FFI-017-2014

FUTURE FISHERIES IMPROVEMENT PROGRAM
GRANT APPLICATION

(please fill in the highlighted areas)

I. APPLICANT INFORMATION

A. Applicant Name: Big Blackfoot Chapter of Trout Unlimited

B. Mailing Address: PO Box 1

C. City: Ovando State: MT Zip: 59854

Telephone: 406-240-4824

D. Contact Person: Ryen Neudecker

Address if different from Applicant:

City: State: Zip:

Telephone:

E. Landowner and/or Lessee Name (if other than Applicant): Gary & Sharon Jacobsen; Jon & Linda Ender

Mailing Address: HWY 200

City: Ovando State: MT Zip: 59854

Telephone: 406.793.5686

II. PROJECT INFORMATION*

A. Project Name: North Fork Blackfoot River Water Conservation Project

River, stream, or lake: North Fork Blackfoot River

Location: Township 15N Range 11W Section 29

County: Powell

B. Purpose of Project:

The purpose of this project is to upgrade an existing irrigation system to conserve an estimated 16 cfs through a dewatered section of the North Fork Blackfoot River.

C. Brief Project Description:

The North Fork Blackfoot River is the largest tributary to the Blackfoot River and supports the largest bull trout spawning population in the Blackfoot Basin along with a robust migratory population of westslope cutthroat trout. The stream is one of the highest priority tributaries out of over 220 tributaries and has been designated critical bull trout habitat and a bull trout core area stream. Several restoration projects have been completed throughout the drainage, including improvements on all five irrigation diversions off the North Fork Blackfoot River. We are once again working with the senior water right holder in the river and have the opportunity to improve the lowest diversion in the drainage. This project has important water conservation benefits and involves upgrading the existing system from flood to sprinkler irrigation. By making this conversion, we will conserve an estimated 16 cubic feet per second (cfs) of critical instream flows. The river below this diversion frequently does dry in late summer months, but by completing this project, we will greatly benefit over a half-mile of habitat in this high priority, native trout tributary.

Project specifics involve upgrading the existing point of diversion that is served by an infiltration gallery (a type of fish screen). Water will continue to be diverted through the gallery, but instead of flowing through the existing open ditch, a new pipeline will carry the water to both landowners who depend of this ditch for irrigation purposes. Their systems will be upgraded from inefficient flood irrigation to a center pivot and a traveling gun. NRCS engineers have completed their design analysis, and pipeline sizes range from 10" to 6" to carry required flows. Instead of diverting the necessary 18 cfs, all that will be required with this upgrade is 2 cfs. Synoptic flow measurements have detected up to a 90% loss in the existing ditch system.

D. Length of stream or size of lake that will be treated: This project will benefit a half mile of instream habitat by enhancing instream flows during summer and fall months.

E. Project Budget:

Grant Request (Dollars): $ **35,000**

Contribution by Applicant (Dollars): $ 43,600.50 In-kind $ 5,190
(salaries of government employees are not considered as matching contributions)

Contribution from other Sources (Dollars): $ 182,319.00 In-kind $
(attach verification - See page 2 budget template)

Total Project Cost: $ **222,509.00**

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?:

Primarily bull trout and westslope cutthroat trout

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

Under the current irrigation system, the stretch of river below the project point of diversion frequently goes dry during summer and early fall months when bull trout are migrating upstream to spawn. This project will allow the salvaged 16 cfs to remain instream through this critical stretch for native trout.

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

Yes, the project is ultimately intended to foster the spawning, rearing and movement of wild trout and thereby providing recruitment to the North Fork and the Blackfoot River as well as angling opportunities on-site. North Fork Blackfoot River currently provides for local angling opportunities and enters a portion of the Blackfoot River that receives high angling pressure.

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

Yes, by increasing wild trout habitat in the Blackfoot River drainage.

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

The landowners have committed to signing a 20-year landowner agreement.

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

Already answered.

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

This project involves the continuation of the Blackfoot River Restoration program and is an important water conservation project on a bull trout core area stream. Public benefits include: 1) improved fisheries, 2) improved instream flows and 3) ultimately contribute to the recovery of imperiled native trout.

