

## 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: USFS Helena-Lewis and Clark NF- Heather Degeest, Helena District Ranger

B. Mailing Address: 2880 Skyway Drive

C. City: Helena State: MT Zip: 59602

Telephone: 406-495-3924 E-mail: hdegeest@fs.fed.us

D. Contact Person: Allison Russell

Address if different from Applicant: 2880 Skyway Drive

City: Helena State: MT Zip: 59602

Telephone: 406-495-3923 E-mail: allisonrussell@fs.fed.us

E. Landowner and/or Lessee Name  
(if other than Applicant):

Mailing Address:

City:  State:  Zip:

Telephone:  E-mail:

### II. PROJECT INFORMATION\*

A. Project Name: Monarch Creek Culvert Replacement NFS Road #1801

River, stream, or lake: Monarch Creek

Location: Township: T08N Range: R06W Section: 30

Latitude: 46.418 Longitude: -112.403 *within project (decimal degrees)*

County: Powell

B. Purpose of Project:

Monarch Creek culvert replacement

The requested funds would be used to install a new culvert that is currently a fish passage barrier on Monarch Creek, a headwater stream to the Little Blackfoot River. This project is part of a larger effort designed to reconnect approximately five miles of spawning and rearing habitat for native salmonids. Last summer, the upper Monarch Creek passage barrier was removed and 0.2 miles of NFSR (National Forest Service Road) # 4104 were obliterated and this project is the next step in improving connectivity. This project would remove the middle passage barrier on NFSR #1801; Following this culvert replacement, we will work to improve the lower most passage barrier on FSR #4104-A1 and have identified potential funding sources for that work as well. Please refer to the attached maps.

C. Brief Project Description:

Currently the culvert on FSR #1801 is undersized and would be replaced with a larger pipe arch (13'x8'x40') with a stream simulated design to allow for aquatic organism passage, accommodating fish passage during high stream flows. The proposed culvert replacement and subsequent stream crossing improvements on Monarch Creek are part of ongoing restoration efforts in the upper Little Blackfoot River, which, is a Priority Watershed for the Helena-Lewis and Clark NF.

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

0.25 acres, approximately 60 ft. of stream channel

E. Project Budget:

Grant Request (Dollars): \$ 36,132.36

Contribution by Applicant (Dollars): \$ 11,097.64

In-kind \$

(salaries of government employees are not considered as matching contributions)

Contribution from other Sources (Dollars): \$

In-kind \$

(attach verification - See page 2 budget template)

Total Project Cost:

\$

47,230. Survey and design will be completed by salaried FS personnel so these costs, estimated at \$8,150, were not included in the total Project cost. Refer to budget template for detail of design expense and total project costs.

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

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**

G. **information necessary to evaluate the merits of the project. If project involves water leasing or water salvage complete a *supplemental questionnaire*** (fwp.mt.gov/habitat/futurefisheries/supplement2.doc).

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

III. PROJECT BENEFITS\*

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

## Monarch Creek culvert replacement

Genetically pure westslope cutthroat trout, sculpin, mountain whitefish, brook trout and possibly bull trout occupy these upper reaches of Monarch Creek. Bull trout were historically distributed throughout the headwaters of the Little Blackfoot. Fish surveys and recent eDNA collection (2015) have detected the presence of very low numbers of bull trout in Ontario Creek, to which Monarch Creek is a tributary. Bull trout populations in these headwaters are thought to be isolated resident populations that are severely depressed and near extirpation. This project would be anticipated to further reduce sediment delivery into bull trout occupied waters downstream.

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

The proposed culvert upgrade in conjunction with additional stream crossing improvements on Monarch Creek are just part of the ongoing restoration efforts in the upper Little Blackfoot River. This project will improve fish passage and habitat connectivity to essential spawning and rearing habitat for native salmonids. It is estimated that this passage project with the additional stream crossing improvements completed or proposed will connect approximately five miles of viable spawning and rearing habitat.

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

The Columbia Headwater Recovery Unit Implementation Plan for bull trout (USFWS, 2015) identifies connectivity an impairment as a primary threat to the bull trout sub-populations in the Upper Clark Fork River core area. This applies to the isolate populations that exist in the upper reaches of the Little Blackfoot River such as Monarch Creek, refer to eDNA survey map. Connectivity of viable spawning, rearing and overwintering habitat and cold stream temperatures are necessary for bull trout to persist and for long term maintenance of healthy genetically pure populations of westslope cutthroat trout. The proposed passage project along with other stream crossing improvements will improve fish passage and habitat connectivity. Passage improvement efforts are in-line with the Upper Clark Fork bull trout recovery actions to protect remaining native complexes and Forest-wide direction to maintain water quality, and habitat for native aquatic species. We expect this to maintain current fishing opportunities.

