

NF Dry Cottonwood Creek culvert replacement
FUTURE FISHERIES IMPROVEMENT PROGRAM
GRANT APPLICATION

(addl info available)

(please fill in the highlighted areas)

I. APPLICANT INFORMATION

- A. Applicant Name: Clark Fork Coalition
- B. Mailing Address: Box 7593
- C. City: Missoula State: MT Zip: 59807
- Telephone: 406-396-7716 E-mail: will@clarkfork.org
- D. Contact Person: Will McDowell
- Address if different from Applicant:
- City: State: Zip:
- Telephone: E-mail:
- E. Landowner and/or Lessee Name (if other than Applicant): Beaverhead Deer Lodge National Forest, Pintler District
- Mailing Address: 88 Business Loop
- City: Philipsburg State: MT Zip: 59858
- Telephone: 406-859-3211 E-mail: cfbucha@fs.fed.us

II. PROJECT INFORMATION*

- A. Project Name: Road 85 North Fork Dry Cottonwood Culvert Replacement
- River, stream, or lake: Dry Cottonwood Creek in Upper Clark Fork
- Location: Township: 5N Range: 8W Section: 6
- Latitude: 46.2112 Longitude: -112.6506 within project (decimal degrees)
- County: Deer Lodge
- B. Purpose of Project:
 The project's purpose is to improve fish passage and habitat connectivity for a westslope cutthroat conservation population in the Upper Clark Fork river.
- C. Brief Project Description:

This project will remove one of the priority fish barrier culverts in the 23-square mile Dry Cottonwood drainage, to enhance a population of westslope cutthroat trout by reconnecting 4 miles of good fish habitat to the mainstem of the creek, and potentially to the Upper Clark Fork.

Dry Cottonwood Creek supports westslope cutthroat trout from stream mile 2 up to just below the Continental Divide. The drainage has over fourteen (14) fish-bearing miles of cold-water habitat on private, state and National Forest lands. These trout are 92-97% genetically pure westslope cutthroats, and rated by Montana Fish Wildlife and Parks as a "conservation population." This drainage is unusual in that it contains no brown trout or brook trout, which are competitive with the native fish. Hence this watershed provides a good conservation area for native cutthroat trout, and also a potential recruitment area for fluvial native fish to the Clark Fork river, which is undergoing Superfund clean-up to improve aquatic/riparian habitat.

The US Forest Service, in its *East Deer Lodge Valley Landscape Restoration Management Project* approved in 2015, specifically recommended that this culvert be replaced as part of a larger effort to enhance and restore native cutthroat trout, a Sensitive Species for the USFS, and a Species of Concern for the State of Montana. To reconnect the North Fork tributary will require removal and replacement of the undersized 43"x 64" arch culvert at the bottom of the drainage on FS Road 85. This culvert is a fish passage barrier due to its small size, slope, and vertical drop-off at culvert outlet (see photo). This culvert is also undersized for flood events which could damage the road.

The US Forest Service contracted a design using the "stream simulation" approach. The recommended new arch culvert is 128" x 83" x 56 feet. The arch culvert will have natural alluvium substrate and a bankfull width channel inside the structure. Three additional 24" road drain culverts on FS Road 85 will also be installed to reduce road sediment input to the creek.

Project execution will be as follows: 1) The US Forest Service contracts survey, fish passage analysis and design of the culvert (now complete). 2) The USFS will sign an agreement with the Clark Fork Coalition (CFC) to provide oversight and project management, in coordination with both the Engineering and Aquatics staff at Beaverhead Deer Lodge National Forest. 3) The designs will go through review and permitting by Montana FWP, facilitated by the Clark Fork Coalition. 4) The CFC will advertise for private construction firms to install the structures, using USFS design and specifications. When a qualified contractor is selected, the CFC will provide oversight of construction, and structures will be approved for payment by the USFS road engineer at BDNF. The CFC will provide cash match monies for the construction from the RAC program (secured) and Future Fisheries, and USFS match is in-kind contracted design work and 3 small drain culverts.

