FUTURE FISHERIES IMPROVEMENT PROGRAM GRANT APPLICATION

All sections must be addressed, or the application will be considered invalid

I. APPLICANT INFORMATION

A. Applicant Name: Jarrett Payne

Mailing Address: 730 N. Montana St.

City: Dillon State: MT Zip: 59725

Telephone: (406) 560-7103 E-mail: Jarrett.Payne@mt.gov

B. Contact Person (if different than applicant): _____

Address: _____

City: _____ State: _____ Zip: _____

Telephone: _____ E-mail: _____

C. Landowner and/or Lessee Name (if different than applicant): Erb-McDowell Ranch

Mailing Address: 540 Skyline Drive

City: Dillon State: MT Zip: 59725

Telephone: 925-9990 E-mail: Cal.erb@bankofcommerce.org

II. PROJECT INFORMATION

A. Project Name: Spokane Diversion

River, stream, or lake: Big Hole River

Location: Township: 3 Range: 15 Section: 17

Latitude: 45.580951 Longitude: -113.486953 *within project (decimal degrees)*

County: Beaverhead

B. Purpose of Project:

The purpose of the Spokane Diversion Project (Project) is to improve instream flows for essential Arctic Grayling habitat downstream of the Erb-McDowell Ranch's (enrolled in the Big Hole Arctic Grayling Candidate Conservation Agreement with Assurances [CCAA]) portion of the Big Hole River. Specifically, the Project will improve the ability for the ranch and CCAA managers to more accurately adjust irrigation flows to comply with an instream flow plan component of the Erb-McDowell Ranch's Site-Specific Plan (SSP). Please see Appendix 1 in attached proposal.

C. Brief Project Description (attach additional information to end of application):

FWP and its partners have stated the recovery goal of the Big Hole CCAA is to secure and enhance a population of fluvial (river-dwelling) Arctic Grayling (*Thymallus arcticus*) within the upper reaches of their historic range in the Big Hole River drainage." The recovery is premised on four conservation actions: improved streamflow; improve and protect the function of riparian habitats, identify and reduce or eliminate entrainment threats for grayling; remove barriers to grayling migration. Currently, the Big Hole River Arctic Grayling population is one of the last viable fluvial populations in the lower 48 states.

Since the inception of the Big Hole CCAA program the Arctic Grayling population has increased significantly from conservation efforts; however, instream flow conservation is increasingly challenging due to changes in precipitation and temperature regimes associated throughout the upper Big Hole. For Arctic Grayling, instream flows are the greatest factor influencing year to year populations.

The Spokane Diversion is one of the largest diversions and most senior water right (~ 300 CFS) in the upper Big Hole. The Spokane Diversion is also located just upstream of some of the most critical Arctic Grayling spawning and rearing habitat. The current pin-and-plank structure for the Spokane is difficult to adjust in small increments needed to meet both instream flow targets and irrigation needs. Specifically, removing or installing one plank in the diversion can result in overshooting the instream flow targets and undershooting the irrigation target or vice versa. Continuous and time-consuming adjustments by CCAA staff and irrigators are required to implement agreed upon instream flow and irrigation flow targets. Without a changing infrastructure of the Spokane Diversion, instream flow management will remain difficult for this section, which will result in similar or increase the number of fishing day closures (fishing closure is implemented with flows are <20 CFS) on the upper Big Hole and reduce essential habitat for Arctic Grayling and the overall fishery downstream. The Project will enhance instream flows in real time that maintain essential spawning and rearing habitat just downstream for Arctic Grayling. The instream flow contributions are critical for maintaining side-channels that Arctic Grayling young-of-the-year depend on throughout mid to late summer. Without the ability to more finely adjust the current Spokane irrigation infrastructure, maintaining those side-channels and participating in instream flow conservation efforts will become increasingly challenging.

D. Length of stream or size of lake that will be treated (project extent): 100' of streambank (only on existing structure)

Length/size of impact, if larger than project extent (e.g. stream miles opened): 45+ miles of instream flows improved in CCAA; possibly an additional 70 miles outside of CCAA.

E. Project Budget:

Grant Request (Dollars):	**$**	**33,360.48 (FF 35%)**
Matching Dollars:	**$**	**61,955.19 (SWG 65%)**
Matching In-Kind Services:*	**$**	
**salaries of government employees are not considered matching contributions*		
Other Contributions (not part of this app)	**$**	**10,000.00 (Partners for Fish & Wildlife)**
Total Project Cost:	**$**	**105,315.67**

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

G. **Insert** or **attach** a project location map showing the project area in relation to a major landmark or town. Please indicate if the project location is on public or private property.

Please see Appendix 1 in attached proposal.

H. **Attach** specific project plans (e.g. detailed sketches, plan views [showing location and type of channel modifications], example photographs), current condition photographs, and maps. **If project involves water leasing or water salvage complete and attach a supplemental questionnaire (fwp.mt.gov/habitat/futurefisheries/supplement2.doc).* **See Appendix 1 in attached proposal.**

I. **Attach** letters or statements of support. This includes landowner consent, community or public support, and fish biologist support. **See letters of support in attachments.**

J The project agreement includes a 20-year maintenance commitment. Please indicate (yes or no) that you will ensure project protection for 20 years. Discuss your ability to meet this commitment.
Yes [X] No [ ]

The landowner has signed a 20-year Landowner Agreement with FWP (see attached agreement). In addition, the landowner is enrolled in the Arctic Grayling CCAA program and we expect the landowner to continue enrollment for the next 20 years.

K. **Describe** or **attach** land management & maintenance plans, including changing to grazing regimes, that will ensure protection of the restored area.

Project area is currently excluded from grazing from past riparian fencing projects to improve habitat conditions along the Big Hole River. The landowner is committed to maintaining current grazing management and fencing to protect the project.

III. PROJECT BENEFITS (attach additional information to end of application):

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

Primarily this will benefit Arctic Grayling, but improved instream flows will also benefit the associated aquatic community (e.g., Westslope Cutthroat Trout, Mountain Whitefish).

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

The construction of two screwgates will help maintain greater instream flows that provide clean, cold water for Arctic Grayling. These screwgates will provide real-time management to maintain instream flows and reduce the number of fishing day closures. In addition, new infrastructure will improve efficiency by irrigators and CCAA staff making the flow adjustments to meet the agreed upon irrigation diversions when flow triggers are met at the Wisdom Bridge. Ultimately this project will create more essential instream flows for Arctic Grayling in the uncertain future of climate change.

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

The Spokane Diversion is one of the largest diversions (water right ~ 300 CFS) in the upper Big Hole and is in a critical Arctic Grayling spawning and rearing reach. With improved instream flows and connectivity with this habitat, a healthier population of Arctic Grayling is expected, as are improvements in populations of the associated aquatic community.

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

Without a changing infrastructure of the Spokane Diversion, instream flow management will remain difficult for this section, which will result in similar or increase the number of fishing day closures (fishing closure is implemented with flows are <20 CFS) on the Upper Big Hole and reduce overall habitat gains for Arctic Grayling downstream. Thus, improving this structure would theoretically improve these aspects and allow for more angling days and a higher quality fishery.

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

The current pin-and-plank structure is difficult to adjust in small increments needed to meet both instream flow targets and irrigation needs. Specifically, removing or installing one plank in the diversion can result in overshooting the instream flow targets and undershooting the irrigation target or vice versa. Continuous and time-consuming adjustments by CCAA staff and irrigators are required to implement agreed upon instream flow and irrigation flow targets.

F. What public benefits will be realized from this project?

Public benefits include more quality fishing experiences and greater instream flows that prevent fishing closures (<20 CFS) on the upper portion of the Big Hole River from the North Fork of the Big Hole to Saginaw Bridge. In addition, improved survival of Arctic Grayling equates to improved population abundance, more opportunity for the public to appreciate and catch a unique Montana species, and lastly a stable and healthy Arctic Grayling population eliminates need to protect Arctic Grayling under the ESA and maintains management by FWP.

