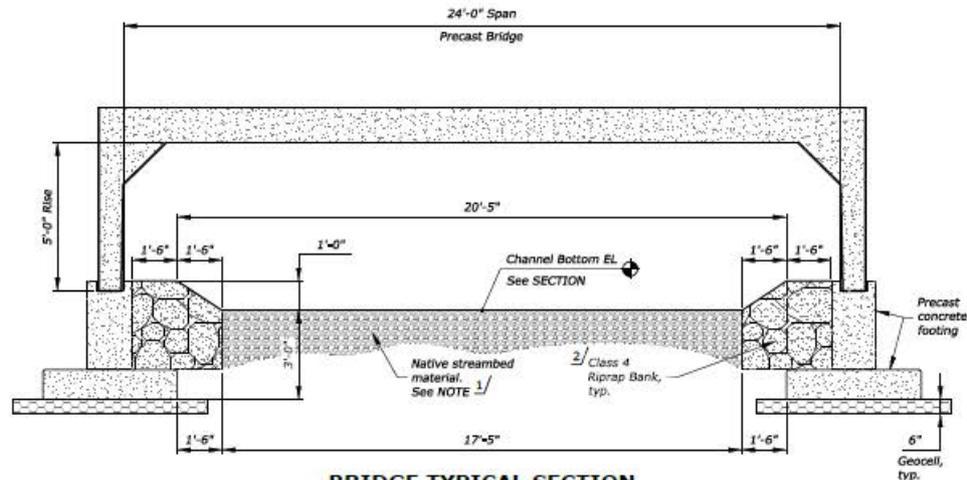
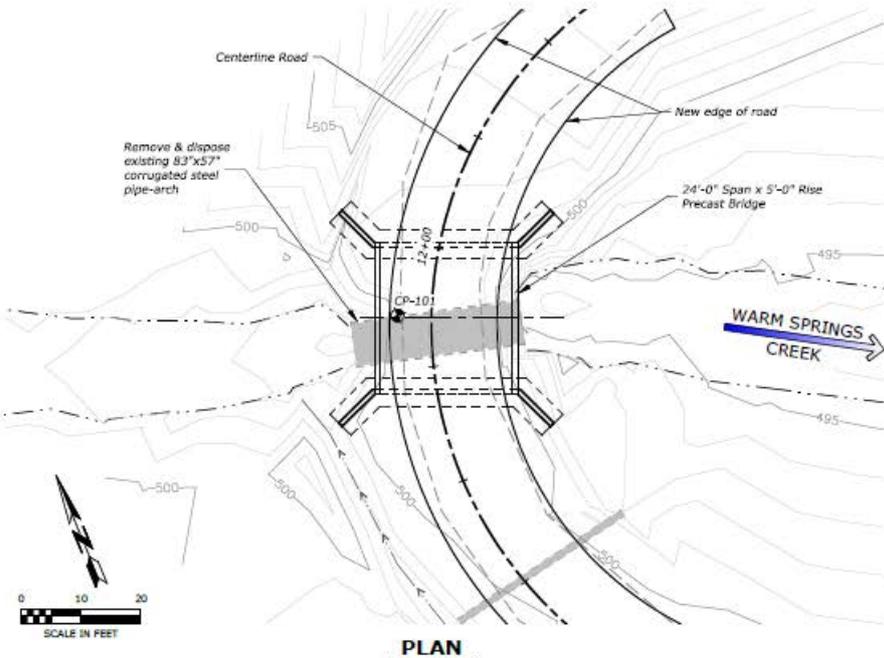
BUDGET TEMPLATE SHEET FOR FUTURE FISHERIES PROGRAM APPLICATIONS