The Clark Fork Coalition is involved in a series of activities on private and public land to address all the limiting factors for westslope cutthroat trout in Dry Cottonwood Creek. At the lower end of the drainage, the Coalition has installed new pivot sprinklers and reduced irrigation-related dewatering. In the lower and middle drainage, the Clark Fork Coalition, three neighboring ranches, and the State of Montana have reduced riparian grazing pressure significantly. The CFC and USFS have funded installation of some road drain culverts, installed slash filter windrows, and re-grading the road to reduce fine sediment inputs to the stream. Other projects to improve off-stream livestock water and reduce livestock impact on the riparian area and stream banks in this USFS grazing allotment are planned, but not part of this proposal.

D. Length of stream or size of lake that will be treated: 4 miles, all upstream of culvert

E. Project Budget:

Grant Request (Dollars): \$ 26,310

Contribution by Applicant (Dollars): \$ 25,510 In-kind \$
(salaries of government employees are not considered as matching contributions)

Contribution from other Sources (Dollars): \$ In-kind \$ 13,400
(attach verification - See page 2 budget template)

Total Project Cost: \$ 65,220

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 fish biologist 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?:

Westslope cutthroat trout, 92% to 97% genetically pure.

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

Project will open fish passage at all seasons of year to westslope cutthroat, reconnecting 4 miles of North Fork habitat to the mainstem of Dry Cottonwood Creek.

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

The project will connect the upper watershed population to the mainstem population, with some potential of reactivating a fluvial population of westslope cutthroat to the Upper Clark Fork.

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

The North Fork is almost entirely USFS public access. The fishery should improve in this tributary, but more importantly we hope to see recruitment of westslope cutthroat to the mainstem of Dry Cottonwood and potentially the Upper Clark Fork river.

E. The project agreement includes a 20-year maintenance commitment. If you are unable to meet this commitment, please explain why:

USFS has the maintenance responsibility for all of Road 85 (public and private).

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

The habitat was cut off by an undersized culvert, which has a vertical drop-off at outlet. The new culvert will be a "stream simulation" system with alluvial channel formed in bottom of culvert.

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

Reconnection of habitat to benefit a native fishery, enhance tributary fishing opportunities, and potentially recruit native fish to the Upper Clark Fork.

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. Recreational public use already occurs on USFS lands.

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:

Michelle McGree

Date:

30 Nov 2015

Sponsor (if applicable):

[Redacted]

*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 returned to applicant.
Applications may be rejected if this form is modified.

