Processing Materials

- Work copies of applicant-submitted information
- Deficiency letter
- Deficiency response
- Correct & complete determination
- Any correspondence with the applicant after application receipt and prior to sending the Draft PD

Processing Materials

Helena Regional Office
1424 Ninth Avenue P.O. Box 201601
Helena, MT 59620-1601
406-444-6999

June 2, 2025

LR Huckaba Ranch LLC
26 MT Highway 356
Cardwell, MT 59271

Subject: Water Right Change Application 41E 30164689

Dear Applicant,

The Department of Natural Resources and Conservation (Department) has determined that your Application is correct and complete pursuant to ARM 36.12.1601. Please remember that correct and complete **does not mean that your application will be granted.** The purpose of this letter is to indicate that the Department has enough information to analyze your water right application.

The Department will issue a Draft Preliminary Determination within 60 days of the date of this letter per §85-2-307(2)(b), MCA.

Following issuance of the Draft Preliminary Determination, you (Applicant) will have 15 business days to request an extension of time to submit additional information, if desired pursuant to §85-2-307(3)(a), MCA.

If no extension of time is requested and the Draft Preliminary Determination decision is to grant your application or grant your Application in modified form, the Department will prepare a notice of opportunity to provide public comment, per §85-2-307(4)(a), MCA.

If no extension of time is requested and the Draft Preliminary Determination decision is to deny your application, the Department will adopt the Draft Preliminary Determination as the final determination per §85-2-307(3)(d)(ii), MCA.

If you have any questions or concerns about the Application process, please contact me.

Sincerely,

Savannah Telander
Water Resources Specialist
406-444-6810
Savannah.Telander@mt.gov

CC:
Chris Edgington, chris@montanatu.org
Alli Pardis, allison.pardis@tu.org

May 7, 2025

Re: Deficiency Letter for Change Application No. 41E 30164689

Dear Savannah,

Thank you for your assistance in reviewing responses to the issued Deficiency Letter for Change Application No. 41E 30164689 to LR Huckaba Ranch LLC. This change application is critical to the water conservation and restoration project on the Boulder River for the benefit of Montana fisheries and agriculture. Below you will find responses to each identified deficiency.

Thank you and please let me know if you have any questions.

Sincerely,

Alli Pardis

Trout Unlimited
(406) 431-5981
Allison.pardis@tu.org

31.4. Do other water rights share any of the proposed points of diversion

o Answer provided on Application: “No”

o Based on information provided to the Department, supplemental Statement of Claim 41E 3406- 00 historically utilized the historical point of diversion (Cardwell Ditch headgate) as a secondary point of diversion. Please clarify if the proposed points of diversion will be utilized by other water rights.

- Statement of Claim 41E 3406-00 primary point of diversion is located in the SWSESW ¼ sections of Section 6, Township 2N, Range 2 W of Jefferson County and conveyed through an undeveloped spring. The Cardwell Ditch has been historically used as a secondary point of diversion for this claim. The proposed points of diversion may be utilized as a secondary point of diversion for Statement of Claim 41E 3406-00.

o If the answer to 31.4. is yes, please describe how the proposed project will not adversely affect other water rights under 31.4.1.

- The proposed project moves the secondary point of diversion downstream, maintaining a higher flow rate in the Boulder River throughout the project reach. The project will not make call on any upstream water users. Per the technical analysis the proposed project uses an equal or lesser amount of diverted quantity from historical use, including supplemental water.

31.5. Do other water rights share any conveyance ditch associated with the proposed points of diversion?

o Answer provided on Application: “No”

o Based on information provided to the Department, Statement of Claim 41E 3406-00 historically utilized the historical means of conveyance (Cardwell Ditch) as a means of conveyance to the supplemental place of use. Please clarify if the proposed conveyance system will be utilized by other water rights.

- Statement of Claim 41E 3406-00 primary point of diversion is located in the SWSESW ¼ sections of Section 6, Township 2N, Range 2 W of Jefferson County and conveyed through an undeveloped spring. The Cardwell Ditch has been historically used as a secondary point of diversion for this claim. The proposed conveyance system may be utilized to convey Statement of Claim 41E 3406-00 to the supplemental place of use.

o If the answer to 31.5. is yes, please describe how the proposed project will not adversely affect other water right(s) under 31.6.

- Technical analysis shows that the proposed project uses an equal or lesser amount of diverted quantity from historical use, including supplemental water.

33. Describe specific information about the capacity of all proposed diversionary structures. This may include, where applicable: pump curve and total dynamic head calculations, headgate design specifications, and dike or dam height and length.

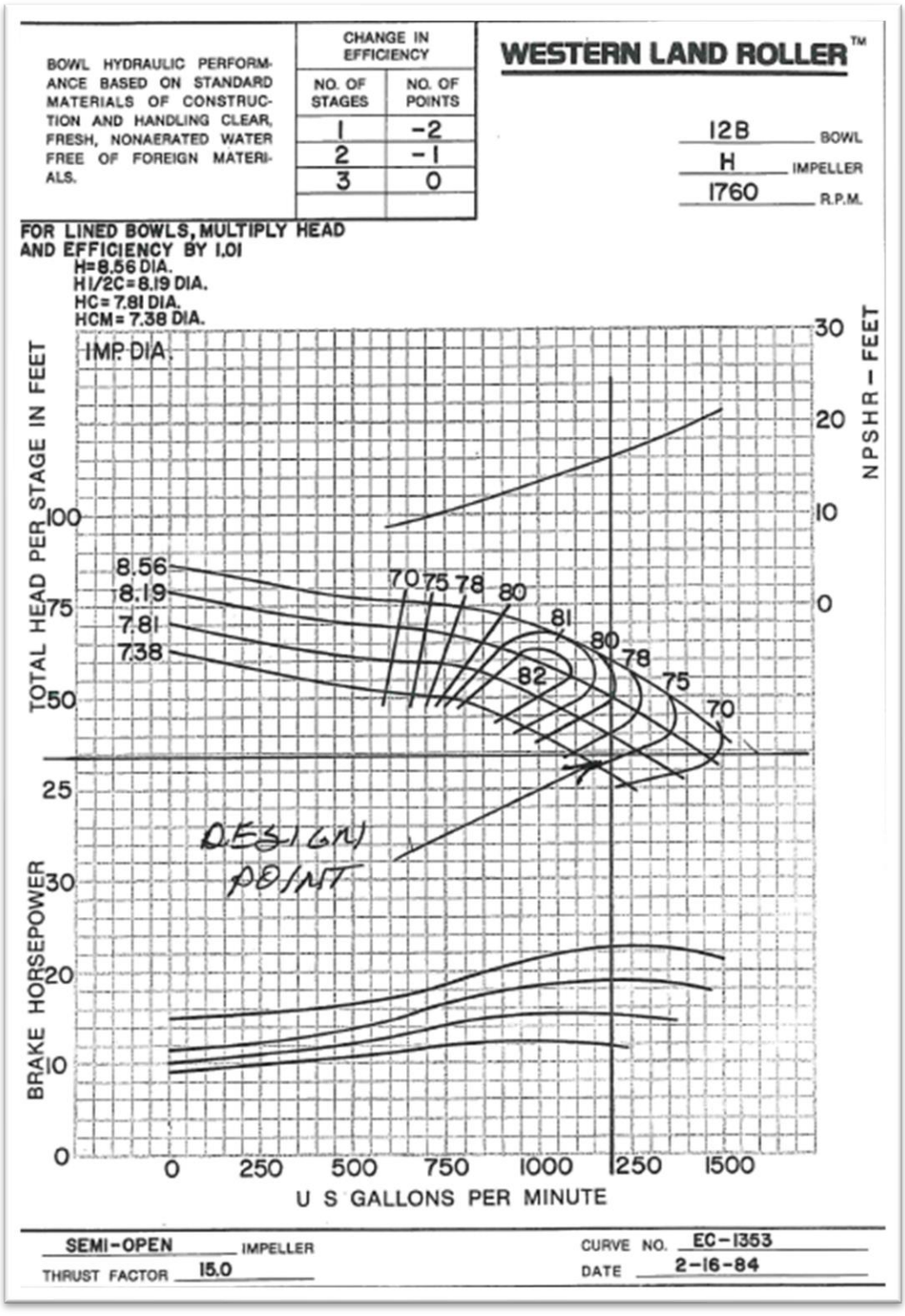
o Answer provided on Application: “See attached schematic”

o The provided information labeled for Question 33 are a receipt from AquaTech, a map of the proposed POD 2, three images of taken on the Jefferson Slough of “Huckaba POD”, map “West Side – V2”, and flow rates for four pivots from proposed PODs 1 and 3.

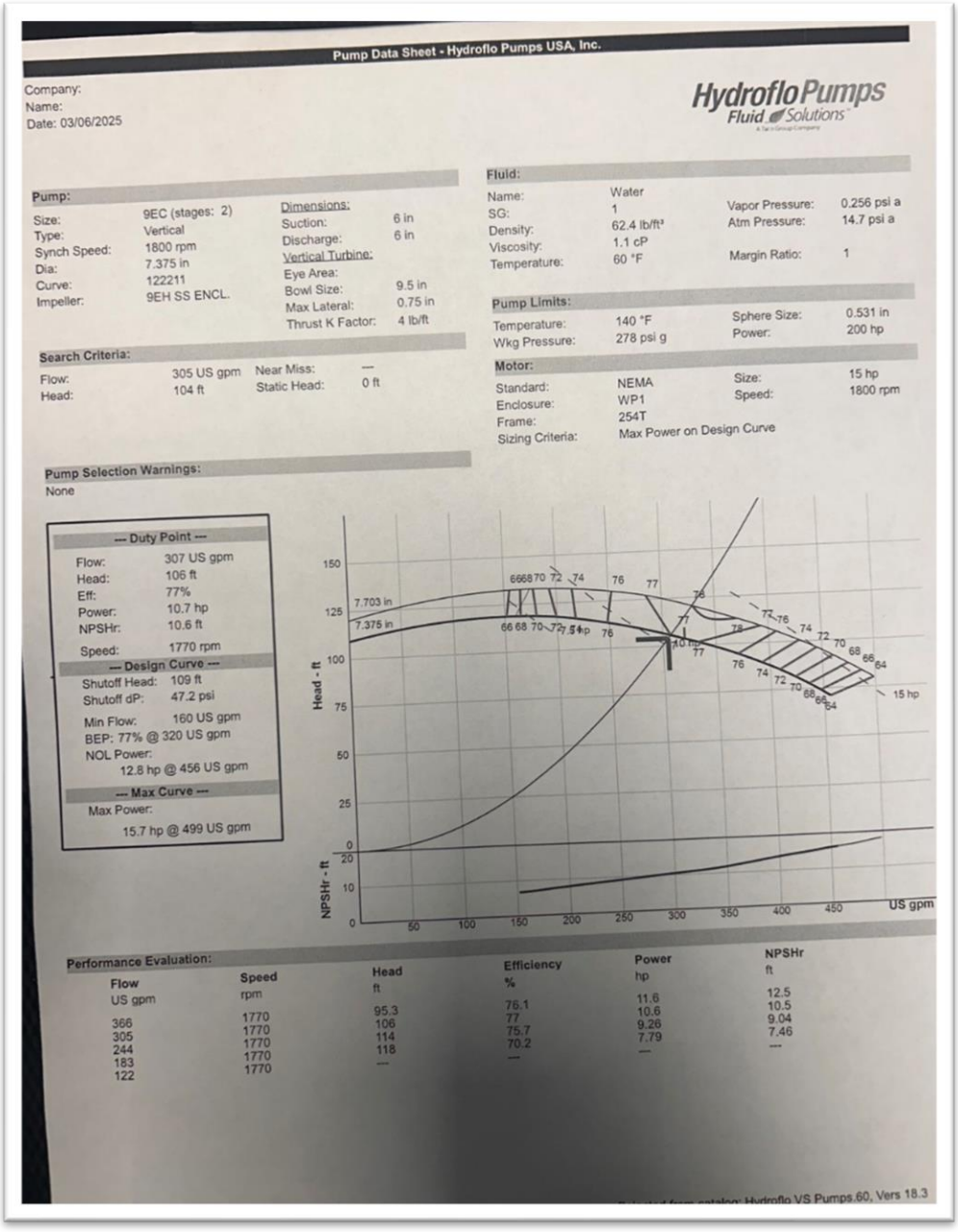
o Please provide information about the capacity of the proposed diversion pumps at each pump site on the Jefferson Slough. The information provided with the Application is not suitable to determine the capacity of the three proposed diversion pumps. The Department sent two viable options to gather the needed information for the pump capacities via email to the Montana Trout Unlimited contacts on December 13, 2024.

- The capacity of the proposed diversion pumps for each proposed POD is displayed below by the pumps performance curve and associated design point.

POD 01: Performance Curve



POD 02: Performance Curve



Pump Data Sheet - Hydroflo Pumps USA, Inc.

Company:
Name:
Date: 03/06/2025

HydrofloPumps Fluid Solutions

Pump:

		Dimensions:	
Size:	9EC (stages: 2)	Suction:	6 in
Type:	Vertical	Discharge:	6 in
Synch Speed:	1800 rpm	Vertical Turbine:	
Dia:	7.375 in	Eye Area:	
Curve:	122211	Bowl Size:	9.5 in
Impeller:	9EH SS ENCL.	Max Lateral:	0.75 in
		Thrust K Factor:	4 lb/ft

Search Criteria:

Flow:	305 US gpm	Near Miss:	---
Head:	104 ft	Static Head:	0 ft

Fluid:

Name:	Water		
SG:	1	Vapor Pressure:	0.256 psi a
Density:	62.4 lb/ft³	Atm Pressure:	14.7 psi a
Viscosity:	1.1 cP		
Temperature:	60 °F	Margin Ratio:	1

Pump Limits:

Temperature:	140 °F	Sphere Size:	0.531 in
Wkg Pressure:	278 psi g	Power:	200 hp

Motor:

Standard:	NEMA	Size:	15 hp
Enclosure:	WP1	Speed:	1800 rpm
Frame:	254T		
Sizing Criteria:	Max Power on Design Curve		

Pump Selection Warnings:
None

--- Duty Point ---

Flow:	307 US gpm
Head:	106 ft
Eff:	77%
Power:	10.7 hp
NPSHr:	10.6 ft
Speed:	1770 rpm

--- Design Curve ---

Shutoff Head:	109 ft
Shutoff dP:	47.2 psi
Min Flow:	160 US gpm

BEP: 77% @ 320 US gpm
NOL Power:
12.8 hp @ 456 US gpm

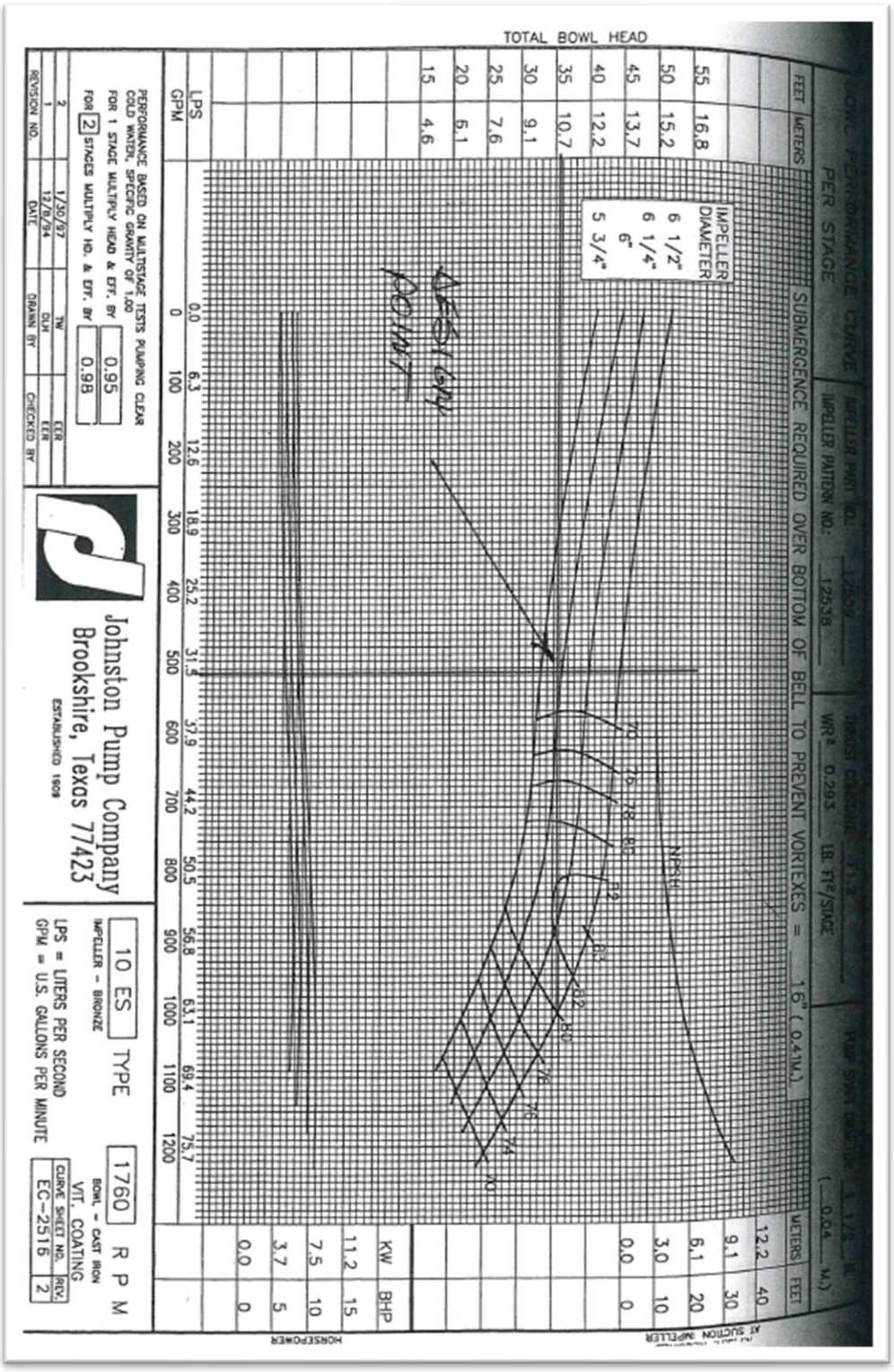
--- Max Curve ---
Max Power:
15.7 hp @ 499 US gpm

Performance Evaluation:

Flow US gpm	Speed rpm	Head ft	Efficiency %	Power hp	NPSHr ft
366	1770	95.3	76.1	11.6	12.5
305	1770	106	77	10.6	10.5
244	1770	114	75.7	9.26	9.04
183	1770	118	70.2	7.79	7.46
122	1770	---	---	---	---

Printed from catalog: Hydroflo VS Pumps.60, Vers 18.3

POD 03: Performance Curve



35. Describe the size and configuration of infrastructure to convey water from all proposed points of diversion to all proposed places of use. This may include, where applicable: ditch capacity and/or pipeline size and configuration.

o Answer provided on Application: “See attached schematic”

o The provided information labeled for Question 35 are a receipt from AquaTech, a map of the proposed POD 2, three images of taken on the Jefferson Slough of “Huckaba POD”, map “West Side – V2”, and flow rates for four pivots from proposed PODs 1 and 3.

o Please provide information regarding what the proposed means of conveyance is, as well as the size and configuration of each conveyance system within the proposed project.

- The three proposed PODs use enclosed, pressurized pipelines to convey water to pivots for irrigation application. Each proposed POD system is described in more detail below.

POD 01 serves three pivots and operates at 1200 GPM (See attached performance curve). Two pipelines split to serve the center full circle pivot and eastern part circle pivot. There are 1820’ of 6” 100# PIP PVC pipe buried to serve the eastern part circle pivot and water is conveyed through the pipeline at 300 GPM. To serve the center full circle there are 660’ of buried 10” 100# Pip PVC that run from the pump south, which connects to 360’ of 8” 100# PIP PVC pipe running south, the pipeline then splits westward and 600’ of 8” 100# PIP PVC which delivers 696 GPM of water to the center full circle pipeline. From the split off to the center full circle 600’ of buried 10” 100# PIP PVC travel south, transitioning to 660’ of 8” 100# POP PVC. The pipeline then splits westward and 2560’ of buried 100# PIP PVC pipe serves the western part circle pivot with 200 GPM of water. The combine flow rate for the whole system is operated at 1196 GPM.

POD 02 serves two pivots and operates at 300 GPM (See attached performance curve). A single 462’ long buried 6” 100# IPS PVC pipeline will run from the pump to a split along the eastern end of the field. 616’ of buried 4” 125# IPS PVC pipe will run north from the split to serve the northern part circle pivot at 150 GPM. From the split 528’ of buried 4” 125# IPS PVC pipe runs south to serve the southern part circle pivot at 150 GPM. The total flow rate for the system is operated at 300 GPM.

POD 03 serves a single pivot and operates at 520 GPM (See attached performance curve). A single 1304’ buried 8” 100# PIP PVC pipe runs from the pump to serve the part circle pivot and delivers 513 GPM.

Specifications and pipeline configuration from the installer are provided below. Please note each map with pipeline configuration is for reference only and information about pipeline length and size should be used based on the specifications provided by the installer below.

POD 01: Pipeline size and configuration

Mainline Data:

1- To Full Circle:

660' - 10" 100# Pip PVC
360' - 8" 100# PIP PVC
600' - 8" 100# PIP PVC

2- To West Part Circle

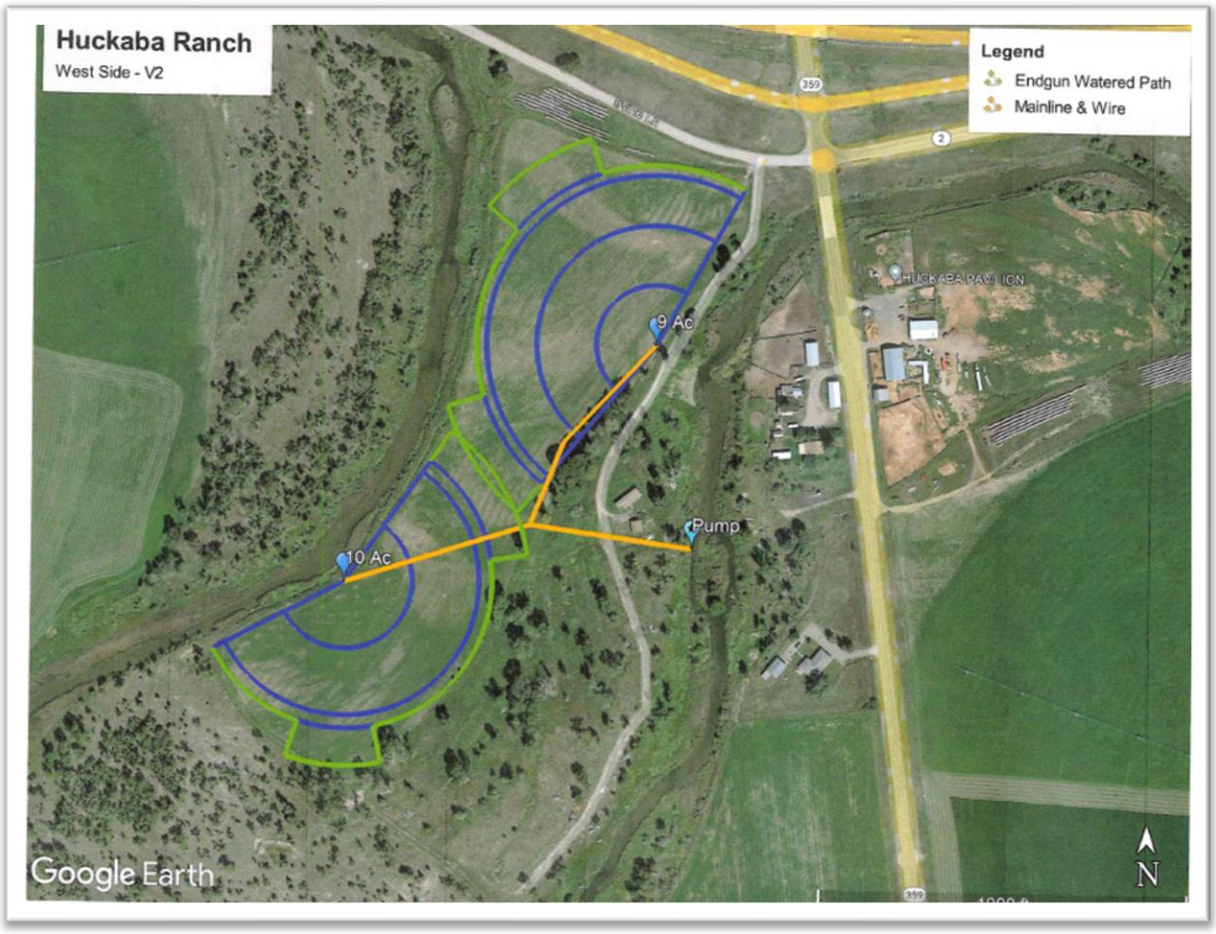
600'- 10" 100# PIP PVC
360'- 8" 100# PIP PVC
300' - 8" 100# PIP PVC
180' - 6" 100# PIP PVC
2380'- 6" 100" PIP PVC

3- To East Park Circle

1820'- 6" 100# PIP PVC

POD 02: Pipeline size and configuration

Mainline: 462’ - 6” 100# IPS PVC Pipe
North Half Circle: 616’ – 4” 125# IPS PVC Pipe
South Half Circle: 528 – 4” 125# IPS PVC Pipe



POD 03: Pipeline size and configuration

Mainline: 1304’ – 8” 100# PIP PVO

39. Describe specific information about how water is delivered within the place of use. This may include where applicable, the range of flow rates needed for a pivot, the output and configuration of sprinkler heads, and pipelines within the place of use.

For each proposed POD water is delivered within the place of use from the proposed POD via a buried pipeline that is pressurized (see question 35 for pipeline configuration). The pipelines deliver pressurized water to each pivot at the below described flow rates and is applied using rotating sprinkler heads and end guns from each pivot.

POD 01: Flow rates needed for pivot

Proposed POD 01 supplies three pivots, one full circle and two part circles to the east and west of the full circle, water in pumped from the POD into the pressurized pipeline to the pivots where water is applied to the crops through rotating sprinkler heads. See question 35 for pipeline configuration. The follow flow rates are delivered to each pivot:

Full Circle Flow Rate = 696 GPM
East Part Circle Flow Rate = 300 GPM
West Part Circle Flow Rate = 200 GPM
Max Flow Rate = 1196 GPM

POD 02: Flow rates needed for pivot

Proposed POD 02 supplies two part circle pivots, water in pumped from the POD into the pressurized pipeline to the pivots where water is applied to the crops through rotating sprinkler heads. See question 35 for pipeline configuration. The system is designed with the following flow rates:

North Part Circle Flow Rate = 150 GPM
South Part Circle Flow Rate = 150 GPM
Max Flow Rate = 300 GPM

POD 03: Flow rates needed for pivot

Proposed POD 03 supplies a single part circle pivot, water in pumped from the POD into the pressurized pipeline to the pivot where water is applied to the crops through rotating sprinkler heads. See questions 35 for pipeline configuration. The following flow rate is delivered to the pivot.

South Part Circle Flow Rate = 513 GPM

Helena Regional Office
1424 Ninth Avenue P.O. Box 201601
Helena, MT 59620-1601
406-444-6999

March 17, 2025

LR Huckaba Ranch LLC
26 MT Highway 356
Cardwell, MT 59271

Subject: Deficiency Letter for Change Application No. 41E 30164689

Dear Applicant,

The Department of Natural Resources and Conservation (DNRC or Department) has begun reviewing your Application. This letter is to notify you of the deficiencies in your Application as required in ARM 36.12.1501(1) and §85-2-302(5)(b), MCA. An Applicant is required to submit substantial and credible information addressing the rules and statutes that are relative to your Application. You must provide the information specified below for your Application to be considered correct and complete. "Correct and complete" means all of the information provided is substantial and credible and provides all of the information as required by applicable rules and statutes. The Application as submitted contains deficiencies in the following section(s):

ADVERSE EFFECT – ARM 36.12.1903

- ❑ **31.4.** Do other water rights share any of the proposed points of diversion
  - Answer provided on Application: "*No*"
  - Based on information provided to the Department, supplemental Statement of Claim 41E 4306-00 historically utilized the historical point of diversion (Cardwell Ditch headgate) as a secondary point of diversion. Please clarify if the proposed points of diversion will be utilized by other water rights.

- If the answer to 31.4. is yes, please describe how the proposed project will not adversely affect other water rights under 31.4.1.

❑ **31.5.** Do other water rights share any conveyance ditch associated with the proposed points of diversion?
- Answer provided on Application: "*No*"
- Based on information provided to the Department, Statement of Claim 41E 4306-00 historically utilized the historical means of conveyance (Cardwell Ditch) as a means of conveyance to the supplemental place of use. Please clarify if the proposed conveyance system will be utilized by other water rights.
- If the answer to 31.5. is yes, please describe how the proposed project will not adversely affect other water right(s) under 31.6.

ADEQUATE MEANS OF DIVERSION AND OPERATION – ARM 36.12.1904

❑ **33.** Describe specific information about the capacity of all proposed diversionary structures. This may include, where applicable: pump curve and total dynamic head calculations, headgate design specifications, and dike or dam height and length.
- Answer provided on Application: "*See attached schematic*"
- The provided information labeled for Question 33 are a receipt from AquaTech, a map of the proposed POD 2, three images of taken on the Jefferson Slough of "Huckaba POD", map "West Side – V2", and flow rates for four pivots from proposed PODs 1 and 3.
- Please provide information about the capacity of the proposed diversion pumps at each pump site on the Jefferson Slough. The information provided with the Application is not suitable to determine the capacity of the three proposed diversion pumps. The Department sent two viable options to gather the needed information for the pump capacities via email to the Montana Trout Unlimited contacts on December 13, 2024.

❑ **35.** Describe the size and configuration of infrastructure to convey water from all proposed points of diversion to all proposed places of use. This may include, where applicable: ditch capacity and/or pipeline size and configuration.
- Answer provided on Application: "*See attached schematic*"
- The provided information labeled for Question 35 are a receipt from AquaTech, a map of the proposed POD 2, three images of taken on the Jefferson Slough of "Huckaba POD", map "West Side – V2", and flow rates for four pivots from proposed PODs 1 and 3.
- Please provide information regarding what the proposed means of conveyance is, as well as the size and configuration of each conveyance system within the proposed project.

❑ **39.** Describe specific information about how water is delivered within the place of use. This may include where applicable, the range of flow rates needed for a pivot, the output and configuration of sprinkler heads, and pipelines within the place of use.

- Answer provided on Application: "*See attached schematic*"
- The provided information labeled for Question 39 are a receipt from AquaTech, a map of the proposed POD 2, three images of taken on the Jefferson Slough of "Huckaba POD", map "West Side – V2", and flow rates for four pivots from proposed PODs 1 and 3.
- Please provide more information regarding how water gets from the proposed points of diversion to the place of use.

As stated above, the information submitted to address the rules and statutes listed in this deficiency letter must be substantial credible information to be acceptable at the correct and complete determination. §§85-2-102 (9) and (26), MCA.

Please submit the information specified above to the Helena Regional Office by March 17, 2025. This is the only deficiency letter that will be sent. An application not corrected or completed within 120 days from the date of this letter is terminated per ARM 36.12.1501(2) and §85-2-302(6)(a), MCA.

Please let me know if you have any questions.

Best,

Savannah Telander
Water Resources Specialist
Helena Regional Office
Savannah.Telander@mt.gov
406-444-6810

CC:
Chris Edgington, chris@montanatu.org
Alli Pardis, allison.pardis@tu.org

IMPORTANT NOTICE: This will be the final opportunity for you to provide the required information to the Department. If all of the requested information in this letter is not postmarked or submitted within 120 days of this letter, the application will be terminated within 30 days and the application fee will not be refunded.

From:	Telander, Savannah
To:	Allison Pardis; Chris Edgington
Cc:	Daly, Jennifer
Subject:	Correct & Complete for Beneficial Water Use Change Application 41E 30164689
Date:	Monday, June 2, 2025 9:13:00 AM
Attachments:	image001.png 41E 30164689 Correct & Complete Letter.pdf

Greetings,

The Department has determined that the Huckaba Change Application 41E 30164689 correct and complete pursuant to ARM 36.12.1601. Please remember that correct and complete **does not mean that your application will be granted**. The purpose of this letter is to indicate that the Department has enough information to analyze the Change Application. The Department will issue a Draft Preliminary Determination within **60 days** of the date of the is letter (by 8/1/2025). The Application will be posted on the Departments Application Status website found here: https://dnrc.mt.gov/Water-Resources/Water-Rights/application-status-environmental-assessments/.

Attached to this email is the Correct & Complete Letter sent to the Applicant today.

Please let me know if you have any questions.

Savannah

Savannah Telander| Water Resources Specialist
Helena Water Resources Office
Montana Department of Natural Resources and Conservation
1424 Ninth Avenue P.O. Box 201601 Helena, MT 59620-1601
DESK: 406-444-6810 **EMAIL:** savannah.telander@mt.gov
Website | **Facebook** [facebook.com]| **X (Twitter** [twitter.com]) | **Instagram** [instagram.com]
How did we do? Let us know here: Feedback Survey [forms.office.com]

From: Allison Pardis
To: Telander, Savannah
Subject: [EXTERNAL] Re: Deficiency Letter for Change Application No. 41E 30164689
Date: Thursday, May 15, 2025 12:05:08 PM
Attachments: image001.png

Thank you, Savannah!

Alli

From: Telander, Savannah <Savannah.Telander@mt.gov>
Sent: Thursday, May 15, 2025 10:06 AM
To: Allison Pardis <allison.pardis@tu.org>
Cc: Daly, Jennifer <JDaly2@mt.gov>
Subject: RE: Deficiency Letter for Change Application No. 41E 30164689

Alli,

My apologies for not notifying you about receiving the deficiency letter response. We did receive it, and the electronic version will work just fine. The correct and complete deadline for the Department is June 8, 2025. So, you should be hearing from us within the next couple of weeks.

Savannah

Savannah Telander| Water Resources Specialist
Helena Water Resources Office
Montana Department of Natural Resources and Conservation
1424 Ninth Avenue P.O. Box 201601 Helena, MT 59620-1601
DESK: 406-444-6810 **EMAIL:** savannah.telander@mt.gov
Website | **Facebook** [facebook.com]| **X (Twitter** [twitter.com]) | **Instagram** [instagram.com]
How did we do? Let us know here: Feedback Survey [forms.office.com]

From: Allison Pardis <allison.pardis@tu.org>
Sent: Thursday, May 15, 2025 10:00 AM
To: Telander, Savannah <Savannah.Telander@mt.gov>
Subject: [EXTERNAL] Re: Deficiency Letter for Change Application No. 41E 30164689

Hi Savannah,

Did you receive the responses to the Deficiency Letter for Change Application No. 41E 30164689? It was unclear if we needed to submit a physical copy to the Helena Office as well, but I'm happy to do that if it is required.

Thanks!

Alli

From: Allison Pardis <allison.pardis@tu.org>
Sent: Friday, May 9, 2025 4:35 PM
To: Telander, Savannah <Savannah.Telander@mt.gov>
Cc: Daly, Jennifer <JDaly2@mt.gov>; Chris Edgington Montana <chris@montanatu.org>
Subject: Re: Deficiency Letter for Change Application No. 41E 30164689

Good afternoon,

Find attached responses to the issued Deficiency Letter for Change Application No. 41E 30164689. Thanks for your help in reviewing our responses before submission. Please let me know if you have any questions.

Happy weekend!

Alli

Alli Pardis
Trout Unlimited
(406) 431-5981

From: Telander, Savannah <Savannah.Telander@mt.gov>
Sent: Monday, March 17, 2025 9:11 AM
To: Chris Edgington Montana <chris@montanatu.org>; Allison Pardis <allison.pardis@tu.org>
Cc: Daly, Jennifer <JDaly2@mt.gov>
Subject: Deficiency Letter for Change Application No. 41E 30164689

Greetings,

The DNRC has issued a Deficiency Letter for Change Application No. 41E 30164689 to LR Huckaba Ranch LLC. Attached is a copy of the letter that was sent to the Applicant today. A response to the Deficiency Letter must be received by the Helena Regional Office within 120 days from the date on the letter, i.e., must be received by July 15, 2025.

If you have any questions, please to not hesitate to reach out.

Savannah

Savannah Telander| Water Resources Specialist
Helena Water Resources Office
Montana Department of Natural Resources and Conservation
1424 Ninth Avenue P.O. Box 201601 Helena, MT 59620-1601
DESK: 406-444-6810 **EMAIL:** savannah.telander@mt.gov

Website | **Facebook** [facebook.com]| **X (Twitter** [twitter.com]) | **Instagram** [instagram.com]

How did we do? Let us know here: Feedback Survey [forms.office.com]

From: Allison Pardis
To: Telander, Savannah
Cc: Daly, Jennifer; Chris Edgington
Subject: [EXTERNAL] Re: Deficiency Letter for Change Application No. 41E 30164689
Date: Friday, May 9, 2025 4:36:21 PM
Attachments: image001.png
Deficiency Response 41E 30164689 20250509.pdf

Good afternoon,

Find attached responses to the issued Deficiency Letter for Change Application No. 41E 30164689. Thanks for your help in reviewing our responses before submission. Please let me know if you have any questions.

