



Picture Date: 9/11/2021 | River Release: 1900 cfs

See Video Here: <https://youtu.be/fmx7druuPP8>

#7 Cline's Channel

Bighorn River side channel reactivation

Access and Land Ownership Map 014-2022



- ACCESS:**
- 1. Crow Tribal
 - 2. State of Montana



Access Path

Side Channel

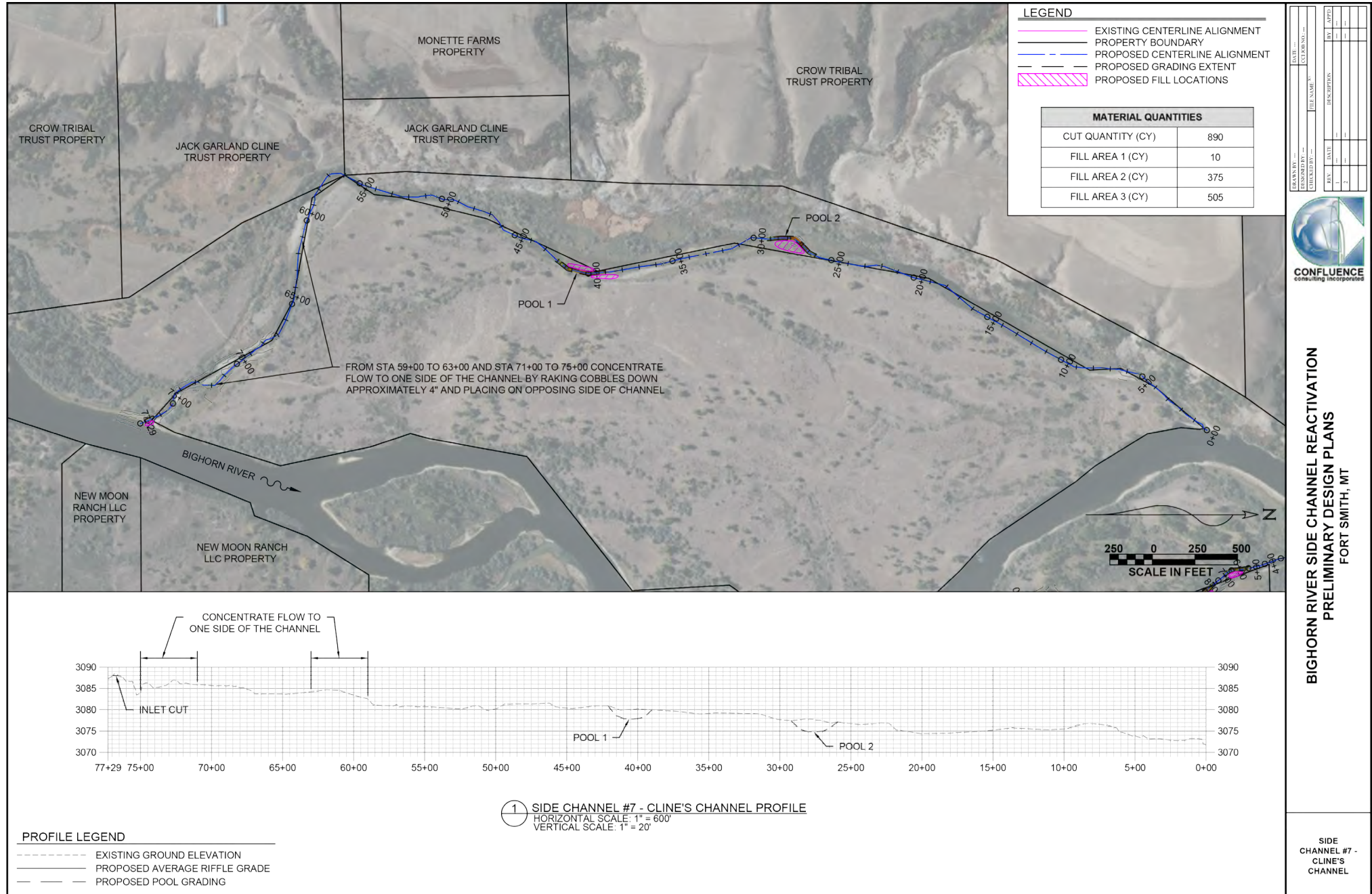
Ownership Boundry

Crow Tribal Trust

highlighted areas

#7 Cline's Channel

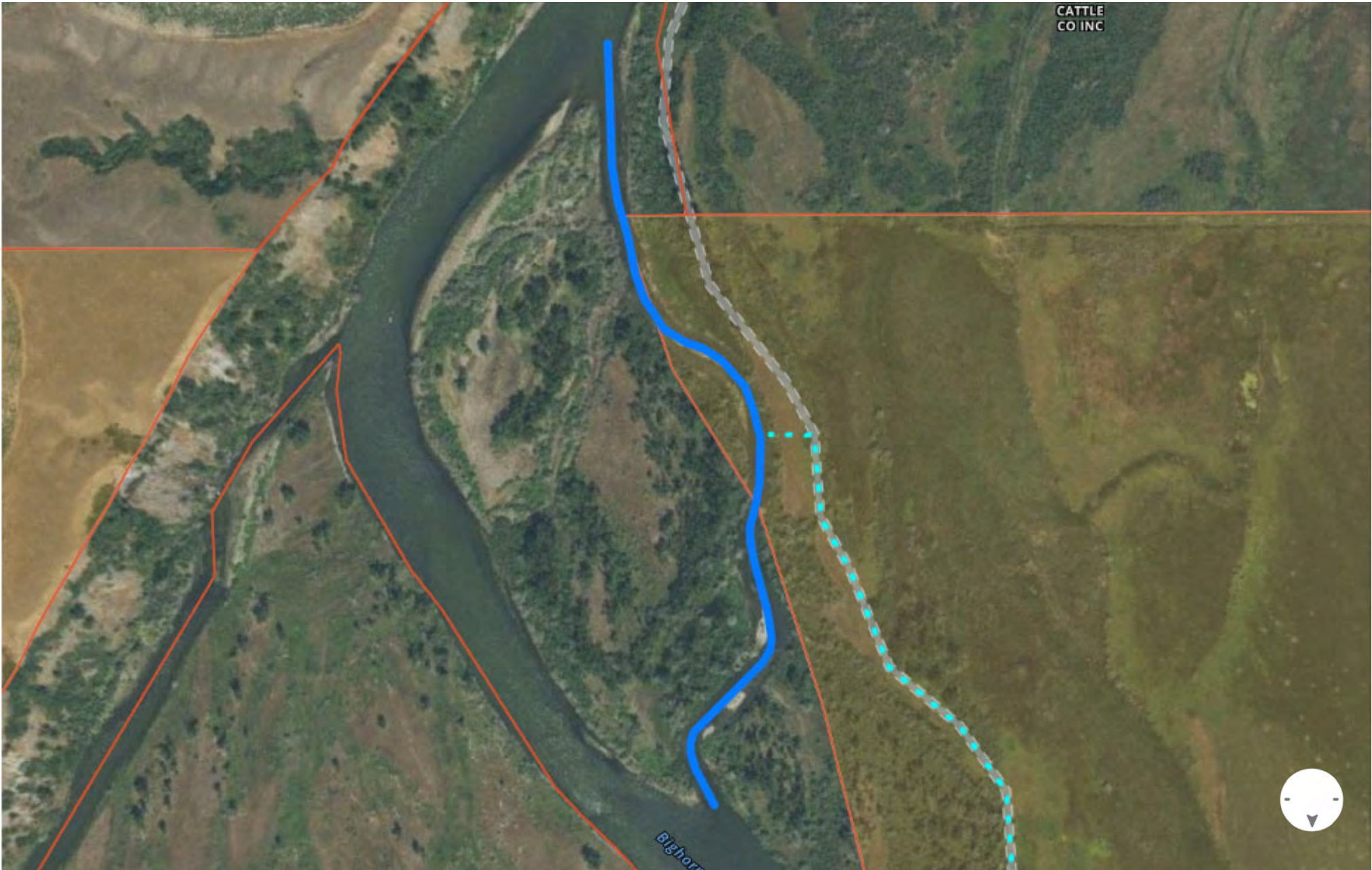
Preliminary Design Plan