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								
Engineering	1	LS	\$20,000.00	\$ 20,000.00		20,000.00		\$ 20,000.00
Permitting	1	LS	\$1,500.00	\$ 1,500.00		1,500.00		\$ 1,500.00
Oversight	40	HR	\$50.00	\$ 2,000.00		2,000.00		\$ 2,000.00
Monitoring	1	LS	\$2,500.00	\$ 2,500.00		2,500.00		\$ 2,500.00
			Sub-Total	\$ 26,000.00	\$ -	\$ 26,000.00	\$ -	\$ 26,000.00
Travel								
Mileage				\$ -				\$ -
Per diem				\$ -				\$ -
			Sub-Total	\$ -	\$ -	\$ -	\$ -	\$ -
Construction Materials								
Staking	1	LS	\$5,000.00	\$ 5,000.00	1,250.00		3,750.00	\$ 5,000.00
Equipment Washing	1	LS	\$400.00	\$ 400.00	100.00		300.00	\$ 400.00
Stake Cleanup	1	LS	\$200.00	\$ 200.00	50.00		150.00	\$ 200.00
Contractor Testing	1	LS	\$1,000.00	\$ 1,000.00	250.00		750.00	\$ 1,000.00
Soil Erosion and Pollution Control	1	LS	\$2,000.00	\$ 2,000.00	500.00		1,500.00	\$ 2,000.00
Dewatering	1	LS	\$5,000.00	\$ 5,000.00	1,250.00		3,750.00	\$ 5,000.00
Removal of existing structure	1	LS	\$2,000.00	\$ 2,000.00	500.00		1,500.00	\$ 2,000.00
Backfill	50	CY	\$25.00	\$ 1,250.00	313.00		937.00	\$ 1,250.00
Structure Excavation	1	LS	\$15,000.00	\$ 15,000.00	3,750.00		11,250.00	\$ 15,000.00
Placed RipRap	80	CY	\$95.00	\$ 7,600.00	1,900.00		5,700.00	\$ 7,600.00
Grade Control Structures, Rock Wier	5	EA	\$1,000.00	\$ 5,000.00	1,250.00		3,750.00	\$ 5,000.00
Geocell abutment stabilization	64	SY	\$125.00	\$ 8,000.00	2,000.00		6,000.00	\$ 8,000.00
Crushed Aggregate	50	CY	\$50.00	\$ 2,500.00	625.00		1,875.00	\$ 2,500.00
Precast Concrete Bridge	1	LS	\$100,000.00	\$ 100,000.00	25,000.00		75,000.00	\$ 100,000.00
18"Dia Corrugated Steel Pipe	24	LF	\$80.00	\$ 1,920.00	480.00		1,440.00	\$ 1,920.00
			Sub-Total	\$ 156,870.00	\$ 39,218.00	\$ -	\$ 117,652.00	\$ 156,870.00
Equipment								
Dump Truck	8	HR	\$110.00	\$ 880.00	220.00		660.00	\$ 880.00
Excavator with Thumb	8	HR	\$145.00	\$ 1,160.00	290.00		870.00	\$ 1,160.00
			Sub-Total	\$ 2,040.00	\$ 510.00	\$ -	\$ 1,530.00	\$ 2,040.00
Mobilization								
Included above				\$ 15,900.00	3,975.00		11,925.00	\$ 15,900.00
			Sub-Total	\$ 15,900.00	\$ 3,975.00	\$ -	\$ 11,925.00	\$ 15,900.00
TOTALS				\$ 200,810.00	\$ 43,703.00	\$ 26,000.00	\$ 131,107.00	\$ 200,810.00

*Units = feet, hours, inches, lump sum, etc.

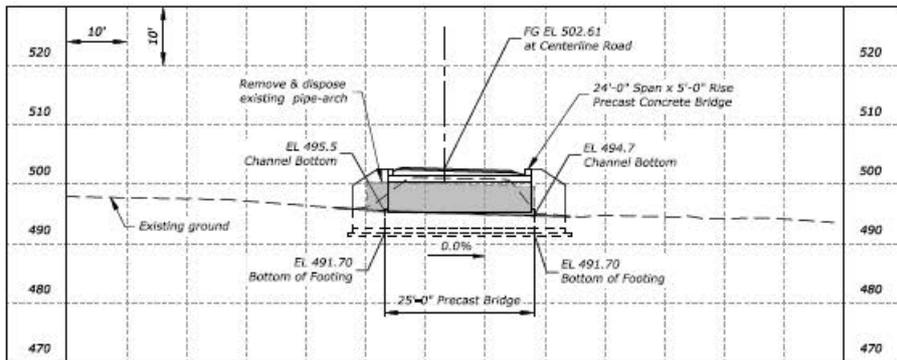
MATCHING CONTRIBUTIONS

CONTRIBUTOR	IN-KIND SERVICE	IN-KIND CASH	TOTAL	Verified? (Y/N)
USFS	\$ 24,000.00	\$ 30,000.00	\$ 54,000.00	N
TU - Orvis	\$ 2,000.00	\$ 20,000.00	\$ 22,000.00	Y
MT NRDP	\$ -	\$ 81,107.00	\$ 81,107.00	N
TOTAL	\$ 26,000.00	\$ 131,107.00	\$ 157,107.00	