Happy weekend!

Alli

Alli Pardis
Trout Unlimited
(406) 431-5981

From: Telander, Savannah <Savannah.Telander@mt.gov>
Sent: Monday, March 17, 2025 9:11 AM
To: Chris Edgington Montana <chris@montanatu.org>; Allison Pardis <allison.pardis@tu.org>
Cc: Daly, Jennifer <JDaly2@mt.gov>
Subject: Deficiency Letter for Change Application No. 41E 30164689

Greetings,

The DNRC has issued a Deficiency Letter for Change Application No. 41E 30164689 to LR Huckaba Ranch LLC. Attached is a copy of the letter that was sent to the Applicant today. A response to the Deficiency Letter must be received by the Helena Regional Office within 120 days from the date on the letter, i.e., must be received by July 15, 2025.

If you have any questions, please to not hesitate to reach out.

Savannah

Savannah Telander| Water Resources Specialist
Helena Water Resources Office
Montana Department of Natural Resources and Conservation
1424 Ninth Avenue P.O. Box 201601 Helena, MT 59620-1601
DESK: 406-444-6810 **EMAIL:** savannah.telander@mt.gov
Website | **Facebook** [facebook.com]| **X (Twitter** [twitter.com]) | **Instagram** [instagram.com]
How did we do? Let us know here: Feedback Survey [forms.office.com]

Application Materials

- Application
- Any information submitted with Application including maps

Application Materials

APPLICATION TO CHANGE A WATER RIGHT

§ 85-2-302

Form No. 606 *(Revised 04/2024)*

For Department Use Only

RECEIVED
MAR 06 2025
DNRC-HRO

Application # 30164689 Basin 41B
Priority Date _____ Time 14:04 AM/PM
Rec'd By ST
Fee Rec'd $ 1000.00 Check # 7908
Deposit Receipt # HES2S1809S
Payor MT Trout Unlimited
Refund $ _____ Date _____

FILING FEE

$2500/$1500 – Without/with filing fee reduction.

$400 – ***(The following types do not qualify for a filing fee reduction)***

- **Replacement well that exceeds 35 GPM or 10 AF per year**
- **Replacement municipal well that exceeds 450 GPM**
- **Replacement reservoir on the same source**

INFORMATION

An application will be eligible for a filing fee reduction and expedited timelines if the applicant completes a preapplication meeting with the Department (ARM 36.12.1302(1)), which includes submitting any follow-up information identified by the Department (ARM 36.12.1302(3)(c)) and receiving either Department-completed technical analyses or Department review of applicant-submitted technical analyses (ARM 36.12.1302(4) and (5)). An application for the proposed project also must be submitted within 180 days of delivery of Department technical analyses or scientific credibility review and no element on the submitted application can be changed from the completed preapplication meeting form (ARM 36.12.1302(6)).

Applicant Information: ***Add more as necessary.***

Applicant Name LR Huckaba Ranch LLC
Mailing Address 26 MT Highway 359 City Cardwell State MT Zip 59271-9604
Phone Numbers: Home _____ Work _____ Cell 406-490-4919
Email Address lenhuckaba@icloud.com

Applicant Name _____
Mailing Address _____ City _____ State _____ Zip _____
Phone Numbers: Home _____ Work _____ Cell _____
Email Address _____

Applicant Name _____
Mailing Address _____ City _____ State _____ Zip _____
Phone Numbers: Home _____ Work _____ Cell _____
Email Address _____

Contact/Representative Information: ***Add more as necessary.***

Contact/Representative is: ___ Applicant ___ Consultant ___ Attorney X Other
Contact/Representative Name Alli Pardis
Mailing Address 321 E Mail St #411 City Bozeman State MT Zip 59725
Phone Numbers: Home _____ Work 406-431-5981 Cell _____
Email Address allison.pardis@tu.org

NOTE: *If a contact person is identified as an attorney, all communication will be sent only to the attorney unless the attorney provides written instruction to the contrary. If a contact person is identified as a consultant, employee, or lessee, the individual filing the water right form or objection form will receive all correspondence and a copy may be sent to the contact person.*

DIRECTIONS

Answer every question and applicable follow-up questions. Use the checkboxes to denote yes ("Y"), no ("N"), or not applicable ("NA"). Questions that require items to be submitted to the Department have a submitted ("S") checkbox, which is checked when the required item is attached to the Application. Label all submitted items with the question number for which they were submitted. Narrative responses that are larger than the space provided can be answered in an attachment. If an attachment is used, specify "see attachment" on this form, and label the attachment with the question number. Constrain narrative responses to the specific question as is asked on the form; do not respond to multiple questions in one narrative. Label units in narrative responses. Responses in the form of a table may be entered into the table provided on this form or in an attachment. Responses in the form of a table that are larger than the table provided on this form should be placed in an attachment. If an attachment is used, the table must have the exact headings found on this form, and "see attachment" must be placed on this form. For tables on this form, circle correct unit at header of column when table has unit options. For tables in attachments, label all units.

PREAPPLICATION AND TECHNICAL ANALYSIS INFORMATION

1. ☒ **Y** ☐ **N** Did you have a preapplication meeting AND complete a Form 606P Change Preapplication Meeting Form?

IF QUESTION 1 IS YES,

2. ☒ **Y** ☐ **N** Did you elect on Form 606P to have the Department conduct Technical Analysis?

3. ☐ **Y** ■ **N** Has any element of the application changed from Form 606P or the Technical Analysis conducted as part of the preapplication process? A Technical Analysis Addendum (Form 606-TAA) is required if changes have occurred.

4. Submit the following items:

4.1. ■ **S** Technical Analyses you would like the Department to use to conduct criteria assessment.

4.2. ☐ **S** ■ **NA** Scientific Credibility Review, if applicable.

4.3. ☐ **S** ■ **NA** Technical Analysis Addendum (Form 606-TAA), if applicable, per question 3.

IF QUESTION 1 IS NO,

5. ☐ **S** Submit the Technical Analysis Addendum (Form 606-TAA).

6. ☐**Y** ☐ **N** Do you elect to have the Department conduct Technical Analysis?

6.1. ☐ **S** If no, submit all the required Technical Analyses. See the Technical Analysis Guide for more information.

APPLICATION ADDENDA AND REVIEW

7. ☐ **S** ■ **NA** If the proposed change is on a non-filed water project, then submit the Non-Filed Water Project Addendum (Form 606/634-NFWPA) if you have not already submitted it with the Preapplication Meeting Form (606P). The project must meet the requirements of the addendum.

8. ☐ **S** ■ **NA** If the project involves an appropriation that is greater than 5.5 CFS and 4,000 acre-feet, then submit a Reasonable Use Addendum (Form 606-B).

9. ☐ **S** ■ **NA** If the project involves out-of-state water use, then submit the Out-of-State Use Addendum (Form 600/606-OSA).

10. ☐ **S** ■ **NA** If the proposed purposes include marketing or selling water, then submit the Water Marketing Purpose Addendum (Form 600/606-WMA).

11. ☐ **S** ■ **NA** If the proposed purpose includes instream flow, then submit Change to Instream Flow Addendum (Form 606-IFA).

12. ☐ **S** ■ **NA** If the proposed purposes include mitigation or aquifer recharge, then submit a Mitigation Purpose Addendum (Form 606/606-MIT).

13. ☐ **S** ■ **NA** If the project is in designated sage grouse habitat, then submit a review letter from the Montana Sage Grouse Habitat Conservation Program (https://sagegrouse.mt.gov).

14. ■ **Y** ☐ **N** ☐ **NA** You must provide a written notice of the application to each owner of an appropriation right sharing the point of diversion or means of conveyance (e.g., canal, ditch, flume, pipeline, or constructed waterway). Have you sent this notice to all applicable parties? Your application cannot be deemed correct and complete until you have sent this notice pursuant to §85-2-302(4)(c), MCA.

APPLICATION DETAILS

15. How many change applications will be needed for this project? Refer to ARM 36.12.1305 for more information. 1

16. Fill out the table below.

Water Right No. Proposed for Change	Current Flow Rate (GPM or CFS)	Flow Rate Needed for Project (GPM or CFS)
41E 3407-00	11.37 CFS	11.37 CFS
41E 3408-00	11.37 CFS	11.37 CFS

17. Identify the water right elements proposed for change, with a checkmark, for each water right proposed for change.

Water Right No.	41E 3407-00	41E 3408-00				
Point of Diversion	■	■	☐	☐	☐	☐
Place of Use	☐	☐	☐	☐	☐	☐
Purpose of Use	☐	☐	☐	☐	☐	☐
Place of Storage	☐	☐	☐	☐	☐	☐

18. ■ **S** Submit a historical use map created on an aerial photograph or topographic map that shows the following: section corners, township and range, a north arrow, all historical points of diversion (POD) labeled with a unique POD ID letter, all historical places of use (POU), all historical conveyance structures, all historical places of storage, and historical place of use for all overlapping water rights.

19. ■ **S** Submit a proposed use map created on an aerial photograph or topographic map that shows the following: section corners, township and range, a north arrow, all proposed points of diversion labeled with a unique POD ID number, all proposed places of use, all proposed conveyance structures, all proposed places of storage, and place of use for all overlapping water rights.

20. ■ **Y** ☐ **N** Does the proposed change involve a change in point of diversion?

IF YES,

20.1. Is the source for the new POD(s) surface water or groundwater? Surface water

20.2. What is the source name for the new POD(s)? Jefferson Slough

20.3. What is the means of diversion for all new POD(s)? Means of diversion for surface water includes headgate, pump, dam, and others. Means of diversion for groundwater includes well, developed spring, pit pond, and others.

Pumps

20.4. Describe the proposed location for all new points of diversion to the nearest 10 acres. Label POD # with the same POD ID number assigned for the proposed use map (question 19).

POD #	¼	¼	¼	Sec.	Twp.	Rge.	County	Lot	Block	Tract	Subdivision	Gov. Lot
1	NW	NW	NE	11	1N	3W	Jefferson					
2	NE	NW	SW	2	1N	3W	Jefferson					
3	NE	NW	NE	3	1N	3W	Jefferson					

21. ☐ **Y** ■ **N** Does the proposed change involve a change in place of use?

IF YES,

21.1. What are the geocodes of the proposed place of use?

-	-
-	-
-	-
-	-
-	-

21.2. Describe the legal land description of the proposed place of use, and if the water rights being changed will have an irrigation or lawn and garden purpose, list the number of irrigated acres.

Acres	Gov't Lot	¼	¼	¼	Sec.	Twp.	Rge.	County

22. ■ **Y** ☐ **N** Did all owners of the historical place of use for the water rights being changed sign this application? If ownership cannot be established for the entirety of the water rights being changed, a Form 641 or Form 642 must be received and processed by the Department prior to application submittal. The follow-up questions for question 22 help to establish whether a split is required before application submittal in the case all owners of the historical place of use did not sign the application.

IF NO,

22.1. List all water rights proposed for change for which you do not own the entire historical place of use.

_____

_____

_____

22.2. ☐ **Y** ☐ **N** Are the water rights listed in question 22.1 severed from the historical place of use?

22.2.1. ☐ **Y** ☐ **N** ☐ **NA** Do you own the entirety of the severed water rights proposed for change?

22.3. ☐ **Y** ☐ **N** Are you filing on behalf of another entity?

22.3.1. If yes, explain.

_____

_____

_____

23. ☐ **Y** ■ **N** Do you meet one of the exceptions to possessory interest requirements, pursuant to ARM 36.12.1802? Exceptions include cases of an instream flow application, or where the application is for sale, rental, distribution, or is a municipal use, or in any other context in which water is being supplied to another and it is clear that the ultimate user will not accept the supply without consenting to the use of water on the user's place of use.

ADVERSE EFFECT

24. ■ **Y** ☐ **N** Do you have evidence that the proposed use does not exceed the historical use for flow rate, consumed volume, and diverted volume?

24.1. If yes, explain.

Yes, DNRC technical analysis confirms that flow rate, consumed volume and diverted volume are equal to or less than historic use.

25. ☐ **Y** ■ **N** Are there any factors that would limit your ability to turn off your appropriation in response to a call?

25.1. If yes, explain.

26. Explain how you can control your diversion in response to a call being made.

Pumps can be shut off.

27. ☐ **Y** ■ **N** Are you aware of any calls that have been made on the source of supply or depleted surface water source?

27.1. If yes, explain.

System Operat

28. ☐ **Y** ■ **N** Does a water commissioner distribute water or oversee water distribution on your proposed source or any identified depleted surface water sources?

28.1. If yes, list the sources.

29. Describe your plan to ensure existing water rights will be satisfied during times of water shortage.

The proposed change does not make call on any upstream water users. The proposed changes uses an equal or lesser amount of diverted quantity from historical use.

30. When was the last time the water rights proposed for change were appropriated and used beneficially?

2024 irrigation season

IF THERE HAS BEEN A PERIOD OF NONUSE,

30.1. Why was the water right not used?

30.2. Why will a resumption of use not adversely affect other water users?

30.3. ☐ **Y** ☐ **N** Is the period of nonuse greater than 10 years?

30.4. ☐ **Y** ☐ **N** Have new water rights been authorized to use the source during the period of nonuse?

System eratio -

31. For point of diversion changes:

31.1. Are the proposed points of diversion upstream or downstream of the historical points of diversion?

Downstream

31.2. ■ **Y** ☐ **N** Are there intervening water rights between the historical and proposed points of diversion?

31.2.1. If yes, list the water rights.

41E 143433 00, 41E 143434 00, 41E 143436 00, 41E 143437 00, 41E 30017424

31.3. ☐ **Y** ■ **N** Does the proposed point of diversion allow for diverting water longer during times of shortage?

31.3.1. If yes, explain how you will prevent an expansion of use.

31.4. ☐ **Y** ■ **N** Do other water rights share any of the proposed points of diversion?

31.4.1. If yes, describe how the proposed project will not adversely affect these water rights.

31.5. ☐ **Y** ■ **N** Do other water rights share any conveyance ditch associated with the proposed points of diversion?

31.6. If yes, describe how the proposed project will not adversely affect these water rights.

ADEQUATE MEANS OF DIVERSION AND OPERATION

32. ■ **S** Provide a diagram of how you will operate your system from all proposed points of diversion to all proposed places of use.

33. Describe specific information about the capacity of all proposed diversionary structures. This may include, where applicable: pump curves and total dynamic head calculations, headgate design specifications, and dike or dam height and length.

See attached schematic.

34. ■ **Y** ☐ **N** Is the diversion capable of providing the full amount of water requested through the period of diversion?

34.1. If no, explain.

35. Describe the size and configuration of infrastructure to convey water from all proposed points of diversion to all proposed places of use. This may include, where applicable: ditch capacity and/or pipeline size and configuration.

See attached schematic.

36. Describe any losses related to the proposed conveyance.

The proposed conveyance system is an enclosed system, reducing loss.

37. ■ **Y** ☐ **N** ☐ **NA** Is the proposed conveyance infrastructure capable of providing the required flow and volume, plus any conveyance losses?

37.1. If no, explain.

38. ☐ **Y** ■ **N** Does the proposed conveyance require easements?

38.1. If yes, explain.

39. Describe specific information about how water is delivered within the place of use. This may include, where applicable, the range of flow rates needed for a pivot, the output and configuration of sprinkler heads, and pipelines within the place of use.

See attached schematic.

40. ☐ **Y** ■ **N** Will your system be designed to discharge water from the project?

40.1. If yes, explain the way water will be discharged.

40.2. ☐ **Y** ☐ **N** ■ **NA** Have the necessary permits been obtained to comply with §§ 75-5-410 and 85-2-364, MCA?

41. ☐ **Y** ■ **N** Is the means of diversion for any proposed point of diversion a well?

IF YES,

41.1. ☐ **Y** ☐ **N** Have all wells already been drilled?

41.2. For all wells that have been drilled, what is the name of the well driller and, if available, what is their license number?

41.3. ☐ **Y** ☐ **N** For all wells yet to be drilled, will a licensed well driller construct the wells?

41.4. ☐ **S** ☐ **NA** Submit any additional well logs for wells drilled after submittal of Form 606P.

BENEFICIAL USE

42. Why is the requested flow rate and volume the amount needed for the purposes?

The requested flow rate and volume are equal to or less than historical use.

43. ■ **Y** ☐ **N** Does the Department have a standard for the purposes for which water is proposed? Department standards can be found in the DNRC Water Calculation Guide, ARM 36.12.112, ARM 36.12.115, and ARM 36.12.1902.

43.1. ■ **Y** ☐ **N** If yes, does the proposed beneficial use fall within Department standards?

43.2. If no Department standard exists, or if proposed beneficial use falls outside of Department standards, explain how the use is reasonable for the purpose.

44. ☐ **Y** ■ **N** Will your proposed project be subject to DEQ requirements for a public water supply (PWS) system or Certificate of Subdivision Approval (COSA)?

44.1. ☐ **Y** ☐ **N** If yes, have you researched or consulted with DEQ regarding those requirements?

45. ☐ **Y** ■ **N** Are you proposing to use surface water for in-house domestic use?

45.1. ☐ **Y** ☐ **N** If yes, does a COSA exist for the proposed place of use?

45.1.1. ☐ **S** ☐ **NA** If yes, please submit the COSA.

45.1.2. ☐ **Y** ☐ **N** If no, have you researched or consulted with DEQ regarding their requirements?

PROPOSED COMPLETION PERIOD

46. How many years will be needed to complete this project and to submit to the DNRC a Project Completion Notice (Form 618)? 1

47. Why is this amount of time needed?

Pump installation is planned for the spring of 2025.

AFFIDAVIT & CERTIFICATION

Read carefully before you sign and review with legal counsel if you have any questions. All owners (or trustees) must sign the form. ***If the owner is a business or trust, include the title of the representative(s) signing the form (i.e., president, trustee, managing partner, etc.) and provide documentation that establishes the authority of the representative to sign the application.*

I affirm the information provided for this application is to the best of my knowledge true and correct. I am aware that my application for this project will not qualify for a discounted filing fee and expedited timelines if upon submittal of the application to the department, I changed any element of the proposed application from the preapplication meeting form and follow-up materials (ARM 36.12.1302(6)(a)).

I affirm I have possessory interest, or the written consent of the person with the possessory interest, in the property where the water is to be put to beneficial use, unless this application meets an exception to the possessory interest requirements in ARM 36.12.1802(1)(b).

I understand that making a false statement under oath or affirmation in this application and official proceedings throughout the examination of my application may subject me to prosecution under §45-7-202, MCA, a misdemeanor punishable by a jail term not to exceed 6 months or a fine not to exceed $500, or both. I have read this Affidavit and understand the terms and conditions.

I declare under penalty of perjury and under the laws of the state of Montana that the foregoing is true and correct.

Applicant Signature Susanne Huckaba Date: 2/28/25

Printed Name Susanne Huckaba

Title Sec. - Treasurer

Applicant Signature Leonard W. Huckaba Date: 2-28-25

Printed Name Leonard W. Huckaba

Title President

Applicant Signature _____ Date: _____

Printed Name _____

Title _____

February 28, 2025

LR Huckaba Ranch, LLC.
26 MT Highway 359
Cardwell, MT 59271

Barrick Gold Corp. – Golden Sunlight Mine, Inc.
453 Mountain Highway 2 East
Whitehall, MT 59759

RE: LR Huckaba Ranch, Application 41E – 30164689

Dear Mr. Buus, and Golden Sunlight Mine,

We are writing to inform you that we will submit a Point of Diversion (POD) change for the LR Huckaba Ranch Inc. (Huckaba Ranch), Application 41E – 30164689 on February 28, 2025.

For the past three years, the Huckaba Ranch has been working with the Natural Resource Conservation Service, Montana Fish, Wildlife & Parks, Montana Trout Unlimited, and Trout Unlimited to improve an irrigation system on our ranch.

Thank you for submitting a letter of support for this POD change in November 2024.

Lenny Huckaba
LR Huckaba Ranch, Inc.

BARRICK

Golden Sunlight
463 Mountain Highway 2 East
Whitehall, MT 59759
www.barrick.com

November 27, 2024

Helena Water Resources Office
Montana DNRC
c/o Savannah Telander
1424 Ninth Avenue
P.O. Box 201601
Helena, MT 59620-1601

RE: L.R Huckaba Ranch, Application 41E - 30164689

Dear Helena Water Resources Office representatives,

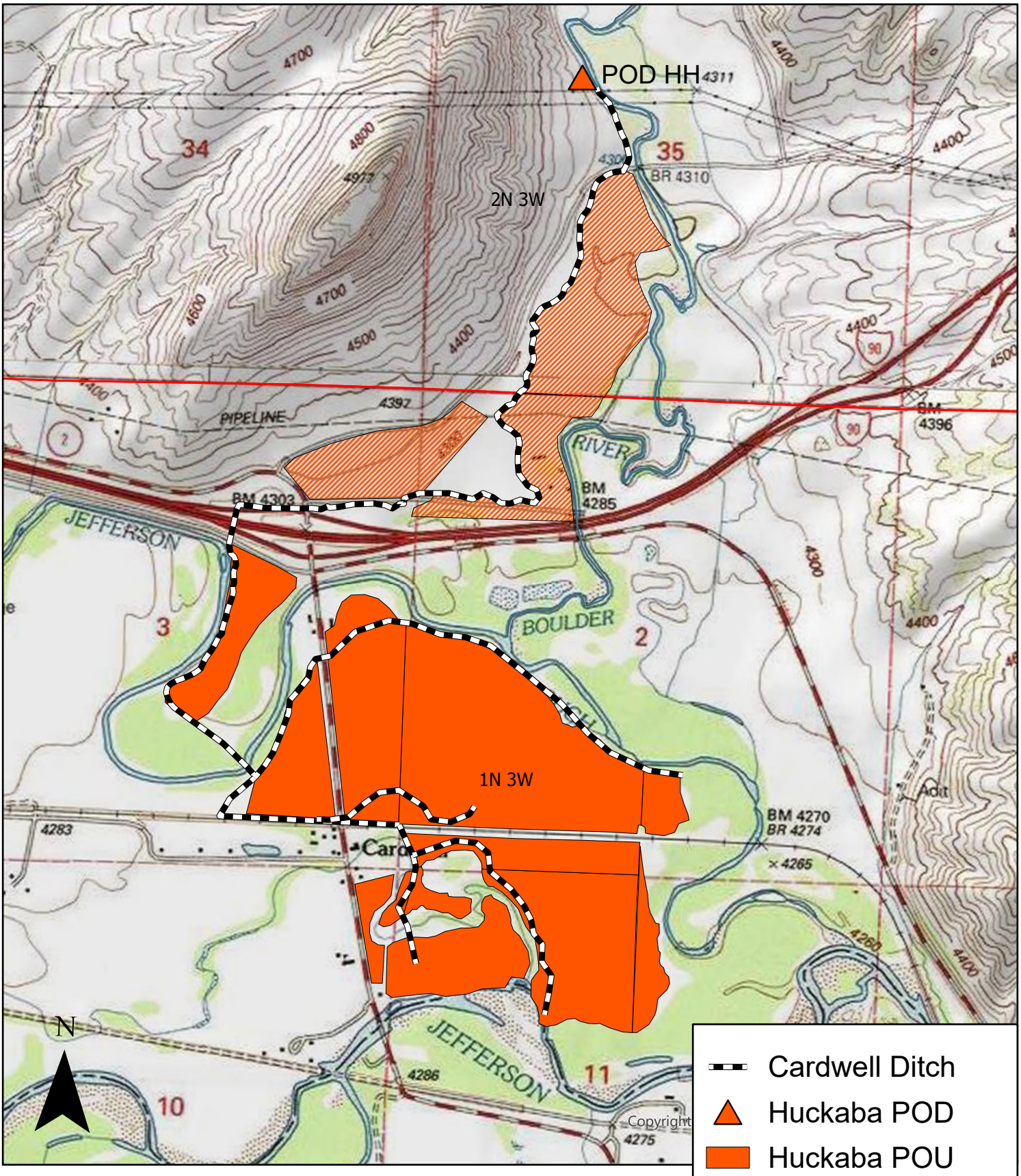
Barrick Gold Corp. - Golden Sunlight Mine Inc. (GSM) would like to express our support for a Point of Diversion (POD) change for the L.R Huckaba Ranch Inc. (Huckaba Ranch), Application 41E – 30164689. We are working with the Huckaba Ranch and Montana Trout Unlimited (MTU) to remove the antiquated Shaw Diversion Dam to complete a portion of river restoration.

The Shaw Diversion Dam and ditch system supplies irrigation for much of the Candle Stick Ranch, as well as a portion of the Huckaba Ranch. The Huckaba Ranch's application to move their POD is a necessary step towards dam removal. We understand that the POD change will affect the legal amount of water the Shaw ditch is allowed to carry. GSM is preparing our own irrigation system change to eliminate the need for the dam and ditch system as the adjudication process proceeds.

Thank you for the opportunity to comment in support of this Point of Diversion change.

Kristi Murphy FOR KM
Manager, Golden Sunlight Mine

Historic Use Map - Question 18



Proposed Use Map - Question 19

Name	Size
POD 01	60 hp
POD 02	15 hp
POD 03	50 hp

N

0 0.13 0.25 0.5 Miles

Proposed PODs

System Operation - Question 32

Proposed POD 02: Adequate Means of Diversion and Operation - Questions 33, 35, 39

AquaTech
210 Arden Drive
Belgrade, MT 59714
(406)388-3315
1-800-426-4921

Huckaba Ranch
26 Highway 359
Cardwell, MT 59721
406.287.5556

Valley 7000

February 6, 2023
Prepared by: John Gardner
West Side - North Half Circle - V2
8.0 Pivot Acres
1.4 End Gun Acres
9.4 Total Acres
484.1 Foot Long Machine

Pivot Point	
1	6 5/8" Pivot Point
1	6" Pivot Flex (for 6 5.8" PP)
1	Pivot Ladder
Controls	
1	Icon5 Panel (5 YR Warranty)
1	GPS Pivot Position
1	11 Conductor Collector Ring
1	Aluminum Power Distribution Block
1	High Voltage Surge Protection
1	Temperature Sensor
1	Icon Link - Remote Monitoring and Control
Spans	
2	6" 160' Span w/ 108" Spacing (7000)
1	6" 135' Span w/ 108" Spacing (7000)
1	27' Overhang w/ 108" Spacing
Drive Unit	
3	11.2 X 38" Tire on 10" Galv Rim
3	Tubes in Tires
3	Valley gearbox
3	34 RPM Center Drive
3	Pivot Alignment
Accessories	
1	Running Light
1	End of Field Stop w/ Auto Reverse - Customer Sets Barricades
Sprinkler Package	
1	Nelson Rotators w/ Brown plates on 1st & 2nd Spans, Spinners w/ Yellow Plates on rest, 15 psi Nelson Regulators on 5.5' hose drops using integrated weights
1	2 HP Booster Pump
1	27' OH Booster Hose
1	Nelson SR 75 End Gun
1	2" Nelson Valve 1000
1	Senninger End Spray Drain

Pivot Sub-Total	$60,874
Pivot Total	$60,874
Ancillary Total (see next page for details)	$62,287
Project Total	**$123,161**

Freight & Installation Included

Price good until: February 28, 2023

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West Side - North Half Circle - V2

Pivot Tie In		
1	Pivot Pad	$1,785
1	4" Dogleg	$682
2	Thrust Block	$430
1	Clemons 700 Filter	$2,833
1	4" Control Valve	$1,728
1	4" Gear-op Butterfly Valve	$324
1	2" Airvent	$158
1	4" Surge Relief Valve	$222
1	Misc Fittings and Install	$295
1	4" Electronic Flowmeter w/ Cable	$2,639
1	Misc Fittings and Install	$295
1	Epoxy Paint for NRCS Spec	$750
Pump Station		
1	15 HP Turbine Pump	$15,504
1	Size 2 Pump Panel - Installed	$1,504
1	30 Amp Disconnect	$563
1	Meter Base Installed on Pole	$1,900
1	Pump Discharge, Check Valve, Box and Screen	$15,649
1	6" Dogleg	$784
1	Thrust Block	$215
1	6" Gear-op Butterfly Valve	$394
1	2" Airvent	$158
1	4" Surge Relief Valve	$222
1	2" Drain at Dogleg	$140
1	Epoxy Paint for NRCS Spec	$750
Mainline and Wire		
462	6" 100# PIP PVC Pipe - Installed	$3,812
616	4" 125# IPS PVC Pipe - Installed	$3,844
2	2" Air Vent on Saddle Riser	$666
1178	#4 AL Wire w/ 12-2 Control Wire in Conduit	$4,041
	** All Lengths are estimates to be confirmed by survey	
	** Any additional digging or pipe bedding for rock will be charged at additional rate	
	** Due to Current Volatility in the PVC Market - PVC Prices will be Confirmed at Time of Order and are Subject to Change with Notice	
	Total Ancillary Equipment	$62,287
	Pivot Total	$60,874
	Project Total	$123,161

Price good until: February 28, 2023

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February 6, 2023
Prepared by: John Gardner

West Side - North Half Circle - V2

OPTIONS

	Prices in addition to those listed above		
1	Valley 8000 series Machine	$	2,256
1	11.2 X 38" Tire on 10" Galv Rim - 6 Ply	$	189
1	11.2 X 38" ND Tire on 10" Galv Rim - 6 Ply	$	643
1	Chemigation Pigtail	$	305

We Propose hereby to furnish material and labor - complete in accordance with above specification, for the sum of:
$123,161

Payment to be made as follows:
25% Down payment, 70% Upon Pivot Delivery, 5% Upon AquaTech's Completion

All work to be completed in a workmanlike manner according to standard practices. Any alteration or deviation from above specifics involving extra costs will be executed only upon written orders, and will become an extra charge over and above the estimate. All agreements contingent upon strikes, accidents or delays beyond the seller's control. Buyer to carry fire, tornado and other necessary insurance. Seller disclaims any express or implied warranties of fitness for a particular purpose and merchantability. Seller shall not be liable for consequential damages.

Authorized Signature: _____

Acceptance of Proposal: The above prices, specification and conditions are satisfactory and are hereby accepted. Seller is authorized to do the work as specified. Payment will be made as outlined above. Buyer grants a purchase money security interest in all of the material described above including accessions and attachments now or hereafter acquired together with any proceeds thereof to secure the performance and payment of all obligation of buyer to seller under the terms of this contract. Buyer agrees that seller shall have a lien for all services provided. Buyer agrees to sign financing statements upon request of seller. Buyer acknowledges that he has read all of the terms and provisions of this contract and that it constitutes the entire agreement between the parties relative hereto and neither party shall be bound by an agreement, statement or representation not incorporated herein. All accounts not paid in accordance with the above terms are subject to a finance charge in the amount of 1.5% (18% APR) with a minimum of $1.50. Should any accounts be referred for outside collection, buyer agrees to pay all collection costs, attorney fees, & court costs. Any checks returned to seller by bank will be assessed an additional $30 charge.

Signature: _____ Date: _____

Price good until: February 28, 2023

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Valley 7000

February 6, 2023
Prepared by: John Gardner
West Side - South Half Circle - V2
8.3 Pivot Acres
1.5 End Gun Acres
9.9 Total Acres
448.6 Foot Long Machine

Pivot Point	
1	6 5/8" Pivot Point
1	6" Pivot Flex (for 6 5.8" PP)
1	Pivot Ladder
Controls	
1	Icon5 Panel (5 YR Warranty)
1	GPS Pivot Position
1	11 Conductor Collector Ring
1	Aluminum Power Distribution Block
1	High Voltage Surge Protection
1	Temperature Sensor
1	Icon Link - Remote Monitoring and Control
Spans	
1	6" 185' Span w/ 108" Spacing (7000)
1	6" 180' Span w/ 108" Spacing (7000)
1	82' Overhang w/ 108" Spacing
Drive Unit	
2	11.2 X 38" Tire on 10" Galv Rim
2	Tubes in Tires
2	Valley gearbox
2	34 RPM Center Drive
2	Pivot Alignment
Accessories	
1	Running Light
1	End of Field Stop w/ Auto Reverse - Customer Sets Barricades
Sprinkler Package	
1	Nelson Rotators w/ Brown plates on 1st & 2nd Spans, Spinners w/ Yellow Plates on rest, 15 psi Nelson Regulators on 5.5' hose drops using integrated weights
1	2 HP Booster Pump
1	36' OH Booster Hose
1	Nelson SR 75 End Gun
1	2" Nelson Valve 1000
1	Senninger End Spray Drain

Pivot Sub-Total	$52,555
Pivot Total	$52,555
Ancillary Total (see next page for details)	$19,073
Project Total	**$71,628**

Freight & Installation Included

Price good until: February 28, 2023

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February 6, 2023
Prepared by: John Gardner

West Side - South Half Circle - V2

Pivot Tie In		
1	Pivot Pad	$1,785
1	4" Dogleg	$682
1	Thrust Block	$215
1	Clemons 700 Filter	$2,833
1	4" Control Valve	$1,728
1	4" Gear-op Butterfly Valve	$324
1	2" Airvent	$158
1	4" Surge Relief Valve	$222
1	2" Drain at Dogleg	$140
1	4" Electronic Flowmeter w/ Cable	$2,639
1	Epoxy Paint for NRCS Spec	$750
Pump Station		
1	30 Amp Disconnect	$563
Mainline and Wire		
528	4" 125# IPS PVC Pipe - Installed	$3,295
1090	#4 AL Wire w/ 12-2 Control Wire in Conduit	$3,740
	** All Lengths are estimates to be confirmed by survey	
	** Any additional digging or pipe bedding for rock will be charged at additional rate	
	** Due to Current Volatility in the PVC Market - PVC Prices will be Confirmed at Time of Order and are Subject to Change with Notice	
	Total Ancillary Equipment	$19,073
	Pivot Total	$52,555
	Project Total	$71,628

Price good until: February 28, 2023

AquaTech
210 Arden Drive
Belgrade, MT 59714
(406)388-3315
1-800-426-4921

Huckaba Ranch
26 Highway 359
Cardwell, MT 59721
406.287.5556

February 6, 2023
Prepared by: John Gardner

West Side - South Half Circle - V2

OPTIONS

	Prices in addition to those listed above		
1	Valley 8000 series Machine	$	1,914
1	11.2 X 38" Tire on 10" Galv Rim - 6 Ply	$	126
1	11.2 X 38" ND Tire on 10" Galv Rim - 6 Ply	$	429
1	Chemigation Pigtail	$	305

We Propose hereby to furnish material and labor - complete in accordance with above specification, for the sum of: $71,628

Payment to be made as follows:
25% Down payment, 70% Upon Pivot Delivery, 5% Upon AquaTech's Completion

All work to be completed in a workmanlike manner according to standard practices. Any alteration or deviation from above specifics involving extra costs will be executed only upon written orders, and will become an extra charge over and above the estimate. All agreements contingent upon strikes, accidents or delays beyond the seller's control. Buyer to carry fire, tornado and other necessary insurance. Seller disclaims any express or implied warranties of fitness for a particular purpose and merchantability. Seller shall not be liable for consequential damages.

Authorized Signature: _____

Acceptance of Proposal: The above prices, specification and conditions are satisfactory and are hereby accepted. Seller is authorized to do the work as specified. Payment will be made as outlined above. Buyer grants a purchase money security interest in all of the material described above including accessions and attachments now or hereafter acquired together with any proceeds thereof to secure the performance and payment of all obligation of buyer to seller under the terms of this contract. Buyer agrees that seller shall have a lien for all services provided. Buyer agrees to sign financing statements upon request of seller. Buyer acknowledges that he has read all of the terms and provisions of this contract and that it constitutes the entire agreement between the parties relative hereto and neither party shall be bound by an agreement, statement or representation not incorporated herein. All accounts not paid in accordance with the above terms are subject to a finance charge in the amount of 1.5% (18% APR) with a minimum of $1.50. Should any accounts be referred for outside collection, buyer agrees to pay all collection costs, attorney fees, & court costs. Any checks returned to seller by bank will be assessed an additional $30 charge.