Picture Date: 9/11/2021 | River Release: 1900 cfs

See Video Here: <https://youtu.be/gl4xTDSp01Q>



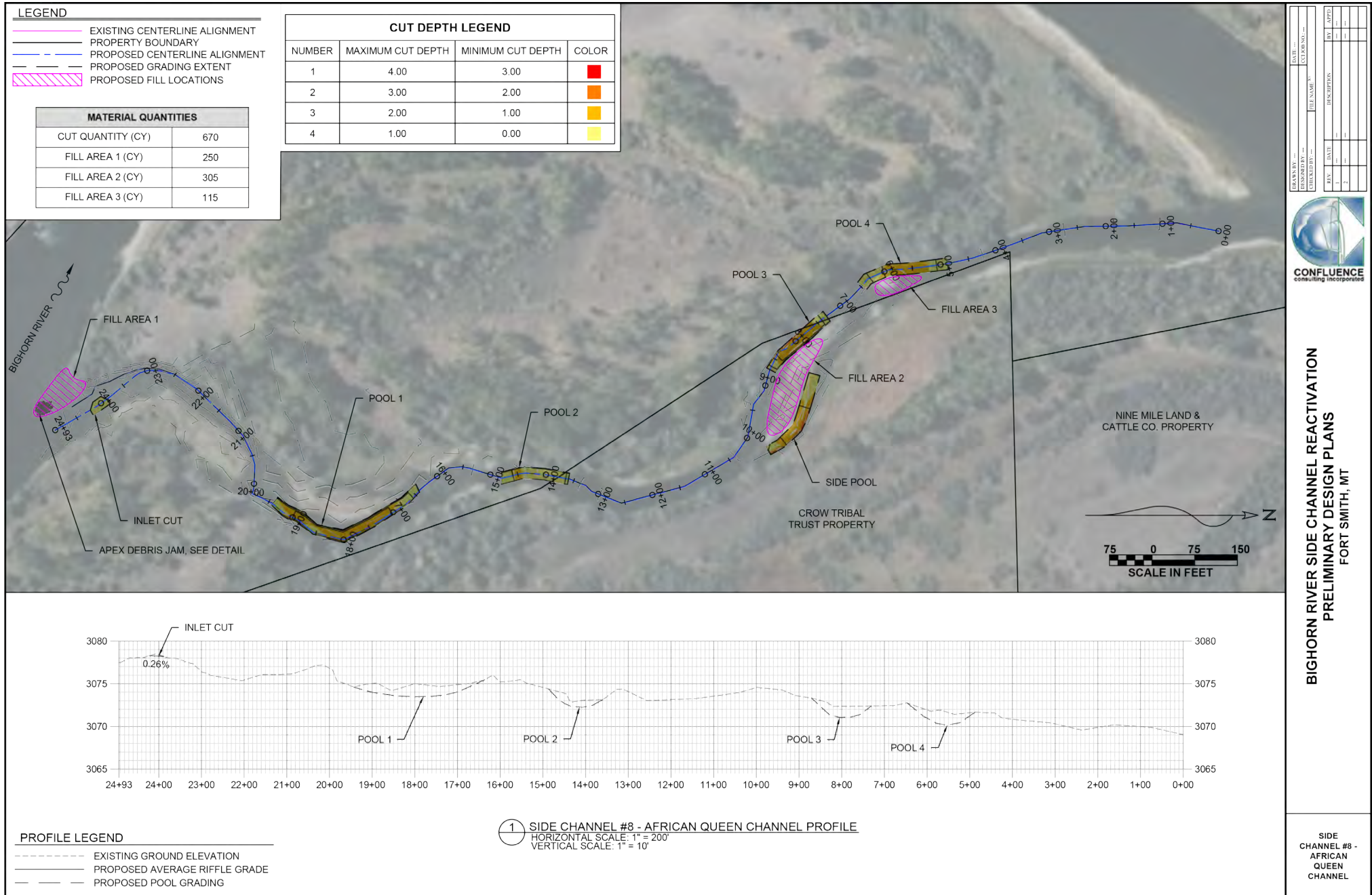
- ACCESS:**
- 1. Crow Tribal
 - 2. State of Montana



Access Path	
Side Channel	
Ownership Boundry	
Crow Tribal Trust	

#8 African Queen

Preliminary Design Plan



#9 Below Turtle Rock

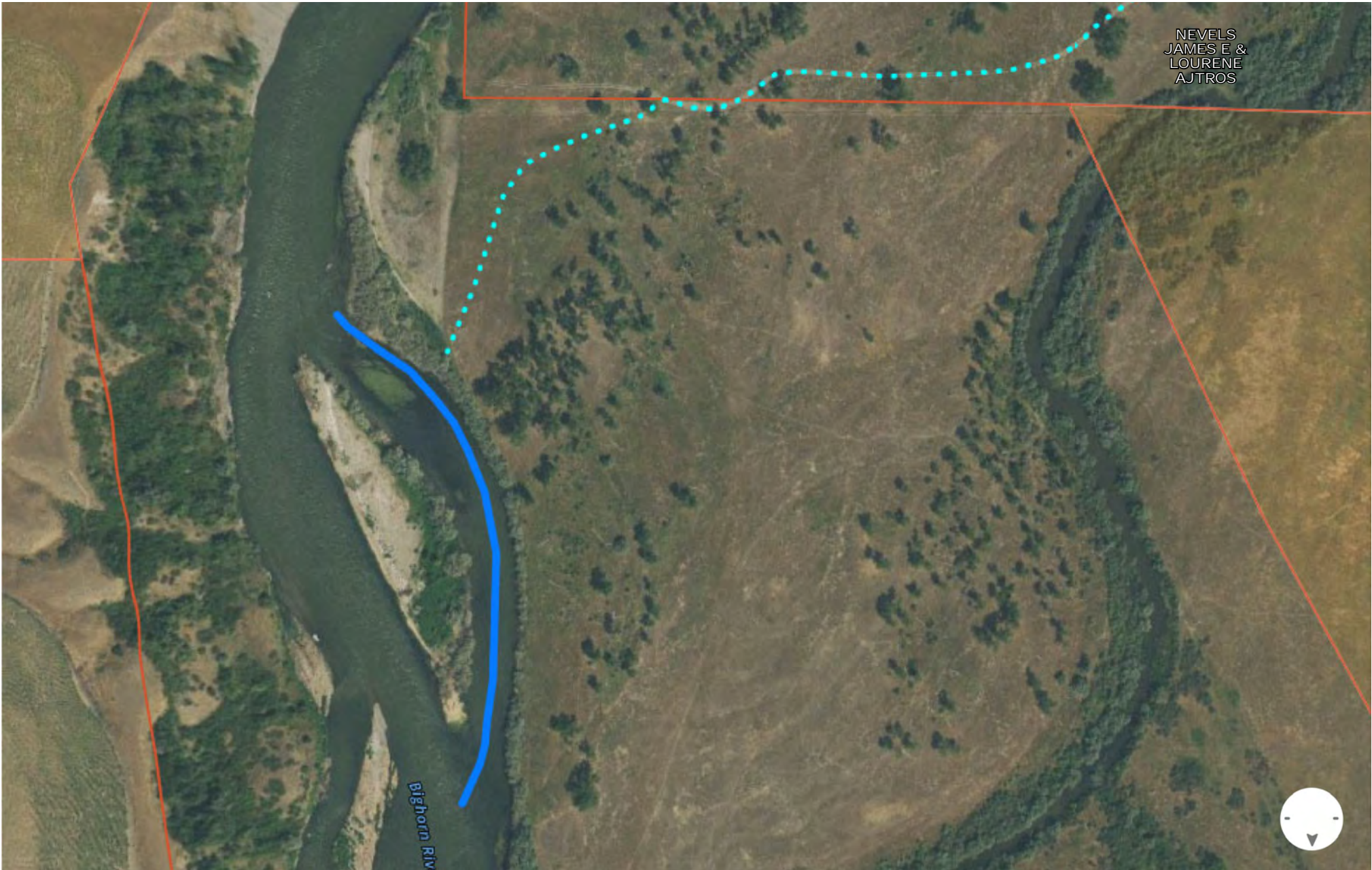
Bighorn River side channel reactivation

014-2022
Current Conditions



Picture Date: 9/27/2021 | River Release: ?