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

No. These water rights are some of the oldest and largest in the Big Hole Valley – see the attached irrigation form for a further description

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

No.

I. 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:  Date: 5/27/21

Sponsor (if applicable): _____

Submittal: **Applications must be *signed and received before* December 1 and June 1 of each year to be considered for the subsequent funding period**. Late or incomplete applications will be rejected.

Mail to:	FWP Future Fisheries Fish Habitat Bureau PO Box 200701 Helena, MT 59620-0701	Email:	Future Fisheries Coordinator FWPFFIP@mt.gov (electronic submissions must be signed) For files over 10MB, use https://transfer.mt.gov

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

PROJECT COSTS					CONTRIBUTIONS			
WORK ITEMS (Itemize by Category)	**NUMBER OF UNITS**	**UNIT DESCRIPTION ***	**COST/UNIT**	**TOTAL COST**	**FUTURE FISHERIES REQUEST**	**MATCH (Cash or Services)****	**OTHER (Not part of this application)**	**TOTAL**
Personnel***								
Survey				$ -			?	$ -
Design				$ -			?	$ -
Engineering				$ -			?	$ -
Permitting				$ -			?	$ -
Oversight				$ -			?	$ -
Contingency	1	10% of total	$9,574.15	$ 9,574.15		9,574.15		$ 9,574.15
			Sub-Total	$ 9,574.15	$ -	$ 9,574.15	$ -	$ 9,574.15
Travel								
Mileage				$ -				$ -
Per diem				$ -				$ -
			Sub-Total	$ -	$ -	$ -	$ -	$ -
Construction Materials****								
18" Angular rip-rap	88	cubic yds	$226.04	$ 19,891.52	7,360.48	12,531.04		$ 19,891.52
Model-5 Headgates	2	each	$13,000.00	$ 26,000.00	26,000.00			$ 26,000.00
Pit run borrow for fill	50	cubic yds	$15.00	$ 750.00		750.00		$ 750.00
				$ -				$ -
			Sub-Total	$ 46,641.52	$ 33,360.48	$ 13,281.04	$ -	$ 46,641.52
Equipment, Labor, and Mobilization								
Mobilization/ demobilization	1	~4% of total	$4,000.00	$ 4,000.00		4,000.00		$ 4,000.00
Remove & dispose of exist. irrigation structure	1	LPSM	$2,000.00	$ 2,000.00		2,000.00		$ 2,000.00
Furnish & install arch CMP polymer coated culverts	1	LPSM	$28,600.00	$ 28,600.00		18,600.00	10,000.00	$ 28,600.00
Furnish & install irrigation diversion timber headwall	1	LPSM	$13,000.00	$ 13,000.00		13,000.00		$ 13,000.00
Reclaim all disturbed areas	1	LPSM	$1,500.00	$ 1,500.00		1,500.00		$ 1,500.00
				$ -				$ -
			Sub-Total	$ 49,100.00	$ -	$ 39,100.00	$ 10,000.00	$ 49,100.00
			TOTALS	$ 105,315.67	$ 33,360.48	$ 61,955.19	$ 10,000.00	$ 105,315.67

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). Do not use government salaries as match. Describe here or in text.

***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 justification or minimum of two competitive bids for the cost of undertaking the project.

BUDGET TEMPLATE SHEET FOR FUTURE FISHERIES PROGRAM APPLICATIONS

****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.

Additional details: for SWG capital projects, a 10% contingency fund is necessary to secure, so $9,574.15 is included in the project total.

APPLICATION MATCHING CONTRIBUTIONS

(do not include requested funds or contributions not associated with the application)

CONTRIBUTOR	IN-KIND	CASH	TOTAL	Secured? (Y/N)
State Wildlife Grants (SWG)	$ -	$ 71,955.19	$ 71,955.19	N
	$ -	$ -	$ -	
TOTALS	$ -	$ 71,955.19	$ 71,955.19	

OTHER CONTRIBUTIONS

(contributions not associated with the application)

CONTRIBUTOR	IN-KIND	CASH	TOTAL	Secured? (Y/N)
USFWS Partners for Fish & Wildlife	$ -	$ 10,000.00	$ 10,000.00	Y
	$ -	$ -	$ -	
TOTALS	$ -	$ 10,000.00	$ 10,000.00	

Spokane Diversion Project – SWG Proposal FY 22

Submitted by: Arctic Grayling Recovery Program

Montana Fish, Wildlife & Parks

May 2021

Purpose/Need:

This proposal requests $95,315.67 of State Wildlife Grants (SWG) funding to complete a high priority Arctic grayling project on the Big Hole River in the Upper Big Hole Valley. The purpose of the Spokane Diversion Project (Project) is to improve instream flows for Arctic Grayling on the Erb-McDowell Ranch's (enrolled in the Big Hole Arctic Grayling Candidate Conservation Agreement with Assurances [CCAA]) portion of the Big Hole River. Specifically, the Project will improve the ability for the ranch and CCAA managers to more accurately adjust irrigation flows to comply with an instream flow plan component of the Erb-McDowell Ranch's Site-Specific Plan (SSP). Please see Appendix One for Project location and preliminary designs.

Background:

FWP and its partners have stated the recovery goal of the Big Hole CCAA is to secure and enhance a population of fluvial (river-dwelling) Arctic grayling *Thymallus arcticus* within the upper reaches of their historic range in the Big Hole River drainage." The recovery is premised on four conservation actions: improved streamflows; improve and protect the function of riparian habitats, identify and reduce or eliminate entrainment threats for grayling; remove barriers to grayling migration. Currently, the Big Hole River grayling population is one of the last viable fluvial populations in the lower 48 states.

Since the inception of the Big Hole CCAA program the grayling population has increased significantly from conservation efforts; however, instream flow conservation is increasingly challenging due to changes in precipitation and temperature regimes associated with climate change. Landowner participation in instream flow conservation is predicated on the ability to measure and control water diverted for irrigation. This Project will provide the infrastructure needed to better manage irrigation flows and participate in instream flow conservation efforts. The Spokane diversion is one of the largest diversions (water right ~ 300 CFS) in the upper Big Hole and is in a critical Arctic Grayling spawning and rearing reach. The current pin-and-plank structure is difficult to adjust in small increments needed to meet both instream flow targets and irrigation needs. Specifically, removing or installing one plank in the diversion can result in overshooting the instream flow targets and undershooting the irrigation target or vice versa. Continuous and time-consuming adjustments by CCAA staff and irrigators are required to implement agreed upon instream flow and irrigation flow targets. Without a changing infrastructure of the Spokane diversion, in-stream flow management will remain difficult for this section, which will result in similar or increase the number of fishing day closures (fishing closure is implemented with flows are <20 CFS) on the Upper Big Hole and reduce overall habitat gains for grayling downstream.

Objectives:

The objective of the Project is to improve instream flows for this section of the Big Hole River through the construction of two screwgates in place of the current degraded Spokane headgate that will allow for

more accurate and time sensitive flow adjustments on the Spokane Diversion to meet the agreed upon diversionary flow plan of the Erb-McDowell Ranch SSP.

Expected Benefits:

The construction of two screwgates will help maintain greater instream flows that provide clean, cold water for Arctic grayling. These screwgates will provide real-time management to maintain instream flows and reduce the number of fishing day closures. In addition, new infrastructure will improve efficiency by irrigators and CCAA staff making the flow adjustments to meet the agreed upon irrigation diversions when flow triggers are met at the Wisdom Bridge. Ultimately this project will create more essential instream flows for grayling in the uncertain future of climate change.

Approach:

A partnership between FWP, DNRC, USFWS, and the Erb-McDowell Ranch are completing all elements associated with the survey, design, and construction of the Project. The Erb-McDowell Ranch and CCAA staff have been developing this project since the Fall of 2020. In the winter of 2021, FWP completed a field survey necessary for the screwgate design. Final plans should be completed by May 1st of 2021 and contracting should be completed no later than July 1st, 2021. Contracting will be completed by FWP Design & Construction. The Partners for Fish and Wildlife (USFWS) has pledged $10,000 for the completion of this project. The cost estimate for the project is $105,315.67 (includes a 10% construction contingency fund). This FY22 SWG proposal seeks the remaining $95,315.67 needed to construct this project in the fall of 2021.