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	1.5	day	\$800.00	\$ 1,200.00	400.00	800.00		\$ 1,200.00	
Design	0	day		\$ -				\$ -	
Engineering	10	day	\$960.00	\$ 9,600.00		9,600.00		\$ 9,600.00	
Permitting	1	day	\$400.00	\$ 400.00			400.00	\$ 400.00	
Oversight	6	day	\$400.00	\$ 2,400.00	-		2,400.00	\$ 2,400.00	
Labor	2	day	\$250.00	\$ 500.00			500.00	\$ 500.00	
			Sub-Total	\$ 14,100.00	\$ 400.00	\$ 10,400.00	\$ 3,300.00	\$ 14,100.00	
Travel									
Mileage	653	miles	\$0.58	\$ 375.48	375.00			\$ 375.00	
Per diem				\$ -				\$ -	
			Sub-Total	\$ 375.48	\$ 375.00	\$ -	\$ -	\$ 375.00	
Construction Materials***									
24" CMP	120	feet	\$25.00	\$ 3,000.00		3,000.00		\$ 3,000.00	
128"x83" CMP	56	feet	\$250.00	\$ 14,000.00	14,000.00			\$ 14,000.00	
riprap class 3	40	yds	\$65.00	\$ 2,600.00	2,600.00			\$ 2,600.00	
road aggregate	75	yds	\$25.00	\$ 1,875.00	1,875.00			\$ 1,875.00	
erosion control	1	lump	\$1,500.00	\$ 1,500.00			1,500.00	\$ 1,500.00	
				\$ -				\$ -	
			Sub-Total	\$ 22,975.00	\$ 18,475.00	\$ 3,000.00	\$ 1,500.00	\$ 22,975.00	
Equipment									
Trak hoe	9	days	\$1,250.00	\$ 11,250.00	2,500.00		8,750.00	\$ 11,250.00	
Dump Truck	9	days	\$880.00	\$ 7,920.00	1,760.00		6,160.00	\$ 7,920.00	
Skid steer	9	days	\$400.00	\$ 3,600.00	800.00		2,800.00	\$ 3,600.00	
				\$ -				\$ -	
				\$ -				\$ -	
				\$ -				\$ -	
			Sub-Total	\$ 22,770.00	\$ 5,060.00	\$ -	\$ 17,710.00	\$ 22,770.00	
Mobilization									
heavy equipment	1		\$5,000.00	\$ 5,000.00	2,000.00		3,000.00	\$ 5,000.00	
				\$ -				\$ -	
				\$ -				\$ -	
				\$ -				\$ -	
			Sub-Total	\$ 5,000.00	\$ 2,000.00	\$ -	\$ 3,000.00	\$ 5,000.00	
TOTALS				\$ 65,220.48	\$ 26,310.00	\$ 13,400.00	\$ 25,510.00	\$ 65,220.00	

