

## **Public Notice for Objections**

- **Public Notice for Objections Package**
  - Notice Area List
  - Notice Area Map
  - Form Checklist
  - PN- Letter to applicant
  - PN- Letter to editor
  - PN- Certificate of service
  - PN- Invoice & tear sheet
  - PN- Return mail
  - Objection Files & associated documents

**Public Notice for Objections**

## Preliminary Determination

- PD
- PD cover letter

Preliminary Determination

## **Environmental Assessment & Public Notice for Public Comment**

- **Environmental Assessment &  
supporting documents**
- **Public Notice for Public Comment  
package**
  - **Form Checklist**
  - **PN- Certificate of service**
  - **PN- Invoice & tear sheet**
  - **PN- Letter to applicant**
  - **PN- Letter to editor**
  - **PN- Return mail**
  - **Public Comment files**
  - **Notice Area List**
  - **Notice Area Map**

**Environmental Assessment &  
Public Notice for Public  
Comment**

## **Draft Preliminary Determinations**

- **Draft PD**
- **Draft PD cover letter**
- **Updated Draft PD**
- **Updated Draft PD cover letter**
- **Any correspondence with the applicant regarding the draft PDs**

# **Draft Preliminary Determinations**

## 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

THE MONTANA DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION

DIRECTOR'S OFFICE: (406) 444-2074  
PO BOX 201601



1539 ELEVENTH AVENUE  
HELENA, MONTANA 59620-1601

GOVERNOR GREG GIANFORTE

DNRC DIRECTOR AMANDA KASTER

June 26, 2026

Ryan McLane  
PO Box 1155  
Helena, MT 59624-1155

Subject: Correct and Complete Application for Change No. 41Q 30170946

Dear Mr. McLane,

The Department of Natural Resources and Conservation (Department) has determined that Application for Change No. 41Q 30170946 is correct and complete pursuant to ARM 36.12.1601. Please remember that correct and complete **does not mean that the Application will be granted.** The purpose of this letter is to indicate that the Department has enough information to analyze your water right application.

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

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Following issuance of the Draft Preliminary Determination, the Applicant (Northwestern corporation d/b/a Northwestern Energy) 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 the Application or grant the 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.

Best,

A handwritten signature in blue ink that reads "Matt D. Shaw". The signature is stylized and cursive.

Matthew D. Shaw  
New Appropriations Specialist  
Lewistown Regional Office  
(406) 535-1927  
[matthew.shaw@mt.gov](mailto:matthew.shaw@mt.gov)



**From:** [Shaw, Matthew](#)  
**To:** [Ryan McLane](#)  
**Subject:** Correct & Complete Determination for Northwestern Energy  
**Date:** Friday, June 26, 2026 9:23:00 AM  
**Attachments:** [image001.png](#)  
[NWE Blk Eagle A2 C&C Letter COPY 6.26.26.pdf](#)

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Ryan,

Attached is a pdf copy of the Correct & Complete Determination for Northwestern Energy's Application to Change a Water Right No. 41Q 30170946. The original was placed in the outgoing postal mail this morning, addressed to Franz & Driscoll, c/o yourself.

The Draft Preliminary Determination will be due from the Department 60-calendar days from the date of the letter (6/26/26), which works out to Tuesday, 8/25/26.

Best,



**Matthew Shaw** | Water Resource Specialist—New Appropriations  
Water Rights Bureau  
Montana Department of Natural Resources and Conservation  
Lewistown Water Regional Office, 613 NE Main St, Ste E, Lewistown, MT 59457  
**OFFICE:** 406-538-7459 **DIRECT:** 406-535-1927 **EMAIL:** [matthew.shaw@mt.gov](mailto:matthew.shaw@mt.gov)  
**Website** | [Facebook](#) | [X \(Twitter\)](#) | [Instagram](#)  
How did we do? Let us know here: [Feedback Survey](#)

## Application Materials

- Application
- Any information submitted with Application including maps

# Application Materials



APPLICATION FOR BENEFICIAL WATER USE PERMIT

§ 85-2-302, MCA

Form No. 600 (10/2025)

For Department Use Only

RECEIVED - DNRC

JUN - 5 2026

LEWISTOWN WATER RESOURCES

FILING FEE

\$2900/\$1600 - Inside a Basin Closure Area, Controlled Groundwater Area or Compact Closure; without/with filing fee reduction.

\$2500/\$1200 - Outside a Basin Closure Area; Controlled Groundwater Area or Compact Closure; without/with filing fee reduction.

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)). If application is eligible for a filing fee reduction, \$500 paid for Form 600P-B will be credited toward filing fees shown above.

Application # 30170946 Basin 41 QJ
Priority Date 06/05/2026 Time 0800 AM/PM
Rec'd By SMCJ
Fee Rec'd \$ 1,600.00 Check # 8291
Deposit Receipt # LWS2630270
Payor Franz & Driscoll PLLP
Refund \$ Date

Applicant Information: Add more as necessary.

Applicant Name NorthWestern Corporation dba NorthWester
Mailing Address 208 N. Montana, Suite 200 City Helena State MT Zip 59601
Phone Numbers: Home Work (406) 443-8923 x77123 Cell
Email Address michael.green@northwestern.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 [x] Attorney [ ] Other
Contact/Representative Name Ryan McLane, Franz & Driscoll, PLLP
Mailing Address PO Box 1155 City Helena State MT Zip 59624-1155
Phone Numbers: Home Work (406) 442-0005 Cell
Email Address ryan@franzdriscoll.com

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 (ARM 36.12.122(2)). 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 correspondences, and a copy may be sent to the contact person (ARM 36.12.122(3)).



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 marked 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. Responses in the form of a table may be entered into the table provided on this form or in an attachment. If an attachment is used, the table must have the exact headings found on this form, and “see attachment” must be entered as a response to the relevant question. Clearly label all units in tables and narrative responses.

**PREAPPLICATION AND TECHNICAL ANALYSES INFORMATION**

1.  Y  N Do you elect for Department technical analyses to be used for criteria assessment?

2.  Y  N Did you have a preapplication meeting AND complete a Permit Preapplication Meeting Form Part A and Part B (Form 600P-A and 600P-B)?

**IF QUESTION 2 IS NO, answer 2.a and 2.b:**

2.a.  S Submit the Technical Analyses Addendum (Form 600-TAA).

2.b.  S  NA Submit the technical analyses, if you elected in question 1 for Applicant technical analyses to be used for criteria assessment. Select “NA” if you elected for Departmental technical analyses.

**IF QUESTION 2 IS YES, answer 2.c, 2.d, and 2.e:**

2.c.  Y  N Has any element of the project described in this application changed from the mandatory elements of the project described in the completed form 600P? **If yes:**

2.c.i. Please explain.

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2.c.ii.  S Submit the Technical Analyses Addendum (Form 600-TAA).

2.d.  Y  N Are the technical analyses to be used for criteria assessment exactly the same as those completed during the preapplication process? **If no:**

2.d.i. Please explain.

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2.d.ii.  S Submit the Technical Analyses Addendum (Form 600-TAA).

2.e.  Y  N Did you elect in Question 1 for Department technical analyses to be used for criteria assessment? **If no:**

2.e.i.  S Submit the technical analyses.



## **APPLICATION ADDENDA AND REVIEW**

3.  S  NA If your application is for groundwater, not surface water, and one or more of your points of diversion are in a Basin Closure Area, then submit the Basin Closure Area Addendum (Form 600-BCA).
4.  S  NA If your application is for groundwater and one or more points of diversion are in a Basin Closure Area, then your project must have a Hydrogeologic Report that conforms with MCA 85-2-361 to comply with the requirements of § 85-2-360, MCA. A Hydrogeologic Report Addendum (Form 600-HRA) or Department Technical Analyses may be used to meet these requirements. Please mark the box below that best applies, then select “S” if submitting a Hydrogeologic Report or “NA” if one is not required. This question does not apply to surface water points of diversion in a Basin Closure Area.
- If you elected to conduct Technical Analyses, you must submit the Hydrogeologic Report Addendum (Form 600-HRA).
  - If you elected for DNRC to conduct Technical Analyses but did not have a preapplication meeting AND complete a Form 600P Permit Preapplication Meeting Form (or changes have occurred since the completed Form 600P), you must submit the Hydrogeologic Report Addendum (Form 600-HRA).
  - If you elected for DNRC to conduct Technical Analyses, had a preapplication meeting, completed a Form 600P, and the Technical Analyses remain unchanged since the preapplication meeting, you do not need to submit Form 600-HRA because the Department’s Technical Analyses meet the report requirements of § 85-2-360 and § 85-2-361, MCA.
5.  S  NA If the project is for one or more groundwater points of diversion located in a Controlled Groundwater Area, then submit the Controlled Groundwater Area Addendum (Form 600-CGWA).
6.  S  NA If the project involves an appropriation that is greater than 5.5 CFS and 4,000 acre-feet, then submit a Criteria Addendum Application for Beneficial Water Use Permit for Appropriations Greater than 5.5 CFS and 4,000 AC-FT (Form 600-B).
7.  S  NA If the project involves out-of-state water use, then submit the Out-of-State Use Addendum (Form 600/606-OSA).
8.  S  NA If you require mitigation water to meet the criteria of issuance, then submit a Mitigation Purpose Addendum (Form 600/606-MIT).
9.  S  NA If the proposed purposes include marketing or selling water, (not marketing for mitigation/aquifer recharge), then submit the Marketing Purpose Addendum (Form 600/606-WMA).
10.  S  NA If the project involves one or more places of storage, then submit a Permit Storage Addendum (Form 600-SA). This does not include reservoirs, pits, pit-dams, or ponds with a capacity less than 0.1 AF; water tanks; or cisterns (ARM 36.12.113(6)).
11.  S  NA If the project is in designated sage grouse habitat, then submit a review letter from the Montana Sage Grouse Habitat Conservation Program.
12.  S  NA If the project includes a point of diversion and/or place of use on State of Montana Trust Land, submit documentation of consent from the DNRC Trust Lands Management Division.
13.  S  NA You must provide a written notice of the application to each owner of an appropriation right sharing a point of diversion or means of conveyance (e.g., canal, ditch, flume, pipeline, or constructed waterway) pursuant to §85-2-302(4)(c), MCA. Submit a copy of this notice and the recipient list.



## PURPOSE AND DIVERSION INFORMATION

14.  Y  N Is the proposed use temporary?

14.a. If yes, when will the appropriation cease? \_\_\_\_\_

15. Is the proposed source surface water or groundwater? surface water

16. What is the source name? Missouri River

17.  S Attach a map utilizing an aerial photograph or topographic map that shows the following: section corners; township and range; north arrow; scale bar; all proposed points of diversion labeled with a unique Point of Diversion (POD) ID number and, if applicable, GWIC number; all proposed places of use; all proposed conveyance facilities and or routes; all proposed places of storage labeled with a unique Storage ID number; and places of use (POU) for all overlapping water rights. More than one map may be submitted, if necessary to clearly convey all required information.

18. Fill out the table below. 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.

Purpose	Means of Diversion	Acres Irrigated (if appl.)	Period of Diversion (Month/Day - Month/Day)	Period of Use (Month/Day - Month/Day)	Flow Rate		Volume (Acre-Feet)
					<input type="checkbox"/> GPM	<input checked="" type="checkbox"/> CFS	
Power Generation	Dam		1/1-12/31	1/1-12/31	1,602		1005684
Total Flow Rate and Volume Required						1,602	1005684

19.  Y  N Does the proposed use include on or more of the following purposes: domestic, multiple domestic, stock, or irrigation? If yes, fill out the table below, where applicable.

Purpose	Requested Information	Response
Domestic or multiple domestic	Number of households and bedrooms served per household	
Stock	Number of animal units	
Irrigation	Method of irrigation type (sprinkler or flood) and subtype (if flood: level border, graded border, furrow, contour ditch, or other; if sprinkler: center pivot, wheel line, or other)	
Irrigation (flood only)	Design slope	

**POINT(S) OF DIVERSION**

20. Describe the proposed location of the point(s) diversion to the nearest ¼ ¼ ¼ Section. Label each POD with the POD ID number used for the project map (question 17).

POD #	¼	¼	¼	Sec.	Twp.	Rge.	County	Lot	Block	Tract	Subdivision	Gov. Lot
1	SW	NW	NW	5	20N	4E	Cascade					
2	NW	SW	NW	5	20N	4E	Cascade					
3	SE	NE	NE	6	20N	4E	Cascade					
4	NE	SE	NE	6	20N	4E	Cascade					

**PLACE OF USE**

21. What are the geocodes of the place of use?

02-3016-05-2-01-01-0000	
02-3016-06-1-01-07-0000	

22. Describe the legal land description for the proposed place of use and, if applying for an irrigation or lawn and garden purpose, list the number of irrigated acres.

Acres	Gov. Lot	Block	¼	¼	¼	Sec.	Twp.	Rge.	County
	4			nw	nw	5	20N	4E	Cascade

**SUPPLEMENTAL AND OVERLAPPING WATER RIGHTS**

23.  Y  N Will other water rights supplement or overlap the place of use to contribute to the purpose(s)?

23.a. If yes, summarize how the supplemental and proposed water rights will be operated as a whole to serve the purpose(s).

Please See Attachment.

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24. For each supplemental or overlapping water right, please list the water right number, typical period of diversion and use (MM/DD-MM/DD), flow rate (GPM or CFS), and the volume of water (AF) contributed to the shared place of use.

Water Right #	Average Period of Diversion	Average Period of Use	Flow Rate	Volume Contributed
41Q 94354-00	1/1-12/31	1/1-12/31	3,300 CFS	2,389,200 AF
41Q 94355-00	1/1-12/31	1/1-12/31	900 CFS	651,600 AF
41Q 94356-00	1/1-12/31	1/1-12/31	560 CFS	405,440 AF
41Q 94357-00	1/1-12/31	1/1-12/31	n/a	29,480 AF
41Q 94359-00	1/1-12/31	1/1-12/31	280 CFS	202,720 AF

25.  Y  N Will this application supplement contract water from a Federal Project, ditch company, or other source?

25.a. If yes, explain.

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**ADVERSE EFFECT**

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

Please See Attachment.

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27. Describe any plans you have for ensuring existing water rights will be satisfied during times of water shortage.

Please See Attachment.

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28.  Y  N Are you aware of any calls that have been made on the source of supply or, if groundwater, on nearby surface water sources?

28.a. If yes, explain.

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29.  Y  N Does a water commissioner distribute water or oversee water distribution on your proposed source?

29.a. If yes, list the source(s).

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30.  Y  N Do other water rights share any of the proposed points of diversion?

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

Please See Attachment.

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31.  Y  N Do other water rights share any conveyance infrastructure associated with the proposed project?

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

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**ADEQUATE MEANS OF DIVERSION AND OPERATION**

32.  **S** Submit 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.

Please See Attachment.

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34. Describe the size, materials, capacity, and configuration of infrastructure to convey water from all proposed points of diversion to all proposed places of use. This may include but is not limited to, pipelines and ditches. Include a description of any losses related to the proposed conveyance. Ditch conveyance losses may be estimated numerous ways, which include a ditch loss rate or Department standard methods.

Please see Response to Question 33. The intakes and penstocks divert and convey all water into the powerhouse, and could be considered a conveyance structure. However the pumphouse is located immediately to northeast of the dam. These structures have already been described in detail in Response to Question 33, as they also constitute the diversion structures for Black Eagle. Upon diversion into the intake, all flow is piped until it is released back into the Missouri River via the tailrace. There are no losses in this piped flow. See also response to Question 33.

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35. Describe how the proposed diversion and conveyance infrastructure can provide the required flow and volume, for the purposes plus any conveyance losses and storage, throughout the proposed period of diversion.

Please refer to the Responses for Questions 33 and 34. The limiting factor of the hydraulic capacity of the facility (e.g. maximum flow rate) is turbine capacity. NWE is upgrading two of the three existing turbines ,which is resulting in an increased hydraulic capacity of the facility by 1,602 CFS. See Exhibits A, B, F, and G. After these upgrades are complete, the two new turbines in the plant will each have a maximum hydraulic capacity of 2,481 CFS, which combined with the existing 1,680 CFS turbine, results in a total plant capacity of 6,642 CFS.

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36. Provide a plan of operations, which includes 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. When water is physically available at Black Eagle Dam and is needed by NWE for hydropower generation, NWE will divert that water through the penstocks and powerhouse, rather than spill it over the dam. All such water will be returned via the tailraces to the Missouri River at the base of Black Eagle Dam. All water use is nonconsumptive, and will not alter flow regimes on the Missouri River. NWE is unable to exceed the claimed flow rate herein, and will not operate so as to exceed the requested volumetric limit herein.

37.  Y  N Does the proposed conveyance require easements?

37.a. If yes, explain.

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38.  Y  N Do you own the land where all proposed points of diversion are located?

38.a.  S If no, submit documentation to show you have the right to use all points of diversion located on each property you do not own. This may include, but is not limited to, a well agreement, an easement, or permission of the party that owns the property where the proposed point(s) of diversion are located.

39.  Y  N Will your system be designed to discharge water from the project?

**IF YES,**

39.a. Explain the wastewater disposal method.

Although Black Eagle Dam is designed to "discharge" any water it uses through the powerhouse back to the Missouri River, NWE disputes that this "discharge" is a "wastewater disposal method." The water will flow through the powerhouse unaltered and enter back into the Missouri River at the base of Black Eagle Dam.

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

40.  Y  N Do you have any plans to measure your diversion and use?

40.a. If yes, describe the plan and the type of measurements you will take.

All water routed through the powerhouse is automatically measured and recorded under NWE operations. Instantaneous flow is measured, from which volumes can be calculated.

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**POSSESSORY INTEREST**

45.  Y  N Do you meet one of the exceptions to possessory interest requirements, pursuant to ARM 36.12.1802? Exceptions include cases 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.

45.a. If yes, explain.

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46.  Y  N  NA Do you own all proposed places of use? Mark "NA" if you meet one of the exceptions to the possessory interest requirement.

IF NO,

46.a.  S Explain and submit documentation that shows you either have possessory interest or written permission of the parties with possessory interest of the place of use.

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46.b.  Y  N Would you like the water right to be appurtenant to the land? Please note that if your water right is not appurtenant to land it will not transfer by default with the conveyance of the property, pursuant to § 85-2-403, MCA.

46.b.i. If no, explain.

Please also see supplemental response on attachment.

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**PROPOSED COMPLETION PERIOD**

47. How much time will be needed to complete this project and to submit to the DNRC a Project Completion Notice (Form 617)? 10 years

48. Please describe why this amount of time is needed to complete this project.

It is anticipated that all upgrades at Black Eagle will be completed within that time, and that here will have been a water year sufficient to allow full completion of the requested flow rate and volume.



**AFFIDAVIT & CERTIFICATION**

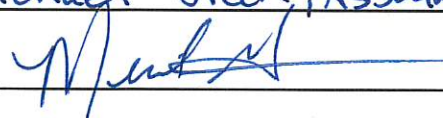
Read carefully before you sign and review with legal counsel if you have any questions. All owners (or trustees) must sign the form. *\*\*If the owner is a business or trust, include the title of the representative(s) signing the form (i.e., president, trustee, managing partner, etc.) and provide documentation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

Printed Name Michael Green, Associate General Counsel  
Applicant Signature  Date: 4/2/2026

Printed Name \_\_\_\_\_

Applicant Signature \_\_\_\_\_ Date: \_\_\_\_\_

Printed Name \_\_\_\_\_

Applicant Signature \_\_\_\_\_ Date: \_\_\_\_\_



**ATTACHMENT TO FORM 600 SW  
SURFACE WATER APPLICATION  
FILED BY NORTHWESTERN CORPORATION**

**INTRODUCTION**

NorthWestern Corporation d/b/a as NorthWestern Energy (NWE) proposes to modify its existing Black Eagle Hydroelectric Development (“Black Eagle”) by increasing its power generation capacity. This expansion requires a water right for an additional 1,602 cubic feet second (CFS) of water up to 1,005,684 acre feet per year, which is proposed in this application.

NWE’s current water rights for power generation at Black Eagle authorize a total flow rate of 5,040 CFS, and authorize storage volume at Black Eagle reservoir of 29,480 AF. The water right proposed herein would increase the non-consumptive power generation water rights at Black Eagle to a total 6,642 CFS.

Black Eagle is the first of five hydroelectric developments owned by NWE on the Missouri River in the Great Falls area, which form a portion of the Federal Energy Regulatory Commission (FERC) Missouri-Madison Project No. 2188. These Great Falls dams include Black Eagle, Rainbow, Cochrane, Ryan, and Morony. NWE’s water rights for other power generation facilities in this reach include: 10,000 CFS at Cochrane, 7,200 CFS at Ryan, 8,280 CFS at Morony, and 8,000 CFS at Rainbow. Accordingly, the proposed water right at Black Eagle will have no impact on water availability upstream of Great Falls.

Black Eagle is operated as a base-load, run-of-river facility. Under existing operations, the plant uses inflows as they occur and the reservoir level is maintained at a relatively constant level. As such water is spilled during high flows, and reduced power generation occurs during low flows. This operation will continue except the increase in power generation capacity will allow more water to be routed through the powerhouse and tailrace, rather than having that water flow over the Black Eagle spillway. The Black Eagle spillway and tailrace discharge to the same location on the Missouri River. The upgrades at Black Eagle will not alter flows at Morony, the farthest downstream of the Great Falls dams, so there will be no impact on downstream appropriators.

Two Non-Capacity License Amendment Applications for Black Eagle were approved by FERC (collectively “Amendments”). **Exhibit A** (Order Amending License, May 4, 2020) and **Exhibit B** (Order Amending License, Sept. 12, 2022). Under the first amendment application FERC authorized the replacement of Unit 1 turbine with an increased turbine capacity, resulting in a 0.86 MW increase in authorized installed capacity and increased best gate hydraulic capacity to 5,691 CFS. **Exhibit A**. Under the second amendment application FERC authorized the replacement of Unit 3 turbine with an increased turbine capacity, and refurbishment of Units 1 and 3 generators, resulting in an additional 2.1 MW increase in authorized installed capacity and increased best gate hydraulic capacity to 6,342 CFS. **Exhibit B**.

Together, the Amendments permitted the replacement of two turbines at Black Eagle and refurbishment of two generators, and the continued operation of the third existing turbine and

generator. The FERC licensing process requires applicants to address “best gate” or “best efficiency” ratings in the analysis of the turbines, however “best gate” is slightly lower than the actual maximum rated output of the turbines.<sup>1</sup> After these upgrades are complete, the two new turbines in the plant will each have a maximum capacity of 2,481 CFS, which combined with the existing 1,680 CFS turbine, results in a total plant capacity of 6,642 CFS (versus the 6,342 CFS “best gate” listed in the Amendments).

## **ATTACHMENT RESPONSES TO FORM 600 QUESTIONS**

**Question 1.** *Do you elect for Department technical analyses to be used for criteria assessment?*

See attached **Exhibit I**, DNRC, *Surface Water Permit Technical Analyses Report, Application No. 41Q 30170946* (Amended Mar 30, 2026)

**Question 3.** *If your application is for groundwater, not surface water, and one or more of your points of diversion are in a Basin Closure Area, then submit the Basin Closure Area Addendum (Form 600-BCA).*

This application does **not** seek to appropriate groundwater, and no Basin Closure Area Addendum (Form 600-BCA) is required, or attached. However, because the DNRC Form 600,

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<sup>1</sup> FERC’s analysis of the Amendment at “authorized installed capacity” (See **Exhibit A**, ¶11, p.4; **Exhibit B**, ¶20, p.6) assumes a ‘best gate’ efficiency, and does not limit or preclude NWE’s ability to operate Black Eagle at higher, maximum rated outputs.

The term “authorized installed capacity” is a term of art under FERC statutes and rules. FERC is required by 16 USC 803(e)(1) to collect annual charges from licensees for the cost of administering the Federal Power Act. Under rules interpreting that statute, “authorized installed capacity” is defined as the lesser of the ratings of the generator or turbine units with the rating of the turbine being the product of the turbine’s capacity in horsepower (hp) at best gate (maximum efficiency point) opening under the manufacturer’s rated head times a conversion factor of 0.75 kW/hp. See **Exhibit I** (18 CFR § 11.1(i)). A licensee must also submit to FERC an annual accounting of the gross amount of power generated. 18 CFR §1(4). The “authorized installed capacity” and the gross amount of power generated is then used to determine the annual charge for each project. 18 CFR § 11.1(3)(i).

It is understood by FERC that the amount of power generated may exceed the authorized installed capacity and is one of the reasons for requiring an annual accounting of power generated. Operating hydroelectric facilities at capacities higher than their best efficiency rating is a well-known and accepted practice.

As illustrated by the Turbine Data and Performance Curves attached as **Exhibits G and H** to the application, the maximum rated output of each of the three existing turbines is 1,608 CFS, while the maximum rated output of each of the two new turbines is 2,481 CFS. As indicated on the performance curve the maximum output is greater than the best efficiency output. Like a pump curve, peak efficiency is never at maximum output. Because flow rates are based on instantaneous maximums, it is appropriate to base the diverted flow rate on the maximum rated output of the turbines rather than the best efficiency rating.

Application for Beneficial Water Use Permit, does not contain a location where an applicant may address the applicability of the basin closure statutes to applications for nonconsumptive surface water rights, NWE further responds as follows.

Pursuant to MCA §§ 85-2-319 and 85-2-343 (the applicable “basin closure statutes”), the DNRC may not grant an application for a permit to appropriate water in upper Missouri River basin. However, an exception to the basin closure statutes is “an application for a permit to appropriate water for a nonconsumptive use.” MCA § 85-2-343(2)(b). The proposed power generation appropriation in this application is a nonconsumptive use. Accordingly, the basin closure statutes do not prohibit DNRC from granting this application.

**Question 6.** *If the project involves an appropriation that is greater than 5.5 CFS and 4,000 acre-feet, then submit a Criteria Addendum Application for Beneficial Water Use Permit for Appropriations Greater than 5.5 CFS and 4,000 AC-FT (Form 600-B).*

See attached.

**Question 17.** *Attach a map utilizing an aerial photograph or topographic map that shows the following: section corners; township and range; north arrow; scale bar; all proposed points of diversion labeled with a unique Point of Diversion (POD) ID number and, if applicable, GWIC number; all proposed places of use; all proposed conveyance facilities and or routes; all proposed places of storage labeled with a unique Storage ID number; and places of use (POU) for all overlapping water rights. More than one map may be submitted, if necessary to clearly convey all required information.*

See attached **Exhibits C and D.**

**Question 23.a.** *Will other water rights supplement or overlap the place of use to contribute to the purpose(s)? If yes, summarize how the water rights will be operated as a whole to serve the purpose(s).*

NWE has existing water right for power generation at Black Eagle Dam for a total flow rate of 5,040 CFS. A tabulation of these rights is set forth in the Form 600 Response to Question 24. The turbine replacements at Black Eagle will allow an additional 1,602 CFS to be run through the turbines, rather than spilling that water over the dam. Accordingly, this application will increase the total flow rate at Black Eagle Dam to 6,642 CFS. At times when flow is available and needed all water rights will be operated at the same time to provide the needed flow rate, not to exceed the individual volumetric limits on the rights.

In addition, Black Eagle forms a portion of the Federal Energy Regulatory Commission (FERC) Missouri-Madison Project No. 2188. Project No. 2188 consists of nine hydroelectric developments. Starting farthest upstream, the developments include Hebgen, Madison, Hauser, Holter, Black Eagle, Rainbow, Cochrane, Ryan, and Morony. With the exception of Hebgen, each hydroelectric development has water rights for storage, and for water diverted through the turbines to generate hydroelectric power. The water rights diverted at Hebgen are only for storage, as Hebgen does not currently generate hydroelectric power. NWE also has a water right

to store water in Canyon Ferry.

All of these storage rights discussed in the preceding paragraph are authorized to be used at any of NWE's downstream developments. Thus, water stored at Black Eagle, and any of the upstream dams, may be used for power generation at Black Eagle. The period of diversion and period of use for each of these rights is year-round, and typical releases under these rights have been throughout this year-round period, whenever such water is needed. These storage water rights include:

<u>Hebgen</u>			
41F 94371-00	4/30/1906	No decreed flow rate	345,123.78 AF/YR
41F 94372-00	8/17/1959	No decreed flow rate	33,718.99 AF/YR
<u>Madison</u>			
41F 94376-00	2/6/1896	No decreed flow rate	96,896.48 AF/YR
<u>Canyon Ferry</u>			
41I 94385-00	10/31/1898	No decreed flow rate	47,500 AF/YR
<u>Hauser</u>			
41I 94387-00	6/23/1905	No decreed flow rate	204,133 AF/YR
<u>Holter</u>			
41I-94349-00	4/30/1918	No decreed flow rate	313,636 AF/YR
<u>Black Eagle</u>			
41I-94357-00	8/31/1927	No decreed flow rate	29,480 AF/YR

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

As a threshold matter, this application proposes a nonconsumptive water right for which water is legally and physically available. *See e.g. Exhibit I.*

This appropriation is located at an existing instream diversion structure with existing water rights associated with the right. Under this appropriation an additional quantity of water would be routed through the Black Eagle Dam intakes, and into the penstock and turbines to generate power, and immediately thereafter such water is routed back into the Missouri River through the tailrace which discharges immediately below the dam.

Currently, this additional amount of water spills over the dam. Thus, the proposed appropriation will not change the time, amount, or location of any water flowing in the Missouri River. Accordingly, any water in the stream will be legally available to use under the circumstances of this specific new appropriation, and will have no effect on other existing water rights. Any use of this water will not interfere with, or diminish, water legally available to downstream existing water rights. In other words, it is exceptionally unlikely that a valid call could be made on this proposed use of water, as such call will not increase available water to other users, and NWE's non-consumptive use will have no impacts on any senior water user.

However, in the very unlikely situation that NWE would be required to bypass this water over the Black Eagle Dam spillway, rather than beneficially use it through its intake/powerhouse, NWE is physically able to do so. While such action would reduce NWE's ability to generate

additional electricity, NWE would still be able operate the facility at flow rates lower than the maximum amount sought herein. NWE is able to make such adjustments through the intake structure, as conditions on the river change.

**Question 27.** *Describe any plans you have for ensuring existing water rights will be satisfied during times of water shortage.*

Please also refer to response to Question 26, setting forth that this proposed nonconsumptive appropriation has no effect on existing senior water rights. Accordingly, NWE intends to divert this proposed water right through the powerhouse, as water is physically available, and as NWE's power generation needs require. In the very unlikely situation that an existing senior water right makes a valid enforceable call against this right, and it was shown that beneficially using this appropriation through the Black Eagle intake/powerhouse (as opposed to spilling it over the dam) was causing a reduction in water to a downstream senior water right, then NWE is physically able to do so.

**Question 30.a.** *Do other water rights share any of the proposed points of diversion? If yes, describe how the proposed project will not adversely affect these water rights.*

The only other water rights which share this proposed point of diversion are owned by NWE (See responses to Questions 23 and 24), and constitute the existing water rights historically associated with the operation of Black Eagle. As previously explained, the authorized improvements to Black Eagle will allow an additional 1,602 CFS (e.g. the amount of this appropriation) to be run through the turbines, rather than spilling that water over the dam. Accordingly, this application will have no effect on the use / operation of these existing water rights at Black Eagle.

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

See attached **Exhibit E**. Please review it in conjunction with Response to Question 33.

**Question 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.*

The Black Eagle facility consists of: (1) a 782-foot-long, 34.5-foot-high curved concrete gravity dam with a spillway crest elevation of 3,279 feet with 24 bays of 11-foot-high flashboards on top and 1 trash gate bay; (2) an impoundment, known as Black Eagle Reservoir, with a surface area of approximately 402 acres and an approximate storage capacity of 1,820 acre-feet, at an estimated 'normal' maximum operational water surface elevation of approximately 3,290 feet; (3) a 421-foot-long, 96-foot-wide forebay; (4) an intake structure; (5) three 15-foot-diameter riveted steel penstocks; (6) a powerhouse with three turbine-generator units with an authorized installed capacity of 23.90 MW; (7) an interconnection with the licensee's integrated transmission system at the powerhouse; (8) a tailrace; and (9) other appurtenances.

The intake (point of diversion) is located on the Black Eagle diversion dam. The intake is located at the end of a forebay section of the dam located at the left end of the spillway. The forebay forms the left abutment of the dam. It is a concrete structure with a combination of bedrock and concrete floor. It has a nominal length of 421 ft. and a width of 96 ft.; it directs flow to the powerhouse.

The inlet to the forebay structure is 95 ft. 6 3/4 in. wide. It is divided into four bays separated by 4 foot wide piers. The piers are equipped with guides for stoplogs to allow dewatering of the forebay. A wooden bridge, 6 ft. 8 in. wide, is supported by steel beams which span between the piers to provide access to the spillway and right forebay wall. The top of the forebay walls are at elevation 3,294.5 ft. and vary in width up to a maximum of 5 ft. 6 in. The right wall has a downstream slope of 2.6:12; the left wall has a downstream slope of 1:2. The forebay floor is at elevation 3,267 ft. The downstream end of the forebay forms the intake to the powerhouse.

The intake/powerhouse section is a concrete gravity structure, 96 ft. 6 in. wide, with the intake forming the back wall of the powerhouse.

The intake section contains three penstocks which provide water supply to three turbine generating units. The penstocks are riveted steel with a diameter of 15 ft. Centerline elevation of the penstocks is 3,266.5 ft. at the intake gate and 3,249.5 ft. at the centerline of the distributor for the hydraulic turbines. Closure of the main penstocks is provided by fabricated steel slide gates which are 15 ft. 11 5/8 in. wide by 19 ft. 3 in. high and are equipped with guide rollers. The gates are opened and closed mechanically by screw stems driven by an electrically operated line shaft. A flat intake screen structure, battered at 1:12, extends across the upstream face of the intake and prevents debris from entering the penstocks.

The powerhouse has a mass concrete substructure and a reinforced concrete superstructure with concrete floors and roof slabs supported by steel trusses. It is constructed integrally with the intake. Its average dimensions are 134 ft. 8 in. long by 49 ft. 8 in. wide. The building has four levels. The turbine floor contains three hydraulic turbines Units 1 and 3 rated at 11,283 hp each and Unit 2 rated at 9,300 hp. The generator floor houses three self-excited generators; Unit 1 is rated at 9,801 kVA and 0.92 power factor, Unit 2 is rated at 9,801 kVA and 0.80 power factor, and Unit 3 is rated at 10,496 kVA and 0.86 power factor. The control station, electrical busses, and switchgear are located on the other two floors.

The hydraulic capacity (e.g. maximum flow rate) of the originally installed turbines was 1,680 CFS, for a total original maximum flow rate of 5,040 CFS for Black Eagle. NWE is upgrading two of the three existing turbines, which is resulting in an increased hydraulic capacity of the facility by 1,602 CFS. **See Exhibits A and B.** After these upgrades are complete, the two new turbines in the plant will each have a maximum hydraulic capacity of 2,481 CFS, which combined with the existing 1,680 CFS turbine, results in a total plant capacity of 6,642 CFS. The turbine data and performance curves for both the existing turbine, and the two new turbines are attached as **Exhibits G and H.**

Flow through the turbines is discharged through three elbow draft tubes with a bottom elevation of 3,221.67 ft. Discharge into the Missouri River is through a tailrace channel approximately

1,500 ft. long with vertical concrete sidewalls with a batter of 1:2. These walls have been extended by dry wall masonry at the upper sections of the channel.

**Question 42.b.** *Does the Department have a volume, period of diversion, or period of use standard for the purposes for which water is proposed? Department standards can be found in the DNRC Water Calculation Guide, ARM 36.12.112, and ARM 36.12.115. If no Department standard exists, or if any proposed beneficial use falls outside of Department standards, explain how the requested flow rate and volume are reasonable for the purpose.*

Power generation is specifically recognized as a beneficial use of water at Section 85-2-102(5)(a), MCA.

The Federal Energy Regulatory Commission (FERC) has authorized the proposed improvements to the turbines and generators at Black Eagle Dam, allowing NWE to operate the hydropower generation facilities at Black Eagle at higher flow rates and volumes. Specifically, NWE is authorized to replace two turbines that have increased capacity, and to refurbish the associated generators. Exhibits A & B. After these upgrades are complete, the two new turbines in the plant will each have a maximum capacity of 2,481 CFS, which combined with the existing 1,680 CFS turbine, results in a total maximum plant capacity of 6,642 CFS.

Since NWE has existing water rights at Black Eagle for 5,040 CFS, an additional 1,602 CFS up to 1,005,684 acre-feet per year is needed to generate hydroelectric power. The proposed appropriation at Black Eagle will utilize water that is currently spilled over the dam to generate hydroelectric power.

The total maximum flow rates are based upon the new turbine data and performance curves. Exhibit G. The requested volume is based on actual available water supply at Black Eagle Dam in the three highest water years of the last 30 years.

**Question 46.b.** *Would you like the water right to be appurtenant to the land? Please note that if your water right is not appurtenant to land it will not transfer by default with the conveyance of the property, pursuant to § 85-2-403, MCA.*

NWE provides this supplemental response to further explain its position rather than rely on the cursory “yes” / “no” checkbox provided on the form. Under current Montana law appurtenancy is based upon a factual analysis undertaken by a court of competent jurisdiction, to determine of whether a water right benefits the land where the water is beneficially used (e.g the place of use). *See e.g. Schutter v. State Bd. of Land Comm’rs*, 2024 MT 88, ¶¶21-22, 416 Mont. 305, 314–15, 547 P.3d 1250, 1256. Notwithstanding this law, NWE is unaware of any case that applies or addresses appurtenancy of a water right for power generation purposes – particularly power generation delivered and used over an extensive area. Accordingly, in light of the currently established law and its limitations on this issue, and the fact that the place of use is the powerhouse, which is located on property held by NWE, NWE currently takes the position that the proposed water right is appurtenant to that property. However, this response is made solely in

the context of this application, and NWE reserves the right to amend its response in other circumstances, based on additional information or further legal review.

## **EXHIBITS**

- A. FERC, *Order Amending License, Approving Revised Exhibit A and Exhibit F Drawings, and Revising Annual Charges*, 171 FERC ¶ 62,077 (May 4, 2020).
- B. FERC, *Order Amending License, Revising Project Description, Revising Annual Charges, and Approving Revised Exhibit A and Exhibit F Drawings*, 180 FERC ¶ 62,131, (Sept. 12, 2022).
- C. Proposed Point of Diversion / Place of Use Maps
- D. Site Map
- E. Labeled Diagram / Overview Photo of Black Eagle system.
- F.. Turbine Data and Performance Curves, 2 new turbines
- G. Turbine Performance Curve, existing turbine
- H. 18 CFR § 11.1
- I. DNRC, *Surface Water Permit Technical Analyses Report, Application No. 41Q 30170946* (Amended Mar 30, 2026)

171 FERC ¶ 62,077  
UNITED STATES OF AMERICA  
FEDERAL ENERGY REGULATORY COMMISSION

NorthWestern Corporation

Project No. 2188-250

ORDER AMENDING LICENSE, APPROVING REVISED EXHIBIT A AND  
EXHIBIT F DRAWINGS, AND REVISING ANNUAL CHARGES

(Issued May 4, 2020)

1. On March 12, 2020, NorthWestern Corporation (NorthWestern or licensee), filed an application for a non-capacity amendment of its license for the Missouri-Madison Hydroelectric Project No. 2188.<sup>1</sup> The licensee proposes to replace one of the three turbines at the Black Eagle Development, and rewind two of the six turbines at the Ryan Development. The upgrades to Unit 1 at the Black Eagle Development would increase the capacity by 0.86 megawatt (MW) resulting in an installed and rated generation capacity of 21.80 MW, and will result in an increase to the rated hydraulic capacity of the plant of 13 percent from 5,040 cubic feet per second (cfs) to 5,691 cfs.
2. The rewind of Units 1 and 5 at the Ryan Development will result in a 2.4 MW increase in the rated generation capacity to 55.20 MW, but will not affect the 6,360 cfs rated hydraulic capacity of the plant. The licensee included with the application a revised Exhibit A and two revised Exhibit F drawings for Commission approval. The project consists of nine developments located on the Madison and Missouri rivers in Gallatin, Madison, Lewis and Clark, and Cascade counties, Montana. The project occupies, in part, federal lands within the Gallatin and Helena National Forests, and lands administered by the Bureau of Land Management.