Methodology:

This project proposes to construct two screwgates with 81” x 59” arch polymer coated culverts in place of the current flashboard headgate. In addition, a new headwall will be constructed. Lastly, ditch channel cleaning and sloping will be included to accommodate the irrigation diversion flow of at least 225 CFS. All wetland vegetation and willows will be salvaged and used to revegetate the newly shaped ditch channel.

Federal Ground-breaking permits:

Due to the nature of this project several federal ground-breaking permits are necessary for project completion. NEPA and section 7 will be completed by the USFWS Partners for Fish and Wildlife Program. FWP will complete the 124 and 318 permitting. The floodplain permit is not deemed necessary by the Beaverhead Floodplain administrator. Lastly, SHPO concurrence will be completed by the USFWS Partners for Fish and Wildlife Program. A wetland delineation or notification to the U.S. Army Corp of Engineers is not needed as irrigation structures are not under the purview of the Corp. Please Appendix 1 for additional information on permitting.

Permitting timeline:

a. NEPA – July 1st
b. Section 7 – July 1st
c. FWP 124 – July 1st
d. DEQ 318 – July 1st
e. SHPO Concurrence – July 1st

Schedule:

Grant Review/Approval	February 2021 – May 2021
Permitting Process Completed (Please see Appendix 2)	July 2021
Construction Initiation (approximate)	October 2021
Construction Completion	November 2021

Location:
The Project is located on Section 17 in Township 3 South, Range 15 West of Beaverhead County. GPS coordinates are 45.580951 and -113.486953 Longitude (Please see Appendix 1 for project area map).

Project Personnel:

Jarrett Payne	FWP	Riparian Ecologist	Dillon	406-560-7103
Phil Jagoda	FWP	Engineer D & C	Helena	406-431-3755
Jim Magee	USFWS	Biologist	Dillon	406-865-0181

Cost:

Total construction costs are estimated at $95,741.52. A 10% contingency of $9,574.15 is included with this total cost estimate.

Grant Amounts:

	Dollar Amount ($)	**Percent (%)**
Federal Grant Shares		
State Wildlife Grant (SWG)	$61,955.19	65%
Other Grant Shares		
Future Fisheries Grant	$33,360.19	35%
Total Grant Costs:	**$95,315.67**	**100.00%**

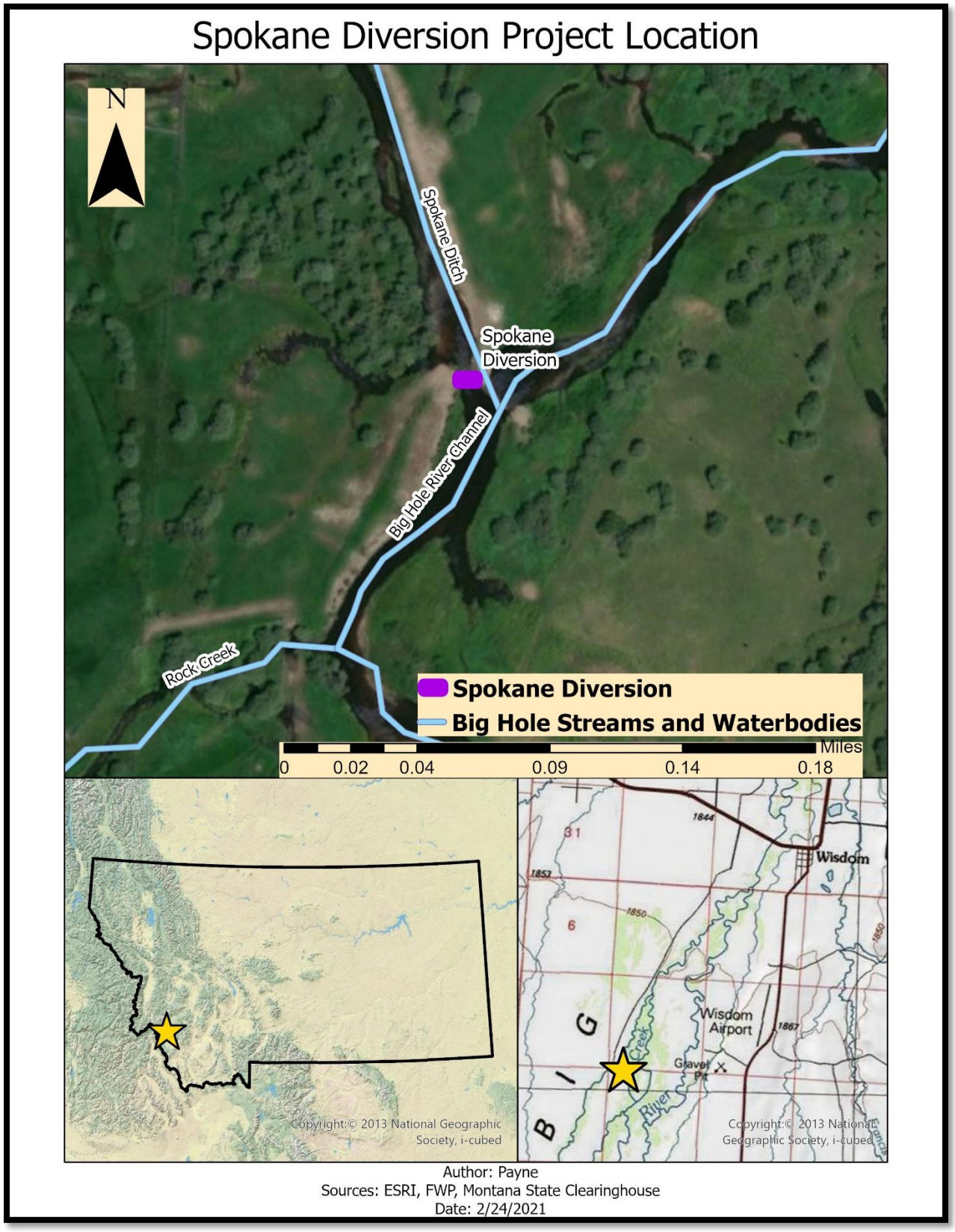
SWG Proposal Request:

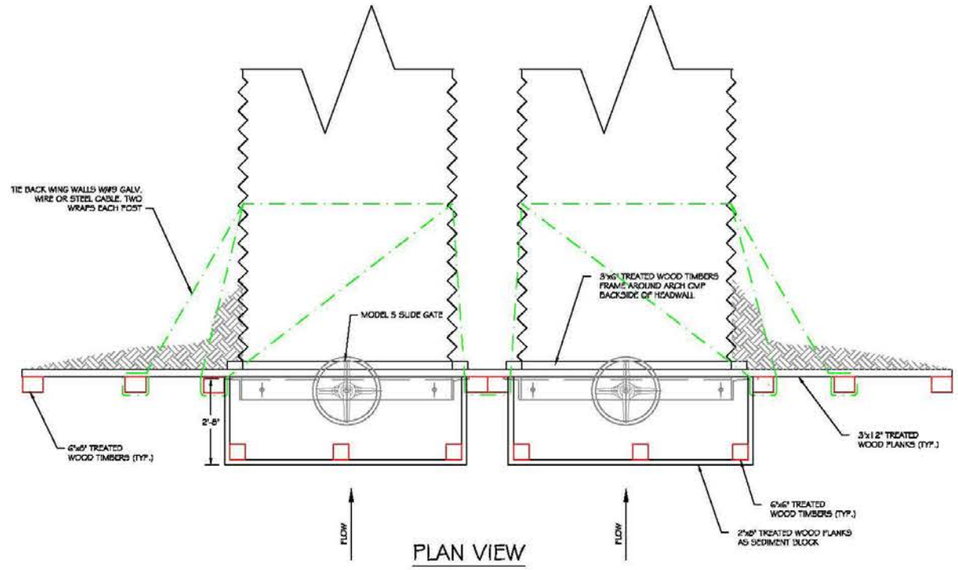
This SWG Proposal is requesting $95,315.67 for Project construction in FY22 under the capital authority in HB5.