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: Ryan Neudecker Date: 5/28/14

Sponsor (if applicable):

***Highlighted boxes will automatically expand.**

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

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 <u>before</u> December 1 and June 1 of each year to be considered for the subsequent funding period.*****

BUDGET TEMPLATE SHEET FOR FUTURE FISHERIES PROGRAM APPLICATIONS
(Revised 5/28/2014)

WORK ITEMS (ITEMIZE BY CATEGORY)	NUMBER OF UNITS	UNIT DESCRIPTION*	COST/UNIT	TOTAL COST	CONTRIBUTIONS			
					FISHERIES REQUEST	IN-KIND SERVICES	IN-KIND CASH	TOTAL
Personnel								
Survey	20	hours	$50.00	$ 1,000.00		$1,000		$ 1,000.00
Design	10	hours	$90.00	$ 900.00		900.00		$ 900.00
Oversight	40	hours	$50.00	$ 2,000.00		2,000.00		$ 2,000.00
Labor	20	hours	$50.00	$ 1,000.00		1,000.00		$ 1,000.00
Travel								
Mileage	500	miles	$0.58	$ 290.00		290.00		$ 290.00
Construction Materials								
10" Pipe	9690	ft	$6.10	$ 59,109.00	$27,000		$32,109	$59,109
6" Pipe	2665	ft	$2.33	$ 6,210.00	$2,750		$3,460	$6,210
Turnouts, headgate, elbows, vents valves, drains	LS	LS	LS	$ 20,000.00			20,000.00	$20,000
Center Pivot	LS	LS	LS	$ 80,000.00			$80,000	$80,000
Traveling Gun	LS	LS	LS	$ 20,000.00			$20,000	$ 20,000.00
Equipment								
Trenching, Backfill Installation	LS	LS	LS	$31,000	5,000.00		26,000.00	$ 31,000.00
Mobilization								
Mob/demob	1	lump sum	$1,000.00	$ 1,000.00	250.00		750.00	$ 1,000.00
			TOTALS	$ 222,509.00	$ 35,000.00	$ 5,190.00	$ 182,319.00	$ 222,509.00

MATCHING CONTRIBUTIONS

CONTRIBUTOR	IN-KIND SERVICE	IN-KIND CASH	TOTAL
Gary & Sharon Jacobsen		$ 20,000.00	$ 20,000.00
Jon & Linda Ender		$ 80,000.00	$ 80,000.00
USFWS		$ 38,718.50	$ 38,718.50
BBCTU	$ 5,190.00	$ 43,600.50	$ 48,790.50

USDA NRCS Natural Resources Conservation Service Montana

ENDER-JACOBSEN
GROUP IRRIGATION PIPELINE
JON ENDER, GARY JACOBSEN

Prepared by:
Mark W. Zuber
October, 2013

PROJECT BACKGROUND:

BBCTU, MTFWP & USFWS have been working with local landowners and partners in past years on various fisheries issues such as instream flows, water leasing, etc. Associated baseline data has also been completed by DNRC and is contained in the North Fork River Hydrology Study which was published in 2001.

The proposed ditch consolidation project is related to the overall strategy to address fisheries issues in the area. The purpose of the ditch consolidation is to reduce irrigation diversion flows from the North Fork of the Blackfoot River, thereby benefiting fisheries. Ditch measurements have been taken during multiple years and ditch loss is significant at 90%. The proposed plan is to convert the existing Jacobsen Ditch into one pipeline serving Jon Ender and Gary Jacobsen.

The water source is the North Fork Blackfoot River and the diversion point is in the NW ¼ of section 29. The inlet consists of an infiltration gallery, so fish entrainment is not an issue. I assume the infiltration gallery is working satisfactorily. The existing Jacobsen Ditch length was estimated to be 12,700 feet.

Gary Jacobsen is interested in a travelling gun to serve approximately 22 acres. The preliminary design flow used for Gary was 155 gpm (7.0 gpm/ac). Jon Ender is interested in a pivot. A preliminary pivot layout would cover about 83.3 acres. The preliminary design flow used for Jon was 520 gpm (6.25 gpm/ac). I assumed the pump would be at the pivot point; which would require installing electric power to this location.

DESIGN OPTION:

OPTION #1:

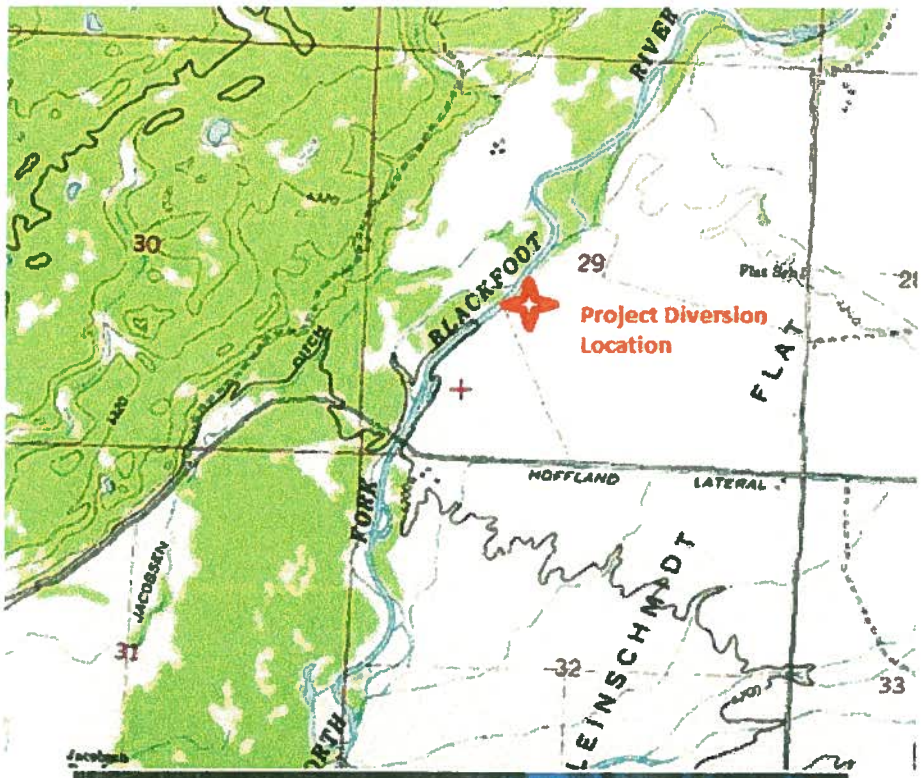
Replace Jacobsen Ditch with pipeline.
Pivot for Jon Ender, Travelling Gun for Gary Jacobsen.