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

The proposed culvert upgrade would improve fish passage and connecting viable spawning and rearing habitat would likely increase the recruitment of native and non-native salmonids improving recreational fishing opportunities.

### E. The project agreement includes a 20-year maintenance commitment. Please discuss your ability to meet this commitment.

Maintenance of NFSR #1801 is the responsibility of Helena-Lewis and Clark NF. Maintenance and road improvements are performed in accordance with (USDI BO) Road-related Activities that May Affect Bull Trout and Bull Trout Critical Habitat in Western Montana (2015). The crossing at the culvert proposed for installation would be maintained and problems that developed would be addressed as soon as possible through-out the life of the pipe, which is normally anticipated to be greater than 20 years.

### 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 on NFSR #1801 is undersized and velocities impede fish passage during high stream flows. The proposed culvert upgrade will ensure aquatic organism passage during all flow regimes and increase habitat connectivity.

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

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Monarch Creek culvert replacement

The improved stream crossing will improve water quality by lessening sediment inputs and improving recreational fishing opportunities while maintaining access to the area.

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

No water or property rights will be affected; the project is proposed on NFS lands

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 applicant must enter into a written agreement with Montana Fish, Wildlife & Parks specifying terms and duration of the project. The applicant must obtain all applicable permits prior to project construction. A competitive bid process must be followed when using State funds.**

**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:

*Alex S. Dussell*

Date:

11-29-2017

*Helena District Ranger 10/29/17*

Sponsor (if applicable):

**\*Highlighted boxes will automatically expand.**

**Mail To:** Montana Fish, Wildlife & Parks  
Fisheries Division  
PO Box 200701  
Helena, MT 59620-0701

**E-mail To:** Michelle McGree  
[mmcgree@mt.gov](mailto: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 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.\*\*\***

Monarch Creek culvert replacement

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
<b>Personnel***</b>								
Construction Survey and Staking	30	hrs	\$100.00	\$ 3,000.00				\$ -
Design				\$ -				\$ -
Engineering				\$ -				\$ -
Permitting				\$ -				\$ -
Oversight	25	hrs	\$125.00	\$ 3,125.00				\$ -
				\$ -				\$ -
			Sub-Total	\$ 6,125.00	\$ 6,125.00	\$ -	\$ -	\$ 6,125.00
<b>Travel</b>								
Mileage	384	miles	\$0.54	\$ 207.36				\$ -
Per diem				\$ -				\$ -
			Sub-Total	\$ 207.36	\$ 207.36	\$ -	\$ -	\$ 207.36
<b>Construction Materials****</b>								
CSP Pipe Arch	1	each	\$10,052.40	\$ 10,052.40			10,052.40	\$ 10,052.40
CSP Pipe Arch band	1	each	\$835.24	\$ 835.24			835.24	\$ 835.24
Bedding material	95	CY	\$50.00	\$ 4,750.00	4,750.00			\$ 4,750.00
Placed Riprap, Class 3	30	CY	\$50.00	\$ 1,500.00	1,500.00			\$ 1,500.00
Cross-Vane Structure	5	each	\$800.00	\$ 4,000.00	4,000.00			\$ 4,000.00
Crushed aggragate	15	CY	\$50.00	\$ 750.00	750.00			\$ 750.00
Streambed Simulated Rock, Bed Class 100	50	CY	\$40.00	\$ 2,000.00	2,000.00			\$ 2,000.00
Seed	35	lbs	\$6.00	\$ 210.00			210.00	\$ 210.00
				\$ -				\$ -
			Sub-Total	\$ 24,097.64	\$ 13,000.00	\$ -	\$ 11,097.64	\$ 24,097.64
<b>Equipment and Labor</b>								
Soil Erosion Polution Control	1	Lump Sum	\$3,000.00	\$ 3,000.00	3,000.00			\$ 3,000.00
Removal of existing culvert	10	hrs	\$100.00	\$ 1,000.00	1,000.00			\$ 1,000.00