Signature: _____ Date:_____

Price good until: February 28, 2023

Lower Boulder River Irrigation Infrastructure Improvement Project
Huckaba Point of Diversion Change Site

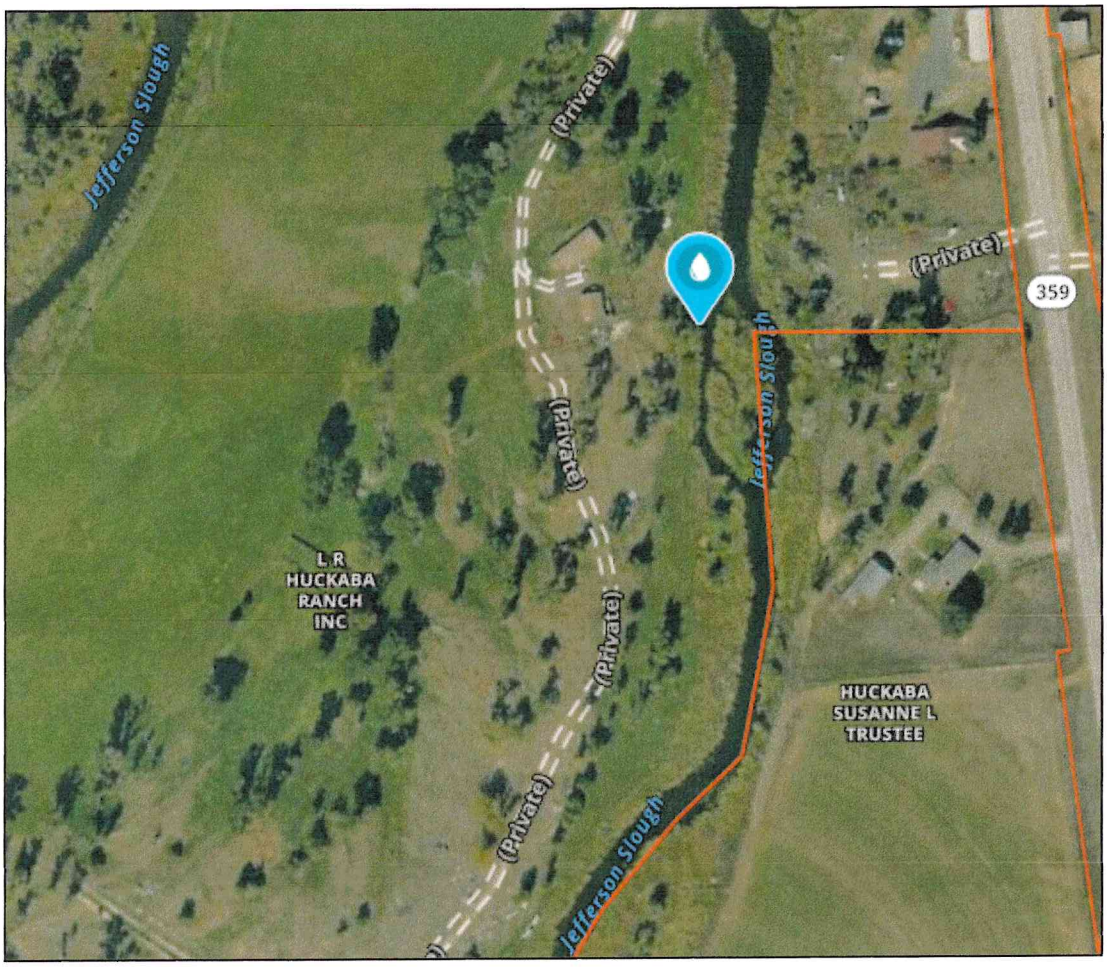
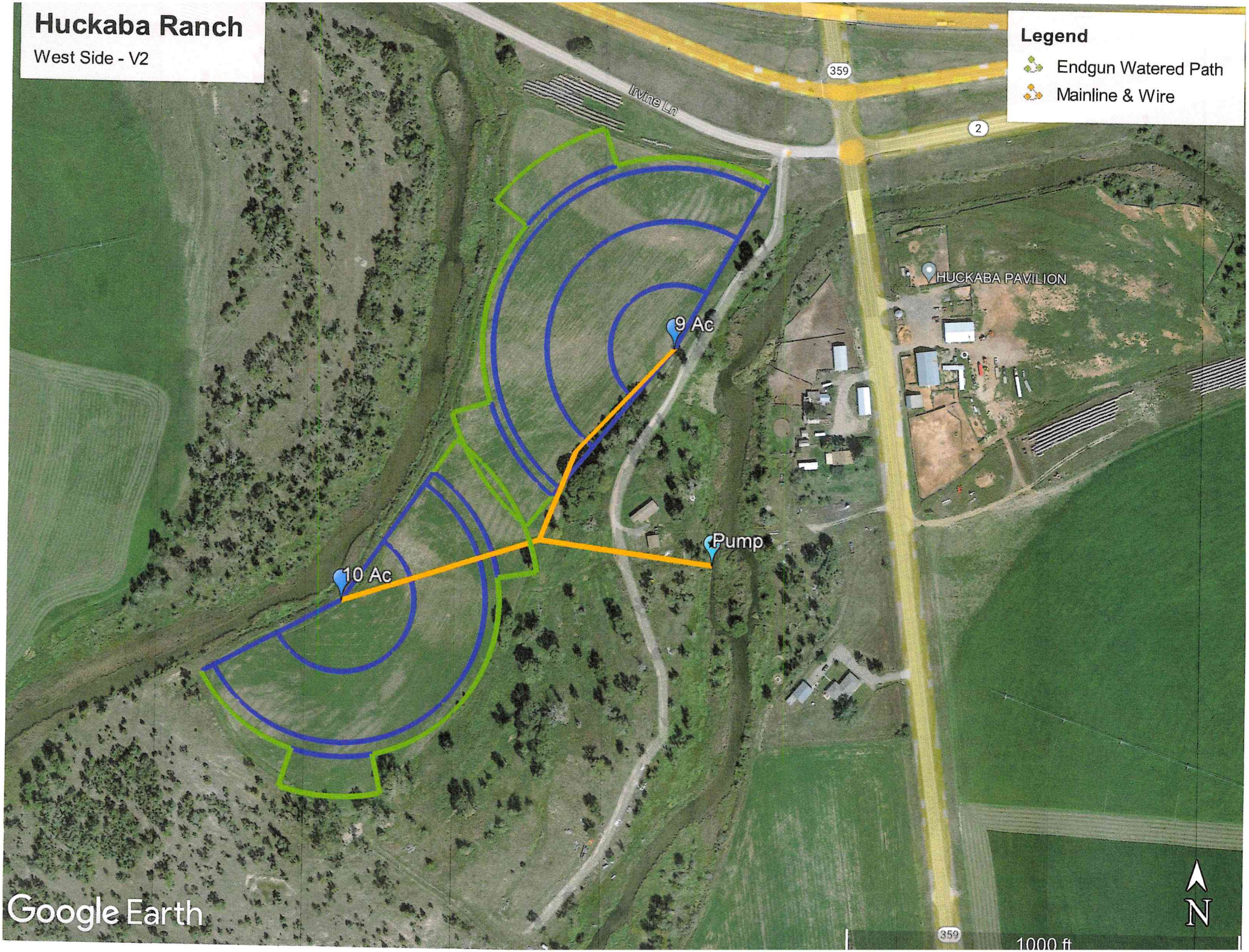


Figure 1. Location of Huckaba Point of Diverision change, 45.86594, -111.95569.

Figure 2. Looking across the Jefferson slough from the Huckaba POD change site.

Figure 3. Looking upstream on the Jefferson Slough from the Huckaba POD change site.

Figure 4. Looking downstream on the Jefferson Slough from the Huckaba POD change site.


Huckaba Ranch
West Side - V2
Legend
Endgun Watered Path
Mainline & Wire
Irvine Ln
359
2
HUCKABA PAVILION
9 Ac
Pump
10 Ac
Google Earth
N
1000 ft

Huckaba Ranch.

50 h.p. — Pivot system So. of railroad tracks = 514 GPM

60 h.p.
- 6 tower pivot system No. of tracks. 696 GPM
- 5 tower pivot system No. of tracks. 483 GPM
- 4 tower pivot system W of highway 200 GPM.

Jim Richardson
President
Intermountain Irrigation Inc.
406 925-9931 cell -

Surface Water Change Technical Analyses Report

Department of Natural Resources and Conservation (DNRC or Department)
Water Resources Division
Savannah Telander, Water Resources Specialist, Helena Regional Office

Application No.	41E 30164689	**Proposed Points of Diversion**	NENWSE Section 2, NENWNE Section 3, and NWNWNE Section 11, all within T1N R3W, Jefferson County
Applicant	LR Huckaba Ranch LLC		

Overview

This report analyzes data submitted by the Applicant in support of the above-mentioned water right Change Application. This report provides technical analyses as required under the Administrative Rules of Montana (ARM) 36.12.1303 in support of the water rights criteria assessment as required in §85-2-402, Montana Code Annotated (MCA). This report was completed by regional office staff.

This Surface Water Change Technical Analyses Report contains the following sections:

1.0 Application Details

The Applicant proposes to change the point of diversion (POD) for Statements of Claim 41E 3407-00 and 41E 3408-00. Claims 41E 3407-00 and 41E 3408-00 historically diverted water from the Boulder River by the Cardwell Ditch[1] headgate in NWSENW Section 35, T2N, R3W, Jefferson County. A map of the historic POD is provided below as Figure 1. The Applicant proposes to change the POD to three pump sites downstream of the historical POD, in NENWSE Section 2, NENWNE Section 3, and NWNWNE Section 11, all within T1N R3W, Jefferson County, on the Jefferson Slough. The proposed PODs can be seen on Figure 2. The Applicant proposes to continue to divert Boulder River water for irrigation of 300 acres in SW, SWSE, Section 2, E2 Section 3, W2NE, NW Section 11, T1N, R3W, Jefferson County, from April 1 to October 30. No change is proposed for the place of use (POU), purpose, or place of storage. The water rights proposed for change are provided in Table 1 below.

Table 1. Water rights proposed for change

Water Right	Purpose	Flow Rate (CFS*)	Volume (AF^)	Period of Use	Point of Diversion	Place of Use	Priority Date	Acres
41E 3407-00	Irrigation	11.37	Historical Use Statement	4/1 to 10/30	NWSENW Section 35, T2N, R3W, Jefferson County	SW, SWSE Section 2, E2 Section 3, W2NE, NW Section 11, T1N, R3W, Jefferson County	1886.12.31	300
41E 3408-00	Irrigation	11.37	Historical Use Statement	4/1 to 10/30	NWSENW Section 35, T2N, R3W, Jefferson County	SW, SWSE Section 2, E2 Section 3, W2NE, NW Section 11, T1N, R3W, Jefferson County	1888.12.31	300

*Cubic feet per second
^Acre-feet

[1] Also known as the Shaw Ditch.

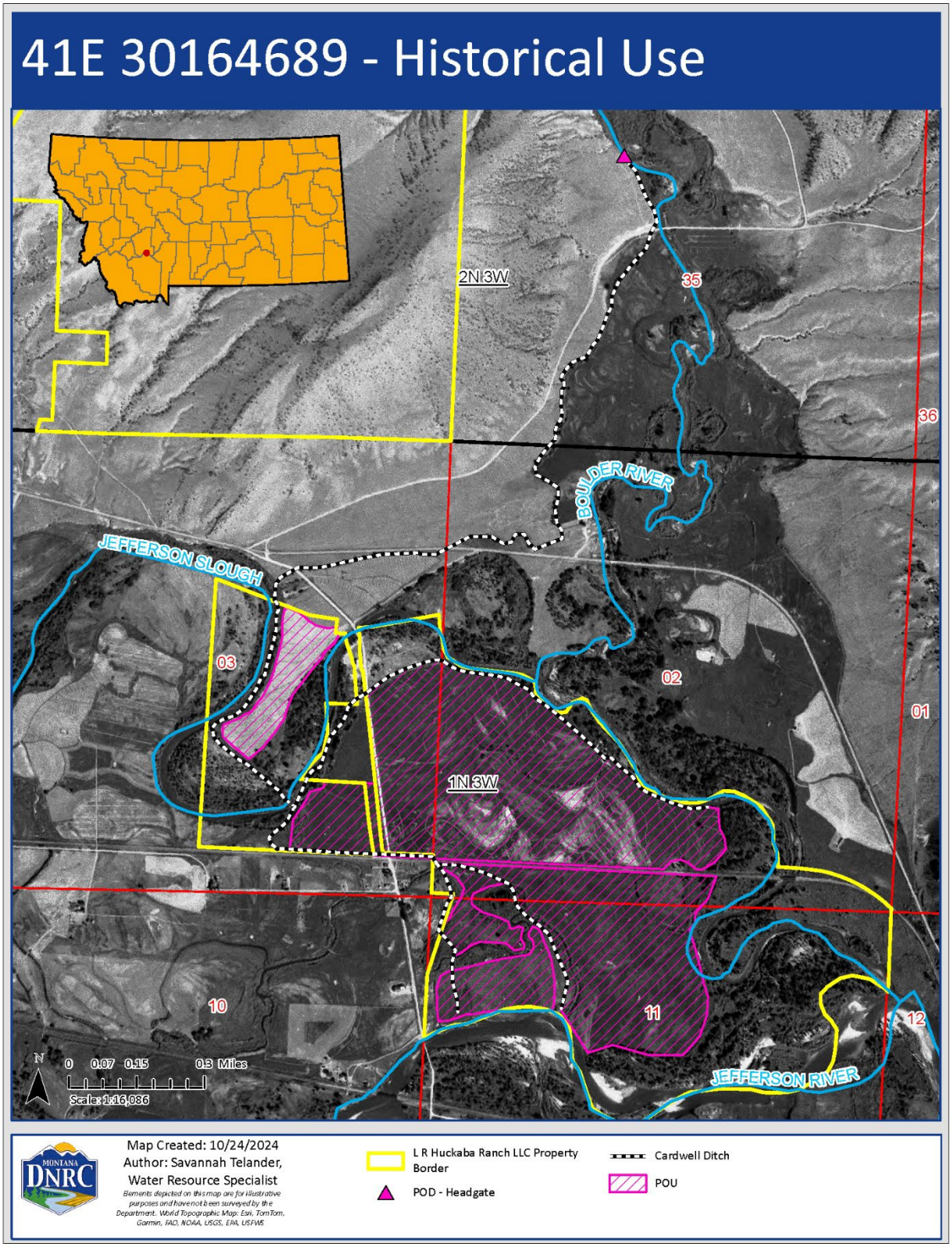


Figure 1: Map of 41E 3407-00 and 41E 3408-00 historical use.

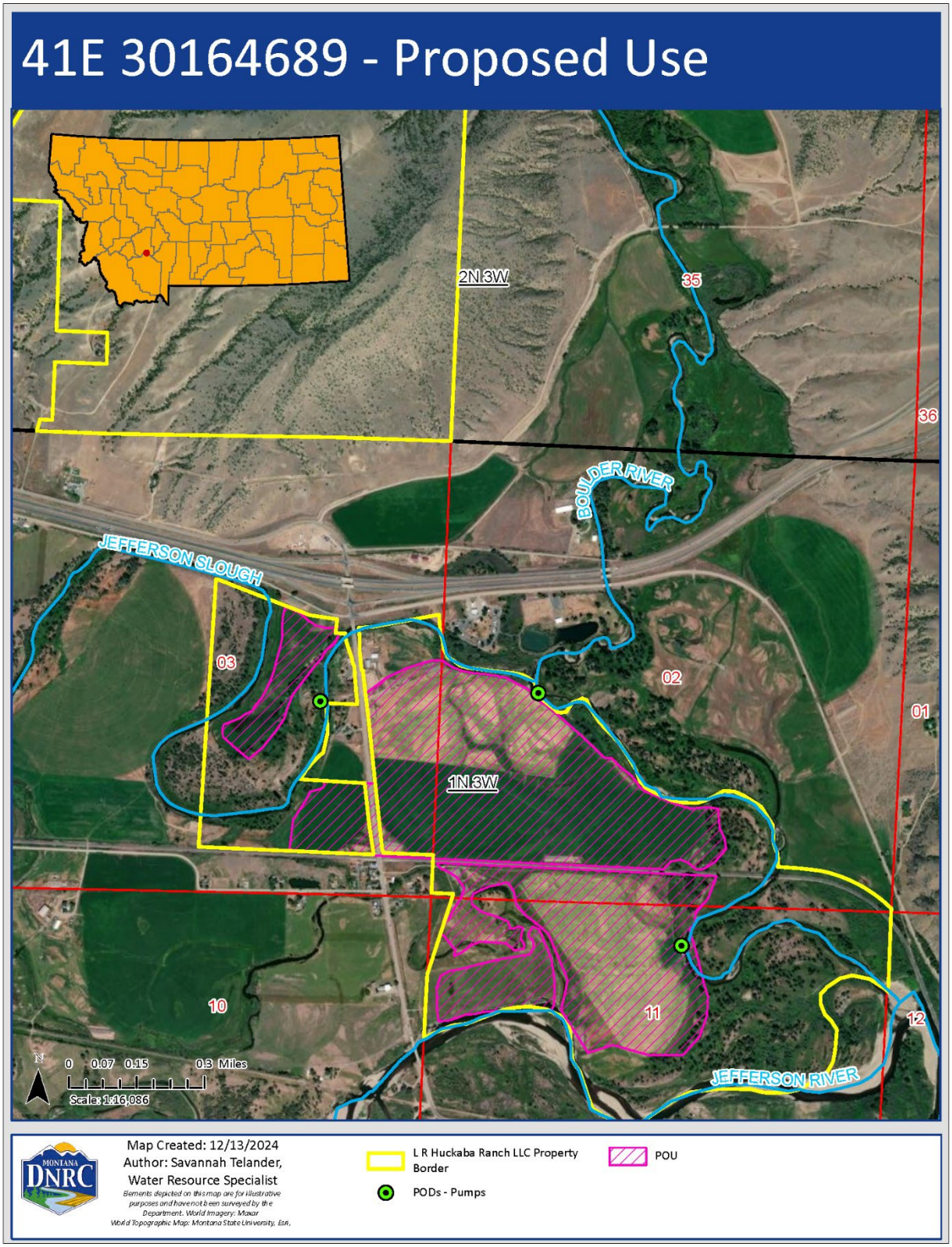


Figure 2: Map of 41E 3407-00 and 41E 3408-00 proposed use

2.0 Historical Use Technical Analysis

2.1 Historical Field Consumed and Applied Volumes

Statements of Claim 41E 3407-00 and 41E 3408-00 were originally claimed and currently indexed for 300 acres of irrigation located in the SW, SWSE Section 2, E2 Section 3, W2NE, NW Section 11, all within T1N, R3W, Jefferson County. The Water Resources Survey (WRS) for Jefferson County and historical aerial imagery, listed below, support the claimed 300 acres of irrigation.

- WRS Jefferson County, dated June 1956, maximum 300 acres found
- USGS Photo 2109500070005, dated July 5, 1947, maximum 300 acres found
- USDA Photo 479-B6, dated August 29, 1979, maximum 300 acres found

The maximum historical acres found for Claims 41E 3407-00 and 41E 3408-00 is 300 acres, seen on the map provided as Figure 1. The Department conducted historical use analysis using 300 historically irrigated acres.

Statements of Claim 41E 3407-00 and 41E 3408-00 historically diverted water from the Boulder River by the Cardwell Ditch headgate in NWSENW Section 35, T2N, R3W, Jefferson County. Claims 41E 3407-00 and 41E 3408-00 both have a maximum flow rate of 11.37 CFS. The total flow rate for the water rights proposed for change is 22.74 CFS.

The total historical consumptive volume (HCV) for the historical POU is 312.56 AF. The Department calculated the HCV using the Department's standard methodology, pursuant to ARM 36.12.1902. The water rights proposed for change are Statements of Claim, and the historical use will be evaluated as the rights existed prior to July 1, 1973. The consumed volume for irrigation is based on the net irrigation requirement (NIR) from USDA Natural Resources Conservation Service Irrigation Water Requirements (IWR) at a representative weather station. The NIR is multiplied by a county-wide management factor (from ARM 36.12.1902) to produce an adjusted NIR representative of actual crop yields in Montana. Crop consumption is determined by multiplying the adjusted NIR by the number of acres of irrigation. Crop consumption is then divided by the field efficiency identified from the irrigation method and ARM 36.12.115. Irrecoverable losses (IL) are 5% of the field applied volume for flood irrigation or 10% for sprinkler irrigation. The total consumed volume for irrigation is the crop consumption plus irrecoverable losses. The total non-consumed volume is the field applied volume minus the total consumed volume.

The Applicant asserts that Statements of Claim 41E 3407-00 and 41E 3408-00 were historically diverted water from the Boulder River by the Cardwell Ditch headgate in NWSENW Section 35, T2N, R3W, Jefferson County. The Applicant states that water was diverted from the beginning of April (4/1) to the end of October (10/30), with two seven day pauses for cutting, for a total of 198 days. The POU is used for production of alfalfa, barley, oats, and grass hay. Given the historical use description, the Department has calculated HCV assuming full-service irrigation for the 198 days of irrigation.

The Applicant states that the entire POU was wild flood irrigated using contour ditches. The HCV for the historical POU was found using the following equations and information:

$$Supplemental\ HCV = HCV * Supplemental\ Flow\ Proportion$$

$$HCV = Crop\ Consumption + Historic\ Irrecoverable\ Losses$$

$$Crop\ Consumption = Boulder\ Weather\ Station * 1ft/12inches * Jefferson\ County\ Management\ Factor * Historic\ Acres\ Historic$$

$$Irrecoverable\ Losses = Field\ Applied * IL\%$$

$$Field\ Applied = Crop\ ConsumptionField\ Efficiency$$

The historical consumed and field applied volumes have been calculated with the inputs shown in Table 2 following the methods described above and in ARM 36.12.1902.

Table 2. Historical use for all water rights proposed for change.

Irrigation Method	Acres	IWR (in)*	Mgmt. Factor^	Field Efficiency	Crop Consumption (AF)	Applied Volume (AF)	IL (AF)	Total Consumed Volume (AF)
Flood Irrigation, Wheeline & Handline	300	17.08	0.61	0.25	260.47	1041.88	52.09	312.56

*Boulder IWR Weather Station
^Jefferson County Historical Use Management Factor (1964-1973)

Statements of Claim 41E 3406-00, 41E 3407-00 and 41E 3408-00 are fully supplemental. Claim 41E 4306-00 is an irrigation Claim owned by the Applicant for water from Cold Spring with a maximum flow rate of 11.37 CFS. 41E 4306-00 is not included in the proposed change. The HCV for the historical POU was distributed to all water rights based on their proportion of the total flow rate, shown in Table 3. The supplemental consumed volume was determined using the equation as described below.

$$Supplemental\ Consumed\ Volume_{water\ right} = Field\ HCV * Supplemental\ Flow\ Proportion_{water\ right}$$

Table 3. Historical consumptive use of the POU by water right

Water Right	Type of Use	Applied Volume - Supplemental (AF)	Consumed Volume - Supplemental (AF)	Non-Consumed Volume - Supplemental (AF)
41E 4306-00	Historical	347.29	104.19	243.11
41E 4307-00	Historical	347.29	104.19	243.11
41E 4308-00	Historical	347.29	104.19	243.11
Total		**1041.88**	**312.56**	**729.32**

2.2 Historical Conveyance Losses

The historical means of conveyance from the POD to the POU is the Cardwell Ditch. The Cardwell Ditch runs south from the headgate in NWSENW Section 35, T2N, R3W, Jefferson County, on the west side of the Boulder River. It continues south under Interstate 90 onto the Applicant's property and irrigates the POU north of the Jefferson Slough in E2 Section 3, T1N, R3W, Jefferson County. The ditch continues south until it dumps into the Jefferson Slough in the Section 3, T1N, R3W, Jefferson County. Boulder River water is then pumped from the Jefferson Slough at the secondary POD in NESWNE Section 3, T1N, R3W, Jefferson County, into the Applicant's ditch system that irrigates the POU south of the Jefferson Slough in Sections 2, 3, and 11, T1N, R3W, Jefferson County. The Cardwell Ditch can be seen on the historical use map provided as Figure 1 above.

Statements of Claim 41E 4306-00, 41E 4307-00, 41E 4308-00, 41E 143433-00, 41E 143436-00 and 41E 143437-00 utilized the Cardwell Ditch as a means of conveyance and/or POU. Statements of Claim 41E 4306-00, 41E 4307-00, 41E 4308-00 historically conveyed water to the Applicants property from April 1 to October 30. Claims 41E 143433-00, 41E 143436-00 and 41E 143437-00 are owned by a neighboring third-party, Golden Sunlight Mines Inc. Claim 41E 143433-00 is an irrigation right and Claims 41E 143436-00 and 41E 143437-00 are diverted ditch stock water rights that claim the Cardwell Ditch as a means of conveyance and/or POU. Irrigation Claim 41E 143433-00 is included in conveyance loss calculations as this water right utilized water out of the Cardwell Ditch above the Applicant's water rights proposed for change in this Change Application. Claims 41E 143436-00 and 41E 143437-00 were not included in conveyance losses because they are multiple use diverted ditch rights of Golden Sunlight Mines Inc irrigation water rights.

Due to the Cardwell Ditch conveying multiple water rights over varying distances to the multiple POUs over different number of days, the Department divided the ditch into four down-ditch combinations. The water rights were assigned to a combination based on the varying ditch segments and days. The down-ditch combinations for the Cardwell Ditch are shown in Table 4 and Figure 3.

Table 4: Down-ditch combinations for Cardwell Ditch

Down-Ditch Combination	Water Rights	Period of Use/Diversion	Days Irrigated	Total Flow Rate (CFS)	Ditch Length (ft)	Width (ft)	Wetted Perimeter (ft)	Ditch Loss Rate	Net Evap (in)
Cardwell A	41E 3406-00, 41E 3407-00, 41E 3408-00, 41E 143433-00	4/1 to 8/31	145	39.23	1055	4	9.59	1.2	13.86
Cardwell B	41E 3406-00, 41E 3407-00, 41E 3408-00	9/1 to 10/30	53	34.11	1055	4	9.59	1.2	8.88
Cardwell C	41E 3406-00, 41E 3407-00, 41E 3408-00	4/1 to 10/30	198	34.11	7886	4	9.59	1.2	22.74
Cardwell D	41E 3406-00, 41E 3407-00, 41E 3408-00	4/1 to 10/30	198	34.11	3089	4	9.59	1.2	22.48

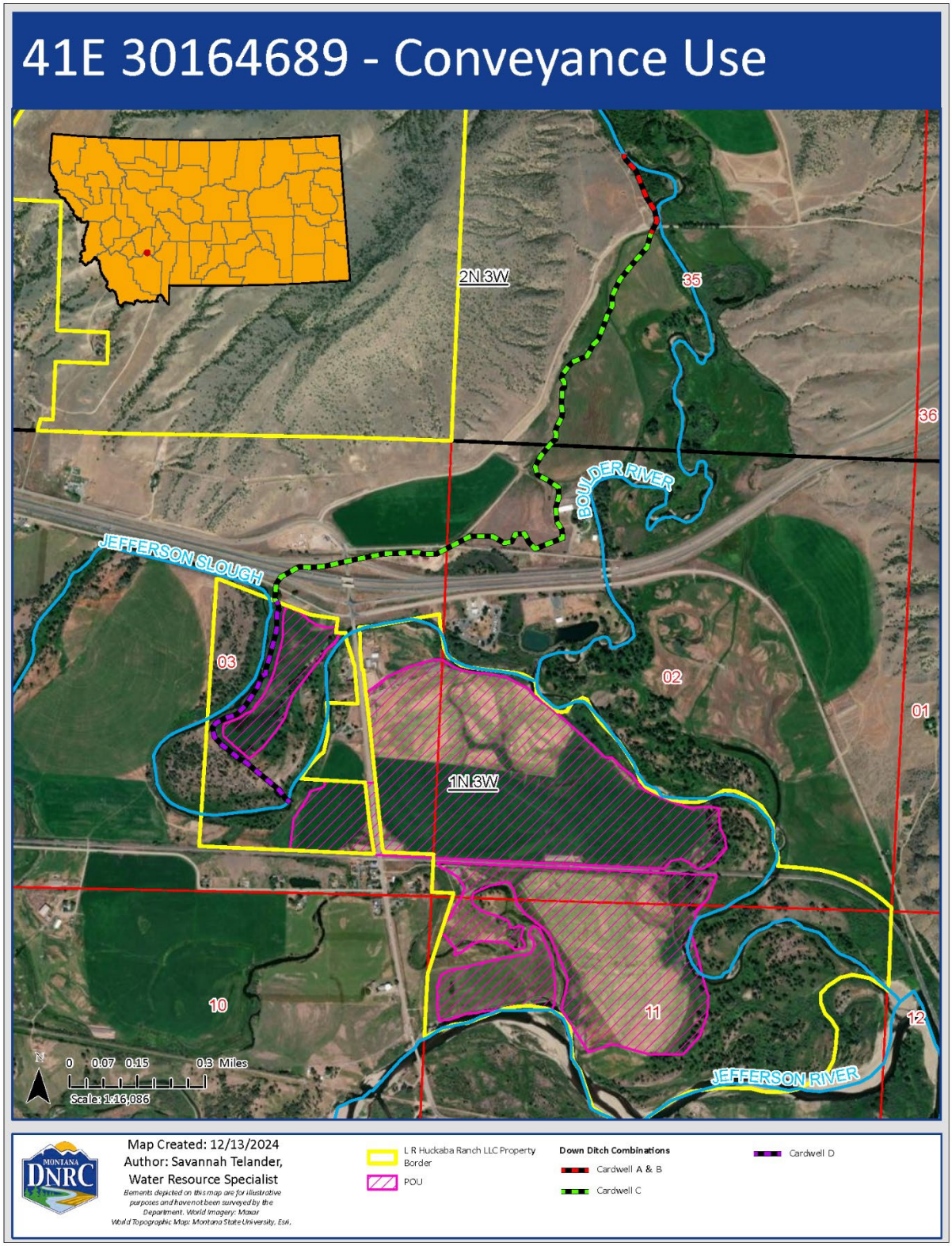


Figure 3: Cardwell Ditch conveyance use map of down-ditch combinations

Using ditch measurements and third-party water right information provided by the Applicant, seen in Table 4, the Department calculated conveyance losses for each down-ditch combination and the water rights proposed for change. Conveyance losses for the water rights included in this Change Application were distributed using the Department's standard methodology pursuant to the technical memorandum "Distributing Conveyance Loss on Multiple User Ditches" (Heffner, 2020) and ARM 36.12.1902(10). The historical conveyance loss volume is equal to the sum of the historical seepage loss, vegetation loss, and ditch evaporation volumes. Conveyance loss volumes per down-ditch combination is provided below in Table 5 and the conveyance loss volumes per each water right in the Cardwell ditch is provided below in Table 6. The following equations were used to calculate conveyance loss volumes:

$$Ditch\ Combo\ Conveyance\ Losses_{Total} = Seepage\ Loss_{combo} + Vegetation\ Loss_{combo} + Evaporation\ Loss_{combo}$$

$$Seepage\ Loss_{combo} = (Wetted\ Perimeter_{combo} * Ditch\ Length_{combo} * Ditch\ Loss\ Rate * Days\ Diverted_{combo}) * \frac{1\ acre}{43560 ft^2}$$

$$Distributed\ Vegetation\ Loss_{combo} = 0.75\%\ loss\ per\ mile * \frac{Ditch\ Length_{combo}}{5280\ miles} * Flow\ Rate_{combo} * Days\ Diverted_{combo} * 2$$

$$Distributed\ Ditch\ Evaporation\ Loss_{combo} = (Surface\ Area * Adjusted\ Net\ Evaporation_{combo}) * \frac{1\ acre}{43560 ft^2}$$

$$Adjusted\ Net\ Evaporation_{combo} = Period\ of\ Diversion\ Net\ Evaporation * \frac{Days\ Irrigated}{365}$$

$$Surface\ Area = (Wetted\ Width\ ft) * Ditch\ Length_{combo}$$

$$Ditch\ Combo\ Conveyance\ Losses_{Water\ Right} = Ditch\ Combo\ Conveyance\ Losses_{Total} * Combo\ Flow\ Proportion_{Water\ Right}$$

$$Combo\ Flow\ Proportion_{Water\ Right} = Water\ Right\ Flow\ Rate_{ditch} * Ditch\ Combo\ Total\ Flow\ Rate$$

Table 5: Conveyance loss volumes of for each down-ditch combination

Down-Ditch Combination	Length (ft)	Flow Rate (CFS)	Width (ft)	Wetted Perimeter (ft)	Ditch Loss Rate (ft3/ft/day)	Days Irrigated	Adj. Net Evap (in)	Seepage Loss (AF)	Vegetation Loss (AF)	Evaporative Loss (AF)	Total Conveyance Loss (AF)
Cardwell A	1055	39.23	4	9.59	1.2	145	13.86	40.41	17.05	0.11	57.57
Cardwell B	1055	34.11	4	9.59	1.2	53	8.88	14.77	5.42	0.07	20.26
Cardwell C	7886	34.11	4	9.59	1.2	198	22.74	412.51	151.31	1.37	565.19
Cardwell D	3089	34.11	4	9.59	1.2	198	22.48	161.58	59.27	0.53	221.38
Total								629.28	233.04	2.09	**864.41**

Table 6: Conveyance loss volume for water rights in Cardwell Ditch

Water Right	Down-Ditch Combination	Total Flow Rate (CFS)	Water Right Flow Rate (CFS)	Proportion	Down-Ditch Combination Conveyance Loss (AF)	Water Right Conveyance Loss (AF)	Water Right Total Conveyance Loss (AF)
41E 4306-00	Cardwell A	39.23	11.37	0.29	57.57	16.69	285.63
	Cardwell B	34.11	11.37	0.33	20.26	6.75	
	Cardwell C	34.11	11.37	0.33	565.19	188.4	
	Cardwell D	34.11	11.37	0.33	221.38	73.79	
41E 4307-00	Cardwell A	39.23	11.37	0.29	57.57	16.69	285.63
	Cardwell B	34.11	11.37	0.33	20.26	6.75	
	Cardwell C	34.11	11.37	0.33	565.19	188.4	
	Cardwell D	34.11	11.37	0.33	221.38	73.79	
41E 4308-00	Cardwell A	39.23	11.37	0.29	57.57	16.69	285.63
	Cardwell B	34.11	11.37	0.33	20.26	6.75	
	Cardwell C	34.11	11.37	0.33	565.19	188.4	
	Cardwell D	34.11	11.37	0.33	221.38	73.79	
41E 143433-00	Cardwell A	39.23	5.12	0.13	57.57	7.51	7.51
Total						**864.41**	**864.41**

2.3 Historical Diverted Volume

Per ARM 36.12.1902(10), the historically diverted volume is equal to the sum of the historical consumptive volume divided by the field efficiency and historical conveyance loss volume. Table 7 below summarizes the historical supplemental consumed and conveyance loss volumes.

Table 7: Historic Diverted Volume of 41E 4307-00 and 41E 4308-00

Water Right	Consumed Volume - Supplemental (AF)	Field Efficiency	Conveyance Loss Volume (AF)	Historic Diverted Volume (AF)
41E 4307-00	104.19	0.25	285.63	632.92
41E 4308-00	104.19	0.25	285.63	632.92
Total	**208.38**		**571.26**	**1265.84**

2.4 Summary of Historical Use

The Department will consider the following values when evaluating the historical use of 41E 3407-00 and 41E 3408-00 for the adverse effect criterion:

Table 8: Summary of historical use of 41E 3407-00 and 41E 3408-00

Water Right	Historical Purpose	Maximum Historical Acres	Historical POU	Historical POD	Maximum Historical Flow Rate (CFS)	Historically Consumed Volume (AF)	Historically Diverted Volume (AF)
41E 3407-00	Irrigation	300	SW, SWSE Section 2, E2 Section 3, W2NE, NW Section 11 T1N R3W	NWSENW Section 35 T2N R3W	11.37	104.19	632.92
41E 3408-00	Irrigation	300	SW, SWSE Section 2, E2 Section 3, W2NE, NW Section 11 T1N R3W	NWSENW Section 35 T2N R3W	11.37	104.19	632.92
Total					**22.74**	**208.38**	**1265.84**

3.0 Analysis of Impacted Surface Water Sources

3.1 Summary of Proposed Use

The Applicant proposes to change the POD for Claims 41E 4307-00 and 41E 4308-00 from the Cardwell Headgate in NWSENW Section 35, T2N, R3W, Jefferson County, to three pump sites downstream of the historical POD on the Jefferson Slough. The proposed pump site locations are in NENWSW Section 2, NENWNE Section 3, and NWNWNE Section 11, all within T1N, R3W, Jefferson County, as seen in Figure 2. The source of the water will remain Boulder River and period of diversion and use will continue to be April 1 to October 30.

Through the proposed change, the Applicant will retire the Cardwell Ditch headgate so Boulder River water historically diverted into the Cardwell Ditch will continue down the Boulder River into Jefferson Slough. Boulder River water will be pumped by the three pump sites on the Applicant's property to irrigate the POU. No conveyance loss is associated with the proposed PODs, as water will be pumped from the proposed pump sites to the POU via pipelines. The proposed changes for Claims 41E 4307-00 and 41E 4308-00 are shown in Table 9:

Table 9. Summary of the proposed use of 41E 4307-00 and 41E 4308-00. See below for an explanation of the proposed use.

Water Right	Proposed Purpose	Proposed Acres	Proposed Place of Use	Proposed Points of Diversion	Proposed Flow Rate (CFS)	Proposed Consumptive Volume (AF)	Proposed Diverted Volume (AF)
41E 4307-00	Irrigation	300	SW, SWSE Section 2, E2 Section 3, W2NE, NW Section 11, T1N, R3W, Jefferson County	NENWSW Section 2, NENWNE Section 3, and NWNWNE Section 11, T1N, R3W, Jefferson County	11.37	104.19	347.29
41E 4308-00	Irrigation	300	SW, SWSE Section 2, E2 Section 3, W2NE, NW Section 11, T1N, R3W, Jefferson County	NENWSW Section 2, NENWNE Section 3, and NWNWNE Section 11, T1N, R3W, Jefferson County	11.37	104.19	347.29
Total					**22.74**	**208.28**	**694.58**

The historical and proposed consumed and diverted volumes for the water rights proposed for change are provided in Table 10 below.

Table 10: Volumes (AF) associated with historical and proposed use.