**Background**

3. On September 27, 2000, the Commission issued a new license to construct, operate, and maintain the project. The Black Eagle Development is located at river mile 2,118 as measured from the mouth of the Missouri River near St. Louis, Missouri where it joins the Mississippi River, and consists of: (1) a 782-foot-high curved concrete dam with an overflow spillway, wastegate, and right abutment sections; (2) an impoundment, known as Black Eagle Reservoir, with a surface area of 402 acres and a storage capacity of 1,820 acre-feet at normal maximum water surface elevation of 3,290 feet; (3) a forebay; (4) an intake structure; (5) three 15-foot-diameter riveted steel penstocks; (6) a powerhouse with three turbine-generator units with an authorized installed capacity of

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<sup>1</sup> *PP&L Montana, LLC*, 92 FERC ¶ 61,261 (2000).

20.94 MW; (7) an interconnection with the licensee's integrated transmission system at the powerhouse; (8) a tailrace; and (9) other appurtenances. The Black Eagle Development is located in Cascade County, northeast of Great Falls, Montana; and occupies no federal lands within its project boundary.

4. The Ryan Development is located on the Missouri River at river mile 2,110 (upstream from the crest of the Great Falls) and consists of: (1) a 1,465-foot-long, a 82-foot-high curved concrete gravity dam with a spillway crest elevation of 3,023 feet topped with 16.25-foot-high flash boards; (2) the Ryan Reservoir with a surface area of 168 acres and a normal maximum storage capacity of 3,653 acre-feet at a water surface elevation of 3,037 feet; (3) an intake structure; (4) six 12-foot, 8-inch diameter and 327-foot-long riveted steel penstocks; (5) a powerhouse with six turbine generator units with an authorized installed capacity of 52.8 MW; (6) two 4.8-mile-long, 100-kV transmission lines; (7) a tailrace; and (8) other appurtenances. The Ryan Development is located 8 miles downstream of Great Falls in Cascade County, Montana; and occupies no federal lands within its project boundary.

### **Licensee's Proposal**

5. In the application, the licensee proposes to replace one of the three turbines at the Black Eagle Development, and rewind two of the six turbines at the Ryan Development. As stated above, the upgrades to Unit 1 at the Black Eagle Development would increase the capacity by 0.86 MW resulting in an installed and rated generation capacity of 21.80 MW, and will result in an increase to the rated hydraulic capacity of the plant of 13 percent from 5,040 cfs to 5,691 cfs. As for the Ryan Development, the rewind would result in a 2.4 MW increase in the rated generation capacity to 55.20 MW, but will not affect the 6,360 cfs rated hydraulic capacity of the plant. The licensee plans to commence the installation of the new units starting in June of 2020. The upgrades at the Black Eagle and Ryan Developments are expected to be complete in 2021 and 2022, respectively.

### **Pre-filing Consultation**

6. Before filing the application with the Commission, the licensee sent a draft application by email dated January 6, 2020, to the following agencies: the Montana Department of Environmental Quality (Montana DEQ); the Montana Department of Natural Resources and Conservation (Montana DNRC); the U.S. Fish and Wildlife Service (FWS); and the Montana State Historic Preservation Office (Montana SHPO).

7. The Montana DEQ, FWS, and Montana SHPO stated that they had no comment on the proposed amendment by email dated January 17, January 28, and March 5, 2020, respectively. By emailed dated March 6, 2020, the Montana DNRC requested that the licensee file an application for Beneficial Water Use Permit. This application has been submitted on a parallel path with this license amendment application. The licensee

included documentation of its consultation as Attachment 3 to the amendment application.

### **National Historic Preservation Act**

8. Under section 106 of the National Historic Preservation Act,<sup>2</sup> and its implementing regulations,<sup>3</sup> federal agencies must take into account the effect of any proposed undertaking on properties listed or eligible for listing in the National Register of Historic Places (defined as historic properties) and afford the Advisory Council on Historic Preservation a reasonable opportunity to comment on the undertaking. This generally requires the Commission to consult with the State Historic Preservation Officer to determine whether and how a proposed action may affect historic properties, and to seek ways to avoid any adverse effects.

9. The licensee's proposal will not have any effect to cultural resources. By email dated March 5, 2020, the Montana SHPO stated that they had no comment on the proposed work at the Black Eagle and Ryan Developments.

### **Discussion**

#### **A. Environmental Review**

10. We have reviewed the project license, other information already on file, and the information provided by the licensee in its application to determine whether the proposed amendment would affect environmental resources at the project. No terrestrial resources would be affected under the proposal, because the proposed work would occur in the existing project powerhouse. The proposed upgrades would increase the rated hydraulic capacity of the Black Eagle Powerhouse from 5,040 to 5,691 cfs, which based on Commission staff's calculations, would have a negligible effect on velocity at the trashracks. Therefore, the hydraulic changes from the new turbines would not result in any increased fish impingement. The licensee consulted with various resource agencies regarding the application and no agency identified any concerns. In addition, the proposed units would not have any appreciable effect on any environmental or cultural resources within the project. The replacement of the turbines and generators at the Black Eagle Development would allow the licensee to benefit from the increased capacity from those units. Rewinding the two turbines at the Ryan Development would not have any effect on any environmental or cultural resources within the project.

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<sup>2</sup> 54 U.S.C. § 306108 (2018)

<sup>3</sup> 36 C.F.R. Part 800 (2018).

## B. Installed Capacity and Annual Charges

11. According to 18 C.F.R. § 11.1(i) (2019), the authorized installed capacity means “the lesser of the ratings of the generator or turbine units.” The rating of a turbine is the product of the turbine’s capacity in horsepower (hp) at best gate opening under the manufacturer’s rated head times a conversion factor of 0.75 kW/hp.

12. The licensee’s proposal to replace the turbine of Unit 1 at the Black Eagle Development would result in a turbine capacity increase from 6.98 to 8.46 MW, with no changes to the generator capacity of 7.84 MW. The total installed capacity at the Black Eagle Development would increase by 0.86 MW from 20.94 to 21.80 MW, limited by the capacity of the generator for Unit 1. Table 1 below shows the authorized and proposed installed capacities at the Black Eagle Development.

Table 1. Installed and Proposed Capacities at the Black Eagle Development

Unit No.	Authorized Turbine Capacity (MW)	Authorized Generator Capacity (MW)	Limiting Capacity (MW)	Authorized Installed Capacity (MW)	Turbine Flow (cfs)
1	8.46	7.84	7.84	7.84	2,331
2	6.98	7.84	6.98	6.98	1,680
3	6.98	8.40	6.98	6.98	1,680
Total				21.80	5,691

13. The licensee proposes to rewind the old Unit 1 and 5 generators at the Ryan Development, which would result in a 2.4 MW increase in the rated generating capacity from 52.80 MW to 55.20 MW, without affecting the 6,360 cfs rated hydraulic capacity of the plant. Table 2 below shows the authorized and proposed installed capacities at the Ryan Development.

Table 2. Installed and Proposed Capacities at the Ryan Development

Unit No.	Authorized Turbine Capacity (MW)	Authorized Generator Capacity (MW)	Limiting Capacity (MW)	Authorized Installed Capacity (MW)	Turbine Flow (cfs)
1	11.99	9.20	9.20	9.20	1,060
2	11.99	9.20	9.20	9.20	1,060
3	11.99	9.20	9.20	9.20	1,060
4	11.99	9.20	9.20	9.20	1,060
5	11.99	9.20	9.20	9.20	1,060

Unit No.	Authorized Turbine Capacity (MW)	Authorized Generator Capacity (MW)	Limiting Capacity (MW)	Authorized Installed Capacity (MW)	Turbine Flow (cfs)
6	11.99	9.20	9.20	9.20	1,060
Total				55.20	6,360

14. Consequently, the capacity increase for Unit 1 at the Black Eagle Development and Units 1 and 5 at the Ryan Development will revise the total authorized installed capacity of the Missouri-Madison Project from 308.88 to 312.14 MW. Ordering paragraph (B) of this order revises the project description.

15. In addition, the annual charges under Article 201 of the license for the purpose of reimbursement to the United States Government for the costs of administration of Part I of the Federal Power Act should be revised to reflect the capacity increase due to the proposed upgrades. The authorized installed capacity for that purpose is 312.14 MW. Based on the Commission's current regulations, the effective date for the change in annual charges will be the date on which the licensee is required to start the proposed work, or 2 years from the issuance date of this order, as that day may be extended.<sup>4</sup> Ordering paragraph (C) of this order revises annual charges pursuant to Article 201 of the license to reflect the revised authorized installed capacity.

### C. Revised Exhibits

16. The licensee included, as Attachment 1, a revised Exhibit A for Commission approval, describing the entire project, in two forms, a strikethrough and final clean copy. The Exhibit A conforms to the Commission's rules and regulations and should be approved, superseding any previous Exhibit A. Ordering paragraph (D) of this order approves the revised Exhibit A.

17. In addition, the licensee included, as Attachment 2, two revised Exhibit F drawings for Commission approval. Our review of the exhibits found that the drawings provide acceptable representation of the project features. The Exhibit F drawings conform to the Commission's rules and regulations and should be approved. Ordering paragraph (E) of this order approves the revised Exhibit F drawings. Ordering paragraph (F) requires the licensee to file the approved exhibit drawings in electronic file format.

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<sup>4</sup> 18 C.F.R. § 11.1(c)(5) (2019).

18. Order paragraph (I) requires the licensee to file revised Exhibits A and F, as applicable, to reflect as-built conditions. The filing shall also include a copy of the turbine-generator units' nameplate photos.

**D. Start of Construction**

19. The licensee plans to commence the installation of the new units starting in June 2020. The upgrades at the Black Eagle and Ryan Developments are expected to be complete in 2021 and 2022, respectively. Nevertheless, we are requiring in Ordering paragraph (G) that the licensee starts and completes the upgrades within two and four years, respectively, from the issuance date of this order. The licensee must consult with the Commission's Division of Dam Safety and Inspections, Portland Regional Office (D2SI-PRO) and construction cannot start until the licensee received approval from the D2SI-PRO. The licensee must submit one copy of its plans and specifications and supporting design documents within 60 days prior to the start of construction of the units as directed in paragraph (H) of the order.

The Director orders:

(A) NorthWestern Corporation's non-capacity amendment application for the Missouri-Madison Hydroelectric Project No. 2188 to replace the existing Unit 1 at the Black Eagle Development, and rewind Units 1 and 5 at the Ryan Development filed March 12 2020, is approved.

(B) This order revises ordering paragraph (C)(2) of the license to read as follows:

(2) Project works consisting of nine developments: (A) the Hebgen Development; (B) the Madison Development; (C) the Hauser Development; (D) the Holter Development; (E) the Black Eagle Development; (F) the Rainbow Development; (G) the Cochrane Development; (H) the Ryan Development; and (I) the Morony Development.

A. The Hebgen Development is located on the Madison River at mile 103 and consists of: (1) an earth-filled with concrete core dam 721 feet long and 85 feet high, with a crest elevation of 6,546 feet, with outlet works through the dam and a side-channel spillway; (2) an impoundment with a surface area 13,000 acres and a storage capacity of 386,184 acre-feet at normal maximum water surface elevation of 6,534.87 feet; and (3) other appurtenances. The Hebgen Development occupies approximately 10,766 acres of U.S. Forest Service (Forest Service) lands.<sup>5</sup> This development is used to store and regulate water; there are no generating facilities at this development.

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<sup>5</sup> The areas of all Federal lands are rounded to the nearest acre.

B. The Madison Development is located on the Madison River at river mile 40 and consists of: (1) a 257-foot-long, 38.5-foot-high rock filled concrete dam with a spillway crest elevation of 4,833 feet with 9-foot-high slide panels on top; (2) an impoundment, known as Ennis Lake, with a surface area of 3,900 acres and a storage capacity of 41,917 acre-feet at normal maximum water surface elevation of 4,841 feet; (3) a control building; (4) an intake structure; (5) a 7,500-foot-long, 13-foot-diameter flow line; (6) a surge chamber; (7) four 9-foot-diameter, approximately 222-foot-long riveted steel penstocks; (8) a powerhouse with four turbine generator units with an authorized installed capacity of 12.68 MW; (9) an interconnection with the licensee's integrated transmission system at the powerhouse side; (10) a tailrace; and (11) other appurtenances. The Madison Development occupies approximately 358 acres of lands administered by the Bureau of Land Management (BLM).

C. The Hauser Development is located on the Missouri River at River mile 2,237 and consists of: (1) a 700-foot-long, 80-foot-high concrete gravity dam with a spillway crest elevation 3,621 feet with five bays of slide gates and 19 bays of 14.5-foot-high removable flash boards on top; (2) an impoundment composed of two connected bodies of water: the Hauser Lake and Lake Helena with a combined surface area of 5,970 acres and a storage capacity of 111,060 acre-feet at the normal maximum water surface elevation of 3,635.4 feet; (3) an intake and forebay structure; (4) five 12-foot-diameter short buried riveted steel penstocks and a 14-foot-diameter short riveted steel penstock (a section of which is tunneled through rock); (5) a powerhouse with six turbine generator units with an authorized installed capacity of 18.74 MW; (6) an interconnection to the integrated transmission system across the river from the powerhouse; (7) a tailrace; and (8) other appurtenances. The Hauser Development occupies approximately 75 acres of Forest Service lands and approximately 574 acres of BLM lands.

D. The Holter Development is located on the Missouri River at river mile 2,211 and consists of: (1) a 1,364-foot-long, 124-foot-high concrete gravity dam with a spillway crest elevation of 3,548 feet with 10 bays of slide gates and 21 bays of 16-foot-high flash boards on top; (2) an impoundment, known as the Holter Lake, with a surface area of 4,550 acres and a storage capacity of 240,000 acre-feet at the normal maximum water surface elevation of 3,564 feet; (3) an intake/powerhouse structure with four turbine generator units with an authorized installed capacity of 38.40 MW; (4) an interconnection to the transmission system at the powerhouse; (5) a tailrace; and (6) other appurtenances. The Holter Development occupies approximately 597 acres of BLM lands and approximately 167 acres of Forest Service lands.

E. The Black Eagle Development is located on the Missouri River at river mile 2,118 and consists of: (1) a 782-foot-long, 34.5-foot-high curved concrete gravity dam with a spillway crest elevation of 3,279 feet with 25 bays of 11-foot-high flashboards on top; (2) a reservoir with a surface area of 402 acres and a storage capacity of 1,820 acre-

feet at normal maximum water surface elevation of 3,290 feet; (3) a 421-foot-long, 96-foot-wide forebay; (4) an intake/powerhouse structure containing three turbine generator units with an authorized installed capacity of 21.80 MW; (5) an interconnection to the transmission system; (6) a tailrace; and (7) other appurtenances.

F. The Rainbow Development is located on the Missouri River at river mile 2,115 and consists of: (1) a 1,146-foot-long, 43.5-foot-high rock filled timber crib and concrete dam with a two portion spillway with a crest elevation of 3,212 and 3,214 feet, respectively (the right portion is topped with 10-foot-high flash boards and the left portion with rubber dams providing a total top elevation of 3,224 feet); (2) the Rainbow Reservoir with a surface area of 126 acres and a storage capacity of 1,237 acre-feet at a normal water surface elevation of 3,224 feet; (3) an intake structure with trashrack structure equipped with a trashrake located at the left abutment that is adjacent to two other intake structures for the retired Units 1 through 8; (4) an open concrete channel flume 2,375 feet long and 40 feet wide (5) a forebay with a surge spillway; (6) a 25-foot-diameter, 377-foot-long welded steel penstock (7) a reinforced concrete powerhouse approximately 160 feet long and 150 feet wide, housing a single turbine generator with an authorized installed capacity of 58.95 MW; (8) a retired powerhouse structure housing eight retired generating units (9) 0.8 miles of interconnection line to the transmission system; (10) a tailrace; and (11) other appurtenances.

G. The Cochrane Development is located on the Missouri River at river mile 2,111 and consists of: (1) a 856-foot-long, 100-foot-high concrete gravity dam with a spillway crest elevation of 3,034.75 feet with radial gates on top with a top elevation of 3,120 feet; (2) the Cochrane Reservoir with a surface area of 320 acres and a storage capacity of 9,840 acre-feet at a water surface elevation of 3,120 feet; (3) a powerhouse at the dam with two turbine generator units with an authorized installed capacity of 59.90 MW; (4) a 3.7-mile-long, 100-kV transmission line; (5) a tailrace; and (6) other appurtenances.

H. The Ryan Development is located on the Missouri River at river mile 2,110 (upstream from the crest of the Great Falls) and consists of: (1) a 1,465-foot-long, a 82-foot-high curved concrete gravity dam with a spillway crest elevation of 3,023 feet topped with 16.25-foot-high flash boards; (2) the Ryan Reservoir with a surface area of 168 acres and a normal maximum storage capacity of 3,653 acre-feet at a water surface elevation of 3,037 feet; (3) an intake structure; (4) six 12-foot, 8-inch diameter and 327-foot-long riveted steel penstocks; (5) a powerhouse with six turbine generator units with an authorized installed capacity of 55.20 MW; (6) two 4.8-mile-long, 100-kV transmission lines; (7) a tailrace; and (8) other appurtenances.

I. The Morony Development is located on the Missouri River at river mile 2,105 and consists of: (1) an 842-foot-long, 96-foot-high concrete gravity dam with a spillway

180 FERC ¶ 62,131  
UNITED STATES OF AMERICA  
FEDERAL ENERGY REGULATORY COMMISSION

NorthWestern Corporation

Project No. 2188-274

ORDER AMENDING LICENSE, REVISING PROJECT DESCRIPTION, REVISING  
ANNUAL CHARGES, AND APPROVING REVISED EXHIBIT A AND  
EXHIBIT F DRAWINGS

(Issued September 12, 2022)

1. On July 14, 2022,<sup>1</sup> and supplemented July 21, 2022, NorthWestern Corporation (licensee) filed an application for a non-capacity amendment of its license for the Missouri-Madison Hydroelectric Project No. 2188.<sup>2</sup> The licensee proposes to replace turbines and rewind generators at the Black Eagle and Cochrane developments. The upgrades would increase the authorized installed and hydraulic capacities at the Black Eagle Development and decrease the authorized installed and hydraulic capacities at the Cochrane Development. The total authorized installed capacity of the project will decrease to 318.47 megawatts (MW). The licensee included with the application a revised Exhibit A and three revised Exhibit F drawings for Commission approval. The project consists of nine developments<sup>3</sup> located on the Madison and Missouri rivers in Gallatin, Madison, Lewis and Clark, and Cascade counties, Montana. The project occupies, in part, federal lands within the Gallatin and Helena National Forests administered by the U.S. Forest Service (Forest Service), and lands administered by the Bureau of Land Management (BLM).

**I. Background**

2. On September 27, 2000, the Commission issued a new license to construct, operate, and maintain the project. The Black Eagle Development is located on the Missouri River at river mile 2,118 and consists of: (1) a 782-foot-long, 34.5-foot-high curved concrete gravity dam with a spillway crest elevation of 3,279 feet with 25 bays of 11-foot-high flashboards on top; (2) a reservoir with a surface area of 402 acres and a storage capacity of 1,820 acre-feet at normal maximum water surface elevation of 3,290 feet; (3) a 421-foot-long, 96-foot-wide forebay; (4) an intake/powerhouse structure

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<sup>1</sup> The July 14, 2022 filing supersedes a July 6, 2022 filing.

<sup>2</sup> *PP&L Montana, LLC*, 92 FERC ¶ 61,261 (2000).

<sup>3</sup> The nine developments are Hebgen, Madison, Hauser, Holter, Black Eagle, Rainbow, Cochrane, Ryan, and Morony.

containing three turbine generator units with an authorized installed capacity of 21.80 MW; (5) an interconnection to the transmission system; (6) a tailrace; and (7) other appurtenances. The Cochrane Development is located on the Missouri River at river mile 2,111 and consists of: (1) a 856-foot-long, 100-foot-high concrete gravity dam with a spillway crest elevation of 3,034.75 feet with radial gates on top with a top elevation of 3,120 feet; (2) the Cochrane Reservoir with a surface area of 320 acres and a storage capacity of 9,840 acre-feet at a water surface elevation of 3,120 feet; (3) a powerhouse at the dam with two turbine generator units with an authorized installed capacity of 59.90 MW; (4) a 3.7-mile-long, 100-kV transmission line; (5) a tailrace; and (6) other appurtenances.<sup>4</sup>

3. Article 403 of the project license specifies operating conditions at each development. Specific to this proceeding and for the Black Eagle Development, Article 403 requires the licensee to, in part, spill a minimum of 200 cfs at Black Eagle Dam between the hours of 9:00 a.m. and 8:00 p.m. on weekends and holidays during the summer, beginning with the Memorial Day weekend and ending with the Labor Day weekend (except during years when the April–June natural runoff into Canyon Ferry Reservoir is less than 900,000 acre-feet [50 percent of the 1961–1990 average]).

## II. Licensee's Proposal

4. In the application, the licensee proposes to replace the Black Eagle Development's Unit 3 S. Morgan Smith fixed blade propeller type turbine with a new American Hydro fixed blade propeller type turbine. The licensee will also refurbish generators for Units 1 and 3. The proposed upgrade will result in a 2.1 MW increase in the authorized installed capacity of the development, to 23.90 MW, and will result in an increase to the hydraulic capacity of the development of 11%, from 5,691 cubic feet per second (cfs) to 6,342 cfs.

5. The licensee also proposes to replace the Cochrane Development's Unit 2 turbine and rewind its generator. The proposed upgrade will result in a 11.0 MW decrease in the authorized installed capacity of the development, to 48.90 MW, and will decrease the hydraulic capacity of the development 20%, from 10,800 cfs to 8,640 cfs.

6. The licensee states that the upgrades will have no measurable effect on the operation of the project and only a minor effect on hydraulic flows. In addition, the increase in hydraulic capacity will not affect the minimum aesthetic spill required at Black Eagle Dam by license Article 403. The licensee plans to commence the installation of the new unit at the Black Eagle Development starting in the fall of 2022 and the Cochrane Development in the first quarter of 2023. The licensee expects to

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<sup>4</sup> See Order Amending License, Revising Project Description, Revising Annual Charges, and Approving Revised Exhibit A and Exhibit F Drawing issued December 18, 2020. *NorthWestern Corporation*, 173 FERC ¶ 62,153 (2020).

complete the upgrades at the Black Eagle Development in the middle of 2023 and the Cochrane Development in early 2024.

### **III. Pre-filing Consultation**

7. Before filing the application with the Commission, the licensee sent a draft application<sup>5</sup> by email dated April 25, 2022, to the following agencies: the Montana Department of Environmental Quality (Montana DEQ); the Montana Department of Natural Resources and Conservation (Montana DNRC); the Montana Department of Fish, Wildlife and Parks (Montana DFWP); the Montana State Historic Preservation Office (Montana SHPO), the U.S. Fish and Wildlife Service (FWS); the U.S. Army Corps of Engineers (Corps); the BLM; and the Forest Service.

8. On May 2, 2022, the Montana DFWP submitted comments to the licensee by email, but did not express concerns with the proposed turbine and generator upgrades.<sup>6</sup> The BLM stated that it has no comment on the proposed amendment by email dated June 16, 2022. The FWS, by email dated April 27, 2022, stated it has no comments regarding federally listed or proposed threatened or endangered species or other trust species. The Montana DEQ, by email dated June 29, 2022, stated it has no comments and that no further conditioning is required under the Section 401 Water Quality Certificate pertaining to the application and proposed amendment. On June 15, 2022, the Montana SHPO commented that because the turbine and generator upgrades will be replacements-in-kind, it has no concerns about the effects of the amendment on cultural resources. The Corps and the Forest Service did not provide comments. The licensee included documentation of its consultation on the amendment application as Attachment 3.

9. By email dated June 16, 2022, the Montana DNRC commented that in order to exceed the flow rates of 5,040 cfs at the Black Eagle Dam and 10,000 cfs at the Cochrane Dam for power production at each respective dam, the licensee needs additional water rights. The Montana DNRC requests the licensee to contact it to further discuss its water right needs. The licensee notes that a water right application was submitted on a parallel path with the license amendment application.

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<sup>5</sup> The draft license amendment application provided to the agencies originally included a proposed Black Eagle reservoir elevation increase of one foot in support of a future separate spillway upgrade project. After receipt of extensive agency comments and questions on the effects of the proposed change, the licensee removed this proposal from this application and will consider it in a separate amendment application at a future date.

<sup>6</sup> Montana DFWP's May 2, 2022 comments pertained to the effects an increase in the Black Eagle reservoir elevation.

#### **IV. Public Notice**

10. On July 21, 2022, the Commission issued a public notice for the proposed amendment, which was published in the Federal Register, accepting the application for filing and soliciting comments, motions to intervene and protests.<sup>7</sup> The notice established an August 22, 2022, for filing responses to the notice. No comments or motions to intervene were received.

#### **V. Endangered Species Act**

11. Section 7(a)(2) of the Endangered Species Act of 1973 requires federal agencies to ensure that their actions are not likely to jeopardize the continued existence of endangered or threatened species or result in the destruction or adverse modification of critical habitat.

12. Based on the FWS' Information for Planning and Consultation (IPaC) website, North American wolverine, grizzly bear, and monarch butterflies are potentially present in the project area.<sup>8</sup> In comments dated April 27, 2022, FWS stated it has no comments regarding federally listed or proposed threatened or endangered species or other trust species. In addition, all work would occur inside the Black Eagle and Cochrane powerhouses; and the licensee does not propose any ground disturbing activities. Therefore, Commission staff concludes the proposed action would have no effect on federally threatened or endangered species.

#### **VI. National Historic Preservation Act**

13. Under section 106 of the National Historic Preservation Act,<sup>9</sup> and its implementing regulations,<sup>10</sup> federal agencies must take into account the effect of any proposed undertaking on properties listed or eligible for listing in the National Register of Historic Places (defined as historic properties) and afford the Advisory Council on Historic Preservation a reasonable opportunity to comment on the undertaking. This generally requires the Commission to consult with the State Historic Preservation Officer to determine whether and how a proposed action may affect historic properties, and to seek ways to avoid any adverse effects.

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<sup>7</sup> 87 *Fed. Reg.* 45097-45098 (2022).

<sup>8</sup> Commission staff conducted a search of the FWS' IPaC database (<https://ecos.fws.gov/ipac/>) on July 14, 2022.

<sup>9</sup> 54 U.S.C. § 306108.

<sup>10</sup> 36 C.F.R. Part 800.

14. The licensee's proposal would not affect historic resources. By email dated June 15, 2022, the Montana SHPO stated that because the turbine and generator upgrades will be replacements-in-kind, it has no concerns about this amendment's impact on cultural resources. Commission staff concurs with Montana SHPO that the licensee's proposal would have no effect on historic or cultural resources.

## **VII. Discussion**

### **A. Environmental Review**

15. The National Environmental Policy Act (NEPA) requires federal agencies to consider the environmental impacts of their actions in the decision-making process, and provide a detailed statement on proposals for major federal actions significantly affecting the quality of the human environment. The purpose and function of NEPA is satisfied if federal agencies have considered relevant environmental information, and the public has been informed regarding the decision-making process.<sup>11</sup> In assessing whether NEPA applies or is otherwise fulfilled, federal agencies should determine whether the proposed activity or decision is a major federal action.<sup>12</sup>

16. The actions considered in this proposed license amendment would not include any ground disturbance and do not rise to the level of a major federal action. Commission staff invited agency and public participation in our decision-making process, and examined environmental issues related to the proposed action.

17. To satisfy the requirements of the NEPA,<sup>13</sup> Commission staff reviewed the proposed amendment and found it would have no effect on geology and soils, water quality, terrestrial resources, land use, recreation, or cultural resources due to its small magnitude and limited geographical and temporal scope. All proposed actions would be completed inside the existing powerhouses of the Black Eagle and Cochrane developments. The proposal has the potential to result in affects to water quantity and aquatic resources as discussed below.

18. The proposed upgrades would increase the hydraulic capacity of the Black Eagle powerhouse from 5,691 cfs to 6,342 cfs, resulting in a minor effect on water quantity. The licensee anticipates that after the turbine replacement, the approach velocity (i.e., the water velocity into, or perpendicular to, the face of an intake screen and trash racks) would increase from 1.7 feet per second (fps) to 1.9 fps. In comments submitted to the

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<sup>11</sup> 40 C.F.R. §1500.1.

<sup>12</sup> 40 C.F.R. §1501.1(a)(4).

<sup>13</sup> 42 U.S.C. §§ 4321 *et seq.* (2018); *see also* 18 C.F.R. pt. 380 (2021) (Commission's regulations implementing NEPA).

licensee on May 2, 2022, Montana DFWP stated that Black Eagle reservoir is frequently used by white suckers, longnose suckers, and carp. These species have average critical swimming speeds that equal or exceed the approach velocity that would occur at the proposed hydraulic capacity, allowing fish in the vicinity of the intake to swim away from the intake when the project is operated at maximum hydraulic capacity. Therefore, the increase in hydraulic capacity due to the new turbine is not likely to increase fish entrainment or impingement and would have no effect on the fish population.

19. The proposed upgrades at the Cochrane Development would reduce hydraulic capacity from 10,800 cfs to 8,640 cfs, resulting in a minor beneficial effect on water quantity. The decrease in hydraulic capacity would reduce the approach velocity at the intake and reduce the risk of fish entrainment or impingement, but would likely have no effect on the fish population.

### **B. Installed Capacity and Annual Charges**

20. According to 18 C.F.R. § 11.1(i) (2021), the authorized installed capacity means “the lesser of the ratings of the generator or turbine units.” The rating of a turbine is the product of the turbine’s capacity in horsepower (hp) at best gate opening under the manufacturer’s rated head times a conversion factor of 0.75 kilowatt (kW)/hp. The rating of a generator is the product of the continuous-load capacity rating of the generator in kilovolt-amperes (kVA) and the system power factor in kW/kVA.

21. The licensee’s proposal to replace the Unit 3 turbine and refurbish the Unit 3 generator at the Black Eagle Development would result in a turbine capacity increase from 6.98 to 8.46 MW, and a generator increase from 8.4 MW to 9.03 MW. The refurbishment of the Unit 1 generator would result in an increased from 7.84 MW to 9.02 MW. The total installed capacity at the Black Eagle Development would increase 2.1 MW, from 21.8 MW to 23.90 MW, limited by the capacity of the turbine for each unit. Table 1 below shows the authorized installed capacities at the Black Eagle Development.

Table 1. Installed Capacities at the Black Eagle Development

<b>Unit No.</b>	<b>Authorized Turbine Capacity (MW)</b>	<b>Authorized Generator Capacity (MW)</b>	<b>Limiting Capacity (MW)</b>	<b>Authorized Installed Capacity (MW)</b>	<b>Turbine Flow (cfs)</b>
1	8.46	9.02	Turbine	8.46	2,331
2	6.98	7.84	Turbine	6.98	1,680
3	8.46	9.03	Turbine	8.46	2,331
Total				<b>23.90</b>	<b>6,342</b>

22. The licensee’s proposal to replace the Cochrane Development’s Unit 2 turbine and rewind its generator would result in a turbine capacity decrease from 31.5 MW to

20.5 MW, and a generator decrease from 31.95 MW to 28.4 MW. The total installed capacity at the Cochrane Development would decrease 11.0 MW, from 59.9 MW to 48.9 MW, limited by the capacity of the generator for Unit 1 and the turbine for Unit 2. Table 2 below shows the authorized installed capacities at the Cochrane Development.

Table 2. Installed Capacities at the Cochrane Development

Unit No.	Authorized Turbine Capacity (MW)	Authorized Generator Capacity (MW)	Limiting Capacity (MW)	Authorized Installed Capacity (MW)	Turbine Flow (cfs)
1	31.50	28.40	Generator	28.40	5,400
2	20.50	28.40	Turbine	20.50	3,240
Total				<b>48.90</b>	<b>8,640</b>

23. Consequently, the capacity increase at the Black Eagle Development and decrease at the Cochrane Development will revise the total authorized installed capacity of the Missouri-Madison Project from to 327.37 MW to 318.47 MW. Ordering paragraph (B) of this order revises the project description in ordering paragraph (C)(2) of the license to reflect this amendment and consistent with the revised exhibits described below.

24. In addition, the annual charges under Article 201 of the license for the purpose of reimbursement to the United States Government for the costs of administration of Part I of the Federal Power Act should be revised to reflect the capacity increase due to the proposed upgrades. The authorized installed capacity for that purpose is 318.47 MW. Based on the Commission's current regulations, the effective date for the change in annual charges will be the date on which the licensee is required to start the proposed work, or two years from the issuance date of this order, as that day may be extended.<sup>14</sup> Ordering paragraph (C) of this order revises annual charges pursuant to Article 201 of the license to reflect the revised authorized installed capacity.

### C. Revised Exhibits

25. The licensee included, as Attachment 1, a revised Exhibit A for Commission approval, describing the entire project, in two forms, a strikethrough and final clean copy. The Exhibit A conforms to the Commission's rules and regulations and should be approved, superseding any previous Exhibit A. Ordering paragraph (D) of this order approves the revised Exhibit A.

26. In addition, the licensee included, as Attachment 2, three revised Exhibit F drawings for Commission approval. Our review of the exhibits found that the drawings provide acceptable representation of the project features. The Exhibit F drawings conform to the Commission's rules and regulations and should be approved. Ordering

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<sup>14</sup> 18 C.F.R. § 11.1(c)(5) (2021).

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paragraph (E) of this order approves the revised Exhibit F drawings. Ordering paragraph (F) requires the licensee to file the approved exhibit drawings in electronic file format.

27. Order paragraph (I) requires the licensee to file revised Exhibits A, F, and G, as applicable, to reflect as-built conditions. The filing shall also include photographs of the turbine-generator units' nameplates.

#### **D. Dam Safety**

28. Commission staff reviewed the amendment application and conclude that the proposed modifications would not adversely impact the safety of the project when constructed, operated, and maintained in accordance with the Commission's standards and oversight. The licensee plans to commence the installation of the new units at the Black Eagle Development, starting in fall 2022, and complete installation of the last unit at the Cochrane Development in early 2024. Nevertheless, Commission staff is requiring in ordering paragraph (G) that the licensee starts and completes the upgrades within two and four years, respectively, from the issuance date of this order. The licensee may not begin construction until the Commission's D2SI – Portland Regional Engineer has reviewed and commented on the plans and specifications, determined that all preconstruction requirements have been satisfied, and authorized start of construction. Ordering paragraph (H) of this order requires the licensee to submit contract plans and specifications prior to receiving approval to start construction from the Commission's D2SI – Portland Regional Engineer.

### **VIII. Conclusion**

29. The proposed units would not have any appreciable effect on any environmental or cultural resources within the project area. The replacement of the turbines and generators at the Black Eagle and Cochrane developments would allow the licensee to benefit from the increased capacity from those units. Therefore, the licensee's application for amendment of the license should be approved.

#### **The Director orders:**

(A) NorthWestern Corporation's non-capacity amendment application for the Missouri-Madison Hydroelectric Project No. 2188 to replace turbines and rewind generators at the Black Eagle and Cochrane developments filed July 14, 2022, and supplemented July 21, 2022, is approved.

(B) This order revises ordering paragraph (C)(2) of the license to read as follows:

(2) Project works consisting of nine developments: (A) the Hebgen Development; (B) the Madison Development; (C) the Hauser Development; (D) the

Holter Development; (E) the Black Eagle Development; (F) the Rainbow Development; (G) the Cochrane Development; (H) the Ryan Development; and (I) the Morony Development.

A. The Hebgen Development is located on the Madison River at mile 103 and consists of: (1) an earth-filled with concrete core dam 721 feet long and 85 feet high, with a crest elevation of 6,546 feet, with outlet works through the dam and a side-channel spillway; (2) an impoundment with a surface area 13,000 acres and a storage capacity of 386,184 acre-feet at normal maximum water surface elevation of 6,534.87 feet; and (3) other appurtenances. The Hebgen Development occupies approximately 10,766 acres of U.S. Forest Service (Forest Service) lands.<sup>15</sup> This development is used to store and regulate water; there are no generating facilities at this development.

B. The Madison Development is located on the Madison River at river mile 40 and consists of: (1) a 257-foot-long, 38.5-foot-high rock filled concrete dam with a spillway crest elevation of 4,833 feet with 9-foot-high slide panels on top; (2) an impoundment, known as Ennis Lake, with a surface area of 3,900 acres and a storage capacity of 41,917 acre-feet at normal maximum water surface elevation of 4,841 feet; (3) a control building; (4) an intake structure; (5) a 7,500-foot-long, 13-foot-diameter flow line; (6) a surge chamber; (7) four 9-foot-diameter, approximately 240-foot-long riveted steel penstocks; (8) a powerhouse with four turbine generator units with an authorized installed capacity of 12.68 MW; (9) an interconnection with the licensee's integrated transmission system at the powerhouse side; (10) a tailrace; and (11) other appurtenances. The Madison Development occupies approximately 358 acres of lands administered by the Bureau of Land Management (BLM).

C. The Hauser Development is located on the Missouri River at River mile 2,237 and consists of: (1) a 700-foot-long, 80-foot-high concrete gravity dam with a spillway crest elevation 3,621 feet with five bays of slide gates and 19 bays of 14.5-foot-high removable flash boards on top; (2) an impoundment composed of two connected bodies of water: the Hauser Lake and Lake Helena with a combined surface area of 5,970 acres and a storage capacity of 111,060 acre-feet at the normal maximum water surface elevation of 3,635.4 feet; (3) an intake and forebay structure; (4) five 12-foot-diameter short buried riveted steel penstocks and a 14-foot-diameter short riveted steel penstock (a section of which is tunneled through rock); (5) a powerhouse with six turbine generator units with an authorized installed capacity of 18.74 MW; (6) an interconnection to the integrated transmission system across the river from the powerhouse; (7) a tailrace; and (8) other appurtenances. The Hauser Development occupies approximately 75 acres of Forest Service lands and approximately 574 acres of BLM lands.

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<sup>15</sup> The areas of all Federal lands are rounded to the nearest acre.

D. The Holter Development is located on the Missouri River at river mile 2,211 and consists of: (1) a 1,364-foot-long, 124-foot-high concrete gravity dam with a spillway crest elevation of 3,548 feet with 10 bays of slide gates and 21 bays of 16-foot-high flash boards on top; (2) an impoundment, known as the Holter Lake, with a surface area of 4,550 acres and a storage capacity of 240,000 acre-feet at the normal maximum water surface elevation of 3,564 feet; (3) an intake/powerhouse structure with four turbine generator units with an authorized installed capacity of 53.6 MW; (4) an interconnection to the transmission system at the powerhouse; (5) a tailrace; and (6) other appurtenances. The Holter Development occupies approximately 597 acres of BLM lands and approximately 167 acres of Forest Service lands.

E. The Black Eagle Development is located on the Missouri River at river mile 2,118 and consists of: (1) a 782-foot-long, 34.5-foot-high curved concrete gravity dam with a spillway crest elevation of 3,279 feet with 24 bays of 11-foot-high flashboards on top and 1 trash gate bay; (2) a reservoir with a surface area of 402 acres and a storage capacity of 1,820 acre-feet at normal maximum water surface elevation of 3,290 feet; (3) a 421-foot-long, 96-foot-wide forebay; (4) an intake/powerhouse structure containing three turbine generator units with an authorized installed capacity of 23.90 MW; (5) an interconnection to the transmission system; (6) a tailrace; and (7) other appurtenances.