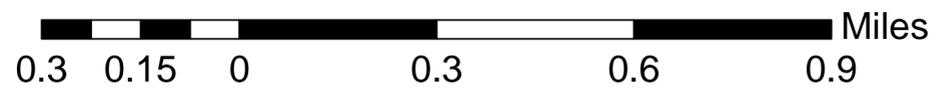
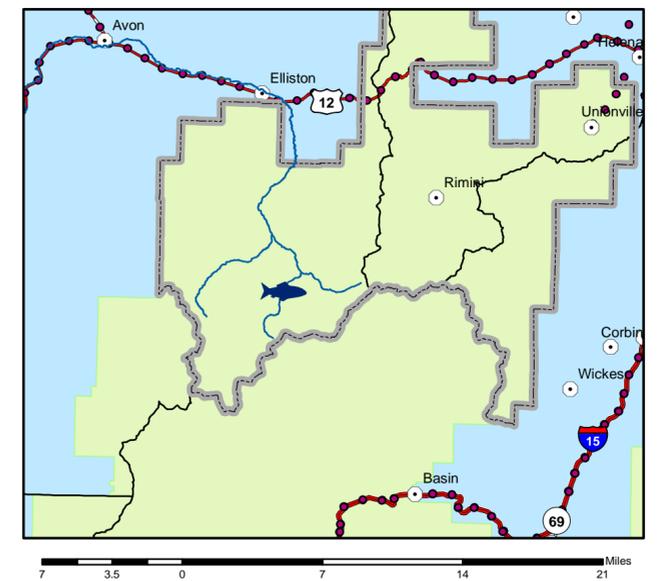
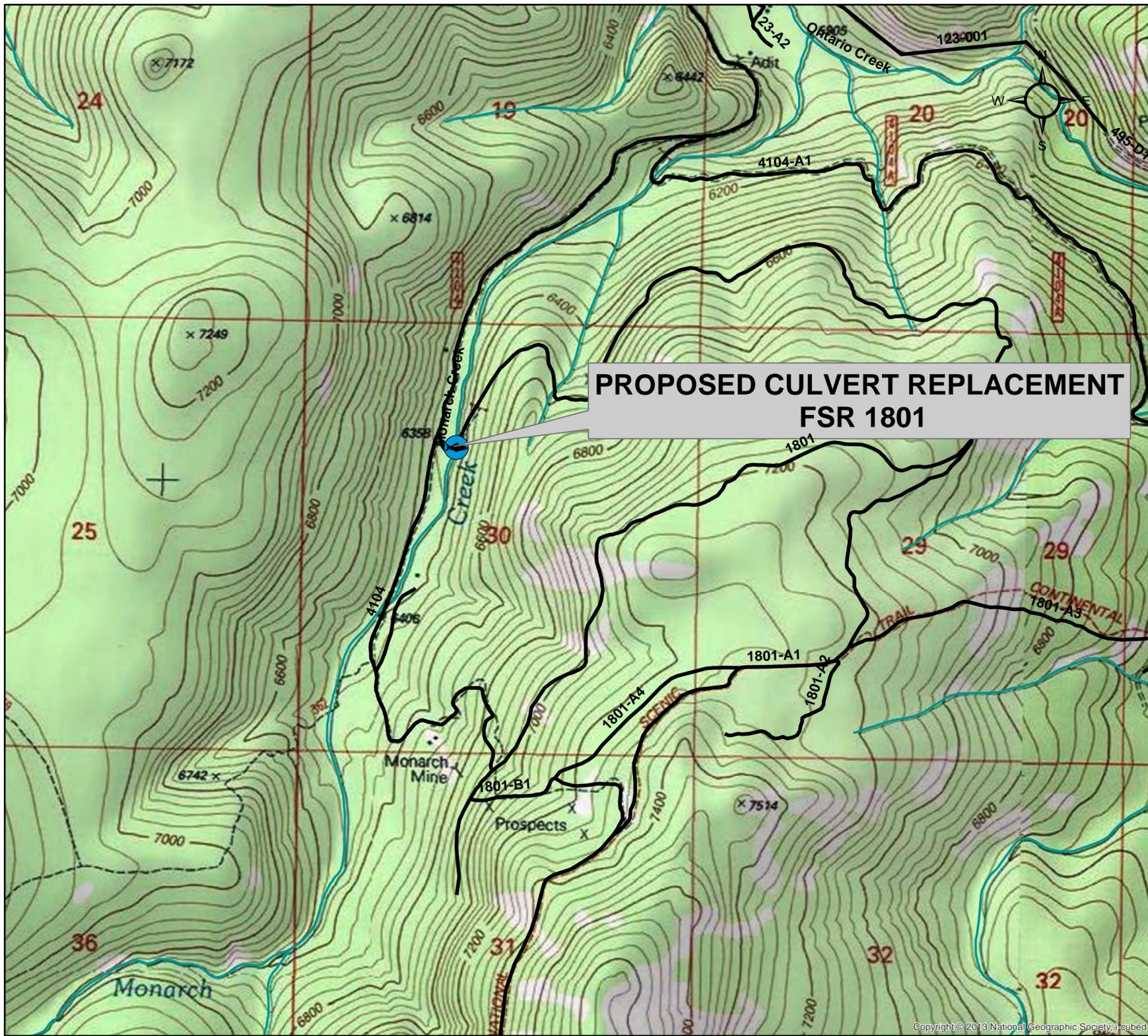