Water Right	Historically Consumed Volume	Historically Diverted Volume	Proposed Consumptive Volume	Proposed Diverted Volume
41E 4307-00	104.2	632.92	104.19	347.29
41E 4308-00	104.2	632.92	104.19	347.29
Total	**208.36**	**1265.84**	**208.28**	**694.58**

3.2 Area of Potential Adverse Effect

Statements of Claim 41E 4307-00 and 41E 4308-00 involve a POD change on a surface water source, Boulder River. The proposed PODs, three pump sites, will be approximately 1.21 and 1.74 miles downstream of the historical POD on the Jefferson Slough. The Department considered a

potentially impacted reach on the source of supply, considering the reach of surface water between the historical POD to the proposed PODs. This reach extends from historical POD on the Boulder River NWSENW Section 35, T2N, R3W, downstream to the proposed POD in NWNWNE Section 11, T1N, R3W, all within Jefferson County. There are five water rights within the reach, as illustrated in Appendix A. One of the proposed PODs is located in NENWNE Section 3, T1N, R3W, Jefferson County. This POD is located approximately half of a mile upstream of the Jefferson Slough and Boulder River confluence, on the Jefferson Slough. The Department also considered a potentially impacted reach between the POD in NENWNE Section 3, T1N, R3W, Jefferson County, to confluence of the Boulder River and Jefferson Slough. There are zero water rights within this reach.

Review

This document has been reviewed by the Department on January 15, 2025.

References

Department Standard Practice for Determining Historical Use
Department Standard Practice for Analyzing Area of Potential Adverse Effect
Technical Memorandum "Distributing Conveyance Loss on Multiple User Ditches" (Heffner, 2020)

Appendix A: Water Rights within the Area of Potential Adverse Effect

Water Right	Priority Date	Water Right Type	Source Name	Owners	Purposes
41E 143433 00	1888/12/31	STATEMENT OF CLAIM	BOULDER RIVER	GOLDEN SUNLIGHT MINES INC	IRRIGATION
41E 143434 00	1886/12/31	STATEMENT OF CLAIM	BOULDER RIVER	GOLDEN SUNLIGHT MINES INC	IRRIGATION
41E 143436 00	1886/12/31	STATEMENT OF CLAIM	BOULDER RIVER	GOLDEN SUNLIGHT MINES INC	STOCK
41E 143437 00	1868/12/31	STATEMENT OF CLAIM	BOULDER RIVER	GOLDEN SUNLIGHT MINES INC	STOCK
41E 30017424	7/1/1985	WATER RESERVATION	BOULDER RIVER	MONTANA, STATE OF DEPT OF FISH WILDLIFE & PARKS	FISHERY

Technical Analyses Report/ Scientific Credibility Review

- Departmental Technical Analyses Report/ Scientific Credibility Review
- Any correspondence relating to the Technical Analyses Report

Technical Analyses Report / Scientific Credibility Review

Surface Water Change Technical Analyses Report

Department of Natural Resources and Conservation (DNRC or Department)
Water Resources Division
Savannah Telander, Water Resources Specialist, Helena Regional Office

Application No.	41E 30164689	**Proposed Points of Diversion**	NENWSE Section 2, NENWNE Section 3, and NWNWNE Section 11, all within T1N R3W, Jefferson County
Applicant	LR Huckaba Ranch LLC		

Overview

This report analyzes data submitted by the Applicant in support of the above-mentioned water right Change Application. This report provides technical analyses as required under the Administrative Rules of Montana (ARM) 36.12.1303 in support of the water rights criteria assessment as required in §85-2-402, Montana Code Annotated (MCA). This report was completed by regional office staff.

This Surface Water Change Technical Analyses Report contains the following sections:

1.0 Application Details

The Applicant proposes to change the point of diversion (POD) for Statements of Claim 41E 3407-00 and 41E 3408-00. Claims 41E 3407-00 and 41E 3408-00 historically diverted water from the Boulder River by the Cardwell Ditch[1] headgate in NWSENW Section 35, T2N, R3W, Jefferson County. A map of the historic POD is provided below as Figure 1. The Applicant proposes to change the POD to three pump sites downstream of the historical POD, in NENWSE Section 2, NENWNE Section 3, and NWNWNE Section 11, all within T1N R3W, Jefferson County, on the Jefferson Slough. The proposed PODs can be seen on Figure 2. The Applicant proposes to continue to divert Boulder River water for irrigation of 300 acres in SW, SWSE, Section 2, E2 Section 3, W2NE, NW Section 11, T1N, R3W, Jefferson County, from April 1 to October 30. No change is proposed for the place of use (POU), purpose, or place of storage. The water rights proposed for change are provided in Table 1 below.

Table 1. Water rights proposed for change

Water Right	Purpose	Flow Rate (CFS*)	Volume (AF^)	Period of Use	Point of Diversion	Place of Use	Priority Date	Acres
41E 3407-00	Irrigation	11.37	Historical Use Statement	4/1 to 10/30	NWSENW Section 35, T2N, R3W, Jefferson County	SW, SWSE Section 2, E2 Section 3, W2NE, NW Section 11, T1N, R3W, Jefferson County	1886.12.31	300
41E 3408-00	Irrigation	11.37	Historical Use Statement	4/1 to 10/30	NWSENW Section 35, T2N, R3W, Jefferson County	SW, SWSE Section 2, E2 Section 3, W2NE, NW Section 11, T1N, R3W, Jefferson County	1888.12.31	300

*Cubic feet per second
^Acre-feet

[1] Also known as the Shaw Ditch.

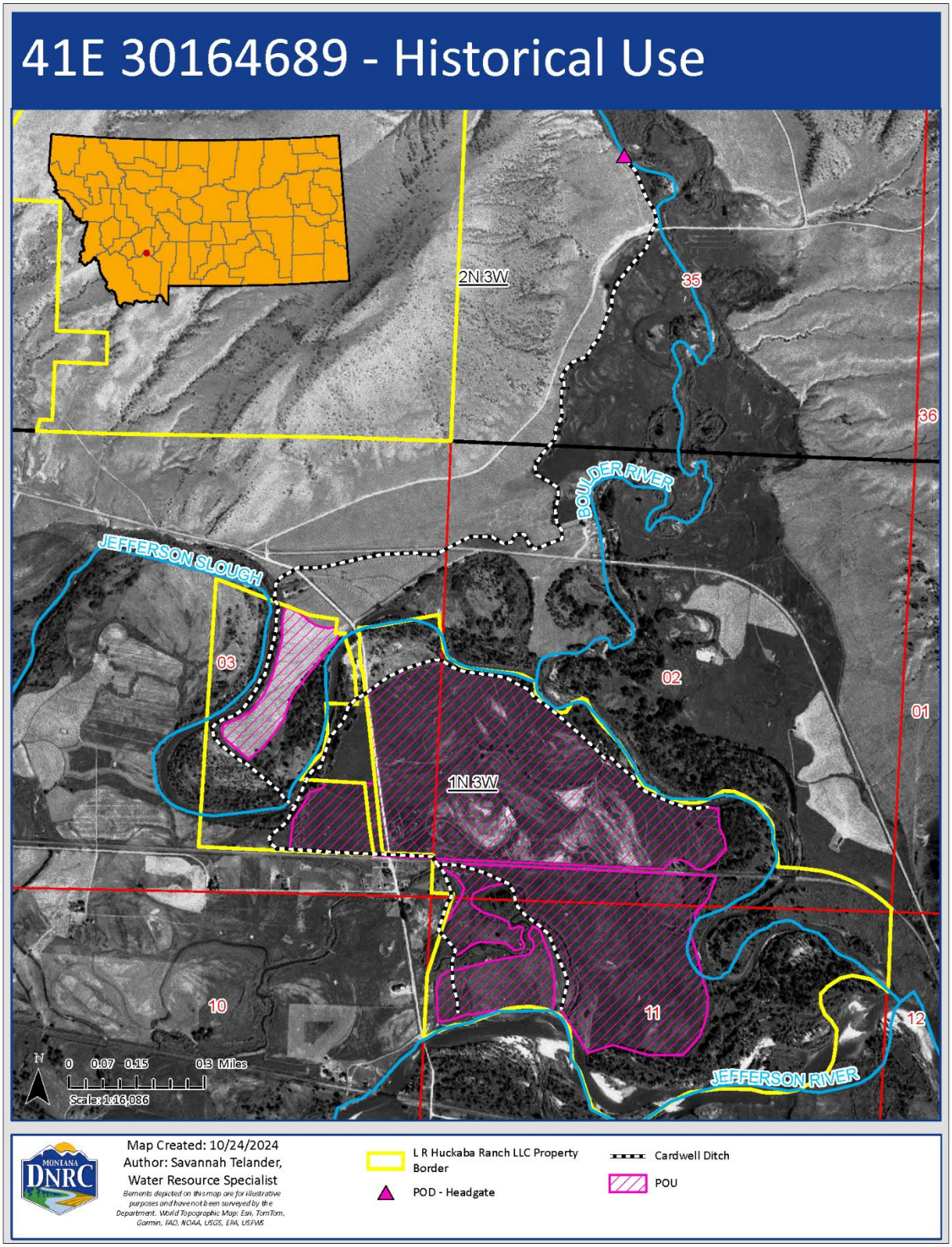


Figure 1: Map of 41E 3407-00 and 41E 3408-00 historical use.

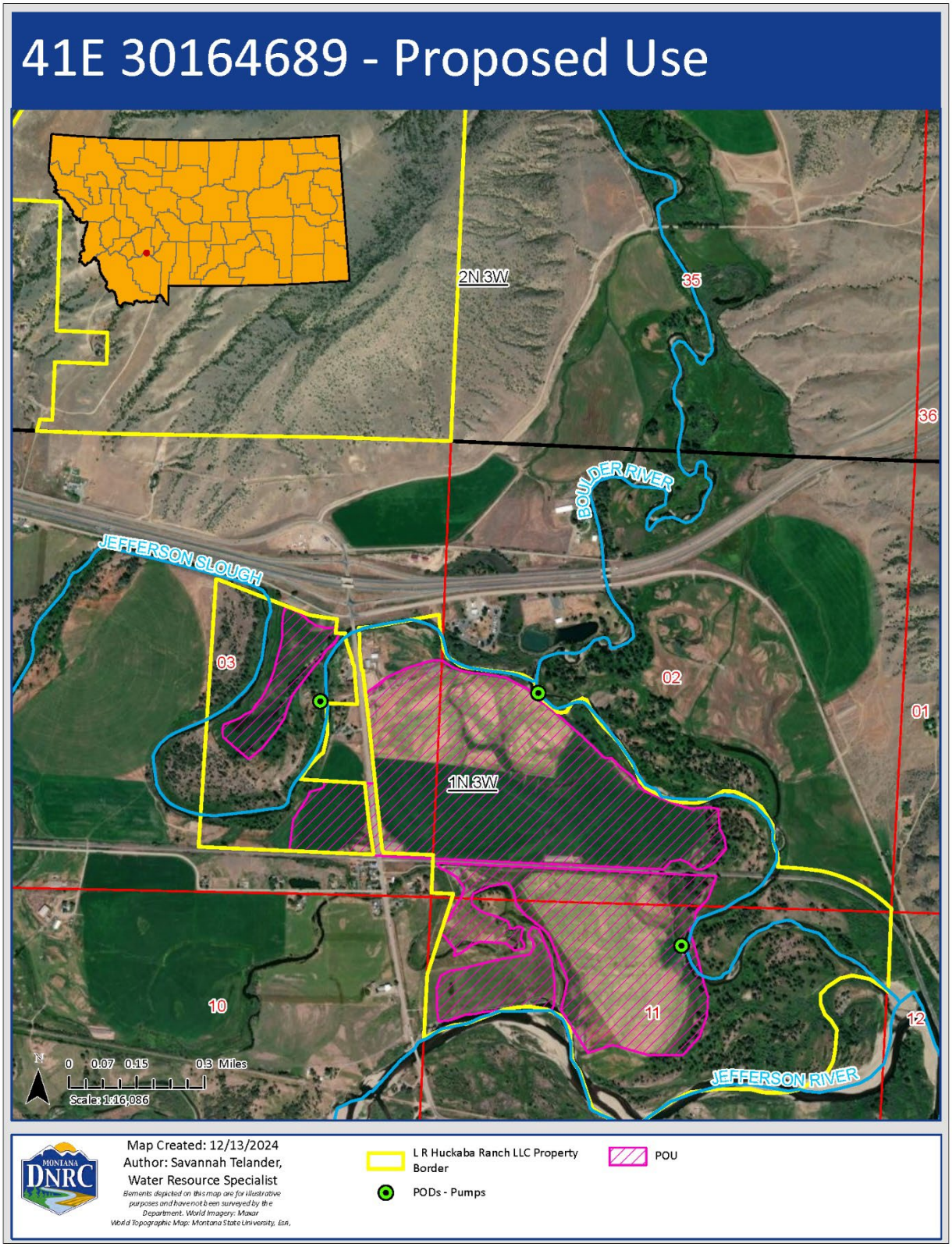


Figure 2: Map of 41E 3407-00 and 41E 3408-00 proposed use

2.0 Historical Use Technical Analysis

2.1 Historical Field Consumed and Applied Volumes

Statements of Claim 41E 3407-00 and 41E 3408-00 were originally claimed and currently indexed for 300 acres of irrigation located in the SW, SWSE Section 2, E2 Section 3, W2NE, NW Section 11, all within T1N, R3W, Jefferson County. The Water Resources Survey (WRS) for Jefferson County and historical aerial imagery, listed below, support the claimed 300 acres of irrigation.

- WRS Jefferson County, dated June 1956, maximum 300 acres found
- USGS Photo 2109500070005, dated July 5, 1947, maximum 300 acres found
- USDA Photo 479-B6, dated August 29, 1979, maximum 300 acres found

The maximum historical acres found for Claims 41E 3407-00 and 41E 3408-00 is 300 acres, seen on the map provided as Figure 1. The Department conducted historical use analysis using 300 historically irrigated acres.

Statements of Claim 41E 3407-00 and 41E 3408-00 historically diverted water from the Boulder River by the Cardwell Ditch headgate in NWSENW Section 35, T2N, R3W, Jefferson County. Claims 41E 3407-00 and 41E 3408-00 both have a maximum flow rate of 11.37 CFS. The total flow rate for the water rights proposed for change is 22.74 CFS.

The total historical consumptive volume (HCV) for the historical POU is 312.56 AF. The Department calculated the HCV using the Department's standard methodology, pursuant to ARM 36.12.1902. The water rights proposed for change are Statements of Claim, and the historical use will be evaluated as the rights existed prior to July 1, 1973. The consumed volume for irrigation is based on the net irrigation requirement (NIR) from USDA Natural Resources Conservation Service Irrigation Water Requirements (IWR) at a representative weather station. The NIR is multiplied by a county-wide management factor (from ARM 36.12.1902) to produce an adjusted NIR representative of actual crop yields in Montana. Crop consumption is determined by multiplying the adjusted NIR by the number of acres of irrigation. Crop consumption is then divided by the field efficiency identified from the irrigation method and ARM 36.12.115. Irrecoverable losses (IL) are 5% of the field applied volume for flood irrigation or 10% for sprinkler irrigation. The total consumed volume for irrigation is the crop consumption plus irrecoverable losses. The total non-consumed volume is the field applied volume minus the total consumed volume.

The Applicant asserts that Statements of Claim 41E 3407-00 and 41E 3408-00 were historically diverted water from the Boulder River by the Cardwell Ditch headgate in NWSENW Section 35, T2N, R3W, Jefferson County. The Applicant states that water was diverted from the beginning of April (4/1) to the end of October (10/30), with two seven day pauses for cutting, for a total of 198 days. The POU is used for production of alfalfa, barley, oats, and grass hay. Given the historical use description, the Department has calculated HCV assuming full-service irrigation for the 198 days of irrigation.

The Applicant states that the entire POU was wild flood irrigated using contour ditches. The HCV for the historical POU was found using the following equations and information:

$$Supplemental\ HCV = HCV * Supplemental\ Flow\ Proportion$$

$$HCV = Crop\ Consumption + Historic\ Irrecoverable\ Losses$$

$$Crop\ Consumption = Boulder\ Weather\ Station * 1ft/12inches * Jefferson\ County\ Management\ Factor * Historic\ Acres\ Historic$$

$$Irrecoverable\ Losses = Field\ Applied * IL\%$$

$$Field\ Applied = Crop\ ConsumptionField\ Efficiency$$

The historical consumed and field applied volumes have been calculated with the inputs shown in Table 2 following the methods described above and in ARM 36.12.1902.

Table 2. Historical use for all water rights proposed for change.

Irrigation Method	Acres	IWR (in)*	Mgmt. Factor^	Field Efficiency	Crop Consumption (AF)	Applied Volume (AF)	IL (AF)	Total Consumed Volume (AF)
Flood Irrigation, Wheeline & Handline	300	17.08	0.61	0.25	260.47	1041.88	52.09	312.56

*Boulder IWR Weather Station
^Jefferson County Historical Use Management Factor (1964-1973)

Statements of Claim 41E 3406-00, 41E 3407-00 and 41E 3408-00 are fully supplemental. Claim 41E 4306-00 is an irrigation Claim owned by the Applicant for water from Cold Spring with a maximum flow rate of 11.37 CFS. 41E 4306-00 is not included in the proposed change. The HCV for the historical POU was distributed to all water rights based on their proportion of the total flow rate, shown in Table 3. The supplemental consumed volume was determined using the equation as described below.

$$Supplemental\ Consumed\ Volume_{water\ right} = Field\ HCV * Supplemental\ Flow\ Proportion_{water\ right}$$

Table 3. Historical consumptive use of the POU by water right

Water Right	Type of Use	Applied Volume - Supplemental (AF)	Consumed Volume - Supplemental (AF)	Non-Consumed Volume - Supplemental (AF)
41E 4306-00	Historical	347.29	104.19	243.11
41E 4307-00	Historical	347.29	104.19	243.11
41E 4308-00	Historical	347.29	104.19	243.11
Total		**1041.88**	**312.56**	**729.32**

2.2 Historical Conveyance Losses

The historical means of conveyance from the POD to the POU is the Cardwell Ditch. The Cardwell Ditch runs south from the headgate in NWSENW Section 35, T2N, R3W, Jefferson County, on the west side of the Boulder River. It continues south under Interstate 90 onto the Applicant's property and irrigates the POU north of the Jefferson Slough in E2 Section 3, T1N, R3W, Jefferson County. The ditch continues south until it dumps into the Jefferson Slough in the Section 3, T1N, R3W, Jefferson County. Boulder River water is then pumped from the Jefferson Slough at the secondary POD in NESWNE Section 3, T1N, R3W, Jefferson County, into the Applicant's ditch system that irrigates the POU south of the Jefferson Slough in Sections 2, 3, and 11, T1N, R3W, Jefferson County. The Cardwell Ditch can be seen on the historical use map provided as Figure 1 above.

Statements of Claim 41E 4306-00, 41E 4307-00, 41E 4308-00, 41E 143433-00, 41E 143436-00 and 41E 143437-00 utilized the Cardwell Ditch as a means of conveyance and/or POU. Statements of Claim 41E 4306-00, 41E 4307-00, 41E 4308-00 historically conveyed water to the Applicants property from April 1 to October 30. Claims 41E 143433-00, 41E 143436-00 and 41E 143437-00 are owned by a neighboring third-party, Golden Sunlight Mines Inc. Claim 41E 143433-00 is an irrigation right and Claims 41E 143436-00 and 41E 143437-00 are diverted ditch stock water rights that claim the Cardwell Ditch as a means of conveyance and/or POU. Irrigation Claim 41E 143433-00 is included in conveyance loss calculations as this water right utilized water out of the Cardwell Ditch above the Applicant's water rights proposed for change in this Change Application. Claims 41E 143436-00 and 41E 143437-00 were not included in conveyance losses because they are multiple use diverted ditch rights of Golden Sunlight Mines Inc irrigation water rights.

Due to the Cardwell Ditch conveying multiple water rights over varying distances to the multiple POUs over different number of days, the Department divided the ditch into four down-ditch combinations. The water rights were assigned to a combination based on the varying ditch segments and days. The down-ditch combinations for the Cardwell Ditch are shown in Table 4 and Figure 3.

Table 4: Down-ditch combinations for Cardwell Ditch

Down-Ditch Combination	Water Rights	Period of Use/Diversion	Days Irrigated	Total Flow Rate (CFS)	Ditch Length (ft)	Width (ft)	Wetted Perimeter (ft)	Ditch Loss Rate	Net Evap (in)
Cardwell A	41E 3406-00, 41E 3407-00, 41E 3408-00, 41E 143433-00	4/1 to 8/31	145	39.23	1055	4	9.59	1.2	13.86
Cardwell B	41E 3406-00, 41E 3407-00, 41E 3408-00	9/1 to 10/30	53	34.11	1055	4	9.59	1.2	8.88
Cardwell C	41E 3406-00, 41E 3407-00, 41E 3408-00	4/1 to 10/30	198	34.11	7886	4	9.59	1.2	22.74
Cardwell D	41E 3406-00, 41E 3407-00, 41E 3408-00	4/1 to 10/30	198	34.11	3089	4	9.59	1.2	22.48

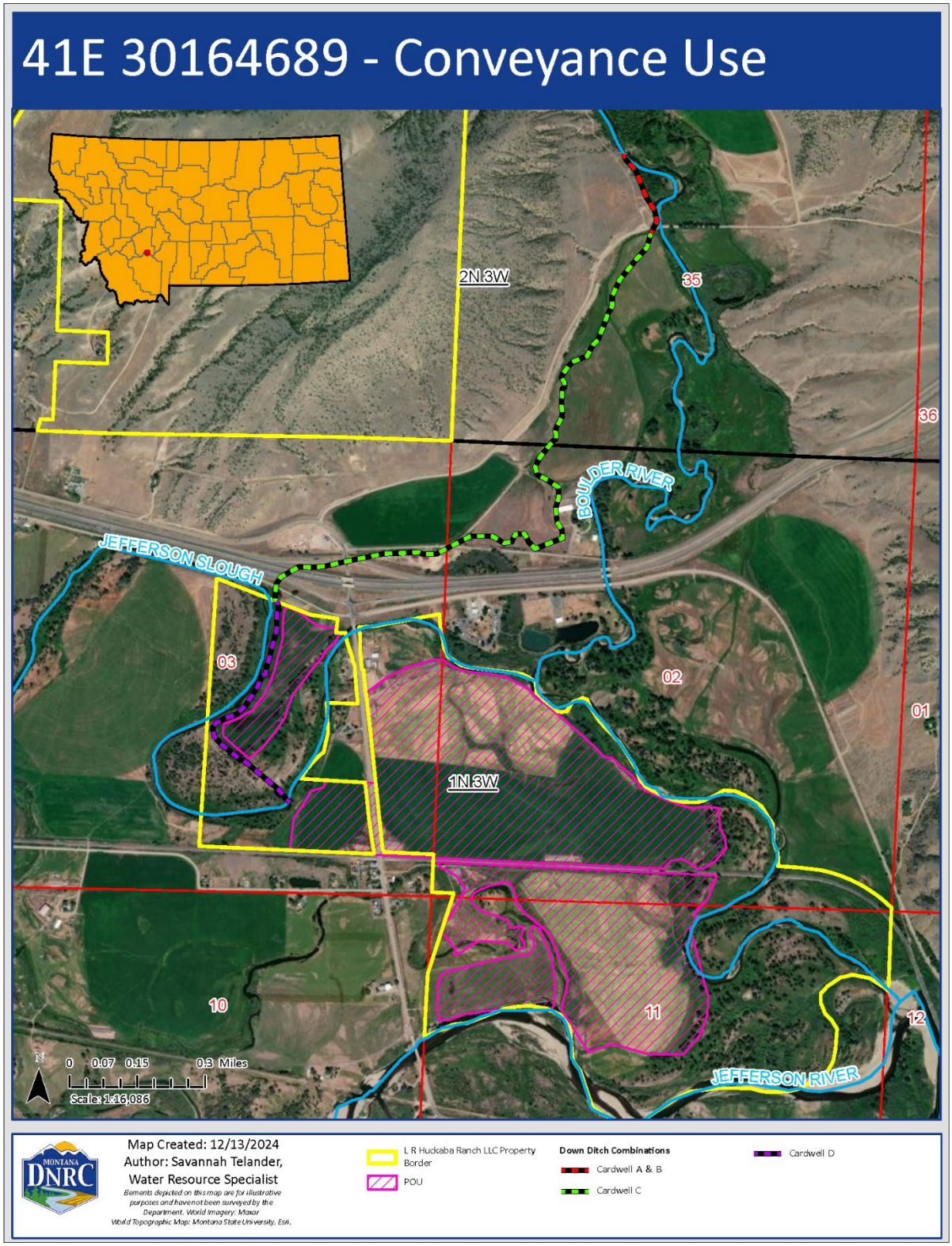


Figure 3: Cardwell Ditch conveyance use map of down-ditch combinations

Using ditch measurements and third-party water right information provided by the Applicant, seen in Table 4, the Department calculated conveyance losses for each down-ditch combination and the water rights proposed for change. Conveyance losses for the water rights included in this Change Application were distributed using the Department's standard methodology pursuant to the technical memorandum "Distributing Conveyance Loss on Multiple User Ditches" (Heffner, 2020) and ARM 36.12.1902(10). The historical conveyance loss volume is equal to the sum of the historical seepage loss, vegetation loss, and ditch evaporation volumes. Conveyance loss volumes per down-ditch combination is provided below in Table 5 and the conveyance loss volumes per each water right in the Cardwell ditch is provided below in Table 6. The following equations were used to calculate conveyance loss volumes:

$$Ditch\ Combo\ Conveyance\ Losses_{Total} = Seepage\ Loss_{combo} + Vegetation\ Loss_{combo} + Evaporation\ Loss_{combo}$$

$$Seepage\ Loss_{combo} = (Wetted\ Perimeter_{combo} * Ditch\ Length_{combo} * Ditch\ Loss\ Rate * Days\ Diverted_{combo}) * \frac{1\ acre}{43560 ft^2}$$

$$Distributed\ Vegetation\ Loss_{combo} = 0.75\%\ loss\ per\ mile * \frac{Ditch\ Length_{combo}}{5280\ miles} * Flow\ Rate_{combo} * Days\ Diverted_{combo} * 2$$

$$Distributed\ Ditch\ Evaporation\ Loss_{combo} = (Surface\ Area * Adjusted\ Net\ Evaporation_{combo}) * \frac{1\ acre}{43560 ft^2}$$

$$Adjusted\ Net\ Evaporation_{combo} = Period\ of\ Diversion\ Net\ Evaporation * \frac{Days\ Irrigated}{365}$$

$$Surface\ Area = (Wetted\ Width\ ft) * Ditch\ Length_{combo}$$

$$Ditch\ Combo\ Conveyance\ Losses_{Water\ Right} = Ditch\ Combo\ Conveyance\ Losses_{Total} * Combo\ Flow\ Proportion_{Water\ Right}$$

$$Combo\ Flow\ Proportion_{Water\ Right} = Water\ Right\ Flow\ Rate_{ditch} * Ditch\ Combo\ Total\ Flow\ Rate$$

Table 5: Conveyance loss volumes of for each down-ditch combination

Down-Ditch Combination	Length (ft)	Flow Rate (CFS)	Width (ft)	Wetted Perimeter (ft)	Ditch Loss Rate (ft3/ft/day)	Days Irrigated	Adj. Net Evap (in)	Seepage Loss (AF)	Vegetation Loss (AF)	Evaporative Loss (AF)	Total Conveyance Loss (AF)
Cardwell A	1055	39.23	4	9.59	1.2	145	13.86	40.41	17.05	0.11	57.57
Cardwell B	1055	34.11	4	9.59	1.2	53	8.88	14.77	5.42	0.07	20.26
Cardwell C	7886	34.11	4	9.59	1.2	198	22.74	412.51	151.31	1.37	565.19
Cardwell D	3089	34.11	4	9.59	1.2	198	22.48	161.58	59.27	0.53	221.38
Total								629.28	233.04	2.09	**864.41**

Table 6: Conveyance loss volume for water rights in Cardwell Ditch

Water Right	Down-Ditch Combination	Total Flow Rate (CFS)	Water Right Flow Rate (CFS)	Proportion	Down-Ditch Combination Conveyance Loss (AF)	Water Right Conveyance Loss (AF)	Water Right Total Conveyance Loss (AF)
41E 4306-00	Cardwell A	39.23	11.37	0.29	57.57	16.69	285.63
	Cardwell B	34.11	11.37	0.33	20.26	6.75	
	Cardwell C	34.11	11.37	0.33	565.19	188.4	
	Cardwell D	34.11	11.37	0.33	221.38	73.79	
41E 4307-00	Cardwell A	39.23	11.37	0.29	57.57	16.69	285.63
	Cardwell B	34.11	11.37	0.33	20.26	6.75	
	Cardwell C	34.11	11.37	0.33	565.19	188.4	
	Cardwell D	34.11	11.37	0.33	221.38	73.79	
41E 4308-00	Cardwell A	39.23	11.37	0.29	57.57	16.69	285.63
	Cardwell B	34.11	11.37	0.33	20.26	6.75	
	Cardwell C	34.11	11.37	0.33	565.19	188.4	
	Cardwell D	34.11	11.37	0.33	221.38	73.79	
41E 143433-00	Cardwell A	39.23	5.12	0.13	57.57	7.51	7.51
Total						**864.41**	**864.41**

2.3 Historical Diverted Volume

Per ARM 36.12.1902(10), the historically diverted volume is equal to the sum of the historical consumptive volume divided by the field efficiency and historical conveyance loss volume. Table 7 below summarizes the historical supplemental consumed and conveyance loss volumes.

Table 7: Historic Diverted Volume of 41E 4307-00 and 41E 4308-00

Water Right	Consumed Volume - Supplemental (AF)	Field Efficiency	Conveyance Loss Volume (AF)	Historic Diverted Volume (AF)
41E 4307-00	104.19	0.25	285.63	632.92
41E 4308-00	104.19	0.25	285.63	632.92
Total	**208.38**		**571.26**	**1265.84**

2.4 Summary of Historical Use

The Department will consider the following values when evaluating the historical use of 41E 3407-00 and 41E 3408-00 for the adverse effect criterion:

Table 8: Summary of historical use of 41E 3407-00 and 41E 3408-00

Water Right	Historical Purpose	Maximum Historical Acres	Historical POU	Historical POD	Maximum Historical Flow Rate (CFS)	Historically Consumed Volume (AF)	Historically Diverted Volume (AF)
41E 3407-00	Irrigation	300	SW, SWSE Section 2, E2 Section 3, W2NE, NW Section 11 T1N R3W	NWSENW Section 35 T2N R3W	11.37	104.19	632.92
41E 3408-00	Irrigation	300	SW, SWSE Section 2, E2 Section 3, W2NE, NW Section 11 T1N R3W	NWSENW Section 35 T2N R3W	11.37	104.19	632.92
Total					**22.74**	**208.38**	**1265.84**

3.0 Analysis of Impacted Surface Water Sources

3.1 Summary of Proposed Use

The Applicant proposes to change the POD for Claims 41E 4307-00 and 41E 4308-00 from the Cardwell Headgate in NWSENW Section 35, T2N, R3W, Jefferson County, to three pump sites downstream of the historical POD on the Jefferson Slough. The proposed pump site locations are in NENWSW Section 2, NENWNE Section 3, and NWNWNE Section 11, all within T1N, R3W, Jefferson County, as seen in Figure 2. The source of the water will remain Boulder River and period of diversion and use will continue to be April 1 to October 30.

Through the proposed change, the Applicant will retire the Cardwell Ditch headgate so Boulder River water historically diverted into the Cardwell Ditch will continue down the Boulder River into Jefferson Slough. Boulder River water will be pumped by the three pump sites on the Applicant's property to irrigate the POU. No conveyance loss is associated with the proposed PODs, as water will be pumped from the proposed pump sites to the POU via pipelines. The proposed changes for Claims 41E 4307-00 and 41E 4308-00 are shown in Table 9:

Table 9. Summary of the proposed use of 41E 4307-00 and 41E 4308-00. See below for an explanation of the proposed use.

Water Right	Proposed Purpose	Proposed Acres	Proposed Place of Use	Proposed Points of Diversion	Proposed Flow Rate (CFS)	Proposed Consumptive Volume (AF)	Proposed Diverted Volume (AF)
41E 4307-00	Irrigation	300	SW, SWSE Section 2, E2 Section 3, W2NE, NW Section 11, T1N, R3W, Jefferson County	NENWSW Section 2, NENWNE Section 3, and NWNWNE Section 11, T1N, R3W, Jefferson County	11.37	104.19	347.29
41E 4308-00	Irrigation	300	SW, SWSE Section 2, E2 Section 3, W2NE, NW Section 11, T1N, R3W, Jefferson County	NENWSW Section 2, NENWNE Section 3, and NWNWNE Section 11, T1N, R3W, Jefferson County	11.37	104.19	347.29
Total					**22.74**	**208.28**	**694.58**

The historical and proposed consumed and diverted volumes for the water rights proposed for change are provided in Table 10 below.

Table 10: Volumes (AF) associated with historical and proposed use.

Water Right	Historically Consumed Volume	Historically Diverted Volume	Proposed Consumptive Volume	Proposed Diverted Volume
41E 4307-00	104.2	632.92	104.19	347.29
41E 4308-00	104.2	632.92	104.19	347.29
Total	**208.36**	**1265.84**	**208.28**	**694.58**

3.2 Area of Potential Adverse Effect

Statements of Claim 41E 4307-00 and 41E 4308-00 involve a POD change on a surface water source, Boulder River. The proposed PODs, three pump sites, will be approximately 1.21 and 1.74 miles downstream of the historical POD on the Jefferson Slough. The Department considered a

potentially impacted reach on the source of supply, considering the reach of surface water between the historical POD to the proposed PODs. This reach extends from historical POD on the Boulder River NWSENW Section 35, T2N, R3W, downstream to the proposed POD in NWNWNE Section 11, T1N, R3W, all within Jefferson County. There are five water rights within the reach, as illustrated in Appendix A. One of the proposed PODs is located in NENWNE Section 3, T1N, R3W, Jefferson County. This POD is located approximately half of a mile upstream of the Jefferson Slough and Boulder River confluence, on the Jefferson Slough. The Department also considered a potentially impacted reach between the POD in NENWNE Section 3, T1N, R3W, Jefferson County, to confluence of the Boulder River and Jefferson Slough. There are zero water rights within this reach.

Review

This document has been reviewed by the Department on January 15, 2025.

References

Department Standard Practice for Determining Historical Use
Department Standard Practice for Analyzing Area of Potential Adverse Effect
Technical Memorandum "Distributing Conveyance Loss on Multiple User Ditches" (Heffner, 2020)

Appendix A: Water Rights within the Area of Potential Adverse Effect

Water Right	Priority Date	Water Right Type	Source Name	Owners	Purposes
41E 143433 00	1888/12/31	STATEMENT OF CLAIM	BOULDER RIVER	GOLDEN SUNLIGHT MINES INC	IRRIGATION
41E 143434 00	1886/12/31	STATEMENT OF CLAIM	BOULDER RIVER	GOLDEN SUNLIGHT MINES INC	IRRIGATION
41E 143436 00	1886/12/31	STATEMENT OF CLAIM	BOULDER RIVER	GOLDEN SUNLIGHT MINES INC	STOCK
41E 143437 00	1868/12/31	STATEMENT OF CLAIM	BOULDER RIVER	GOLDEN SUNLIGHT MINES INC	STOCK
41E 30017424	7/1/1985	WATER RESERVATION	BOULDER RIVER	MONTANA, STATE OF DEPT OF FISH WILDLIFE & PARKS	FISHERY

January 17, 2024

LR Huckaba Ranch LLC
26 MT Highway 356
Cardwell, MT 59271

Subject: Completed Technical Analyses Report for Change Preapplication No. 41E 30164689

Dear Applicant,

As designated on the submitted Preapplication Meeting Form per §85-2-302(3)(b), MCA, the Department of Natural Resources and Conservation (DNRC or Department) has completed the technical analyses for Change Preapplication No. 41E 30164689 based on the information provided in your Preapplication Meeting Form submitted to the Department on December 19, 2024. The technical analyses can be found in the attached report.

This Technical Analyses Report **IS**: A collection of facts that the DNRC has gathered, including content provided in the Preapplication Meeting Form materials. The Department will use these data to analyze the criteria in §85-2- 402, MCA if you submit an application for the project described in the completed Preapplication Meeting Form.

This Technical Analyses Report **IS NOT**: An analysis or discussion of whether the Preapplication Meeting Form as filed meets the criteria (§85-2- 402, MCA).

You have 180 days to submit the Water Right Change Application Form 606 considering the information provided in the technical analyses and Preapplication Meeting Form. If the Application Form is not submitted to the Helena Regional Office by July 16, 2025, a new preapplication meeting will be required to process the Application with expedited timelines (ARM 36.12.1302(6)(b)). If any elements described in the submitted Application are changed from that of the submitted Preapplication Meeting Form, the discounted filing fee and expedited timelines will not apply (ARM 36.12.1302(6)(a)). Please note that the technical analyses will expire one year from the date of this letter (ARM 36.12.1302(8)).

Please let me know if you have any questions.