F. The Rainbow Development is located on the Missouri River at river mile 2,115 and consists of: (1) a 1,146-foot-long, 43.5-foot-high rock filled timber crib and concrete dam with a two portion spillway with a crest elevation of 3,212 and 3,214 feet, respectively (the right portion is topped with approximately 10-foot-high flash boards and the left portion with rubber dams providing a total top elevation of 3,224 feet); (2) the Rainbow Reservoir with a surface area of 126 acres and a storage capacity of 1,237 acre-feet at a normal water surface elevation of 3,224 feet; (3) an intake structure with trashrack structure equipped with a trashrake located at the left abutment that is adjacent to two other intake structures for the retired Units 1 through 8; (4) an open concrete channel flume 2,375 feet long and 40 feet wide (5) a forebay with a surge spillway; (6) a 25-foot-diameter, 377-foot-long welded steel penstock (7) a reinforced concrete powerhouse approximately 160 feet long and 150 feet wide, housing a single turbine generator with an authorized installed capacity of 58.95 MW; (8) 0.8 miles of interconnection line to the transmission system; (9) a tailrace; and (10) other appurtenances.

G. The Cochrane Development is located on the Missouri River at river mile 2,111 and consists of: (1) a 856-foot-long, 100-foot-high concrete gravity dam with a spillway crest elevation of 3,094.75 feet with radial gates on top with a top elevation of 3,120 feet; (2) the Cochrane Reservoir with a surface area of 320 acres and a storage capacity of 9,840 acre-feet at a water surface elevation of 3,120 feet; (3) a powerhouse at the dam with two turbine generator units with an authorized installed capacity of 48.90 MW; (4) a 3.7-mile-long, 100-kV transmission line; (5) a tailrace; and (6) other appurtenances.

H. The Ryan Development is located on the Missouri River at river mile 2,110 (upstream from the crest of the Great Falls) and consists of: (1) a 1,465-foot-long, a 82-foot-high curved concrete gravity dam with a spillway crest elevation of 3,023 feet topped with four 16 feet high by 12.25 feet wide slide gates with the remainder of the spillway controlled by 16.25-foot-high flash boards; (2) the Ryan Reservoir with a surface area of 168 acres and a normal maximum storage capacity of 3,653 acre-feet at a water surface elevation of 3,037 feet; (3) an intake structure; (4) six 12-foot, 8-inch diameter and 327-foot-long riveted steel penstocks; (5) a powerhouse with six turbine generator units with an authorized installed capacity of 55.20 MW; (6) two 4.8-mile-long, 100-kV transmission lines; (7) a tailrace; and (8) other appurtenances.

I. The Morony Development is located on the Missouri River at river mile 2,105 and consists of: (1) an 842-foot-long, 96-foot-high concrete gravity dam with a spillway crest elevation of 2,864 feet topped with nine bays of radial gates and one bay of slide gates with a top elevation of 2,887 feet; (2) the Morony Reservoir with a surface area of 304 acres and a storage capacity of 13,889 acre-feet at water surface elevation of 2,888 feet; (3) an intake/powerhouse structure containing two turbine generator units with an authorized installed capacity of 46.50 MW; (4) an 7.7-mile-long, 100-kV transmission line; (5) a tailrace; and (6) other appurtenances.

The project works generally described above are more specifically described and shown in project Exhibits A and F.

(C) Article 201 of the license is revised, effective the date of this order, to read:

Article 201. The licensee shall pay the United States the following annual charges, as determined in accordance with provisions of the Commission's regulations in effect from time to time, for the purposes of:

- (1) reimbursing the United States for the cost of administration of Part I of the Federal Power Act, a reasonable amount as determined in accordance with the provisions of the Commission's regulations in effect from time to time. The authorized installed capacity for that purpose is 318.47 MW, effective two years from the issuance of this order;
- (2) recompensing the United States for the use, occupancy and enjoyment of 12,530 acres of its lands (other than for transmission line right-of-way);
- (3) recompensing the United States for the use, occupancy and enjoyment of its lands for transmission line right-of-way; and
- (4) recompensing the United States for the utilization of surplus water or water power from the Bureau of Reclamation's Canyon Ferry Hydroelectric Project.

Project No. 2188-274

- 12 -

(D) The revised Exhibit A filed on July 21, 2022, conforms to the Commission's rules and regulations and this order approves the Exhibit A and makes it part of the license. The previous Exhibit A is eliminated from the license.

(E) The following Exhibit F drawings filed July 14, 2022, conform to the Commission's rules and regulations, and this order approves the drawings and makes them part of the license. This order supersedes the previous Exhibit F-28, F-31, and F-57 (FERC Drawing Nos. 2188-1061, P-2188-1207, and P-2188-1240 respectively) and deletes them from the license.

Exhibit No.	FERC Drawing No.	Drawing Title	Filename Title <sup>16</sup>
F-28	P-2188-1249	Cochrane Development Powerhouse Plan Turbine Floor and Intake	Cochrane-PH&Intake Plan
F-31	P-2188-1250	Cochrane Development Powerhouse and Intake Cross Section	Cochrane-PH&Intake Sect
F-57	P-2188-1251	Black Eagle Development Turbine and Generator Floor Plans	Black Eagle-Floor Plans

(F) Within 45 days of the date of issuance of this order, as directed below, the licensee must file the approved exhibit drawings in electronic file format.

The licensee must prepare digital images of the approved exhibit drawings in electronic format. Prior to preparing each digital image, the licensee must add the FERC Project-Drawing Number (i.e., P-2188-1249 through P-2188-1251) in the margin below the title block of the corresponding approved drawing. The licensee must **label and file the Exhibit F drawings as Critical Energy Infrastructure Information (CEII) material under 18 CFR § 388.113** (The submission should consist of: 1) a public portion consisting of a cover letter; and 2) a CEII portion containing only the Exhibit F drawings). Each drawing must be a separate electronic file, and the file name must include: FERC Project-Drawing Number, FERC Exhibit Number, Filename Title, date of this order, and file extension in the following format [P-2188-1249, F-28, Cochrane-PH&Intake Plan, MM-DD-YYYY.TIFF]. All digital images of the exhibit drawings must meet the following format specification:

---

<sup>16</sup> These exact drawing titles must be used in the filename when filing the electronic file format drawings required in ordering paragraph (F). Commission staff shortened the drawing titles due to filename character limits. There is no need to modify the titles as they appear on the drawings.

Project No. 2188-274

- 13 -

IMAGERY: black & white raster file  
FILE TYPE: Tagged Image File Format, (TIFF) CCITT Group 4  
(also known as T.6 coding scheme)  
RESOLUTION: 300 dots per inch (dpi) desired, (200 dpi minimum)  
DRAWING SIZE: 22" x 34" (minimum), 24" x 36" (maximum)  
FILE SIZE: less than 1 megabyte desired

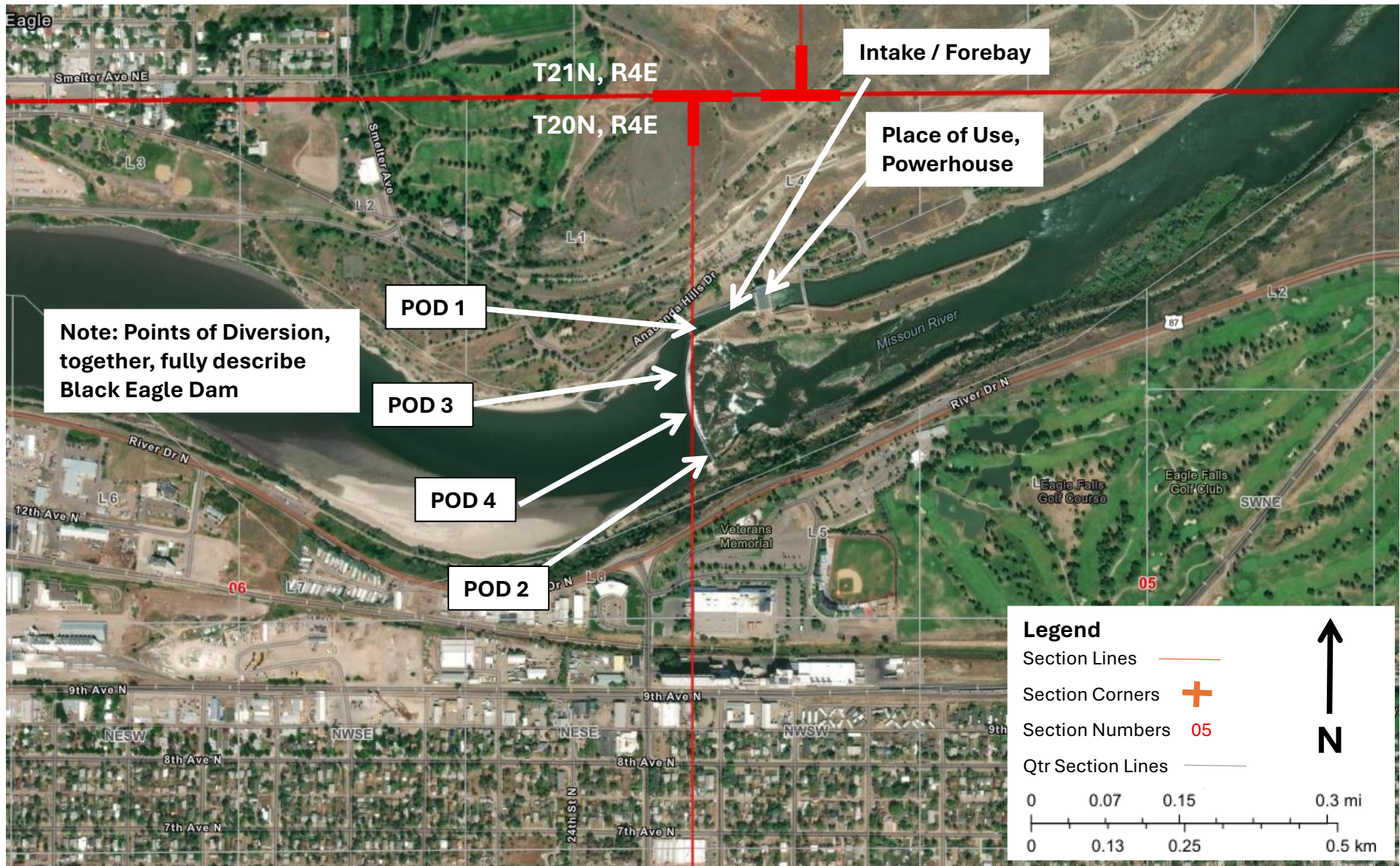
(G) The licensee shall start construction of the proposed work authorized in this order within two years and complete all construction within four years from the issuance date of this order.

(H) *Contract Plans and Specifications.* At least 60 days prior to the start of any construction, the licensee must file final design documents with the Secretary of the Commission, preferably through eFiling. The licensee must also submit two hard copies of the documents to the Division of Dam Safety and Inspections (D2SI)-Portland Regional Engineer. The design documents must include: final plans and specifications, supporting design report, Quality Control and Inspection Program, Temporary Construction Emergency Action Plan, and a Soil Erosion and Sediment Control Plan. The licensee may not begin construction until the D2SI- Portland Regional Engineer has reviewed and commented on the documents, determined that all preconstruction requirements have been satisfied, and authorized start of construction.

(I) Within 90 days of completion of construction of the improvements authorized by this amendment, the licensee shall file for Commission approval, revised Exhibits A, F and G, as applicable, to reflect as-built conditions at the Black Eagle and Cochrane developments. If the licensee determines the previously approved exhibits reflect the as-built facilities and no revisions are necessary, the licensee must file a letter stating the approved exhibits reflect the as-built project facilities. The filing must include photographs of the nameplates for the turbines and generators.

(J) This order constitutes final agency action. Any party may file a request for rehearing of this order within 30 days from the date of its issuance, as provided in § 313(a) of the Federal Power Act, 16 U.S.C. § 825*l*, and the Commission's regulations at 18 C.F.R. § 385.713 (2021). The filing of a request for rehearing does not operate as a stay of the effective date of this order, or of any other date specified in this order. The licensee's failure to file a request for rehearing shall constitute acceptance of this order.

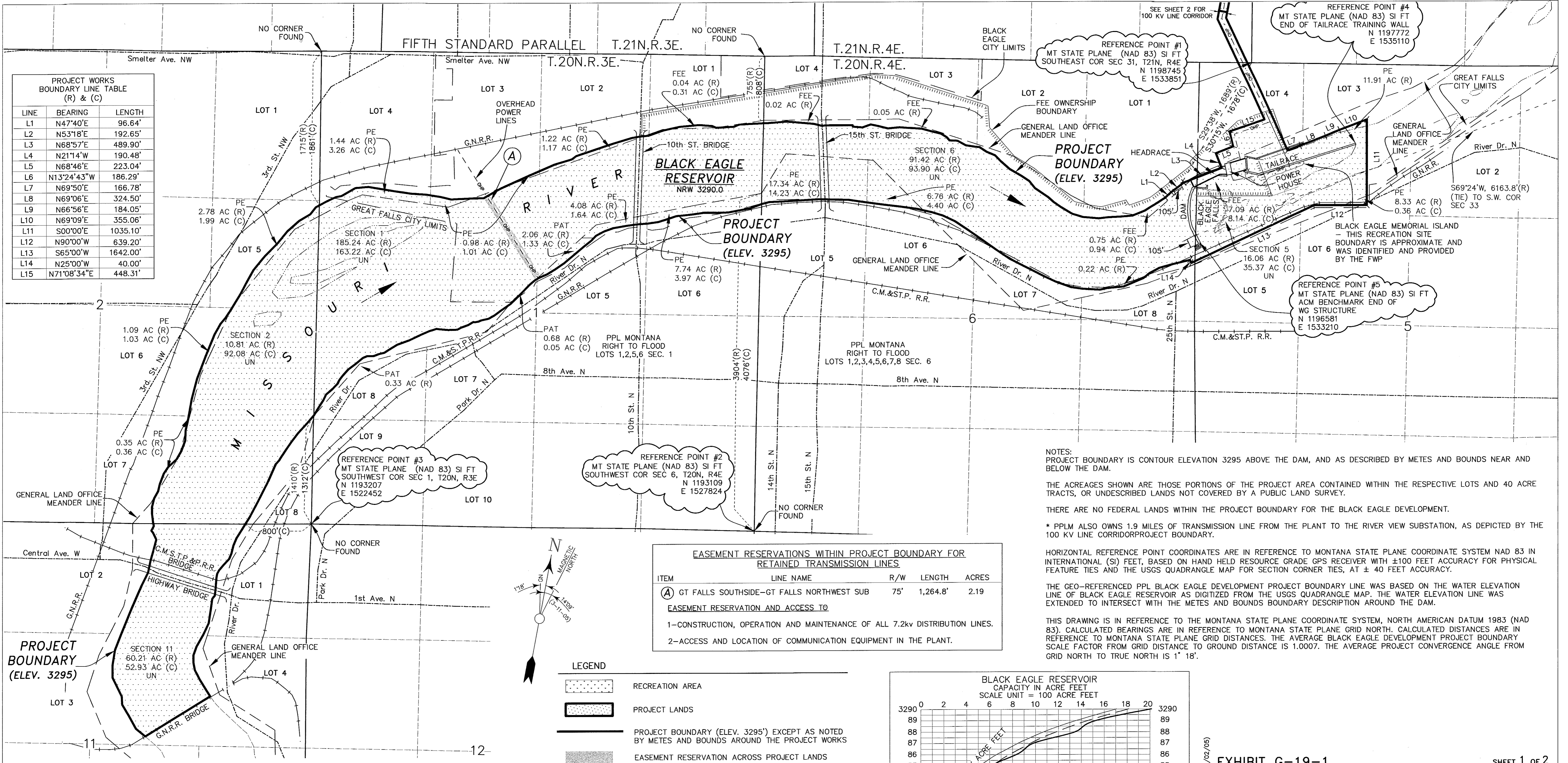
Kelly Houff  
Chief, Engineering Resources Branch  
Division of Hydropower Administration  
and Compliance



**EXHIBIT**  
**C**

**PROJECT WORKS BOUNDARY LINE TABLE (R) & (C)**

LINE	BEARING	LENGTH
L1	N47°40'E	96.64'
L2	N53°18'E	192.65'
L3	N68°57'E	489.90'
L4	N21°14'W	190.48'
L5	N68°46'E	223.04'
L6	N13°24'43"W	186.29'
L7	N69°50'E	166.78'
L8	N69°06'E	324.50'
L9	N66°56'E	184.05'
L10	N69°09'E	355.06'
L11	S00°00'E	1035.10'
L12	N90°00'W	639.20'
L13	S65°00'W	1642.00'
L14	N25°00'W	40.00'
L15	N71°08'34"E	448.31'



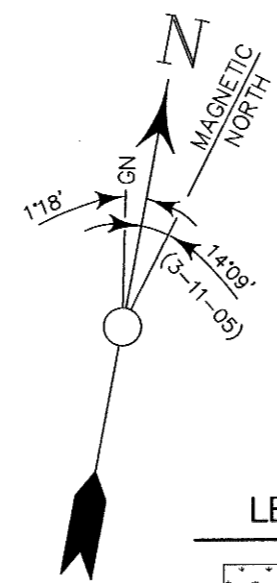
**NOTES:**  
 PROJECT BOUNDARY IS CONTOUR ELEVATION 3295 ABOVE THE DAM, AND AS DESCRIBED BY METES AND BOUNDS NEAR AND BELOW THE DAM.  
 THE ACREAGES SHOWN ARE THOSE PORTIONS OF THE PROJECT AREA CONTAINED WITHIN THE RESPECTIVE LOTS AND 40 ACRE TRACTS, OR UNDESCRIBED LANDS NOT COVERED BY A PUBLIC LAND SURVEY.  
 THERE ARE NO FEDERAL LANDS WITHIN THE PROJECT BOUNDARY FOR THE BLACK EAGLE DEVELOPMENT.  
 \* PPLM ALSO OWNS 1.9 MILES OF TRANSMISSION LINE FROM THE PLANT TO THE RIVER VIEW SUBSTATION, AS DEPICTED BY THE 100 KV LINE CORRIDOR PROJECT BOUNDARY.

**EASEMENT RESERVATIONS WITHIN PROJECT BOUNDARY FOR RETAINED TRANSMISSION LINES**

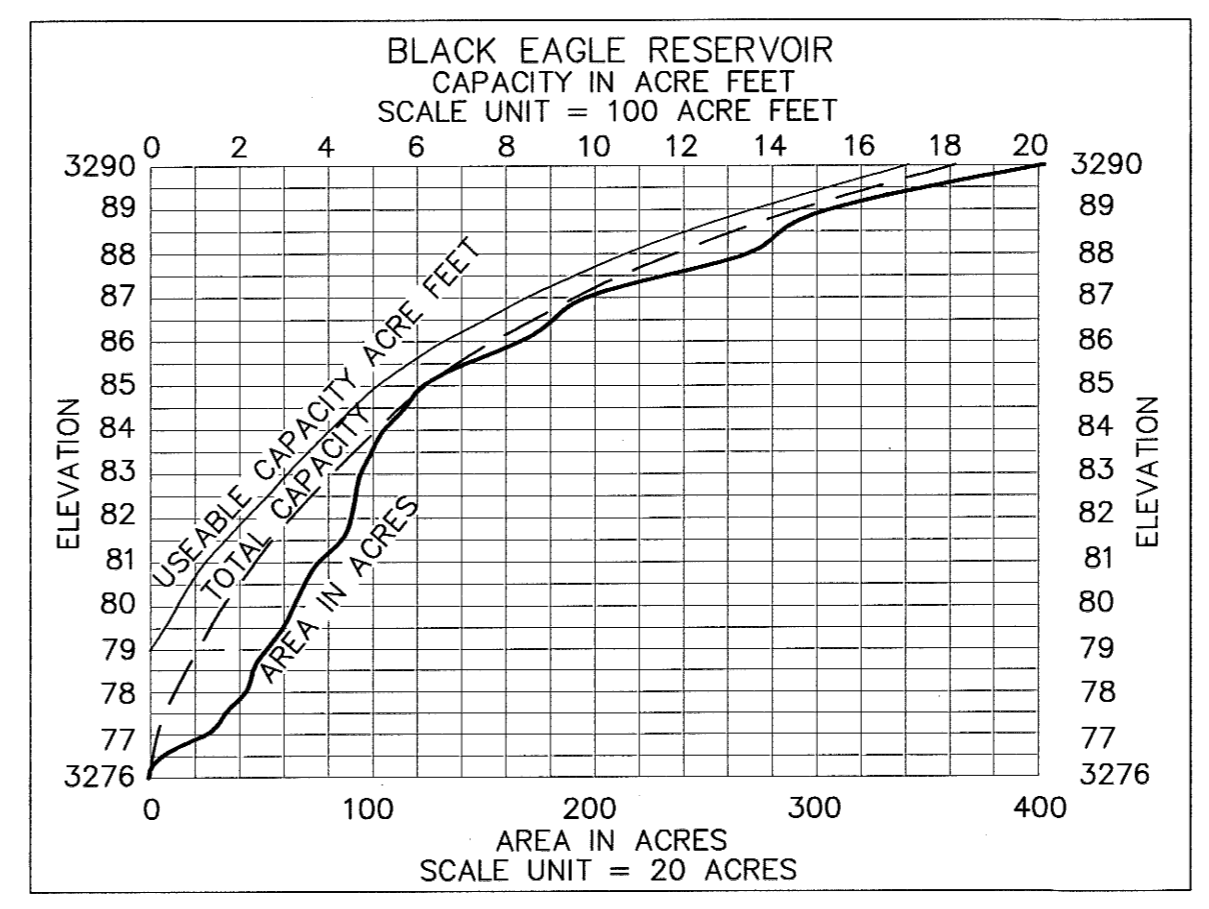
ITEM	LINE NAME	R/W	LENGTH	ACRES
(A)	GT FALLS SOUTHSIDE-GT FALLS NORTHWEST SUB	75'	1,264.8'	2.19

**EASEMENT RESERVATION AND ACCESS TO**  
 1-CONSTRUCTION, OPERATION AND MAINTENANCE OF ALL 7.2kv DISTRIBUTION LINES.  
 2-ACCESS AND LOCATION OF COMMUNICATION EQUIPMENT IN THE PLANT.

HORIZONTAL REFERENCE POINT COORDINATES ARE IN REFERENCE TO MONTANA STATE PLANE COORDINATE SYSTEM NAD 83 IN INTERNATIONAL (SI) FEET, BASED ON HAND HELD RESOURCE GRADE GPS RECEIVER WITH ±100 FEET ACCURACY FOR PHYSICAL FEATURE TIES AND THE USGS QUADRANGLE MAP FOR SECTION CORNER TIES, AT ± 40 FEET ACCURACY.  
 THE GEO-REFERENCED PPL BLACK EAGLE DEVELOPMENT PROJECT BOUNDARY LINE WAS BASED ON THE WATER ELEVATION LINE OF BLACK EAGLE RESERVOIR AS DIGITIZED FROM THE USGS QUADRANGLE MAP. THE WATER ELEVATION LINE WAS EXTENDED TO INTERSECT WITH THE METES AND BOUNDS BOUNDARY DESCRIPTION AROUND THE DAM.  
 THIS DRAWING IS IN REFERENCE TO THE MONTANA STATE PLANE COORDINATE SYSTEM, NORTH AMERICAN DATUM 1983 (NAD 83). CALCULATED BEARINGS ARE IN REFERENCE TO MONTANA STATE PLANE GRID NORTH. CALCULATED DISTANCES ARE IN REFERENCE TO MONTANA STATE PLANE GRID DISTANCES. THE AVERAGE BLACK EAGLE DEVELOPMENT PROJECT BOUNDARY SCALE FACTOR FROM GRID DISTANCE TO GROUND DISTANCE IS 1.0007. THE AVERAGE PROJECT CONVERGENCE ANGLE FROM GRID NORTH TO TRUE NORTH IS 1' 18".



- LEGEND**
- RECREATION AREA
  - PROJECT LANDS
  - PROJECT BOUNDARY (ELEV. 3295') EXCEPT AS NOTED BY METES AND BOUNDS AROUND THE PROJECT WORKS
  - EASEMENT RESERVATION ACROSS PROJECT LANDS
  - FEE PPL FEE TITLE
  - PE PERMANENT FLOWAGE EASEMENT
  - PAT PATENTED LANDS
  - UN UNDESCRIBED LANDS NOT COVERED BY A PUBLIC LAND SURVEY
  - SECTION LINE
  - \*PPL OWNERSHIP BOUNDARY (SEE NOTE)
  - PRIMARY AND SECONDARY ROADS
  - RAILROAD TRACKS
  - CITY LIMITS
  - DRAINAGE
  - (C) CALCULATED (BY DJ&A 2005)
  - (R) RECORD PPL
  - GN GRID NORTH (MONTANA STATE PLANE NAD 83 COORDINATE SYSTEM)

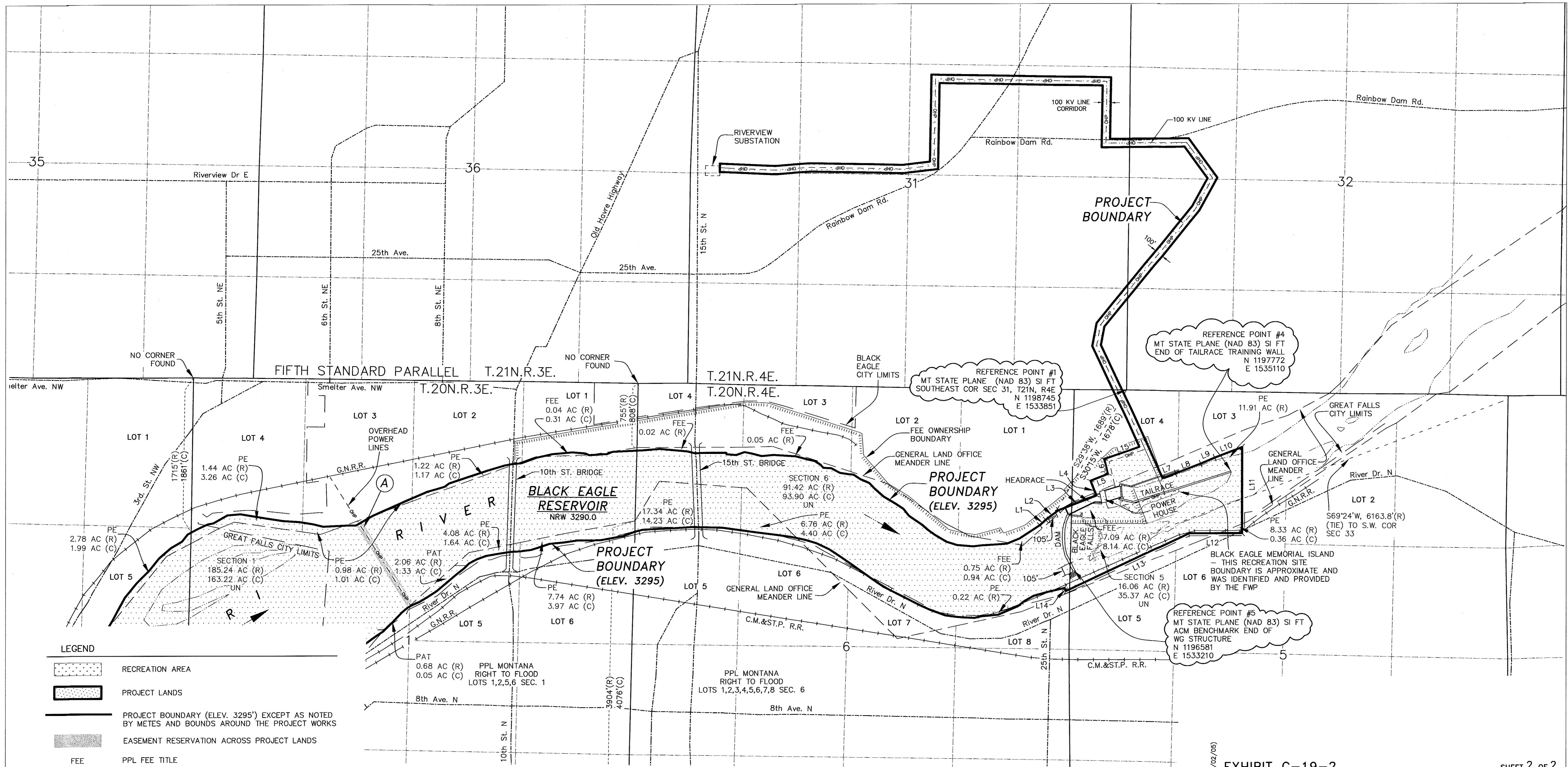


**SURVEYORS STATEMENT**  
 I HEREBY STATE THAT THE PPL PROJECT BOUNDARY DELINEATION FOR THE BLACK EAGLE DEVELOPMENT PROJECT AS SHOWN ON THIS EXHIBIT "G" IS DEVELOPED IN REFERENCE TO THE MONTANA STATE PLANE COORDINATE SYSTEM, NORTH AMERICAN DATUM 1983 (NAD 83) AND IS WITHIN REASONABLE ACCURACIES AS REQUIRED IN FERC CODES AND REGULATIONS 18 CFR 4.41 TO THE GEOGRAPHIC LOCATION BASED ON A GRAPHICAL POSITIONING IN REFERENCE TO USGS QUADRANGLE MAPPING WITHIN ±40 FEET. THE PPL DOCUMENTED PROJECT BOUNDARY LINE WAS ADJUSTED AND OR ROTATED TO BEST FIT WITH THE USGS QUADRANGLE MAP. THIS WORK WAS NOT FIELD SURVEYED.

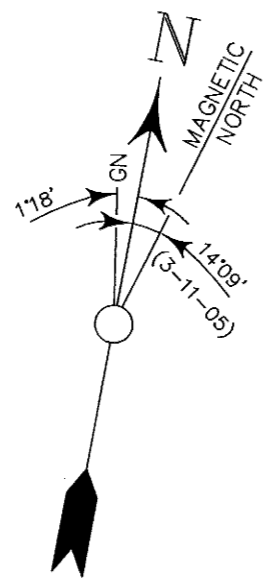
BY: *Glenn R. Howard* 3/28/12  
 GLENN R. HOWARD PLS 8376S (DATE)  
 DJ&A, P.C.

THIS DRAWING IS A PART OF AN AMENDMENT TO THE LICENSE FOR THE MISSOURI-MADISON PROJECT NO. 2188. MADE BY THE UNDERSIGNED THIS *30th* DAY OF *March* 2012. AND SHOWS THE PRINCIPAL PROJECT WORKS FOR THE BLACK EAGLE DEVELOPMENT (05).  
 PPL MONTANA, LLC  
 BY: *Carrie Harris*  
 MANAGER ENGINEERING & PROJECTS

EXHIBIT G-19-1 SHEET 1 OF 2  
 PPL MONTANA  
 BILLINGS, MONTANA  
 MISSOURI - MADISON PROJECT No. 2188  
 BLACK EAGLE DEVELOPMENT  
 PROJECT BOUNDARY  
 PROJECT 2188(05) SCALE: 1"=600' MONTANA



- LEGEND**
- RECREATION AREA
  - PROJECT LANDS
  - PROJECT BOUNDARY (ELEV. 3295') EXCEPT AS NOTED BY METES AND BOUNDS AROUND THE PROJECT WORKS
  - EASEMENT RESERVATION ACROSS PROJECT LANDS
  - FEE PPL FEE TITLE
  - PE PERMANENT FLOWAGE EASEMENT
  - PAT PATENTED LANDS
  - UN UNDESCRIBED LANDS NOT COVERED BY A PUBLIC LAND SURVEY
  - SECTION LINE
  - \*PPL OWNERSHIP BOUNDARY (SEE NOTE)
  - PRIMARY AND SECONDARY ROADS
  - RAILROAD TRACKS
  - CITY LIMITS
  - DRAINAGE
  - (C) CALCULATED (BY DJ&A 2005)
  - (R) RECORD PPL
  - GN GRID NORTH (MONTANA STATE PLANE NAD 83 COORDINATE SYSTEM)



**SURVEYORS STATEMENT**

I HEREBY STATE THAT THE PPL PROJECT BOUNDARY DELINEATION FOR THE BLACK EAGLE DEVELOPMENT PROJECT AS SHOWN ON THIS EXHIBIT "G" IS DEVELOPED IN REFERENCE TO THE MONTANA STATE PLANE COORDINATE SYSTEM, NORTH AMERICAN DATUM 1983 (NAD 83) AND IS WITHIN REASONABLE ACCURACIES AS REQUIRED IN FERC CODES AND REGULATIONS 18 CFR 4.41 TO THE GEOGRAPHIC LOCATION BASED ON A GRAPHICAL POSITIONING IN REFERENCE TO USGS QUADRANGLE MAPPING WITHIN ±40 FEET. THE PPL DOCUMENTED PROJECT BOUNDARY LINE WAS ADJUSTED AND OR ROTATED TO BEST FIT WITH THE USGS QUADRANGLE MAP. THIS WORK WAS NOT FIELD SURVEYED.

BY: *Glenn R. Howard* 3/28/12  
 GLENN R. HOWARD PLS 8376S DATE:  
 DJ&A, P.C.



**EASEMENT RESERVATIONS WITHIN PROJECT BOUNDARY FOR RETAINED TRANSMISSION LINES**

ITEM	LINE NAME	R/W	LENGTH	ACRES
(A)	GT FALLS SOUTHSIDE-GT FALLS NORTHWEST SUB	75'	1,264.8'	2.19

**EASEMENT RESERVATION AND ACCESS TO**

- CONSTRUCTION, OPERATION AND MAINTENANCE OF ALL 7.2kv DISTRIBUTION LINES.
- ACCESS AND LOCATION OF COMMUNICATION EQUIPMENT IN THE PLANT.

THIS DRAWING IS A PART OF AN AMENDMENT TO THE LICENSE FOR THE MISSOURI-MADISON PROJECT NO. 2188, MADE BY THE UNDERSIGNED THIS 21<sup>st</sup> DAY OF March 2012, AND SHOWS THE PRINCIPAL PROJECT WORKS FOR THE BLACK EAGLE DEVELOPMENT (05).

PPL MONTANA, LLC  
 BY: *Carrie Harris*  
 MANAGER ENGINEERING & PROJECTS

REV. 1 ADDED TRANSMISSION CORRIDOR DIA (10/24/11)  
 REV. 0 REC-REFERENCES AND REDRAW PER FERC ORDER 12-04-03 DIA (08/02/05)

EXHIBIT G-19-2 SHEET 2 OF 2

PPL MONTANA  
 BILLINGS, MONTANA

MISSOURI - MADISON PROJECT No. 2188  
 BLACK EAGLE DEVELOPMENT  
 PROJECT BOUNDARY

PROJECT 2188(05) SCALE: 1"=600'

MONTANA



DATE	5/17/21	REFERENCE DRAWING	DRAWING NUMBER
SYT.	CC	<b>BLACK EAGLE DEVELOPMENT LOCATION MAP EXHIBIT 2-1</b>	
ENGR.	SE		
DRW.	SE		
DESCRIPTION	<b>NorthWestern Energy</b>		
REV.	1	APP. MGR. CHARRIS	ENR. TECH. S. BURNETT
		DRW. NO. 41425-C35	DATE 1/20/20
		SCALE 1" = 100'	REV. 1
		DATE 1/20/20	REV. 1

EXHIBIT E

PLANT SUBSTATION 41425-C35-01

34622

## Bid Form IX-Predicted Turbine Performance

The following technical data is part of the Contract.

The following is the Predicted Field Performance Data for the new runner within the existing turbine stationary components and existing unit and station waterways.

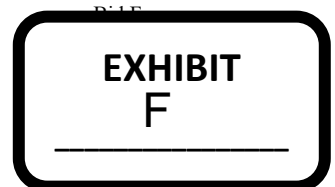
### 1. Turbine Performance at the Rated Net Head of 50 feet.

Flow (percent)	Flow (cfs)	Output (kW)	Efficiency (percent)
100	2481	9058	86.40
90	2233	8395	88.98
80	1985	7078	84.40
70	1737	5667	77.22
60	1489	4217	67.05
50	1241	2619	49.98
40	993	1161	27.61
0 Minimum	0	0	0
100 Maximum	2481	9058	86.40

### 2. Performance at Maximum Net Head of 61.6 feet.

Flow (percent)	Flow (cfs)	Output (kW)	Efficiency (percent)
100	2481	11208	86.78
90	2233	10387	89.36
80	1985	8759	84.78
70	1737	7016	77.60
60	1489	5225	67.42
50	1241	3252	50.36
40	993	1450	27.99
0 Minimum	0	0	0
* 76.2 Maximum	1890	8113	82.46

\* Maximum based on TWL 3230.0 Ft.