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

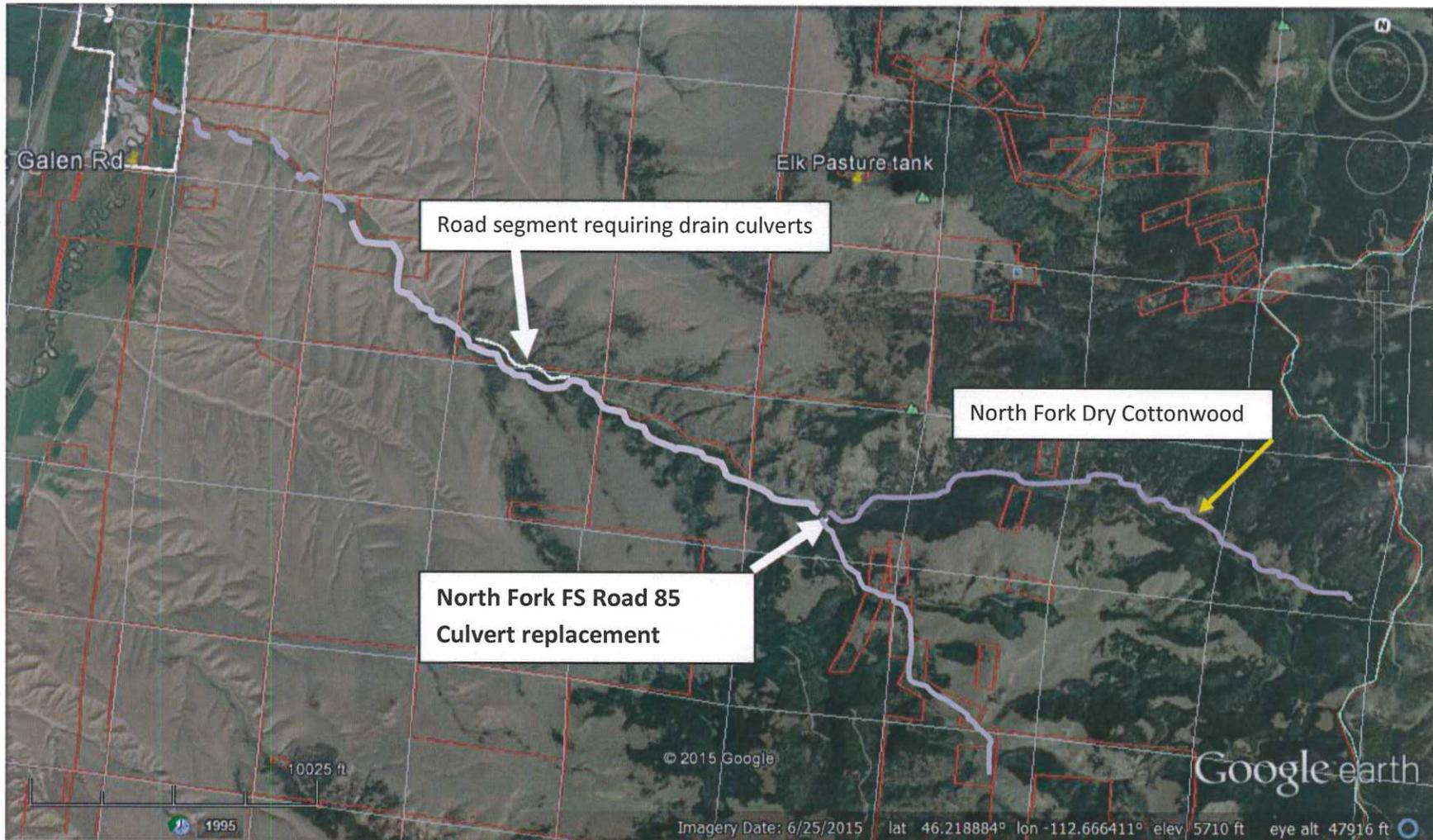
BUDGET TEMPLATE SHEET FOR FUTURE FISHERIES PROGRAM APPLICATIONS

**Can include in-kind materials. Justification for in-kind labor (e.g. hourly rates used for calculations). Describe here or in text.

***The Future Fisheries Review Panel recommends a maximum fencing cost of \$1.50 per foot

MATCHING CONTRIBUTIONS (do not include requested funds)

CONTRIBUTOR	IN-KIND SERVICE	IN-KIND CASH	TOTAL	Verified? (Y/N)
US Forest Service BVDL (engineering + small CMPs)	\$ 13,400.00	\$ -	\$ 13,400.00	yes
Clark Fork Coalition (private grants)	\$ -	\$ 3,300.00	\$ 3,300.00	yes
RAC program (Clark Fork Coalition)	\$ -	\$ 22,210.00	\$ 22,210.00	yes
	\$ -	\$ -	\$ -	
	\$ -	\$ -	\$ -	
	\$ -	\$ -	\$ -	
	\$ -	\$ -	\$ -	
	\$ -	\$ -	\$ -	
	\$ -	\$ -	\$ -	
	\$ -	\$ -	\$ -	
TOTALS	\$ 13,400.00	\$ 25,510.00	\$ 38,910.00	



PROJECT AREA MAP of Dry Cottonwood Creek drainage. North Fork culvert replacement is just above confluence of North Fork and South Fork. The road segment requiring drain culverts to reduce the runoff of road sediment into the stream is on the mainstem 2 miles downstream, where the road and stream are particularly close together. Other segments of Road 85 have a larger natural buffer between road and stream. The drainage is naturally intermittent in the lower 2 miles, exacerbated by irrigation withdrawals during spring. With a new irrigation efficiency-water savings project now in place, the stream often connects to the river for 2-4 months in spring and early summer.



North Fork Dry Cottonwood culvert on USFS Road 85, Beaverhead Deerlodge NF, 2015.



Westslope cutthroat 13 inches long found beside irrigation diversion on Dry Cottonwood, approximately one-half mile upstream of the Upper Clark Fork river, in May, 2013. Although there is no definitive evidence of a fluvial population connected to the river, it is hoped that restoration efforts on this creek (a combination of water savings, habitat, and passage) and water quality improvements in the river (Superfund, flows) will result in ecological connectivity for this population during spring runoff.