Budget Detail:

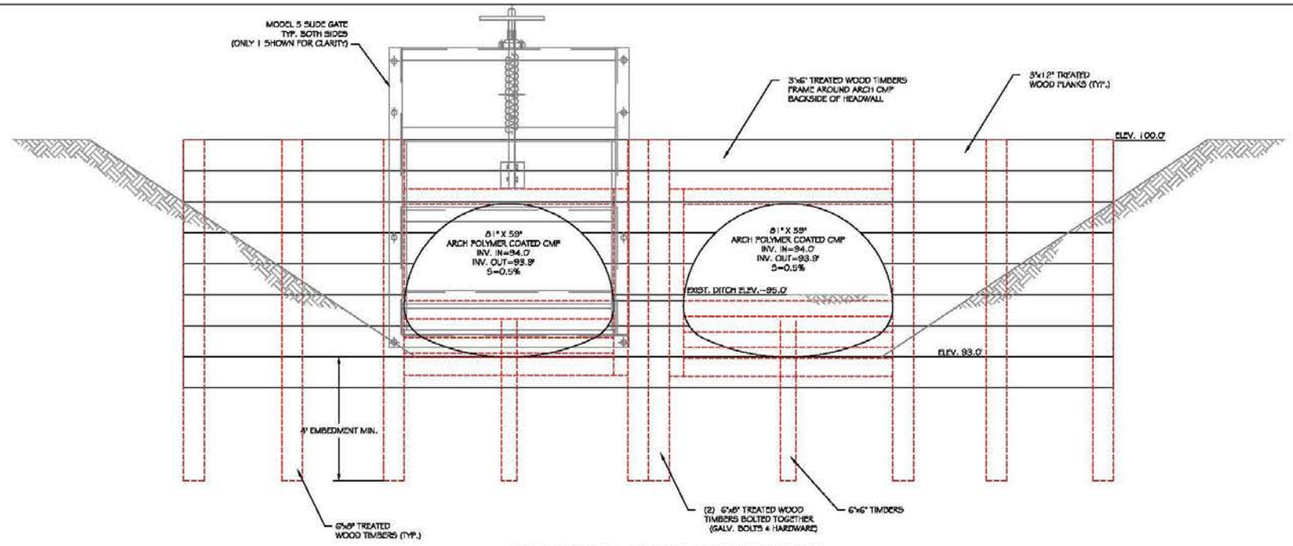
Item #	Bid Item	Quantity	Unit	unit cost	extended
1	Mobilization/demobilization	1	LPSM	$4,000.00	$4,000.00
2	Remove & dispose of exist. Irrigation structure	1	LPSM	$2,000.00	$2,000.00
3	Furnish & install arch CMP polymer coated culverts	1	LPSM	$28,600.00	$28,600.00
4	Install 18" angular rip-rap	88	CY	$226.04	$19,891.52
5	Furnish & install irrigation diversion timber headwall	1	LPSM	$13,000.00	$13,000.00
6	Furnish & install 2 model-5 headgates	2	EA	$13,000.00	$26,000.00
7	Furnish & install pit run borrow for fill	50	CY	$15.00	$750.00
8	Reclaim all disturbed areas	1	LPSM	$1,500.00	$1,500.00
Base bid					**$95,741.52**
9	Contingency Fund (10%)				$9,574.15
Total Cost Plus Contingency					**$105,315.67**

Appendix 1:


Spokane Diversion Project Location
N
Spokane Ditch
Spokane Diversion
Big Hole River Channel
Rock Creek
Spokane Diversion
Big Hole Streams and Waterbodies
Miles
0 0.02 0.04 0.09 0.14 0.18
Wisdom
Wisdom Airport
Gravel Pit
Copyright:© 2013 National Geographic Society, i-cubed
Copyright:© 2013 National Geographic Society, i-cubed
Author: Payne
Sources: ESRI, FWP, Montana State Clearinghouse
Date: 2/24/2021



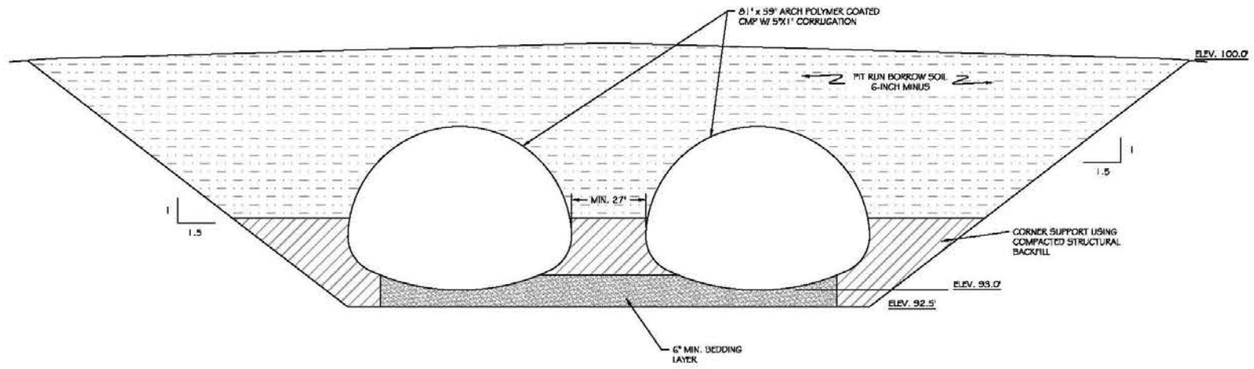
PLAN VIEW



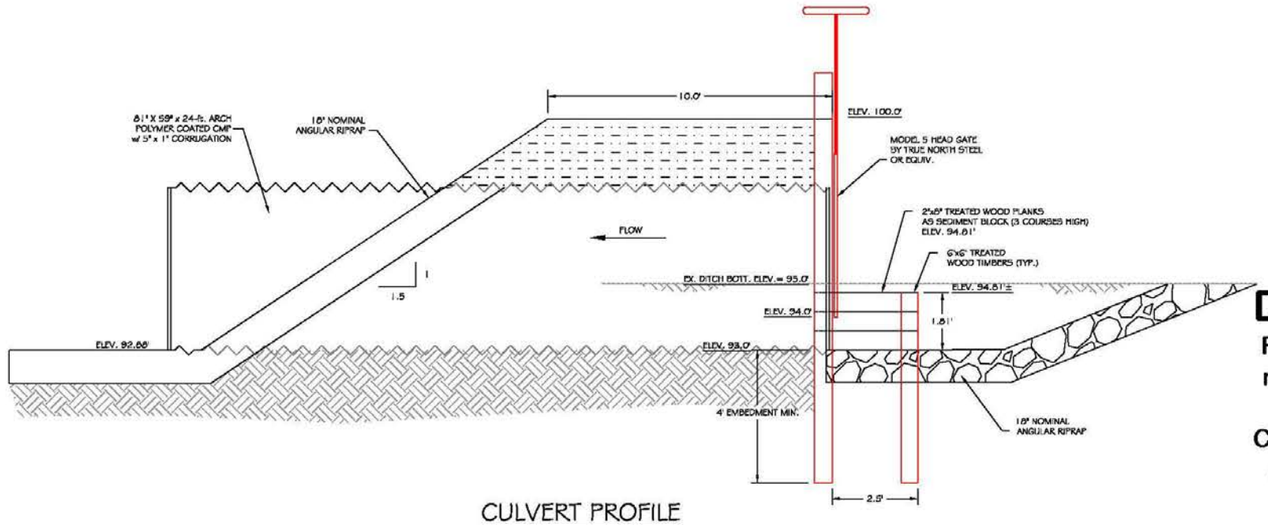
HEADWALL FRONT ELEVATION

DRAFT
For Internal review only Not for Construction or bidding

P. Jagoda 2/12/2021 DRAWN BY: DATE: P. Jagoda 2/12/2021 CHECKED BY: DATE:	REVISED BY: DATE: APPROVED BY: DATE:	APPROVED BY: DATE: APPROVED BY: DATE:	MONTANA FISH, WILDLIFE & PARKS	Detail Sheet I Spokane Creek Diversion	SHEET: 3 of ?