1/ Fill between riprap with native material preserved from the excavation. The final mix should be consistent in gradation with the native streambed material upstream and downstream from the existing culvert and produce a dense, well interlocked streambed with low permeability. THE CONTRACTOR IS RESPONSIBLE TO INSURE THAT THE STREAM FLOW DOES NOT GO SUBSURFACE THROUGH THE CULVERT FOR A 48 HOUR PERIOD AFTER RE-WATERING. All work is paid under Item 20806.

2/ Inter-Mix fine native material as directed by CO during placement of riprap to seal voids. Ensure fine material is dispersed throughout the full riprap section.



Scale: 1" = 20'

HYDRAULIC DATA:
 Drainage Area= 18.7 sq. mi.
 Q2= 106 cfs
 Bankfull Width= 21'
 Depth= 1.8'
 Q100= 400 cfs
 Depth = 3.0'



REGION ONE

PRELIMINARY ENGINEER'S OPINION OF PROBABLE COST WORK SHEET

Date
Project No.

November 19, 2015
6542

Title
Location
Contact
Owner

Warm Springs Creek Culvert Replacement
Road 9440, MP 0.1
Nez Perce-Clearwater National Forests
USFS

PRECAST CONCRETE BRIDGE OPTION

ITEM NO.	ITEM DESCRIPTION	MEASUREMENT		QTY	UNIT PRICE	AMOUNT
		METHOD	UNIT			
15101	MOBILIZATION	LSQ	Lump Sum	1	\$15,900	\$15,900
15221	CONSTRUCTION STAKING	LSQ	Lump Sum	1	\$5,000	\$5,000
15102	EQUIPMENT WASHING	LSQ	Lump Sum	1	\$400	\$400
15202	STAKE CLEANUP	LSQ	Lump Sum	1	\$200	\$200
15401	CONTRACTOR TESTING	LSQ	Lump Sum	1	\$1,000	\$1,000
15713	SOIL EROSION & POLLUTION CONTROL	LSQ	Lump Sum	1	\$2,000	\$2,000
15730	DEWATERING	LSQ	Lump Sum	1	\$5,000	\$5,000
20301	REMOVAL OF EXISTING 83"x57" CORRUGATED STEEL PIPE-ARCH	AQ	Each	1	\$2,000	\$2,000
20450	BACKFILL (704.03) (GOVERNMENT FURNISHED)	CQ	Cubic Yard	50	\$25	\$1,250
20806	STRUCTURE EXCAVATION	LSQ	Lump Sum	1	\$15,000	\$15,000
25101	PLACED RIPRAP, CLASS 4, MACHINE PLACED (GOVERNMENT FURNISHED)	CQ	Cubic Yard	80	\$95	\$7,600
25150	GRADE CONTROL STRUCTURES, ROCK WEIR (GOVERNMENT FURNISHED)	AQ	Each	5	\$1,000	\$5,000
27201	GEOCELL ABUTMENT STABILIZATION, 6" DEPTH	CQ	Square Yard	64	\$125	\$8,000
30809	CRUSHED AGGREGATE, SURFACING, COMPACTION METHOD 2 (CONTRACTOR FURNISHED)	CQ	Cubic Yard	50	\$50	\$2,500
553A01	PRECAST CONCRETE BRIDGE (INCLUDES WINGWALLS, FOOTINGS & CURBS) DESIGN, FABRICATE, TRANSPORT & INSTALL	LSQ	Lump Sum	1	\$100,000	\$100,000
60202	18" DIA. CORRUGATED STEEL PIPE, 0.064" THICKNESS	AQ	Linear Foot	24	\$80	\$1,920
62201	EQUIPMENT RENTAL, LARGE DUMP TRUCK	AQ	Hour	8	\$110	\$880
62202	EQUIPMENT RENTAL, HYDRAULIC EXCAVATOR WITH THUMB	AQ	Hour	8	\$145	\$1,160
TOTAL ESTIMATED COST >>						\$174,810

Estimated By CT
Checked By MJ

USFS Warm Springs Creek Culvert Replacement Summary

Background

The purpose of this project is to provide unimpeded fish passage through five undersized culverts in the Warm Springs Creek watershed. Implementing this project will allow unimpeded fish movement within and between these streams and the lower reaches of Warm Springs Creek.