Best,

Savannah Telander
Water Resources Specialist
Helena Regional Office
Savannah.Telander@mt.gov
406-444-6810

CC:

Patrick Byroth, patrickbyorth@TU.org
Chris Edgington, chris@montanatu.org

Preapplication Materials

- Preapplication Meeting Request
- Preapplication Meeting Form
- All attachments
- All correspondence prior to application receipt

Preapplication Materials

PREAPPLICATION MEETING FORM
CHANGE
§ 85-2-302(3)(b)
Form No. 606P *(Revised 4/2024)*

For Department Use Only

Application # 30164689 Basin 41E
Meeting Date 10/17/24 Time 1:00 AM/PM
Completed Form Deadline 4/15/2024

PREAPPLICATION MEETING FEE
$ 500

RECEIVED
DEC 19 2024
DNRC-HRO

RECEIVED
DEC 10 2024
DNRC-HRO

FILING FEE REDUCTION & EXPEDITED TIMELINE
An application will be eligible for a filing fee reduction and expedited timelines if the applicant completes a preapplication meeting with the Department (ARM 36.12.1302(1)), which includes submitting any follow-up information identified by the Department (ARM 36.12.1302(3)(c)) and receiving either Department-completed technical analyses or Department review of applicant-submitted technical analyses (ARM 36.12.1302(4) and (5)). An application for the proposed project also must be submitted within 180 days of delivery of Department technical analyses or scientific credibility review and no element on the submitted application can be changed from the completed preapplication meeting form (ARM 36.12.1302(6)).

Completed Form Received 12/19/2024.
Fee Rec'd $ 500.00 Check # 7860
Deposit Receipt # HES250 89666
Payor MT Trout Unlimited
Refund $ _____ Date _____

The Department will fill out Form No. 606P and will identify follow-up during the preapplication meeting. The Department and Applicant will sign the Preapplication Meeting Affidavit and Certification within five business days. Within 180 days of the preapplication meeting, the Applicant will complete identified follow-up on a separate document with the question numbers clearly labeled.

Applicant Information: *Add more as necessary.*
Applicant Name LR Huckaba Ranch LLC
Mailing Address 26 MT Highway 359 City Cardwell State MT Zip 59271-9604
Phone Numbers: Home _____ Work _____ Cell 406-490-4919
Email Address LENHUCKABA@ICLOUD.COM

Applicant Name _____
Mailing Address _____ City _____ State _____ Zip _____
Phone Numbers: Home _____ Work _____ Cell _____
Email Address _____

Contact/Representative Information: *Add more as necessary.*
Contact/Representative is: ☐ Applicant ☐ Consultant ☐ Attorney ☑ Other (describe) Trout Unlimited
Contact/Representative Name Patrick Byorth
Mailing Address 321 E Main St #411 City Bozeman State MT Zip 59725
Phone Numbers: Home _____ Work 406-548-4830 Cell _____
Email Address PATRICK.BYORTH@TU.ORG

NOTE: *If a contact person is identified as an attorney, all communication will be sent only to the attorney unless the attorney provides written instruction to the contrary. If a contact person is identified as a consultant, employee, or lessee, the individual filing the water right form or objection form will receive all correspondence and a copy may be sent to the contact person.*

Meeting Attendees: *Add more as necessary.*

Name	Organization	Position
Patrick Byorth	Trout Unlimited	Director
Chris Edgington	MT Trout Unlimited	Project Manager
Len Huckaba	Applicant	
Jennifer Daly	MT DNRC	Regional Manager
Savannah Telander	MT DNRC	Water Resource Specialist
Allison Pardis	Trout Unlimited	

Table of Contents

Application Details

The following questions are mandatory and must be filled out before the Preapplication Meeting Form is determined to be complete. Narrative responses that are larger than the space provided can be answered in an attachment. If an attachment is used, mark the see attachment ("A") checkbox on this form and label the attachment with the question number. Constrain narrative responses to the specific question as is asked on the form; do not respond to multiple questions in one narrative. Label units in narrative responses. Responses in the form of a table may be entered into the table provided on this form or in an attachment. Responses in the form of a table that are larger than the table provided on this form should be placed in an attachment. If an attachment is used, the table must have the exact headings found on this form, and the see attachment ("A") checkbox must be marked. For tables in this form, circle correct unit at header of column when faced with a choice of units. For tables in attachments, label all units. Questions that require Applicant to submit items to the Department have a submitted ("S") checkbox, which is marked when the required item is attached to the Preapplication Meeting Form. Label all submitted items with the question number for which they were submitted. For all questions where follow-up is necessary, mark the "F" checkbox in the "Follow-Up" column and write the question number on the "Follow-Up Page".

Questions, Narrative Responses, and Tables	Check-boxes	Follow-Up
1. Do you elect to have DNRC conduct Technical Analyses?	■ Y ☐ N	☐ F
2. Which water right(s) are proposed for change? Include water right number, currently authorized flow rate (GPM or CFS), and flow rate needed for project (GPM or CFS).	☐ A	☐ F

Water Right Number	Current Flow Rate (GPM or CFS)	Flow Rate Needed for Project (GPM or CFS)
41E 3407-00	11.37 CFS	11.37 CFS
41E 3408-00	11.37 CFS	11.37 CFS

3. Is the proposed change on a non-filed water project?	☐ Y ■ N	☐ F
a. If yes, please submit a Non-Filed Water Project Addendum (Form 606/634-NFWPA). The project must meet the requirements of the addendum. The addendum is required before the Preapplication Meeting Form is completed.	☐ S	☐ F
4. How many change applications will be needed for this project? Please refer to ARM 36.12.1305 for more information. 1		☐ F
5. Please submit a historical use map created on an aerial photograph or topographic map that shows the following: section corners, township and range, a north arrow, all historical points of diversion (POD) labeled with a unique POD ID letter, all historical places of use (POU), all historical conveyance structures, all historical places of storage, and historical place of	■ S	☐ F

use for all overlapping water rights.		
6. Please submit a proposed use map created on an aerial photograph or topographic map that shows the following: section corners, township and range, a north arrow, all proposed points of diversion labeled with a unique POD ID number, all proposed places of use, all proposed conveyance structures, all proposed places of storage, and proposed place of use for all overlapping water rights.	☐ S	■ F
7. Identify the water right elements proposed for change, with an "X", for each water right proposed for change.	☐ A	☐ F

Water Right #	41E 3407-00	41E 3408-00					
Point of diversion	X	X					
Place of use							
Purpose of use							
Place of storage							

8. Does the change involve a change in point of diversion?	■ Y ☐ N	☐ F
a. If yes, describe the proposed location of the new point(s) of diversion to the nearest 10 acres, if source is groundwater (GW) or surface water (SW), source name, and means of diversion (e.g., pump, headgate, well). Label POD ID with the same numbers as the proposed use map (Question 6).	☐ A	☐ F

POD #	¼	¼	¼	**Sec**	**Twp**	**Rge**	**County**	**Lot**	**Block**	**Tract**	**Subdivision**	**Gov Lot**	**GW or SW**	**Source Name**	**Means**
1	NW	NW	NE	11	1N	3W	Jefferson						SW	Boulder River	Pump
2	NE	NW	SW	2	1N	3W	Jefferson						SW	Boulder River	Pump
3	NE	NW	NE	3	1N	3W	Jefferson						SW	Jefferson Slough	Pump

9. Does the change involve a change in place of use?	☐ Y ■ N	☐ F
a. If yes,		
i. What are the geocodes of the proposed place of use?	☐ A	☐ F

ii. Describe the legal land description of the proposed place of use and, if the water rights being changed will have an irrigation or lawn and garden purpose, list the number of irrigated acres.	☐ A	☐ F

Acres	Gov't Lot	¼	¼	¼	Sec	Twp	Rge	County
	Total							

b. Are you proposing to add a place of use on State of Montana Trust Land?	☐ Y ■ N	☐ F
i. If yes, you must submit an Authorization for Temporary Change in Appropriation Right Consent Form from the DNRC Trust Lands Management Division before the Preapplication Meeting Form is complete. A change authorization to add a POU on Trust Land will be temporary for the duration of the lease term. Answer project-specific questions for temporary changes (question 99 to 105).	☐ S	☐ F
10. Does the proposed change include a change in purpose of use? If yes, answer questions 106 to 109 for change in purpose of use.	☐ Y ■ N	☐ F
11. Do you propose to add or modify one or more place(s) of storage (reservoir or pond) with a storage capacity greater than 0.1 acre-feet? If yes, answer questions 110 to 119.	☐ Y ■ N	☐ F
12. Are conveyance ditches used for historical or proposed uses? If yes, answer ditch-specific questions 120 to 126.	■ Y ☐ N	☐ F
13. Do you have ownership of the entire historical POU for the water right(s) being changed?	■ Y ☐ N	☐ F
a. If no,		
i. List the water right(s) for which you do not own the entire historical POU. _____		☐ F
ii. Are the water right(s) listed in question 13.a.i severed from the historical POU?	☐ Y ☐ N	☐ F
1. If yes, do you own the entirety of the severed water right(s) proposed for change?	☐ Y ☐ N	☐ F

iii. Are you filing on behalf of another entity? If yes, describe. _____	☐ Y ☐ N	☐ F
iv. Are all owners of the historical place of use willing to sign the application?	■ Y ☐ N	☐ F
1. If no,		
a. A Form 641 or 642 to split the water right(s) being changed must be received and processed by the Department prior to application submittal	☐ S	☐ F
b. Describe how the water right(s) will be split, and which part of the split water right(s) will be proposed for change. _____ _____	☐ A	☐ F
14. Is the proposed use temporary? If yes, answer questions 99 to 105 for temporary changes.	☐ Y ■ N	☐ F
15. Is the application to change the purpose of use or place of use of an appropriation of 4,000 or more acre-feet (AF) of water a year and 5.5 or more cubic feet per second (CFS)? If yes, you must submit a Reasonable Use Addendum (Form 606-B) with the application. The reasonable use criteria are found in §85-2-402(4-5), MCA.	☐ Y ■ N	☐ F
16. Will you be transporting water for use outside of Montana? If yes, you will need submit an Out-of-State Use Addendum (Form 600/606- OSA) with the application. The out-of-state use criteria are outlined in §85-2-402(6), MCA.	☐ Y ■ N	☐ F
17. Is the project located in designated sage grouse habitat? If yes, you must have a consultation with and review of your project by the Montana Sage Grouse Habitat Conservation Program. The review letter will be required at application submittal.	☐ Y ■ N	☐ F
18. Does the application include the water marketing purpose? If yes, answer questions 127 to 134 for water marketing. A Water Marketing Purpose Addendum (Form 600/606-WMA) will be required with application submittal.	☐ Y ■ N	☐ F
19. Does the proposed purpose include instream flow? If yes, answer questions 135 to 145 for Instream Flow Changes. A Change to Instream Flow Addendum (Form 606-IFA) will be required with application submittal.	☐ Y ■ N	☐ F
20. Will the proposed use include salvage water? If yes, answer questions 146 to 150 for Salvage Water.	☐ Y ■ N	☐ F

Historical Use

The following questions are mandatory and must be filled out for both Surface Water and Groundwater Applications before the Preapplication Meeting Form is determined to be complete.

Questions, Narrative Responses, and Tables	Check-boxes	Follow-Up
21. What type of water right(s) are proposed for change? Answer question 22 for each Statement of Claim, 23 for each Provisional Permit, and 24 for other types of water rights. Statements of claim	☐ A	☐ F
22. In the table below, write the water right number for each Statement of Claim proposed for change in the "Statement of Claim" column. If there is one or more previous change authorizations, write the application numbers for the change authorizations in the "Previous Change Authorization" column and if there are no previous change authorizations, write "none" instead. Write the date of the Project Completion Notice for each previous change authorization in the "Project Completion Notice" column and if the previous change authorization does not have a Project Completion Notice, write "none" instead. In the "Previous Historical Use Analysis" column, write "full" or "partial" if a historical use analysis was conducted for the previous change authorization, and "none" if no previous historical use analysis was conducted. In the "Use Historical Use Analysis for Current Application" column, write "yes" if the previous historical use analysis will be used for the current application and "no" if a new historical use analysis will be conducted.	☐ A	☐ F

Statement of Claim	Previous Change Authorization	Project Completion Notice	Previous Historical Use Analysis	Use Historical Use Analysis for Current Application
41E 3407-00	n/a			
41E 3408-00	n/a			

23. In the table below, write the water right number for each Provisional Permit proposed for change in the "Provisional Permit" column. If a Project Completion Notice has been submitted, write the date in the "Project Completion Notice" column, and if no Project Completion Notice has been submitted, write "none" instead. For each Provisional Permit proposed for change, if there are one or more previous change authorizations, write the application number for the change authorizations in the "Previous Change Authorization" column. If there are no previous change authorizations, write "none" in the "Previous Change Authorization" column and "NA" in all the remaining columns. Write the date of the Project	☐ A	☐ F

Completion Notice for each previous change authorization in the "Previous Change Project Completion Notice" column and if the previous change authorization does not have a Project Completion Notice, write "none" instead. In the "Previous Change Historical Use Analysis" column, write "full" or "partial" if a historical use analysis was conducted for the previous change authorization, and "none" if no previous historical use analysis was conducted. In the "Use Historical Use Analysis for Current Application" column, write "yes" if the previous historical use analysis will be used for the current application, "no" if a new historical use analysis will be conducted.

Provisional Permit	Project Completion Notice	Previous Change Authorization	Previous Change Project Completion Notice	Previous Change Historical Use Analysis	Use Historical Use Analysis for Current Application

24. In the table below, write the water right number for each water right with another type proposed for change, the type of water right, and the date of issuance.

☐ A ☐ F

Other Water Right Type Number	Other Water Right Type Description	Date of Issuance

25. Are there previous Montana Water Court approved stipulations, Water Master reports, or prior Montana Water Court or Department decisions related to the water right(s) being changed?

■ Y ☐ N ☐ F

a. If yes, explain.

■ A ☐ F

Verified motion to amend submitted

26. Fill in the table below based on ARM 36.12.1902(1) and the information provided in questions 21 to 25. In column "Water Right Number" list all water rights proposed for change. Select one of the three options from column "Historical Use Analysis Options" and fill in the "Information Required for Historical Use" associated with that option. Select "Full Historical Use Analysis NA" only if an unperfected Provisional Permit will be used to serve as historical use in lieu of analysis. If the "Existing Historical Use Analysis" or "Full Historical Use Analysis NA" option is selected, skip to question 42 because this section is complete.	☐ A	☐ F

Water Right No. Proposed for Change	**Historical Use Analysis Option and Information Required for Historical Use**
41E 3407-00	■ New Historical Use Analysis. Date for new Historical Use Analysis: _____
	☐ Existing Historical Use Analysis. Change authorization number with existing Historical Use Analysis: _____
	☐ Full Historical Use Analysis NA. Water right number serving as historical use in lieu of analysis: _____
41E 3408-00	■ New Historical Use Analysis. Date for new Historical Use Analysis: _____
	☐ Existing Historical Use Analysis. Change authorization number with existing Historical Use Analysis: _____
	☐ Full Historical Use Analysis NA. Water right number serving as historical use in lieu of analysis: _____
	☐ New Historical Use Analysis. Date for new Historical Use Analysis: _____
	☐ Existing Historical Use Analysis. Change authorization number with existing Historical Use Analysis: _____
	☐ Full Historical Use Analysis NA. Water right number serving as historical use in lieu of analysis: _____

	☐ New Historical Use Analysis. Date for new Historical Use Analysis: ______
	☐ Existing Historical Use Analysis. Change authorization number with existing Historical Use Analysis: ______
	☐ Full Historical Use Analysis NA. Water right number serving as historical use in lieu of analysis: ______
	☐ New Historical Use Analysis. Date for new Historical Use Analysis: ______
	☐ Existing Historical Use Analysis. Change authorization number with existing Historical Use Analysis: ______
	☐ Full Historical Use Analysis NA. Water right number serving as historical use in lieu of analysis: ______
	☐ New Historical Use Analysis. Date for new Historical Use Analysis: ______
	☐ Existing Historical Use Analysis. Change authorization number with existing Historical Use Analysis: ______
	☐ Full Historical Use Analysis NA. Water right number serving as historical use in lieu of analysis: ______

27. Do you have actual knowledge of historical use?	■ Y ☐ N	☐ F
a. If yes,		
i. Is this firsthand knowledge?	■ Y ☐ N	☐ F
ii. Who has this knowledge and what was their role? Suzanne & Lenny own the property and have been irrigated	☐ A	☐ F

b. If no,		
i. Where will the historical use data be derived? _____ _____	☐ A	☐ F

Historical Use: Place of Use

28. The historical use map provided for question 5 must clearly identify the entire place of use for each overlapping water right that intersects the historical place of use. Does your historical use map meet this requirement?	■ Y ☐ N	☐ F
29. Are you proposing to change all water right(s) associated with the historical place of use?	☐ Y ■ N	☐ F
a. If no, identify the water right(s) associated with the historical place of use that are not included in this application. Provide the priority date for each water right and explain why all overlapping water rights are not included in the application. Include water received via contract from a company, district, or water users' association.	☐ A	☐ F

Water Right No.	Priority Date	Reason Not Included in Change
41E 3406-00	12/31/1868	POD associated with this right is not changing

30. Answer the questions below related to the historical purpose for each of the water right(s) being changed.		
a. Irrigation		
i. Is the water right being changed a Statement of Claim?	■ Y ☐ N	☐ F
1. If yes,		
a. Does the Water Resources Survey corroborate the acres irrigated listed on the abstract?	■ Y ☐ N	☐ F
i. If no, provide aerial photograph(s) that can corroborate the historical place of use.	☐ S	☐ F
b. Does the legal land description from the abstract match the actual location of the historical place of use?	■ Y ☐ N	☐ F
i. If no, provide documentation of a written request submitted to the Water Court for amendment of the Claim as well as information to substantiate the requested amendment.	☐ S	☐ F

2. If no, provide one or more aerial photographs that can corroborate the historical place of use.	☐ S	☐ F
b. Lawn and garden		
i. Provide aerial photographs that can corroborate the historical place of use.	☐ S	☐ F
c. Stock		
i. Provide aerial photographs, grazing records, or other records to corroborate the historical place of use.	☐ S	☐ F
ii. Did the stock drink direct from source or direct from ditch?	☐ Y ☐ N	☐ F
1. If no, provide data sources that make clear the location of the stock watering infrastructure.	☐ S	☐ F
d. Multiple domestic, domestic, municipal, mining, commercial, and other purposes		
i. Provide aerial photographs, deeds, other recorded documents or records, affidavits, or other published documents, such as magazine articles, to corroborate the historical place of use.	☐ S	☐ F

Historical Use: Point of Diversion

31. For all historical point(s) of diversion, identify the means, location (¼ ¼ ¼ section), and if they are proposed for change. Label using the same POD ID letter as for the Historical Use Map (question 5).	☐ A	☐ F

POD ID	Means	Location (¼ ¼ ¼ Section)	Proposed for Change?
3407	Headgate	NWSENW Sec 35 Twp 2N Rge 3W	Yes
3408	Headgate	NWSENW Sec 35 Twp 2N Rge 3W	Yes

32. Does the legal land description from the abstract match the actual location of the historical point(s) of diversion?	■ Y ☐ N	☐ F
a. If no, do you have aerial photograph(s) that clearly show the location of the historical point(s) of diversion?	☐ Y ☐ N	☐ F
i. If yes,		
1. Provide the photograph(s).	☐ S	☐ F
2. Provide an explanation for the discrepancy and, if a Statement of Claim, provide documentation of a written request submitted to the Water Court for amendment of the Claim.	☐ S	☐ F
33. Answer questions below related to the diversion means for each of the historical point(s) of diversion.		
a. Headgate		
i. For each headgate, provide dimensions in feet (FT), slope of the channel at the headgate (%), material of the headgate, estimated historical capacity in gallons per minute (GPM) or CFS and the method used to estimate historical capacity. Label using the same POD ID letter as for the Historical Use Map (question 5).	■ A	☐ F

POD ID	Dimensions (FT)	Slope (%)	Material	Estimated Capacity (GPM or CFS)	Method
3407	5x5	0.5	steel slidegate	37 CFS	FlowMaster (Mannings)
3408	5x5	0.5	steel slidegate	37 CFS	FlowMaster (Mannings)

b. Pump, dike, dam, or other surface water point of diversion		
i. For each pump, dike, dam, or other surface water point of diversion, provide an estimate of the historical capacity (GPM or CFS) and the method used to estimate the historical capacity. Label using the same POD ID letter as for the Historical Use Map (question 5).	☐ A	☐ F

POD ID	Estimated Capacity (GPM or CFS)	Method

c. Well, pit, or other groundwater point of diversion		
i. For each well, pit, or other groundwater point of diversion, provide an estimate of the historical capacity (GPM or CFS) and the method used to estimate the historical capacity. Label using the same POD ID letter as for the Historical Use Map (question 5).	☐ A	☐ F

POD ID	Estimated Capacity (GPM or CFS)	Method

34. Do other water rights share the point(s) of diversion?	■ Y ☐ N	☐ F
a. If yes, list the water rights, their flow rates (GPM or CFS), and the nature of the relationship. Label using the same POD ID letter as for the Historical Use Map (question 5).	☐ A	☐ F

POD ID	Water Right No.	Flow (GPM or CFS)	Relationship
	41E 143433-00	5.12	Unrelated - associated with Golden Sunlight Mine's POU
	41E 143436 00		Golden Sunlight Mines Stock Water Right
	41E 143437 00		Golden Sunlight Mines Stock Water Right

Historical Use: Period of Diversion

35. Are the period of diversion and the period of use the same?	■ Y ☐ N	☐ F
a. If no,		
i. Why are they different? _____ _____	☐ A	☐ F
ii. Is there a place of storage?	☐ Y ☐ N	☐ F
36. When was water diverted for the purpose(s) of the water right(s) being changed?	☐ A	☐ F

Start Date (Month (MM)/Day (DD))	End Date (MM/DD)
04/01	10/30

37. Does the Department have a standard, found in ARM 36.12.112, for the period of diversion for the purposes for which water is used?	■ Y ☐ N	☐ F
a. If yes, does the period of diversion fall within Department standards?	■ Y ☐ N	☐ F
b. If no or if the period of diversion falls outside Department standards, explain how the period of diversion is reasonable for the purpose. _____ _____ _____ _____	☐ A	☐ F
38. If the water right(s) being changed have an irrigation purpose, answer the following questions.		
a. What were the crop(s) grown? alfalfa, barley, oats, grass hay		☐ F

i. If the crop(s) grown include hay, how many cuttings were there per season and how many days did they last? 2 cuttings, 5-7 days once round 7/4 and labor day		☐ F
b. Did diversions ever temporarily cease within the period of use? This may include water shortages or calls based on priority date.	■ Y ☐ N	☐ F
i. If yes, please explain. No calls or shortages. Huckaba is the last user on the slough. 41E 143434 00 owned by golden sunlight, but operated by Huckaba	☐ A	☐ F

Historical Use: Historical Diverted Volume

39. Answer the questions below related to the historical purposes of the water rights being changed.		
a. Irrigation		
i. Do you want ARM 36.12.1902(11) to be used to calculate historical diverted volume?	■ Y ☐ N	☐ F
1. If no, provide a Historical Water Use Addendum (Form 606-HUA). Form 606-HUA must be submitted to the Department before the Preapplication Meeting Form is completed.	☐ S	☐ F
b. Non-irrigation		
i. How often was water historically diverted?		☐ F
ii. What was the duration of each historical diversion?		☐ F
iii. Was wastewater historically discharged? If yes, what amount was discharged?	☐ Y ☐ N	☐ F
iv. What is the volume of water historically diverted (AF)?		☐ F
v. How did you determine the volume of water historically diverted?	☐ A	☐ F
vi. Did the historical diverted volume serve more than one purpose of use?	☐ Y ☐ N	☐ F

1. If yes, how much of the diverted volume served each purpose of use and how did you determine this? _____ _____ _____ _____	☐ A	☐ F

Historical Use: Historical Consumed Volume

40. Answer the questions below related to the historical purpose of the water rights being changed.		
a. Irrigation		
i. Will you use Department standards for historical consumptive use as defined in ARM 36.12.1902?	■ Y ☐ N	☐ F
1. If no,		
a. What method will you use to determine historical consumptive use? _____ _____	☐ A	☐ F
b. Provide a Historical Water Use Addendum (Form 606-HUA) to the Department. Form 606-HUA must be submitted to the Department before the Preapplication Meeting Form is completed.	☐ S	☐ F
2. If yes,		
a. What is the historical irrigation method type and subtype? Irrigation method types include flood and sprinkler. Flood irrigation subtypes include level border, graded border, furrow, contour ditch, or wild flood. Sprinkler subtypes include wheel line and center pivot. flood - wild flood _____	☐ A	☐ F
b. What was the slope of the historical place of use? slope <1%		☐ F
c. Are there any factors beyond irrigation method type/subtype and place of use slope that may influence percent efficiency of irrigation?	☐ Y ■ N	☐ F
i. If yes, provide evidence to support the modified percent efficiency of irrigation in the Historical Water Use Addendum (Form 606-HUA). These factors may include infrastructure age, soil characteristics, or field improvements. Form 606-HUA must be submitted to the Department before the Preapplication Meeting Form is	☐ S	☐ F

completed.		
d. Based on answers to the above questions, what is the percent efficiency of irrigation? 25%		☐ F
e. What is the County Management Factor? 61%		☐ F
f. What is evapotranspiration (ET) based on the irrigation method and county? 17.08		☐ F
g. What percent of applied water are irrecoverable losses per ARM 36.12.1902(17)? 5%		☐ F
h. Do other water rights supplement or overlap the historical place of use that contribute to the irrigation water demand?	■ Y ☐ N	☐ F
i. If yes,		
1. How were the water rights operated to serve the irrigation purpose? equal apportionment to the three water rights	☐ A	☐ F
2. For each supplemental or overlapping water right, please list the average period of diversion and use (MM/DD-MM/DD), flow rate (GPM or CFS), and the volume of water (AF) contributed to the total irrigation water demand.	☐ A	☐ F

Water Right No.	Avg. Period of Diversion (MM/DD-MM/DD)	Avg. Period of Use (MM/DD-MM/DD)	Flow Rate (GPM or CFS)	Volume Contributed (AF)
41E 3406-00	4/1	10/30	11.37	

b. Lawn and garden		
i. Will you use the Department standards for historical consumptive use volume for lawn and garden? Department standards include 2.5 acre-feet per acre, or a calculated volume based on Irrigation Water Requirements for turf grass.	☐ Y ☐ N	☐ F
1. If yes, which standard? _____		☐ F
2. If no, please provide an estimate of historical water use based on expert analysis and methods used to determine this estimate. _____ _____	☐ A	☐ F
c. Stock		
i. Which volume standard for animal units applies to historical use and why? The standards are either 15 or 30 gallons per animal unit per day. _____		☐ F
ii. How many animal units were historically served? _____		☐ F
iii. Did these animal units rely entirely on the water right(s) proposed for change for their full water demand?	☐ Y ☐ N	☐ F
1. If no, explain. _____ _____	☐ A	☐ F
d. Domestic and multiple domestic		
i. How many households were served? _____		☐ F
ii. Will the Department standard of 1 acre-foot per household be used? The same standard shall be applied to historical and proposed uses.	☐ Y ☐ N	☐ F
1. If no, what standard will be used? _____		☐ F
iii. Did the historical use include wastewater disposal and treatment?	☐ Y ☐ N	☐ F

1. If yes, which of the following best describes the wastewater disposal and treatment system? Individual drain fields, central treatment facility with minimal consumption, or evaporation basin or land application? _____	☐ A	☐ F
e. Municipal		
i. What is the volume of water (AF) historically consumed for municipal purposes? _____		☐ F
ii. Provide evidence to support historical municipal use such as commercial, lawn and garden, and/or multiple domestic uses. The data sources may include records that tie water use to the U.S Census, estimates of historical system capacity and estimates of leakage.	☐ S	☐ F
f. Other		
i. What is the volume of water (AF) historically consumed for other purposes? _____		☐ F
ii. Please submit to the Department evidence to support the volume of water historically consumed.	☐ S	☐ F

Historical Use: Historical Places of Storage

41. Did the historical use include one or more place(s) of storage, which may include reservoirs, ponds, and pits that are greater than 0.1 acre-feet in volume?	☐ Y ■ N	☐ F
a. If yes, for each historical place of storage please provide the surface area in acres (AC), capacity (AF), annual net evaporation (FT/year), and number of times per year the place of storage was filled.	☐ A	☐ F

ID	Surface Area (AC)	Capacity (AF)	Annual Net Evaporation (FT/YR)	# of Annual Fillings

Surface Water

■ **Applicable**, move on to question 42. ☐ **Not Applicable**, skip to question 67.

The following questions are mandatory for changes to surface water rights and must be filled out before the Preapplication Meeting Form is determined to be complete.

Surface Water: Return Flow Analysis

Questions, Narrative Responses, and Tables	Check-boxes	Follow-Up
42. Do the purposes of the water rights proposed for change include irrigation?	■ Y ☐ N	☐ F
a. If yes, does the proposed change include a change in place of use *and/or* a change in purpose? A change in place of use includes retiring acres in the historical place of use and adding any new acres outside the historical place of use.	☐ Y ■ N	☐ F
i. If yes, a return flow analysis is required. Move on to answer question 43.		
ii. If no, this section is complete, and you may skip to question 51.		
43. Does the proposed change include a change in purpose?	☐ Y ■ N	
a. If yes, what is the consumptive use for the proposed non-irrigation purpose? Please explain. _____ _____ _____ _____ _____ _____	☐ A	☐ F
44. Does the proposed change include a change in place of use? If yes, move on to question 45. If no, this section is complete, and you may skip to question 51.	☐ Y ■ N	
45. Provide a map showing the historical and proposed places of use created on an aerial photograph or topographic map with section corners, township and range, and a north arrow.	☐ S	☐ F
46. How many acres, if any, will be retired from the historical place of use? _____		☐ F
47. Are irrigated acres proposed that are outside the historical place of use?	☐ Y ☐ N	☐ F
a. If yes,		
i. How many acres? _____		☐ F

ii. What is the proposed irrigation method type (e.g., flood or sprinkler) and subtype (e.g., level border, graded border, furrow, contour ditch, wild flood, center pivot, or wheel line) for the new acres? _____		☐ F
iii. What is the slope of the new place of use? _____		☐ F
iv. Based on 47.a.ii to 47.a.iii, what is the percent efficiency of irrigation for the new acres? _____		☐ F
v. What is the County Management Factor for the new acres? _____		☐ F
vi. What is the ET based on the irrigation method and county for the new acres? _____		☐ F
vii. What percent of applied water are irrecoverable losses for new acres per ARM 36.12.1902(17)? _____		☐ F
viii. Do other water rights supplement or overlap the new place of use that contribute to the irrigation water demand?	☐ Y ☐ N	☐ F
1. If yes,		
a. How will the water rights be operated to serve the irrigation purpose? _____ _____ _____ _____	☐ A	☐ F
b. For each supplemental or overlapping water right, please list the average period of diversion and use (MM/DD-MM/DD), flow rate (GPM or CFS), and the volume of water (AF) contributed to the total irrigation water demand.	☐ A	☐ F

Water Right No.	Avg. Period of Diversion (MM/DD-MM/DD)	Avg. Period of Use (MM/DD-MM/DD)	Flow Rate (GPM or CFS)	Volume Contributed (AF)

48. Do you have information for the Department to consider about the source and location where return flows historically accrued?	☐ Y ☐ N	☐ F
a. If yes, explain. _____ _____ _____	☐ A	☐ F
49. Based on the preliminary data provided by the Department at this preapplication meeting, to what surface water sources do return flows accrue before and after the proposed change? **Return flow data provided by the Department at the preapplication meeting is preliminary and is subject to change during the Technical Analysis.* _____ _____ _____	☐ A	☐ F
50. If an analysis of impacts to identified surface water rights is required as part of the return flow analysis, pursuant to ARM 36.12.1303(3)(c)(iii), do you elect to answer non-mandatory questions 161 to 163 to provide information required for this extended return flow analysis?	☐ Y ☐ N	☐ F
a. If yes, go to question 161. If an analysis of impacts to identified surface water rights is required, this information will be used for the analysis.		
b. If no, did you elect in question 1 for the Department to conduct technical analyses?	☐ Y ☐ N	☐ F
i. If yes, do you elect for the Department to use publicly available water quantity data for the analysis of impacts to identified surface water rights? If the extended return flow analysis is required and sufficient publicly available water quantity data is not available, then the Department will not be able to conduct the extended analysis. You will still have to prove a lack of adverse effect from the proposed change.	☐ Y ☐ N	☐ F
ii. If no, an analysis of impacts to identified surface water rights will need to be completed as part of the extended return flow analysis. The Department will include the extended analysis in its scientific credibility review of the Technical Analyses.		

Surface Water: Mitigation Analysis

51. Are you changing the purpose to mitigation to meet the criteria of issuance for another application? If yes, answer the questions in this section (questions 52 to 60). If no, this section is complete, and you can skip to question 61.	☐ Y ■ N	☐ F

52. Identify the water right(s) proposed for change to a mitigation purpose, the water right(s) identified as needing mitigation and the application number for the water right(s) identified as needing mitigation. _____	☐ A	☐ F
53. What source(s) have been identified as needing mitigation water? _____		☐ F
54. By what means will mitigation water be made available (e.g., infiltration gallery, water left instream)? You must provide a copy of all relevant discharge permits at application submittal (§85-2-364, MCA). _____ _____ _____	☐ A	☐ F
55. What is the location (¼ ¼ ¼ section of start and end of reach) and length (FT) of the mitigation reach? _____		☐ F
56. What is the amount, timing, and location (¼ ¼ ¼ section) of water needed for mitigation?	☐ A	☐ F

Month	Days	Amount	Location	Month	Days	Amount	Location
January				July			
February				August			
March				September			
April				October			
May				November			
June				December			

57. How do the priority dates of the water rights proposed for change to mitigation compare to other water rights on the source? _____ _____ _____	☐ A	☐ F
58. Do you have measurement records or Water Commissioner records that show the reliability of the water right(s) proposed for change to a mitigation purpose?	☐ Y ☐ N	☐ F

a. If yes, describe and submit them to the Department. _____ _____ _____ _____	☐ S	☐ F
59. Do the water rights proposed for change to mitigation have a period of use that is greater than or equal to the period when mitigation is necessary?	☐ Y ☐ N	☐ F
a. If no, how will mitigation water be made available during the entire period when mitigation is necessary? _____ _____	☐ A	☐ F
60. Will other water rights contribute to mitigation water?	☐ Y ☐ N	☐ F
a. If yes, what amount, at what timing, and at which location (¼ ¼ ¼ section) will they contribute?	☐ A	☐ F

Month	Days	Amount	Location	Month	Days	Amount	Location
January				**July**			
February				**August**			
March				**September**			
April				**October**			
May				**November**			
June				**December**			

Surface Water: Aquifer Recharge Analysis

61. Are you changing the purpose to aquifer recharge to serve a current purpose or changing the purpose to marketing for mitigation/aquifer recharge for a future mitigation purpose? If yes, answer the questions in this section (questions 62 to 66). If no, this section is complete, and you can skip to question 67.	☐ Y ■ N	☐ F
62. Is this aquifer recharge for a current mitigation need or marketing for mitigation/aquifer recharge for a future mitigation need? _____		☐ F
63. What sources have been identified as having net depletions in need of mitigation or as benefiting from marketing for mitigation/aquifer recharge water? _____		☐ F

64. By what means will aquifer recharge water be made available? You must provide a copy of all relevant discharge permits at application submittal (§85-2-364, MCA). _____ _____ _____ _____ _____	☐ A	☐ F
65. How do the priority dates of the water rights proposed for change to aquifer recharge compare to other water rights on the source? _____ _____ _____	☐ A	☐ F
66. Do you have measurement records or Water Commissioner records that show the reliability of the water rights proposed for change to aquifer recharge?	☐ Y ☐ N	☐ F
a. If yes, describe and submit them to the Department. _____ _____ _____ _____	☐ S	☐ F

Groundwater

☐ **Applicable**, move on to question 67. ☒ **Not Applicable**, skip to question 99.

The following questions are mandatory for changes to groundwater rights and must be filled out before the Preapplication Meeting Form is determined to be complete.