CROSS SECTION W/FILL



CULVERT PROFILE

DRAFT
For Internal review only Not for Construction or bidding

P. Jagoda 2/12/2021 DRAWN BY: DATE: P. Jagoda 2/12/2021 CHECKED BY: DATE:	REVISED BY: DATE: APPROVED BY: DATE:	APPROVED BY: DATE: APPROVED BY: DATE:	MONTANA FISH, WILDLIFE & PARKS	Detail Sheet II Spokane Creek Diversion	SHEET: 4 of ?

Appendix 2:

NEPA/EA

The PFWP (USFWS) will complete NEPA for this project. No further NEPA or EA is necessary for this project.

Floodplain Management, E.O. 11998

Irrigation structure replacement may cause small, localized changes in surface and groundwater elevations in the vicinity. However, the changes are anticipated to be negligible to the water table connection with Big Hole Channel and Spokane Diversion Ditch. In addition, the Project will not adversely affect the floodplain (no raise in elevation). The current floodplain elevation and ordinary highwater marks will remain intact with this Project. The Beaverhead County Planner/Floodplain Administer will be notified of the project no later than 5/1/2021 for the project.

Protection of Wetlands, E.O. 11990

A Nationwide Permit (404 Permit) is not necessary for this project as the project type is not within the jurisdiction of the USACE. Wetlands will be disturbed minimally and will not be filled or permanently altered from this Project.

Farmland Protection Policy Act, P.L. 97-98

A review of the Natural Resource Conservation Service soil survey data for prime and unique farmland as defined by the Farmland Protection Policy Act, P.L. 97098 for the Spokane Diversion Project area found no prime or unique farmland.

Historical and Cultural Preservation, National Historic Preservation Act of 1966, 16 U.S.C.

The USFWS Partners Program will complete a Section 106 of the National Historic Preservation Act review. Initial review has found no potential to effect historical properties.

Endangered Species Act of 1973

FWP acknowledges the presence of the Arctic Grayling within the project area, which is listed as an S1 species within the Montana Natural Heritage Program's database. However, this project is part of a watershed level to conserve and restore Arctic Grayling throughout the Big Hole Valley. The project timeline will correlate when impacts to Arctic Grayling life history will be at its lowest (e.g., no impacts during spawning or rearing). A further review of additional threatened or endangered species in this area did not identify any further species of concern. For this reason, FWP has determined that the project will have ***no effect*** on T&E species.

Section 7 Consultation

The USFWS Partners Program will complete Section 7 Consultation. A finding of "no effect" is anticipated.

Statement of Assurances

Montana Fish, Wildlife & Parks will comply with all applicable federal requirements. The Statement of Assurances has previously been submitted for this federal fiscal year.

Additional Public Involvement – Montana Environmental Policy Act

Completed and encompassed in the *Programmatic Environmental Assessment for Candidate Conservation Agreement with Assurances and Associated Permit for Arctic Grayling in the Centennial Valley* (2018).

Environmental Justice, E.O. 12898

The proposed project will not have disproportionately high or adverse human health or environmental effects on low-income populations, minority populations, or Indian Tribes.

State Clearinghouse, E.O. 12372

The proposed project was not submitted to the State Clearinghouse for a 30-day review because Montana has discontinued the requirement for State Clearinghouse review.

Exotic Organisms, E.O. 11987

Construction operations will leave some soils initially bare following vegetation transplanting. Weeds may develop because of disturbed soils; however, the landowner will continue managing weeds on the respective property.

Animal Welfare Act of 1985

This project does not involve the capture or holding of any wildlife.

Permits

All required permits (local, state & federal) will be obtained prior to the initiation of any work. Permit applications will be submitted in the order necessary for their review by regulatory offices.

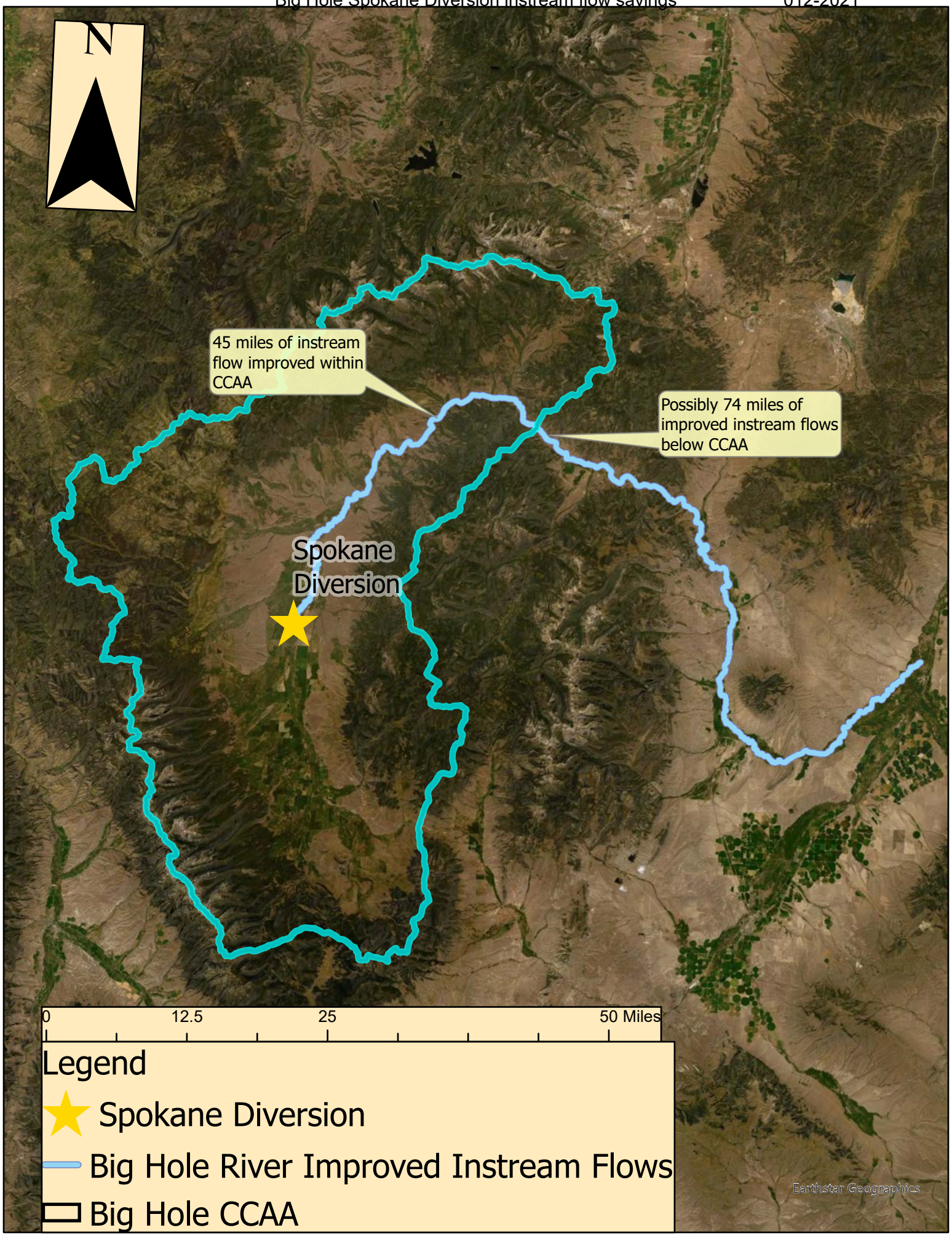
Montana Stream Protection act (SPA 124) – will be submitted no later than June 1st, 2021.

Montana Department of Environmental Quality 318 – included in the 124 application that will be submitted June 1st, 2021.