See Video Here: <https://youtu.be/rohJA5maVq0>



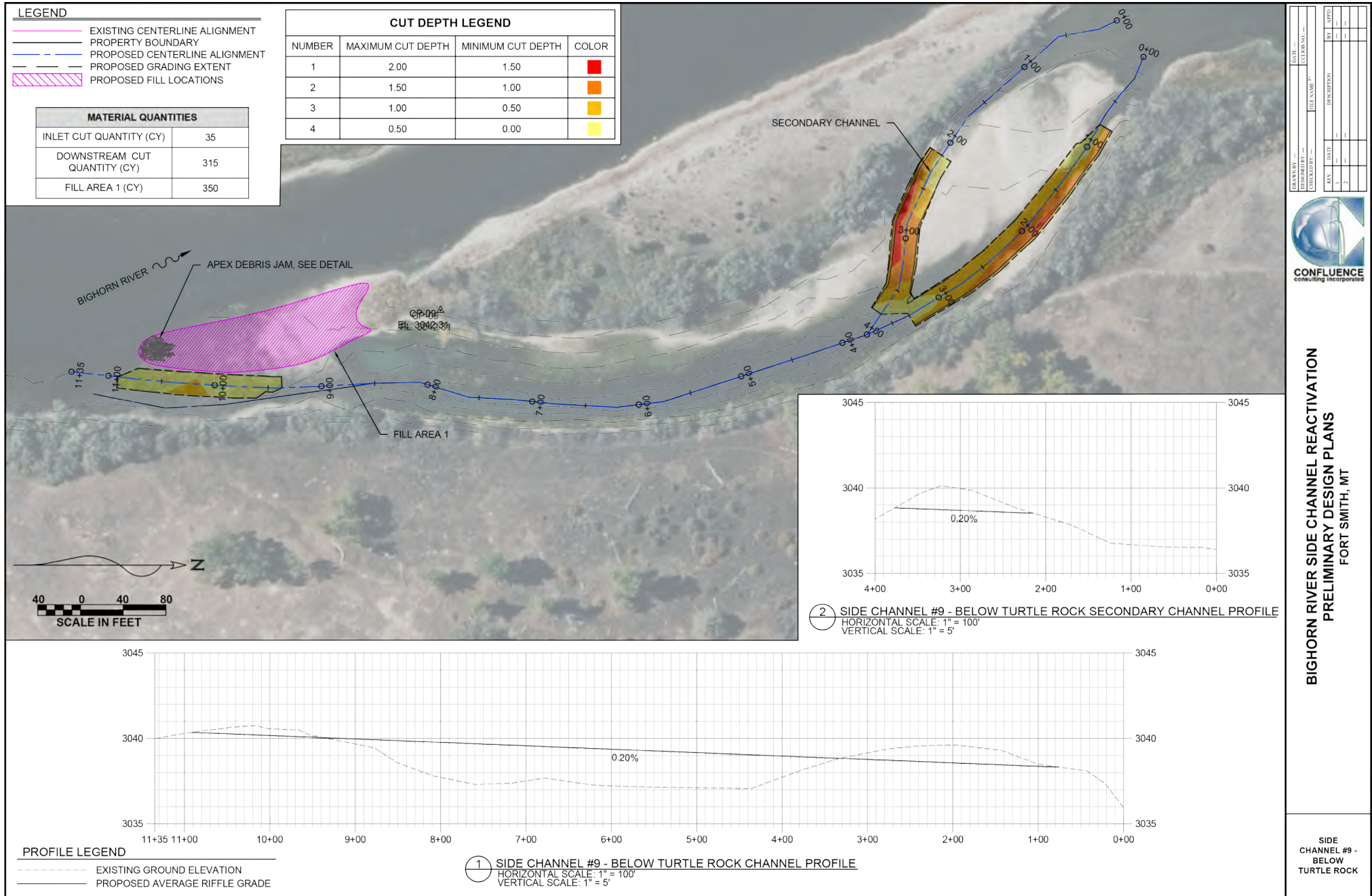
- ACCESS:**
- 1. Nevels (currently for sale, letter pending)
 - 2. State of Montana