The proposed pipeline would replace the Jacobsen Ditch and was sized to convey at least 675 gpm to serve 105.3 acres. The pipeline would be about 12,355 feet. The estimated cost of the group pipeline is $116,154. Power requirement for the proposed pivot was estimated to be 20-25 HP and a little over 10 HP for the travelling gun, so power availability will need to be investigated.

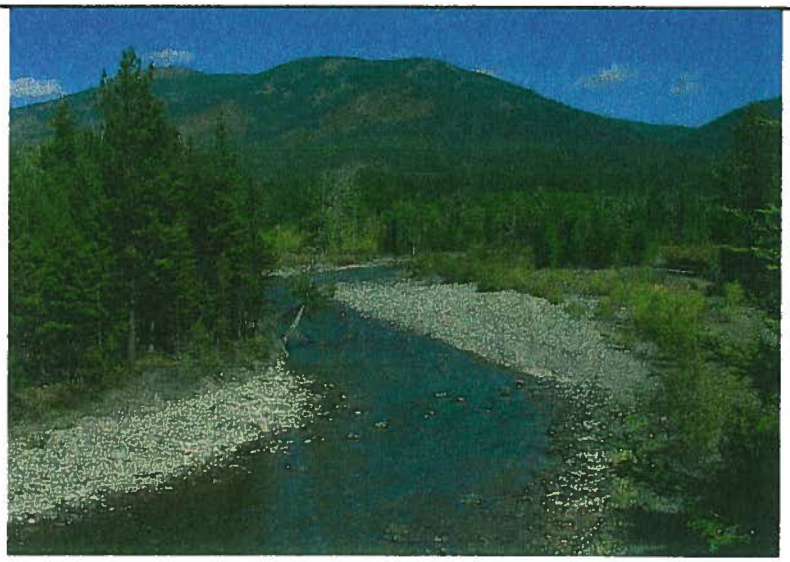
The following tables are for Option #1:

OPTION #1

NAME	ACRES SERVED	FLOW (GPM)
JOHN ENDER	83.3	520
GARY JACOBSEN	22	155
TOTAL	105.3	675



Infiltration Gallery at lowest point of diversion on North Fork Blackfoot River & Dewatered stretch of North Fork Blackfoot River in August



United States Department of the Interior

FISH AND WILDLIFE SERVICE
MONTANA PARTNERS FOR FISH & WILDLIFE PROGRAM
922 BOOTLEGGER TRAIL
GREAT FALLS, MONTANA 59404-6133

IN REPLY REFER TO:

406/793.7400

May 27, 2014

Ryen Neudecker
Big Blackfoot Chapter of Trout Unlimited
P.O. Box 1
Ovando, MT 59854

Dear Mrs. Neudecker,

This letter is in reference to the Keep Cool Creek, Liverpool Creek and North Fork Blackfoot River Restoration Projects located in the Blackfoot Watershed proposed to the State of Montana Future Fisheries Program. The U.S. Fish and Wildlife Service fully support these projects because of the incredible biological values associated with them.

The Partners for Fish and Wildlife has a long history of working with the associated private landowners and other partners collaborating to restore the cold water fishery of the important tributaries feeding the Blackfoot River. The proposed projects on Keep Cool Creek, Liverpool Creek and North Fork Blackfoot River are exciting in that we will be able to continue our efforts of restoring native trout within the watershed by working with committed landowners.

The FWS through our Partners for Fish and Wildlife Program has set aside $5,000 for both the Keep Cool Creek and Liverpool Creek projects and $38,718.50 for the North Fork Blackfoot River water conservation project. We commend the efforts of the many partners for their time and efforts with these important projects.

If you have any questions regarding this project feel free to give me a call.

Sincerely,

Greg Neudecker
State Coordinator
Partners for Fish and Wildlife Service