Groundwater: Adequacy of Diversion

Questions, Narrative Responses, and Tables	Check-boxes	Follow-Up
67. What is the flow rate (GPM or CFS), volume (AF), and period of diversion (MM/DD-MM/DD) required at each new groundwater point of diversion? Label using the same POD ID number as the Proposed Use Map (question 6) to match this information with the location information.	☐ A	☐ F

POD #	Flow Rate (GPM or CFS)	Volume (AF)	Period of Diversion (MM/DD-MM/DD)

68. Will the monthly pumping schedule differ from an allocation of diverted volume by the number of days in the month for year-round uses or the IWR 80% net irrigation requirements for irrigation/lawn & garden uses (IWR, NRCS 2003)?	☐ Y ☐ N	☐ F
a. If yes, provide the monthly pumping schedule in the table below. Label using the same POD ID number as the Proposed Use Map (question 6).	☐ A	☐ F

Month	POD #	Volume (AF)	Month	POD #	Volume (AF)
January			**July**		
February			**August**		
March			**September**		
April			**October**		
May			**November**		
June			**December**		

69. Answer the following questions specific to the means of groundwater diversion.					
Well/Pit	Questions 70 to 71	**Developed Spring**	Question 72	**Pond**	Questions 73 to 76

Groundwater: Adequacy of Diversion: Well/Pit

☐ Applicable ☐ Not Applicable

70. Have you submitted a completed Form 633 to DNRC for review?	☐ Y ☐ N	☐ F
a. If no, submit Form 633 to DNRC for review. Form 633 is required by the time the Preapplication Meeting Form is deemed complete.	☐ S	☐ F
b. If yes, did the Department identify deficiencies?	☐ Y ☐ N	☐ F
1. If yes, are variances from ARM 36.12.121 needed?	☐ Y ☐ N	☐ F
a. If yes,		
i. Do you have data for aquifer characteristics?	☐ Y ☐ N	☐ F
1. If yes, provide the data to the Department.	☐ S	☐ F
ii. Have you submitted Form 653 to the Department?	☐ Y ☐ N	☐ F
1. If yes, was the variance granted?	☐ Y ☐ N	☐ F
71. Have all the wells/pits been constructed?	☐ Y ☐ N	☐ F
a. If yes, provide a map with the location of each well/pit labeled, the well/pit depth, and, if available, the GWIC ID. Create map on an aerial photograph or topographic map and include the following: well/pit location, well/pit depth, GWIC ID (if available), section corners, township and range, and a north arrow.	☐ S	☐ F
b. If no,		
i. When will the wells/pits be constructed? _____		☐ F
ii. Do you have an initial map with the proposed location of wells/pits?	☐ Y ☐ N	☐ F
1. If yes, provide an initial map to the Department. Create map on an aerial photograph or topographic map and include the following: proposed well/pit location, section corners, township and range, and a north arrow.	☐ S	☐ F
iii. What is the anticipated depth for each new well/pit? Label on the initial map if the proposed location is known. Otherwise provide the depth(s) here: _____ _____	☐ S	☐ F
iv. Is the requested volume for each new well/pit known?	☐ Y ☐ N	☐ F
1. If no, what is the total requested volume (AF) and the number of new PODs? _____		☐ F

Groundwater: Adequacy of Diversion: Developed Spring

☐ Applicable ■ Not Applicable

72. Have you measured the source?	☐ Y ☐ N	☐ F
a. If yes,		
i. Submit measurements to the Department.	☐ S	☐ F
ii. With what method were measurements collected? _____ _____	☐ A	☐ F
iii. What is the interval of measurements? _____		☐ F
iv. Is the interval of measurements sufficient to comply with ARM 36.12.1703(1)?	☐ Y ☐ N	☐ F
b. If no, or if measurements do not comply with ARM 36.12.1703(1),		
i. When do you plan to measure? _____		☐ F
ii. With what method and at what interval will measurements be collected? _____ _____	☐ A	☐ F

Groundwater: Adequacy of Diversion: Pond

☐ Applicable ■ Not Applicable

73. Have you submitted Form 653 to apply for a variance from ARM 36.12.121 for the Aquifer Test?	☐ Y ☐ N	☐ F
a. If yes, did the Department approve the variance request?	☐ Y ☐ N	☐ F
74. Submit pond bathymetry data, survey, or engineering plans to the Department.	☐ S	☐ F
75. Submit a map identifying the location of the proposed pond to the Department. Create map on an aerial photograph or topographic map and include the following: pond location, section corners, township and range, and a north arrow.	☐ S	☐ F
76. If you are conducting Technical Analyses, what is your plan to determine depth, surface area, and net evaporation of the pond? If the Department is conducting Technical Analyses, write N/A. _____ _____	☐ A	☐ F

Groundwater: Adverse Effect to Existing Groundwater Rights

All information to calculate the one-foot drawdown contour was collected in previous questions.

Groundwater: Adverse Effect to Surface Water Rights

Groundwater: Adverse Effect to Surface Water Rights: Surface Water Depletion Analysis

77. Does the proposed change include a change in point of diversion or a change in place of use or purpose that will lead to a change in consumptive use or pumping schedule? If you do not know if a change in place of use or purpose will lead to a change in consumptive use or pumping schedule, work through this with the Department. If yes, a surface water depletion analysis is required; move on to question 78. If no, this section is complete; skip to question 80.	☐ Y ☐ N	☐ F
78. Based on the preliminary data provided by the Department at this preapplication meeting, what are the hydraulically connected surface water sources before and after the proposed change? **Net depletion data provided by the Department at the preapplication meeting is preliminary and is subject to change during the Technical Analysis.* _____ _____ _____ _____	☐ A	☐ F
79. If an analysis of impacts to identified surface water rights is required as part of the surface water depletion analysis, pursuant to ARM 36.12.1903(2)(f), do you elect to answer non-mandatory questions 166 to 168 to provide information required for this extended surface water depletion analysis?	☐ Y ☐ N	☐ F
a. If yes, go to question 166. If an analysis of impacts to identified surface water rights is required for the surface water depletion analysis, this information will used for the analysis.		
b. If no, did you elect in question 1 for the Department to conduct technical analyses?	☐ Y ☐ N	☐ F
i. If yes, do you elect for the Department to use publicly available water quantity data for the analysis of impacts to identified surface water rights for the surface water depletion analysis? If this extended surface water depletion analysis is required and sufficient publicly available water quantity data is not available, then the Department will not be able to conduct the extended surface water depletion analysis. You will still have to prove a lack of adverse effect from the proposed change.	☐ Y ☐ N	☐ F
ii. If no, you may still include the analysis of impacts to identified surface water rights with the surface water depletion analysis. The Department will include the extended analysis in its scientific credibility review of the Technical Analyses.		

80. Do the purposes of the water rights proposed for change include irrigation?	☐ Y ☐ N	☐ F
a. If yes, does the proposed change include a change in place of use *and/or* a change in purpose? A change in place of use includes retiring acres in the historical place of use and adding any new acres outside the historical place of use.	☐ Y ☐ N	☐ F
i. If yes, a return flow analysis is required. Move on to answer question 81.		
ii. If no, this section is complete, and you may skip to question 89.		
81. Does the proposed change include a change in purpose?	☐ Y ☐ N	
a. If yes, what is the consumptive use for the proposed non-irrigation purpose? Please explain. _____ _____ _____ _____ _____ _____	☐ A	☐ F
82. Does the proposed change include a change in place of use? If yes, move on to question 83. If no, this section is complete, and you may skip to question 89.	☐ Y ☐ N	
83. Provide a map showing the historical and proposed places of use. Create map on an aerial photograph or topographic map that shows the following: section corners, township and range, and a north arrow.	☐ S	☐ F
84. How many acres, if any, will be retired from the historical place of use? _____		☐ F
85. Are irrigated acres proposed that are outside the historical place of use?	☐ Y ☐ N	☐ F
a. If yes,		
i. How many acres? _____		☐ F
ii. What is the proposed irrigation method type and subtype (e.g., level border, graded border, furrow, contour ditch, or wild flood) for the new acres? _____		☐ F
iii. What is the slope of the new place of use? _____		☐ F
iv. Based on question 85.a.ii to 85.a.iii, what is the percent efficiency of irrigation for the new acres? _____		☐ F

v. What is the County Management Factor for the new acres? _____		☐ F
vi. What is the ET based on the irrigation method and county for the new acres? _____		☐ F
vii. What percent of applied water are irrecoverable losses for new acres? _____		☐ F
viii. Do other water rights supplement or overlap the new place of use that contribute to the irrigation water demand?	☐ Y ☐ N	☐ F
1. If yes,		
a. How will the water rights be operated to serve the irrigation purpose? _____ _____ _____ _____ _____ _____ _____	☐ A	☐ F
b. For each supplemental or overlapping water right, please list the average period of diversion and use (MM/DD-MM/DD), flow rate (GPM or CFS), and the volume of water (AF) contributed to the total irrigation water demand.	☐ A	☐ F

Water Right No.	Avg. Period of Diversion (MM/DD-MM/DD)	Avg. Period of Use (MM/DD-MM/DD)	Flow Rate (GPM or CFS)	Volume Contributed (AF)

86. Do you have information for the Department to consider about the source and location where return flows historically accrued?	☐ Y ☐ N	☐ F

a. If yes, explain. _____ _____ _____	☐ A	☐ F
87. Based on the preliminary data provided at this preapplication meeting, to what surface water sources will return flows accrue before and after the proposed change? **Return flow data provided by the Department at the preapplication meeting is preliminary and is subject to change during the Technical Analysis.* _____ _____ _____	☐ A	☐ F
88. If an analysis of impacts to identified surface water rights is required as part of the return flow analysis, pursuant to ARM 36.12.1303(5)(d)(iii), do you elect to answer non-mandatory questions 161 to 163 to provide information required for this extended analysis?	☐ Y ☐ N	☐ F
a. If yes, go to question 161. If an analysis of impacts to identified surface water rights is required as part of the return flow analysis, this information will used for the analysis.		
b. If no, did you elect in question 1 for the Department to conduct technical analyses?	☐ Y ☐ N	☐ F
i. If yes, do you elect for the Department to use publicly available water quantity data for the analysis of impacts to identified surface water rights? If this extended return flow analysis is required and sufficient publicly available water quantity data is not available, then the Department will not be able to conduct the extended analysis. You will still have to prove a lack of adverse effect from the proposed change.	☐ Y ☐ N	☐ F
ii. If no, an analysis of impacts to identified surface water rights will need to be completed as part of the return flow analysis. The Department will include the extended analysis in its scientific credibility review of the Technical Analyses.		

Groundwater: Mitigation

89. Do you require mitigation water to meet the criteria of issuance for this change application or for a different application? If yes, answer the questions in this section (questions 90 to 98). If no, this section is complete, and you can skip to question 99.	☐ Y ☐ N	☐ F
90. Please identify the water rights proposed for change to a mitigation purpose and the water rights identified as needing mitigation. _____	☐ A	☐ F

91. What sources have been identified as needing mitigation water? _____		☐ F
92. By what means will mitigation water be made available? _____ _____	☐ A	☐ F
93. What is the location (¼ ¼ ¼ section of start and end of reach) and length (feet) of the mitigation reach? _____		☐ F
94. What is the amount, timing, and location (¼ ¼ ¼ section) of water needed for mitigation?	☐ A	☐ F

Month	Days	Amount	Location	Month	Days	Amount	Location
January				**July**			
February				**August**			
March				**September**			
April				**October**			
May				**November**			
June				**December**			

95. How do the priority dates of the water rights proposed for change to mitigation compare to other water rights on the source? _____ _____	☐ A	☐ F
96. Do you have measurement records or Water Commissioner records that show the reliability of the water right(s) proposed for change to a mitigation purpose?	☐ Y ☐ N	☐ F
a. If yes, describe and submit them to the Department. _____ _____ _____	☐ S	☐ F
97. Do the water rights proposed for change to mitigation have a period of use that is greater than or equal to the period when mitigation is necessary?	☐ Y ☐ N	☐ F

a. If no, how will mitigation water be made available during the entire period when mitigation is necessary? _____ _____ _____	☐ A	☐ F
98. Will other water rights contribute to mitigation water?	☐ Y ☐ N	☐ F
a. If yes, what amount, at what timing, and at which location (¼ ¼ ¼ section) will they contribute?	☐ A	☐ F

Month	Days	Amount	Location (¼ ¼ ¼ Section)	Month	Days	Amount	Location (¼ ¼ ¼ Section)
January				**July**			
February				**August**			
March				**September**			
April				**October**			
May				**November**			
June				**December**			

Project-Specific Questions

The following questions are mandatory when applicable and must be filled out before the Preapplication Meeting Form is determined to be complete.

Temporary Change

Questions, Narrative Responses, and Tables	Check-boxes	Follow-Up
99. Does the proposal include a temporary change? If yes, please answer the questions in this section (questions 100 to 105) for each water right being changed. If no, or if you answered these questions earlier in the preapplication meeting, this section is complete and you can skip to question 106.	☐ Y ■ N	☐ F
100. What element(s) of the water right(s) are being temporarily changed? _____		☐ F
101. For how many years will the water right(s) be temporarily changed? _____		☐ F
102. Will the temporary change be intermittent over the years?	☐ Y ☐ N	☐ F
a. If yes, explain. _____	☐ A	☐ F
103. For what purpose will the water rights be temporarily used? _____		☐ F

104. Is the quantity of water subject to the temporary change being made available from the development of a new water conservation or storage project?	☐ Y ☐ N	☐ F
a. If yes, explain the water conservation or storage project. _____ _____ _____	☐ A	☐ F
105. If you are answering Project Specific Questions as they are referenced in Application Details, return to question 10 if you are proposing to add a place of use on State of Montana Trust Land and question 15 if you are proposing a temporary change that does not involve State of Montana Trust Land. If you are answering in consecutive order, go to question 106.		

Change in Purpose

106. Does the project involve a change in purpose? If yes, answer the questions in this section (questions 107 to 109). If no, of if you answered these questions earlier in the preapplication meeting, this section is complete and you can skip to question 110.	☐ Y ■ N	☐ F
107. Identify the proposed new purpose, flow rate (GPM or CFS), volume (AF), and period of use (MM/DD-MM/DD) for each purpose.	☐ A	☐ F

Purpose	**Flow Rate (GPM or CFS)**	**Volume (AF)**	**Period of Use Start (MM/DD-MM/DD)**	**Period of Use End (MM/DD-MM/DD)**

108. Explain why the requested flow rate and volume is the amount needed for the purpose. _____ _____ _____	☐ A	☐ F
109. If you are answering Project Specific Questions as they are referenced in Application Details, return to question 11 and if you are answering in consecutive order, go to question 110.		

Change in Place of Storage

110. Does the project involve a change in place of storage? If yes, answer the questions in this section (questions 111 to 119) for each individual place of storage (use additional Change in Place of Storage sheet for additional places of storage). If no, or if you answered these questions earlier in the preapplication meeting, this section is complete; skip to question 120.	☐ Y ■ N	☐ F
111. Submit a map showing the location of the place of storage. Create map on an aerial photograph or topographic map that shows the following: place of storage, section corners, township and range, and a north arrow.	☐ S	☐ F
112. Is this application to add a new place of storage or change an existing place of storage? _____		☐ F
a. If application is to change an existing place of storage, list the water rights that include the place of storage and a short description of the proposed change. _____ _____	☐ A	☐ F
113. Is the place of storage located on-stream?	☐ Y ☐ N	☐ F
a. If no, explain the conveyance means to and from the off-stream place of storage and any losses that may occur with that conveyance. _____ _____	☐ A	☐ F
114. What is the proposed capacity of the place of storage? Use bathymetry data, survey, or engineering plans for capacity. Submit the data source used with this form. In lieu of these data sources, use the following equation: *Surface Acres x Maximum Depth (FT) x 0.5 (0.4-0.6 depending on side slope) = Capacity (AF)* _____	☐ S	☐ F
115. Will the place of storage include primary and/or emergency spillways? Preliminary design specifications for primary and emergency spillways must be included with application submittal (ARM 36.12.113).	☐ Y ☐ N	☐ F
116. Will the place of storage be lined?	☐ Y ☐ N	☐ F
117. What is the annual net evaporation of water from the place of storage using the standards in ARM 36.12.116(1) and the Department's Gridded Net Evaporation Layer? _____		☐ F
118. Is the place of storage capacity calculated to be greater than 50 acre-feet?	☐ Y ☐ N	☐ F
a. If yes, have you made an application to the DNRC Water Operations Bureau for a determination of whether the dam or reservoir is a high-hazard dam?	☐ Y ☐ N	☐ F

119. If you are answering Project Specific Questions as they are referenced in Application Details, return to question 12 and if you are answering in consecutive order, go to question 120.		

Ditch-Specific Questions

120. Does the historical use of water include at least one conveyance ditch? If yes, answer questions 121 to 122. If no, or if you answered these questions earlier in the preapplication meeting, skip to question 123.	■ Y ☐ N	☐ F
121. Submit a Historical Use Ditch Map that shows every ditch conveying water for the historical use of all water right(s) proposed for change. Label the ditch name(s), POD(s), the POU(s), and the ditch measurement locations (requested in question 122.d). The map should be created on an aerial photograph or topographic map with the following: section corners, township and range, and a north arrow.	☐ S	■ F
122. For each historical conveyance ditch, answer question 122.a to 122.h. If there is more than one historical conveyance ditch, use an Additional Historical Ditch Sheet for each additional ditch.		
a. What is the ditch name? Shaw Ditch (Cardwell Ditch decreed by Water Court)		☐ F
b. List the water right(s) proposed for change that were conveyed by the ditch. 41E 3407-00, 41E 3408-00		☐ F
c. What is the distance water was historically carried by the conveyance ditch? Only include segments between the POD and start of the POU; do not include segments within the POU. 8,941ft - POD to the first field in POU	☐ A	☐ F
d. Provide at least one set of ditch measurements, which include width (FT), depth (FT), and slope (%). Discuss ditch characteristics with DNRC to determine the minimum number of ditch measurements. Include the location of each measurement, labeled with the 2-digit measurement ID number, used on the map submitted for question 121.	☐ S	☐ F

ID #	Width (FT)	Depth (FT)	Slope (%)	Date of Measurement
100ft from headgate	6'5 (top)/4' (bottom)	2.5'	0.5%	8/7/2023

e. What is a reasonable Manning's n value? List the factors used for estimation. If you do not know this value, please work through estimation with the Department. n=.045 cobble/gravel bottom, earth/gravel constructed channel, jagged/irregular (submitted Mannings values)	☐ A	☐ F

f. What type of soils compose the historical conveyance ditch? For lined ditches, write "lined" instead. bedrock to sandy/silty small gravels	☐ A	☐ F
g. Are other water rights conveyed by the historical conveyance ditch?	■ Y ☐ N	☐ F
i. If yes,		
1. What are the water right numbers? 41E 3406-00, 41E 143433-00, 41E 143436 00, 41E 143437 00	☐ A	☐ F
2. What is the sum of the flow rates (GPM or CFS) for all water rights conveyed? 39.23 CFS	☐ A	☐ F
3. Provide a map with your best estimate of the historical POUs for the other water rights conveyed by the historical conveyance ditch. Include only POUs between the historical POD and your historical POU. If you do not know this information, the Department can help you create the map. The map should be created on an aerial photograph or topographic map and show the following: section corners, township and range, and a north arrow.	☐ S	■ F
h. Were any water rights proposed for change part of one historical water right that was split?	☐ Y ■ N	☐ F
i. If yes, were all split water rights split in such a way to ensure each post-split water right could stand alone and not be reliant on the others for carriage water?	☐ Y ☐ N	☐ F
1. If no, do any of the water right(s) proposed for change have a carriage water requirement?	☐ Y ■ N	☐ F
a. If yes,		
i. List the water right(s) with a carriage water requirement		☐ F
ii. Update your Historical Use Ditch Map to label the ditch segments where a carriage water requirement exists for a water right proposed for change. Also, use your best estimate to label the POUs for all water rights included in the carriage water requirement. If you do not know this information, the Department can help you update the map.	☐ S	☐ F
123. Does the proposed use include at least one existing or new conveyance ditch? If yes, answer questions 124 to 126. If no, or if you answered these questions earlier in the preapplication meeting, this section is complete; skip to question 127.	☐ Y ■ N	☐ F

124. Submit a Proposed Use Ditch Map that shows every ditch conveying the water right(s) proposed for change, including any unchanged portions. Label all unchanged and proposed PODs, all unchanged and proposed POUs, and additional ditch measurement locations (requested in question 125.e). The map should be created on an aerial photograph or topographic map with the following: section corners, township and range, and a north arrow.	☐ S	☐ F
125. For each proposed use conveyance ditch, answer the questions 125.a to 125.i. If there is more than one proposed use conveyance ditch, use an Additional Proposed Use Ditch Sheet for each additional ditch.		
a. What is the ditch name? _____		☐ F
b. Is this ditch a historical conveyance ditch detailed in questions 121 to 122?	☐ Y ☐ N	☐ F
i. If yes, have any of the following details changed, to the best of your knowledge, from historical conditions: ditch length, distance water conveyed, ditch lining, or water rights conveyed by the ditch?	☐ Y ☐ N	☐ F
1. If yes, answer questions 125.c to 125.i using current data.		
2. If no, do not answer questions 125.c to 125.i for this ditch because the information remains unchanged. Move on to the next proposed use conveyance ditch, or if none remain, skip to question 127.		
c. List the water right(s) proposed for change that are going to be conveyed by the ditch. _____		☐ F
d. What is the distance water will be carried by the conveyance ditch? Only include segments between the POD and start of the POU; do not include segments within the POU. _____ _____	☐ A	☐ F
e. Provide at least one set of ditch measurements, which include width (FT), depth (FT), and slope (%). Discuss ditch characteristics with DNRC to determine the minimum number of ditch measurements. Include the location of each measurement, labeled with the 2-digit measurement ID number, used on the map submitted for question 124.	☐ S	☐ F

ID #	Width (FT)	Depth (FT)	Slope (%)	Date of Measurement

f. What is a reasonable Manning's n value? List the factors used for estimation. If you do not know this value, please work through estimation with the Department. _____ _____	☐ A	☐ F
g. What type of soils compose the proposed conveyance ditch? For lined ditches, write "lined" instead. _____ _____	☐ A	☐ F
h. Are other water rights conveyed by the proposed conveyance ditch?	☐ Y ■ N	☐ F
i. If yes,		
1. What are the water right numbers? _____ _____ _____	☐ A	☐ F
2. What is the sum of the flow rates (GPM or CFS) for all water rights conveyed? _____ _____ _____	☐ A	☐ F
3. Provide a map with your best estimate of the current POUs for the other water rights conveyed by the proposed conveyance ditch. Include only POUs between the POD and your proposed POU. If you do not know this information, the Department can help you create the map. The map should be created on an aerial photograph or topographic map and show the following: section corners, township and range, and a north arrow.	☐ S	☐ F
i. Were any water right(s) proposed for change identified as having a carriage water requirement in question 122.h.i.1.a.i?	☐ Y ■ N	☐ F
i. If yes, update your Proposed Use Ditch Map to label the ditch segments where a carriage water requirement exists for a water right proposed for change. Also, use your best estimate to label the POUs for all water rights included in the carriage water requirement. If you do not know this information, the Department can help you update the map.	☐ S	☐ F
126. If you are answering Project Specific Questions as they are referenced in Application Details, return to question 13 and if you are answering in consecutive order, go to question 127.		

Water Marketing

127. Does this project involve water marketing? If yes, answer the questions in this section (questions 128 to 134). If no, or if you answered these questions earlier in the preapplication meeting, this section is complete; skip to question 135.	☐ Y ■ N	☐ F
128. Identify the flow rate (GPM or CFS) and volume of water (AF) that will be marketed. _____		☐ F
129. Will the marketed water return to the source?	☐ Y ☐ N	☐ F
a. If yes, explain how that determination was made. _____ _____ _____	☐ A	☐ F
130. For what purpose(s) will the marketed water be used? _____ _____	☐ A	☐ F
131. How will you control or limit access to the water? _____ _____	☐ A	☐ F
132. Do you have contracts for the entire volume and flow rate sought?	☐ Y ☐ N	☐ F
133. Provide a service area map. Create map on an aerial photograph or topographic map and shows the following: general service area boundary, section corners, township and range, and a north arrow.	☐ S	☐ F
134. If you are answering Project Specific Questions as they are referenced in Application Details, return to question 19 and if you are answering in consecutive order, go to question 135.		

Instream Flow Change

135. Does the project involve an instream flow change? If yes, answer the questions in this section (questions 136 to 145). If no, or if you answered these questions earlier in the preapplication meeting, this section is complete; skip to question 146.	☐ Y ■ N	☐ F
136. Is the proposal to retire all the use from the historical purpose throughout the entire period of use?	☐ Y ☐ N	☐ F
a. If no, describe why not in detail. _____ _____ _____	☐ A	☐ F

137. What is the name of the source of water where streamflow will be maintained or enhanced? _____		☐ F
138. Provide specific information on the location (¼ ¼ ¼ section of start and end of reach) and length (FT) of the stream reach in which the streamflow is to be maintained or enhanced. _____	☐ A	☐ F
139. Does the protected reach begin at the existing point of diversion?	☐ Y ☐ N	☐ F
a. If no, does the proposed protected reach begin upstream of or downstream from the existing point of diversion? _____		☐ F
140. Does return flow go back to the source of supply? The Department provides an initial estimate of the sources where return flow historically accrued at the preapplication meeting.	☐ Y ☐ N	☐ F
141. Describe the way the streamflow is to be maintained or enhanced. _____ _____ _____	☐ A	☐ F
142. Provide initial details about a streamflow measuring plan, which include the points where measurements occur, the interval of measurement, and the methods and equipment used. A complete streamflow measuring plan will be required for the application. _____ _____ _____ _____ _____	☐ A	☐ F
143. Provide initial details about an operation plan, which include the proposed flow rate (GPM or CFS) to be protected up to the proposed volume (AF) and the period when protection is to occur. If there is a "trigger flow" associated with your operation plan, please explain. A complete operation plan, based on the Technical Analysis, will be required for the application. _____ _____ _____ _____ _____	☐ A	☐ F

144. Is the amount of water proposed for change in the application made available through creation of a "water saving method," as defined in ARM 36.12.101?	☐ Y ☐ N	☐ F
a. If yes, complete the Salvage Water section (questions 146 to 150).	☐ S	☐ F
145. If you are answering Project Specific Questions as they are referenced in Application Details, return to question 20 and if you are answering in consecutive order, go to question 146.		

Salvage Water

146. Does this project involve salvage water? Salvage water does not include destroying phreatophytes, removing vegetation, converting to a less consumptive crop, or converting to a partial irrigation schedule. If yes, answer the questions in this section (questions 147 to 150). If no, or if you answered these questions earlier in the preapplication meeting, this section is complete and you can skip to question 151.	☐ Y ■ N	☐ F
147. What water saving method was implemented? This may include lining an unlined ditch or canal, converting unlined ditch or canal to pipeline, converting high profile or high-pressure sprinklers to low pressure, and other (explain). _____ _____	☐ A	☐ F
148. How much water was salvaged from creation of the water saving method? Include flow rate (GPM or CFS) and volume (AF). _____		☐ F
149. How did you determine the amount of water salvaged? _____ _____ _____ _____ _____ _____	☐ A	☐ F
150. If you are answering Project Specific Questions as they are referenced in Application Details, return to question 21 and if you are answering in consecutive order, go to question 151.		

Non-Mandatory Questions for Criteria Analysis

The following questions are not mandatory. They should be discussed in the Preapplication Meeting, but do not need to be filled out before the Preapplication Meeting Form is determined to be complete.

Adverse Effect

Questions, Narrative Responses, and Tables	Check-boxes
151. Once the historical use analysis is complete for the application, be ready to compare the historical use with the proposed use. Do you have evidence the proposed use exceeds the historical use for flow rate, consumed volume, or diverted volume?	☐ Y ■ N
a. If yes, what is your plan to address this with the permitting process? _____ _____	☐ A
152. Describe your plan to ensure that existing water rights will be satisfied during times of water shortage. _____ _____ _____	☐ A
153. Explain how you can control your diversion in response to call being made. _____ _____ _____	☐ A
154. Are you aware of any calls that have been made on the source of supply or depleted surface water source?	☐ Y ■ N
a. If yes, explain. _____ _____	☐ A
155. Does a water commissioner distribute water or oversee water distribution on your proposed source or depleted surface water source?	☐ Y ■ N
156. Will the proposed use change the ability for you to make call?	☐ Y ■ N

157. When was the last time water was appropriated and used beneficially? 2024 If there has been a period of nonuse, explain below:	
a. Why the water right was not used. _____ _____	☐ A
b. Why a resumption of use will not adversely affect other water users. _____ _____	☐ A
c. Is the period of nonuse greater than 10 years?	☐ Y ■ N
d. Have water rights been authorized to use the source during the period of nonuse?	☐ Y ■ N
158. For point of diversion changes:	
a. Is the proposed point of diversion upstream or downstream of the historical point of diversion? downstream	
b. Are there intervening water users between the historical and proposed point of diversion?	■ Y ☐ N
c. Does the proposed point of diversion allow for diverting water longer during times of shortage?	☐ Y ■ N
159. For place of use changes, will changes to the rate, location, volume, or timing of return flows adversely affect other appropriators?	☐ Y ■ N

Adverse Effect: Evaluation of Impacts to Identified Water Rights for Return Flow Analysis

160. Respond to questions in this section if you elected in questions 50 or 88 to answer optional questions 161 to 163. If you did not elect to answer these questions or answered these questions earlier in the preapplication meeting, this section is complete; skip to question 165.	
161. For each surface water source receiving return flows, is gage data available?	☐ Y ☐ N
a. If yes, answer the following questions for the number of stream gages that are available.	
i. One stream gage is available	
1. What is the gage name? _____	
2. Who operates and maintains the gage? _____	

3. Is the stream gage upstream or downstream of the point(s) of diversion? _____	
4. Is there a limiting or controlling factor that would make the Drainage Area Method not practical? This includes dams that control the flow and streams with large gaining and/or losing reaches. If you have questions about this, please contact the Regional Hydro-Specialist or the Water Sciences Bureau.	☐ Y ☐ N
5. Is the period of record greater than or equal to 10 years?	☐ Y ☐ N
6. How frequently is stage data recorded? _____	
7. If data gaps were to occur, are they identified and left unfilled or estimated using interpolation, ice correction, or indirect discharge measurements methods?	☐ Y ☐ N
8. Was the rating curve established and maintained throughout the duration of the period of record using measurements taken near the reference gage and stage recorder according to USGS protocols?	☐ Y ☐ N
9. Were there requirements for maintaining a permanent gage datum and meeting specified accuracy limits?	☐ Y ☐ N
10. Does the gage data meet the Department's standard to be sufficient to calculate the median of the mean monthly flow rate and volume during the proposed months of diversion?	☐ Y ☐ N
a. If yes, skip to question 163.	
b. If no, answer question 161.b.	
ii. More than one stream gage is available	
1. List the gage names. _____	
2. Who operates and maintains the gages? _____	
3. Is one stream gage upstream and one downstream of point(s) of diversion?	☐ Y ☐ N
4. Do the stream gages have similar periods of record?	☐ Y ☐ N
5. Are the periods of record each greater than or equal to 10 years?	☐ Y ☐ N
6. How frequently is stage data recorded at each gage? _____	
7. For each gage, if data gaps were to occur, are they identified and left unfilled or estimated using interpolation, ice correction, or indirect discharge measurements methods?	☐ Y ☐ N

8. Were the rating curves established and maintained throughout the duration of the period of record using measurements taken near the reference gages and stage recorders according to USGS protocols?	☐ Y ☐ N
9. For each gage, were there requirements for maintaining a permanent gage datum and meeting specified accuracy limits?	☐ Y ☐ N
10. Does the gage data meet the Department's standard to be sufficient to calculate the median of the mean monthly flow rate and volume during the proposed months of diversion?	☐ Y ☐ N
a. If yes, skip to question 163.	
b. If no, answer question 161.b.	
b. If no gage data is available or if available gage data does not meet the Department's standard to be sufficient to calculate the median of the mean monthly flow rate and volume during the proposed months of diversion, is the source otherwise measured?	☐ Y ☐ N
i. If yes,	
1. Submit measurements to the Department.	☐ S
2. Who collected the measurements? _____	☐ A
3. With what method was the data collected? _____ _____	☐ A
4. What is the period of record? _____	
5. What is the frequency of measurement? _____	
6. Are there gaps in the data?	☐ Y ☐ N
a. If yes, what is the nature of the gaps and how are gaps handled to ensure data quality? _____ _____ _____ _____	☐ A
7. Is there a process for maintaining the data and meeting specified accuracy limits?	☐ Y ☐ N

a. If yes, explain. _____ _____ _____ _____	☐ A
8. Does available measurement data meet the Department's standard to be sufficient to calculate the median of the mean monthly flow rate and volume during the proposed months of diversion?	☐ Y ☐ N
a. If yes, skip to question 163.	
b. If no, answer question 162.	
162. For each surface water source receiving return flows, does the available measurement data, gage and/or otherwise measured, meet the Department's standard of including a minimum of high, moderate, and low flows to be sufficient to use for validation of a department-accepted estimation technique?	☐ Y ☐ N
a. If yes, describe the estimation technique. _____ _____ _____	☐ A
b. If no, will measurements be collected prior to submission of a completed Form No. 606P that meet the Department's standard of including a minimum of high, moderate, and low flows to be sufficient to use for validation of a department-accepted estimation technique?	☐ Y ☐ N
i. If yes,	
1. With what method will the data be collected? _____ _____ _____	☐ A
2. What will be the interval of measurement? _____	

3. Describe the proposed estimation technique. _____ _____ _____ _____	☐ A
ii. If no, describe your plan supply measurements for return flow receiving sources. _____ _____ _____	☐ A
163. If you are conducting Technical Analysis, how will the Area of Potential Adverse Effect be defined for evaluating return flow impacts? If the Department is conducting Technical Analyses, write N/A. _____ _____ _____ _____	☐ A
164. If you went straight to this section when referenced, go back to question 51 for surface water changes and question 88 for groundwater changes. If you waited to answer in consecutive order and have completed all prior sections, move to question 165.	

Adverse Effect: Evaluation of Impacts to Identified Water Rights for Surface Water Depletion Analysis

165. Respond to questions in this section if you elected in question 79 to answer optional questions 166 to 168. If you did not elect to answer these questions or answered these questions earlier in the preapplication meeting, this section is complete; skip to question 170.	
166. For each hydraulically connected surface water source, is gage data available?	☐ Y ☐ N
a. If yes, answer the following questions for the number stream gages are available.	
i. One stream gage is available	
1. What is the gage name? _____	

2. Who operates and maintains the gage? _____	
3. Is the stream gage upstream or downstream of the start of the depletion? _____	
4. Is there a limiting or controlling factor that would make the Drainage Area Method not practical? This includes dams that control the flow and streams with large gaining and/or losing reaches. If you have questions about this, please contact the Regional Hydro-Specialist or the Water Sciences Bureau.	☐ Y ☐ N
5. Is the period of record greater than or equal to 10 years?	☐ Y ☐ N
6. How frequently is stage data recorded? _____	
7. If data gaps were to occur, are they identified and left unfilled or estimated using interpolation, ice correction, or indirect discharge measurements methods?	☐ Y ☐ N
8. Was the rating curve established and maintained throughout the duration of the period of record using measurements taken near the reference gage and stage recorder according to USGS protocols?	☐ Y ☐ N
9. Were there requirements for maintaining a permanent gage datum and meeting specified accuracy limits?	☐ Y ☐ N
10. Does the gage data meet the Department's standard to be sufficient to calculate the median of the mean monthly flow rate and volume during the proposed months of diversion?	☐ Y ☐ N
a. If yes, skip to question 168.	
b. If no, answer question 166.b.	
ii. More than one stream gage is available	
1. List the gage names. _____	
2. Who operates and maintains the gages? _____	
3. Is one stream gage upstream and one downstream of the start of the depletion?	☐ Y ☐ N
4. Do the stream gages have similar periods of record?	☐ Y ☐ N
5. Are the periods of record each greater than or equal to 10 years?	☐ Y ☐ N
6. How frequently is stage data recorded at each gage? _____	

7. For each gage, if data gaps were to occur, are they identified and left unfilled or estimated using interpolation, ice correction, or indirect discharge measurements methods?	☐ Y ☐ N
8. Were the rating curves established and maintained throughout the duration of the period of record using measurements taken near the reference gages and stage recorders according to USGS protocols?	☐ Y ☐ N
9. For each gage, were there requirements for maintaining a permanent gage datum and meeting specified accuracy limits?	☐ Y ☐ N
10. Does the gage data meet the Department's standard to be sufficient to calculate the median of the mean monthly flow rate and volume during the proposed months of diversion?	☐ Y ☐ N
a. If yes, skip to question 168.	
b. If no, answer question 166.b.	
b. If no gage data is available or if available gage data does not meet the Department's standard to be sufficient to calculate the median of the mean monthly flow rate and volume during the proposed months of diversion, is the source otherwise measured?	☐ Y ☐ N
i. If yes,	
1. Submit available measurements to the Department	☐ S
2. Who collected the measurements? _____	☐ A
3. With what method was the data collected? _____ _____	☐ A
4. What is the period of record? _____	
5. What is the frequency of measurement? _____	
6. Are there gaps in the data?	☐ Y ☐ N
a. If yes, what is the nature of the gaps and how are gaps handled to ensure data quality? _____ _____ _____ _____	☐ A
7. Is there a process for maintaining the data and meeting specified accuracy limits?	☐ Y ☐ N

a. If yes, explain. _____ _____ _____	☐ A
8. Does available measurement data meet the Department's standard to be sufficient to calculate the median of the mean monthly flow rate and volume during the proposed months of diversion?	☐ Y ☐ N
a. If yes, skip to question 168.	
b. If no, answer question 167.	
167. For each hydraulically connected surface water source, does the available measurement data, gage and/or otherwise measured, meet the Department's standard of including a minimum of high, moderate, and low flows to be sufficient to use for validation of a department-accepted estimation technique?	☐ Y ☐ N
a. If yes, describe the estimation technique. _____ _____ _____ _____	☐ A
b. If no,	
i. Will measurements be collected prior to submission of a completed Form No. 606P that meet the Department's standard of including a minimum of high, moderate, and low flows to be sufficient to use for validation of a department-accepted estimation technique?	☐ Y ☐ N
1. If yes,	
a. With what method will the data be collected? _____ _____ _____	☐ A
b. What will be the interval of measurement? _____	

c. Describe the proposed estimation technique. _____ _____ _____ _____	☐ A
2. If no, describe your plan to comply with the measurement requirements for hydraulically connected surface water sources. _____ _____ _____	☐ A
168. If you are conducting Technical Analysis, how will the Area of Potential Adverse Effect be defined for evaluating changes to net depletions? If the Department is conducting Technical Analyses, write N/A. _____ _____ _____ _____	☐ A
169. If you went straight to this section when referenced, go back to question 80. If you waited to answer in consecutive order and have completed all prior sections, move to question 170.	