Access Path	
Side Channel	
Ownership Boundry	
Crow Tribal Trust	

#9 Below Turtle Rock

Preliminary Design Plan



#10 Saint Xavier Bridge

Bighorn River side channel reactivation

014-2022
Current Conditions



Picture Date: 9/8/2021 | River Release: 1801 cfs

See Video Here: https://youtu.be/afRDI_3YQcs

#10 Saint Xavier Bridge

Bighorn River side channel reactivation

Access and Land Ownership Map

014-2022



ACCESS:
1. Crow Tribal



Access Path

Side Channel

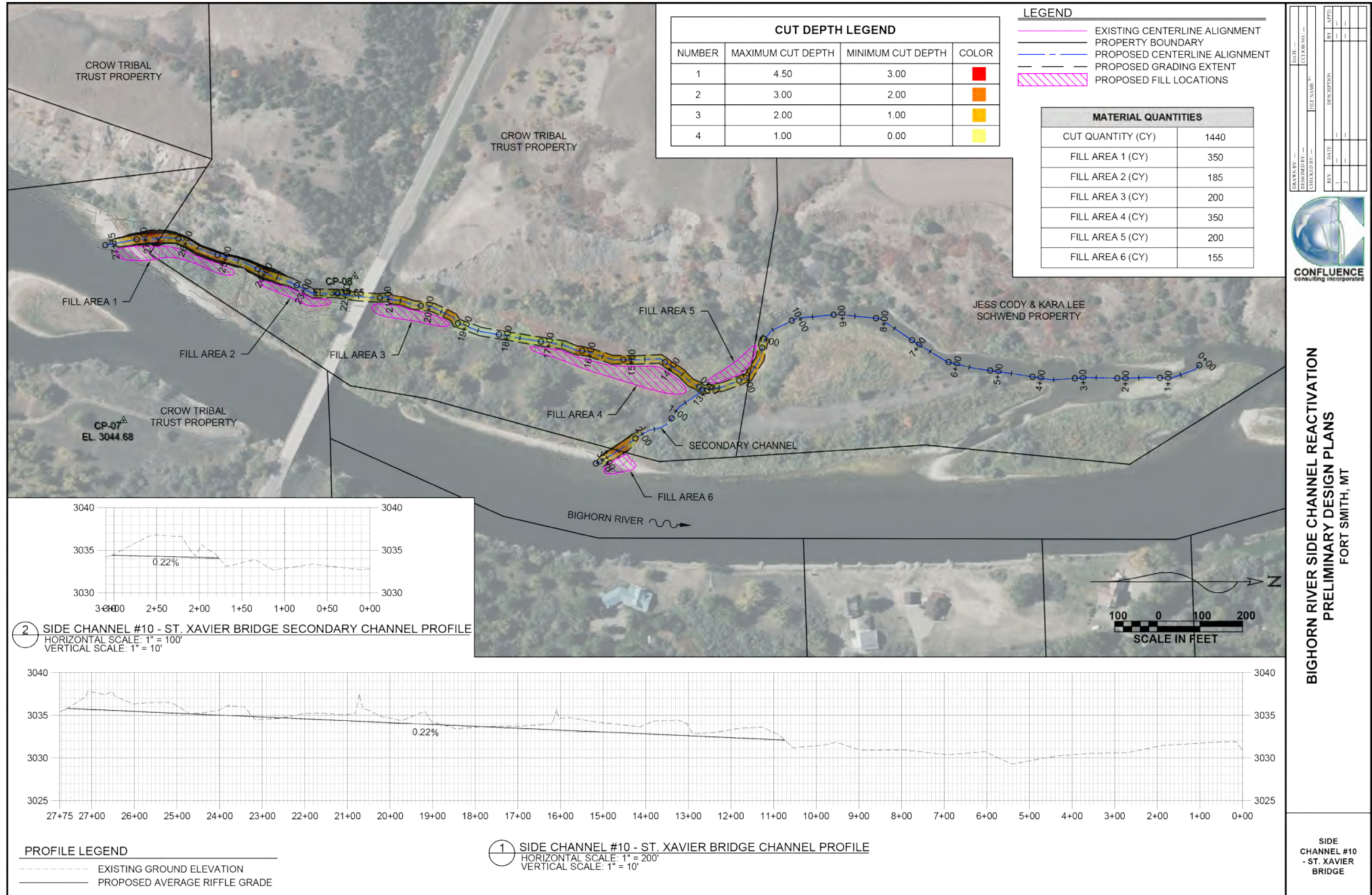
Ownership Boundry

Crow Tribal Trust

highlighted areas

#10 Saint Xavier Bridge

Preliminary Design Plan





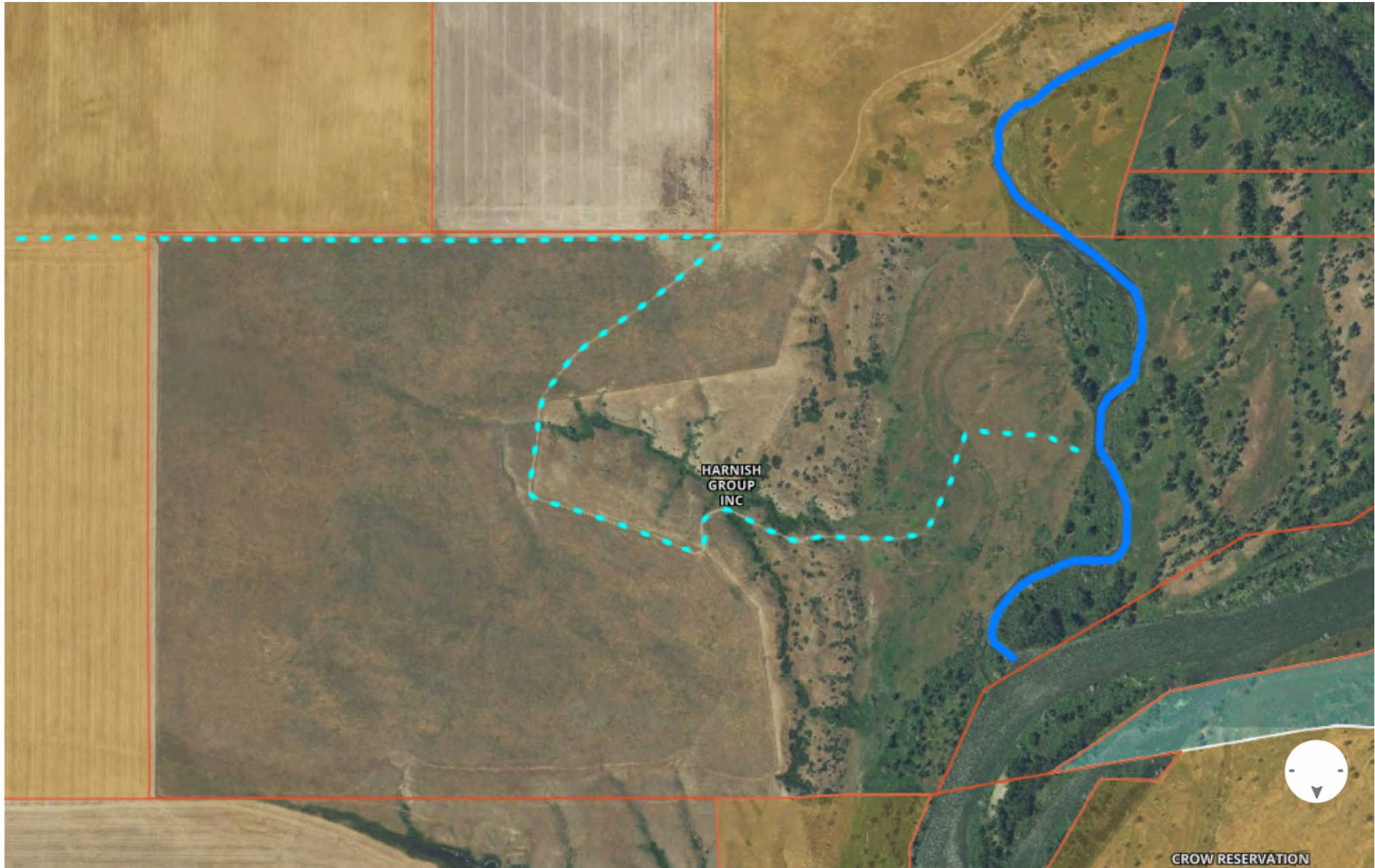
Picture Date: 9/8/2021 | River Release: 1801 cfs

See Video Here: <https://youtu.be/MwUhCXWSFWU>

#11 Mallards

Bighorn River side channel reactivation

Access and Land Ownership Map 014-2022



ACCESS:

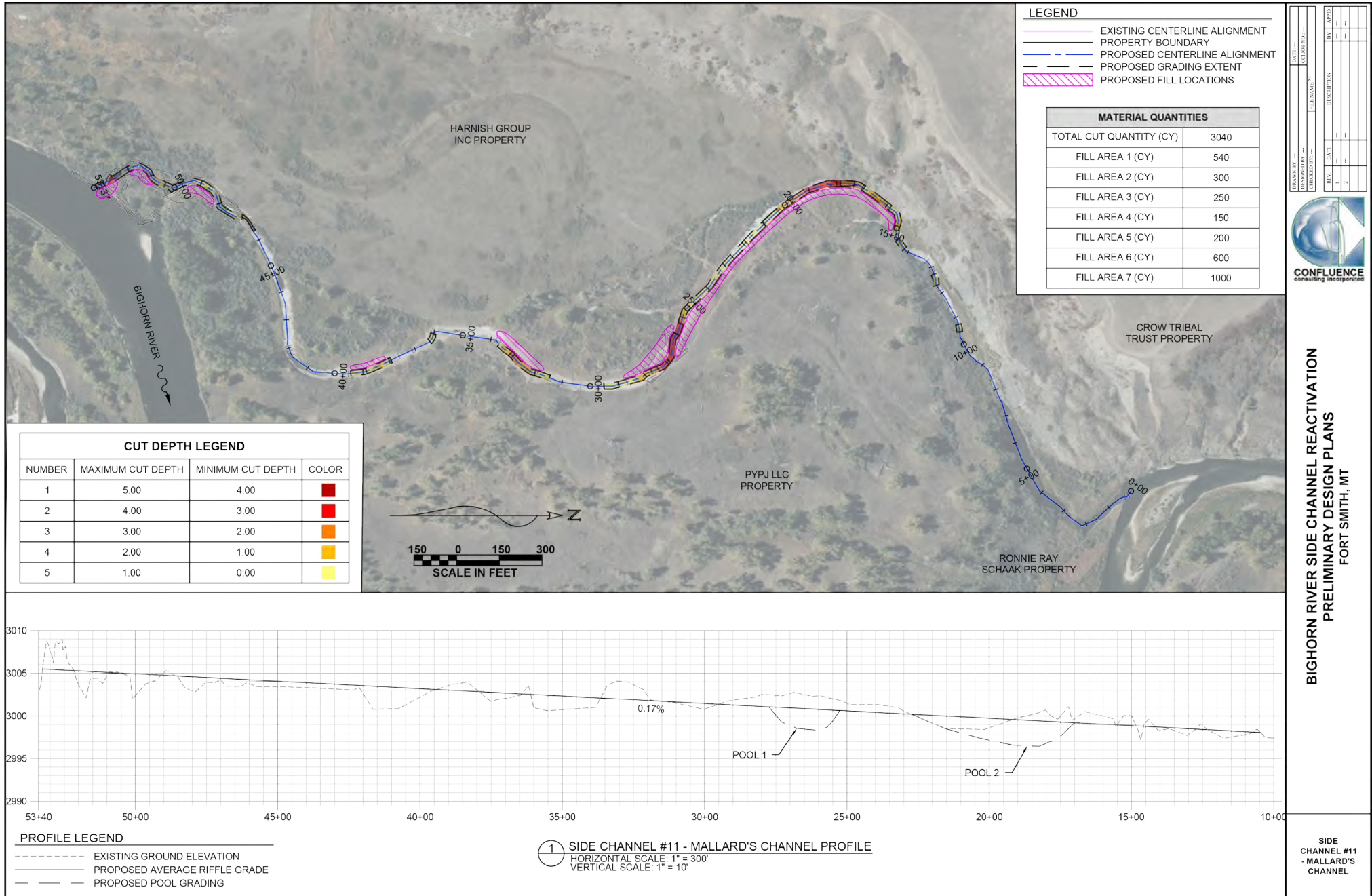
1. Crow Tribal
2. Harnish (letter attached)
3. State of Montana



Access Path	
Side Channel	
Ownership Boundry	
Crow Tribal Trust	

#11 Mallards

Preliminary Design Plan





To: Harnish Group Inc.

May 19, 2022

The Bighorn River Alliance (BHRA) intends to reconnect several side channels that have become disconnected from the mainstem due to buildup of sediment, gravels and vegetation at their heads. The reconnection process involves surveying the side channels, developing an excavation plan, securing the necessary permits and finally accessing the site with an excavator to perform the necessary cut and fill work. The first three steps are underway at present (2022) with actual construction planned for the fall of next year (2023). It is anticipated that the work on any given site would only take one day or possibly in one day, out the next. The benefits of the project are that it will restore valuable spawning and juvenile fish rearing habitat as well as create many miles of "spring creek" type environments that will be a benefit to landowners as well as to the fishery.

The attached aerial shows our preferred access route and the location of the side channel where excavation would take place. The purpose of this letter is for you to confirm, for the benefit of third parties to whom we are applying for funding, that you understand the plan, that you support our efforts and that you grant permission to access the river and side channel insofar as it involves crossing your property.

Thanks very much.

Jim Chalmers
Bighorn River Alliance, Research Chair
jameschalmers@vcn.com
(406) 861-1642

I Brian Heeb on behalf of the Harnish Group Inc. understand these plans, support the effort and grant permission for river and side channel access in so far as it crosses our property.