**3. Performance at Minimum Net Head of 37.2 feet.**

<b>Flow (percent)</b>	<b>Flow (cfs)</b>	<b>Output (kW)</b>	<b>Efficiency (percent)</b>
100	2481	6569	84.22
90	2233	6093	86.80
80	1985	5130	82.22
70	1737	4097	75.04
60	1489	3036	64.87
50	1241	1864	47.80
40	993	796	25.43
Minimum	0	0	0
Maximum	2481	6569	84.22

**A. Turbine Guaranteed Field Performance Data**

B. The Contractor guarantees equipment performance as specified in the table below:

**Guaranteed Performance Levels**

<b>Unit</b>	<b>Rated Net Head (feet)</b>	<b>LD Guaranteed</b>	
		<b>Weighted Average Efficiency (%)</b>	<b>Maximum Turbine Output @ Rated Net Head (kW)</b>
Black Eagle Unit 1	50	85.73	9058

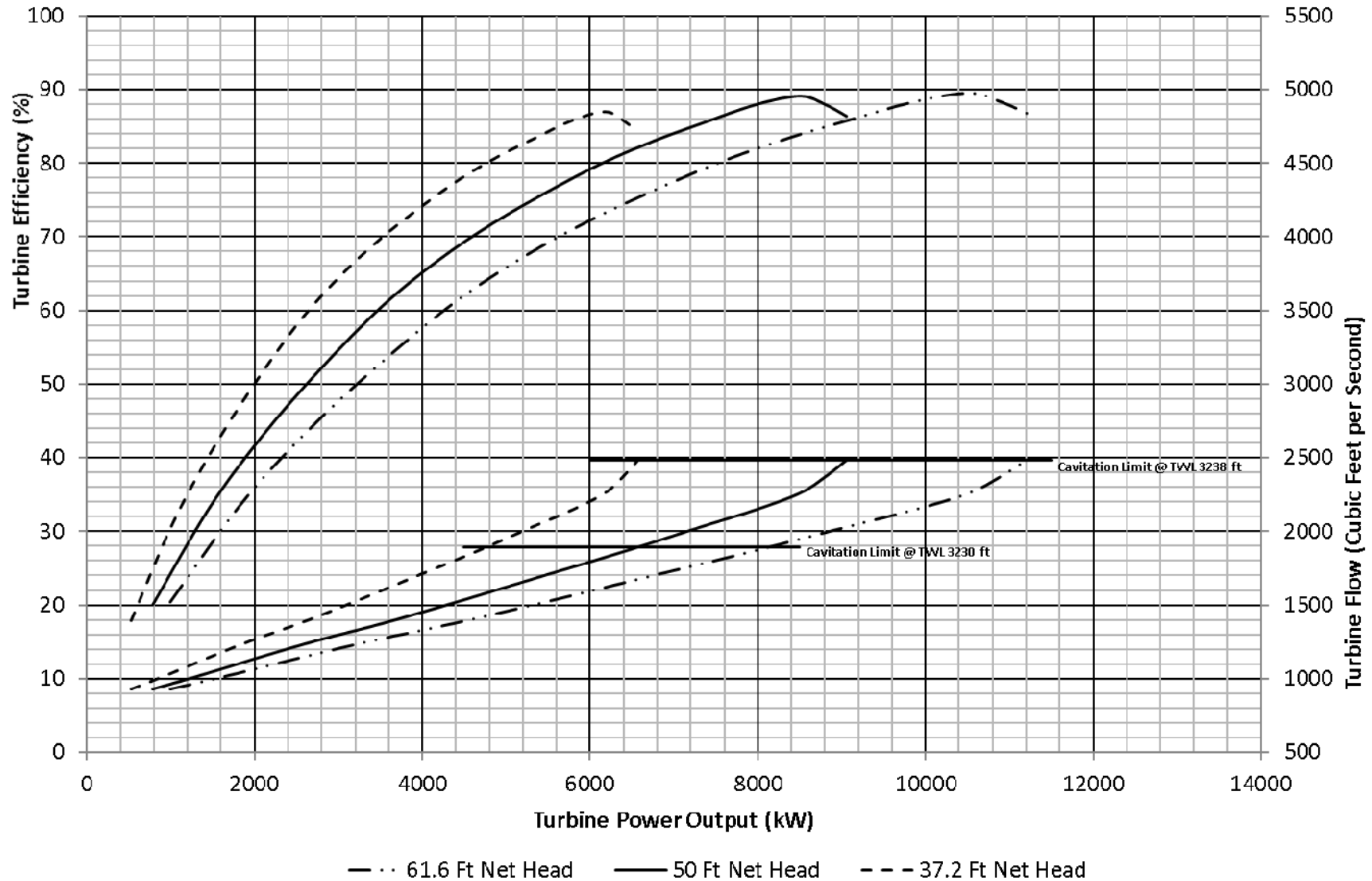
**Guaranteed Weighted Average Efficiency**

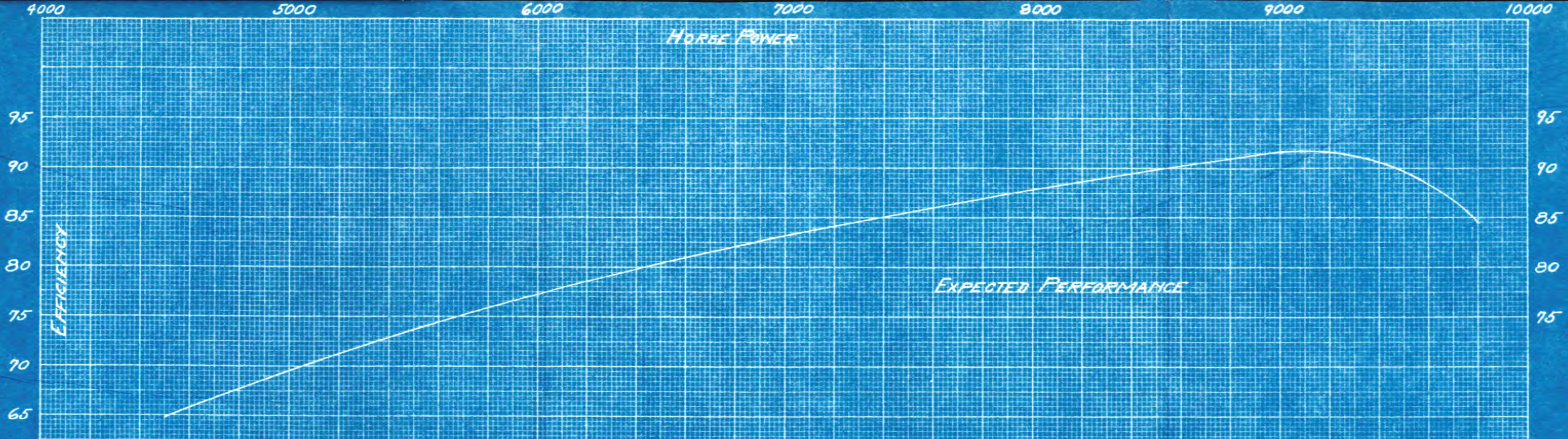
<b>Net Head (ft)</b>	<b>Power (%)</b>	<b>Power (kW)</b>	<b>Efficiency (%)</b>	<b>Weighing factor</b>
50	100	9058	86.40	0.20
50	90	8152	88.45	0.15
50	80	7246	85.07	0.15
50	70	6391	81.03	0.10
50	60	5435	75.78	0.10
50	Best eff. pt.	8510	89.12	0.30

## American Hydro

A Wärtsilä Company

### Black Eagle Expected Performance Turbine Efficiency and Discharge vs. Turbine Output



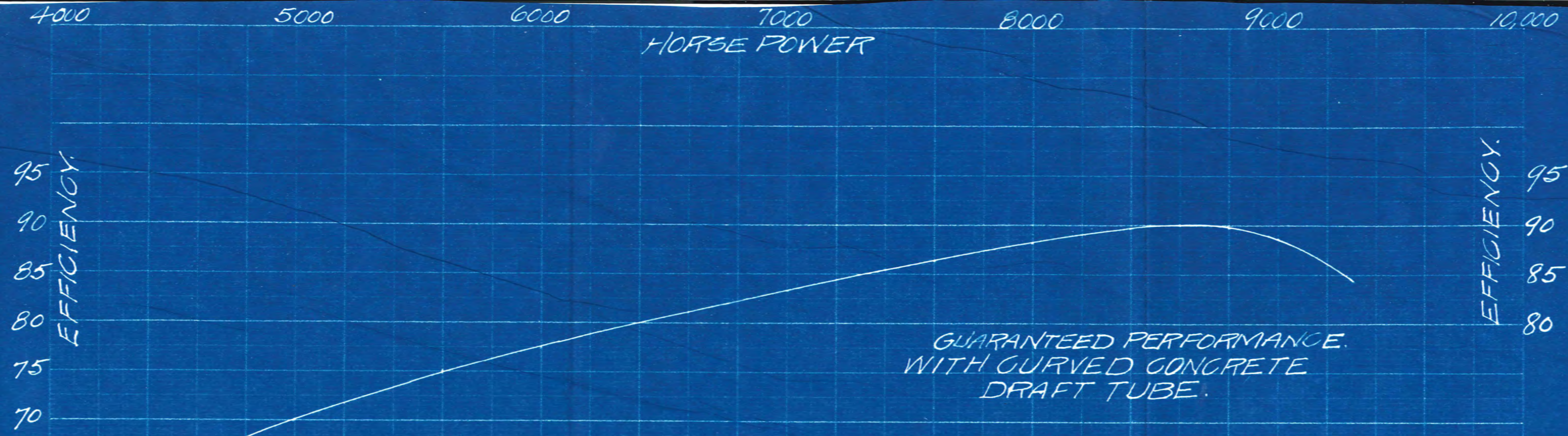


FROM S. MORGAN SMITH CO.  
YORK PA.

FOR MONTANA POWER CO.  
BLACK EAGLE REDEVELOPMENT

SMITH TURBINE  
50 FT. HD. 180 R.P.M.

51536



FROM S. MORGAN SMITH CO.  
YORK, PA.

FOR MONTANA POWER CO.  
BLACK EAGLE DEVELOPMENT.

SMITH TURBINE  
50 FT. HEAD      180 R.P.M.

6-30-26

**§ 11.1 Costs of administration.**

**(a) Authority.** Pursuant to section 10(e) of the Federal Power Act and section 3401 of the Omnibus Budget Reconciliation Act of 1986, the Commission will assess reasonable annual charges against licensees and exemptees to reimburse the United States for the costs of administration of the Commission's hydropower regulatory program.

**(b) Scope.** The annual charges under this section will be charged to and allocated among:

- (1)** All licensees of projects of more than 1.5 megawatts of installed capacity; and
- (2)** All holders of exemptions under either section 30 of the Federal Power Act or sections 405 and 408 of the Public Utility Regulatory Policies Act of 1978, as amended by section 408 of the Energy Security Act of 1980, but only if the exemption was issued subsequent to April 21, 1995 and is for a project of more than 1.5 megawatts of installed capacity.
- (3)** If the exemption for a project of more than 1.5 megawatts of installed capacity was issued subsequent to April 21, 1995 but pursuant to an application filed prior to that date, the exemptee may credit against its annual charge any filing fee paid pursuant to § 381.601 of this chapter, which was removed effective April 21, 1995, 18 CFR 381.601 (1994), until the total of all such credits equals the filing fee that was paid.

**(c) Licenses and exemptions other than State or municipal.** For licensees and exemptees, other than State or municipal:

- (1)** A determination shall be made for each fiscal year of the costs of administration of Part I of the Federal Power Act chargeable to such licensees or exemptees, from which shall be deducted any administrative costs that are stated in the license or exemption or fixed by the Commission in determining headwater benefit payments.
- (2)** For each fiscal year the costs of administration determined under paragraph (c)(1) of this section will be assessed against such licenses or exemptee in the proportion that the annual charge factor for each such project bears to the total of the annual charge factors under all such outstanding licenses and exemptions.
- (3)** The annual charge factor for each such project shall be found as follows:
  - (i)** For a conventional project the factor is its authorized installed capacity plus 112.5 times its annual energy output in millions of kilowatt-hours.
  - (ii)** For a pure pumped storage project the factor is its authorized installed capacity.
  - (iii)** For a mixed conventional-pumped storage project the factor is its authorized installed capacity plus 112.5 times its gross annual energy output in millions of kilowatt-hours less 75 times the annual energy used for pumped storage pumping in million of kilowatt-hours.
  - (iv)** For purposes of determining their annual charges factor, projects that are operated pursuant to an exemption will be deemed to have an annual energy output of zero.

(4) To enable the Commission to determine such charges annually, each licensee whose authorized installed capacity exceeds 1.5 megawatts must file with the Commission, on or before November 1 of each year, a statement under oath showing the gross amount of power generated (or produced by nonelectrical equipment) and the amount of power used for pumped storage pumping by the project during the preceding fiscal year, expressed in kilowatt hours. If any licensee does not report the gross energy output of its project within the time specified above, the Commission's staff will estimate the energy output and this estimate may be used in lieu of the filings required by this section made by such licensee after November 1.

(5) For unconstructed projects, the assessments begin on the date by which the licensee or exemptee is required to commence project construction, or as that deadline may be extended. For constructed projects, the assessments begin on the effective date of the license or exemption, except for any new capacity authorized therein. The assessments for new authorized capacity at licensed or exempted projects begin on the date by which the licensee or exemptee is required to commence construction of the new capacity. In the event that assessments begin during a fiscal year, the charges will be prorated.

**(d) State and municipal licensees and exemptees.** For State or municipal licensees and exemptees:

(1) A determination shall be made for each fiscal year of the cost of administration under Part I of the Federal Power Act chargeable to such licensees and exemptees, from which shall be deducted any administrative costs that are stated in the license or exemption or that are fixed by the Commission in determining headwater benefit payments.

(2) An exemption will be granted to a licensee or exemptee to the extent, if any, to which it may be entitled under section 10(e) of the Act provided the data is submitted as requested in paragraphs (d) (4) and (5) of this section.

(3) For each fiscal year the total actual cost of administration as determined under paragraph (d)(1) of this section will be assessed against each such licensee or exemptee (except to the extent of the exemptions granted pursuant to paragraph (d)(2) of this section) in the proportion that the authorized installed capacity of each such project bears to the total such capacity under all such outstanding licenses or exemptions.

(4) To enable the Commission to compute on the bill for annual charges the exemption to which State and municipal licensees and exemptees are entitled because of the use of power by the licensee or exemptee for State or municipal purposes, each such licensee or exemptee must file with the Commission, on or before November 1 of each year, a statement under oath showing the following information with respect to the power generated by the project and the disposition thereof during the preceding fiscal year, expressed in kilowatt-hours:

(i) Gross amount of power generated by the project.

(ii) Amount of power used for station purposes and lost in transmission, etc.

(iii) Net amount of power available for sale or use by licensee or exemptee, classified as follows:

(A) Used by licensee or exemptee.

**(B)** Sold by licensee or exemptee.

**(5)** When the power from a licensed or exempted project owned by a State or municipality enters into its electric system, making it impracticable to meet the requirements of this section with respect to the disposition of project power, such licensee or exemptee may, in lieu thereof, furnish similar information with respect to the disposition of the available power of the entire electric system of the licensee or exemptee.

**(6)** The assessments commence on the date of commencement of project operation. In the event that project operation commences during a fiscal year, the charges will be prorated based on the date on which operation commenced.

**(e) *Transmission lines.*** For projects involving transmission lines only, the administrative charge will be stated in the license.

**(f) *Maximum charge.*** No licensed or exempted project's annual charge may exceed a maximum charge established each year by the Commission to equal 2.0 percent of the adjusted Commission costs of administration of the hydropower regulatory program. For every project with an annual charge determined to be above the maximum charge, that project's annual charge will be set at the maximum charge, and any amount above the maximum charge will be reapportioned to the remaining projects. The reapportionment will be computed using the method outlined in paragraphs (c) and (d) of this section (but excluding any project whose annual charge is already set at the maximum amount). This procedure will be repeated until no project's annual charge exceeds the maximum charge.

**(g) *Commission's costs.***

**(1)** With respect to costs incurred by the Commission, the assessment of annual charges will be based on an estimate of the costs of administration of Part I of the Federal Power Act that will be incurred during the fiscal year in which the annual charges are assessed. After the end of the fiscal year, the assessment will be recalculated based on the costs of administration that were actually incurred during that fiscal year; the actual costs will be compared to the estimated costs; and the difference between the actual and estimated costs will be carried over as an adjustment to the assessment for the subsequent fiscal year.

**(2)** The issuance of bills based on the administrative costs incurred by the Commission during the year in which the bill is issued will commence in 1993. The annual charge for the administrative costs that were incurred in fiscal year 1992 will be billed in 1994. At the licensee's option, the charge may be paid in three equal annual installments in fiscal years 1994, 1995, and 1996, plus any accrued interest. If the licensee elects the three-year installment plan, the Commission will accrue interest (at the most recent yield of two-year Treasury securities) on the unpaid charges and add the accrued interest to the installments billed in fiscal years 1995 and 1996.

**(h)** In making their annual reports to the Commission on their costs in administering Part I of the Federal Power Act, the United States Fish and Wildlife Service and the National Marine Fisheries Service are to deduct any amounts that were deposited into their Treasury accounts during that year as reimbursements for conducting studies and reviews pursuant to section 30(e) of the Federal Power Act.

**(i) *Definition.*** As used in paragraphs (c) and (d) of this section, *authorized installed capacity* means the lesser of the ratings of the generator or turbine units. The rating of a generator is the product of the continuous-load capacity rating of the generator in kilovolt-amperes (kVA) and the system power factor in kW/kVA. If the licensee or exemptee does not know its power factor, a factor of 1.0 kW/kVA will be used. The rating of a turbine is the product of the turbine's capacity in horsepower (hp) at best gate (maximum efficiency point) opening under the manufacturer's rated head times a conversion factor of 0.75 kW/hp. If the generator or turbine installed has a rating different from that authorized in the license or exemption, or the installed generator is rewound or otherwise modified to change its rating, or the turbine is modified to change its rating, the licensee or exemptee must apply to the Commission to amend its authorized installed capacity to reflect the change.

**(j) *Transition.*** For a license having the capacity of the project for annual charge purposes stated in horsepower, that capacity shall be deemed to be the capacity stated in kilowatts elsewhere in the license, including any amendments thereto.

[60 FR 15047, Mar. 22, 1995, as amended by Order 584, 60 FR 57925, Nov. 24, 1995; Order 815, 80 FR 63671, Oct. 21, 2015; Order 857, 84 FR 7991, Mar. 6, 2019]

12/12/2025

Franz & Driscoll, PLLP  
c/o Ryan McLane  
P.O. Box 1155  
Helena, MT 59624-1155

RECEIVED

DEC 17 2025

FRANZ & DRISCOLL

Subject: Completed Technical Analyses for Permit Preapplication No. 41Q 30170946

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 Beneficial Water Use Permit Preapplication No. 41Q 30170946 based on the information provided in your Preapplication Meeting Form accepted by the Department on 10/28/2025. 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 §85-2-311, 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 (§85-2-311, MCA).

**You have 180 days to submit the Beneficial Water Use Permit Application Form 600 considering the information provided in the technical analyses and Preapplication Meeting Form.** If the Application Form is not submitted to the Lewistown Regional Office by 6/10/2026, a new preapplication meeting will be required to process the Application with expedited timelines (ARM 36.12.1302(6)(b)). If any details 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,



Claire Blomquist  
New Appropriations Specialist  
Lewistown Regional Office  
406-538-7459

EXHIBIT

I



**Surface Water Permit Technical Analyses Report**  
**Department of Natural Resources and Conservation (DNRC or Department)**  
**Water Resources Division**

Claire Blomquist, New Appropriations Specialist, Lewistown Regional Office

Applicant                   NorthWestern Corporation d/b/a NorthWestern Energy

Application No.       41Q 30170946

Proposed Points of Diversion       - SWNWNW Sec. 5, T20N, R4E  
   - NWSWNW Sec. 5, T20N, R4E  
   - SENENE Sec. 6, T20N, R4E  
   - NESENE, Sec. 6, T20N, R4E

**Overview**

This report analyzes data submitted by the Applicant in support of the above-mentioned water right 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 § 85-2-311, Montana Code Annotated (MCA).

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

Overview .....1  
Variances .....2  
1.0 Application Details .....2  
2.0 Surface Water Analysis .....3  
    2.1 Source Description .....3  
    2.2 Method of Estimation .....3  
    2.3 Monthly Flow Rate and Volume .....4  
3.0 Area of Potential Impact Analysis .....5  
Review .....7  
References .....7  
Appendix A: Water Rights within the Area of Potential Impact .....8



## Variations

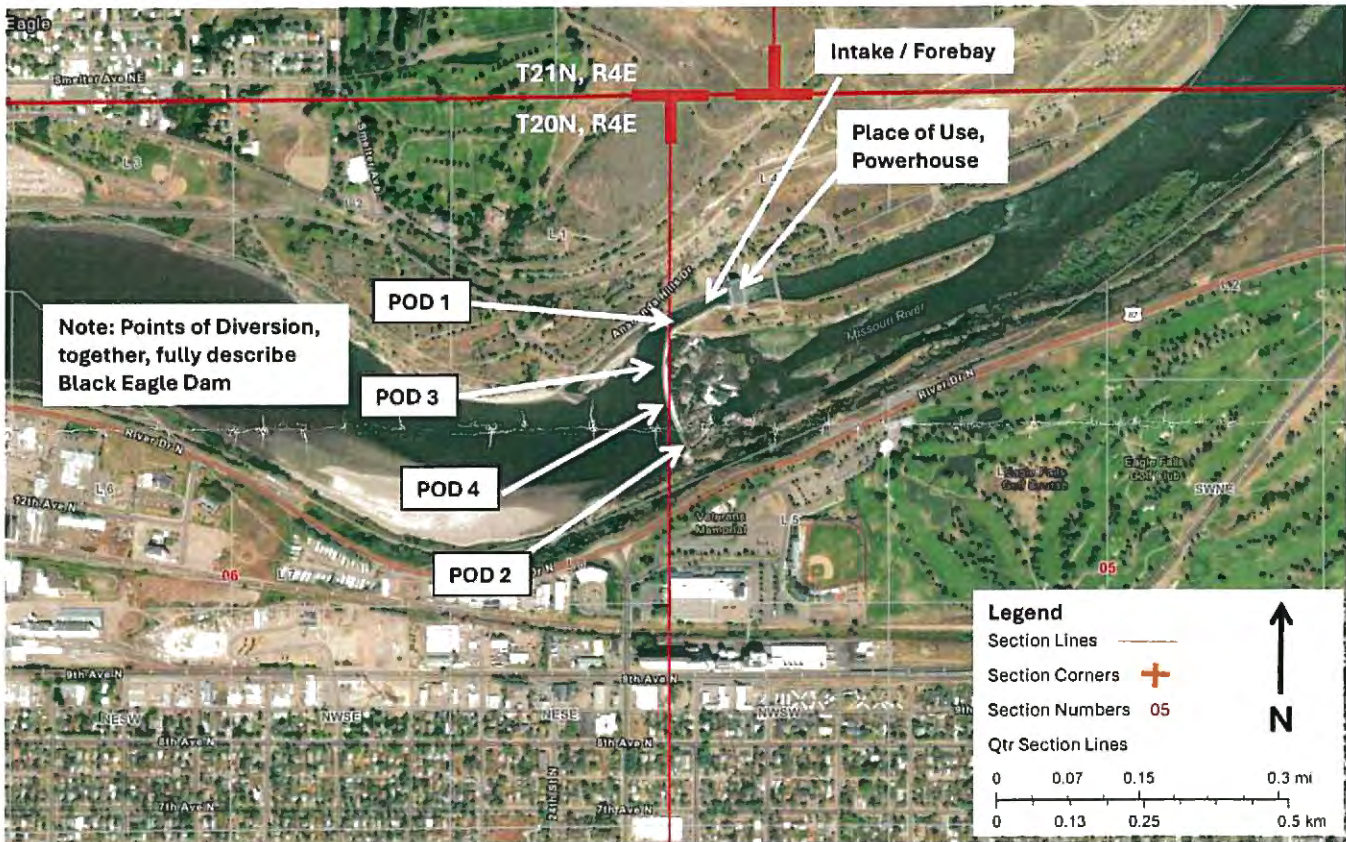
No Variance has been requested.

### 1.0 Application Details

The Applicant proposes to divert water January 1 to December 31 each year from the Missouri River at a rate of 1602 CFS for non-consumptive hydroelectric power generation. Diverted water, in the amount of 1,005,684 AF, would be used between January 1 to December 31 each year for Power Generation at NWNW Section 5, T20N, R6E (Black Eagle Dam). Applicant proposes to modify its existing Black Eagle Hydroelectric Dam to increase its power generation capacity.

Table 1. Summary of the proposed use.

Source	Flow Rate	Diverted Volume	Purpose	Period of Use	Place of Use	Points of Diversion	Period of Diversion
Missouri River	1602 CFS	1,005,684 AF	Power Generation	1/1 to 12/31	NWNW Section 5, T20N, R6E	- SWNWNW Sec. 5, T20N, R4E - NWSWNW Sec. 5, T20N, R4E - SENENE Sec. 6, T20N, R4E - NESENE, Sec. 6, T20N, R4E	1/1 to 12/31



**Figure 1:** Map of Proposed POD, POU, and Conveyance (Sections 5 and 6, T20N, R4E), as provided in Form 600-B by Applicant

## 2.0 Surface Water Analysis

### 2.1 Source Description

Proposed Source of Water: *Missouri River.*

Proposed Source Type: *Perennial.*

Proposed Points of Diversion: *The layout of Black Eagle Dam is such that it has 4 points of diversion.*

1. *SWNWNW Sec. 5, T20N, R4E, Cascade County*
2. *NWSWNW Sec. 5, T20N, R4E, Cascade County*
3. *SENESE Sec. 6, T20N, R4E, Cascade County*
4. *NESENE, Sec. 6, T20N, R4E, Cascade County*

### 2.2 Method of Estimation

Gage Name: *Missouri River Near Great Falls, MT*

Gage Number: *USGS Gage No. 06090300*



**Period of Record:** *October 1956 – December 2024*

**Why this gage is considered an appropriate data source:**

*The gage that was used in the analyses (USGS Gage # 06090300 – Missouri River near Great Falls) is the same gage that was used in previous applications of this nature and in this location. This gage has over 60 years of continuous data. The methods of analyses that the Department used are consistent with ARM 36.12.1702 (1)(a). Relying on upstream gages would require combining gage information from both the Sun River and Missouri River above Sun River, which would likely result in less accurate data. In addition, there are no major tributaries, and as seen in the following area of impact analyses, very few diversionary water rights between Black Eagle and this gage.*

### **2.3 Monthly Flow Rate and Volume**

**Methodology:** *Physical availability of Missouri River water at the PODs have been quantified monthly. Department practice for physical availability analyses where the gage used is downstream of the POD is to add the monthly flow rates of existing water rights between the gage and the POD to the median of the mean monthly flows at the gage. The DNRC used the method below to quantify physically available monthly flows and volumes at the POD during the proposed period of diversion:*

- 1. The Department calculated median of the mean monthly flow rates in cubic feet per second (CFS) for the Missouri River using USGS Gage #0690300 records for each month of the proposed period of diversion (Table 1, column A). These flows were converted to monthly volumes in AF (Table 2, column C) using the following conversion found in DNRC Water Calculation Guide: median of the mean monthly flow (CFS) × 1.98 (AF/day/1 CFS) × days per month = AF/month.*
- 2. The Department calculated the monthly flows appropriated by existing users upstream of the gage on the source (Table 2, column D) by:*
  - i. Generating a list of existing intervening water rights with consumptive use diversions from the Black Eagle Dam to USGS Gage #0690300 (list is included in the application file and available upon request);*
  - ii. Designating irrigation and lawn and garden uses as occurring from April 1 to October 1;*
    - i. While October 31 is the standard end date for lawn and garden use, the Department is using October 1 because there is only one intervening water right that has lawn and garden purpose (Statement of Claim No. 41Q 94363, owned by Northwestern Energy) and its authorized period of use/period of diversion concludes October 1.*
  - iii. Designating all other water uses as year-round uses;*
  - iv. Assigning a single combined flow rate of 0.08 CFS to all livestock direct from source rights without a designated flow rate; and,*
  - v. Assuming that the flow rate of each existing right is continuously diverted throughout each month of the period of diversion. This assumption is necessary due to the*



*difficulty of differentiating the distribution of appropriated volume over the period of diversion. This leads to an overestimation of existing uses from the source. The Department finds this an appropriate measure of assessing existing rights as it protects existing water users.*

3. *Since the gage used is downstream of the PODs, the Department added in the flow rates of the existing rights between USGS Gage #0690300 and Black Eagle Dam (Table 2, column D) to the median of the mean monthly gage values (Table 2, column B) to determine physical availability at the POD (Table 2, column E). Physically available monthly flows were then converted to monthly volumes (Table 2, column F).*

**Table 2. Physical Availability at the Black Eagle Dam (POD) on Missouri River**

A	B	C	D	E	F
Month	Median of the Mean Monthly Flow Rate (CFS) at USGS Gage #0690300	Median of the Mean Monthly Volume (AF) at USGS Gage #0690300	Existing Rights from Black Eagle Dam to USGS Gage #0690300 (CFS)	Physically Available Water at POD (CFS)	Physically Available Water at POD (AF)
January	6,039.00	370,673.82	10.55	6,049.55	390,136.03
February	6,062.00	336,077.28	10.55	6,072.55	355,539.49
March	5,992.50	367,819.65	10.55	6,003.05	387,281.86
April	7,255.00	430,947.00	11.10	7,266.10	450,443.09
May	10,075.00	618,403.50	11.10	10,086.10	637,899.59
June	11,705.00	695,277.00	11.10	11,716.10	714,773.09
July	7,249.50	444,974.31	11.10	7,249.50	464,470.40
August	5,405.00	331,758.90	11.10	5,405.00	351,254.99
September	5,185.50	308,018.70	11.10	5,185.50	327,514.79
October	5,360.00	328,996.80	10.55	5,360.00	348,459.01
November	5,562.00	330,382.80	10.55	5,562.00	349,845.01
December	5,766.00	353,917.08	10.55	5,766.00	373,379.29

*Note: Although instream flow water rights are legal demands, they do not impact the physical flow of a source, as such they have no bearing on the stream's physical availability. Therefore, the Department does not consider 'run of the river' hydropower and instream demand (Permit Application Manual, Pg. 69).*

### 3.0 Area of Potential Impact Analysis

**The Area of Potential Impact for this application is:**

*The area of potential impact is on the Mainstem of the Missouri River at Black Eagle Dam down to the nearest gage, USGS Gage # 0690300 Missouri River near Great Falls. This gage is in*



*proximity to Moroney Dam, which will serve as a significant hydrologic barrier. There are no additional water rights between the gage and Moroney Dam. A total of 21 surface water rights exist within the reach. However, according to Department standard practice, only intervening rights with consumptive use are used for calculating legal demands. There are 8 intervening water rights with consumptive use. They have legal demands in the reach totaling 10.55 CFS for the months of January through March and October through December and 11.10 CFS for the months of April through September. The list of rights can be found in **Appendix A**.*

**Why this is an appropriate Area of Potential Impact:** *The Department’s reasoning for choosing the extent of the Area of Potential Impact is part of Department standard practice of identifying a significant hydrologic barrier. The Moroney Dam serves as a significant hydrologic barrier because it is the dam furthest downstream of the Black Eagle dam and is the last of the series of five hydropower dams in the Great Falls area. It is also the location of USGS Gage # 06090300 – Missouri River near Great Falls. Flows and water use past the Moroney Dam hydrologic barrier have a less controlled flow and are distant to the Great Falls area.*

**Methodology:** *According to Department standard practice, only intervening rights with consumptive use are used for calculating legal demands. Water rights within the AOP were quantified through their appropriated volumes and flow rates. Consumptive and non-consumptive purposes were also considered. Considerations are based on Department Standard Practice for Area of Potential Impact Analysis. Methodology is based upon the point of diversion located above or below one stream gage with intervening water rights, based on water rights between the point of diversion and the downstream gage and hydrologic barrier.*



## **Review**

This document has been reviewed by the Department on December 8, 2025.

## **References**

Department Standard Practice for Determining Physical Availability of Surface Water  
Department Standard Practice for Area of Potential Impact Analysis  
Department Permit Application Manual (Revised February 14, 2025)



## **Appendix A: Water Rights within the Area of Potential Impact**



Existing Water Rights between Black Eagle and USGS Gage 06090300						
Water Right No.	Priority Date	Owners	Purposes	Period of Diversion	Maximum Flow	Maximum Volume (AF/YR)
<b>Instream Rights</b>						
41Q 94354 00	1892/06/01	NWE	POWER GEN.	1/1-12/31	3300 CFS	2,389,200.00
41Q 94355 00	1893/12/31	NWE	POWER GEN.	1/1-12/31	900 CFS	651,600.00
41Q 94356 00	8/31/1927	NWE	POWER GEN.	1/1-12/31	560 CFS	405,440.00
41Q 94359 00	12/31/1912	NWE	POWER GEN.	1/1-12/31	280 CFS	202,720.00
41Q 94358 00	9/16/1908	NWE	POWER GEN.	1/1-12/31	3500 CFS	2,533,884.00
41Q 94360 00	7/1/1917	NWE	POWER GEN.	1/1-12/31	1640 CFS	1,187,306.00
41Q 94361 00	3/26/1958	NWE	POWER GEN.	1/1-12/31	480 CFS	292,000.00
41Q 30042060	5/13/2008	NWE	POWER GEN.	1/1-12/31	2380 CFS	466,007.00
41Q 94365 00	6/16/1955	NWE	POWER GEN.	1/1-12/31	10000 CFS	7,240,000.00
41Q 94367 00	8/31/1915	NWE	POWER GEN.	1/1-12/31	5900 CFS	4,271,600.00
41Q 30148072	1/27/2020	NWE	POWER GEN.	1/1-12/31	1300 CFS	941,200.00
41Q 94396 00	12/20/1928	NWE	POWER GEN.	1/1-12/31	8280 CFS	5,994,720.00
41Q 30017520	7/1/1985	MT FWP	FISHERY	1/1-12/31	3876 CFS	2,805,904.69
<b>Stored / Diverted Rights</b>						
41Q 94357 00	8/31/1927	NWE	STORAGE	1/1-12/31	n/a	29,480.00
41Q 94362 00	9/16/1908	NWE	STORAGE	1/1-12/31	n/a	8,507
41Q 94363 00	9/16/1908	NWE	LAWN & GARDEN	4/1-10/1	250 GPM	203.3
41Q 94366 00	6/16/1955	NWE	STORAGE	1/1-12/31	n/a	54,779.00
41Q 94368 00	8/31/1915	NWE	STORAGE	1/1-12/31	n/a	52,808.00
41Q 94397 00	12/20/1928	NWE	STORAGE	1/1-12/31	n/a	81,947.00
41K 71890 00	7/1/1985	GREAT FALLS	MUNICIPAL	1/1-12/31	4,700 GPM	6,022.00
41Q 202344 00	1892/10/24	URQUHART	STOCK (L.D.S.)	1/1-12/31	35 GPM	3.50
				<b>Totals</b>	<b>1/1-3/31,</b>	<b>19,462.2 AF / Mo</b>
					<b>10/1-12/31</b>	
					<b>4/1-10/1</b>	<b>19,496.1 AF / Mo</b>



**MEMORANDUM**

TO: Corrections to the Technical Analyses concerning Permit Application No. 41Q 30170946

FROM: Claire Blomquist, Water Resource Specialist, Lewistown Regional Office

SUBJECT: Original Technical Analyses concerning Permit Application No. 41Q 30170946 is corrected

DATE: 3/30/2026

Corrections to the Technical Analyses concerning Permit Application No. 41Q 30170946 have been made as detailed below.

1. Under “1.0 Application Details” the Place of Use had been incorrectly labeled as R6E (indicating Range 6 East) within the paragraph description, and Table 1. As clearly shown in the labeled map in Figure 1 of the Technical Analyses, the location of the Place of Use is within section 5 of Township 20 North, Range 4 East.
  - a. **Correction:** Diverted water, in the amount of 1,005,684 AF, would be used between January 1 to December 31 each year for Power Generation at NWNW Section 5, T20N, R4E (Black Eagle Dam).
  - b. **Correction:**

Source	Flow Rate	Diverted Volume	Purpose	Period of Use	Place of Use	Points of Diversion	Period of Diversion
Missouri River	1,602 CFS	1,005,684 AF	Power Generation	1/1 to 12/31	NWNW Section 5, T20N, R4E	- SWNWNW Sec. 5, T20N, R4E - NWSWNW Sec. 5, T20N, R4E	1/1 to 12/31



						- SENENE Sec. 6, T20N, R4E - NESENE, Sec. 6, T20N, R4E	
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2. Number 3 of section “2.3 Monthly Flow Rate and Volume” is in the Technical Analysis states, “Physically available monthly flows were then converted to monthly volumes (Table 2, column F).” While true, in reviewing calculation methods, it is beneficial to specify further.

a. **Correction:** Physically available monthly flows at the gage were then converted to monthly volumes and storage volumes are accounted for by adding them to the median of the mean monthly volume. (Table 2, column F).

3. An error in section “2.3 Monthly Flow Rate and Volume” is in the Technical Analysis within *Table 2. Physical Availability at the Black Eagle Dam (POD) on Missouri River*. Within the table, months July through October, Column E did not include Existing Rights from Black Eagle Dam to USGS Gage #0690300 (CFS). Figures from months July through October have been corrected in the table below.

a. **Correction:**

A	B	C	D	E	F
Month	Median of the Mean Monthly Flow Rate (CFS) at USGS Gage #0690300	Median of the Mean Monthly Volume (AF) at USGS Gage #0690300	Existing Rights from Black Eagle Dam to USGS Gage #0690300 (CFS)	Physically Available Water at POD (CFS)	Physically Available Water at POD (AF)
January	6,039.00	370,673.82	10.55	6,049.55	390,136.03
February	6,062.00	336,077.28	10.55	6,072.55	355,539.49
March	5,992.50	367,819.65	10.55	6,003.05	387,281.86
April	7,255.00	430,947.00	11.10	7,266.10	450,443.09
May	10,075.00	618,403.50	11.10	10,086.10	637,899.59



June	11,705.00	695,277.00	11.10	11,716.10	714,773.09
July	7,249.50	444,974.31	11.10	7,260.60	464470.40
August	5,405.00	331,758.90	11.10	5,416.10	351254.99
September	5,185.50	308,018.70	11.10	5,196.60	327514.79
October	5,360.00	328,996.80	10.55	5,370.55	348459.01
November	5,562.00	330,382.80	10.55	5,572.55	349845.01
December	5,766.00	353,917.08	10.55	5,776.55	373379.29





**CRITERIA ADDENDUM APPLICATION FOR BENEFICIAL WATER USE PERMIT  
FOR APPROPRIATIONS GREATER THAN 5.5 CFS AND 4,000 AF  
§85-2-311(3), MCA**

The information requested by this Form 600-B is supplemental to the required permit application (Form 600). This addendum must be completed, and the required information attached to a change application, if the application is to change the purpose of use or place of use of an appropriation of 4,000 or more acre-feet of water a year and 5.5 or more cubic feet per second. It is the applicant's responsibility to provide credible, relevant, and factual information that meets the standard of **clear and convincing evidence** upon which the Department may rely to support the issuance of a provisional permit.

**Section 85-2-311(3), MCA**, provides the Department may not approve a water use permit for an appropriation of 5.5 CFS or greater and 4,000 AC-FT of water unless the applicant proves by **clear and convincing evidence** that the criteria are met for permit issuance pursuant to §85-2-311(1) and that the proposed appropriation is a reasonable use based on consideration of the elements listed in §85-2-311(3)(b) (i-vi).

***MARKETING/ EXCESS APPROPRIATION:** If the water applied for is to be appropriated in excess of that which will be solely used by the applicant or if it will be marketed by the applicant to other users, a Form 600/606-WMA must also be submitted.*

***OUT-OF-STATE:** For out-of-state water use, a Form 600/606-OSA must be submitted.*

It is your responsibility to obtain any necessary easement or right-of-way. If public lands are involved, such as State of Montana or BLM, contact the appropriate agency. The water right may need to be in their name.

---

**ON A SEPARATE ATTACHMENT, PROVIDE CLEAR AND CONVINCING EVIDENCE PROVING THAT THE PROPOSED APPROPRIATION IS A REASONABLE USE BASED ON CONSIDERATION OF THE FOLLOWING (§85-2-311(3)(b), MCA):**

- i. The existing demands on the State water supply as well as projected demands of water for future beneficial purposes including municipal water supplies, irrigation systems, and minimum streamflows for the protection of existing water rights and aquatic life;
- ii. The benefits of the proposed use to the applicant and the State of Montana;
- iii. The effects on the quantity and quality of water for existing uses in the source of supply;
- iv. The availability and the feasibility of using low-quality water (meaning not potable for human consumption) for the purpose for which the application has been made;
- v. The effect on private property rights by any creation of or contribution to saline seep; and
- vi. The probable significant adverse environmental impacts of the proposed use of water.



**ATTACHMENT TO FORM NO. 600B CRITERIA ADDENDUM APPLICATION  
FOR BENEFICIAL WATER USE PERMIT FOR APPROPRIATIONS  
GREATER THAN 5.5 CFS AND 4,000 AC-FT**

**NorthWestern Energy Corporation, Application No. 41Q 30170946**

NorthWestern Corporation d/b/a as NorthWestern Energy (NWE) proposes to modify its existing Black Eagle Hydroelectric Development (“Black Eagle”) by increasing its power generation capacity. This expansion requires a water right for an additional 1,602 cubic feet second (CFS) of water up to 1,005,684 acre feet per year, as set forth in NWE’s Pre-Application Form 600P-A, executed May 27, 2025, and assigned DNRC application no. 41Q 30170946.

Pursuant to MCA 85-2-311(3)(b), as implemented through DNRC Form No. 600-B (11/2024), and as submitted with the Form 600P-B Responses, NWE responds as follows:

**Show the proposed appropriation is a reasonable use based on consideration of the following:**

- i. Describe the existing demands on the State water supply as well as projected demands of water for future beneficial purposes including municipal water supplies, irrigation systems, and minimum streamflows for the protection of existing water rights and aquatic life.**

Clear and convincing data indicates that this appropriation will not impact the existing or future legal demands associated with beneficial uses on the source of supply. Furthermore, NWE’s proposed appropriation is non-consumptive, and such water will remain available for downstream existing and future demands and beneficial uses. Accordingly, the proposed appropriation is a reasonable use.

As part of this application, the Department will make a final determination of legal availability as well as physical availability under its rules and procedure of ARM 36.12.1303, ARM 36.12.1702, and ARM 36.12.1704. That analysis includes the determination of legal demands on the source of supply as required under MCA § 85-2-311(1)(a), which includes existing perfected water rights, and water reservations, and permits that have not yet been completed.

However, as part of the pre-application process, the DNRC has already identified all existing legal demands on the Missouri River within the zone of potential impact, and made a determination of the physical availability of water. The DNRC’s determinations of legal demands and physical availability of water are set forth in the DNRC’s *Surface Water Permit Technical Analyses Report, Application No. 41Q 30170946* (Amended Mar 30, 2026). This report is attached as **Exhibit I** to the Form 600 responses for this application.