Adequate Means of Diversion and Operation

170. Provide a diagram of how you will operate your system from the point of diversion to the place of use.	☐ S
171. Describe specific information about the capacity of the diversionary structure(s). This may include, where applicable: pump curves and total dynamic head calculations, headgate design specifications, and dike or dam height and length. timing depending on flow but follow historical patterns _____	☐ A
172. Is the diversion capable of providing the full amount requested through the period of diversion?	■ Y ☐ N

173. Describe the size and configuration of infrastructure to convey water from point of diversion to place of use. This may include, where applicable: ditch capacity and/or pipeline size and configuration. In Huckaba Pump Specs for pump in Section 3.	☐ A
174. Describe any losses related to conveyance.	☐ A
175. Is the conveyance infrastructure capable of providing the required flow and volume and any losses?	■ Y ☐ N
176. Does the proposed conveyance require easements?	☐ Y ■ N
a. If yes, explain.	☐ A
177. Describe any places of storage, including whether drainage devices will be installed, and provide preliminary designs, if available. Preliminary designs will be required at application submittal.	☐ A
178. Describe specific information about how water is delivered within the place of use. This may include, where applicable, the range of flow rates needed for a pivot and output and configuration of sprinkler heads.	☐ A
179. Is the water delivery system capable of providing the requested beneficial use?	■ Y ☐ N
180. Will your system be designed to discharge water from the project?	☐ Y ☐ N
a. If yes, explain the way water will be discharged and the wastewater disposal method.	☐ A

181. Provide a plan of operations. _____ _____ _____	☐ A
182. Can the plan of operations deliver the flow rate and volume for the beneficial use being requested?	☐ Y ☐ N
183. Do you have any plans to measure your diversion and use?	☐ Y ☐ N
a. If yes, describe the plan and the type of measurements you will take. _____ _____	☐ A
184. Is the means of diversion a well?	☐ Y ☐ N
a. If yes, are well log(s) available?	☐ Y ☐ N
i. If yes, submit well log(s) to DNRC	☐ S
ii. If no, who drilled the well? _____	

Beneficial Use

185. Why is the requested flow rate and volume the amount needed for the purpose? _____ _____	☐ A
186. Does the Department have a standard for the purposes for which water is used? Department standards can be found in ARM 36.12.112.	☐ Y ☐ N
a. If yes, does the proposed beneficial use fall within Department standards?	☐ Y ☐ N
187. If no standard or if proposed beneficial use falls outside of Department standards, explain how the use is reasonable for the purpose. _____ _____ _____ _____	☐ A
188. Will your proposed project be subject to DEQ requirements for a public water supply (PWS) system or Certificate of Subdivision Approval (COSA)?	☐ Y ☐ N

a. If yes,	
i. Have you researched or consulted with DEQ regarding those requirements?	☐ Y ☐ N
189. Are you proposing to use surface water for in-house domestic use?	☐ Y ☐ N
a. If yes, does a COSA exist for the proposed place of use?	☐ Y ☐ N
i. If yes, please submit the COSA.	☐ S
ii. If no, have you researched or consulted with DEQ regarding their requirements?	☐ Y ☐ N

Possessory Interest

190. Do you have possessory interest, or the permission of the party with possessory interest, of the proposed place of use? Proof of possessory interest or permission of the party with possessory interest is required at application submittal.	■ Y ☐ N
a. If no, explain. _____ _____ _____	☐ A

PREAPPLICATION MEETING AFFIDAVIT & CERTIFICATION

"We attest that the information on this form accurately describes the proposed project discussed during the preapplication meeting and that the items marked for follow-up will require the applicant to provide additional information before the form is deemed complete."

"Applicant acknowledges that any information provided by the Department during the preapplication is preliminary and subject to change."

"Applicant acknowledges that if the follow-up information provided to the Department substantially changes the proposed project, for example in a way that alters which sections of the form are applicable or which technical analyses are required, or who is to complete the technical analyses, the applicant will need to schedule a new preapplication meeting so that the department can identify any additional information necessary for completion of the technical analyses (ARM 36.12.1302(3)(c))."

Upon Department receipt of the completed form (within 180 days following the meeting), the Department reserves the first five days of the 45-day period in ARM 36.12.1302(4) or (5) to return the form to the applicant if:

1 – the completed form does not include all necessary follow-up information identified in the meeting, OR
2 – the completed form is not adequate for the Department to proceed with technical analyses, OR
3 – the applicant has elected to complete technical analyses and has not submitted each piece of technical analysis required, OR
4 – the applicant has substantially changed the details of the proposed project, such as in a way that alters which sections of the form are applicable, which technical analyses are required, or who is to complete the technical analyses.

If the Department returns the form to the Applicant within these five days due to reasons 1-3 above, the Applicant can use the balance of their 180-day period in ARM 36.12.1302(4) or (5) to gather the remaining follow-up information needed. If there is no time remaining in the 180-day period, the Applicant can submit a written request for a new preapplication meeting, pursuant to ARM 36.12.1302(2). Even if there is still time remaining, the Applicant can choose to schedule a new preapplication meeting. The Department shall transfer the $500 payment received to the new preapplication meeting, or refund the payment to the Applicant if the Applicant desires. If the Department returns the form to the Applicant within these five days due to reason (4) above, the Applicant must submit a written request for a new preapplication meeting, pursuant to ARM 36.12.1302(2). The Department shall transfer the $500 payment received to the new preapplication meeting, or refund the payment to the Applicant if the Applicant desires.

Leonard W. Huckaby — 10-18-24

Applicant Signature — Date

Susanne Huckaba — 10-18-24

Applicant Signature — Date

[signature] — 10-28-2024

Department Signature — Date

FOLLOW-UP PAGE

Applicant will provide all responses to questions marked for follow-up on a separate document entitled "Follow-up Responses" with the question number labeled. Answer questions in the same format as the form. For responses in the form of checkboxes, write "Y", "N", or "S". Constrain narrative responses to the specific question as is asked on the form; do not respond to multiple questions in one narrative. Label units in narrative responses and tables. Tables must have the exact headings found on the form. Questions that require items to be submitted to the Department may be marked "S" when the required item is attached to the Preapplication Meeting Form. Label all submitted items with the question number for which they were submitted. The Applicant may not alter the Preapplication Meeting Form signed at the Preapplication Meeting. Instead, the Applicant must use the Amended Responses procedure defined below. Do not include additional information for questions not marked for follow-up here; instead include any additional information pursuant to the process for amending responses defined below.

Questions marked for follow-up

- 6	- 121
- 122.g.i.3	-
-	-
- 171 (Non-Mandatory Question but was discussed in preapplication)	-
-	-
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AMENDED RESPONSES PAGE

The Applicant may not alter the Preapplication Meeting Form signed at the Preapplication Meeting or the Follow-up Page. If a response has changed to a question answered at the preapplication meeting, the Applicant can provide a new response in a separate document entitled "Amended Responses" with the question number labeled. Answer questions in the same format as the form. For responses in the form of checkboxes, write "Y", "N", or "S". Constrain narrative responses to the specific question as is asked on the form; do not respond to multiple questions in one narrative. Label units in narrative responses and tables. Tables must have the exact headings found on the form. Questions that require items to be submitted to the Department may be marked "S" when the required item is attached to the Preapplication Meeting Form. Label all submitted items with the question number for which they were submitted. The Applicant will mark all question numbers with an amended response in the table below and note for each question whether the response will replace the response given at the preapplication meeting or will provide additional information to consider in conjunction with the response given at the preapplication meeting. The Applicant will return the "Amended Responses" document with the "Follow-up Responses" document and the signed Preapplication Meeting Form.

Questions with amended responses

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FOLLOW-UP PAGE AFFIDAVIT & CERTIFICATION

"I/we attest that this preapplication meeting form, follow-up page, and amended responses page accurately portray my proposed project. I am aware that my application for this project will not qualify for a discounted filing fee and expedited timelines if upon submittal of the application to the department, I change any element of the proposed application from the preapplication meeting form and follow-up materials (ARM 36.12.1302(6)(a))."

Susie Huckula 12-18-24

Applicant Signature Date

Leonard W. Huckaby 12-18-24

Applicant Signature Date

"We confirm that the preapplication form and follow-up information are adequate for the Department to proceed with technical analyses in ARM 36.12.1303. If the applicant has elected to complete technical analyses, we confirm they have submitted each piece of technical analysis required based on the proposed project and the Department is able to proceed with the scientific credibility review (ARM 36.12.1303(8))."

12/19/2024

Department Signature Date

Department Signature Date

Huckaba POU - Historic Acreage compared to Amended POU and Proposed

ID	QQ	Sec	TR	Claim Map Digitized (ac)	Abstract (ac)	PD as Amended (ac)	WRS (ac)	Proposed (ac)
1	E2	3	01N 03W	77	70	70	93.3	70
2	SW	2	01N 03W	122.2	130	123.2	118	108.5
3	NW	11	01N 03W	73.5	100	90.8	80.5	46
4	SWSE	2	01N 03W	8.6		6.8	6.8	6.8
5	W2NE	11	01N 03W	9.2		9.2	9.2	9.2
				290.5	300	300	307.8	240.5
			Net Reduction					59.5

AquaTech
210 Arden Drive
Belgrade, MT 59714
(406)388-3315
1-800-426-4921

Huckaba Ranch
26 Highway 359
Cardwell, MT 59721
406.287.5556

Valley 7000

February 6, 2023
Prepared by: John Gardner
West Side - North Half Circle - V2
8.0 Pivot Acres
1.4 End Gun Acres
9.4 Total Acres
484.1 Foot Long Machine

Pivot Point	
1	6 5/8" Pivot Point
1	6" Pivot Flex (for 6 5.8" PP)
1	Pivot Ladder
Controls	
1	Icon5 Panel (5 YR Warranty)
1	GPS Pivot Position
1	11 Conductor Collector Ring
1	Aluminum Power Distribution Block
1	High Voltage Surge Protection
1	Temperature Sensor
1	Icon Link - Remote Monitoring and Control
Spans	
2	6" 160' Span w/ 108" Spacing (7000)
1	6" 135' Span w/ 108" Spacing (7000)
1	27' Overhang w/ 108" Spacing
Drive Unit	
3	11.2 X 38" Tire on 10" Galv Rim
3	Tubes in Tires
3	Valley gearbox
3	34 RPM Center Drive
3	Pivot Alignment
Accessories	
1	Running Light
1	End of Field Stop w/ Auto Reverse - Customer Sets Barricades
Sprinkler Package	
1	Nelson Rotators w/ Brown plates on 1st & 2nd Spans, Spinners w/ Yellow Plates on rest, 15 psi Nelson Regulators on 5.5' hose drops using integrated weights
1	2 HP Booster Pump
1	27' OH Booster Hose
1	Nelson SR 75 End Gun
1	2" Nelson Valve 1000
1	Senninger End Spray Drain

Pivot Sub-Total	$60,874
Pivot Total	$60,874
Ancillary Total (see next page for details)	$62,287
Project Total	**$123,161**

Freight & Installation Included

Price good until: February 28, 2023

AquaTech
210 Arden Drive
Belgrade, MT 59714
(406)388-3315
1-800-426-4921

Huckaba Ranch
26 Highway 359
Cardwell, MT 59721
406.287.5556

February 6, 2023
Prepared by: John Gardner

West Side - North Half Circle - V2

Pivot Tie In		
1	Pivot Pad	$1,785
1	4" Dogleg	$682
2	Thrust Block	$430
1	Clemons 700 Filter	$2,833
1	4" Control Valve	$1,728
1	4" Gear-op Butterfly Valve	$324
1	2" Airvent	$158
1	4" Surge Relief Valve	$222
1	Misc Fittings and Install	$295
1	4" Electronic Flowmeter w/ Cable	$2,639
1	Misc Fittings and Install	$295
1	Epoxy Paint for NRCS Spec	$750
Pump Station		
1	15 HP Turbine Pump	$15,504
1	Size 2 Pump Panel - Installed	$1,504
1	30 Amp Disconnect	$563
1	Meter Base Installed on Pole	$1,900
1	Pump Discharge, Check Valve, Box and Screen	$15,649
1	6" Dogleg	$784
1	Thrust Block	$215
1	6" Gear-op Butterfly Valve	$394
1	2" Airvent	$158
1	4" Surge Relief Valve	$222
1	2" Drain at Dogleg	$140
1	Epoxy Paint for NRCS Spec	$750
Mainline and Wire		
462	6" 100# PIP PVC Pipe - Installed	$3,812
616	4" 125# IPS PVC Pipe - Installed	$3,844
2	2" Air Vent on Saddle Riser	$666
1178	#4 AL Wire w/ 12-2 Control Wire in Conduit	$4,041
	** All Lengths are estimates to be confirmed by survey	
	** Any additional digging or pipe bedding for rock will be charged at additional rate	
	** Due to Current Volatility in the PVC Market - PVC Prices will be Confirmed at Time of Order and are Subject to Change with Notice	
	Total Ancillary Equipment	$62,287
	Pivot Total	$60,874
	Project Total	$123,161

Price good until: February 28, 2023

AquaTech
210 Arden Drive
Belgrade, MT 59714
(406)388-3315
1-800-426-4921

Huckaba Ranch
26 Highway 359
Cardwell, MT 59721
406.287.5556

February 6, 2023
Prepared by: John Gardner

West Side - North Half Circle - V2

OPTIONS

	Prices in addition to those listed above		
1	Valley 8000 series Machine	$	2,256
1	11.2 X 38" Tire on 10" Galv Rim - 6 Ply	$	189
1	11.2 X 38" ND Tire on 10" Galv Rim - 6 Ply	$	643
1	Chemigation Pigtail	$	305

We Propose hereby to furnish material and labor - complete in accordance with above specification, for the sum of:
$123,161

Payment to be made as follows:
25% Down payment, 70% Upon Pivot Delivery, 5% Upon AquaTech's Completion

All work to be completed in a workmanlike manner according to standard practices. Any alteration or deviation from above specifics involving extra costs will be executed only upon written orders, and will become an extra charge over and above the estimate. All agreements contingent upon strikes, accidents or delays beyond the seller's control. Buyer to carry fire, tornado and other necessary insurance. Seller disclaims any express or implied warranties of fitness for a particular purpose and merchantability. Seller shall not be liable for consequential damages.

Authorized Signature: _____

Acceptance of Proposal: The above prices, specification and conditions are satisfactory and are hereby accepted. Seller is authorized to do the work as specified. Payment will be made as outlined above. Buyer grants a purchase money security interest in all of the material described above including accessions and attachments now or hereafter acquired together with any proceeds thereof to secure the performance and payment of all obligation of buyer to seller under the terms of this contract. Buyer agrees that seller shall have a lien for all services provided. Buyer agrees to sign financing statements upon request of seller. Buyer acknowledges that he has read all of the terms and provisions of this contract and that it constitutes the entire agreement between the parties relative hereto and neither party shall be bound by an agreement, statement or representation not incorporated herein. All accounts not paid in accordance with the above terms are subject to a finance charge in the amount of 1.5% (18% APR) with a minimum of $1.50. Should any accounts be referred for outside collection, buyer agrees to pay all collection costs, attorney fees, & court costs. Any checks returned to seller by bank will be assessed an additional $30 charge.

Signature: _____ Date: _____

Price good until: February 28, 2023

AquaTech
210 Arden Drive
Belgrade, MT 59714
(406)388-3315
1-800-426-4921

Huckaba Ranch
26 Highway 359
Cardwell, MT 59721
406.287.5556

Valley 7000

February 6, 2023
Prepared by: John Gardner
West Side - South Half Circle - V2
8.3 Pivot Acres
1.5 End Gun Acres
9.9 Total Acres
448.6 Foot Long Machine

Pivot Point	
1	6 5/8" Pivot Point
1	6" Pivot Flex (for 6 5.8" PP)
1	Pivot Ladder
Controls	
1	Icon5 Panel (5 YR Warranty)
1	GPS Pivot Position
1	11 Conductor Collector Ring
1	Aluminum Power Distribution Block
1	High Voltage Surge Protection
1	Temperature Sensor
1	Icon Link - Remote Monitoring and Control
Spans	
1	6" 185' Span w/ 108" Spacing (7000)
1	6" 180' Span w/ 108" Spacing (7000)
1	82' Overhang w/ 108" Spacing
Drive Unit	
2	11.2 X 38" Tire on 10" Galv Rim
2	Tubes in Tires
2	Valley gearbox
2	34 RPM Center Drive
2	Pivot Alignment
Accessories	
1	Running Light
1	End of Field Stop w/ Auto Reverse - Customer Sets Barricades
Sprinkler Package	
1	Nelson Rotators w/ Brown plates on 1st & 2nd Spans, Spinners w/ Yellow Plates on rest, 15 psi Nelson Regulators on 5.5' hose drops using integrated weights
1	2 HP Booster Pump
1	36' OH Booster Hose
1	Nelson SR 75 End Gun
1	2" Nelson Valve 1000
1	Senninger End Spray Drain

Pivot Sub-Total	$52,555
Pivot Total	$52,555
Ancillary Total (see next page for details)	$19,073
Project Total	**$71,628**

Freight & Installation Included

Price good until: February 28, 2023

AquaTech
210 Arden Drive
Belgrade, MT 59714
(406)388-3315
1-800-426-4921

Huckaba Ranch
26 Highway 359
Cardwell, MT 59721
406.287.5556

February 6, 2023
Prepared by: John Gardner

West Side - South Half Circle - V2

Pivot Tie In		
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1	4" Dogleg	$682
1	Thrust Block	$215
1	Clemons 700 Filter	$2,833
1	4" Control Valve	$1,728
1	4" Gear-op Butterfly Valve	$324
1	2" Airvent	$158
1	4" Surge Relief Valve	$222
1	2" Drain at Dogleg	$140
1	4" Electronic Flowmeter w/ Cable	$2,639
1	Epoxy Paint for NRCS Spec	$750
Pump Station		
1	30 Amp Disconnect	$563
Mainline and Wire		
528	4" 125# IPS PVC Pipe - Installed	$3,295
1090	#4 AL Wire w/ 12-2 Control Wire in Conduit	$3,740
	** All Lengths are estimates to be confirmed by survey	
	** Any additional digging or pipe bedding for rock will be charged at additional rate	
	** Due to Current Volatility in the PVC Market - PVC Prices will be Confirmed at Time of Order and are Subject to Change with Notice	
	Total Ancillary Equipment	$19,073
	Pivot Total	$52,555
	Project Total	$71,628

Price good until: February 28, 2023

AquaTech
210 Arden Drive
Belgrade, MT 59714
(406)388-3315
1-800-426-4921

Huckaba Ranch
26 Highway 359
Cardwell, MT 59721
406.287.5556

February 6, 2023
Prepared by: John Gardner

West Side - South Half Circle - V2

OPTIONS

	Prices in addition to those listed above		
1	Valley 8000 series Machine	$	1,914
1	11.2 X 38" Tire on 10" Galv Rim - 6 Ply	$	126
1	11.2 X 38" ND Tire on 10" Galv Rim - 6 Ply	$	429
1	Chemigation Pigtail	$	305

We Propose hereby to furnish material and labor - complete in accordance with above specification, for the sum of: $71,628

Payment to be made as follows:
25% Down payment, 70% Upon Pivot Delivery, 5% Upon AquaTech's Completion

All work to be completed in a workmanlike manner according to standard practices. Any alteration or deviation from above specifics involving extra costs will be executed only upon written orders, and will become an extra charge over and above the estimate. All agreements contingent upon strikes, accidents or delays beyond the seller's control. Buyer to carry fire, tornado and other necessary insurance. Seller disclaims any express or implied warranties of fitness for a particular purpose and merchantability. Seller shall not be liable for consequential damages.

Authorized Signature: _____

Acceptance of Proposal: The above prices, specification and conditions are satisfactory and are hereby accepted. Seller is authorized to do the work as specified. Payment will be made as outlined above. Buyer grants a purchase money security interest in all of the material described above including accessions and attachments now or hereafter acquired together with any proceeds thereof to secure the performance and payment of all obligation of buyer to seller under the terms of this contract. Buyer agrees that seller shall have a lien for all services provided. Buyer agrees to sign financing statements upon request of seller. Buyer acknowledges that he has read all of the terms and provisions of this contract and that it constitutes the entire agreement between the parties relative hereto and neither party shall be bound by an agreement, statement or representation not incorporated herein. All accounts not paid in accordance with the above terms are subject to a finance charge in the amount of 1.5% (18% APR) with a minimum of $1.50. Should any accounts be referred for outside collection, buyer agrees to pay all collection costs, attorney fees, & court costs. Any checks returned to seller by bank will be assessed an additional $30 charge.

Signature: _____ Date:_____

Price good until: February 28, 2023

Lower Boulder River Irrigation Infrastructure Improvement Project
Huckaba Point of Diversion Change Site

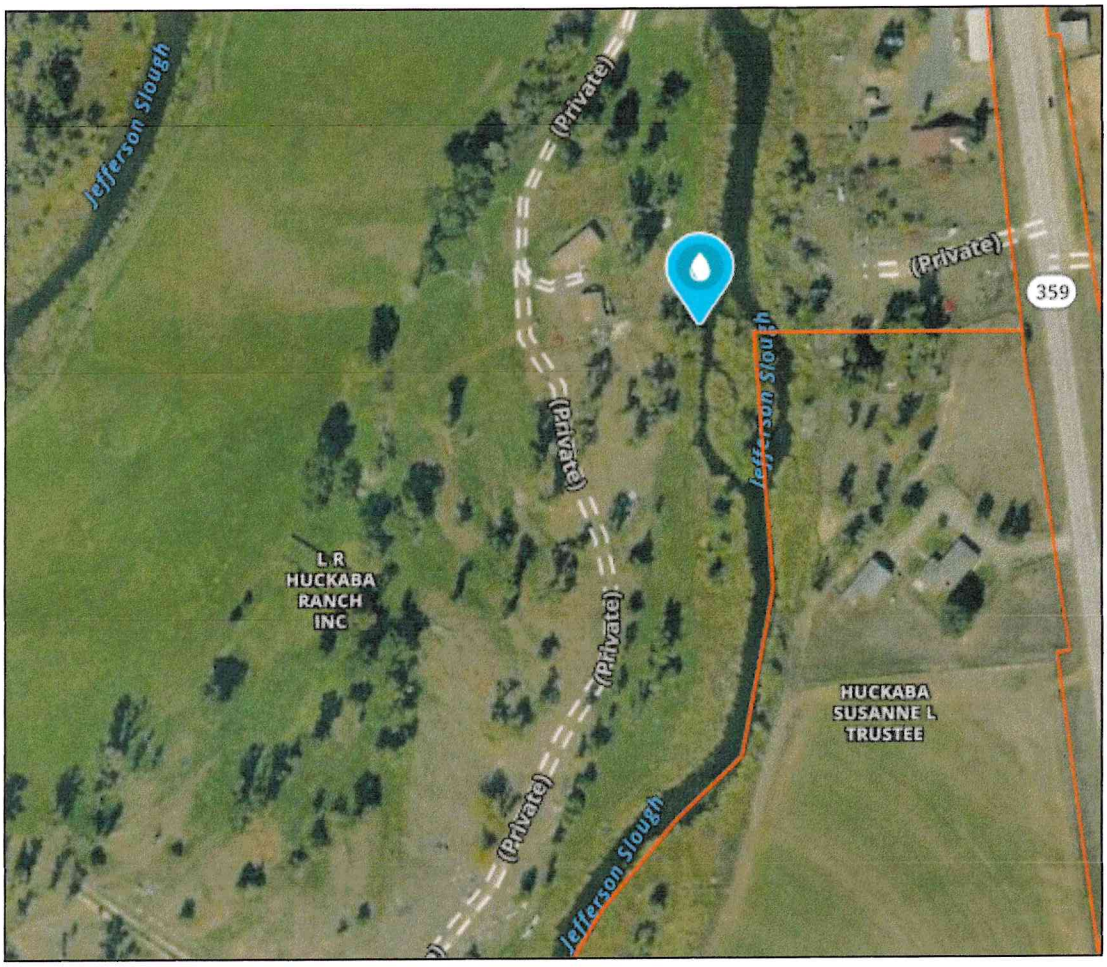
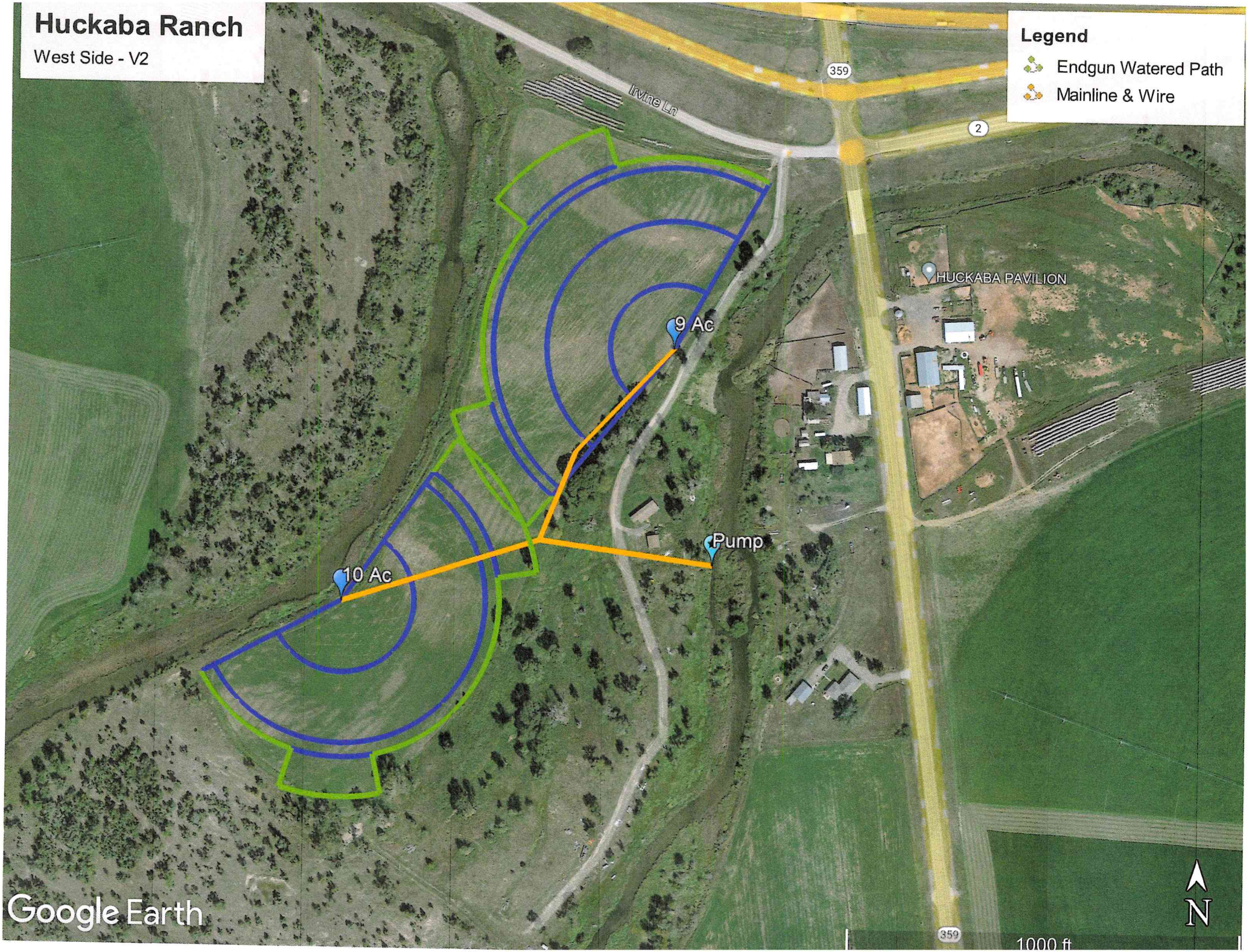


Figure 1. Location of Huckaba Point of Diverision change, 45.86594, -111.95569.

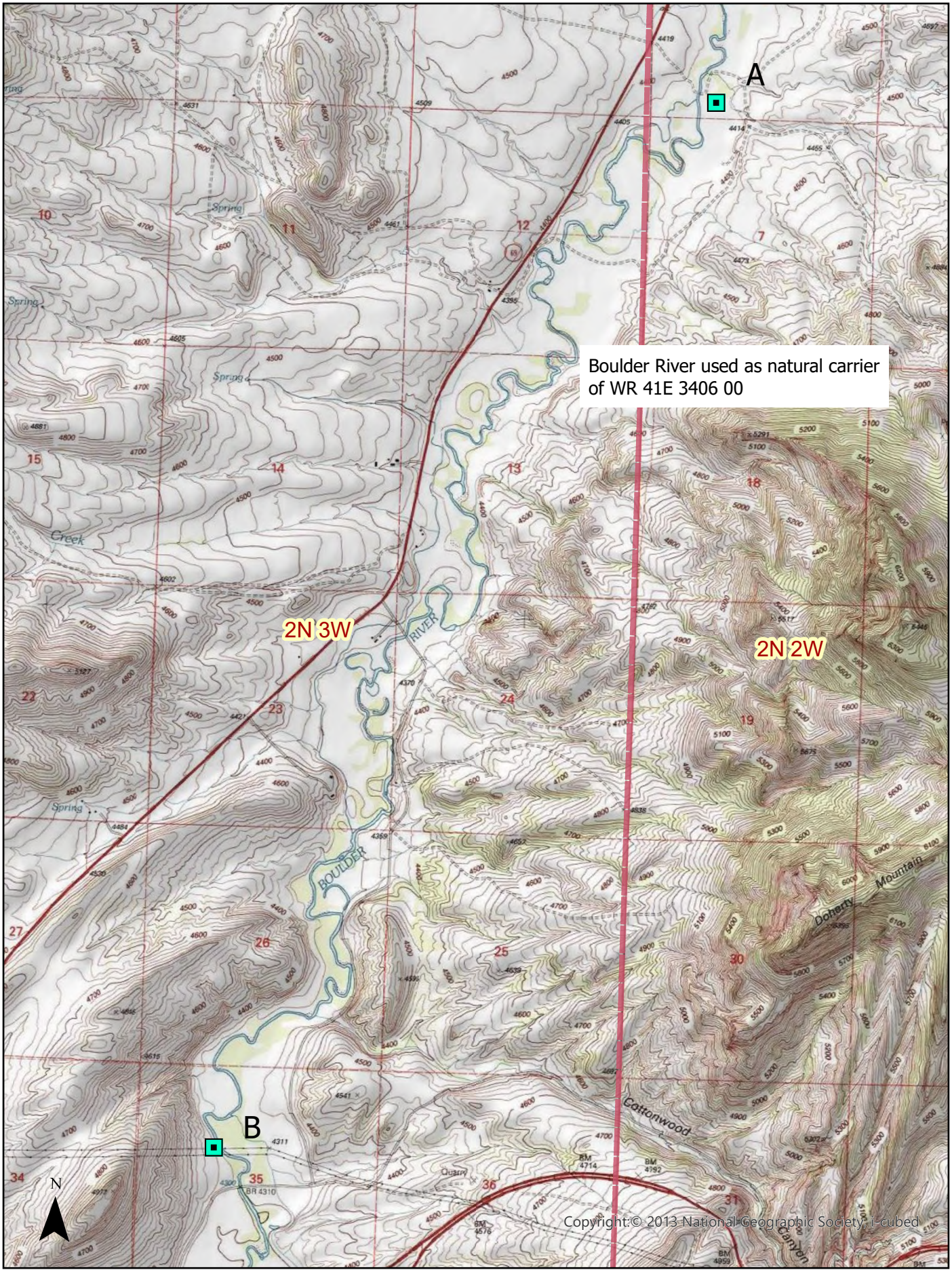
Figure 2. Looking across the Jefferson slough from the Huckaba POD change site.

Figure 3. Looking upstream on the Jefferson Slough from the Huckaba POD change site.

Figure 4. Looking downstream on the Jefferson Slough from the Huckaba POD change site.


Huckaba Ranch
West Side - V2
Legend
Endgun Watered Path
Mainline & Wire
Irvine Ln
359
2
HUCKABA PAVILION
9 Ac
Pump
10 Ac
Google Earth
N
1000 ft

Map 5A: LR Huckaba Ranch Inc Historic PODs



Reconnecting Wild Trout Habitat in the Boulder-Jefferson Watershed

Shaw Diversion Dam Removal Project

Cardwell, MT

The Shaw Diversion Dam on the lower Boulder River near Cardwell is a barrier to migrating fish from the Jefferson River for thermal refugia and spawning. The dam's small fish ladder is frequently blocked by low and high flows or debris and does not allow passage for some life stages of fish.

Rising in the mountains north of Butte, the Boulder River is the largest tributary to the Jefferson River downstream of the Beaverhead-Big Hole River confluence, providing a boost of cold water near the midpoint of the Jefferson's 83-mile length. The Boulder is a high-value coldwater fishery and provides significant agricultural production in Jefferson County. Dam removal will benefit wild trout spawning in the system. Also important for wild trout, the Boulder averages 2°-4°F colder than the Jefferson River in August, providing critical thermal refugia for coldwater species in the summer.

The Shaw Diversion fish ladder is woefully inadequate for fish access and is frequently clogged with woody debris and sediment.

CHALLENGE & PROJECT SOLUTION

Shaw Diversion Dam Removal Project

The project area is north of I-90 near Cardwell, MT. On the Candlestick Ranch, the Shaw Diversion Dam and two smaller diversions deliver water to 233 acres of cropland. An inadequate fish ladder exists on Shaw dam and frequently clogs with debris, making it inaccessible to migrating trout. In addition, the aging infrastructure is getting more difficult to operate and regulate irrigation withdrawal. This project will alleviate infrastructure concerns by removing the diversions and provide an ecological uplift to the Boulder and Jefferson Rivers through stream restoration, water savings, and wetland development, while maintaining agricultural benefits.

On the Ground Conservation

The project will remove Shaw Diversion and two smaller diversions and replace them with instream irrigation pumps that will benefit trout and agriculture. Significant data collection occured at the site over the past three years. Planning, engineering, and design for the dam removal and stream restoration is underway. The partners anticipate project implementation in the fall/winter of 2025.

Community Engagement and Partnerships

The funding and planning for this project involves the landowner, Golden Sunlight Mine, with complimentary support from Montana Fish, Wildlife & Parks (FWP), Natural Resource Conservation Service (NRCS), the Department of Natural Resource Conservation (DNRC), Trout and Salmon Foundation, the Cross Chartiable Foundation and L.R. Huckaba Ranch.

MONTANA TROUT UNLIMITED

SCAN ME

5+
PARTNER ORGANIZATIONS

WHY PHILANTHROPIC SUPPORT IS NEEDED

MTU relies on the contributions of local partners and individual donors to make up crucial matching funds for federal, state, and local grant awards. For this project, we are seeking to raise an additional $300,000 to reconnect this important area of the Boulder-Jefferson watershed. Your gift can help save wild trout in the Jefferson watershed.

"We are excited to partner with MTU in the removal of a diversion from the Boulder River. This collaborative effort will help to ensure a healthy and thriving fishery for future generations."

-- Kristine Murphy, Golden Sunlight GM

We are happy to discuss how we can best acknowledge your contribution~ through a press release, signage at the project site, or otherwise. Thank you for partnering with MTU to improve water quantity and quality, reconnect streams, protect native species, and provide economic and educational benefits to local communities, now and for future generations.

MONTANA TROUT UNLIMITED'S MISSION

Our mission is to conserve, protect, and restore Montana's coldwater fisheries and their watersheds.

To learn more about this project and how to support it, please contact:

CHRIS EDGINGTON
Project Manager
Montana Trout Unlimited
chris@montanatu.org | 406-543-0054

OUTCOMES WE CAN ACHIEVE TOGETHER

- Restore fish passage for thermal refugia and spawning
- 7 CFS of cold Boulder River water savings over the current base flow of 28 CFS
- Eliminate fish entrainment in 3 irrigation ditches
- Reduce nutrient and sediment loading through the creation of beneficial wetlands
- Improve irrigation delivery to 233 acres of valuable crop land.

HIGH-LEVERAGE INVESTMENT

This restoration project enables MTU to your contribution to secure additional dollars - 5:1 - by providing matching funds for substantial federal and state grant awards.

December 12, 2024

LR Huckaba Ranch LLC
26 MT Highway 356
Cardwell, MT 59271

Subject: Complete Preapplication Form Preapplication Form No. 41E 30164689

Dear Applicant,

The Helena Regional Office of the Department of Natural Resources and Conservation (DNRC or Department) received your Preapplication Meeting Form on 12/19/2024, and the Department deems the submitted Preapplication Meeting Form to be successfully completed per ARM 36.12.1302.