Signature [Signature]
Brian Heeb, VP & CFO

Address: 17035 West Valley Highway
Tukwila, Washington 98188

Date: May 10, 2022



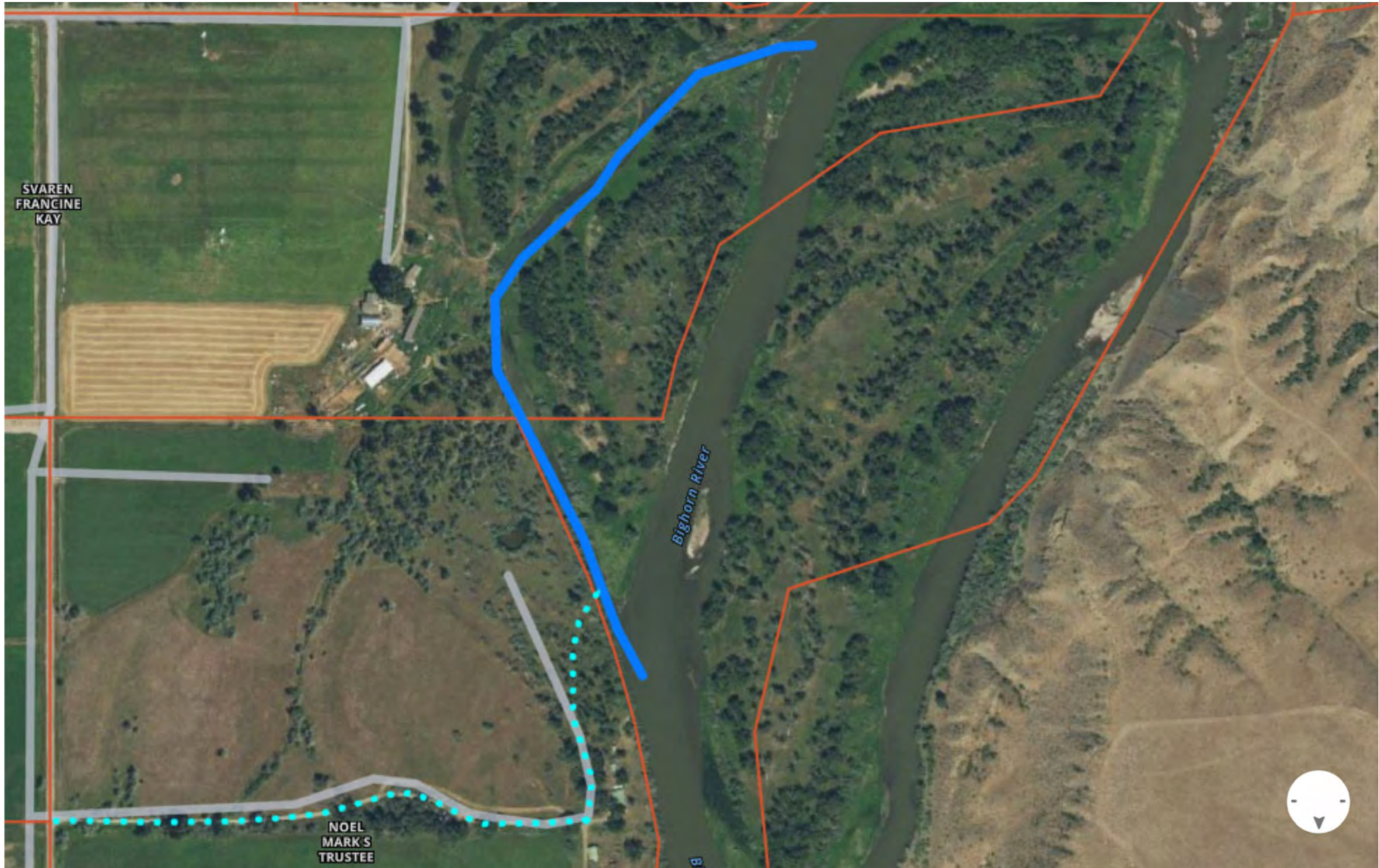
Picture Date: 1/23/2020 | River Release: 3217 cfs

See Video Here: <https://youtu.be/lbswRVcJLwo>

#12 Grant's Marsh

Bighorn River side channel reactivation

Access and Land Ownership Map 014-2022



ACCESS:

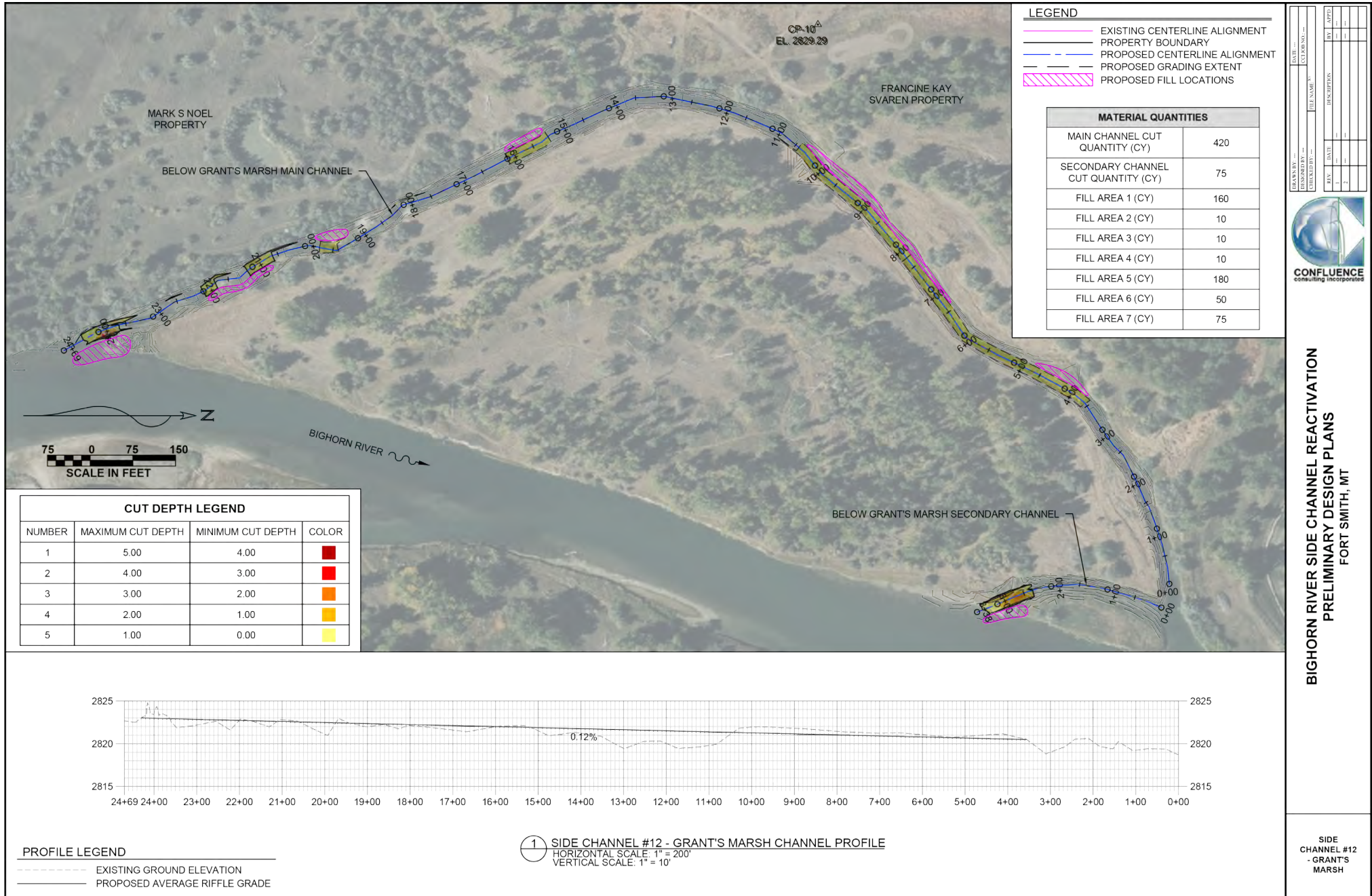
1. Noel (letter attached)
2. State of Montana
3. Svaren (letter attached)



Access Path	
Side Channel	
Ownership Boundry	
Crow Tribal Trust	

#12 Grant's Marsh

Preliminary Design Plan





Dear Mark:

The Bighorn River Alliance (BHRA) intends to reconnect several side channels that have become disconnected from the river mainstem due to buildup of sediment, gravels and vegetation at their heads. The reconnection process involves surveying the side channels, developing an excavation plan, securing the necessary permits and finally accessing the site with a track hoe to perform the necessary cut and fill work. The first three steps are underway at present (2022) with actual construction planned for the fall of next year (2023). It is anticipated that the work on any given site would only take one day or possibly in one day, out the next. The benefits of the project are that it will restore valuable spawning and juvenile fish rearing habitat as well as create many miles of "spring creek" type environments that will be a benefit to landowners as well as to the fishery.

The attached aerial shows our preferred access route and the location of the side channel where excavation would take place. One of our project managers for the BHRA, Dennis Fischer, has discussed these plans in detail with you but the purpose of this letter is for you to confirm, for the benefit of third parties, that you understand the plan, that you support our efforts and that you grant permission to access the river and side channel in so far as it involves crossing your property.

Thanks very much.

Dennis Fischer

Bighorn River Alliance, Research Initiative Committee

I, Mr. Mark Noel, Land Owner, understand these plans, support the effort and grant permission for river and side channel access in so far as it crosses my property.

Signature

A handwritten signature in black ink, appearing to read "Mark Noel".

Date

A handwritten date in black ink, "4/29/22".



Dear Francine:

The Bighorn River Alliance (BHRA) intends to reconnect several side channels that have become disconnected from the river mainstem due to buildup of sediment, gravels and vegetation at their heads. The reconnection process involves surveying the side channels, developing an excavation plan, securing the necessary permits and finally accessing the site with a track hoe to perform the necessary cut and fill work. The first three steps are underway at present (2022) with actual construction planned for the fall of next year (2023). It is anticipated that the work on any given site would only take one day or possibly in one day, out the next. The benefits of the project are that it will restore valuable spawning and juvenile fish rearing habitat as well as create many miles of "spring creek" type environments that will be a benefit to landowners as well as to the fishery.