NWE has reviewed the DNRC’s *Surface Water Permit Technical Analyses Report, Application No. 41Q 30170946* (Amended Mar 30, 2026), as well as independently conducting its own analysis of legal demands and physical availability. As set forth below, NWE has reached the same conclusions regarding legal demands and physical availability as DNRC’s *Surface Water*

*Permit Technical Analyses Report, Application No. 41Q 30170946 (Amended Mar 30, 2026).*

Based on these determinations of physical availability and legal demands, NWE has conducted its own analyses of legal availability under the operable rules and statutes and determined that the requested flow rate and volume of sought in this application is legally available in every month of the year. This analysis is also set forth below.

In sum, the following sets forth that water is physically and legally available to this appropriation, and existing and future demands on the Missouri River will not be impacted.

### ***Surface Water Availability***

Water is physically available in the amount requested. USGS Gage No. 0690300 Missouri River near Great Falls, MT is the nearest downstream gage measuring flow on the Missouri River. NWE has been relying on this gage for the operations of its Great Falls area dams, including Black Eagle, for many years. In addition, there are no major tributaries, and as seen in the following area of impact analyses, very few diversionary water rights between Black Eagle and this gage.

Because the confluence of the Sun River and Missouri River is located upstream of Black Eagle Dam, determining water availability based on upstream dams would require the review of both gaging stations on the Sun River and the Missouri River upstream of Black Eagle. Due to this fact reliance on the USGS gage 06090300 is most appropriate in this circumstance.

The available monthly data for gage 0690300 exists from October of 1956 through the present. The monthly data for this gage (as calculated through December 31, 2024) is set forth below in the attached Table 4. A summary of the median of the mean monthly values from this gage are set forth on the following Table 1, prepared by the DNRC as part of its preapplication review process of this application.

**Table 1.** Physical Availability at Black Eagle Dam (POD) on Missouri River

A	B	C	D	E	F
Month	Median of the Mean Monthly Flow Rate (CFS) at USGS Gage #0690300	Median of the Mean Monthly Volume (AF) at USGS Gage #0690300	Existing Rights from Black Eagle Dam to USGS Gage #0690300 (CFS)	Physically Available Water at POD (CFS)	Physically Available Water at POD (AF)
January	6,039.00	370,673.82	10.55	6,049.55	390,136.03
February	6,062.00	336,077.28	10.55	6,072.55	355,539.49
March	5,992.50	367,819.65	10.55	6,003.05	387,281.86
April	7,255.00	430,947.00	11.10	7,266.10	450,443.09
May	10,075.00	618,403.50	11.10	10,086.10	637,899.59
June	11,705.00	695,277.00	11.10	11,716.10	714,773.09
July	7,249.50	444,974.31	11.10	7,260.60	464470.40
August	5,405.00	331,758.90	11.10	5,416.10	351254.99
September	5,185.50	308,018.70	11.10	5,196.60	327514.79
October	5,360.00	328,996.80	10.55	5,370.55	348459.01
November	5,562.00	330,382.80	10.55	5,572.55	349845.01
December	5,766.00	353,917.08	10.55	5,776.55	373379.29

*Surface Water Permit Technical Analyses Report, Application No. 41Q 30170946 (Amended Mar 30, 2026)*

Pursuant to DNRC rule & practice, the physical availability of water at Black Eagle is calculated by (1) determining the median of the mean monthly flow from the nearest stream gage (Columns A and B in Table 1) and (2) adding to this flow the amount of water diverted (maximum monthly flow rate and volume) for each existing diversionary water right located between that stream gage and Black Eagle dam (Table 2, below). This results in the amount of water available at Black Eagle Dam, (Columns D and E in Table 1).

Table 1 that there is over 1,602 CFS physically available in every month of the year at Black Eagle, and that there is over 1,005,684 acre feet/year available at Black Eagle, and 83,807 AF/month (the monthly average) available in every month of the year at Black Eagle.

Moreover, it should be noted that the flow rates and volumes in Table 1 represent median of the mean flows (e.g. a measurement of ‘average’) and this proposed water right will be able to operate and maximize the beneficial use of the flows whenever the amount requested, or some

portion of that amount, is available regardless of the ‘average’ monthly flow rates experienced at Black Eagle.

***Existing and Future Demands on the Source / Area of Impact.***

Under DNRC statute and rule, the area of potential impact is the mainstem of Black Eagle Dam down to the next nearest gage, USGS Gage No. 06090300 Missouri River near Great Falls, MT. As the DNRC’s technical analysis also found, because of the significant retiming of flows on the Missouri River by Black Eagle Dam (as well as the other significant chain of hydropower dams between Black Eagle and USGS Gage 06090300) the area of potential impact need not look further upstream than Black Eagle Dam. NWE agrees with this area of potential impact. The water rights located within this area of potential impact represent both existing legal demands on the Missouri River, but would also include any other water reservations and/or permits that have yet to be completed (e.g. future demands on the source).

Upon reviewing all water rights, existing demands and future demands, in this proposed area of impact, NWE has located the following 21 water rights as set forth on the following Table 2:

<b>Table 2. Existing Water Rights between Black Eagle and USGS Gage 06090300</b>						
<b>Water Right No.</b>	<b>Priority Date</b>	<b>Owners</b>	<b>Purposes</b>	<b>Period of Diversion</b>	<b>Maximum Flow</b>	<b>Maximum Volume (AF/YR)</b>
<b>Instream Rights</b>						
41Q 94354 00	1892/06/01	NWE	POWER GEN.	1/1-12/31	3300 CFS	2,389,200.00
41Q 94355 00	1893/12/31	NWE	POWER GEN.	1/1-12/31	900 CFS	651,600.00
41Q 94356 00	8/31/1927	NWE	POWER GEN.	1/1-12/31	560 CFS	405,440.00
41Q 94359 00	12/31/1912	NWE	POWER GEN.	1/1-12/31	280 CFS	202,720.00
41Q 94358 00	9/16/1908	NWE	POWER GEN.	1/1-12/31	3500 CFS	2,533,884.00
41Q 94360 00	7/1/1917	NWE	POWER GEN.	1/1-12/31	1640 CFS	1,187,306.00
41Q 94361 00	3/26/1958	NWE	POWER GEN.	1/1-12/31	480 CFS	292,000.00
41Q 30042060	5/13/2008	NWE	POWER GEN.	1/1-12/31	2380 CFS	466,007.00
41Q 94365 00	6/16/1955	NWE	POWER GEN.	1/1-12/31	10000 CFS	7,240,000.00
41Q 94367 00	8/31/1915	NWE	POWER GEN.	1/1-12/31	5900 CFS	4,271,600.00
41Q 30148072	1/27/2020	NWE	POWER GEN.	1/1-12/31	1300 CFS	941,200.00
41Q 94396 00	12/20/1928	NWE	POWER GEN.	1/1-12/31	8280 CFS	5,994,720.00
41Q 30017520	7/1/1985	MT FWP	FISHERY	1/1-12/31	3876 CFS	2,805,904.69
<b>Stored / Diverted Rights</b>						
41Q 94357 00	8/31/1927	NWE	STORAGE	1/1-12/31	n/a	29,480.00
41Q 94362 00	9/16/1908	NWE	STORAGE	1/1-12/31	n/a	8,507
41Q 94363 00	9/16/1908	NWE	LAWN & GARDEN	4/1-10/1	250 GPM	203.3
41Q 94366 00	6/16/1955	NWE	STORAGE	1/1-12/31	n/a	54,779.00
41Q 94368 00	8/31/1915	NWE	STORAGE	1/1-12/31	n/a	52,808.00
41Q 94397 00	12/20/1928	NWE	STORAGE	1/1-12/31	n/a	81,947.00
41K 71890 00	7/1/1985	GREAT FALLS	MUNICIPAL	1/1-12/31	4,700 GPM	6,022.00

41Q 202344 00	1892/10/24	URQUHART	STOCK (L.D.S.)	1/1-12/31	35 GPM	3.50
<b>Totals</b>				<b>1/1-3/31, 10/1-12/31</b>	<b>10.6 CFS</b>	<b>19,462.2 AF / Mo</b>
				<b>4/1-10/1</b>	<b>11.1 CFS</b>	<b>19,496.1 AF / Mo</b>

As can be seen in Table 2, there are 13 instream, nonconsumptive, direct flow water rights located between Black Eagle and USGS stream gage site 06090300. Collectively, they represent over 42,000 CFS, and over 29 million AF/Year of existing nonconsumptive demands. Because the new appropriation proposed herein is nonconsumptive, none of these instream rights will be impacted by the proposed appropriation.

Furthermore, between January 1 and March 31, and between October 1 and December 31, there are 10.6 CFS and 19,462.2 AF/Mo claimed to be diverted and used between Black Eagle and USGS stream gage site 06090300. Between April 1 and October 1 there are 11.1 CFS and 19,479.2 AF/Mo claimed to be diverted and used between Black Eagle and USGS stream gage site 06090300. The total flow rates of the existing water rights in Table 2 are depicted in Column D of Table 1. The total volumes associated with the existing water rights in Table 2 are not given their own column in Table 1, but they are included in the totals listed in Column F of Table 1 (e.g. Column F is the sum of the median of the mean monthly volume (Column C) and the applicable monthly volume of the stored rights from Table 2).

***Legal Availability of Water in Consideration of Demands on the Source***

Pursuant to DNRC rule and practice, legal availability of water at Black Eagle is determined by subtracting existing maximum diversionary demands (See Table 2)(e.g. the legal demands on the source) from DNRC’s calculation of physical availability of water on the source (See Table 1). Under that analysis, water is legally available in every month of the year in the amount requested (1,602 CFS and 1,005,684 AF/YR) at Black Eagle. This can be seen in the following Table 3:

<b>Table 3. Legal Availability at Black Eagle</b>						
	Physical Availability (At Black Eagle) (CFS)	Existing Legal Demand (CFS)	Physical minus Legal (CFS)	Physical Availability (At Black Eagle)(AF)	Existing Legal Demand (AF)	Physical minus Legal (AF)
Jan	6,049.55	10.55	6,039.0	390,136.36	19,462.2	370,673.82
Feb	6,072.55	10.55	6,062.0	355,539.49	19,462.2	336,077.28
Mar	6,003.55	10.55	5,992.5	387,281.86	19,462.2	367,819.65
Apr	7,266.1	11.1	7,255.0	450,443.09	19,496.1	430,947.00
May	10,086.1	11.1	10,075.0	637,899.59	19,496.1	618,403.50
Jun	11,716.1	11.1	11,705.0	714,773.09	19,496.1	695,277.00
Jul	7,260.6	11.1	7,249.5	464,470.40	19,496.1	444,974.31
Aug	5,416.1	11.1	5,405.0	351,254.99	19,496.1	331,758.90
Sep	5,196.6	11.1	5,185.5	327,514.79	19,496.1	308,018.70

Oct	5,370.6	10.55	5,360.0	348,459.01	19,462.2	328,996.80
Nov	5,572.6	10.55	5,562.0	349,845.01	19,462.2	330,382.80
Dec	5,776.6	10.55	5,766.0	373,379.29	19,462.2	353,917.08
Total				5,170,468.0	233,749.8	4,936,718.2

Moreover, this application proposes a nonconsumptive water right. It is located at an existing instream diversion structure with existing water rights associated with the right. Under this appropriation an additional quantity of water would be routed through the Black Eagle intakes, penstock and turbines to generate power, and immediately thereafter routed back into the Missouri River through the tailrace which discharges immediately below the dam. Currently, this additional amount of water spills over the dam. The proposed appropriation will not change the time, amount, or location of any water flowing in the Missouri River. Accordingly, any water in the stream will be legally available to use under the circumstances of this specific new appropriation, and will have no effect on other existing water rights. Any use of this water will not interfere with, or diminish, water legally available to downstream existing water rights.

However, in the very unlikely situation that NWE would be required to bypass this water over the Black Eagle Dam spillway, rather than beneficially use it through its intake/powerhouse, NWE is physically able to do so. While such action would reduce NWE’s ability to generate additional electricity, NWE would still be able operate the facility at flow rates lower than the maximum amount sought herein. NWE is able to make such adjustments through the intake structure, as conditions on the river change.

In addition, the upgrades at Black Eagle will have no impact on existing and projected demand for water use upstream of the development. Black Eagle is one of five dams located in the Great Falls area. Two of these dams, Cochrane and Morony, are located downstream of Black Eagle already have water rights exceeding the proposed maximum flow rates of all water rights for Black Eagle, including this proposed appropriation. *See* Table 2, Water Right Nos. 41Q 94365 00 and 41Q 94396 00. Accordingly, the additional nonconsumptive water use at Black Eagle proposed in this application will not affect the legal availability of water upstream from the Great Falls dams, as Cochrane and Morony are already entitled to this same water.

**ii. The benefits of the proposed use to the applicant and the State of Montana.**

Power generation is specifically recognized as a beneficial use of water at MCA § 85-2-102(4)(a). The Federal Energy Regulatory Commission (FERC) has authorized the proposed improvements to the turbines and generators at Black Eagle Dam, allowing NWE to operate the hydropower generation facilities at Black Eagle at higher flow rates and volumes as requested in this application. Under this proposed appropriation, NWE will utilize water that is currently spilled over the dam to generate additional hydroelectric power at Black Eagle. After these upgrades are complete, Black Eagle will have an authorized installed capacity of 23.90 MW<sup>1</sup> of electricity at Black Eagle. As shown in **Exhibit F** of the Form 600P-A responses, each of the two new turbines at Black Eagle have a maximum power output rating of 9,058 kW. With the

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<sup>1</sup> FERC authorizations are based on “best efficiency” ratings as opposed to the actual maximum rated output. *See* Attachment to Form 600P-A, p.2, fn1 of this application.

newly installed turbines and generator rewinds, the maximum plant capacity at Black Eagle will be 25 MW. The improvements at two of the three turbines/generators will result in a maximum capacity of 2,481 CFS each, which combined with the third existing 1,680 CFS turbine, results in a total maximum plant capacity of 6,642 CFS. Since NWE has existing water rights at Black Eagle for 5,040 CFS, an addition of 1,602 CFS up to 1,005,684 acre-feet per year is required.

NorthWestern supplies electric supply to residential, commercial, and industrial customers in Montana, and is regulated by the Montana Public Service Commission. Hydropower generated at Black Eagle is among the portfolio of electricity production facilities supplying Montana customers.

The expanded hydroelectric development is one of the most economic and environmentally accepted plans to meet future power requirements. The electric power generated from renewable water power resources is beneficial because it offsets the use of fossil-fuel, steam-electric generating plants, thereby conserving nonrenewable resources and reducing atmospheric pollution.

The expanded generation will non-consumptively use water that is currently spilled (passed on downstream). The expanded operation is consistent with federal and state comprehensive plans for improving, developing or conserving the waterway affected by the development.

The upgrades at Black Eagle will create short-term increases in employment and long-term continuations of existing employment, income, and tax revenues. The increased generation resulting from Black Eagle will increase property tax payments to Cascade County and the State of Montana.

**iii. The effects on the quantity and quality of water for existing uses in the source of supply.**

The proposed water use at Black Eagle is non-consumptive and will not result in depletions of stream flows; and will not affect the quantity or quality of water for existing uses.

Section 401 of the Clean Water Act prevents FERC from issuing a license or permit that may result in a discharge from the project unless the water quality certifying agency either has issued water quality certification for the project or has waived certification by failing to act on a request for certification. The 2020 FERC Order at ¶ 7 (attached as **Exhibit A** to the responses to Form 600P-A) states the Montana Department of Environmental Quality (MDEQ) provided an email stating it had no comments on the proposed project. The Montana Department of Natural Resources and Conservation (DNRC) had no comment other than a request that NWE file this present application for Beneficial Water User Permit. The 2022 FERC Order at ¶ 8 (attached as **Exhibit B** to the responses to Form 600P-A) states MDEQ provided an email stating that no further conditioning is required under the existing Section 401 Water Quality Certificate pertaining to Black Eagle. The Montana Department of Natural Resources and Conservation (DNRC) had no comment other than a request that NWE file this present application for Beneficial Water User Permit.

**iv. The availability and the feasibility of using low-quality water (meaning not potable for human consumption) for the purpose for which the application has been made.**

All of the water in the Missouri River, up to the capacity of the turbines, is used to generate power at Black Eagle. While the project uses water from the source without requirements as to water quality for the purpose of power generation, the location and nature of the non-consumptive operation does not allow for the introduction and use of low-quality water.

**v. The effect on private property rights by any creation of or contribution to saline seep.**

There are no identified impacts from saline seep.

**vi. The probable significant adverse environmental impacts of the proposed use of water.**

The FERC Amendments for Black Eagle approved in 2020 and 2022 (*See Exhibits A and B* of the Form 600P-A Responses) authorized the installation of two new turbines and two generator rewinds, with no changes to the third existing turbine and generator.

As part of these approvals, FERC was required to undertake an environmental review. The 2020 FERC Order at ¶ 10 and the 2022 FERC Order at ¶ 29 state the installation of the new turbines and the new generator rewinds will not have any appreciable effect on any environmental or cultural resources within the project area. Moreover, FERC concluded the proposed amendments do not affect environmental resources beyond those previously analyzed at the project. 2020 FERC Order at ¶ 10; 2022 FERC Order at ¶ 17.

The previous analysis FERC was referring to, occurred as part of the Missouri-Madison Project which was approved by the FERC 2000 relicensing order. In its 2000 relicensing order, FERC concluded:

Operating and maintaining the project in the manner required by the license will protect and enhance fish and wildlife resources, water quality, recreational, and cultural resources. The electric power generated from renewable water power resources will be beneficial because it will continue to offset the use of fossil-fuel, steam-electric generating plants, thereby conserving nonrenewable resources and reducing atmospheric pollution. With this project providing the infrastructure for a total generating capacity of 326.9 MW, using the Oak Ridge Competitive Electricity Dispatch model, it is estimated that approximately 300,000 metric tons of greenhouse gas emissions may be avoided annually. We find, therefore, that the Missouri Madison Hydroelectric Project, with the required measures, is best adapted to a comprehensive plan for the use, conservation, and development of the waterway for beneficial public purposes.

Moreover, the environmental effects of the Missouri-Madison Project 2188, were assessed in a

Final Environmental Impact Statement (FEIS) issued by the FERC Office of Hydropower Licensing in September 1999.<sup>2</sup>

Accordingly, the 2020 and 2022 FERC Orders' environmental review of the Black Eagle Development has concluded that the Black Eagle Development will not appreciably effect any environmental or cultural resource, and that the prior 1999 FEIS issued by FERC accurately documents all environmental impacts. The Montana Department of Natural Resources and Conservation (DNRC) also participated in the environmental review and intervened in the FERC relicensing process.

For all of these reasons, and in compliance with the Montana Environmental Policy Act, DNRC should adopt the 1999 FEIS and FERC's subsequent conclusion that the license amendments authorized in the 2020 and 2022 FERC orders do not result in any appreciable effects on the environment and occur within the existing Black Eagle facilities.

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<sup>2</sup> The voluminous 1999 FEIS is already in DNRC's possession and thus has not attached it to these responses. A copy will, however, be provided upon request.

**Table 4, Full Record of USGS Gage Data, Monthly Mean.****USGS 06090300 Missouri River near Great Falls MT**

YEAR	Monthly mean in ft3/s (Calculation Period: 1956-10-01 -> 2024-12-31)											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1956										5,149	5,157	5,315
1957	5,050	6,077	6,064	5,791	7,271	13,760	6,268	5,084	5,175	5,275	5,335	5,766
1958	6,020	6,073	5,755	6,735	9,891	11,200	8,372	5,476	5,481	5,571	5,411	5,045
1959	4,821	4,535	5,207	4,751	10,190	15,730	7,182	3,948	3,109	6,022	10,310	11,520
1960	4,741	4,343	4,723	8,639	12,110	9,359	4,490	4,616	4,733	5,179	4,995	4,828
1961	5,191	5,590	4,021	3,526	4,454	5,091	4,336	4,803	4,258	4,096	5,275	5,421
1962	5,387	5,226	5,921	5,286	7,942	13,150	5,397	5,396	5,276	5,755	5,457	4,760
1963	5,218	6,548	5,134	4,678	8,365	17,160	7,247	4,816	5,077	5,392	5,609	5,538
1964	5,210	5,116	4,841	4,708	13,410	30,160	11,070	5,390	5,405	5,390	5,975	6,249
1965	6,796	7,414	7,459	10,310	16,170	20,110	14,090	6,119	8,086	11,940	10,430	6,897
1966	6,382	5,914	7,461	7,769	8,151	6,226	4,807	4,698	3,892	4,035	4,182	6,158
1967	7,296	7,792	7,605	6,268	10,210	25,660	12,790	6,858	5,772	5,439	5,680	5,830
1968	7,212	7,771	10,820	9,193	10,690	14,700	8,896	6,730	6,377	7,828	7,633	6,634
1969	7,522	8,093	9,909	13,140	14,430	13,080	13,730	6,833	5,550	5,372	6,050	6,670
1970	6,643	6,814	6,819	8,717	17,450	19,420	10,980	7,407	6,332	6,404	7,591	7,047
1971	8,232	9,048	8,861	12,530	21,510	15,450	12,340	7,450	7,172	7,542	6,910	6,438
1972	7,424	8,153	8,639	10,130	14,090	16,100	8,950	7,598	7,510	7,596	7,296	7,034
1973	6,555	6,278	4,986	4,598	6,025	6,702	5,889	4,329	3,866	4,921	6,194	6,340
1974	7,009	6,946	7,131	8,298	10,120	18,630	9,705	7,291	6,342	5,489	4,921	6,182
1975	6,898	6,880	8,126	9,431	20,200	28,790	23,560	9,090	8,028	8,484	10,110	9,449
1976	7,902	7,786	8,643	13,200	24,780	17,500	9,742	7,524	7,018	7,106	7,152	7,205
1977	6,887	6,819	5,548	6,094	5,771	3,758	3,817	4,390	3,825	4,626	5,593	6,255
1978	6,771	7,650	9,846	8,975	14,740	13,790	12,380	7,676	7,270	5,911	6,824	6,792
1979	7,201	6,920	8,653	9,365	11,760	9,385	5,733	5,296	4,716	4,580	4,416	5,526

<b>1980</b>	6,156	5,643	5,921	7,020	9,374	21,520	9,710	6,159	4,508	5,919	6,432	6,496
<b>1981</b>	6,884	7,429	7,389	6,102	15,970	24,900	8,697	6,092	4,681	4,520	5,562	6,144
<b>1982</b>	7,172	8,120	8,139	9,076	12,440	22,050	15,240	7,587	5,979	6,690	7,315	6,941
<b>1983</b>	7,625	7,592	8,121	8,019	10,900	10,100	12,970	7,591	6,249	6,984	8,896	6,960
<b>1984</b>	7,765	7,487	7,751	8,468	11,840	17,700	12,310	8,253	9,992	8,165	7,345	6,955
<b>1985</b>	7,023	6,938	6,793	7,392	8,789	5,757	3,904	4,345	4,467	7,130	7,493	6,654
<b>1986</b>	6,576	7,034	7,665	8,351	11,750	11,540	7,344	6,128	5,945	5,655	7,299	7,027
<b>1987</b>	6,856	5,813	5,578	6,159	5,970	4,772	5,253	4,638	4,655	4,238	5,001	4,815
<b>1988</b>	5,159	5,039	4,706	4,795	5,915	4,708	4,014	3,719	3,962	3,829	4,245	4,036
<b>1989</b>	4,854	5,337	6,972	7,445	10,670	8,624	5,057	4,815	4,685	4,719	5,581	6,266
<b>1990</b>	6,173	6,668	6,508	7,570	7,284	7,985	5,005	5,189	4,884	4,299	4,431	5,264
<b>1991</b>	6,208	5,695	4,707	5,359	10,920	13,810	7,915	5,834	5,595	5,171	5,106	5,739
<b>1992</b>	5,857	5,754	5,130	4,285	4,464	4,673	4,348	3,844	3,834	3,973	3,950	3,996
<b>1993</b>	5,010	4,871	5,098	5,567	12,180	14,470	13,520	9,946	9,185	7,939	7,309	7,348
<b>1994</b>	7,128	6,344	6,537	7,766	8,591	5,328	4,607	4,126	4,076	4,473	4,426	4,522
<b>1995</b>	4,502	5,322	5,884	7,118	15,000	17,020	12,670	7,280	7,207	6,951	7,064	7,439
<b>1996</b>	7,083	8,581	10,190	11,750	12,960	21,440	7,547	6,004	5,281	5,569	5,532	5,906
<b>1997</b>	8,022	9,252	9,563	9,301	16,610	27,600	11,470	7,548	7,076	7,799	7,483	6,764
<b>1998</b>	6,525	6,791	6,867	8,627	8,964	14,380	15,100	7,363	6,525	5,590	5,878	6,244
<b>1999</b>	6,626	7,085	8,270	8,433	10,030	13,120	7,252	6,081	5,759	5,622	5,566	5,680
<b>2000</b>	5,573	5,919	5,870	5,558	5,866	5,751	4,545	4,104	4,017	4,389	4,305	4,122
<b>2001</b>	4,183	4,067	4,289	4,363	4,813	5,013	4,572	4,179	3,867	3,905	3,994	3,773
<b>2002</b>	3,869	4,030	4,213	4,193	5,032	9,270	4,956	4,613	4,351	4,358	4,805	4,731
<b>2003</b>	4,744	4,661	5,509	6,063	8,278	8,897	5,616	4,379	3,893	3,974	4,196	4,278
<b>2004</b>	4,416	4,916	4,747	4,510	5,598	5,767	4,359	4,286	4,191	4,398	4,601	4,212
<b>2005</b>	4,725	4,129	4,157	4,634	7,200	9,320	7,259	5,415	5,196	5,231	5,201	5,226
<b>2006</b>	5,457	5,587	6,182	8,291	9,570	9,238	5,552	5,172	4,944	5,053	5,089	5,189
<b>2007</b>	5,189	5,125	5,231	5,408	7,684	7,634	5,120	4,288	4,080	4,309	4,332	4,355
<b>2008</b>	4,215	4,389	4,329	4,693	9,800	18,820	9,807	5,965	5,847	5,360	5,568	5,415

<b>2009</b>	5,918	6,154	5,769	8,142	13,940	11,500	8,142	5,974	5,362	5,489	5,627	6,286
<b>2010</b>	5,755	5,731	5,455	5,958	8,174	20,160	12,210	6,520	6,161	5,928	6,475	6,941
<b>2011</b>	6,979	6,757	7,204	7,963	18,880	29,570	19,560	7,216	6,903	6,220	6,805	6,600
<b>2012</b>	6,166	6,521	6,494	7,887	8,744	10,340	5,478	5,004	4,431	4,469	4,442	4,318
<b>2013</b>	5,207	5,858	5,608	5,438	6,645	7,140	4,321	4,046	3,747	4,200	4,252	4,218
<b>2014</b>	4,048	4,367	7,395	9,540	14,340	10,110	6,943	5,837	5,495	5,796	5,793	5,605
<b>2015</b>	6,285	6,188	5,905	5,638	7,006	8,023	5,315	4,832	4,885	4,318	4,312	4,106
<b>2016</b>	4,491	4,693	4,593	5,694	8,389	7,003	5,143	4,666	4,507	4,679	4,871	5,172
<b>2017</b>	4,699	4,916	5,552	7,955	12,770	11,870	5,696	5,167	5,120	4,995	5,416	5,612
<b>2018</b>	6,058	6,117	8,167	10,540	23,140	22,640	9,545	5,665	5,784	5,570	5,847	5,785
<b>2019</b>	5,618	5,558	6,893	11,660	14,330	11,100	7,816	6,469	6,247	6,153	6,092	5,967
<b>2020</b>	5,802	6,051	6,299	6,702	10,390	12,020	9,557	5,414	4,940	4,632	4,980	4,850
<b>2021</b>	4,823	5,015	4,856	4,769	7,501	6,674	4,177	4,281	3,705	3,770	3,891	3,706
<b>2022</b>	4,074	4,111	4,128	3,901	4,398	7,504	6,083	5,049	4,592	4,434	4,341	4,413
<b>2023</b>	4,498	4,709	5,032	7,692	13,740	15,950	7,170	5,342	5,342	4,989	5,368	5,507
<b>2024</b>	5,415	5,262	4,858	5,126	7,558	7,459	5,188	4,814	4,688	4,155	4,141	4,059
<b>Mean of monthly Discharge</b>	5,970	6,140	6,450	7,250	10,800	13,200	8,230	5,740	5,400	5,520	5,810	5,800
<b>Median of Mean</b>	6,039	6,062	5,993	7,255	10,075	11,705	7,250	5,405	5,186	5,360	5,562	5,766

RECEIVED - DNRC

JUN - 5 2026

**FRANZ & DRISCOLL, PLLP**  
Attorneys at Law

WILLIAM P. DRISCOLL  
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LEWISTOWN WATER  
RESOURCES  
LEGAL ASSISTANT:  
GALEN BREWER  
TELEPHONE: (406) 442-0005

June 2, 2026

Steven Hamilton  
Matthew Shaw  
613 NE Main, Ste E  
Lewistown, MT 59457-2020

Re: NWE Application associated with pre-application 41Q 30170946

Dear Steve & Matthew:

This letter is in regards to NorthWestern Energy's (NWE) application associated with pre-application 41Q 30170946, regarding its proposed appropriation at Black Eagle Dam.

Please find enclosed the completed Form 600 and Form 600 B, with all attachments, and the necessary filing fee. The same was emailed to you in a digital form today. Please let me know if you had any trouble obtaining any of these copies.

Please confirm receipt. Please also send a conformed copy of the first page once you have stamped it received; an email with a scanned copy will also suffice. If you need anything further please contact me.

Sincerely,  
*/s/ Ryan McLane*  
Franz & Driscoll, PLLP

## Shaw, Matthew

---

**From:** Ryan McLane <[ryan@franzdriscoll.com](mailto:ryan@franzdriscoll.com)>  
**Sent:** Friday, June 5, 2026 2:22 PM  
**To:** Shaw, Matthew  
**Subject:** [EXTERNAL] RE: NorthWestern Energy Application -- Black Eagle

Thanks Matt  
-Ryan

**From:** Shaw, Matthew <[Matthew.Shaw@mt.gov](mailto:Matthew.Shaw@mt.gov)>  
**Sent:** Friday, June 5, 2026 2:21 PM  
**To:** Ryan McLane <[ryan@franzdriscoll.com](mailto:ryan@franzdriscoll.com)>  
**Cc:** Hamilton, Steven <[Steven.Hamilton@mt.gov](mailto:Steven.Hamilton@mt.gov)>  
**Subject:** RE: NorthWestern Energy Application -- Black Eagle

Ryan,

Attached is a copy of the "Received" stamped and timestamped page 1 of the application, as you requested in your cover letter. (Priority date is 6/5/2026 with a time of 8:00AM.)

The Department will make Correct & Complete determination on the application by June 26<sup>th</sup> (15 business days from today).

Best,



**Matthew Shaw** | Water Resource Specialist—New Appropriations  
Water Rights Bureau  
Montana Department of Natural Resources and Conservation  
Lewistown Water Regional Office, 613 NE Main St, Ste E, Lewistown, MT 59457  
**OFFICE:** 406-538-7459 **DIRECT:** 406-535-1927 **EMAIL:** [matthew.shaw@mt.gov](mailto:matthew.shaw@mt.gov)  
**Website** | **Facebook** [[facebook.com](https://www.facebook.com)] | **X (Twitter)** [[twitter.com](https://twitter.com)] | **Instagram** [[instagram.com](https://www.instagram.com)]  
**How did we do? Let us know here:** [Feedback Survey](https://forms.office.com) [[forms.office.com](https://forms.office.com)]

**From:** Hamilton, Steven <[Steven.Hamilton@mt.gov](mailto:Steven.Hamilton@mt.gov)>  
**Sent:** Friday, June 5, 2026 2:10 PM  
**To:** Ryan McLane <[ryan@franzdriscoll.com](mailto:ryan@franzdriscoll.com)>  
**Cc:** Shaw, Matthew <[Matthew.Shaw@mt.gov](mailto:Matthew.Shaw@mt.gov)>  
**Subject:** Re: NorthWestern Energy Application -- Black Eagle

We got the check too! We're ready to move forward!



**Steven B. Hamilton** | Regional Manager  
Water Resources – Lewistown Regional Office  
Montana Department of Natural Resources and Conservation  
613 NE Main Street, Suite E, Lewistown, MT 59457  
**OFFICE:** 406-538-7459 **DIRECT:** 406-535-1922 **EMAIL:** [steven.hamilton@mt.gov](mailto:steven.hamilton@mt.gov)  
**Website** | **Facebook** [[facebook.com](https://www.facebook.com)] | **X (Twitter)** [[twitter.com](https://twitter.com)] | **Instagram** [[instagram.com](https://www.instagram.com)]  
**How did we do? Let us know here:** [[forms.office.com](https://forms.office.com)][Feedback Survey](https://forms.office.com) [[forms.office.com](https://forms.office.com)]

---

**From:** Ryan McLane <[ryan@franzdriscoll.com](mailto:ryan@franzdriscoll.com)>  
**Sent:** Friday, June 5, 2026 2:06 PM  
**To:** Hamilton, Steven <[Steven.Hamilton@mt.gov](mailto:Steven.Hamilton@mt.gov)>  
**Subject:** [EXTERNAL] RE: NorthWestern Energy Application -- Black Eagle

Thanks Steven!  
Glad it arrived safely. Check too, I am assuming?  
-R

**From:** Hamilton, Steven <[Steven.Hamilton@mt.gov](mailto:Steven.Hamilton@mt.gov)>  
**Sent:** Friday, June 5, 2026 2:05 PM  
**To:** Ryan McLane <[ryan@franzdriscoll.com](mailto:ryan@franzdriscoll.com)>; Shaw, Matthew <[Matthew.Shaw@mt.gov](mailto:Matthew.Shaw@mt.gov)>  
**Subject:** RE: NorthWestern Energy Application -- Black Eagle

Good morning Ryan,

The hard copy has arrived and it's sitting on my desk. I'll hand it off to Matthew here shortly and we'll move forward.

Thanks for working with us on everything!



**Steven B. Hamilton** | Regional Manager  
Water Resources – Lewistown Regional Office  
Montana Department of Natural Resources and Conservation  
613 NE Main Street, Suite E, Lewistown, MT 59457  
**OFFICE:** 406-538-7459 **DIRECT:** 406-535-1922 **EMAIL:** [steven.hamilton@mt.gov](mailto:steven.hamilton@mt.gov)  
**Website** | **Facebook** [[facebook.com](https://www.facebook.com)] | **X (Twitter)** [[twitter.com](https://twitter.com)] | **Instagram** [[instagram.com](https://www.instagram.com)]  
**How did we do? Let us know here:** [Feedback Survey](https://forms.office.com) [[forms.office.com](https://forms.office.com)]

**From:** Ryan McLane <[ryan@franzdriscoll.com](mailto:ryan@franzdriscoll.com)>  
**Sent:** Wednesday, June 3, 2026 9:58 AM  
**To:** Shaw, Matthew <[Matthew.Shaw@mt.gov](mailto:Matthew.Shaw@mt.gov)>; Hamilton, Steven <[Steven.Hamilton@mt.gov](mailto:Steven.Hamilton@mt.gov)>  
**Subject:** [EXTERNAL] RE: NorthWestern Energy Application -- Black Eagle

Matthew,

## Shaw, Matthew

---

**From:** Shaw, Matthew  
**Sent:** Wednesday, June 3, 2026 9:59 AM  
**To:** Ryan McLane; Hamilton, Steven  
**Subject:** RE: NorthWestern Energy Application -- Black Eagle

Ryan,

Will do. Thanks again.



**Matthew Shaw** | Water Resource Specialist—New Appropriations  
Water Rights Bureau  
Montana Department of Natural Resources and Conservation  
Lewistown Water Regional Office, 613 NE Main St, Ste E, Lewistown, MT 59457  
**OFFICE:** 406-538-7459 **DIRECT:** 406-535-1927 **EMAIL:** matthew.shaw@mt.gov  
**Website** | **Facebook** | **X (Twitter)** | **Instagram**  
How did we do? Let us know here: [Feedback Survey](#)

**From:** Ryan McLane <[ryan@franzdriscoll.com](mailto:ryan@franzdriscoll.com)>  
**Sent:** Wednesday, June 3, 2026 9:58 AM  
**To:** Shaw, Matthew <[Matthew.Shaw@mt.gov](mailto:Matthew.Shaw@mt.gov)>; Hamilton, Steven <[Steven.Hamilton@mt.gov](mailto:Steven.Hamilton@mt.gov)>  
**Subject:** [EXTERNAL] RE: NorthWestern Energy Application -- Black Eagle

Matthew,

Thanks! Understood. Please let me know when the hard copy arrives. I sent it priority mail, so it should arrive in the next day or two.

-Ryan

**From:** Shaw, Matthew <[Matthew.Shaw@mt.gov](mailto:Matthew.Shaw@mt.gov)>  
**Sent:** Wednesday, June 3, 2026 8:54 AM  
**To:** Ryan McLane <[ryan@franzdriscoll.com](mailto:ryan@franzdriscoll.com)>; Hamilton, Steven <[Steven.Hamilton@mt.gov](mailto:Steven.Hamilton@mt.gov)>  
**Subject:** RE: NorthWestern Energy Application -- Black Eagle

Ryan,

We have received your email with the attached cover letter and were also able to access the From 600 with exhibits, via your SharePoint link. Thank you.

We can and will recognize the postmark date as the date of submission of the application. However, and noting we certainly appreciate having the electronic versions ahead of receipt of the hard copies, the 15-business day timeclock for the Dept. to determine Correct & Complete status of the application will not begin until the hard copies and payment have arrived at the Lewistown Regional Office.

Best,



**Matthew Shaw** | Water Resource Specialist—New Appropriations  
Water Rights Bureau  
Montana Department of Natural Resources and Conservation  
Lewistown Water Regional Office, 613 NE Main St, Ste E, Lewistown, MT 59457  
**OFFICE:** 406-538-7459 **DIRECT:** 406-535-1927 **EMAIL:** [matthew.shaw@mt.gov](mailto:matthew.shaw@mt.gov)  
**Website** | **Facebook** [[facebook.com](https://facebook.com)] | **X (Twitter)** [[twitter.com](https://twitter.com)] | **Instagram** [[instagram.com](https://instagram.com)]  
**How did we do? Let us know here:** [Feedback Survey](https://forms.office.com) [[forms.office.com](https://forms.office.com)]

**From:** Ryan McLane <[ryan@franzdriscoll.com](mailto:ryan@franzdriscoll.com)>  
**Sent:** Tuesday, June 2, 2026 4:17 PM  
**To:** Hamilton, Steven <[Steven.Hamilton@mt.gov](mailto:Steven.Hamilton@mt.gov)>; Shaw, Matthew <[Matthew.Shaw@mt.gov](mailto:Matthew.Shaw@mt.gov)>  
**Subject:** [EXTERNAL] NorthWestern Energy Application -- Black Eagle


Steven and Matthew,

I hope you are both doing well.

Please find below a link to access NorthWestern Energy's application for Black Eagle Dam (Form 600 and 600 B). Unfortunately, I could not just attach it to this email, because a couple of the Exhibits are too large. Please let me know if you are unable to download it. Also find attached to this email a cover letter.

I am putting in the USPS mail a paper copy of this same application and the cover letter, together with a \$1600 filing fee. Please let me know when you receive all of this.

Can you also confirm whether you still base the filing date based on the post mark date? A week seems like plenty of time to come in ... but the mail is a bit unreliable at this point.

 [260602 Black Eagle application 600 and 600B executed.pdf](#) [[franzanddriscoll-my.sharepoint.com](https://franzanddriscoll-my.sharepoint.com)]

Best,  
-Ryan

Ryan McLane  
Franz & Driscoll, PLLP  
P.O. Box 1155  
21 N. Last Chance Gulch, Ste. 210  
Helena, MT 59624  
406-442-0005 phone  
[ryan@franzdriscoll.com](mailto:ryan@franzdriscoll.com)

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## **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**



**MEMORANDUM**

TO: Corrections to the Technical Analyses concerning Permit Application No. 41Q 30170946

FROM: Claire Blomquist, Water Resource Specialist, Lewistown Regional Office

SUBJECT: Original Technical Analyses concerning Permit Application No. 41Q 30170946 is corrected

DATE: 3/30/2026

Corrections to the Technical Analyses concerning Permit Application No. 41Q 30170946 have been made as detailed below.