As designated on the submitted Preapplication Meeting Form per §85-2-302(3)(b), MCA, the Department will produce the technical analyses based on the parameters included in the Preapplication Meeting Form (ARM 36.12.1302(4)) within 45 days of 12/19/2024.

Please let me know if you have any questions.

Best,

Savannah Telander
Water Resources Specialist
Helena Regional Office
savannah.telander@mt.gov
406-444-6810

CC:

Patrick Byroth, patrickbyorth@TU.org
Chris Edgington, chris@montanatu.org

December 12, 2024

LR Huckaba Ranch LLC
26 MT Highway 356
Cardwell, MT 59271

Subject: Incomplete Preapplication Form No. 41E 30164689

Dear Applicant,

The Department received your Preapplication Meeting Form and preapplication fee on December 10, 2024. The Department deemed the submitted Preapplication Meeting Form to be incomplete because it lacks the following information:

- ❑ Follow-Up Page Affidavit & Certification (Page 60) was not included with the submitted Preapplication Meeting Form. The Applicant must sign this to start the Technical Analysis process. This signature signifies: "*I/we attest that this Preapplication Meeting Form, follow-up page, and amended responses page accurately portray my proposed project. I am aware that my application for this project will not qualify for a discounted filing fee and expedited timelines if upon submittal of the application to the Department, I change any element of the proposed application from the Preapplication Meeting Form and follow-up materials (ARM 36.12.1302(6)(a))*."

The 180- day deadline from the original preapplication meeting is October 17, 2024. You have 124 remaining days to successfully complete the Preapplication Meeting Form. If you do not submit the successfully completed Preapplication Meeting Form to the Helena Regional Office by April 15, 2025, you will need to request a new preapplication meeting.

Once you have signed the enclosed Follow-Up Page Affidavit & Certification (Page 60), please send everything back to the Helena Regional Office. Please let me know if you have any questions.

Best,

Savannah Telander
Water Resources Specialist
Helena Regional Office
savannah.telander@mt.gov
406-444-6810

CC:

Patrick Byroth, patrickbyorth@TU.org
Chris Edgington, chris@montanatu.org

From:	Telander, Savannah
To:	"Chris Edgington"
Cc:	Allison Pardis; Patrick Byorth; Daly, Jennifer
Subject:	RE: Preapplication Meeting Form Change Application 41E 30164689
Date:	Thursday, January 2, 2025 1:04:00 PM
Attachments:	41E 30164689_PreappForm_p60.pdf image002.png image003.png

Chris,

Attached is a copy of the last signature page (page 60) that you brought into the office. The DNRC 45-day deadline to get the Technical Analysis out is 2/2/2025, which is a Sunday. Due to this, we will be sending out the Technical Analysis out on 1/31/2025 at the latest.

Let us know if you have any further questions!

Savannah

Savannah Telander| Water Resources Specialist
Helena Water Resources Office
Montana Department of Natural Resources and Conservation
1424 Ninth Avenue P.O. Box 201601 Helena, MT 59620-1601
DESK: 406-444-6810 **EMAIL:** savannah.telander@mt.gov
Website | **Facebook** [facebook.com]| **X (Twitter** [twitter.com]) | **Instagram** [instagram.com]
How did we do? Let us know here: Feedback Survey [forms.office.com]

From: Chris Edgington <chris@montanatu.org>
Sent: Thursday, January 2, 2025 12:03 PM
To: Telander, Savannah <Savannah.Telander@mt.gov>
Cc: Allison Pardis <allison.pardis@tu.org>; Patrick Byorth <Patrick.Byorth@tu.org>; Daly, Jennifer <JDaly2@mt.gov>
Subject: [EXTERNAL] Re: Preapplication Meeting Form Change Application 41E 30164689

Good morning, all, and HNY!

Savannah and Jen, thanks for meeting with me just before the holidays to accept the new signature page from the Huckaba's. Can you please confirm the DNRC deadline for the technical review in writing? I think you told me January 31. Also, if it's not too much trouble, can you scan the new signature page for our records, I forgot to snap a copy.

Thanks,

Chris Edgington

Jefferson Watershed Project Manager
Montana Trout Unlimited
406.451.3035
www.montanatu.org [montanatu.org]

From: Telander, Savannah <Savannah.Telander@mt.gov>
Sent: Thursday, December 19, 2024 8:25 AM
To: Chris Edgington <chris@montanatu.org>
Cc: Allison Pardis <allison.pardis@tu.org>; Patrick Byorth <Patrick.Byorth@tu.org>; Daly, Jennifer <JDaly2@mt.gov>
Subject: RE: Preapplication Meeting Form Change Application 41E 30164689

Good morning,

Yes, I will be in the office today and tomorrow between 8 am and 4pm. Jenn should also be in today as well.

Savannah

Savannah Telander| Water Resources Specialist
Helena Water Resources Office
Montana Department of Natural Resources and Conservation
1424 Ninth Avenue P.O. Box 201601 Helena, MT 59620-1601
DESK: 406-444-6810 **EMAIL:** savannah.telander@mt.gov
Website | **Facebook** [facebook.com]| **X (Twitter** [twitter.com]) | **Instagram** [instagram.com]
How did we do? Let us know here: Feedback Survey [forms.office.com]

From: Chris Edgington <chris@montanatu.org>
Sent: Thursday, December 19, 2024 8:12 AM
To: Telander, Savannah <Savannah.Telander@mt.gov>
Cc: Allison Pardis <allison.pardis@tu.org>; Patrick Byorth <Patrick.Byorth@tu.org>
Subject: [EXTERNAL] Re: Preapplication Meeting Form Change Application 41E 30164689

Good morning, Savannah.

The Huckaba's have received and signed the paperwork. I'd like to deliver it in person. I don't want this important step lost in the holiday mix.

Are you available if I can deliver it today?

Chris Edgington
Jefferson Watershed Project Manager
Montana Trout Unlimited
406.451.3035
www.montanatu.org [montanatu.org]

From: Telander, Savannah <Savannah.Telander@mt.gov>
Sent: Friday, December 13, 2024 8:50 AM
To: Allison Pardis <allison.pardis@tu.org>; Patrick Byorth <Patrick.Byorth@tu.org>; Chris Edgington <chris@montanatu.org>
Cc: Daly, Jennifer <JDaly2@mt.gov>; lenhuckaba@icloud.com <lenhuckaba@icloud.com>
Subject: RE: Preapplication Meeting Form Change Application 41E 30164689

Alli,

The Department needs more information than what is listed on the plate to determine the pump capacities. We did a little research on our end to see if we could find the pump capacities for each pump but were unsuccessful. If you can't get datasheets from the manufactures, there are a few options you can do, see listed below:

- Provide the Department with operation pressure and diameter of the pumps (and a clearer picture of the Nidec pump plate)
- Or provide information from a bucket test – how long does it take to fill a gallon bucket with water using the pump

We will keep an eye out for the signed Preapplication Meeting Form from the Huckaba's.

Savannah

Savannah Telander| Water Resources Specialist
Helena Water Resources Office
Montana Department of Natural Resources and Conservation
1424 Ninth Avenue P.O. Box 201601 Helena, MT 59620-1601
DESK: 406-444-6810 **EMAIL:** savannah.telander@mt.gov
Website | **Facebook** [facebook.com]| **X (Twitter** [twitter.com]) | **Instagram** [instagram.com]
How did we do? Let us know here: Feedback Survey [forms.office.com]

From: Chris Edgington
To: Telander, Savannah; Daly, Jennifer
Subject: [EXTERNAL] Re: Preapplication Meeting Form Change Application 41E 30164689
Date: Thursday, December 19, 2024 12:02:29 PM
Attachments: image001.png
image002.png

Thanks, I'll be there about 1.

Chris Edgington
Jefferson Watershed Project Manager

From: Telander, Savannah <Savannah.Telander@mt.gov>
Sent: Thursday, December 19, 2024 8:25:12 AM
To: Chris Edgington <chris@montanatu.org>
Cc: Allison Pardis <allison.pardis@tu.org>; Patrick Byorth <Patrick.Byorth@tu.org>; Daly, Jennifer <JDaly2@mt.gov>
Subject: RE: Preapplication Meeting Form Change Application 41E 30164689

Good morning,

Yes, I will be in the office today and tomorrow between 8 am and 4pm. Jenn should also be in today as well.

Savannah

Savannah Telander| Water Resources Specialist
Helena Water Resources Office
Montana Department of Natural Resources and Conservation
1424 Ninth Avenue P.O. Box 201601 Helena, MT 59620-1601
DESK: 406-444-6810 **EMAIL:** savannah.telander@mt.gov
Website | **Facebook** [facebook.com]| **X (Twitter** [twitter.com]) | **Instagram** [instagram.com]
How did we do? Let us know here: Feedback Survey [forms.office.com]

From: Chris Edgington <chris@montanatu.org>
Sent: Thursday, December 19, 2024 8:12 AM
To: Telander, Savannah <Savannah.Telander@mt.gov>
Cc: Allison Pardis <allison.pardis@tu.org>; Patrick Byorth <Patrick.Byorth@tu.org>
Subject: [EXTERNAL] Re: Preapplication Meeting Form Change Application 41E 30164689

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want this important step lost in the holiday mix.

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Chris Edgington
Jefferson Watershed Project Manager
Montana Trout Unlimited
406.451.3035
www.montanatu.org [montanatu.org]

From: Telander, Savannah <Savannah.Telander@mt.gov>
Sent: Friday, December 13, 2024 8:50 AM
To: Allison Pardis <allison.pardis@tu.org>; Patrick Byorth <Patrick.Byorth@tu.org>; Chris Edgington <chris@montanatu.org>
Cc: Daly, Jennifer <JDaly2@mt.gov>; lenhuckaba@icloud.com <lenhuckaba@icloud.com>
Subject: RE: Preapplication Meeting Form Change Application 41E 30164689

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- Or provide information from a bucket test – how long does it take to fill a gallon bucket with water using the pump

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Savannah

Savannah Telander| Water Resources Specialist
Helena Water Resources Office
Montana Department of Natural Resources and Conservation
1424 Ninth Avenue P.O. Box 201601 Helena, MT 59620-1601
DESK: 406-444-6810 **EMAIL:** savannah.telander@mt.gov
Website | **Facebook** [facebook.com]| **X (Twitter** [twitter.com]) | **Instagram** [instagram.com]
How did we do? Let us know here: Feedback Survey [forms.office.com]

From: Allison Pardis <allison.pardis@tu.org>
Sent: Thursday, December 12, 2024 1:48 PM
To: Telander, Savannah <Savannah.Telander@mt.gov>; Patrick Byorth <Patrick.Byorth@tu.org>; Chris Edgington <chris@montanatu.org>
Cc: Daly, Jennifer <JDaly2@mt.gov>; lenhuckaba@icloud.com
Subject: [EXTERNAL] Re: Preapplication Meeting Form Change Application 41E 30164689

Hi Savannah,

I apologize I didn't realize a second signature was required. We will get a signature on page 60 and submit it to the department.

We briefly exchanged some emails about the pump curves. I did reach out to the manufacturers and because the pumps are older the pump curves are not readily available. Can the department use the face plate information from the pumps to determine pump capacity?

Thanks,
Alli

From: Telander, Savannah <Savannah.Telander@mt.gov>
Sent: Thursday, December 12, 2024 11:32 AM
To: Patrick Byorth <Patrick.Byorth@tu.org>; Chris Edgington Montana <chris@montanatu.org>
Cc: Allison Pardis <allison.pardis@tu.org>; Daly, Jennifer <JDaly2@mt.gov>; lenhuckaba@icloud.com <lenhuckaba@icloud.com>
Subject: Preapplication Meeting Form Change Application 41E 30164689

Greetings,

The DNRC Helena Regional Office received the Preapplication Meeting Form for LR Huckaba Ranch LLC's Change Application 41E 30164689. Hard copies of the follow-up information were received in the Helena Regional Office on 12/10/2024 and a digital version of the Form was received on 12/11/2024. Both files submitted to the office omit page 60 of the Preapplication Meeting Form. At this time, the Form is **not** considered complete. The Department cannot consider the Form complete or begin the Technical Analysis until the second signature page (page 60) is signed and submitted. I have sent the hard copies of the Form that were submitted on 12/10/2024 to the Huckaba's along with the second signature page for them to sign and send back to the DNRC Helena Office. I have attached the letter that was sent to the Huckaba's to this email.

Side note regarding the follow up pump information submitted. The pump information provided is not

sufficient for the Department to determine if the pumps have the capacity to pump the proposed flow rate. It is not a mandatory question for the Preapplication Meeting Form, so its fine for now. At the time of Application submittal, you will need to provide a pump curve for each pump.

Once we get the second signatures from the Huckaba's we will be able to start the Technical Analysis. Please let me know if you have any questions.

Savannah

Savannah Telander| Water Resources Specialist
Helena Water Resources Office
Montana Department of Natural Resources and Conservation
1424 Ninth Avenue P.O. Box 201601 Helena, MT 59620-1601
DESK: 406-444-6810 **EMAIL:** savannah.telander@mt.gov
Website | **Facebook** [facebook.com]| **X (Twitter** [twitter.com]) | **Instagram** [instagram.com]
How did we do? Let us know here: Feedback Survey [forms.office.com]

From: Telander, Savannah
To: "Chris Edgington"
Cc: Daly, Jennifer; Patrick Byorth; lenhuckaba@icloud.com; allison.pardis@tu.org
Subject: RE: Huckaba Preapplication Meeting Form
Date: Monday, October 28, 2024 8:42:00 AM
Attachments: 2024.10.28 P 57 Signed.pdf
image001.png
image002.png

Good morning,

The Helena Office received the signature page of the Preapplication Form. Attached is the fully signed version of the signature page.

Just another reminder, the 180 day deadline to submit the complete Preapplication Meeting Form to the Helena Office is **April 15, 2025**. Please let us know if you have any further questions.

Savannah

Savannah Telander| Water Resources Specialist
Helena Water Resources Office
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Website | **Facebook** [facebook.com]| **X (Twitter** [twitter.com]) | **Instagram** [instagram.com]
How did we do? Let us know here: Feedback Survey [forms.office.com]

From: Chris Edgington <chris@montanatu.org>
Sent: Monday, October 21, 2024 9:27 AM
To: Telander, Savannah <Savannah.Telander@mt.gov>
Cc: Daly, Jennifer <JDaly2@mt.gov>; Patrick Byorth <Patrick.Byorth@tu.org>; lenhuckaba@icloud.com; allison.pardis@tu.org
Subject: [EXTERNAL] Re: Huckaba Preapplication Meeting Form

In the mail, thanks!

Chris Edgington
Jefferson Watershed Project Manager

From: Telander, Savannah <Savannah.Telander@mt.gov>
Sent: Monday, October 21, 2024 8:03:35 AM
To: Chris Edgington <chris@montanatu.org>
Cc: Daly, Jennifer <JDaly2@mt.gov>; Patrick Byorth <Patrick.Byorth@tu.org>; lenhuckaba@icloud.com <lenhuckaba@icloud.com>; allison.pardis@tu.org <allison.pardis@tu.org>

Subject: RE: Huckaba Preapplication Meeting Form

Good morning Chris,

Thank you for sending the copy of the signature page. The Department needs the original wet signature page. Can you please mail or submit the signature page to the Helena Regional Office at **1424 Ninth Avenue PO Box 201601 Helena, MT 59620-1601**.

Thank you,

Savannah

Savannah Telander| Water Resources Specialist
Helena Water Resources Office
Montana Department of Natural Resources and Conservation
1424 Ninth Avenue P.O. Box 201601 Helena, MT 59620-1601
DESK: 406-444-6810 **EMAIL:** savannah.telander@mt.gov
Website | **Facebook** [facebook.com]| **X (Twitter** [twitter.com]) | **Instagram** [instagram.com]
How did we do? Let us know here: Feedback Survey [forms.office.com]

From: Chris Edgington <chris@montanatu.org>
Sent: Friday, October 18, 2024 4:20 PM
To: Telander, Savannah <Savannah.Telander@mt.gov>; Patrick Byorth <Patrick.Byorth@tu.org>; lenhuckaba@icloud.com; allison.pardis@tu.org
Cc: Daly, Jennifer <JDaly2@mt.gov>
Subject: [EXTERNAL] Re: Huckaba Preapplication Meeting Form

All,

Attached is the pg. 57, signed by Lenny and Susan. Once there is a department signature, please return that copy.

Chris Edgington
Jefferson Watershed Project Manager
Montana Trout Unlimited
406.451.3035
www.montanatu.org [montanatu.org]

From: Telander, Savannah <Savannah.Telander@mt.gov>
Sent: Thursday, October 17, 2024 3:51 PM
To: Patrick Byorth <Patrick.Byorth@tu.org>; Chris Edgington <chris@montanatu.org>; lenhuckaba@icloud.com <lenhuckaba@icloud.com>; allison.pardis@tu.org <allison.pardis@tu.org>
Cc: Daly, Jennifer <JDaly2@mt.gov>
Subject: Huckaba Preapplication Meeting Form

Hello All,

Attached is the Preapplication Meeting Form for LR Huckaba Ranch Inc that we went over today (Application 41E 30164689).

Please return the first signature page (page 57) back with the Applicant's signature within the next **5 business days**, which is October 24, 2024. The signature can be a certified digital signature or a wet signature.

The follow up items needed for the Preapplication Form are listed on page 58 of the form. I have a non-mandatory question listed in this area (question 171), since we discussed it in the meeting. The pump specific information provided previously and during the meeting are for just the pump in Section 3. If you have the pump specs for the two other pumps that would also be helpful.

The 180 day deadline to submit the complete Preapplication Meeting Form to the Helena Office is **April 15, 2025**.

Thank you for the meeting today. Please let us know if you have any further questions.

Savannah

Savannah Telander| Water Resources Specialist
Helena Water Resources Office
Montana Department of Natural Resources and Conservation
1424 Ninth Avenue P.O. Box 201601 Helena, MT 59620-1601
DESK: 406-444-6810 **EMAIL:** savannah.telander@mt.gov
Website | **Facebook** [facebook.com]| **X (Twitter** [twitter.com]) | **Instagram** [instagram.com]
How did we do? Let us know here: Feedback Survey [forms.office.com]

From: Telander, Savannah
To: "Allison Pardis"
Cc: Daly, Jennifer
Subject: RE: Huckaba Preapplication Meeting Form
Date: Thursday, November 7, 2024 8:03:00 AM
Attachments: image001.png
image002.png

Alli,

I would suggest researching the serial numbers of the pumps or asking the company where the pumps were purchased to find more information on the proposed pumps.

Savannah

Savannah Telander| Water Resources Specialist
Helena Water Resources Office
Montana Department of Natural Resources and Conservation
1424 Ninth Avenue P.O. Box 201601 Helena, MT 59620-1601
DESK: 406-444-6810 **EMAIL:** savannah.telander@mt.gov
Website | **Facebook** [facebook.com]| **X (Twitter** [twitter.com]) | **Instagram** [instagram.com]
How did we do? Let us know here: Feedback Survey [forms.office.com]

From: Allison Pardis <allison.pardis@tu.org>
Sent: Wednesday, November 6, 2024 4:20 PM
To: Telander, Savannah <Savannah.Telander@mt.gov>
Subject: [EXTERNAL] RE: Huckaba Preapplication Meeting Form

Hey Savannah,

I have the serial numbers for the pumps described in this change app, and you have the specs for the 15hp pump. I'm not having any luck finding performance curves for the other two pumps. Do you have any suggestions on where I might find that information to include in the application?

Thanks!
Alli

Alli Pardis
Trout Unlimited
(406) 431-5981

From: Telander, Savannah <Savannah.Telander@mt.gov>
Sent: Monday, October 28, 2024 8:42 AM
To: Chris Edgington Montana <chris@montanatu.org>
Cc: Daly, Jennifer <JDaly2@mt.gov>; Patrick Byorth <Patrick.Byorth@tu.org>; lenhuckaba@icloud.com; Allison Pardis <allison.pardis@tu.org>
Subject: RE: Huckaba Preapplication Meeting Form

Good morning,

The Helena Office received the signature page of the Preapplication Form. Attached is the fully signed version of the signature page.

Just another reminder, the 180 day deadline to submit the complete Preapplication Meeting Form to the Helena Office is **April 15, 2025**. Please let us know if you have any further questions.

Savannah

Savannah Telander| Water Resources Specialist
Helena Water Resources Office
Montana Department of Natural Resources and Conservation
1424 Ninth Avenue P.O. Box 201601 Helena, MT 59620-1601
DESK: 406-444-6810 **EMAIL:** savannah.telander@mt.gov
Website | **Facebook** [facebook.com]| **X (Twitter** [twitter.com]) | **Instagram** [instagram.com]
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From: Chris Edgington <chris@montanatu.org>
Sent: Monday, October 21, 2024 9:27 AM
To: Telander, Savannah <Savannah.Telander@mt.gov>
Cc: Daly, Jennifer <JDaly2@mt.gov>; Patrick Byorth <Patrick.Byorth@tu.org>; lenhuckaba@icloud.com; allison.pardis@tu.org
Subject: [EXTERNAL] Re: Huckaba Preapplication Meeting Form

In the mail, thanks!

Chris Edgington
Jefferson Watershed Project Manager

From: Telander, Savannah <Savannah.Telander@mt.gov>
Sent: Monday, October 21, 2024 8:03:35 AM
To: Chris Edgington <chris@montanatu.org>
Cc: Daly, Jennifer <JDaly2@mt.gov>; Patrick Byorth <Patrick.Byorth@tu.org>; lenhuckaba@icloud.com <lenhuckaba@icloud.com>; allison.pardis@tu.org <allison.pardis@tu.org>

Subject: RE: Huckaba Preapplication Meeting Form

Good morning Chris,

Thank you for sending the copy of the signature page. The Department needs the original wet signature page. Can you please mail or submit the signature page to the Helena Regional Office at **1424 Ninth Avenue PO Box 201601 Helena, MT 59620-1601**.

Thank you,

Savannah

Savannah Telander| Water Resources Specialist
Helena Water Resources Office
Montana Department of Natural Resources and Conservation
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How did we do? Let us know here: Feedback Survey [forms.office.com]

From: Chris Edgington <chris@montanatu.org>
Sent: Friday, October 18, 2024 4:20 PM
To: Telander, Savannah <Savannah.Telander@mt.gov>; Patrick Byorth <Patrick.Byorth@tu.org>; lenhuckaba@icloud.com; allison.pardis@tu.org
Cc: Daly, Jennifer <JDaly2@mt.gov>
Subject: [EXTERNAL] Re: Huckaba Preapplication Meeting Form

All,

Attached is the pg. 57, signed by Lenny and Susan. Once there is a department signature, please return that copy.

Chris Edgington
Jefferson Watershed Project Manager
Montana Trout Unlimited
406.451.3035
www.montanatu.org [montanatu.org]

From: Telander, Savannah <Savannah.Telander@mt.gov>
Sent: Thursday, October 17, 2024 3:51 PM
To: Patrick Byorth <Patrick.Byorth@tu.org>; Chris Edgington <chris@montanatu.org>; lenhuckaba@icloud.com <lenhuckaba@icloud.com>; allison.pardis@tu.org <allison.pardis@tu.org>
Cc: Daly, Jennifer <JDaly2@mt.gov>
Subject: Huckaba Preapplication Meeting Form

Hello All,

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Thank you for the meeting today. Please let us know if you have any further questions.

Savannah

Savannah Telander| Water Resources Specialist
Helena Water Resources Office
Montana Department of Natural Resources and Conservation
1424 Ninth Avenue P.O. Box 201601 Helena, MT 59620-1601
DESK: 406-444-6810 **EMAIL:** savannah.telander@mt.gov
Website | **Facebook** [facebook.com]| **X (Twitter** [twitter.com]) | **Instagram** [instagram.com]
How did we do? Let us know here: Feedback Survey [forms.office.com]

From:	Chris Edgington
To:	Telander, Savannah
Cc:	Daly, Jennifer; Patrick Byorth; lenhuckaba@icloud.com; allison.pardis@tu.org
Subject:	[EXTERNAL] Re: Huckaba Preapplication Meeting Form
Date:	Monday, October 21, 2024 9:27:13 AM
Attachments:	image002.png image003.png

In the mail, thanks!

Chris Edgington
Jefferson Watershed Project Manager

From: Telander, Savannah <Savannah.Telander@mt.gov>
Sent: Monday, October 21, 2024 8:03:35 AM
To: Chris Edgington <chris@montanatu.org>
Cc: Daly, Jennifer <JDaly2@mt.gov>; Patrick Byorth <Patrick.Byorth@tu.org>; lenhuckaba@icloud.com <lenhuckaba@icloud.com>; allison.pardis@tu.org <allison.pardis@tu.org>
Subject: RE: Huckaba Preapplication Meeting Form

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Thank you,

Savannah

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Sent: Friday, October 18, 2024 4:20 PM
To: Telander, Savannah <Savannah.Telander@mt.gov>; Patrick Byorth <Patrick.Byorth@tu.org>; lenhuckaba@icloud.com; allison.pardis@tu.org
Cc: Daly, Jennifer <JDaly2@mt.gov>
Subject: [EXTERNAL] Re: Huckaba Preapplication Meeting Form

All,

Attached is the pg. 57, signed by Lenny and Susan. Once there is a department signature, please return that copy.

Chris Edgington
Jefferson Watershed Project Manager
Montana Trout Unlimited
406.451.3035
www.montanatu.org [montanatu.org]

From: Telander, Savannah <Savannah.Telander@mt.gov>
Sent: Thursday, October 17, 2024 3:51 PM
To: Patrick Byorth <Patrick.Byorth@tu.org>; Chris Edgington <chris@montanatu.org>; lenhuckaba@icloud.com <lenhuckaba@icloud.com>; allison.pardis@tu.org <allison.pardis@tu.org>
Cc: Daly, Jennifer <JDaly2@mt.gov>
Subject: Huckaba Preapplication Meeting Form

Hello All,

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The follow up items needed for the Preapplication Form are listed on page 58 of the form. I have a non-mandatory question listed in this area (question 171), since we discussed it in the meeting. The pump specific information provided previously and during the meeting are for just the pump in Section 3. If you have the pump specs for the two other pumps that would also be helpful.

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Thank you for the meeting today. Please let us know if you have any further questions.

Savannah

Savannah Telander| Water Resources Specialist
Helena Water Resources Office
Montana Department of Natural Resources and Conservation
1424 Ninth Avenue P.O. Box 201601 Helena, MT 59620-1601
DESK: 406-444-6810 **EMAIL:** savannah.telander@mt.gov
Website | **Facebook** [facebook.com]| **X (Twitter** [twitter.com]) | **Instagram** [instagram.com]
How did we do? Let us know here: Feedback Survey [forms.office.com]

From:	Patrick Byorth
To:	Chris Edgington; Daly, Jennifer; Megan Casey
Cc:	lenhuckaba@icloud.com; Telander, Savannah
Subject:	[EXTERNAL] Re: Huckaba Change in Point of Diversion, Pre-App questions
Date:	Wednesday, October 9, 2024 9:00:41 AM
Attachments:	image001.png image002.png image003.png Outlook-4b3dxa1s.png

Thursday after 1:00 pm works best for me. Thanks,
Pat

Patrick Byorth
Trout Unlimited, Inc.

From: Chris Edgington <chris@montanatu.org>
Sent: Wednesday, October 9, 2024 8:48:23 AM
To: Daly, Jennifer <JDaly2@mt.gov>; Patrick Byorth <Patrick.Byorth@tu.org>; Megan Casey <Megan.Casey@tu.org>
Cc: lenhuckaba@icloud.com <lenhuckaba@icloud.com>; Telander, Savannah <Savannah.Telander@mt.gov>
Subject: Re: Huckaba Change in Point of Diversion, Pre-App questions

I can do Wednesday morning or anytime on Thursday.

Chris Edgington
Jefferson Watershed Project Manager
Montana Trout Unlimited
406.451.3035
www.montanatu.org [montanatu.org]

From: Daly, Jennifer <JDaly2@mt.gov>
Sent: Wednesday, October 9, 2024 7:56 AM
To: Patrick Byorth <Patrick.Byorth@tu.org>; Chris Edgington <chris@montanatu.org>; Megan Casey <Megan.Casey@tu.org>
Cc: lenhuckaba@icloud.com <lenhuckaba@icloud.com>; Telander, Savannah <Savannah.Telander@mt.gov>
Subject: RE: Huckaba Change in Point of Diversion, Pre-App questions

Hello All,
Erin is out on vacation, so Savannah has gone through the preapplication form with the updated information. Next, we need to schedule a meeting to start the official timelines associated with the HB114 process. Since we have met several times, I think we can do this over a Teams meeting and work through the remaining questions. We are open most of Wednesday and Thursday next week. Let

me know what times work for you all and I will get a meeting scheduled. Thanks all!

Jennifer Daly| Regional Manager
Water Resources Helena Regional Office
Montana Department of Natural Resources and Conservation
1424 9th Ave Helena, MT 59620
DESK: 406-444-5783 **EMAIL:** jdaly2@mt.gov
Website | **Facebook** [facebook.com]| **X (Twitter** [twitter.com]**)** | **Instagram** [instagram.com]
How did we do? Let us know here: Feedback Survey [forms.office.com]

From: Patrick Byorth <Patrick.Byorth@tu.org>
Sent: Wednesday, October 2, 2024 5:12 PM
To: Daly, Jennifer <JDaly2@mt.gov>; Chris Edgington <chris@montanatu.org>; Wall, Erin <Erin.Wall@mt.gov>; Megan Casey <Megan.Casey@tu.org>
Cc: lenhuckaba@icloud.com
Subject: [EXTERNAL] Re: Huckaba Change in Point of Diversion, Pre-App questions

Great, thanks Jen!

Patrick Byorth
Trout Unlimited, Inc.

From: Daly, Jennifer <JDaly2@mt.gov>
Sent: Wednesday, October 2, 2024 3:53:00 PM
To: Patrick Byorth <Patrick.Byorth@tu.org>; Chris Edgington Montana <chris@montanatu.org>; Wall, Erin <Erin.Wall@mt.gov>; Megan Casey <Megan.Casey@tu.org>
Cc: lenhuckaba@icloud.com <lenhuckaba@icloud.com>
Subject: RE: Huckaba Change in Point of Diversion, Pre-App questions

Hi Pat!
Yes, Erin has cleaned up the pre-app form based on the information you provided. I will give it a look tomorrow and we will send it over to you guys to review. Let's chat after that as I don't think there is much left to cover. Jenn Daly

---

From: Patrick Byorth <Patrick.Byorth@tu.org>
Sent: Wednesday, October 2, 2024 3:36 PM
To: Chris Edgington <chris@montanatu.org>; Daly, Jennifer <JDaly2@mt.gov>; Wall, Erin <Erin.Wall@mt.gov>; Megan Casey <Megan.Casey@tu.org>
Cc: lenhuckaba@icloud.com
Subject: [EXTERNAL] RE: Huckaba Change in Point of Diversion, Pre-App questions

Hi Jen and Erin,

Any chance we could get a meeting scheduled for next week? We're eager to get the application launched to prepare arrangements for the spring. Thanks!
Pat

From: Chris Edgington <chris@montanatu.org>
Sent: Friday, September 20, 2024 11:25 AM
To: Patrick Byorth <Patrick.Byorth@tu.org>; Daly, Jennifer <JDaly2@mt.gov>; Wall, Erin <Erin.Wall@mt.gov>; Megan Casey <Megan.Casey@tu.org>
Cc: lenhuckaba@icloud.com
Subject: Re: Huckaba Change in Point of Diversion, Pre-App questions

Thanks to everyone for their work on this.

Erin, when do you think you'll have the application finalized?

I will be out of service next week on a project during business hours, but I want to ensure we get the 180 days started without delay on my end because we need to get an irrigation contractor scheduled soon for the upgrade next spring.

Thanks, and have a great weekend!

Chris Edgington
Jefferson Watershed Project Manager
Montana Trout Unlimited
406.451.3035
www.montanatu.org [montanatu.org]

From: Patrick Byorth <Patrick.Byorth@tu.org>
Sent: Thursday, September 12, 2024 11:42 AM
To: Daly, Jennifer <JDaly2@mt.gov>; Wall, Erin <Erin.Wall@mt.gov>; Megan Casey <Megan.Casey@tu.org>
Cc: lenhuckaba@icloud.com <lenhuckaba@icloud.com>; Chris Edgington <chris@montanatu.org>
Subject: RE: Huckaba Change in Point of Diversion, Pre-App questions

Thanks Jen,
Sorry to hear that you were sick. We'll look forward to getting the pre-app form finished up. Is a meeting still necessary? I ask because I will be out until the first of October. If Chris and Mr. Huckaba are available, I don't want to hold things up.
Pat

From: Daly, Jennifer <JDaly2@mt.gov>
Sent: Monday, September 9, 2024 8:56 AM
To: Patrick Byorth <Patrick.Byorth@tu.org>; Wall, Erin <Erin.Wall@mt.gov>; Megan Casey <Megan.Casey@tu.org>
Cc: lenhuckaba@icloud.com; Chris Edgington Montana <chris@montanatu.org>
Subject: RE: Huckaba Change in Point of Diversion, Pre-App questions

Hi Pat and All,
Erin is going to work on incorporating this information into the preapplication form and get it up to date. Once it is dialed in, we can reschedule a finalizing meeting. Please note I am out of the office all week this week. Also, I apologize for the delay as I was out sick all last week. Thanks and we look forward to getting this moving!

Jennifer Daly| Regional Manager
Water Resources Helena Regional Office
Montana Department of Natural Resources and Conservation
1424 9th Ave Helena, MT 59620
DESK: 406-444-5783 **EMAIL:** jdaly2@mt.gov
Website | **Facebook** [facebook.com]| **X (Twitter** [twitter.com]**)** | **Instagram** [instagram.com]
How did we do? Let us know here: Feedback Survey [forms.office.com]

From: Patrick Byorth <Patrick.Byorth@tu.org>
Sent: Tuesday, August 27, 2024 1:12 PM
To: Daly, Jennifer <JDaly2@mt.gov>; Wall, Erin <Erin.Wall@mt.gov>; Megan Casey <Megan.Casey@tu.org>
Cc: lenhuckaba@icloud.com; Chris Edgington <chris@montanatu.org>
Subject: [EXTERNAL] RE: Huckaba Change in Point of Diversion, Pre-App questions

Hi Jen,
Just had a quick note from Morgan and thought I'd confirm that the map and table describing the POU was for your information. We do not intend to change the POU from the description as amended by the Water Court. Thanks!
Pat

From: Patrick Byorth
Sent: Monday, August 26, 2024 3:39 PM
To: Daly, Jennifer <JDaly2@mt.gov>; Wall, Erin <Erin.Wall@mt.gov>; Megan Casey <Megan.Casey@tu.org>
Cc: lenhuckaba@icloud.com; Chris Edgington Montana <chris@montanatu.org>
Subject: RE: Huckaba Change in Point of Diversion, Pre-App questions

Hi Jen and Erin,

Attached are the following exhibits in response to your questions at our second pre-app meeting related to the Huckaba change in POD:

- A Map in response to question 45, corrected to geo-rectify the WRS layer with the proposed (including some existing) irrigation
- A table summarizing and comparing the historic, amended and proposed POU, showing a net reduction of 59.5 acres, and
- Spec sheets for the new pumps at the proposed POD with maps and diagrams.

Hope this helps kick the pre-app into gear. I've added Meg Casey to the discussion. I will be away the rest of this week, but Chris and Meg can likely help answer any questions. Thanks!

Pat

From: Patrick Byorth
Sent: Monday, August 19, 2024 1:57 PM
To: Daly, Jennifer <JDaly2@mt.gov>; Wall, Erin <Erin.Wall@mt.gov>
Cc: lenhuckaba@icloud.com; Chris Edgington Montana <chris@montanatu.org>
Subject: Huckaba Change in Point of Diversion, Pre-App questions

Hi Jen and Erin,
Thanks for taking the time to review the pre-application questions last week. I promised to follow up on a couple issues with Mr. Huckaba and get back to you.

First, there was a question as to whether the roughly 4 acre lobe of a pivot field in the SESENW Sect 11, as portrayed on "Map 44" would be an extension of the existing place of use, triggering a change in place of use. Mr. Huckaba confirmed that when the pivot was installed, that lobe was irrigated as portrayed in the aerial photo (c~2021) that you had on file. However, that section of ground is too irregular, swampy, and unproductive for cultivation and is not irrigated. The pivot is stored on that portion during times when the field is under cultivation or harvest, but not irrigated, which is why more current aerial photographs show wheel paths.

Therefore, a change in place of use is not warranted for this application.

Second, the question was whether claim number 41E 3406 00 should be included in the change application. The Applicant does not intend to change any elements of this claim, therefore, it need not be included in the change application pertinent to the change in POD of the other two claims: 41E 3407 00 and 3408 00.

Third, TU cannot speak for the water rights owned by Golden Sunlight Mine (GSM) and can only assume that they will continue to use their rights until the broader project to remove the Shaw diversion further develops. GSM is a partner in the overall project and will likely undertake a change application in time.

Finally, there were a few items that you requested, including revised maps, pump specifications, and a summary of post-change irrigation. I'm working on gathering that information together and will submit in the next week or so. Please let me know if you need anything further.

Pat

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