Monarch Creek culvert replacement

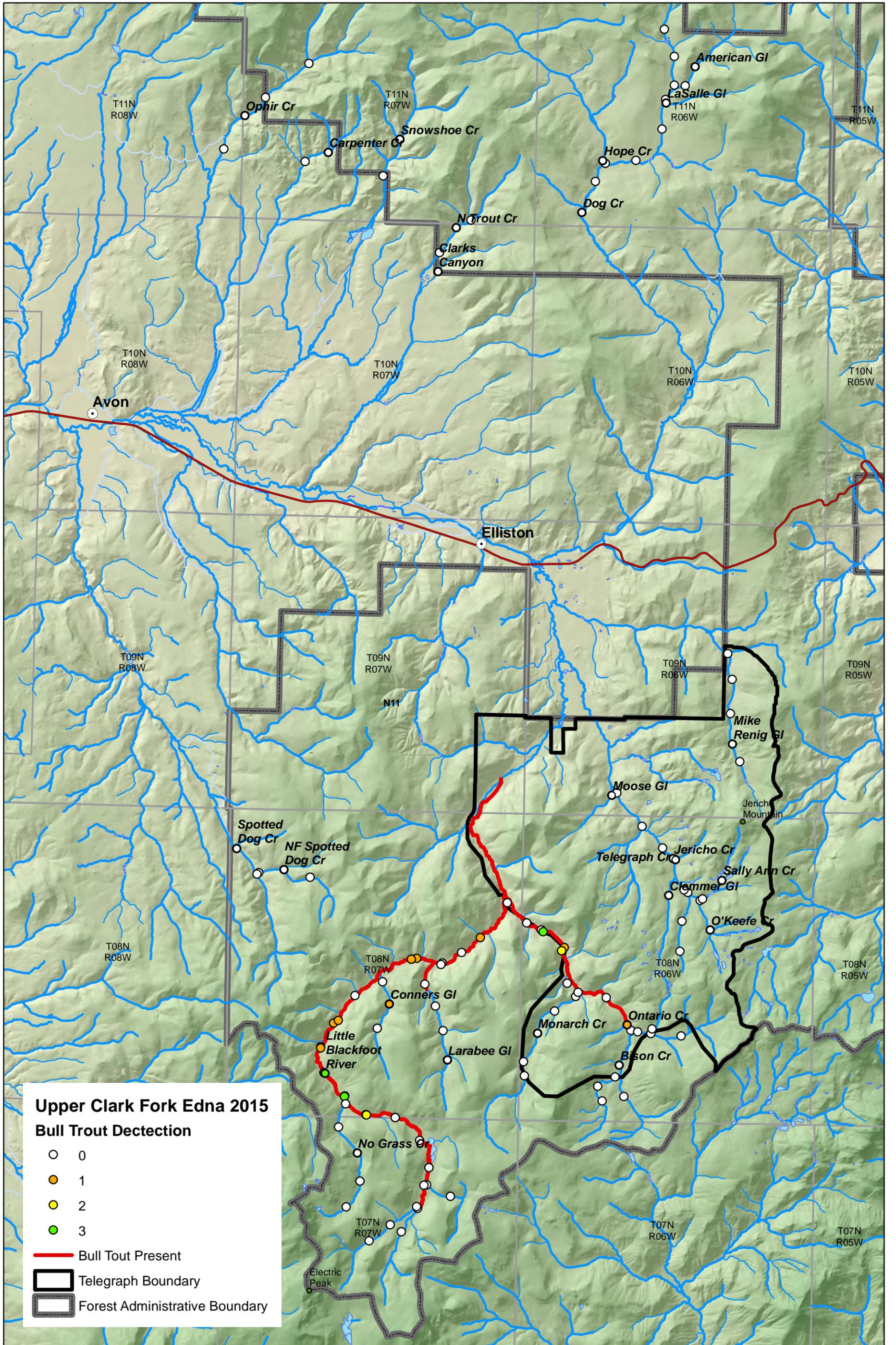
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<b>TOTALS</b>	\$	-	\$	11,097.64	\$	11,097.64	
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# Monarch Creek Culvert Replacement