1. Under “1.0 Application Details” the Place of Use had been incorrectly labeled as R6E (indicating Range 6 East) within the paragraph description, and Table 1. As clearly shown in the labeled map in Figure 1 of the Technical Analyses, the location of the Place of Use is within section 5 of Township 20 North, Range 4 East.
  - a. **Correction:** Diverted water, in the amount of 1,005,684 AF, would be used between January 1 to December 31 each year for Power Generation at NWNW Section 5, T20N, R4E (Black Eagle Dam).
  - b. **Correction:**

Source	Flow Rate	Diverted Volume	Purpose	Period of Use	Place of Use	Points of Diversion	Period of Diversion
Missouri River	1,602 CFS	1,005,684 AF	Power Generation	1/1 to 12/31	NWNW Section 5, T20N, R4E	- SWNWNW Sec. 5, T20N, R4E - NWSWNW Sec. 5, T20N, R4E	1/1 to 12/31



						- SENENE Sec. 6, T20N, R4E - NESENE, Sec. 6, T20N, R4E	
--	--	--	--	--	--	---	--

2. Number 3 of section “2.3 Monthly Flow Rate and Volume” is in the Technical Analysis states, “Physically available monthly flows were then converted to monthly volumes (Table 2, column F).” While true, in reviewing calculation methods, it is beneficial to specify further.

**a. Correction:** Physically available monthly flows at the gage were then converted to monthly volumes and storage volumes are accounted for by adding them to the median of the mean monthly volume. (Table 2, column F).

3. An error in section “2.3 Monthly Flow Rate and Volume” is in the Technical Analysis within *Table 2. Physical Availability at the Black Eagle Dam (POD) on Missouri River*. Within the table, months July through October, Column E did not include Existing Rights from Black Eagle Dam to USGS Gage #0690300 (CFS). Figures from months July through October have been corrected in the table below.

**a. Correction:**

A	B	C	D	E	F
Month	Median of the Mean Monthly Flow Rate (CFS) at USGS Gage #0690300	Median of the Mean Monthly Volume (AF) at USGS Gage #0690300	Existing Rights from Black Eagle Dam to USGS Gage #0690300 (CFS)	Physically Available Water at POD (CFS)	Physically Available Water at POD (AF)
January	6,039.00	370,673.82	10.55	6,049.55	390,136.03
February	6,062.00	336,077.28	10.55	6,072.55	355,539.49
March	5,992.50	367,819.65	10.55	6,003.05	387,281.86
April	7,255.00	430,947.00	11.10	7,266.10	450,443.09
May	10,075.00	618,403.50	11.10	10,086.10	637,899.59



June	11,705.00	695,277.00	11.10	11,716.10	714,773.09
July	7,249.50	444,974.31	11.10	7,260.60	464470.40
August	5,405.00	331,758.90	11.10	5,416.10	351254.99
September	5,185.50	308,018.70	11.10	5,196.60	327514.79
October	5,360.00	328,996.80	10.55	5,370.55	348459.01
November	5,562.00	330,382.80	10.55	5,572.55	349845.01
December	5,766.00	353,917.08	10.55	5,776.55	373379.29





**Surface Water Permit Technical Analyses Report**  
**Department of Natural Resources and Conservation (DNRC or Department)**  
**Water Resources Division**

Claire Blomquist, New Appropriations Specialist, Lewistown Regional Office

Applicant	NorthWestern Corporation d/b/a NorthWestern Energy
Application No.	41Q 30170946
Proposed Points of Diversion	- SWNWNW Sec. 5, T20N, R4E - NWSWNW Sec. 5, T20N, R4E - SENENE Sec. 6, T20N, R4E - NESENE, Sec. 6, T20N, R4E

**Overview**

This report analyzes data submitted by the Applicant in support of the above-mentioned water right 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 § 85-2-311, Montana Code Annotated (MCA).

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

Overview..... 1

Variances ..... 2

1.0 Application Details ..... 2

2.0 Surface Water Analysis..... 3

    2.1 Source Description ..... 3

    2.2 Method of Estimation..... 3

    2.3 Monthly Flow Rate and Volume ..... 4

3.0 Area of Potential Impact Analysis ..... 5

Review..... 7

References ..... 7

Appendix A: Water Rights within the Area of Potential Impact..... 8



### Variations

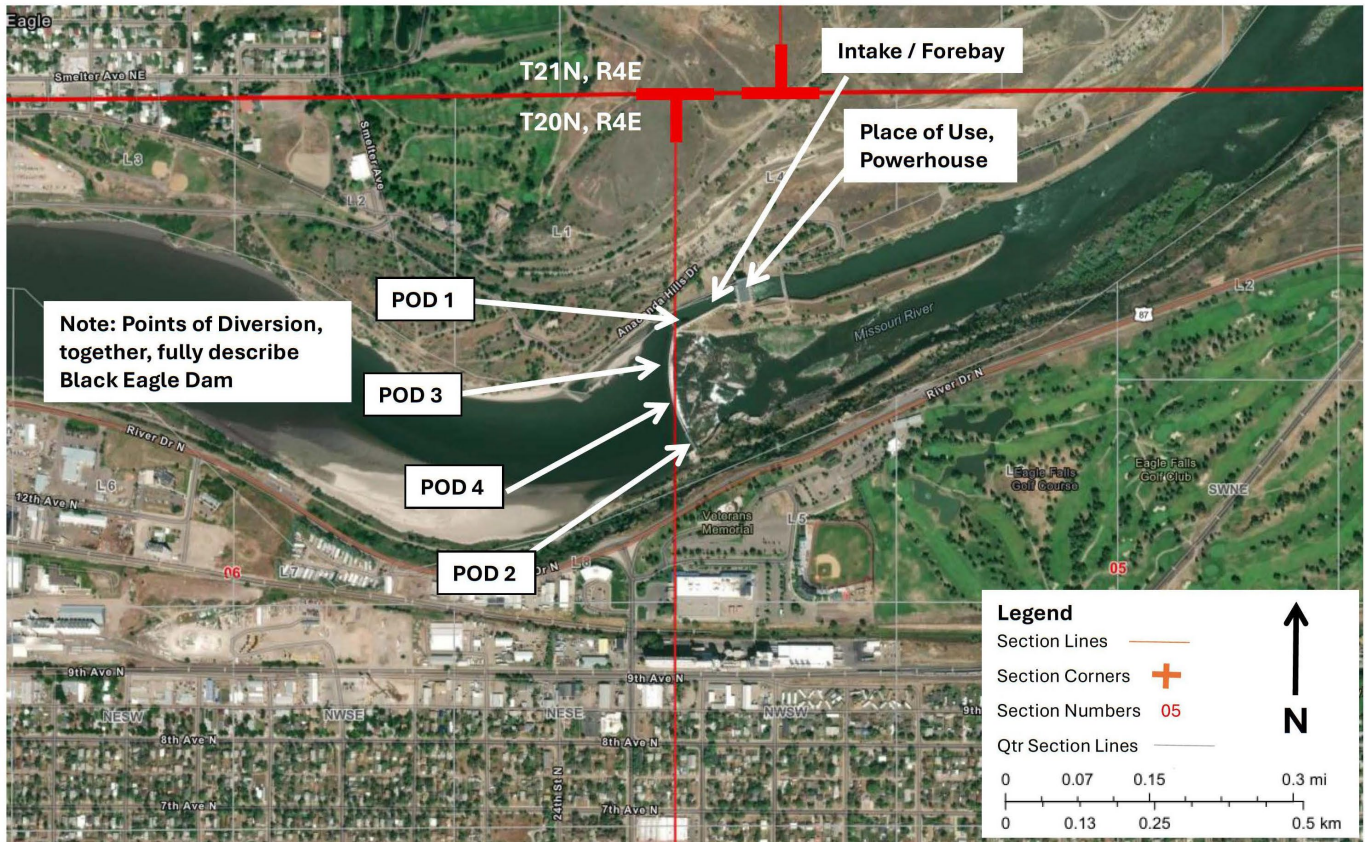
No Variance has been requested.

### 1.0 Application Details

The Applicant proposes to divert water January 1 to December 31 each year from the Missouri River at a rate of 1602 CFS for non-consumptive hydroelectric power generation. Diverted water, in the amount of 1,005,684 AF, would be used between January 1 to December 31 each year for Power Generation at NWNW Section 5, T20N, R6E (Black Eagle Dam). Applicant proposes to modify its existing Black Eagle Hydroelectric Dam to increase its power generation capacity.

Table 1. Summary of the proposed use.

Source	Flow Rate	Diverted Volume	Purpose	Period of Use	Place of Use	Points of Diversion	Period of Diversion
Missouri River	1602 CFS	1,005,684 AF	Power Generation	1/1 to 12/31	NWNW Section 5, T20N, R6E	- SWNWNW Sec. 5, T20N, R4E - NWSWNW Sec. 5, T20N, R4E - SENENE Sec. 6, T20N, R4E - NESENE, Sec. 6, T20N, R4E	1/1 to 12/31



**Figure 1:** Map of Proposed POD, POU, and Conveyance (Sections 5 and 6, T20N, R4E), as provided in Form 600-B by Applicant

## 2.0 Surface Water Analysis

### 2.1 Source Description

**Proposed Source of Water:** *Missouri River.*

**Proposed Source Type:** *Perennial.*

**Proposed Points of Diversion:** *The layout of Black Eagle Dam is such that it has 4 points of diversion.*

1. SWNWNW Sec. 5, T20N, R4E, Cascade County
2. NWSWNW Sec. 5, T20N, R4E, Cascade County
3. SENENE Sec. 6, T20N, R4E, Cascade County
4. NESENE, Sec. 6, T20N, R4E, Cascade County

### 2.2 Method of Estimation

**Gage Name:** *Missouri River Near Great Falls, MT*

**Gage Number:** *USGS Gage No. 06090300*



**Period of Record:** *October 1956 – December 2024*

**Why this gage is considered an appropriate data source:**

*The gage that was used in the analyses (USGS Gage # 06090300 – Missouri River near Great Falls) is the same gage that was used in previous applications of this nature and in this location. This gage has over 60 years of continuous data. The methods of analyses that the Department used are consistent with ARM 36.12.1702 (1)(a). Relying on upstream gages would require combining gage information from both the Sun River and Missouri River above Sun River, which would likely result in less accurate data. In addition, there are no major tributaries, and as seen in the following area of impact analyses, very few diversionary water rights between Black Eagle and this gage.*

### **2.3 Monthly Flow Rate and Volume**

**Methodology:** *Physical availability of Missouri River water at the PODs have been quantified monthly. Department practice for physical availability analyses where the gage used is downstream of the POD is to add the monthly flow rates of existing water rights between the gage and the POD to the median of the mean monthly flows at the gage. The DNRC used the method below to quantify physically available monthly flows and volumes at the POD during the proposed period of diversion:*

- 1.** *The Department calculated median of the mean monthly flow rates in cubic feet per second (CFS) for the Missouri River using USGS Gage #0690300 records for each month of the proposed period of diversion (Table 1, column A). Those flows were converted to monthly volumes in AF (Table 2, column C) using the following conversion found on DNRC Water Calculation Guide: median of the mean monthly flow (CFS) × 1.98 (AF/day/1 CFS) × days per month = AF/month.*
- 2.** *The Department calculated the monthly flows appropriated by existing users upstream of the gage on the source (Table 2, column D) by:*
  - i. Generating a list of existing intervening water rights with consumptive use diversions from the Black Eagle Dam to USGS Gage #0690300 (list is included in the application file and available upon request);*
  - ii. Designating irrigation and lawn and garden uses as occurring from April 1 to October 1;*
    - i. While October 31 is the standard end date for lawn and garden use, the Department is using October 1 because there is only one intervening water right that has lawn and garden purpose (Statement of Claim No. 41Q 94363, owned by Northwestern Energy) and its authorized period of use/period of diversion concludes October 1.*
  - iii. Designating all other water uses as year-round uses;*
  - iv. Assigning a single combined flow rate of 0.08 CFS to all livestock direct from source rights without a designated flow rate; and,*
  - v. Assuming that the flow rate of each existing right is continuously diverted throughout each month of the period of diversion. This assumption is necessary due to the*



*difficulty of differentiating the distribution of appropriated volume over the period of diversion. This leads to an overestimation of existing uses from the source. The Department finds this an appropriate measure of assessing existing rights as it protects existing water users.*

3. *Since the gage used is downstream of the PODs, the Department added in the flow rates of the existing rights between USGS Gage #0690300 and Black Eagle Dam (Table 2, column D) to the median of the mean monthly gage values (Table 2, column B) to determine physical availability at the POD (Table 2, column E). Physically available monthly flows were then converted to monthly volumes (Table 2, column F).*

**Table 2.** Physical Availability at the Black Eagle Dam (POD) on Missouri River

A	B	C	D	E	F
Month	Median of the Mean Monthly Flow Rate (CFS) at USGS Gage #0690300	Median of the Mean Monthly Volume (AF) at USGS Gage #0690300	Existing Rights from Black Eagle Dam to USGS Gage #0690300 (CFS)	Physically Available Water at POD (CFS)	Physically Available Water at POD (AF)
January	6,039.00	370,673.82	10.55	6,049.55	390,136.03
February	6,062.00	336,077.28	10.55	6,072.55	355,539.49
March	5,992.50	367,819.65	10.55	6,003.05	387,281.86
April	7,255.00	430,947.00	11.10	7,266.10	450,443.09
May	10,075.00	618,403.50	11.10	10,086.10	637,899.59
June	11,705.00	695,277.00	11.10	11,716.10	714,773.09
July	7,249.50	444,974.31	11.10	7,249.50	464470.40
August	5,405.00	331,758.90	11.10	5,405.00	351254.99
September	5,185.50	308,018.70	11.10	5,185.50	327514.79
October	5,360.00	328,996.80	10.55	5,360.00	348459.01
November	5,562.00	330,382.80	10.55	5,562.00	349845.01
December	5,766.00	353,917.08	10.55	5,766.00	373379.29

**Note:** *Although instream flow water rights are legal demands, they do not impact the physical flow of a source, as such they have no bearing on the stream’s physical availability. Therefore, the Department does not consider ‘run of the river’ hydropower and instream demand (Permit Application Manual, Pg. 69).*

### 3.0 Area of Potential Impact Analysis

**The Area of Potential Impact for this application is:**

*The area of potential impact is on the Mainstem of the Missouri River at Black Eagle Dam down to the nearest gage, USGS Gage # 0690300 Missouri River near Great Falls. This gage is in*



*proximity to Moroney Dam, which will serve as a significant hydrologic barrier. There are no additional water rights between the gage and Moroney Dam. A total of 21 surface water rights exist within the reach. However, according to Department standard practice, only intervening rights with consumptive use are used for calculating legal demands. There are 8 intervening water rights with consumptive use. They have legal demands in the reach totaling 10.55 CFS for the months of January through March and October through December and 11.10 CFS for the months of April through September. The list of rights can be found in **Appendix A**.*

**Why this is an appropriate Area of Potential Impact:** *The Department's reasoning for choosing the extent of the Area of Potential Impact is part of Department standard practice of identifying a significant hydrologic barrier. The Moroney Dam serves as a significant hydrologic barrier because it is the dam furthest downstream of the Black Eagle dam and is the last of the series of five hydropower dams in the Great Falls area. It is also the location of USGS Gage # 06090300 – Missouri River near Great Falls. Flows and water use past the Moroney Dam hydrologic barrier have a less controlled flow and are distant to the Great Falls area.*

**Methodology:** *According to Department standard practice, only intervening rights with consumptive use are used for calculating legal demands. Water rights within the AOPI were quantified through their appropriated volumes and flow rates. Consumptive and non-consumptive purposes were also considered. Considerations are based on Department Standard Practice for Area of Potential Impact Analysis. Methodology is based upon the point of diversion located above or below one stream gage with intervening water rights, based on water rights between the point of diversion and the downstream gage and hydrologic barrier.*



## Review

This document has been reviewed by the Department on December 8, 2025.

## References

Department Standard Practice for Determining Physical Availability of Surface Water  
Department Standard Practice for Area of Potential Impact Analysis  
Department Permit Application Manual (Revised February 14, 2025)



## **Appendix A: Water Rights within the Area of Potential Impact**



Existing Water Rights between Black Eagle and USGS Gage 06090300						
Water Right No.	Priority Date	Owners	Purposes	Period of Diversion	Maximum Flow	Maximum Volume (AF/YR)
<b>Instream Rights</b>						
41Q 94354 00	1892/06/01	NWE	POWER GEN.	1/1-12/31	3300 CFS	2,389,200.00
41Q 94355 00	1893/12/31	NWE	POWER GEN.	1/1-12/31	900 CFS	651,600.00
41Q 94356 00	8/31/1927	NWE	POWER GEN.	1/1-12/31	560 CFS	405,440.00
41Q 94359 00	12/31/1912	NWE	POWER GEN.	1/1-12/31	280 CFS	202,720.00
41Q 94358 00	9/16/1908	NWE	POWER GEN.	1/1-12/31	3500 CFS	2,533,884.00
41Q 94360 00	7/1/1917	NWE	POWER GEN.	1/1-12/31	1640 CFS	1,187,306.00
41Q 94361 00	3/26/1958	NWE	POWER GEN.	1/1-12/31	480 CFS	292,000.00
41Q 30042060	5/13/2008	NWE	POWER GEN.	1/1-12/31	2380 CFS	466,007.00
41Q 94365 00	6/16/1955	NWE	POWER GEN.	1/1-12/31	10000 CFS	7,240,000.00
41Q 94367 00	8/31/1915	NWE	POWER GEN.	1/1-12/31	5900 CFS	4,271,600.00
41Q 30148072	1/27/2020	NWE	POWER GEN.	1/1-12/31	1300 CFS	941,200.00
41Q 94396 00	12/20/1928	NWE	POWER GEN.	1/1-12/31	8280 CFS	5,994,720.00
41Q 30017520	7/1/1985	MT FWP	FISHERY	1/1-12/31	3876 CFS	2,805,904.69
<b>Stored / Diverted Rights</b>						
41Q 94357 00	8/31/1927	NWE	STORAGE	1/1-12/31	n/a	29,480.00
41Q 94362 00	9/16/1908	NWE	STORAGE	1/1-12/31	n/a	8,507
41Q 94363 00	9/16/1908	NWE	LAWN & GARDEN	4/1-10/1	250 GPM	203.3
41Q 94366 00	6/16/1955	NWE	STORAGE	1/1-12/31	n/a	54,779.00
41Q 94368 00	8/31/1915	NWE	STORAGE	1/1-12/31	n/a	52,808.00
41Q 94397 00	12/20/1928	NWE	STORAGE	1/1-12/31	n/a	81,947.00
41K 71890 00	7/1/1985	GREAT FALLS	MUNICIPAL	1/1-12/31	4,700 GPM	6,022.00
41Q 202344 00	1892/10/24	URQUHART	STOCK (L.D.S.)	1/1-12/31	35 GPM	3.50
<b>Totals</b>				<b>1/1-3/31, 10/1-12/31</b>	<b>10.55 CFS</b>	<b>19,462.2 AF / Mo</b>
				<b>4/1-10/1</b>	<b>11.10 CFS</b>	<b>19,496.1 AF / Mo</b>

## Shaw, Matthew

---

**From:** Hamilton, Steven  
**Sent:** Thursday, May 21, 2026 2:29 PM  
**To:** Ryan McLane  
**Cc:** Shaw, Matthew  
**Subject:** RE: DNRC Technical Analyses for NWE  
**Attachments:** 41QJ 30170946\_Memorandum\_to\_file (TA)\_FINAL.pdf

Good afternoon Ryan,

Attached is the memo correcting and clarifying the Technical Analysis and has the information you need to proceed. Thank you for reaching out to us so we could ensure you have it.

As we discussed on the phone, I'm looping Matthew back in on this application, but he has spend time with Claire and we're both up to speed with where she was upon her departure so you and Northwestern Energy are in good hands.

Please let me know if you have any other questions or concerns; we're always happy to help!

Have a great afternoon!



**Steven B. Hamilton** | Regional Manager

Water Resources – Lewistown Regional Office  
Montana Department of Natural Resources and Conservation  
613 NE Main Street, Suite E, Lewistown, MT 59457

**OFFICE:** 406-538-7459 **DIRECT:** 406-535-1922 **EMAIL:** [steven.hamilton@mt.gov](mailto:steven.hamilton@mt.gov)

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**From:** Ryan McLane <[ryan@franzdriscoll.com](mailto:ryan@franzdriscoll.com)>  
**Sent:** Wednesday, May 20, 2026 12:56 PM  
**To:** Blomquist, Claire <[Claire.Blomquist@mt.gov](mailto:Claire.Blomquist@mt.gov)>  
**Cc:** Hamilton, Steven <[Steven.Hamilton@mt.gov](mailto:Steven.Hamilton@mt.gov)>  
**Subject:** [EXTERNAL] RE: DNRC Technical Analyses for NWE

Hi Claire,

I am circling back around to a series of conversations we had regarding NorthWestern Energy's pre-application for Black Eagle, application 41Q 301709476. Below is the last email chain we had on this. But we had a phone conversation a couple weeks after the email chain below, where I outlined my follow-up concern. On that call I identified to you that there still appeared to be errors in the physical availability table. My understanding from the call was that you were going to look into the matter and get back to me. But, unless I am mistaken, I haven't heard back from you.

To explain those errors in more detail: I have attached the table of physical availability from the Technical Analysis. You will see that for months January through July the physical available water at POD (Column E) was calculated by adding the measured median of the mean flow (Column B) to the existing diverted rights located between the gage and Black Eagle dam (Column D). That part is accurate. But, when looking at months July through December (Column E) the values are the same as the median of the mean flow (Column B). Meaning, for July through December you didn't add in the diverted rights located between the gage and Black Eagle back into the physically available water. So, it appears that July through December of Column E is inaccurate, and needs to be updated.

**NorthWestern needs to file its application in the next couple weeks. June 10<sup>th</sup> by my calculation.**

**Please advise what we need to do get this technical analysis corrected, as we are running out of time to file the application.**

Best and Thanks in advance,  
-Ryan

Ryan McLane  
Franz & Driscoll, PLLP  
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**From:** Blomquist, Claire <[Claire.Blomquist@mt.gov](mailto:Claire.Blomquist@mt.gov)>

**Sent:** Monday, February 23, 2026 3:09 PM

**To:** Ryan McLane <[ryan@franzdriscoll.com](mailto:ryan@franzdriscoll.com)>

**Subject:** Re: DNRC Technical Analyses for NWE

Hi Ryan,

Thank you for reclarifying, I understand where the miscommunication happened.

In the Technical Analyses (TA), the equation used for Table 2, Column C does "convert" monthly flows to monthly volumes using that conversion factor of 1.98 AF/day/1 CFS and *then* the storage right volumes are added to come up with Table 2, Column F. Column F relies on that conversion step, which is why the conversion is restated in number 3 under section 2.3, rather than referring back to Column C.

You are correct in pointing out that it is not *only* a conversion happening. We noted that storage right volumes were not mentioned in that original statement and intend to clarify this in number 3 under section 2.3 of the TA. I think this addresses the question you intended.

Let me know if I can further clarify, or if you have more questions as you fill out the Permit Application.

Best,



**Claire Blomquist** | Water Resource Specialist—New Appropriations

Water Resources Division

Montana Department of Natural Resources and Conservation

613 NE Main St, Ste E, Lewistown, MT 59457

**OFFICE:** 406-538-7459 **DESK:** 406-535-1925 **EMAIL:** [Claire.Blomquist@mt.gov](mailto:Claire.Blomquist@mt.gov)

**Website** | **Facebook** [\[facebook.com\]](https://www.facebook.com) [\[facebook.com\]](https://www.facebook.com) | [\[twitter.com\]](https://twitter.com)X [\[twitter.com\]](https://twitter.com)(T  
[\[twitter.com\]](https://twitter.com)witter [\[twitter.com\]](https://twitter.com)) | **Instagram** [\[instagram.com\]](https://www.instagram.com)

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---

**From:** Ryan McLane <[ryan@franzdriscoll.com](mailto:ryan@franzdriscoll.com)>  
**Sent:** Monday, February 23, 2026 11:35 AM  
**To:** Blomquist, Claire <[Claire.Blomquist@mt.gov](mailto:Claire.Blomquist@mt.gov)>  
**Subject:** [EXTERNAL] RE: DNRC Technical Analyses for NWE

Hi Claire,

I appreciate this email, but I think you misunderstood my question.

I was just confused because the Technical Analyses said “Physically available monthly flows were then **converted** to monthly volumes (Table 2, column F).” And I couldn’t get any conversion factor to work.

Nevertheless, I think I have the answer from you below. It sounds like Column F is not converted, but instead it is determined by adding stored volumes to Column C?

Thanks Claire,

-Ryan

**From:** Blomquist, Claire <[Claire.Blomquist@mt.gov](mailto:Claire.Blomquist@mt.gov)>  
**Sent:** Friday, February 20, 2026 2:49 PM  
**To:** Ryan McLane <[ryan@franzdriscoll.com](mailto:ryan@franzdriscoll.com)>  
**Subject:** DNRC Technical Analyses for NWE

Hi Ryan,

Per our conversation over the phone, I wanted to clarify the calculations on the Technical Analyses (TA) for North Western Energy's Black Eagle Dam for Application No. 41Q 30170946. To answer to your question generally, the findings in Table 2 of the TA are usable. Stored water right volumes and physical available monthly flows must be accounted for at the gage, and not the POD.

The "median of the mean monthly flow (CFS)" is in regard to Column B of Table 2. Using the equation found in the DNRC Water Calculation Guide: "median of the mean monthly flow (CFS)  $\times$  1.98 (AF/day/1 CFS)  $\times$  days per month = AF/month" provided in number 1 of the TA's section 2.3, *Column B* must be used for multiplication in this equation because it is the median of the mean monthly flow (CFS). Column F of Table 2 has also accounted for the volume of "stored" water rights. This means that stored rights are added to findings in Column C. Stored rights vary by month, making the value 19,463.12 from 1/1-3/31 and 10/1-12/31 and the value 19,497.00 from 4/1-10/1. I believe this is where most of the discrepancies would be from, as well as minor variations from rounding that we discovered as a compilation of our findings.

It would be incorrect to use Column E in the aforementioned equation because it factors in existing rights between Black Eagle and the gage, Column D, to come up with physically available water at the POD (CFS). By multiplying the physically available flow rate at the POD (CFS) to find the acre-feet in Column F *and* adding storage rights, the storage right variable would be wrongfully accounted for twice.

To go in depth on specific figures, we can chat in a Teams meeting, or over the phone to show each calculation. In the meantime, the Department can add a correction to "Range 6E" on Page 2 of the TA, and include clarification for number 3, under section 2.3 that you had mentioned. This will clarify the use of the stored water right volumes, and physical available monthly flows being accounted for at the gage, and not the POD.

Thanks and have a great day,



**Claire Blomquist** | Water Resource Specialist—New Appropriations

Water Resources Division

Montana Department of Natural Resources and Conservation

613 NE Main St, Ste E, Lewistown, MT 59457

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**Website** | **Facebook** [\[facebook.com\]](#) [\[facebook.com\]](#) | [\[twitter.com\]](#) [\[twitter.com\]](#) | [\[twitter.com\]](#) [\[twitter.com\]](#) | **Instagram** [\[instagram.com\]](#)

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## **Preapplication Materials**

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

# **Preapplication Materials**

**From:** [Shaw, Matthew](#)  
**To:** ["Ryan McLane"; Hamilton, Steven](#)  
**Cc:** [Blomquist, Claire](#)  
**Subject:** RE: NorthWestern 41Q 30170946, Form 600P B  
**Date:** Tuesday, October 21, 2025 10:18:00 AM  
**Attachments:** [image002.png](#)  
[image003.png](#)

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Ryan,

Thank you for sending the 600B over so promptly.

With this last outstanding item, we have marked the preapplication form as “received” in the Dept.’s database. Before we “accept” it, Claire will, as her schedule allows, be reading through the 600-B (and double checking the rest of the 600P) to make sure everything is satisfactory.

Assuming everything is in order, by early next week Claire should be mailing you (and emailing a copy) a “Complete Preapplication Form” letter.

Regards,



**Matthew Shaw** | Water Resource Specialist—New Appropriations  
Water Rights Bureau  
Montana Department of Natural Resources and Conservation  
Lewistown Water Regional Office, 613 NE Main St, Ste E, Lewistown, MT 59457  
**OFFICE:** 406-538-7459 **DIRECT:** 406-535-1927 **EMAIL:** [matthew.shaw@mt.gov](mailto:matthew.shaw@mt.gov)  
**Website** | **Facebook** | **X (Twitter)** | **Instagram**  
How did we do? Let us know here: [Feedback Survey](#)

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**From:** Ryan McLane <[ryan@franzdriscoll.com](mailto:ryan@franzdriscoll.com)>  
**Sent:** Monday, October 20, 2025 4:10 PM  
**To:** Hamilton, Steven <[Steven.Hamilton@mt.gov](mailto:Steven.Hamilton@mt.gov)>  
**Cc:** Shaw, Matthew <[Matthew.Shaw@mt.gov](mailto:Matthew.Shaw@mt.gov)>; Blomquist, Claire <[Claire.Blomquist@mt.gov](mailto:Claire.Blomquist@mt.gov)>  
**Subject:** [EXTERNAL] RE: NorthWestern 41Q 30170946, Form 600P B

Steven, Matthew, and Claire,

Thanks for letting me know that I did not attach the Form 600B and its required responses to our Form 600P-B responses sent last week. My apologies this was my inadvertent mistake.

Please find attached the entire NorthWestern Energy’s Form 600P-B responses for pre-application 41Q 30170946 – including the Form 600B responses. My understanding is that you have received the \$500 application check in the mail already, if this is in error, please let me know.

Please note that our Form 600B responses makes reference to the 1999 FEIS conducted by FERC concerning the Project 2188, the Missouri-Madison Project, which includes Black Eagle Reservoir.

This document was already in DNRC's possession as of the Ryan Reservoir application, however please find attached a link where the document can be downloaded. It is quite voluminous (816 pages) and cannot be sent by email.  [2188 FEIS - Sept 1999.pdf](#) [[franzanddriscoll-my.sharepoint.com](mailto:franzanddriscoll-my.sharepoint.com)]

Please let me know if there is anything else you need from us. Again, my apologies for the inconvenience of not sending everything you needed in the last email.

-Ryan

Ryan McLane  
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P.O. Box 1155  
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Helena, MT 59624  
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---

**From:** Ryan McLane  
**Sent:** Friday, October 10, 2025 3:39 PM  
**To:** 'Hamilton, Steven' <[Steven.Hamilton@mt.gov](mailto:Steven.Hamilton@mt.gov)>  
**Cc:** Shaw, Matthew <[Matthew.Shaw@mt.gov](mailto:Matthew.Shaw@mt.gov)>; Blomquist, Claire <[Claire.Blomquist@mt.gov](mailto:Claire.Blomquist@mt.gov)>  
**Subject:** NorthWestern 41Q 30170946, Form 600P B

Steven, Matthew, and Claire,

Please find attached NorthWestern Energy's Form 600B for pre-application 41Q 30170946, regarding its proposed new appropriation at Black Eagle Dam.

I have placed a hard copy of the attached documents, together with a \$500 check in the US mail, addressed to your office.

Please let me know if there is anything else you need from us.

-Ryan

Ryan McLane  
Franz & Driscoll, PLLP  
P.O. Box 1155  
21 N. Last Chance Gulch, Ste. 210  
Helena, MT 59624  
406-442-0005 phone  
[ryan@franzdriscoll.com](mailto:ryan@franzdriscoll.com)

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---

**From:** Hamilton, Steven <[Steven.Hamilton@mt.gov](mailto:Steven.Hamilton@mt.gov)>  
**Sent:** Thursday, September 18, 2025 3:27 PM  
**To:** Ryan McLane <[ryan@franzdriscoll.com](mailto:ryan@franzdriscoll.com)>  
**Cc:** Shaw, Matthew <[Matthew.Shaw@mt.gov](mailto:Matthew.Shaw@mt.gov)>; Blomquist, Claire <[Claire.Blomquist@mt.gov](mailto:Claire.Blomquist@mt.gov)>  
**Subject:** RE: Form 600P A signature required; follow-up items

Good afternoon Ryan,

I don't see anything else we need to discuss on the draft technical analysis. I've been working on a sample of what the Scientific Credibility Review might look like (I've never done one before so it's not a fast process), but the theme of it is that the analysis appears to be credible based on what we've talked about and what you've provided in this follow-up. Matthew and Claire have also been reviewing and commenting on it as well so it's been a team effort from us here in Lewistown.

Please feel free to reach out with any questions you may have for me, Matthew, or Claire. We're always happy to help!

Have a great afternoon!



**Steven B. Hamilton** | Regional Manager  
Water Resources – Lewistown Regional Office  
Montana Department of Natural Resources and Conservation  
613 NE Main Street, Suite E, Lewistown, MT 59457  
**OFFICE:** 406-538-7459 **DIRECT:** 406-535-1922 **EMAIL:** [steven.hamilton@mt.gov](mailto:steven.hamilton@mt.gov)  
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---

**From:** Ryan McLane <[ryan@franzdriscoll.com](mailto:ryan@franzdriscoll.com)>  
**Sent:** Tuesday, August 26, 2025 9:40 AM  
**To:** Hamilton, Steven <[Steven.Hamilton@mt.gov](mailto:Steven.Hamilton@mt.gov)>  
**Cc:** Shaw, Matthew <[Matthew.Shaw@mt.gov](mailto:Matthew.Shaw@mt.gov)>  
**Subject:** [EXTERNAL] RE: Form 600P A signature required; follow-up items

Steve & Matt,

Thanks for contacting me yesterday regarding your review of NorthWestern's draft technical analysis for the Black Eagle application. I have done some research, and I can now shed light on (1) Claim 43Q 94362-00, which you asked about, and (2) how nonconsumptive, non-diversionary rights are calculated under the permit application manual. I will discuss each in turn:

1. The bottom line is that I incorrectly filled in the attributes of 41Q 94362-00 right into Table 3. The Water Court determined that 41Q 94362-00 has no quantified flow rate and a quantified volume of 8,507 AFY.

To explain more fully, as originally claimed, 41Q 94362-00 had a flow rate of 532 cfs, and no quantified volume. However, this right is the storage right for Rainbow Dam and represents the amount of water historically used to fill/refill the onstream reservoir associated with Rainbow Dam. Pursuant to adjudication rules, onstream dams are not decreed a quantified flow rate, but are decreed a quantified volume. In 2018 the right was modified by the Water Court to remove a quantified flow rate, and include a quantified volume of 8,507 AFY (the largest historical volume NorthWestern could prove). Please see the attached Master's Report, Objection to Master's Report, and Order Amending and Adopting, which sets this all out.

I incorrectly included the flow rate for 41Q 94362-00 into Table 3 of the draft analysis I sent, but it was not intentional. Accordingly, the analysis will be modified to accurately describe 94362 as having a maximum quantified flow rate of "n/a" and a maximum volume of "8,507" AFY. That would result in a total flow on Table 3 of "10.6 CFS" (1/1-3/31, 10.1-12//31) and "11.1 CFS" (4/1-10/1). The total volumes on Table 3 would remain unchanged. I have made these changes on my draft.

2. You are correct that instream, non-diversionary water rights are not included in the calculation of physical demand in this situation. We agree. On page 69 of the DNRC Permit Application Manual (rev. Feb. 14, 2025) the physical availability analysis is discussed. It appears to us that the present application falls within "Situation 3," where the POD is located above the stream gage with intervening water rights. In subsection 3 of this Situation 3, the manual states:

Sum the monthly flow rates for all intervening water rights with diversions between the closest gage (either up or downstream) and POD. It is important to make a distinction between appropriations that divert water directly from the source (i.e., pumps, headgates, and even livestock direct) **versus nonconsumptive appropriations like instream flow, hydropower, or any other use where no water is diverted from the source.** Although instream flow water rights are legal demands, **they don't impact the physical flow of a source, as such they have no bearing on the stream's physical availability. Therefore, we ignore 'run of the river' hydropower** and instream demand when following the steps below.

Accordingly, your analysis is correct that NorthWestern's intervening instream hydropower rights are excluded from the analysis of physical availability. Thanks for bringing this to our attention.

Please let me know if there is anything else we need to discuss on the draft technical analysis. Otherwise, we will start preparing a Form 600B response.

Best Regards, and Thanks so much for your time,

-Ryan

Ryan McLane  
Franz & Driscoll, PLLP  
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**From:** Hamilton, Steven <[Steven.Hamilton@mt.gov](mailto:Steven.Hamilton@mt.gov)>  
**Sent:** Monday, August 25, 2025 12:51 PM  
**To:** Ryan McLane <[ryan@franzdriscoll.com](mailto:ryan@franzdriscoll.com)>  
**Cc:** Shaw, Matthew <[Matthew.Shaw@mt.gov](mailto:Matthew.Shaw@mt.gov)>  
**Subject:** RE: Form 600P A signature required; follow-up items

Good afternoon Ryan,

I wanted to touch bases with you this afternoon to let you know that I'm almost finished with my review and notes and Matthew is working independently and we're comparing notes at regular intervals. I think we may have a couple of questions about a few numbers, just to make sure we're on the same page, but nothing that is too substantial (certainly nothing that would hold up the process). I just want to make sure you're getting the most accurate information from me since this is the first time we're doing one of these from this angle. I can give you a call this afternoon between meetings or tomorrow morning first thing, whichever you prefer.

Thanks!



**Steven B. Hamilton** | Regional Manager  
Water Resources – Lewistown Regional Office  
Montana Department of Natural Resources and Conservation  
613 NE Main Street, Suite E, Lewistown, MT 59457  
**OFFICE:** 406-538-7459 **DIRECT:** 406-535-1922 **EMAIL:** [steven.hamilton@mt.gov](mailto:steven.hamilton@mt.gov)  
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---

**From:** Ryan McLane <[ryan@franzdriscoll.com](mailto:ryan@franzdriscoll.com)>  
**Sent:** Monday, August 18, 2025 5:08 PM

**To:** Hamilton, Steven <[Steven.Hamilton@mt.gov](mailto:Steven.Hamilton@mt.gov)>; Shaw, Matthew <[Matthew.Shaw@mt.gov](mailto:Matthew.Shaw@mt.gov)>

**Subject:** [EXTERNAL] RE: Form 600P A signature required; follow-up items

Steven & Matt,

I am following up on this request to review NorthWestern Energy's draft technical analysis regarding the Black Eagle Pre-application. It's been a bit over a month since I sent it over, and I'm starting to hit internal deadlines telling me that I need to submit the formal 600B response. I want to file the 600B with enough time that if you guys have problems, I can still fix it within the pre-application deadline. Let me know where you are at on this, and whether we need to discuss timelines etc.

Best,

-Ryan

Ryan McLane

Franz & Driscoll, PLLP

P.O. Box 1155

21 N. Last Chance Gulch, Ste. 210

Helena, MT 59624

406-442-0005 phone

[ryan@franzdriscoll.com](mailto:ryan@franzdriscoll.com)

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**From:** Hamilton, Steven <[Steven.Hamilton@mt.gov](mailto:Steven.Hamilton@mt.gov)>

**Sent:** Friday, July 11, 2025 10:19 AM

**To:** Ryan McLane <[ryan@franzdriscoll.com](mailto:ryan@franzdriscoll.com)>; Shaw, Matthew <[Matthew.Shaw@mt.gov](mailto:Matthew.Shaw@mt.gov)>

**Subject:** RE: Form 600P A signature required; follow-up items

Hello Ryan,

Thanks for sending this to us. We'll start reviewing it here shortly!