The attached aerial shows our preferred access route and the location of the side channel where excavation would take place. One of our project managers for the BHRA, Dennis Fischer, has discussed these plans in detail with Jon but the purpose of this letter is for you to confirm, for the benefit of third parties, that you understand the plan, that you support our efforts and that you grant permission to access the river and side channel in so far as it involves crossing your property.

Thanks very much.

Dennis Fischer

Bighorn River Alliance, Research Initiative Committee

I, Francine Kay Svaren, Land Owner, understand these plans, support the effort and grant permission for river and side channel access in so far as it crosses my property.

Signature

Francine Kay Svaren

Date

4/28/22

Preliminary Design Plan



CONFLUENCE

**BIGHORN RIVER SIDE CHANNEL REACTIVATION
PRELIMINARY DESIGN PLANS
FORT SMITH, MT**

TYPICAL SIDE
CHANNEL
CROSS
SECTION

Preliminary Design Plan



CONFLUENCE
consulting, inc.

**BIGHORN RIVER SIDE CHANNEL REACTIVATION
PRELIMINARY DESIGN PLANS**
FORT SMITH, MT

TYPICAL BAR
APEX JAM

Attachment B: Project Budget

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)	TOTAL
Personnel***								
I. Survey/Design/Permitting								
Contractor Survey	120	hours	\$135	16,200		\$16,200		\$
BHRA Survey Support	120	hours	\$25	\$3,000		\$3,000		
Contractor Design	60	hours	\$135	8,100		\$8,100		\$
Contractor Engineering	80	hours	\$135	\$ 10,800		\$10,800		\$
Contractor Permitting	40	hours	\$135	\$5,400		\$5,400		\$
II. Construction								
Contractor Construction Oversight	280	hours	\$135	\$37,800	\$20,000	\$17,800		\$
BHRA Construction Support	300	hours	\$25	\$7,500		\$7,500		
				\$				\$
			Sub-Total	88,800	\$20,000	\$68,800	\$	\$
Travel								
I. Survey/Design/Permitting								
Mileage	1,200	miles	\$0.56	\$672		\$672		\$
Per diem	6	days	\$150	\$900		\$900		\$
II. Construction								
Mileage	1,600	miles	\$0.56	\$896		\$896		
Per diem	25	days	\$150	\$3,750		\$3,750		\$
			Sub-Total	\$6,238	\$	\$6,238	\$	\$
Construction Materials****								
				\$				\$
			Sub-Total	\$	\$	\$	\$	\$
Equipment, Labor, and Mobilization								
II. Construction								
GPS Survey Equipment	25	days	\$165	\$4,125		\$4,125		\$
Excavator mobilization	10	days	\$1,650	\$16,500		\$16,500		\$
Excavator/operator	25	days	\$2,200	\$55,000	\$40,000	\$15,000		\$
			Sub-Total	\$75,625	\$40,000	\$35,625	\$	\$
TOTALS					\$60,000	\$110,663	\$	\$

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.

****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:

APPLICATION MATCHING CONTRIBUTIONS

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

CONTRIBUTOR	IN-KIND	CASH	TOTAL	Secured?
Great Plains Fish Habitat Partnership (Submitted 1/28/2022. Informal feedback positive. Formal award June 2022.)	\$ -	\$60,000	\$60,000	N
Montana Trout Foundation	\$ -	\$5,000	\$5,000	Y
AFFTA (submitted 3/1/2022)	\$ -	\$5,000	\$5,000	N
Bighorn River Alliance	\$10,500	\$30,163	\$40,663	Y
	\$ -	\$ -	\$ -	
	\$ -	\$ -	\$ -	
	\$ -	\$ -	\$ -	
	\$ -	\$ -	\$ -	
	\$ -	\$ -	\$ -	
	\$ -	\$ -	\$ -	
TOTALS	\$10,500	\$100,163	\$110,663	

OTHER CONTRIBUTIONS

(contributions not associated with the application)

CONTRIBUTOR	IN-KIND	CASH	TOTAL	Secured?
	\$ -	\$ -	\$ -	
	\$ -	\$ -	\$ -	
	\$ -	\$ -	\$ -	
	\$ -	\$ -	\$ -	
	\$ -	\$ -	\$ -	
	\$ -	\$ -	\$ -	
TOTALS	\$ -	\$ -	\$ -	

Attachment C

Final Report

February, 2021

Bighorn River Side Channel Restoration Potential



Prepared for:
Bighorn River Alliance
5000 Southgate Drive
Billings MT 59101

Prepared By:
Karin Boyd
Applied Geomorphology, Inc.
211 N. Grand Suite C
Bozeman MT 59715



Applied
Geomorphology
Inc.

To see full report click here or go to:

<https://1drv.ms/b/s!AlmN0mVsHJAugclqhPgvzOXPHhTUTg?e=0sL6bl>

Attachment D

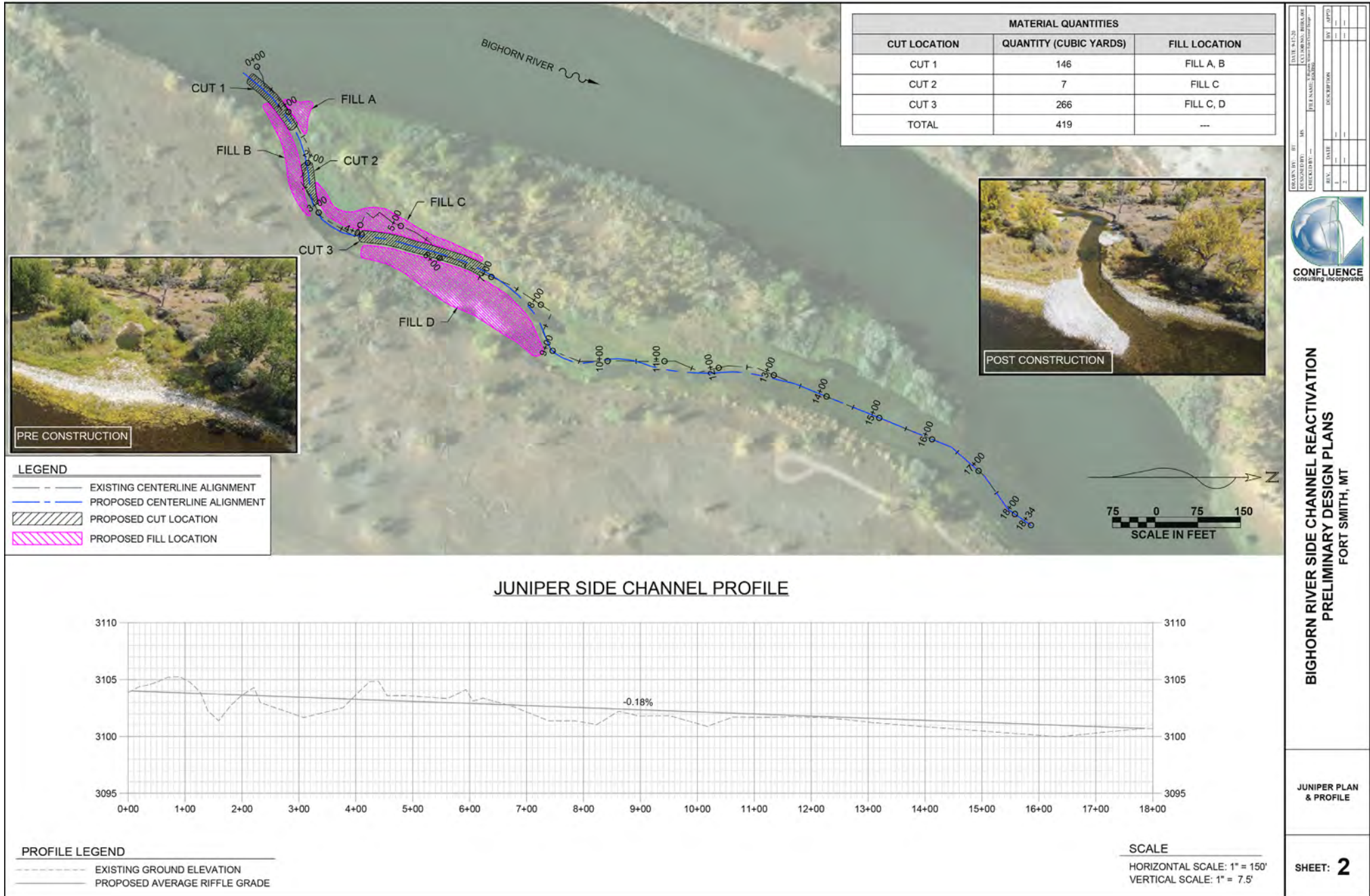
Documentation of the August 2021 Restoration of Rattlesnake and Juniper Side Channels

[**See Blog Post Here**](#)