The need to implement this project is based on the status of two native fish species that inhabit this stream. The Upper Warm Springs Creek subwatershed is part of the Warm Springs Creek local population of bull trout as defined in the DRAFT bull trout Recovery Plan (USFWS 2002). This plan identifies actions needed for recovering the Endangered Species Act (ESA) listed bull trout. One of the actions identified for bull trout recovery in this plan is to identify culvert barriers to upstream fish passage and replace or improve those that impede passage. The Beaverhead-Deerlodge National Forest (B-D NF) conducted a survey of known culverts on fish-bearing streams in 2002 to assess their ability to pass fish and devise a priority list for replacing fish passage barriers. These culverts on Warm Springs and West Fork Warm Springs creeks ranked high on the list for replacement.

Both Warm Springs and West Fork Warm Springs creeks also support populations of westslope cutthroat trout, a Region 1 sensitive species and a State of Montana species of special concern. The need to implement this project is described in Forest Service policy on the management of sensitive and ESA listed species and the goals and objectives contained the Memorandum of Understanding and Conservation Agreement for Westslope Cutthroat Trout and Yellowstone Cutthroat Trout in Montana, of which the Forest Service is a signator.

The project area is located within the Warm Springs Management Area of the 2009 Beaverhead-Deerlodge National Forest Plan. The Upper Warm Springs Creek watershed is listed as a Fish Key



Watershed. The entire Warm Springs project consists of replacing five (5) undersized culverts with stream crossing structures (bridges, or larger culverts) that allow for upstream movement of all life stages of fish and other aquatic organisms, and pass a projected 100 year flood event. These culverts are located on Warm Springs Creek (4 culverts) and West Fork Warm Springs Creek (1 culvert).

Warm Springs Site 1: Rd. No. 9440, M.P. 0.1

- Single lane road.
 - Existing culvert alignment is good.
 - No horizontal roadway changes are anticipated.
 - Significant vertical alignment changes are anticipated, but be able to be incorporated into the existing roadway alignment.
- The site is fairly brushy in the corridor along the stream channel and additional survey time for brush clearing is anticipated.
- The existing structure is in a fairly tight radius turn. Turning movement analysis will be necessary with a lowboy design vehicle for fire traffic.
- Preliminary consensus of structure type is a bottomless arch.



Montana Fish, Wildlife & Parks

P.O. 24

Anaconda, MT 59711

Phone: (406) 563-7435

E-mail: jlindstrom@mt.gov

May 28, 2015

Montana Fish, Wildlife & Parks
Future Fisheries Program, Attn: Michelle McGree
PO Box 200701
Helena, MT 59620

RE: Support for Warm Springs Creek Fish Passage Improvement Project

I would like to offer my support for the Warm Springs Creek Fish Passage Improvement project proposed by Trout Unlimited. Warm Springs Creek has been identified by Fish, Wildlife and Parks and the Natural Resource Damage Program as a priority stream for fisheries restoration. It has also been identified by the Beaverhead-Deerlodge National Forest as a Fish Key Watershed. Upper Warm Springs Creek and its tributaries support native westslope cutthroat trout as well as the most upstream populations of the federally threatened bull trout in the Clark Fork River drainage. Providing for fish passage is a focus of restoration efforts in the Warm Springs Creek watershed. The culvert in question relative to this Future Fisheries application is in the middle of key spawning habitat for both species. I encourage you to support this application as it will help provide for unobstructed fish passage in a critical reach of Warm Springs Creek. Please feel free to contact me with any questions.

Sincerely,

A handwritten signature in blue ink, appearing to read "Jason Lindstrom", written over a light blue horizontal line.

Jason Lindstrom
Upper Clark Fork Fisheries Biologist
Montana Fish, Wildlife & Parks