**Steven B. Hamilton** | Regional Manager

Water Resources – Lewistown Regional Office

Montana Department of Natural Resources and Conservation

613 NE Main Street, Suite E, Lewistown, MT 59457

**OFFICE:** 406-538-7459 **DIRECT:** 406-535-1922 **EMAIL:** [steven.hamilton@mt.gov](mailto:steven.hamilton@mt.gov)

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**From:** Ryan McLane <[ryan@franzdriscoll.com](mailto:ryan@franzdriscoll.com)>

**Sent:** Wednesday, July 9, 2025 3:38 PM

**To:** Shaw, Matthew <[Matthew.Shaw@mt.gov](mailto:Matthew.Shaw@mt.gov)>

**Cc:** Hamilton, Steven <[Steven.Hamilton@mt.gov](mailto:Steven.Hamilton@mt.gov)>

**Subject:** [EXTERNAL] RE: Form 600P A signature required; follow-up items

Steve & Matt,

This email pertains to NorthWestern Energy's (NWE) pre-application 41Q 30170946, regarding its proposed appropriation at Black Eagle Dam.

Specifically this email pertains to a phone call Steve and I had about two weeks ago concerning NWE's election of who would prepare the technical analyses. As I said at the time, NWE was leaning towards electing to do that work itself, as it had already done a draft analysis before filing this pre-application meeting request. NWE used as a template, the previous work done by the Lewistown DNRC when it reviewed NWE's Ryan Dam Permit Application (41Q 30148072).

At the conclusion of my call with Steven, I understood that DNRC was willing to review that 'draft' work and let us know if it was the same structure and analysis DNRC would undertake. If so, it seems likely we would elect to do the technical analysis and submit this work, since we already did it. If not, more discussion may be needed to understand what problems may exist.

In any event, please find attached that draft work. I look forward to hearing from you more on this.

Best,

-Ryan

Ryan McLane

Franz & Driscoll, PLLP

P.O. Box 1155

21 N. Last Chance Gulch, Ste. 210

Helena, MT 59624

406-442-0005 phone

[ryan@franzdriscoll.com](mailto:ryan@franzdriscoll.com)

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---

**From:** Ryan McLane

**Sent:** Friday, May 16, 2025 2:35 PM

**To:** Shaw, Matthew <[Matthew.Shaw@mt.gov](mailto:Matthew.Shaw@mt.gov)>

**Cc:** Hamilton, Steven <[Steven.Hamilton@mt.gov](mailto:Steven.Hamilton@mt.gov)>

**Subject:** RE: Form 600P A signature required; follow-up items

Matt,

Received. I appreciate the very clear instructions – it makes my life much easier.

We will get that signed as quickly as possible and get it returned.

Best regards,

-Ryan

---

**From:** Shaw, Matthew <[Matthew.Shaw@mt.gov](mailto:Matthew.Shaw@mt.gov)>  
**Sent:** Friday, May 16, 2025 2:32 PM  
**To:** Ryan McLane <[ryan@franzdriscoll.com](mailto:ryan@franzdriscoll.com)>  
**Cc:** Hamilton, Steven <[Steven.Hamilton@mt.gov](mailto:Steven.Hamilton@mt.gov)>  
**Subject:** Form 600P A signature required; follow-up items

Ryan,

Attached is the completed preapplication meeting form (600P-A) for your proposed change. Please review the items (3) for follow-up on page 39 (and the instructions above the table). Also, please have the Applicant sign page 41 with a wet (hand-written/ink) signature and return it to the Lewistown Regional Office either in person or through the mail on or before May 29 (10-business days after the pre-app meeting). Note that the entire 606P-A document does not need to be mailed, only the signature page (page 41).

The following link is for Part B of the Pre-App Mtg form and will be where the follow-up information (and any amendments, if necessary) will be added/made. A wet signature from the Applicant is required on this form as well. Once completed, the 600-B form should be mailed or hand delivered, in its entirety, to the Lewistown Regional Office. Note that the Applicant has 180-calendar days to submit the completed 600-B, which is November 10, 2025. The \$500 pre-application fee is to accompany the completed Form 600- B. If the Applicant elects to do the Technical Analysis, it is also due at that time. ([https://dnrc.mt.gov/docs/water/Water-Rights-Forms/606P-B\\_02.2025.pdf](https://dnrc.mt.gov/docs/water/Water-Rights-Forms/606P-B_02.2025.pdf))

Once the Dept. obtains all items (Form 600P-A, p.41 signed; Form 606P - B completed/signed; the fee; and the Technical Analysis, if applicable) the Dept. will consider your preapplication submission complete and will begin timelines (45-calendar days) to complete the Technical Analyses/Scientific Credibility Review (as applicable).

If you have any questions, please don't hesitate to ask! We're happy to help as we understand this is a complex process.

Regards,



**Matthew Shaw** | Water Resource Specialist—New Appropriations  
Water Rights Bureau

Montana Department of Natural Resources and Conservation  
Lewistown Water Regional Office, 613 NE Main St, Ste E, Lewistown, MT 59457

**OFFICE:** 406-538-7459 **DIRECT:** 406-535-1927 **EMAIL:** [matthew.shaw@mt.gov](mailto:matthew.shaw@mt.gov)

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**PREAPPLICATION MEETING  
FORM: PART B  
PERMIT**  
§ 85-2-302, MCA  
Form No. 600P-B (Revised 02/2025)

For Department Use Only

Application # 30170946 Basin 41Q  
 Form Received 10/14/2025  
 Fee Rec'd \$ 500.00 Check # 8/69  
 Deposit Receipt # LWS2606381  
 Payor Franz + Driscoll PLLC  
 Form Returned \_\_\_\_\_  
 Refund \$ \_\_\_\_\_ Date \_\_\_\_\_

**PREAPPLICATION MEETING FEE**  
\$ 500

**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)).

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OCT 14 2025

LEWISTOWN WATER  
RESOURCES

*The Applicant is responsible for providing a "Follow-up Responses" document for all follow-up identified in Preapplication Meeting Form Part A (Form 600P-A). The Applicant may not alter Form 600P-A. 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.*

*The following guidelines are applicable to both the "Follow-up Responses" and "Amended Responses" documents. Clearly label all question numbers. Answer questions in the same format as Form 600P-A. 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 included with the document.*

1.  Y  N Are you submitting this form in response to a determination by the Department that a previously submitted Form 600P-B was inadequately completed?

If yes,

- a. Date form was returned ("Form Returned" date found in "For Department Use Only" box on the previously submitted Form 600P-B): \_\_\_\_\_
- b. If a "Follow-up Responses" or "Amended Responses" document is required by questions 2 or 3, submit complete updated documents with responses that stand-alone. The Department will only use the most recently submitted "Follow-up Responses" and "Amended Responses" documents for departmental technical analyses or scientific credibility review; the Department will not use multiple versions of a document.

2.  Y  N Were any questions identified as requiring follow-up on Form 600P-A?

If yes,

- a.  S Submit "Follow-up Responses" document for all questions requiring follow-up.





## FOLLOW-UP AND AMENDED RESPONSES AFFIDAVIT & CERTIFICATION

"I attest that this preapplication meeting form (Form 600P-A and Form 600P-B), follow-up, and amended responses accurately portray the 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, amended responses, or follow-up materials (ARM 36.12.1302(6)(a))."

*Michael Green*

10/10/2025

Applicant Signature

Date

Applicant Signature

Date

"We confirm that the preapplication form (Form 600P-A and Form 600P-B), amended responses, and follow-up information are adequate for the Department to proceed with technical analyses in ARM 36.12.1303. Or, if the Applicant has elected to complete technical analyses, we confirm they have submitted each required element of technical analysis based on the proposed project and the Department is able to proceed with the scientific credibility review (ARM 36.12.1303(8))."

*Clare Brown*

10/21/2025

Department Signature

Date

Department Signature

Date



**ATTACHMENT TO FORM 600P-B  
SURFACE WATER APPLICATION  
FILED BY NORTHWESTERN CORPORATION  
Redevelopment at Black Eagle Dam**

NorthWestern Corporation d/b/a as NorthWestern Energy (NWE) proposes to modify its existing Black Eagle Hydroelectric Development (“Black Eagle”) by increasing its power generation capacity. This expansion requires a water right for an additional 1,602 cubic feet second (CFS) of water up to 1,005,684 acre feet per year, as set forth in NWE’s Pre-Application Form 600P-A, executed May 27, 2025, and assigned DNRC application no. 41Q 30170946.

**ATTACHMENT RESPONSES TO FORM 600P-B QUESTIONS**

**Question 2.** *Were any questions identified as requiring follow-up on Form 600P-A? If yes, Submit “Follow-up Responses” document for all questions requiring follow-up.*

**Response to Question 2.** The DNRC identified the following Form 600P-A questions as requiring follow-up:

- Question # 1: “Decision on who is doing the Technical Analysis.”
- Question # 2: “Exhibit C Map is missing a scale bar
- Question # 15: “Form 600-B

NWE responds as follows:

**Follow-up Response to Form 600P-A, Question 1:** NWE elects to have the DNRC conduct the Technical Analysis.

**Follow-up Response to Form 600P-A, Question 2:** Please find attached a revised **Exhibit C**, including a scale bar, legend, and sections corners.

**Follow-up Response to Form 600P-A, Question 15:** See submitted Form 600P-B and its attachments.

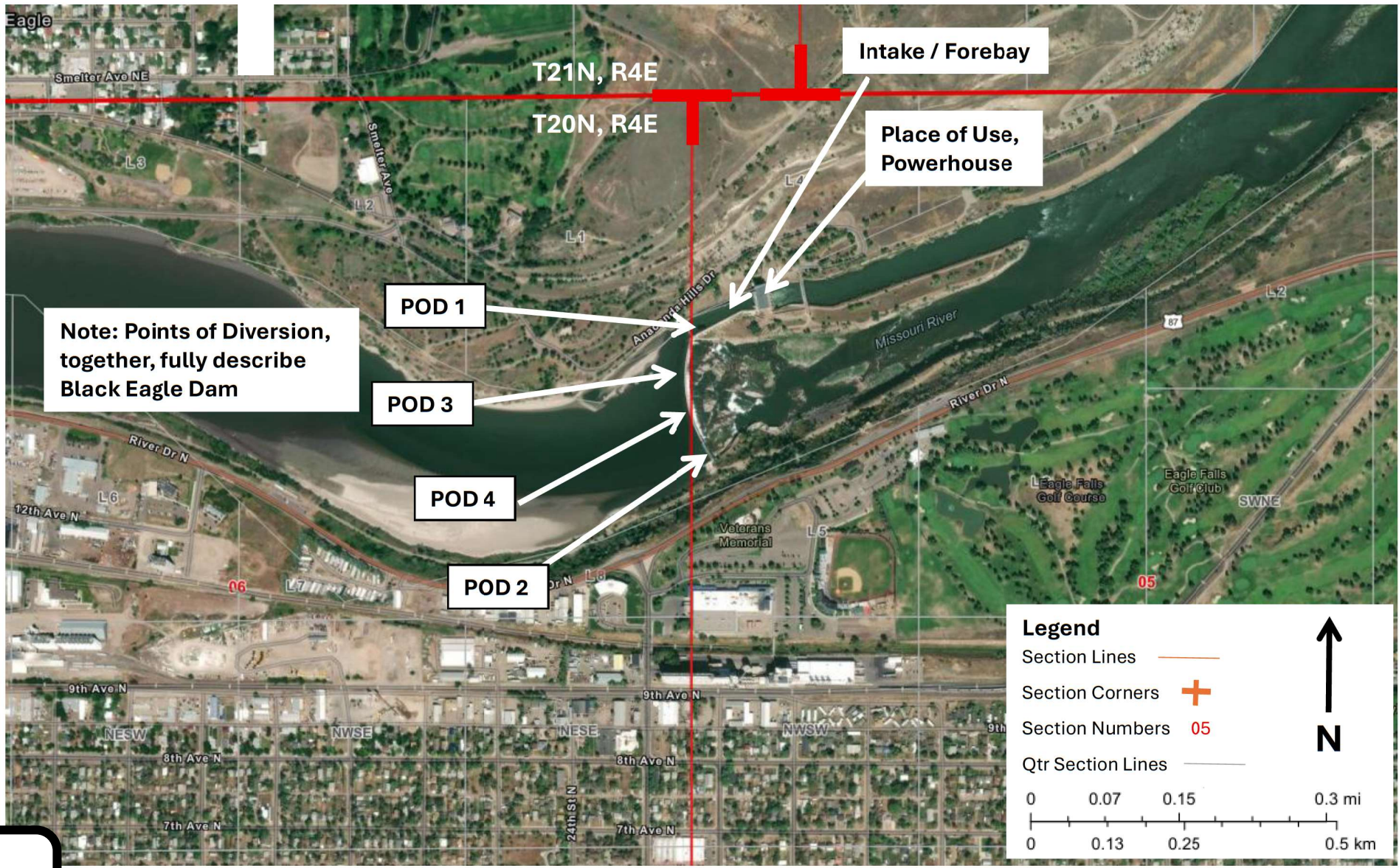


EXHIBIT  
C

OCT 21 2025

LEWISTOWN WATER  
RESOURCES

Form No. 600-B (11/2024)

Applicant Name NorthWestern Energy 41Q 30170946

**CRITERIA ADDENDUM APPLICATION FOR BENEFICIAL WATER USE PERMIT  
FOR APPROPRIATIONS GREATER THAN 5.5 CFS AND 4,000 AF  
§85-2-311(3), MCA**

The information requested by this Form 600-B is supplemental to the required permit application (Form 600). This addendum must be completed, and the required information attached to a change application, if the application is to change the purpose of use or place of use of an appropriation of 4,000 or more acre-feet of water a year and 5.5 or more cubic feet per second. It is the applicant's responsibility to provide credible, relevant, and factual information that meets the standard of **clear and convincing evidence** upon which the Department may rely to support the issuance of a provisional permit.

**Section 85-2-311(3), MCA**, provides the Department may not approve a water use permit for an appropriation of 5.5 CFS or greater and 4,000 AC-FT of water unless the applicant proves by **clear and convincing evidence** that the criteria are met for permit issuance pursuant to §85-2-311(1) and that the proposed appropriation is a reasonable use based on consideration of the elements listed in §85-2-311(3)(b) (i-vi).

**MARKETING/ EXCESS APPROPRIATION:** *If the water applied for is to be appropriated in excess of that which will be solely used by the applicant or if it will be marketed by the applicant to other users, a Form 600/606-WMA must also be submitted.*

**OUT-OF-STATE:** *For out-of-state water use, a Form 600/606-OSA must be submitted.*

It is your responsibility to obtain any necessary easement or right-of-way. If public lands are involved, such as State of Montana or BLM, contact the appropriate agency. The water right may need to be in their name.

**ON A SEPARATE ATTACHMENT, PROVIDE CLEAR AND CONVINCING EVIDENCE PROVING THAT THE PROPOSED APPROPRIATION IS A REASONABLE USE BASED ON CONSIDERATION OF THE FOLLOWING (§85-2-311(3)(b), MCA):**

- i. The existing demands on the State water supply as well as projected demands of water for future beneficial purposes including municipal water supplies, irrigation systems, and minimum streamflows for the protection of existing water rights and aquatic life;
- ii. The benefits of the proposed use to the applicant and the State of Montana;
- iii. The effects on the quantity and quality of water for existing uses in the source of supply;
- iv. The availability and the feasibility of using low-quality water (meaning not potable for human consumption) for the purpose for which the application has been made;
- v. The effect on private property rights by any creation of or contribution to saline seep; and
- vi. The probable significant adverse environmental impacts of the proposed use of water.



**ATTACHMENT TO FORM NO. 600B CRITERIA ADDENDUM APPLICATION  
FOR BENEFICIAL WATER USE PERMIT FOR APPROPRIATIONS  
GREATER THAN 5.5 CFS AND 4,000 AC-FT**

**NorthWestern Energy Corporation, Application No. 41Q 30170946**

NorthWestern Corporation d/b/a as NorthWestern Energy (NWE) proposes to modify its existing Black Eagle Hydroelectric Development (“Black Eagle”) by increasing its power generation capacity. This expansion requires a water right for an additional 1,602 cubic feet second (CFS) of water up to 1,005,684 acre feet per year, as set forth in NWE’s Pre-Application Form 600P-A, executed May 27, 2025, and assigned DNRC application no. 41Q 30170946.

Pursuant to MCA 85-2-311(3)(b), as implemented through DNRC Form No. 600-B (11/2024), and as submitted with the Form 600P-B Responses, NWE responds as follows:

**Show the proposed appropriation is a reasonable use based on consideration of the following:**

- i. Describe the existing demands on the State water supply as well as projected demands of water for future beneficial purposes including municipal water supplies, irrigation systems, and minimum streamflows for the protection of existing water rights and aquatic life.**

Notwithstanding the DNRC’s (“Department”) actual analyses, which has yet to be completed, clear and convincing data indicates that this appropriation will not impact the existing or future legal demands associated with beneficial uses on the source of supply. Furthermore, NWE’s proposed appropriation is non-consumptive, and such water will remain available for downstream existing and future demands and beneficial uses. Accordingly, the proposed appropriation is a reasonable use.

The Department will determine legal availability as well as physical availability under its rules and procedure of ARM 36.12.1303, ARM 36.12.1702, and ARM 36.12.1704. That analysis includes the determination of legal demands on the source of supply as required under MCA § 85-2-311(1)(a), which includes existing perfected water rights, and water reservations, and permits that have not yet been completed.

Without presupposing the Department’s analyses, NWE has conducted what it believes to be the same analyses and determined that water is legally available to this appropriation, which means that existing and future demands on the Missouri River will not be impacted. That analysis is as follows:

*Surface Water Availability*

USGS Gage No. 0690300 Missouri River near Great Falls, MT is the nearest downstream gage measuring flow on the Missouri River. NWE has been relying on this gage for the operations of its Great Falls area dams, including Black Eagle, for many years. In addition, there are no major tributaries, and as seen in the following area of impact analyses, very few diversionary water

rights between Black Eagle and this gage.

The monthly data for gage 0690300 exists from October of 1956 through the present. The monthly data for this gage (as calculated through December 31, 2024) is set forth below in the attached Table 5. A summary of the median of the mean monthly values from this gage are set forth on the following Table 1:

Table 1. Median of the mean monthly values		
	Flow Rate (CFS)	Volume (AF)
Jan	6,039	371,235.4
Feb	6,062	348,607.4
Mar	5,993	368,377.0
Apr	7,255	431,600.0
May	10,075	619,340.5
Jun	11,705	696,330.5
Jul	7,250	445,648.5
Aug	5,405	332,261.6
Sep	5,186	308,485.4
Oct	5,360	329,495.3
Nov	5,562	330,883.4
Dec	5,766	354,453.3
Total		4,936,718.2

Pursuant to DNRC rule & practice, the physical availability of water at Black Eagle is calculated by (A) determining the median of the mean monthly flow from the nearest stream gage, which is located downstream of Black Eagle (Table 1, above), and (B) adding to this flow the amount of water diverted (maximum monthly flow rate and volume) for each existing diversionary water right located between that stream gage and Black Eagle dam (Table 3, below). This results in the amount of water available at Black Eagle Dam, which is set forth on the following Table 2.

Table 2: Physical Availability at Black Eagle		
	Flow Rate (CFS)	Volume (AF)
Jan	6,049.6	390,697.6
Feb	6,072.6	368,069.6
Mar	6,003.1	387,839.2
Apr	7,266.1	451,096.1
May	10,086.1	638,836.6
Jun	11,716.1	715,826.6
Jul	7,260.6	465,144.6
Aug	5,416.1	351,757.7
Sep	5,196.6	327,981.5
Oct	5,370.6	348,957.5
Nov	5,572.6	350,345.6

Dec	5,776.6	373,915.5
Total		5,170,468.0

Tables 1 and 2 show that there is over 1,602 CFS available in every month of the year at Black Eagle, and that there is over 1,005,684 acre feet/year available at Black Eagle, and 83,807 AF/month (the monthly average) available in every month of the year at Black Eagle.

Moreover, it should be noted that the flow rates and volumes in Tables 1 and 2 above represent median of the mean flows (e.g. a measurement of ‘average’) and this proposed water right will be able to operate and maximize the beneficial use of the flows whenever the amount requested, or some portion of that amount, is available regardless of the ‘average’ monthly flow rates experienced at Black Eagle.

***Existing and Future Demands on the Source / Area of Impact.***

The area of potential impact is the mainstem of Black Eagle Dam down to the next nearest gage, USGS Gage No. 0690300 Missouri River near Great Falls, MT. This will illustrate the water rights impacted by the operation of this proposed non-consumptive appropriation. These water rights represent both existing legal demands on the Missouri River, but would also include any other water reservations and/or permits that have yet to be completed (e.g. future demands on the source).

Upon reviewing all water rights in this proposed area of impact, NWE has located the following 21 water rights as set forth on the following Table 3:

<b>Table 3. Existing Water Rights between Black Eagle and USGS Gage 06090300</b>						
<b>Water Right No.</b>	<b>Priority Date</b>	<b>Owners</b>	<b>Purposes</b>	<b>Period of Diversion</b>	<b>Maximum Flow</b>	<b>Maximum Volume (AF/YR)</b>
<b>Instream Rights</b>						
41Q 94354 00	1892/06/01	NWE	POWER GEN.	1/1-12/31	3300 CFS	2,389,200.00
41Q 94355 00	1893/12/31	NWE	POWER GEN.	1/1-12/31	900 CFS	651,600.00
41Q 94356 00	8/31/1927	NWE	POWER GEN.	1/1-12/31	560 CFS	405,440.00
41Q 94359 00	12/31/1912	NWE	POWER GEN.	1/1-12/31	280 CFS	202,720.00
41Q 94358 00	9/16/1908	NWE	POWER GEN.	1/1-12/31	3500 CFS	2,533,884.00
41Q 94360 00	7/1/1917	NWE	POWER GEN.	1/1-12/31	1640 CFS	1,187,306.00
41Q 94361 00	3/26/1958	NWE	POWER GEN.	1/1-12/31	480 CFS	292,000.00
41Q 30042060	5/13/2008	NWE	POWER GEN.	1/1-12/31	2380 CFS	466,007.00
41Q 94365 00	6/16/1955	NWE	POWER GEN.	1/1-12/31	10000 CFS	7,240,000.00
41Q 94367 00	8/31/1915	NWE	POWER GEN.	1/1-12/31	5900 CFS	4,271,600.00
41Q 30148072	1/27/2020	NWE	POWER GEN.	1/1-12/31	1300 CFS	941,200.00
41Q 94396 00	12/20/1928	NWE	POWER GEN.	1/1-12/31	8280 CFS	5,994,720.00
41Q 30017520	7/1/1985	MT FWP	FISHERY	1/1-12/31	3876 CFS	2,805,904.69
<b>Stored / Diverted Rights</b>						
41Q 94357 00	8/31/1927	NWE	STORAGE	1/1-12/31	n/a	29,480.00

41Q 94362 00	9/16/1908	NWE	STORAGE	1/1-12/31	n/a	8,507
41Q 94363 00	9/16/1908	NWE	LAWN & GARDEN	4/1-10/1	250 GPM	203.3
41Q 94366 00	6/16/1955	NWE	STORAGE	1/1-12/31	n/a	54,779.00
41Q 94368 00	8/31/1915	NWE	STORAGE	1/1-12/31	n/a	52,808.00
41Q 94397 00	12/20/1928	NWE	STORAGE	1/1-12/31	n/a	81,947.00
41K 71890 00	7/1/1985	GREAT FALLS	MUNICIPAL	1/1-12/31	4,700 GPM	6,022.00
41Q 202344 00	1892/10/24	URQUHART	STOCK (L.D.S.)	1/1-12/31	35 GPM	3.50
<b>Totals</b>				<b>1/1-3/31, 10/1-12/31</b>	<b>10.6 CFS</b>	<b>19,462.2 AF / Mo</b>
				<b>4/1-10/1</b>	<b>11.1 CFS</b>	<b>19,496.1 AF / Mo</b>

There are 13 instream, nonconsumptive, direct flow water rights located between Black Eagle and USGS stream gage site 06090300. Collectively, they represent over 42,000 CFS, and over 29 million AF/Year of existing nonconsumptive demands. Because the new appropriation proposed herein is nonconsumptive, none of these instream rights will be impacted by the proposed appropriation.

Furthermore, as seen in Table 3, between January 1 and March 31, and between October 1 and December 31, there are 10.6 CFS and 19,462.2 AF/Mo claimed to be diverted and used between Black Eagle and USGS stream gage site 06090300. Between April 1 and October 1 there are 11.1 CFS and 19,479.2 AF/Mo claimed to be diverted and used between Black Eagle and USGS stream gage site 06090300.

***Legal Availability of Water in Consideration of Demands on the Source***

Pursuant to DNRC rule and practice, legal availability of water at Black Eagle is determined by subtracting existing maximum diversionary demands (See Table 3)(e.g. the legal demands on the source) from DNRC’s calculation of physical availability of water on the source (See Table 2). Under that analysis, water is legally available in every month of the year in the amount requested (1,602 CFS and 1,005,684 AF/YR) at Black Eagle, as shown in the following Table 4:

	Physical Availability (CFS)	Existing Legal Demand (CFS)	Physical minus Legal (CFS)	Physical Availability (AF)	Existing Legal Demand (AF)	Physical minus Legal (AF)
Jan	6,049.6	10.6	6,039.0	390,697.6	19,462.2	371,235.4
Feb	6,072.6	10.6	6,062.0	368,069.6	19,462.2	348,607.4
Mar	6,003.1	10.6	5,992.5	387,839.2	19,462.2	368,377.0
Apr	7,266.1	11.1	7,255.0	451,096.1	19,496.1	431,600.0
May	10,086.1	11.1	10,075.0	638,836.6	19,496.1	619,340.5
Jun	11,716.1	11.1	11,705.0	715,826.6	19,496.1	696,330.5
Jul	7,260.6	11.1	7,249.5	465,144.6	19,496.1	445,648.5

Aug	5,416.1	11.1	5,405.0	351,757.7	19,496.1	332,261.6
Sep	5,196.6	11.1	5,185.5	327,981.5	19,496.1	308,485.4
Oct	5,370.6	10.6	5,360.0	348,957.5	19,462.2	329,495.3
Nov	5,572.6	10.6	5,562.0	350,345.6	19,462.2	330,883.4
Dec	5,776.6	10.6	5,766.0	373,915.5	19,462.2	354,453.3
Total				5,170,468.0	233,749.8	4,936,718.2

Moreover, this application proposes a nonconsumptive water right. It is located at an existing instream diversion structure with existing water rights associated with the right. Under this appropriation an additional quantity of water would be routed through the Black Eagle intakes, penstock and turbines to generate power, and immediately thereafter routed back into the Missouri River through the tailrace which discharges immediately below the dam. Currently, this additional amount of water spills over the dam. The proposed appropriation will not change the time, amount, or location of any water flowing in the Missouri River. Accordingly, any water in the stream will be legally available to use under the circumstances of this specific new appropriation, and will have no effect on other existing water rights. Any use of this water will not interfere with, or diminish, water legally available to downstream existing water rights.

However, in the very unlikely situation that NWE would be required to bypass this water over the Black Eagle Dam spillway, rather than beneficially use it through its intake/powerhouse, NWE is physically able to do so. While such action would reduce NWE's ability to generate additional electricity, NWE would still be able operate the facility at flow rates lower than the maximum amount sought herein. NWE is able to make such adjustments through the intake structure, as conditions on the river change.

In addition, the upgrades at Black Eagle will have no impact on existing and projected demand for water use upstream of the development. Black Eagle is one of five dams located in the Great Falls area. Two of these dams, Cochrane and Morony, are located downstream of Black Eagle already have water rights exceeding the proposed maximum flow rates of all water rights for Black Eagle, including this proposed appropriation. *See* Table 3, Water Right Nos. 41Q 94365 00 41Q 94396 00. Accordingly, the additional nonconsumptive water use at Black Eagle proposed in this application will not affect the legal availability of water upstream from the Great Falls dams, as Cochrane and Morony are already entitled to this same water.

**ii. The benefits of the proposed use to the applicant and the State of Montana.**

Power generation is specifically recognized as a beneficial use of water at MCA § 85-2-102(4)(a). The Federal Energy Regulatory Commission (FERC) has authorized the proposed improvements to the turbines and generators at Black Eagle Dam, allowing NWE to operate the hydropower generation facilities at Black Eagle at higher flow rates and volumes as requested in this application. Under this proposed appropriation, NWE will utilize water that is currently spilled over the dam to generate additional hydroelectric power at Black Eagle. After these upgrades are complete, Black Eagle will have an authorized installed capacity of 23.90 MW<sup>1</sup> of

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<sup>1</sup> FERC authorizations are based on “best efficiency” ratings as opposed to the actual maximum rated output. *See* Attachment to Form 600P-A, p.2, fn1 of this application.

electricity at Black Eagle. As shown in **Exhibit F** of the Form 600P-A responses, each of the two new turbines at Black Eagle have a maximum power output rating of 9,058 kW. With the newly installed turbines and generator rewinds, the maximum plant capacity at Black Eagle will be 25 MW. The improvements at two of the three turbines/generators will result in a maximum capacity of 2,481 CFS each, which combined with the third existing 1,680 CFS turbine, results in a total maximum plant capacity of 6,642 CFS. Since NWE has existing water rights at Black Eagle for 5,040 CFS, an addition of 1,602 CFS up to 1,005,684 acre-feet per year is required.

NorthWestern supplies electric supply to residential, commercial, and industrial customers in Montana, and is regulated by the Montana Public Service Commission. Hydropower generated at Black Eagle is among the portfolio of electricity production facilities supplying Montana customers.

The expanded hydroelectric development is one of the most economic and environmentally accepted plans to meet future power requirements. The electric power generated from renewable water power resources is beneficial because it offsets the use of fossil-fuel, steam-electric generating plants, thereby conserving nonrenewable resources and reducing atmospheric pollution.

The expanded generation will non-consumptively use water that is currently spilled (passed on downstream). The expanded operation is consistent with federal and state comprehensive plans for improving, developing or conserving the waterway affected by the development.

The upgrades at Black Eagle will create short-term increases in employment and long-term continuations of existing employment, income, and tax revenues. The increased generation resulting from Black Eagle will increase property tax payments to Cascade County and the State of Montana.

**iii. The effects on the quantity and quality of water for existing uses in the source of supply.**

The proposed water use at Black Eagle is non-consumptive and will not result in depletions of stream flows; and will not affect the quantity or quality of water for existing uses.

Section 401 of the Clean Water Act prevents FERC from issuing a license or permit that may result in a discharge from the project unless the water quality certifying agency either has issued water quality certification for the project or has waived certification by failing to act on a request for certification. The 2020 FERC Order at ¶ 7 (attached as **Exhibit A** to the responses to Form 600P-A) states the Montana Department of Environmental Quality (MDEQ) provided an email stating it had no comments on the proposed project. The Montana Department of Natural Resources and Conservation (DNRC) had no comment other than a request that NWE file this present application for Beneficial Water User Permit. The 2022 FERC Order at ¶ 8 (attached as **Exhibit B** to the responses to Form 600P-A) states MDEQ provided an email stating that no further conditioning is required under the existing Section 401 Water Quality Certificate pertaining to Black Eagle. The Montana Department of Natural Resources and Conservation (DNRC) had no comment other than a request that NWE file this present application for

Beneficial Water User Permit.

**iv. The availability and the feasibility of using low-quality water (meaning not potable for human consumption) for the purpose for which the application has been made.**

All of the water in the Missouri River, up to the capacity of the turbines, is used to generate power at Black Eagle. While the project uses water from the source without requirements as to water quality for the purpose of power generation, the location and nature of the non-consumptive operation does not allow for the introduction and use of low-quality water.

**v. The effect on private property rights by any creation of or contribution to saline seep.**

There are no identified impacts from saline seep.

**vi. The probable significant adverse environmental impacts of the proposed use of water.**

The FERC Amendments for Black Eagle approved in 2020 and 2022 (*See Exhibits A and B* of the Form 600P-A Responses) authorized the installation of two new turbines and two generator rewinds, with no changes to the third existing turbine and generator.

As part of these approvals, FERC was required to undertake an environmental review. The 2020 FERC Order at ¶ 10 and the 2022 FERC Order at ¶ 29 state the installation of the new turbines and the new generator rewinds will not have any appreciable effect on any environmental or cultural resources within the project area. Moreover, FERC concluded the proposed amendments do not affect environmental resources beyond those previously analyzed at the project. 2020 FERC Order at ¶ 10; 2022 FERC Order at ¶ 17.

The previous analysis FERC was referring to, occurred as part of the Missouri-Madison Project which was approved by the FERC 2000 relicensing order. In its 2000 relicensing order, FERC concluded:

Operating and maintaining the project in the manner required by the license will protect and enhance fish and wildlife resources, water quality, recreational, and cultural resources. The electric power generated from renewable water power resources will be beneficial because it will continue to offset the use of fossil-fuel, steam-electric generating plants, thereby conserving nonrenewable resources and reducing atmospheric pollution. With this project providing the infrastructure for a total generating capacity of 326.9 MW, using the Oak Ridge Competitive Electricity Dispatch model, it is estimated that approximately 300,000 metric tons of greenhouse gas emissions may be avoided annually. We find, therefore, that the Missouri Madison Hydroelectric Project, with the required measures, is best adapted to a comprehensive plan for the use, conservation, and development of the waterway for beneficial public purposes.

Moreover, the environmental effects of the Missouri-Madison Project 2188, were assessed in a Final Environmental Impact Statement (FEIS) issued by the FERC Office of Hydropower Licensing in September 1999.<sup>2</sup>

Accordingly, the 2020 and 2022 FERC Orders' environmental review of the Black Eagle Development has concluded that the Black Eagle Development will not appreciably effect any environmental or cultural resource, and that the prior 1999 FEIS issued by FERC accurately documents all environmental impacts. The Montana Department of Natural Resources and Conservation (DNRC) also participated in the environmental review and intervened in the FERC relicensing process.

For all of these reasons, and in compliance with the Montana Environmental Policy Act, DNRC should adopt the 1999 FEIS and FERC's subsequent conclusion that the license amendments authorized in the 2020 and 2022 FERC orders do not result in any appreciable effects on the environment and occur within the existing Black Eagle facilities.

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<sup>2</sup> The voluminous 1999 FEIS is already in DNRC's possession and thus has not attached it to these responses. A copy will, however, be provided upon request.