Blog by Anne Marie Emery/BHRA
Photos by Dennis Fischer/BHRA

Bighorn River side channel reactivation Juniper Side Channel Profile

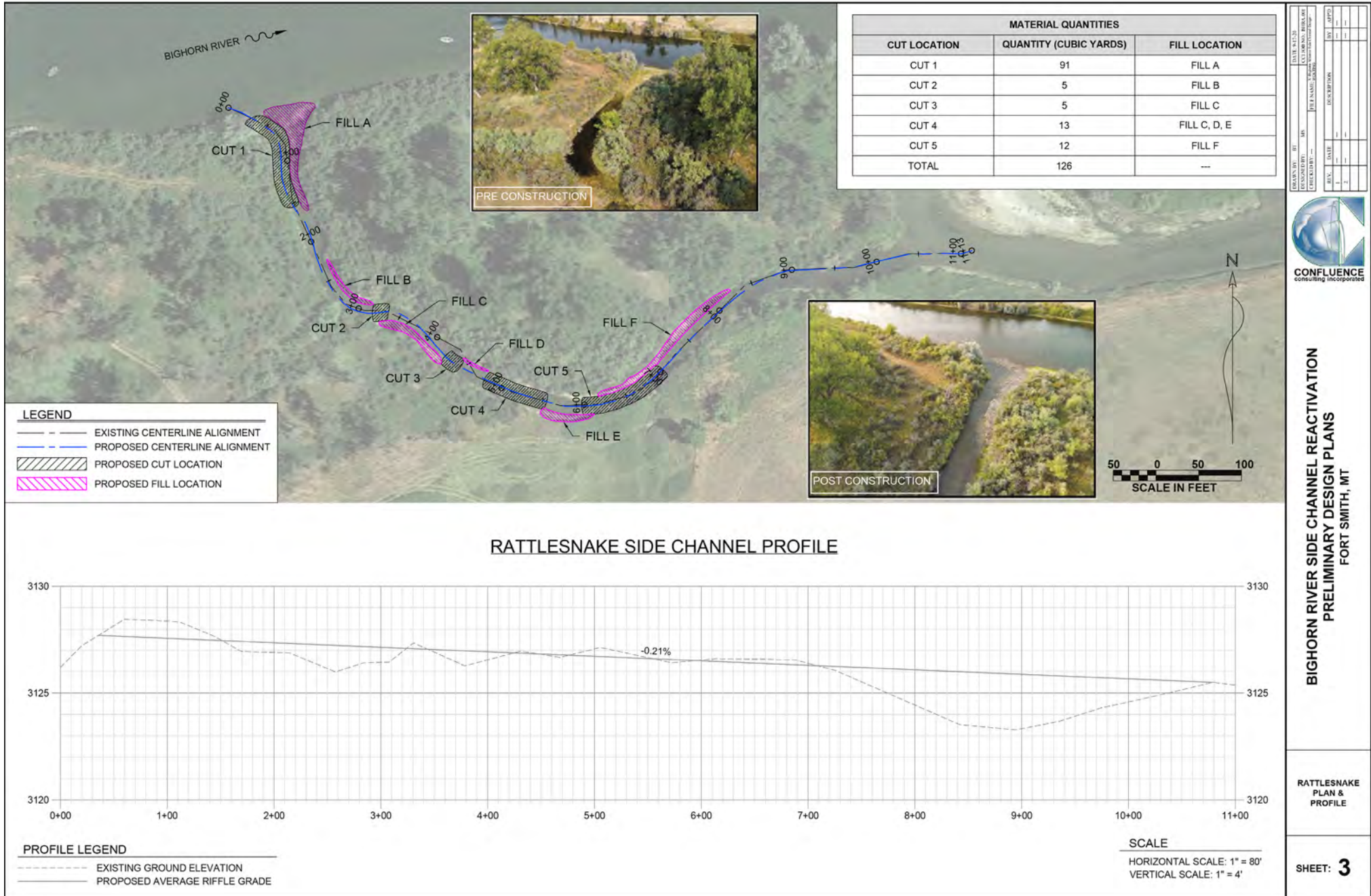
014-2022



Bighorn River side channel reactivation

Rattlesnake Side Channel Profile

014-2022



Attachment E: Letters of Support

Letters of Support

Montana Fish, Wildlife & Parks Pg. 64

Bighorn River Lodge Pg. 65

Out West, LLC pg. 66

Bureau of Reclamation Pg. 67

United States Department of Agriculture..... Pg. 69

Sweetwater Travel Company Pg. 70

Magic City Fly Fishers Pg. 71

FWP.MT.GOVTHE **OUTSIDE** IS IN US ALL.

April 12, 2022

Michelle McGree
Future Fisheries Coordinator
1420 E. Sixth Avenue
P.O. Box 200701
Helena, MT 59620

RE: Bighorn River Side Channel Reactivation Project

Dear Ms. McGree and The Future Fisheries Committee:

Montana Fish, Wildlife & Parks (FWP) is pleased to have this opportunity to express support for the Bighorn River Alliance (BHRA) application for a Future Fisheries grant. We have been a supporter and work closely with the BHRA to provide technical support and collaboration regarding habitat work, flow management, and communication with anglers on the Bighorn River. Furthermore, we have been impressed with the scope of work pursued by the BHRA's Research Initiative. Efforts put forth by the Research Initiative have identified activities that could improve the fishery and riverine health such as the reactivation of side channels.

The Bighorn River provides a quality trout fishery in the first 13 miles below the Yellowtail Hydroelectric Unit. However, flow regimes from the Unit have led to sedimentation deposition and vegetation encroachment at the entrances of side channels. As such, many side channels are low-functioning or disconnected at FWP's preferred minimum fisheries flow recommendation (i.e., 2,000 cubic-feet-per-second). Side channels are important for trout and native species (e.g., Sauger, Burbot, suckers) by providing additional spawning areas and refugia for young and small fish. Although changes to the river from the dam cannot be reversed, the BHRA has spearheaded collaborative efforts with FWP, Bureau of Reclamation, Confluence Consulting, and Applied Geomorphology to identify 12 side channels that could be reconnected. Earlier projects, like the Cline's Channel Reactivation in 2011 demonstrate the feasibility and success of similar projects. With the last two water years being well below average, coupled with a projected long-term drought the need for complex, available habitat in the Bighorn River is high to help maintain healthy fish populations.

Funding requested by this grant will allow the BHRA to build on successful side channel restoration work. The work is supported by the regional FWP fisheries biologist, Shannon Blackburn. We ask that you give this application careful consideration, as the work that would be accomplished with the help of this grant is important for the protection of the Bighorn River, its trophy trout fishery, and a suite of native species.

Sincerely,

Mike Ruggles
FWP Region 5 Regional Supervisor



4/14/2022

Michelle McGree
Future Fisheries Coordinator
1420 E. Sixth Avenue
P.O. Box 200701
Helena, MT 59620

Re: Grant Application: Bighorn River Alliance

Dear Future Fisheries Program Committee,

It is my pleasure to contact you to express support of the Bighorn River Side Channel Reactivation Project proposal submitted by the Bighorn River Alliance (BHRA). The side channel work on the Bighorn is of utmost importance in restoring critical habitat and spawning grounds for the Bighorn River. The opening of the Rattlesnake and Juniper side channels by the Alliance this past year is already showing signs of protective habitat for both Rainbow and Brown fry. The speed at which this occurred was very impressive. By opening the other side channels under consideration, we will be significantly increasing the health and productivity of the Bighorn River as a fishery.

This is important not only from an environmental aspect but as an economic one as well. The Bighorn River supports a multitude of outfitters, guides, stores, shuttle drivers, and lodges generating an annual revenue of about \$100,000,000 in one of the poorest counties in the state. In past years through unfortunate water management policies, we experienced devastating high water condition that pushed gravel and sediment into the mouth of virtually every side channel on the river. This along with other conditions related to the water management policies at the time produced some very tough fishing conditions for several years which ultimately led to revenues for everyone to be cut in half or more threatening the survival of many of the businesses who rely on angler traffic.

The Bighorn River Alliance, through a lot of work from all the stakeholders on the river was able to bring significant changes to the water management policies that had plagued the Bighorn for so long. Today through cooperative efforts with BOR the Bighorn has recovered and is on its way to once again becoming the vibrant and productive fishery it had been in the past.

The importance of the side channel restoration program for the continued health of the river and the economic well-being of the Bighorn Valley cannot be overstated.

As manager of the Bighorn River Lodge, I can assure you that without the economic turn around that we are now experiencing due to the health of the Bighorn many of the business in the valley would not be here today.

It is for this reason that I would implore the committee look favorably on the application from the Bighorn River Alliance for the grant to continue this very important work.

Respectively Submitted,

Rick Gehweiler
Bighorn River Lodge

April 20th, 2022

Michelle McGree
Future Fisheries Coordinator
1420 E. Sixth Avenue
P.O. Box 200701
Helena, MT 59620

RE: Bighorn River Side Channel Reactivation Project

Dear interested parties,

I am writing regarding my support of the proposed Bighorn River Side Channel Reactivation Project. As a past Bighorn River Basin water user/Ag producer and as a current Project Manager for irrigation operations along the Bighorn River, I can confidently support the need for reconnecting the side channels of the Bighorn River.