Floodplain Permit – Beaverhead County Floodplain Department notified and determined no permit is needed (Macioroski personal communication, 2/24/21).

Big Hole Instream Flow Improvement from Spokane Diversion Project

Big Hole Spokane Diversion instream flow savings 012-2021



FUTURE FISHERIES IMPROVEMENT PROGRAM

SUPPLEMENTAL INFORMATION SHEET FOR WATER LEASING OR WATER SALVAGE PROJECTS

The following additional information is requested to supplement the Future Fisheries Application for projects associated with water leasing or water salvage. Please complete this supplemental form and submit it as part of the Future Fisheries Grant Application.

1. **Water Rights**

   The Spokane ditch and associated water rights play an integral role in the management and success of Arctic Grayling in the Upper Big Hole River. The water rights associated with this ditch irrigate approximately 8,000 acres and total 285 cfs. Water right 41D 93485 00 is 3rd in priority (1886-07-13) for the upper Big Hole River and the Spokane ditch is by far the largest ditch in the upper valley. Due to the "supplemental" nature of these rights, water is moved in priority across the entire place of use utilizing this 3rd senior priority date. The Spokane ditch is routinely managed by CCAA staff to adhere to the Site Specific Plan (SSP). Streamflow target levels in the Big Hole River have been identified and the SSP also identifies landowner irrigation reduction amounts associated with the CCAA. The irrigation reductions associated with this ditch are critical to maintaining these flow target levels at the Wisdom Bridge and the Big Hole River downstream. Incorporation of updated headgate works will allow staff to adjust water levels more efficiently and accurately in the Spokane ditch thus providing water savings for the continued success of the Arctic Grayling.

2. **In the last 10 years, has your full water right amount regularly been available at your point of diversion throughout your period of use?**

   Yes / (No) (Please circle one) As streamflow levels naturally drop after runoff, the full allocation of the associated water rights is not available throughout the period of use.

   Have you ever made "a call" on junior water users to obtain the water you needed (through a water commissioner or otherwise)?

   Yes / (No) (Please circle one).

3. **Please describe or include a summary of any measurements of the amount of water you have regularly diverted and how much typically flows by your diversion during different time periods.**

   See attached example hydrograph from Water year 2019

4. **Has your local FWP fish biologist confirmed that your leasing/salvage project addresses a stream flow problem that significantly limits the fishery?**

   (Yes) / No (Please circle one)

5. **How much actual water (often different than just the remainder of your water rights) will be added to the stream through completion of your project?**
   _____ Please fill in and circle one – cfs / gpm / miners inches

This value has not been quantified due to current crude methodology of management. Currently, adjustments are made to the pin and plank diversion by either pulling an entire section of board out or by strategically placing rocks under the boards to allow the water to bypass the diversion structure. The completion of this project will allow staff to make finer resolution adjustments to the ditch.

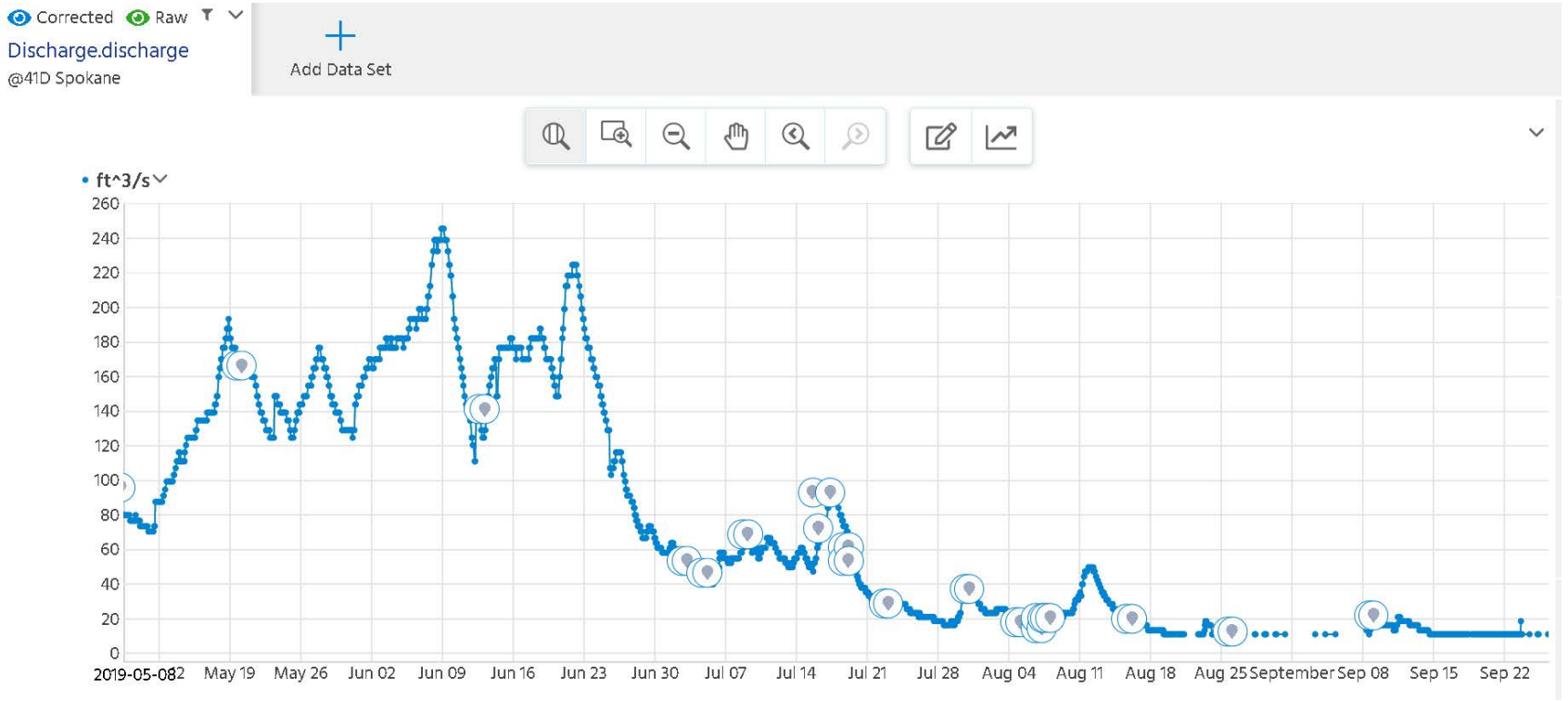
What length of stream will benefit from this additional flow? **(Note: Under certain circumstances, senior water can be protected legally from diversion by downstream junior users.)**

The entire Big Hole River from this point downstream will benefit from this project. Most notably will be the reach downstream from Wisdom to the confluence with the North Fork of the Big Hole.

6. **Is there a water commissioner on your stream? Yes / (No) (Please circle one)**

   Are you willing to actively assist in monitoring and/or protecting the conserved water instream? (Yes) / No (Please circle one and describe)

CCAA staff actively monitor and manage the Spokane ditch throughout the irrigation season.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May 24, 2021

Dear FFIP Review Panel:

Please accept this letter of support for the proposed Spokane Ditch and Diversion project, located on the Upper Big Hole River near Wisdom, MT. Personally, I have worked with Montana Fish Wildlife and Parks (FWP) on the Upper Big Hole River Arctic Grayling CCAA for the past two years, however; the Montana Department of Natural Resources and Conservation (DNRC) has partnered with FWP since 2006 on many successful collaborative projects. This proposed project consists of replacing outdated irrigation infrastructure with two new culverts and associated screw gates, as well as repairing the pin and plank diversion structure adjacent to the headgate works. The Spokane Ditch plays a vital role regarding maintaining stream flows in the Upper Big Hole River and the landowner has demonstrated consistent conservation efforts over the years. Repair and replacement of the outdated infrastructure will enhance irrigation withdrawal efficiency and controllability while improving instream flows within the Big Hole River during baseflow conditions. In addition, this project falls in line with watershed scale restoration efforts of the Big Hole Arctic Grayling Candidate Conservation Agreement with Assurances Program (CCAA) to benefit water quality, fisheries, and ecological health throughout the entire watershed.