# Upper Clark Fork Edna 2015 and BT Distribution November 25, 2015



**Upper Clark Fork Edna 2015  
Bull Trout Detection**

- 0
- 1
- 2
- 3

— Bull Trout Present

▭ Telegraph Boundary

▭ Forest Administrative Boundary

## Monarch Creek culvert replacement

Description	Method of Measurement	Pay Unit	Estimated Quantity	Unit Price	Total Price
Mobilization	LSQ	Lump Sum	1	\$6,500.00	\$6,500.00
Construction Survey and Staking	LSQ	Lump Sum	1	\$3,000.00	\$3,000.00
Soil Erosion and Pollution Control	LSQ	Lump Sum	1	\$3,000.00	\$3,000.00
Removal of Existing Culvert	LSQ	Lump Sum	1	\$1,000.00	\$1,000.00
Embankment Construction	CQ	Cubic Yard	20	\$15.00	\$300.00
Structure Excavation	LSQ	Lump Sum	1	\$2,000.00	\$2,000.00
Bedding Material	CQ	Cubic Yard	95	\$50.00	\$4,750.00
Placed Riprap, Class 3	CQ	Cubic Yard	30	\$50.00	\$1,500.00
Cross-Vane Structure	AQ	Each	5	\$800.00	\$4,000.00
Crushed Aggregate	CQ	Cubic Yard	15	\$50.00	\$750.00
Culvert Transport (from stockpile to site)	LSQ	Lump Sum	1	\$1,500.00	\$1,500.00
Seeding	LSQ	Lump Sum	1	\$1,500.00	\$1,500.00
Streambed Simulation Rock , Bed Class 100	CQ	Cubic Yard	50	\$40.00	\$2,000.00

**SUB TOTAL    \$31,800.00**

\*\*Add 15% for variation in price/quantities

**TOTAL        \$36,570.00**

Estimated Design    \$8,150.00  
 Estimated Construction    \$36,570.00

**Estimated Total    \$44,720.00**

Monarch Creek culvert replacement

**Design Cost Estimate (not included as Match Contribution)**

**Project: FSR 1801 AOP Culvert Replacement**

**Date: 7/24/2016**

**By: Mary Smith PE**

Task	Rate (/day):	Forest Engineer \$ 425.00	Civil Engineer \$ 350.00	Civil Engineer \$ 350.00	Survey Crew \$ 650.00	Forest Hydrologist \$ 425.00	Totals
<b>Preliminary Design</b>							
Site Survey					0.0		0.0
Prepare Site Map				8.0			8.0
Hydraulic Analysis				16.0		1.0	17.0
Preliminary Alignment and Geometry				16.0			16.0
Preliminary Quantities and Costs				8.0			8.0
Preliminary Review		1.0		2.0		1.0	4.0
	<i>Total Hours</i>	1.0		50.0	0.0	2.0	53.0
	<i>Total Labor Cost</i>	\$53	\$0	\$2,188	\$0	\$106	\$2,347
<b>Development of PS&amp;E Package</b>							
Road Alignment and Geometry		1.0		24.0			25.0
Structure Design				16.0			16.0
Plan/Profile, Detail and Cross-sections				24.0			24.0
Specifications and Cost Estimate		1.0		4.0			5.0
Quantity Summaries				4.0			4.0
	<i>Total Hours</i>	2.0		72.0			74.0
	<i>Total Labor Cost</i>	\$106	\$0	\$3,150	\$0	\$0	\$3,256
<b>Contract Preparation, Quality Review &amp; Submittals</b>							
50% Review Submittal		1.0		8.0			9.0
100% Review Submittal		1.0		8.0			9.0
Check Plans and Calculations		2.0	4.0				6.0
50% Review Meeting		2.0		2.0		2.0	6.0
100% Review Meeting		2.0		2.0		2.0	6.0
Revisions for Final Bid Package		1.0		8.0			9.0
Final Submittal		1.0		8.0		1.0	10.0
	<i>Total Hours</i>	10.0	4.0	36.0		5.0	55.0
	<i>Total Labor Cost</i>	\$531	\$175	\$1,575	\$0	\$266	\$2,547
	<i>Total Project Hours</i>	13.0	4.0	158.0	0.0	7.0	182.0
	<i>Total Project Labor Costs</i>	\$691	\$175	\$6,913	\$0	\$372	\$8,150
	check	\$691	\$175	\$6,913	\$0	\$372	\$8,150
							<b>\$8,150</b>