This reconnection not only increases the health and biodiversity of the river, but it also improves the agriculture communities' interaction with the river. Having these channels reconnected can improve livestock access to river flows with increased animal safety and wellbeing, minimized turbidity and erosion to the mainstem of the river and could aid in more effectively introducing irrigation tail water.

I ask that you give this funding opportunity full and careful consideration as it has significant benefit to all stakeholders of the Bighorn River Basin.

Respectfully,



Justin Hossfeld
Ag Specialist
Out West, LLC
justin@outwestllc.com
307-752-1504
www.outwestllc.com



Out West, LLC
Agriculture and Engineering



IN REPLY REFER TO:

United States Department of the Interior

BUREAU OF RECLAMATION

Montana Area Office

P.O. Box 30137

Billings, MT 59107-0137



MT-710

1.1.01

Michelle McGree
Future Fisheries Coordinator
1420 E. Sixth Avenue
P.O. Box 200701
Helena, MT 59620

Subject: Support for the Bighorn River Side Channel Reactivation Project

The Bureau of Reclamation, Montana Area Office (Reclamation) offers its support for the application of the Bighorn River Alliance (BHRA) for a Future Fisheries Grant. Through funding from this grant and matching funds from BHRA, it will fund restoration work that will connect up to 12 disconnected/low functioning side channels back to the Bighorn River.

The BHRA participates with other stakeholders from Wyoming and Montana on a Reclamation led Bighorn Technical Working Group. This group has been meeting since January 2018 and is currently assisting to review recommendations for improving operations of Yellowtail Dam.

The application being submitted by BHRA proposes to reopen side channels that have been cut off from the main river, which has been occurring since the construction of Yellowtail Dam in 1966. Montana Fish, Wildlife and Parks has reported side channels provide many benefits to the river system and can create important fish habitat and spawning areas for trout and native fish on the Bighorn River.

In a study completed by Reclamation in 2012, "Bighorn River Side Channel Investigation: Hydraulic and Sediment Transport Analysis" (Hildale, 2012), concluded that releases from Yellowtail Dam alone are not likely to provide conditions that will reverse side channel closure. Mechanically excavating material to open the side channels is likely the only option. The Clines channel reactivation project in 2012 demonstrated the successes that this type of project can produce. Reclamation will continue to work with the Technical Working Group on following the recommended peak, frequency, and duration of releases that accompany side channel maintenance.

Reclamation supports BHRA's proposed restoration work on the Bighorn River and commends their effort to fund on-the-ground type projects that are based on sound science. If you have any questions, please feel free to contact me at (40) 247-7298 or

INTERIOR REGION 5 • MISSOURI BASIN

KANSAS, MONTANA*, NEBRASKA, NORTH DAKOTA, SOUTH DAKOTA

* PARTIAL

rnewman@usbr.gov or Mr. Ryan Colloton of my staff at (406) 247-7306 or rcolloton@usbr.gov. If you are deaf, hard of hearing, or have a speech disability, please dial 7-1-1 to access telecommunications relay services.

Sincerely,

RYAN NEWMAN

Digitally signed by RYAN
NEWMAN
Date: 2022.05.04 07:22:29
-06'00'

Ryan Newman
Area Manager

Cc: Anne Marie Emory
Executive Director, Bighorn River Alliance
5000 Southgate Drive
Billings MT 59101
emery@bighornriveralliance.org

MT-710



Natural Resources
Conservation Service

Montana State Office

10 East Babcock St
Federal Bldg. Rm 443
Bozeman,
Montana, 59715

Voice 406.587.6814
Fax 855.510.7028

April 25, 2022

Michelle McGree
Future Fisheries Coordinator
1420 E. Sixth Avenue
P.O. Box 200701
Helena, MT 59620

Re: Big Horn River Alliance (BHRA) Bighorn River Side Channel Reactivation Project

Dear Ms. McGree,

Please accept this Letter of Fact from the local USDA Natural Resource Conservation Service (NRCS) Hardin Field Office for the proposed Bighorn River Side Channel Reactivation Project. We have worked with the BHRA to provide technical assistance to their Research Initiative project that is focused on the Big Horn River corridor. The side channel project is a result of the recommendations made from their Research Initiative, and is expected to benefit the fishery habitat along the Big Horn River.

The work that the BHRA is doing through their Research Initiative project can provide a conduit for additional conservation work and partner projects between the BHRA and USDA-NRCS.

Sincerely,

THOMAS
WATSON

Digitally signed by
THOMAS WATSON
Date: 2022.04.25
10:56:21 -06'00'

Tom Watson
Montana State Conservationist



Ms. Michelle McGree
Future Fisheries Coordinator
1420 E. Sixth Avenue
P.O. Box 200701
Helena, MT 59620

Dear Ms. McGree and the Future Fisheries Committee:

My name is Dan Vermillion. I am writing to support the Bighorn River Alliance (BHRA) application for a future fisheries grant. Along with my two brothers, we grew up fishing the Bighorn and that love of fishing lead us to build our family business, Sweetwater Travel Company which owns fishing lodges in different parts of the world, including the Bighorn.

As a former Commissioner and advocate for the Bighorn, I have been a supporter of BHRA's habitat work, flow management work, and angler outreach on the Bighorn. The Bighorn River provides a quality wild trout fishery in the first 13 miles below the Yellowtail Hydroelectric Unit. However, many years of Wyoming centric management by BuRec and years of extremely low flows have led to sedimentation deposition and vegetation encroachment at the entrances of many natural stream channels. As such, many side channels are low-functioning or disconnected at FWP's preferred minimum fisheries flow recommendation of 2,000 cubic-feet-per-second.

Side channels are important for wild fish by providing additional spawning areas and refugia for young and small individuals. The BHRA has spearheaded collaborative efforts with FWP, Confluence Consulting, and Applied Geomorphology to identify 12 side channels that could be reconnected. The Cline's Channel Reactivation in 2011 demonstrate the feasibility and long-term effectiveness of these projects in the Bighorn River. With the last two water years being well below average, coupled with a projected long-term drought the need for complex, available habitat in the Bighorn River is high to help maintain wild fish populations.

Funding requested by this grant will allow the BHRA to build on successful side channel restoration work. Please approve this grant application as the work that would be accomplished with the help of this grant is important for the protection of the Bighorn River, its trophy trout fishery, and a suite of native species.

Sincerely,

Dan Vermillion (Electronic Signature)

Dan Vermillion, Owner
Royal Bighorn Club
FW Commissioner 2007 to 2019



Magic City Fly Fishers
Trout Unlimited Chapter 482
P.O. Box 21693
Billings, MT 59104

April 14th, 2022

Michelle McGree
Future Fisheries Coordinator
1420 E. Sixth Avenue
P.O. Box 200701
Helena, MT 59620

RE: Support for the Bighorn River Side Channel Reactivation Project

Dear Future Fisheries Committee,

The Magic City Fly Fishers (Chapter of Montana Trout Unlimited) is proud to support the **Bighorn River Side Channel Reactivation** application submitted by the Bighorn River Alliance, and enthusiastically recommends the project be considered for full funding. The Magic City Fly Fishers chapter of Trout Unlimited is one of thirteen Trout Unlimited chapters in Montana, serving south central and southeastern Montana, and currently has over 600 members.

Montana's Bighorn River is world-renowned wild trout fishery that provides extensive recreational opportunity and economic benefit to one of the poorest counties in the state. The construction of the Yellowtail Dam transformed the river into a blue-ribbon fishery that sustains wild trout, and many native fish species. However, since dam construction, the natural path of the river has become channelized, and much of the complex side channel habitat that sustained the fisheries has become disconnected. This disconnection has impacted wild and native fish access to important habitat requirements that are necessary to the fulfilment of their life stages and has increased recreational congestion as anglers are confined to the main river.

The Bighorn River Alliance has committed significant resources to identify ways to return the river to a more natural state, under the current unnatural constraints of the Yellowtail dam, which also supports ample angler opportunities. Through previous studies done by the USBR and current studies conducted by BHRA geomorphologist contractors, it was discovered that Bighorn River side channel function could be restored through the manual excavation of side channel entrances. Your consideration for the proposed application represents a unique opportunity to support a large-scale restoration project that will reconnect *miles* of complex river habitat- in benefit of native, wild fish and anglers -on one of the nation's top tailwater fisheries. It would also serve as an example of how manual restoration efforts can improve aquatic habitat on a large, altered river.

Thank you for your consideration of this project and our support

Sincerely,

A handwritten signature in blue ink, appearing to read "Doug Haacke". The signature is fluid and cursive, with the first name "Doug" being more prominent than the last name "Haacke".

Doug Haacke
Conservation Chair
Magic City FlyFishers
(406) 855-6357
dhaacke@gmail.com