The landowner associated with this proposed project is a notable land steward and is interested in protecting the benefits of fisheries, improving water quality, and particularly the recovery and continued conservation of Arctic Grayling. This proposed project will demonstrate how private landowner partnerships continue to drive conservation efforts within the upper Big Hole Watershed.

DNRC's collaboration with FWP on this project continues to demonstrate the importance of maintaining resiliency within the Big Hole Watershed for future generations. Partnerships with private landowners, state, and federal entities are critical to protecting Montana's precious natural resources such as the Big Hole River. I believe this proposed project will be extremely beneficial to the continued conservation and health of the Big Hole River.

Thank you for considering this proposal.

Sincerely,

Matthew A. Norberg

Matthew A. Norberg
Hydrologist-DNRC Water Resources Division/Arctic Grayling CCAA

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Montana Partners for Fish & Wildlife
420 Barrett Street, Dillon, MT 59725

Michelle McGree
Future Fisheries Improvement Program
1420 E 6th Avenue
PO Box 200701
Helena Montana
59620-0701

May 24, 2021

Dear Michelle,

Please accept this letter of support for Montana Fish, Wildlife & Park's Spokane Headgate Future Fisheries proposal for the upper Big Hole River submitted by Jarrett Payne. I have had the pleasure of working with Montana Fish, Wildlife & Parks for over two decades and appreciate their stewardship and accomplishments to enhance the Big Hole Watershed and conserve Arctic grayling. This proposal continues those efforts by replacing a deteriorating headgate on the Spokane Ditch on the Big Hole River. The Spokane Ditch has some of the largest and oldest water rights in the upper Big Hole and is critical to instream flow conservation efforts. The Spokane Point of Diversion (POD) is located upstream of the most productive spawning and rearing habitat for Arctic grayling. The landowner has participated and flow conservation efforts for over 25 years and their flow management of the Spokane Ditch is essential to stream flow conservation efforts. This project will replace a degrading wooden headgate with a corrugated steel screw gate that will improve the agencies and landowner's ability to control diverted flow and implement stream flow conservation agreements.

Since 2006 we have implemented a watershed conservation strategy through the Big Hole Arctic Grayling Candidate Conservation Agreement with Assurances Program (CCAA). Through landowner stewardship, diverse partnerships, and resources we are enhancing Arctic grayling habitat, riparian vegetation, stream flows and temperatures and reducing entertainment. To continue those efforts and as a Partner in this project the USFWS is committing funding for construction of the new screw gate. Additionally PFW has secured a landowner agreement and will complete ESA Section 7, the 106 National Historic Preservation Act and NEPA requirements.

The USFWS Montana Partners for Fish & Wildlife Program (PFW) has collaborated with private landowners and the MFWP for many years to implement watershed scale conservation and identify long-term strategies that protect and maintain resiliency in our watersheds. We have identified the Big Hole watershed as a conservation focus area due to its unique assemblage of wildlife species including Arctic grayling, intact habitats and potential to implement conservation at a landscape scale. I am confident as a partner that your support for these efforts are building a better future for SW Montana. Thank you for considering this proposal.

Sincerely,

James P Magee

James Magee
Fish and Wildlife Biologist
MT Partners for Fish and Wildlife Program
U.S. Fish and Wildlife Service

FWP.MT.GOV

THE OUTSIDE IS IN US ALL.

730 ½ N. Montana • Dillon, MT 59725 • (406) 531-5861 • rkreiner@mt.gov

May 24, 2021

Montana Fish, Wildlife & Parks
Future Fisheries Improvement Program
1420 E. Sixth Ave.
P.O. Box 200701
Helena, MT 59620-0701

Dear FFIP panel and board,

Please consider this letter an indication of my support for the proposed Spokane Diversion Project as submitted by the Jarrett Payne, FWP Riparian Ecologist. The project will replace a degraded headgate with two screwgates on a major diversion channel on the upper Big Hole River. The new screwgates will allow for more accurate and time sensitive flow adjustments which will ultimately maintain greater instream flows for Arctic grayling. The upper Big Hole River is home to the last remaining fluvial population of Arctic grayling in the lower 48 states.

Since the 1990s, FWP and its partners have worked with private landowners on the upper Big Hole River to improve habitat conditions for Arctic grayling. Collectively, these programs have resulted in increased summer flows in the mainstem river, more stable and vegetated streambanks throughout the Big Hole River, and ultimately an increasing population of Arctic grayling. These landowner relationships were formalized in 2006, with the creation of the CCAA program (Candidate Conservation Agreement with Assurances) program. The success of these programs continues to build as more and more landowners observe successful collaborations on neighboring properties.

The current success of the Big Hole Arctic Grayling recovery program is due to successful relationships with landowners. Of the utmost importance is working to more efficiently get irrigators their water while keeping enough streamflow in the river. This project will accomplish that on a major irrigation structure in critical grayling habitat.

Thanks for your consideration!

Sincerely,

Ryan Kreiner

Ryan Kreiner (FWP Region 3 Native Species Biologist)

LANDOWNER AGREEMENT

This agreement dated May 17th, 2021 between the Montana Fish Wildlife & Parks (MFWP) and The Erb McDowell Ranch LLC is entered to authorize the construction of a dual screwgate and repair the pin and plank structure for the Spokane Diversion. This work is in Township 3S, Range 15W, Section 8. Work performed will be as described in the design and construction plans submitted by Jarrett Payne and Phil Jagoda (MFWP) within the POD's 124 permit and SOW.

This project is intended to enhance irrigation withdrawal efficiency and controllability while improving instream flows within Big Hole River during base flow conditions. Therefore, the landowner agrees to protect and maintain the investment of this project for a minimum of 20 years. Assisting landowners with infrastructure on their property to manage irrigation withdrawals will contribute to the goals of the Arctic Grayling CCAA program. This agreement will expire on May 17th, 2041.

Notwithstanding the forgoing, it shall not be the landowner's to repair or replace project improvements should they be damaged, changed or destroyed by circumstances outside of the landowner's control; such as, but not limited to, natural means and damage by other individuals not under the control and supervision of the landowner. The landowner guarantees ownership of the above-described land and warrants that there are no outstanding rights that will interfere with this cooperative agreement. Further, if land ownership is transferred, this agreement will remain valid for the period of this agreement.

This agreement may be terminated in writing by either party by providing thirty (30) days advance notice. If terminated by the landowner or the restoration site is degraded due to purposeful activities of the private landowner, the private property owner agrees at property owner's sole discretion, to either

1. Reimburse Montana Fish, Wildlife & Parks for the cost of repair, or,
2. Reimburse Montana Fish, Wildlife & Parks for the "remaining value" of the project. The "remaining value" is defined as the original cost of the material and labor paid for by Montana Fish, Wildlife & Parks for the project construction only, less the loss of value of grazing to landowner and any material or labor that property owner provides. This net value of the project will then be divided by the term (20 years). If, for example, there is ten (10) years remaining, then ½ of the net value will be the "remaining value".

Montana Fish Wildlife and Parks does not assume jurisdiction over the private property as a result of this agreement. The private property owner retains all normal property rights including the right to control trespass. Landowner agrees to allow MFWP, its employees, agents and contractors access to the site for purposes contemplated in this Agreement. By entering into this agreement the landowner is not required to provide public access to the restoration project area, above and beyond any existing legal requirements.

By: _____
MFWP Representative
Date
5/21/21

By: Erb McDowell LLC
Private Landowner
Date

United States Department of the Interior

FISH AND WILDLIFE SERVICE
420 Barrett Street
Dillon MT 59725

In Reply Refer to:
FWS/IR05/IR07

Montana Fish, Wildlife & Parks
Fisheries Division
1420 East Sixth Avenue
Helena, MT 59620

May 3, 2021

Re: Spokane Diversion Project

To whom it may concern,

In spring 2021, USFWS Partners Program (PFW) and Montana Fish, Wildlife & Parks (FWP) are collaborating with a private Landowner to restore the infrastructure for the Spokane Diversion in the Upper Big Hole Watershed. Flow management at this diversion is a key to the success of instream flow conservation efforts developed through the Arctic Grayling Candidate Conservation Agreement with Assurances Program (CCAA). Improving the infrastructure will allow the landowner, PFW, FWP and CCAA partners to better manage and measures flows critical to Arctic grayling conservation.