Casey Hackathorn

Upper Clark Fork Program Manager

November 30, 2015

To: Michelle McGree
MT FWP
Habitat Protection Bureau
Box 200701
Helena, MT 59620-0701

RE: Support for Road 85 North Fork Dry Cottonwood Culvert Replacement

Trout Unlimited supports the Clark Fork Coalition's efforts to restore and reconnect the Dry Cottonwood Creek fishery. There are few opportunities to reconnect westslope cutthroat populations in the headwaters of the Upper Clark Fork. This project is an important step toward improving and securing vital native fish habitat that will have potential benefits to both Dry Cottonwood Creek and the mainstem Clark Fork River.

Thank you for your consideration.

Sincerely,

Casey Hackathorn

File Code: 1580/2600
Date: November 20, 2015

Michelle McGree
Future Fisheries Improvement Program Officer
Montana Fish, Wildlife & Parks
P.O. Box 200701
Helena, MT 59620-0701

RECEIVED

NOV 23 2015

**FISHERIES DIVISION
FISH, WILDLIFE & PARKS**

Dear Future Fisheries Panel:

The Pintler Ranger District of the Beaverhead Deer Lodge National Forest would like to express our support for the proposed North Fork Dry Cottonwood Passage & Habitat Project. This project includes priority riparian restoration elements of the East Deer Lodge Valley Landscape Restoration Management Project (EDLV), located on the Pintler Ranger District.

The project activities will include: 1) providing aquatic organism passage at the North Fork Dry Cottonwood Creek culvert on USFS Road 85, which will open upstream fish access to the entire North Fork drainage; 2) installing a new off-stream livestock water tank and rehabilitating another off-stream livestock water tank along the North Fork; and 3) providing fencing for a 26-acre enclosure on high-quality spawning and rearing habitat in the upper North Fork.

The Clark Fork Coalition has been a valued member of the Forest Stewardship Partners (FSP) collaborative associated with the EDLV project since 2006 and also actively partners with the USFS Aquatics team leader, road engineer, and range management specialist on the Pintler Ranger District. The USFS will continue to provide technical support as necessary to assure project success.

We appreciate your consideration of this project. Implementation of these activities will enable restoration of important aquatics habitat on the Pintler Ranger District. If I can provide any further information regarding this project, please contact me at 406-859-3211.

Sincerely,



CHARLENE BUCHA
District Ranger

cc: Will McDowell





Montana Fish, Wildlife & Parks

P.O. Box 25
Anaconda, MT 59711
Phone: (406) 563-7435
E-mail: jlindstrom@mt.gov

November 30, 2015

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

RE: Support for Road 85 North Fork Dry Cottonwood Creek Culvert Replacement

I would like to offer my support for this culvert replacement project proposed by the Clark Fork Coalition in cooperation with the US Forest Service (USFS). The existing culvert on Road 85 where it crosses the North Fork of Dry Cottonwood Creek is perched and poses an upstream barrier to fish movement under most conditions. Dry Cottonwood Creek and its tributaries support a conservation population of westslope cutthroat trout. Past genetic testing has shown that these fish are slightly hybridized with Yellowstone cutthroat trout. However, no other species such as introduced brook trout and brown trout have been documented in the stream during routine sampling. This makes the Dry Cottonwood Creek drainage relatively unique, and a good location to promote cutthroat trout conservation. Replacing the Road 85 culvert with one that meets USFS aquatic organism passage standards would improve fish passage and habitat connectivity for westslope cutthroat trout in the Dry Cottonwood Creek drainage.

Dry Cottonwood Creek is also a direct tributary (seasonally connected) to the Clark Fork River. This allows for potential recruitment of fluvial, native fish to the river. Currently the upper Clark Fork River is being remediated by DEQ for damages caused by past mining in the Butte and Anaconda areas. Water quality is presently such that native trout have difficulty surviving in the upper reaches of the river. As the cleanup advances and water quality improves, tributaries with native trout populations such as Dry Cottonwood Creek will play an important role in helping to improve the fishery of the upper river. Please feel free to contact me with any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Jason Lindstrom". The signature is fluid and cursive, with a long horizontal stroke at the end.

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