PFW has significant involvement in developing, permitting, managing, funding and monitoring this project on private land and has developed and approved a Private Landowner Agreement with the landowner. PFW will also cover the federal compliance requirements for this project that include:

- NEPA Compliance
- Section 7 ESA Consultation
- Section 106 National Historic Preservation Act Clearance

All compliance documents will be obtained prior to any ground work. All compliance documents will be kept on file along with the Landowner Agreement with copies available upon request.

Thank you for your collaboration on this project and commitment to conservation. If you have any questions, please feel free to contact me at 406-865-0181 or james_magee@fws.gov.

Sincerely,

James P Magee

James Magee
Wildlife and Fisheries Biologist
Partners for Fish and Wildlife Service

Cc: Matt Jaeger, Jarrett Payne, Adam Braddock

Montana Fish, Wildlife & Parks

1820 Meadowlark Lane, Butte, MT 59701

Stream Protection Act (SPA 124) Permit

Date: 5/5/21

Applicant Name: Jarrett Payne

Address: Montana Fish Wildlife and Parks
730 N Montana St
Dillon, MT 59725

Permit #: MI-16-20-R3

Waterbody: Big Hole River

Project Name: Spokane Headgate Replacement

Project Description:
The purpose of this project is to install a new headgate in the Spokane diversion.

Montana Fish, Wildlife & Parks has reviewed the proposed project. The project is approved provided it is carried out in accordance with the information supplied in the application, all general conditions listed on page 3 of this permit, and any special conditions listed below.

Expiration: This permit is valid for 1 year(s) from the date of issuance.

Timing Restrictions: No ◯ Yes ◉ if yes see below.

No in-stream work between April 15 and June 15 .

Special Conditions:

318 Authorization Review

I have reviewed the above project on behalf of the Montana Department of Environmental Quality (DEQ) pursuant to the Montana Water Quality Act Short-term Water Quality Standards for Turbidity 75-5-318 MCA:

○ This project **will not** increase turbidity if completed according to the conditions listed in the 310 or 124 permit. Therefore, application to DEQ for a 318 authorization **is not** required.

○ Impacts to the physical and biological environment from turbidity generated as a result of this project are uncertain. Therefore, the applicant must contact the Montana Department of Environmental Quality, 1520 East Sixth Avenue, Box 200901, Helena, MT 59620-0901, (406 444-3080) to determine project specific narrative conditions required to meet short-term water quality standards and protect aquatic biota.

◉ Turbidity generated from this project is expected to be short-term and have only temporary and minor impacts on the physical and biological environment. Therefore, compliance with the conditions stated in the attached letter outlining ***DEQ's Short Term Water Quality Standard for Turbidity Related to Construction Activity,*** as well as other conditions listed in the 310 or 124 permit, are appropriate for this project.

Issuing Biologist: Jim Olsen

Signature:

Stream Protection Act 124 Permit General Conditions

1. Complete work affecting a streambed or stream bank in an expeditious manner to avoid unnecessary impacts to the stream.
2. Limit the clearing of vegetation to that which is absolutely necessary for construction of the project. Take precautions to preserve existing riparian vegetation. Salvage and reuse native vegetation where possible.
3. Install and maintain erosion control measures where appropriate to protect aquatic resources. Do not clear and grub land adjacent to streams prior to installing proper erosion and sedimentation controls. Conduct all work in a manner that minimizes turbidity and other disturbances to aquatic resources.
4. Plan temporary construction facilities to:
    a. Minimize disturbance to stream banks, stream bank vegetation, and the streambed by locating staging or storage facilities at least 50' horizontally from the highest anticipated water level during construction;
    b. not restrict or impede fish passage in streams; and
    c. not restrict any flow anticipated during use.
5. Provide sediment controls for drainage from topsoil stockpiles, staging areas, access roads, channel changes, and instream excavations.
6. Isolate work zones from flowing and standing waters to prevent turbid water and sediments from being discharged into streams or other drainages that flow directly into the stream. Divert flowing waters around the work zone.
7. Do not spill or dump material into streams. Store and handle petroleum products, chemicals, cement and other deleterious materials in a manner that will prevent their entering streams.
8. Do not permit wash water from cleaning concrete-related equipment or wet concrete to enter streams.
9. Do not operate mechanized equipment in any stream or flowing water unless special authorization is obtained. If special authorization is granted, the following conditions apply:
    a. Powerwash all equipment allowed in a stream prior to entering the stream channel.
    b. Clean and maintain all equipment so that petroleum-based products and hydraulic fluids do not leak or spill into the waterway.
10. Reclaim streambeds and stream banks as closely as possible to their pre-disturbed condition.
11. Restore disturbed stream banks to their natural or pre-disturbed configuration to match adjacent ground contours or as specified in the project plans. Stabilize, reseed, and re-vegetate disturbed areas. Install and maintain long-term biodegradable erosion-control measures to protect these areas until adequate vegetation has been established.
12. Restore temporary access routes and any temporarily disturbed areas to original conditions, including original contours and vegetation.
13. Dispose of any excess material generated from the project above the ordinary high water mark and in an area not classified as a wetland.

Montana Department of Environmental Quality

SHORT-TERM WATER QUALITY STANDARD FOR TURBIDITY RELATED TO CONSTRUCTION ACTIVITY (318 Authorization)

Dear Applicant:

This 318 authorization is the result of your recent application for a 310 permit from your local Conservation District or a 124 permit from Montana Fish, Wildlife and Parks. This authorization is valid for the time frame noted on your permit.

This is not your 310 or 124 permit and no construction activity should occur until you have received a valid 310 or 124 permit as well as any other permits that apply to this proposed construction activity.

This authorization is the result of an Operating Agreement between the Montana Department of Environmental Quality (DEQ), and Montana Fish, Wildlife and Parks (FWP).

The applicant agrees to the comply with the conditions stated below, as well as other conditions listed in the 310 or 124 permit issued for this project. Signatures of the applicant and FWP are required to validate this authorization.

1. Construction activity in or near the watercourse are to be limited to the minimum area necessary, and conducted so as to minimize increases in suspended solids and turbidity that could degrade water quality and adversely affect aquatic life outside the immediate area of operation.

2. The use of machinery in the watercourse shall be avoided unless absolutely necessary.

3. All disturbed stream banks and adjacent areas created by the construction activity shall be protected with erosion control measures during construction. These areas shall be reclaimed with appropriate erosion control measures and revegetated to provide long-term erosion control.

4. Any excess material generated from this project must be disposed of above the ordinary high water mark, in an area not classified as a wetland, and in a position not to cause pollution of State waters.

5. Clearing of vegetation will be limited to that which is absolutely necessary for construction of the project.

6. This authorization does not authorize a point source surface water discharge. MPDES permit is required for said discharge.

7. Open cut creek crossings will not be allowed in flowing water. Stream water must be diverted around the open cut area (pump, flume etc.)

8. The applicant must conduct all activities in full and complete compliance with all terms and conditions of all permits required for this activity issued pursuant to the Montana Natural Streambed and Land Preservation Act (310 permit), the Stream Protection Act (124 permit) the Federal Clean Water Act (404 Permit), any MPDES permits for dewatering or storm water control in the construction area and any valid Memorandum of Agreement and Authorization (MAA) negotiated for this activity.

The FWP representative has determined that this project is within the scope of the programmatic Environmental Assessment prepared by DEQ and FWP for the issuance of narrative turbidity standards.

_____ Date: 5-5-21
FWP Representative's Signature

_____ Date: 5-5-21
Applicant's Signature

Name and location of project: Big Hole River (MI-16-21-R3)