**Table 5, Full Record of USGS Gage Data, Monthly Mean.****USGS 06090300 Missouri River near Great Falls MT**

YEAR	Monthly mean in ft3/s (Calculation Period: 1956-10-01 -> 2024-12-31)											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1956										5,149	5,157	5,315
1957	5,050	6,077	6,064	5,791	7,271	13,760	6,268	5,084	5,175	5,275	5,335	5,766
1958	6,020	6,073	5,755	6,735	9,891	11,200	8,372	5,476	5,481	5,571	5,411	5,045
1959	4,821	4,535	5,207	4,751	10,190	15,730	7,182	3,948	3,109	6,022	10,310	11,520
1960	4,741	4,343	4,723	8,639	12,110	9,359	4,490	4,616	4,733	5,179	4,995	4,828
1961	5,191	5,590	4,021	3,526	4,454	5,091	4,336	4,803	4,258	4,096	5,275	5,421
1962	5,387	5,226	5,921	5,286	7,942	13,150	5,397	5,396	5,276	5,755	5,457	4,760
1963	5,218	6,548	5,134	4,678	8,365	17,160	7,247	4,816	5,077	5,392	5,609	5,538
1964	5,210	5,116	4,841	4,708	13,410	30,160	11,070	5,390	5,405	5,390	5,975	6,249
1965	6,796	7,414	7,459	10,310	16,170	20,110	14,090	6,119	8,086	11,940	10,430	6,897
1966	6,382	5,914	7,461	7,769	8,151	6,226	4,807	4,698	3,892	4,035	4,182	6,158
1967	7,296	7,792	7,605	6,268	10,210	25,660	12,790	6,858	5,772	5,439	5,680	5,830
1968	7,212	7,771	10,820	9,193	10,690	14,700	8,896	6,730	6,377	7,828	7,633	6,634
1969	7,522	8,093	9,909	13,140	14,430	13,080	13,730	6,833	5,550	5,372	6,050	6,670
1970	6,643	6,814	6,819	8,717	17,450	19,420	10,980	7,407	6,332	6,404	7,591	7,047
1971	8,232	9,048	8,861	12,530	21,510	15,450	12,340	7,450	7,172	7,542	6,910	6,438
1972	7,424	8,153	8,639	10,130	14,090	16,100	8,950	7,598	7,510	7,596	7,296	7,034
1973	6,555	6,278	4,986	4,598	6,025	6,702	5,889	4,329	3,866	4,921	6,194	6,340
1974	7,009	6,946	7,131	8,298	10,120	18,630	9,705	7,291	6,342	5,489	4,921	6,182
1975	6,898	6,880	8,126	9,431	20,200	28,790	23,560	9,090	8,028	8,484	10,110	9,449
1976	7,902	7,786	8,643	13,200	24,780	17,500	9,742	7,524	7,018	7,106	7,152	7,205
1977	6,887	6,819	5,548	6,094	5,771	3,758	3,817	4,390	3,825	4,626	5,593	6,255
1978	6,771	7,650	9,846	8,975	14,740	13,790	12,380	7,676	7,270	5,911	6,824	6,792
1979	7,201	6,920	8,653	9,365	11,760	9,385	5,733	5,296	4,716	4,580	4,416	5,526

<b>1980</b>	6,156	5,643	5,921	7,020	9,374	21,520	9,710	6,159	4,508	5,919	6,432	6,496
<b>1981</b>	6,884	7,429	7,389	6,102	15,970	24,900	8,697	6,092	4,681	4,520	5,562	6,144
<b>1982</b>	7,172	8,120	8,139	9,076	12,440	22,050	15,240	7,587	5,979	6,690	7,315	6,941
<b>1983</b>	7,625	7,592	8,121	8,019	10,900	10,100	12,970	7,591	6,249	6,984	8,896	6,960
<b>1984</b>	7,765	7,487	7,751	8,468	11,840	17,700	12,310	8,253	9,992	8,165	7,345	6,955
<b>1985</b>	7,023	6,938	6,793	7,392	8,789	5,757	3,904	4,345	4,467	7,130	7,493	6,654
<b>1986</b>	6,576	7,034	7,665	8,351	11,750	11,540	7,344	6,128	5,945	5,655	7,299	7,027
<b>1987</b>	6,856	5,813	5,578	6,159	5,970	4,772	5,253	4,638	4,655	4,238	5,001	4,815
<b>1988</b>	5,159	5,039	4,706	4,795	5,915	4,708	4,014	3,719	3,962	3,829	4,245	4,036
<b>1989</b>	4,854	5,337	6,972	7,445	10,670	8,624	5,057	4,815	4,685	4,719	5,581	6,266
<b>1990</b>	6,173	6,668	6,508	7,570	7,284	7,985	5,005	5,189	4,884	4,299	4,431	5,264
<b>1991</b>	6,208	5,695	4,707	5,359	10,920	13,810	7,915	5,834	5,595	5,171	5,106	5,739
<b>1992</b>	5,857	5,754	5,130	4,285	4,464	4,673	4,348	3,844	3,834	3,973	3,950	3,996
<b>1993</b>	5,010	4,871	5,098	5,567	12,180	14,470	13,520	9,946	9,185	7,939	7,309	7,348
<b>1994</b>	7,128	6,344	6,537	7,766	8,591	5,328	4,607	4,126	4,076	4,473	4,426	4,522
<b>1995</b>	4,502	5,322	5,884	7,118	15,000	17,020	12,670	7,280	7,207	6,951	7,064	7,439
<b>1996</b>	7,083	8,581	10,190	11,750	12,960	21,440	7,547	6,004	5,281	5,569	5,532	5,906
<b>1997</b>	8,022	9,252	9,563	9,301	16,610	27,600	11,470	7,548	7,076	7,799	7,483	6,764
<b>1998</b>	6,525	6,791	6,867	8,627	8,964	14,380	15,100	7,363	6,525	5,590	5,878	6,244
<b>1999</b>	6,626	7,085	8,270	8,433	10,030	13,120	7,252	6,081	5,759	5,622	5,566	5,680
<b>2000</b>	5,573	5,919	5,870	5,558	5,866	5,751	4,545	4,104	4,017	4,389	4,305	4,122
<b>2001</b>	4,183	4,067	4,289	4,363	4,813	5,013	4,572	4,179	3,867	3,905	3,994	3,773
<b>2002</b>	3,869	4,030	4,213	4,193	5,032	9,270	4,956	4,613	4,351	4,358	4,805	4,731
<b>2003</b>	4,744	4,661	5,509	6,063	8,278	8,897	5,616	4,379	3,893	3,974	4,196	4,278
<b>2004</b>	4,416	4,916	4,747	4,510	5,598	5,767	4,359	4,286	4,191	4,398	4,601	4,212
<b>2005</b>	4,725	4,129	4,157	4,634	7,200	9,320	7,259	5,415	5,196	5,231	5,201	5,226
<b>2006</b>	5,457	5,587	6,182	8,291	9,570	9,238	5,552	5,172	4,944	5,053	5,089	5,189
<b>2007</b>	5,189	5,125	5,231	5,408	7,684	7,634	5,120	4,288	4,080	4,309	4,332	4,355
<b>2008</b>	4,215	4,389	4,329	4,693	9,800	18,820	9,807	5,965	5,847	5,360	5,568	5,415

<b>2009</b>	5,918	6,154	5,769	8,142	13,940	11,500	8,142	5,974	5,362	5,489	5,627	6,286
<b>2010</b>	5,755	5,731	5,455	5,958	8,174	20,160	12,210	6,520	6,161	5,928	6,475	6,941
<b>2011</b>	6,979	6,757	7,204	7,963	18,880	29,570	19,560	7,216	6,903	6,220	6,805	6,600
<b>2012</b>	6,166	6,521	6,494	7,887	8,744	10,340	5,478	5,004	4,431	4,469	4,442	4,318
<b>2013</b>	5,207	5,858	5,608	5,438	6,645	7,140	4,321	4,046	3,747	4,200	4,252	4,218
<b>2014</b>	4,048	4,367	7,395	9,540	14,340	10,110	6,943	5,837	5,495	5,796	5,793	5,605
<b>2015</b>	6,285	6,188	5,905	5,638	7,006	8,023	5,315	4,832	4,885	4,318	4,312	4,106
<b>2016</b>	4,491	4,693	4,593	5,694	8,389	7,003	5,143	4,666	4,507	4,679	4,871	5,172
<b>2017</b>	4,699	4,916	5,552	7,955	12,770	11,870	5,696	5,167	5,120	4,995	5,416	5,612
<b>2018</b>	6,058	6,117	8,167	10,540	23,140	22,640	9,545	5,665	5,784	5,570	5,847	5,785
<b>2019</b>	5,618	5,558	6,893	11,660	14,330	11,100	7,816	6,469	6,247	6,153	6,092	5,967
<b>2020</b>	5,802	6,051	6,299	6,702	10,390	12,020	9,557	5,414	4,940	4,632	4,980	4,850
<b>2021</b>	4,823	5,015	4,856	4,769	7,501	6,674	4,177	4,281	3,705	3,770	3,891	3,706
<b>2022</b>	4,074	4,111	4,128	3,901	4,398	7,504	6,083	5,049	4,592	4,434	4,341	4,413
<b>2023</b>	4,498	4,709	5,032	7,692	13,740	15,950	7,170	5,342	5,342	4,989	5,368	5,507
<b>2024</b>	5,415	5,262	4,858	5,126	7,558	7,459	5,188	4,814	4,688	4,155	4,141	4,059
<b>Mean of monthly Discharge</b>	5,970	6,140	6,450	7,250	10,800	13,200	8,230	5,740	5,400	5,520	5,810	5,800
<b>Median of Mean</b>	6,039	6,062	5,993	7,255	10,075	11,705	7,250	5,405	5,186	5,360	5,562	5,766



**PREAPPLICATION MEETING  
FORM: PART A  
PERMIT**  
§ 85-2-302, MCA  
Form No. 600P-A (Revised 03/2025)

**For Department Use Only**

Application # \_\_\_\_\_ Basin # \_\_\_\_\_  
Meeting Date \_\_\_\_\_ Time \_\_\_\_\_  
Variance Request Deadline \_\_\_\_\_  
Completed Form Deadline \_\_\_\_\_

**PREAPPLICATION MEETING FEE**

\$ 500

**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)).

*The Department will fill out Permit Preapplication Meeting Form Part A (Form 600P-A) and will identify items for follow-up during the preapplication meeting. The Department and Applicant will sign the Preapplication Meeting Affidavit and Certification within 10 business days. Within 180 days of the preapplication meeting, the Applicant will complete Preapplication Meeting Form Part B (Form 600P-B), including identified follow-up, any amended responses, and Follow-up and Amended Responses Affidavit & Certification. Variance requests must be submitted on Form 653 to the Department on or before the Variance Request Deadline, which is day 138 of the 180 day-deadline for a completed preapplication meeting form. Form 653 may be submitted earlier than the Variance Request Deadline. The Department has 30 business days to process the Form 653.*

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

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 Other (describe) \_\_\_\_\_  
Contact/Representative Name \_\_\_\_\_  
Mailing Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_  
Phone Numbers: Home \_\_\_\_\_ Work \_\_\_\_\_ Cell \_\_\_\_\_  
Email Address \_\_\_\_\_

*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 (ARM 36.12.122(2)). If a contact person is identified as a consultant, employee, or lessee, the applicant will receive all correspondences, and a copy may be sent to the contact person (ARM 36.12.122(3)).*

**Meeting Attendees: Add more as necessary.**

Name	Role	Name	Role



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## 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. Responses in the form of a table may be entered into the table provided on this form or 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. Label units in narrative responses and tables. 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”.

**S = Submitted.** Use when required item is included with form.

**A = See attachment.** Use when additional space is needed to answer a question.

**F = Follow-up.** Use when follow-up is necessary.

Questions, Narrative Responses, and Tables	Check-boxes	Follow-up
1. Do you elect to have DNRC conduct Technical Analyses?	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> F
2. Provide a map created on an aerial photograph or topographic map that shows the following: section corners, township and range, scale bar, north arrow, all proposed points of diversion labeled with a unique POD ID number (include GWIC ID, if available, for wells), all proposed places of use, all proposed conveyance structures (including ditches and pipelines), all proposed places of storage, and places of use for all overlapping water rights. More than one map may be submitted, if necessary to clearly convey all required information.	<input type="checkbox"/> S	<input type="checkbox"/> F
3. Is the project located in a Controlled Groundwater Area or Basin Closure Area? If yes, immediately go to Mandatory Project-Specific questions 54 to 56 because Form 600 may be the incorrect form, or this project may not meet the requirements for the Department to accept a Form 600.	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> F
4. Is the proposed use temporary?	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> F
a. If yes, when will the appropriation cease? _____	<input type="checkbox"/> A	<input type="checkbox"/> F



5. Describe the proposed purpose information, including period of diversion (MM/DD-MM/DD), period of use (MM/DD-MM/DD), flow rate (GPM or CFS) and volume (AF).  A  F

Purpose	Period of Diversion	Period of Use	Flow Rate			Volume
	(MM/DD-MM/DD)	(MM/DD-MM/DD)	Flow Rate	GPM	CFS	(AF)
				<input type="checkbox"/>	<input type="checkbox"/>	
				<input type="checkbox"/>	<input type="checkbox"/>	
				<input type="checkbox"/>	<input type="checkbox"/>	
				<input type="checkbox"/>	<input type="checkbox"/>	
				<input type="checkbox"/>	<input type="checkbox"/>	
<b>Total</b>				<input type="checkbox"/>	<input type="checkbox"/>	

6. Does the proposed use include one or more of the following purposes: domestic, multiple domestic, stock, or irrigation? If yes, fill out the following table, where applicable.  Y  N  F

Purpose	Requested Information	Response
Domestic or multiple domestic	Number of dwellings	
Stock	Number of animal units	
Irrigation	Method of irrigation type (sprinkler or flood) and subtype (if flood: level border, graded border, furrow, contour ditch, or other; if sprinkler: center pivot, wheel line, or other)	
Irrigation (flood only)	Design slope	

7. Describe the proposed location of the point(s) 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 each POD with the POD # used for the project map (question 2).  A  F

POD #	1/4	1/4	1/4	Sec	Twp	Rge	County	Lot	Block	Tract	Subdivision	Gov Lot	SW or GW	Source Name	Means

8. What are the geocodes of the place of use?	<input type="checkbox"/> A	<input type="checkbox"/> F

9. Describe the legal land description for the proposed place of use and, if an irrigation or lawn and garden purpose, list the number of irrigated acres.	<input type="checkbox"/> A	<input type="checkbox"/> F
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Acres	Gov't Lot	Block	¼	¼	¼	Sec	Twp	Rge	County
	<b>Total</b>								

10. Will other water rights supplement or overlap the place of use to contribute to the purpose(s)?	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> F
a. If yes, summarize how the water rights will be operated as a whole to serve the purpose(s). <hr style="border: 0; border-top: 1px solid black; margin: 5px 0;"/> <hr style="border: 0; border-top: 1px solid black; margin: 5px 0;"/> <hr style="border: 0; border-top: 1px solid black; margin: 5px 0;"/> <hr style="border: 0; border-top: 1px solid black; margin: 5px 0;"/>	<input type="checkbox"/> A	<input type="checkbox"/> F

11. For each supplemental or overlapping water right, please list the water right number, purpose, typical period of diversion and use (MM/DD-MM/DD), flow rate (GPM or CFS), and the volume of water (AF) contributed.  A  F

Water Right No.	Avg. Period of Diversion	Avg. Period of Use	Flow Rate			Volume Contributed
	MM/DD-MM/DD	MM/DD-MM/DD	Flow Rate	GPM	CFS	AF
				<input type="checkbox"/>	<input type="checkbox"/>	
				<input type="checkbox"/>	<input type="checkbox"/>	
				<input type="checkbox"/>	<input type="checkbox"/>	
				<input type="checkbox"/>	<input type="checkbox"/>	
				<input type="checkbox"/>	<input type="checkbox"/>	

12. Will this application supplement contract water from a Federal Project, ditch company, or other source?  Y  N  F

a. If yes, explain.  A  F

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

13. Does the project involve one or more places of storage? This does not include reservoirs, pits, pit-dams, or ponds with a capacity less than 0.1 AF; water tanks; or cisterns (ARM 36.12.113(6)). If yes, answer the following questions once for each place of storage. Use an "Additional Place of Storage (600P)" sheet if more than one. Additionally, you may choose to answer non-mandatory questions 76 to 80 for place of storage.  Y  N  F

a. Is this application to enlarge an existing reservoir? If yes, list the water right numbers for the existing reservoir.  Y  N  F

\_\_\_\_\_

b. Is the place of storage located on-stream?  Y  N  F

c. What is the capacity of the proposed place of storage or the existing place of storage after it is enlarged? 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:  

$$\text{Surface Acres} \times \text{Maximum Depth (FT)} \times 0.5 = \text{Capacity (AF)}$$
 A  F

\_\_\_\_\_

<p>d. What is the surface area of the place of storage?</p> <p>_____</p> <p>_____</p>	<input type="checkbox"/> A	<input type="checkbox"/> F
<p>14. Will your system be designed to discharge water from the project?</p>	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> F
<p>a. If yes, explain the wastewater disposal method. A discharge permit may be required to comply with §§ 75-5-410 and 85-2-364, MCA.</p> <p>_____</p> <p>_____</p> <p>_____</p>	<input type="checkbox"/> A	<input type="checkbox"/> F
<p>15. Does the project involve an appropriation that is greater than 5.5 CFS and 4,000 AF? If yes, you must submit a Criteria Addendum Application for Beneficial Water Use Permit for Appropriations Greater than 5.5 CFS and 4,000 AF (Form 600-B) with application submittal. The criteria are found in §85-2-311(3), MCA.</p>	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> F
<p>16. Will you be transporting water for use outside of Montana? If yes, you must 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.</p>	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> F
<p>17. Does the project include the water marketing purpose? If yes, you may choose to answer non-mandatory questions 81 to 85 for water marketing. A Water Marketing Purpose Addendum (Form 600/606-WMA) will be required with application submittal.</p>	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> F
<p>18. Are you proposing a point of diversion and/or place of use on State of Montana Trust Land? If yes, documentation of consent from the DNRC Trust Lands Management Division will be required at application submittal.</p>	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> F
<p>19. Is the project located in designated sage grouse habitat? If yes, a review letter from the Montana Sage Grouse Habitat Conservation Program will be required at application submittal.</p>	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> F



## SURFACE WATER

**Applicable**, move on to question 20.  **Not Applicable**, skip to question 30.

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

### Surface Water Analysis

<b>Questions, Narrative Responses, and Tables</b>	<b>Check-boxes</b>	<b>Follow-up</b>
20. What is the flow rate (GPM or CFS), volume (AF), period of diversion start date and end date (MM/DD-MM/DD), and source type (e.g., perennial, ephemeral) at each point of diversion? Use the same POD # as the project map (question 2) to label each point of diversion.	<input type="checkbox"/> A	<input type="checkbox"/> F

POD #	Flow Rate			Volume	Period Start	Period End
	Flow Rate	GPM	CFS	AF	MM/DD	MM/DD
		<input type="checkbox"/>	<input type="checkbox"/>			
		<input type="checkbox"/>	<input type="checkbox"/>			
		<input type="checkbox"/>	<input type="checkbox"/>			
		<input type="checkbox"/>	<input type="checkbox"/>			
		<input type="checkbox"/>	<input type="checkbox"/>			

21. Is the source type of the diversion perennial or intermittent, ephemeral, lake, or other? _____	<input type="checkbox"/> A	<input type="checkbox"/> F
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<b>Perennial or intermittent</b>	Answer questions 22 to 25	<b>Ephemeral</b>	Answer question 26	<b>Lake</b>	Answer question 27	<b>Other</b>	Answer questions 28 to 29
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### *Surface Water Analysis: Perennial or Intermittent*

**Applicable**  **Not Applicable**

22. Are stream gage data available?	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> F
a. If yes, answer question 23.		
b. If no, answer question 24.		



23. Stream gage data are available.		
a. Is one stream gage located above the most upstream POD and one stream gage located below the most upstream POD?	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> F
i. If no, is only one stream gage located near the most upstream POD?	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> F
1. If yes, is the stream gage located upstream or downstream? _____		<input type="checkbox"/> F
b. List the gage name(s). Write "N/A" for Gage 2 if one gage is available. Gage 1: _____ Gage 2: _____		<input type="checkbox"/> F
c. What is the distance between the gage(s) and the most upstream POD? Write "N/A" for Gage 2 if one gage is available. Gage 1: _____ Gage 2: _____		<input type="checkbox"/> F
d. Is there a limiting or controlling factor on the source between the stream gage(s) and the most upstream POD? This includes dams that control the flow and streams with large gaining and/or losing reaches. If you have questions about this, the Regional Office may provide assistance.	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> F
i. If yes, explain. _____ _____ _____	<input type="checkbox"/> A	<input type="checkbox"/> F
e. How long is the period of record? Write "N/A" for Gage 2 if one gage is available. Gage 1: _____ Gage 2: _____		<input type="checkbox"/> F
f. Who operates and maintains the gage(s)? Write "N/A" for Gage 2 if one gage is available. Gage 1: _____ Gage 2: _____		<input type="checkbox"/> F



g. Is each available stream gage operated and maintained by USGS or DNRC?	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> F
i. If yes, skip to question 23.h.		
ii. If no, answer the following questions for each gage not operated and maintained by USGS or DNRC.		
1. How frequently are stage data recorded? Write "N/A" for Gage 2 if only one gage is not operated or maintained by USGS. Gage 1: _____ Gage 2: _____		<input type="checkbox"/> F
2. If data gaps were to occur, are they identified and left unfilled or estimated using interpolation, ice correction, or indirect discharge measurements methods?		
a. Gage 1. _____	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> F
b. Gage 2. Write "N/A" on the line instead of answering yes or no, if only one gage is not operated or maintained by USGS or DNRC. _____	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> F
3. 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?		
a. Gage 1. _____	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> F
b. Gage 2. Write "N/A" on the line instead of answering yes or no, if only one gage is not operated or maintained by USGS or DNRC. _____	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> F
4. Were requirements established and followed for maintaining a permanent gage datum and meeting specified accuracy limits?		
a. Gage 1. _____	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> F
b. Gage 2. Write "N/A" on the line instead of answering yes or no, if only one gage is not operated or maintained by USGS or DNRC. _____	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> F



h. Do the data for one or more available stream gages 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?	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> F
i. If yes, record how many meet the standard, then skip to question 54 because this section is complete. _____		<input type="checkbox"/> F
ii. If no, answer question 24.		
24. If no gage data are available or if available gage data do 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?	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> F
a. If no, measurements may be necessary. The Department cannot deem the preapplication meeting form adequately completed until the Department receives gage data and/or measurements that meet the requirements of ARM 36.12.1702 or, in combination with an approved variance request, are sufficient to complete any necessary technical analyses or scientific credibility reviews and to evaluate the applicable criteria. Skip to question 25.		
b. If yes,		
i. Submit available measurements to the Department.	<input type="checkbox"/> S	<input type="checkbox"/> F
ii. Who collected the measurements? _____	<input type="checkbox"/> A	<input type="checkbox"/> F
iii. With what method were the data collected? _____ _____	<input type="checkbox"/> A	<input type="checkbox"/> F
iv. What is the period of record? _____		<input type="checkbox"/> F
v. What is the frequency of measurement? _____		<input type="checkbox"/> F
vi. Are there gaps in the data?	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> F



<p>1. If yes, what is the nature of the gaps and how are gaps handled to ensure data quality?</p> <p>_____</p> <p>_____</p> <p>_____</p>	<input type="checkbox"/> A	<input type="checkbox"/> F
<p>vii. Is there a process for maintaining the data and meeting specified accuracy limits?</p>	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> F
<p>1. If yes, explain.</p> <p>_____</p> <p>_____</p> <p>_____</p>	<input type="checkbox"/> A	<input type="checkbox"/> F
<p>viii. Do 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?</p>	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> F
<p>1. If yes, this section is complete. Skip to question 54.</p>		
<p>2. If no, answer question 25.</p>		
<p>25. Do 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?</p>	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> F
<p>a. If yes,</p>		
<p>i. Describe how the measurements are representative of high, moderate, and low flows.</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>	<input type="checkbox"/> A	<input type="checkbox"/> F
<p>ii. Describe the estimation technique.</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>	<input type="checkbox"/> A	<input type="checkbox"/> F
<p>b. If no, but a Department-accepted estimation technique will be appropriate for the source:</p>		



<p>i. Will measurements be collected prior to submission of Form 600P-B that meet the Department's standard of including a minimum of high, moderate, and low flows to be sufficient to use for calibration of a Department-accepted estimation technique?</p>	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> F
<p>1. If yes,</p>		
<p>a. With what method will the data be collected?</p> <p>_____</p> <p>_____</p>	<input type="checkbox"/> A	<input type="checkbox"/> F
<p>b. What will be the interval of measurement?</p> <p>_____</p>		<input type="checkbox"/> F
<p>c. Describe the proposed estimation technique.</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>	<input type="checkbox"/> A	<input type="checkbox"/> F
<p>2. If no, do you plan on requesting a variance from measurement requirements pursuant to ARM 36.12.1702(1)(b)? If you plan to request a variance, you must submit Form 653 on or before the Variance Request Deadline. The Department cannot deem the preapplication meeting form adequately completed until the Department receives measurements that meet the requirements of ARM 36.12.1702(1)(b) or, in combination with an approved variance request, are sufficient to complete any necessary technical analyses or scientific credibility reviews and to evaluate the applicable criteria.</p>	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> F
<p>c. If no, because no Department-accepted estimation technique will be appropriate for the source:</p>		
<p>i. Describe why no Department-accepted estimation technique is appropriate for the source characteristics.</p> <p>_____</p> <p>_____</p> <p>_____</p>	<input type="checkbox"/> A	<input type="checkbox"/> F
<p>ii. Do the available measurement data, gage and/or otherwise measured, meet the Department's standard for monthly measurements throughout the proposed period of diversion pursuant to ARM 36.12.1702(4)?</p>	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> F



1. If no, will measurements be collected prior to submission of a completed Form 600P that meet the Department's standard of monthly measurements throughout the proposed period of diversion?	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> F
a. If yes, with what method will the data be collected? _____ _____	<input type="checkbox"/> A	<input type="checkbox"/> F
b. If no, do you plan on requesting a variance from measurement requirements pursuant to ARM 36.12.1702(4)? If you plan to request a variance, you must submit Form 653 on or before the Variance Request Deadline. The Department cannot deem the preapplication meeting form adequately completed until the Department receives measurements that meet the requirements of ARM 36.12.1702(4) or, in combination with an approved variance request, are sufficient to complete any necessary technical analyses or scientific credibility reviews and to evaluate the applicable criteria.	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> F

*Surface Water Analysis: Ephemeral*

**Applicable**  **Not Applicable**

26. Did you elect for the Department to conduct the Technical Analyses?	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> F
a. If yes, do you have climate or drainage area data you would like the Department to consider during Technical Analyses?	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> F
i. If yes, submit this information to the Department.	<input type="checkbox"/> S	<input type="checkbox"/> F
b. If no,		
i. Describe the estimation technique you propose to use to estimate physical availability at the point of diversion. _____ _____ _____	<input type="checkbox"/> A	<input type="checkbox"/> F
ii. What is the net annual precipitation? Include the source of this information. _____ _____	<input type="checkbox"/> A	<input type="checkbox"/> F



iii. What is the drainage area upstream of the point of diversion and how was this figure calculated? _____ _____ _____	<input type="checkbox"/> A	<input type="checkbox"/> F
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*Surface Water Analysis: Lakes*

**Applicable**  **Not Applicable**

27. Has the lake volume been quantified by a qualified entity based on bathymetric data?	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> F
a. If yes, provide this information to DNRC.	<input type="checkbox"/> S	<input type="checkbox"/> F
b. If no, answer the following questions,		
i. When do you plan to collect this information? _____		<input type="checkbox"/> F
ii. What data collection method will you use? _____ _____	<input type="checkbox"/> A	<input type="checkbox"/> F

*Surface Water Analysis: Other*

**Applicable**  **Not Applicable**

28. Explain why the source type is "other". _____ _____	<input type="checkbox"/> A	<input type="checkbox"/> F
29. Have you measured the source?	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> F
a. If yes, answer the following questions,		
i. With what method was the measurement data collected? _____ _____	<input type="checkbox"/> A	<input type="checkbox"/> F



ii. What is the measurement interval? _____		<input type="checkbox"/> F
1. Does the interval meet the Department's standard for monthly measurements throughout the proposed period of diversion pursuant to ARM 36.12.1702(4)?	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> F
a. If no, do you plan on requesting a variance from measurement requirements pursuant to ARM 36.12.1702(4)? If you plan to request a variance, you must submit Form 653 on or before the Variance Request Deadline.	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> F
b. If no,		
i. When do you plan to measure? _____		<input type="checkbox"/> F
ii. What data collection method will be used? _____ _____ _____	<input type="checkbox"/> A	<input type="checkbox"/> F
iii. Do you plan on requesting a variance from measurement requirements pursuant to ARM 36.12.1702(4)? If you plan to request a variance, you must submit Form 653 on or before the Variance Request Deadline. The Department cannot deem the preapplication meeting form adequately completed until the Department receives measurements that meet the requirements of ARM 36.12.1702(4) or, in combination with an approved variance request, are sufficient to complete any necessary technical analyses or scientific credibility reviews and to evaluate the applicable criteria.	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> F

**Area of Potential Impact Analysis**

No additional information needed for Technical Analyses.



## GROUNDWATER

**Applicable**, move on to question 30.  **Not Applicable**, skip to question 54.

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

### Groundwater Analysis for Permits

Questions, Narrative Responses, and Tables				Check-boxes	Follow-up
30. What is the type of groundwater diversion? _____				<input type="checkbox"/> A	<input type="checkbox"/> F
<b>Well/Pumping Pit</b>	Answer questions 31 to 35	<b>Developed Spring</b>	Answer question 36	<b>Pond</b>	Answer questions 37 to 39

#### *Groundwater Analysis for Permits: Well/Pumping Pit*

Applicable  Not Applicable

31. Per ARM 36.12.121 a 24- or 72-hour aquifer test is required; do you propose not to conduct the test? An 8-hour test will be required, if no aquifer test is completed.		<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> F
a. If yes, explain. The Department will let you know if the request is reasonable and identify additional data needs. _____ _____ _____ _____ _____		<input type="checkbox"/> A	<input type="checkbox"/> F



32. Submit Aquifer Test Data Form (Form 633). If a variance is requested, Form 633 must be submitted on or before the Variance Request Deadline. If no variance is requested, Form 633 is due by the time the preapplication meeting form is complete but may be submitted earlier. However, if the Department determines a variance is needed and the Variance Request Deadline has passed, to submit the Form 653 you must reschedule the preapplication meeting or submit the application without expedited fees and timelines (ARM 36.12.1302(6)).	<input type="checkbox"/> S	<input type="checkbox"/> F
33. Submit the Aquifer Testing Addendum (Form 600/606-ATA) and associated materials (e.g., well logs). If you request a variance, Form 600/606-ATA must be submitted on or before the Variance Request Deadline. If no variance is requested, Form 600/606-ATA is due by the time the preapplication meeting form is complete but may be submitted earlier. However, if the Department determines a variance is needed and the Variance Request Deadline has passed, to submit the Form 653 you must reschedule the preapplication meeting or submit the application without expedited fees and timelines (ARM 36.12.1302(6)).	<input type="checkbox"/> S	<input type="checkbox"/> F
34. Are you requesting a variance from ARM 36.12.121? If you are unsure if a variance request will be needed, mark follow-up and answer this question once Form 600/606-ATA and Form 633 are complete. A variance must be requested by the Variance Request Deadline.	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> F
a. If yes, submit Form 653, Form 600/606-ATA, and Form 633 together on or before the Variance Request Deadline.	<input type="checkbox"/> S	<input type="checkbox"/> F
b. If no, you may choose to submit Form 600/606-ATA and Form 633 before the Variance Request Deadline, and the Department will review these two forms. However, if the Department determines a variance is needed after the Variance Request Deadline, to submit the Form 653 you must reschedule the preapplication meeting or submit the application without expedited fees and timelines (ARM 36.12.1302(6)).		
35. Have all proposed wells/pumping pits been constructed?	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> F
a. If no, answer the following questions:		
i. Submit a list of the POD IDs for all wells/pumping pits and mark whether they have or have not been constructed.	<input type="checkbox"/> S	<input type="checkbox"/> F
ii. When will all proposed wells/pumping pits be constructed? _____		<input type="checkbox"/> F
iii. Is the requested volume for each proposed well/pumping pit known?	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> F
1. If yes, list the flow rate and volume requested for each proposed well/pumping pit. Label with POD ID. _____ _____ _____	<input type="checkbox"/> A	<input type="checkbox"/> F



2. If no, what is the total requested volume (AF) and the number of proposed PODs? _____		<input type="checkbox"/> F
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*Groundwater Analysis for Permits: Developed Spring*

Applicable  Not Applicable

36. Have you measured the source?	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> F
a. If yes, submit the measurements and answer the following questions,	<input type="checkbox"/> S	<input type="checkbox"/> F
i. Do you have flow rate (GPM or CFS) and volume measurements?	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> F
ii. With what method were measurements collected? _____ _____	<input type="checkbox"/> A	<input type="checkbox"/> F
iii. What is the interval of measurements? _____		<input type="checkbox"/> F
iv. Is the interval of measurements sufficient to comply with ARM 36.12.1703(1)?	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> F
b. If no, or if measurements do not comply with ARM 36.12.1703(1), answer the following questions. The Department cannot deem the preapplication meeting form adequately completed until the Department receives measurements that meet the requirements of ARM 36.12.1703(1). Variances from ARM 36.12.1703(1) are not allowed.		
i. When do you plan to measure? _____		<input type="checkbox"/> F
ii. With what method and at what interval will measurements be collected? _____ _____	<input type="checkbox"/> A	<input type="checkbox"/> F



*Groundwater Analysis for Permits: Pond*

Applicable  Not Applicable

37. Submit Form 653 to apply for a variance from ARM 36.12.121 for the Aquifer Test on or before the Variance Request Deadline.	<input type="checkbox"/> S	<input type="checkbox"/> F
38. Submit pond bathymetry data, survey, or engineering plans to the Department.	<input type="checkbox"/> S	<input type="checkbox"/> F
39. Is the pond fed or drained by surface water?	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> F
a. If yes,		
i. Explain. _____ _____ _____	<input type="checkbox"/> A	<input type="checkbox"/> F
ii. Submit measurements of the connected surface water source. These may include inflow and outflow measurements.	<input type="checkbox"/> S	<input type="checkbox"/> F

**Surface Water Depletion Analysis**

40. Is the type of groundwater diversion for your proposed project a developed spring? If yes, skip to question 45 because this section is complete. If no, move onto question 41.	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> F
41. Is the type of groundwater diversion for your proposed project a pond? If yes, answer question 41.a, then skip to question 45 because this section is complete. If no, move onto question 42.	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> F
a. Will any of the ponds have diversions for out-of-pond use that differ from, if year-round use, an allocation of diverted volume by the number of days in the month, or, if irrigation/lawn and garden use, the 80% dry year net irrigation requirement (IWR, NRCS 2003)?	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> F
i. If yes, provide a schedule of the diversions for out-of-pond use in the table below. Use the same POD # as the project map (question 2). Attach any additional schedules with POD # labeled.	<input type="checkbox"/> A	<input type="checkbox"/> F

POD #			
Month	Diversions for Out-of-Pond Use Volume (AF)	Month	Diversions for Out-of-Pond Use Volume (AF)
January		July	
February		August	
March		September	
April		October	
May		November	
June		December	



42. What is the flow rate (GPM or CFS), volume (AF), and period of diversion required (MM/DD-MM/DD) at each well/pumping pit? What is the well/pumping pit depth (FT), if available, or estimated well/pumping pit depth (FT). Please use the same POD # as the project map (question 2) to match this information with the location information.	<input type="checkbox"/> A	<input type="checkbox"/> F
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POD #	Flow Rate			Volume	Period of Diversion	Depth	Measured or Estimated
	Flow Rate	GPM	CFS	AF	MM/DD-MM/DD	FT	
		<input type="checkbox"/>	<input type="checkbox"/>				
		<input type="checkbox"/>	<input type="checkbox"/>				
		<input type="checkbox"/>	<input type="checkbox"/>				
		<input type="checkbox"/>	<input type="checkbox"/>				
		<input type="checkbox"/>	<input type="checkbox"/>				

43. Will any of the <i>new</i> wells/pumping pits have a monthly pumping schedule that differs from, if year-round use, an allocation of diverted volume by the number of days in the month, or, if irrigation/lawn and garden use, the 80% dry year net irrigation requirement (IWR, NRCS 2003)?	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> F
a. If yes, provide the alternative pumping schedule(s) in the table below. Use the same POD # as the project map (question 2). Attach any additional pumping schedules with POD # labeled.	<input type="checkbox"/> A	<input type="checkbox"/> F

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

44. Will one or more <i>existing</i> wells/pumping pits be used for the proposed project?	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> F
a. If yes, will any of the <i>existing</i> wells/pumping pits have a monthly pumping schedule, before or after the proposed project, that differs from an allocation of diverted volume by the number of days in the month (if year-round use) or the 80% dry year net irrigation requirement (if irrigation/lawn and garden use) (IWR, NRCS 2003)?	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> F
i. If yes, provide the pumping schedules before and after the proposed project in the table below. Use the same POD # as the project map (question 2). Attach any additional pumping schedules with POD # and before/after proposed project labeled.	<input type="checkbox"/> A	<input type="checkbox"/> F

Before proposed project: POD #				After proposed project: POD #			
Month	Volume (AF)	Month	Volume (AF)	Month	Volume (AF)	Month	Volume (AF)
January		July		January		July	
February		August		February		August	
March		September		March		September	
April		October		April		October	
May		November		May		November	
June		December		June		December	

### Surface Water Analysis of Depleted Surface Water

45. Based on the preliminary net depletion data provided by the Department at this preapplication meeting, what are the hydraulically connected surface water source(s)? <i>*Net depletion data provided by the Department at the preapplication meeting is preliminary and is subject to change during Technical Analyses. If the source or location of net depletion data changes during Technical Analyses, then surface water analysis of depleted surface water source(s) will reflect the Technical Analyses; this will not constitute a change of any element to the proposed application pursuant to ARM 36.12.1302(6)(a).</i> If the type of groundwater diversion for your proposed project is a developed spring, write "NA" and skip to question 51 because this section is complete.	<input type="checkbox"/> A	<input type="checkbox"/> F
46. Answer the questions in this section one time for each hydraulically connected source. Use the "Additional Hydraulically Connected Source (600P)" sheet, as necessary. For which hydraulically connected source are you answering questions 47 to 50? _____		<input type="checkbox"/> F
47. Are stream gage data available?	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> F
a. If yes, answer question 48.		
b. If no, answer question 49.		



48. Stream gage data are available		
a. Is one stream gage located above and one stream gage located below the start of the depleted reach?	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> F
i. If no, is only one stream gage located near the start of the depleted reach?	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> F
1. If yes, is the stream gage upstream or downstream? _____		<input type="checkbox"/> F
b. List the gage name(s). Write "N/A" for Gage 2 if one gage available. Gage 1: _____ Gage 2: _____		<input type="checkbox"/> F
c. What is the distance between the gage(s) and the start of the depleted reach? Write "N/A" for Gage 2 if one gage available. Gage 1: _____ Gage 2: _____		<input type="checkbox"/> F
d. Is there a limiting or controlling factor on the source between the stream gage(s) and the start of the depleted reach? This includes dams that control the flow and streams with large gaining and/or losing reaches. If you have questions about this, the Regional Office may provide assistance.	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> F
i. If yes, explain. _____ _____ _____	<input type="checkbox"/> A	<input type="checkbox"/> F
e. How long is the period of record? Write "N/A" for Gage 2 if one gage is available. Gage 1: _____ Gage 2: _____		<input type="checkbox"/> F
f. Who operates and maintains the gage(s)? Write "N/A" for Gage 2 if one gage is available. Gage 1: _____ Gage 2: _____		<input type="checkbox"/> F
g. Is each available stream gage operated and maintained by USGS or DNRC?	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> F
i. If yes, skip to question 48.h.		
ii. If no, answer the following questions for each gage not operated and maintained by USGS or DNRC.		



1. How frequently is stage data recorded? Write "N/A" for Gage 2 if only one gage is not operated or maintained by USGS. Gage 1: _____ Gage 2: _____		<input type="checkbox"/> F
2. If data gaps were to occur, are they identified and left unfilled or estimated using interpolation, ice correction, or indirect discharge measurements methods?	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> F
a. Gage 1. _____	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> F
b. Gage 2. Write "N/A" on the line instead of answering yes or no, if only one gage is not operated or maintained by USGS or DNRC. _____	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> F
3. 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?	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> F
a. Gage 1. _____	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> F
b. Gage 2. Write "N/A" on the line instead of answering yes or no, if only one gage is not operated or maintained by USGS or DNRC. _____	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> F
4. Were there requirements for maintaining a permanent gage datum and meeting specified accuracy limits?	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> F
a. Gage 1. _____	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> F
b. Gage 2. Write "N/A" on the line instead of answering yes or no, if only one gage is not operated or maintained by USGS or DNRC. _____	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> F
h. Do the data for one or more available stream gages meet the Department's standard to be sufficient to calculate the median of the mean monthly flow rate and volume during the months with net depletions?	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> F
i. If yes, record how many meet the standard, then skip to question 54 because this section is complete. _____		
ii. If no, answer question 49.		
49. If no gage data are available or if available gage data do not meet the Department's standard to be sufficient to calculate the median of the mean monthly flow rate and volume during the months with net depletions, is the source otherwise measured?	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> F



a. If no, measurements may be necessary. The Department cannot deem the preapplication meeting form adequately completed until the Department receives gage data and/or measurements that meet the Department's measurement standards or, in combination with an approved request to deviate from the Department's standards, are sufficient to complete any necessary technical analyses or scientific credibility reviews and to evaluate the applicable criteria. Skip to question 50.		
b. If yes,		
i. Submit measurements to the Department.	<input type="checkbox"/> S	<input type="checkbox"/> F
ii. Who collected the measurements? _____	<input type="checkbox"/> A	<input type="checkbox"/> F
iii. With what method was the data collected? _____ _____	<input type="checkbox"/> A	<input type="checkbox"/> F
iv. What is the period of record? _____		<input type="checkbox"/> F
v. What is the frequency of measurement? _____		<input type="checkbox"/> F
vi. Are there gaps in the data?	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> F
1. If yes, what is the nature of the gaps and how are gaps handled to ensure data quality? _____ _____ _____	<input type="checkbox"/> A	<input type="checkbox"/> F
vii. Is there a process for maintaining the data and meeting specified accuracy limits?	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> F
1. If yes, explain. _____ _____ _____	<input type="checkbox"/> A	<input type="checkbox"/> F
viii. Do 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 months with net depletions?	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> F
1. If yes, this section is complete. Skip to question 54.		
2. If no, answer question 50.		



50. Do 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 calibration of a Department-accepted estimation technique?	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> F
a. If yes,		
i. Describe how the measurements are representative of high, moderate, and low flows. _____ _____ _____	<input type="checkbox"/> A	<input type="checkbox"/> F
ii. Describe the estimation technique. _____ _____ _____ _____ _____	<input type="checkbox"/> A	<input type="checkbox"/> F
b. If no, but a Department-accepted estimation technique will be appropriate for the hydraulically connected surface water source:		
i. Will measurements be collected prior to submission of a completed Form 600P-B that meet the Department's standard of including a minimum of high, moderate, and low flows to be sufficient to use for calibration of a Department-accepted estimation technique?	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> F
1. If yes,		
a. With what method will the data be collected? _____ _____	<input type="checkbox"/> A	<input type="checkbox"/> F
b. What will be the interval of measurement? _____		<input type="checkbox"/> F



<p>c. Describe the proposed estimation technique.</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>	<input type="checkbox"/> A	<input type="checkbox"/> F
<p>2. If no, do you plan on requesting to deviate from the Department's standard of including a minimum of high, moderate, and low flows to be sufficient to use for calibration of a Department-accepted estimation technique? The Department's technical analyses or scientific credibility review of your technical analyses cannot commence until the Department receives measurements that meet Department measurement standards, or in combination with a request to deviate, are sufficient to complete any necessary technical analyses or scientific credibility reviews and to evaluate the applicable criteria.</p>	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> F
<p>c. If no, because no Department-accepted estimation technique will be appropriate for the hydraulically connected surface water source:</p>		
<p>i. Describe why no Department-accepted estimation technique is appropriate for the source characteristics.</p> <p>_____</p> <p>_____</p> <p>_____</p>	<input type="checkbox"/> A	<input type="checkbox"/> F
<p>ii. Do the available measurement data, gage and/or otherwise measured, meet the Department's standard for monthly measurements throughout the months with net depletions?</p>	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> F
<p>1. If no, will measurements be collected prior to submission of a completed Form 600P that meet the Department's standard of monthly measurements throughout the months with net depletions?</p>	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> F
<p>a. If yes, with what method will the data be collected?</p> <p>_____</p> <p>_____</p>	<input type="checkbox"/> A	<input type="checkbox"/> F

<p>b. If no, do you plan on requesting to deviate from the Department’s standard for monthly measurements throughout the months with net depletions? The Department’s technical analyses or scientific credibility review of your technical analyses cannot commence until the Department receives measurements that meet Department measurement standards, or in combination with a request to deviate, are sufficient to complete any necessary technical analyses or scientific credibility reviews and to evaluate the applicable criteria.</p>	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> F
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**Area of Potential Impact Analysis of Depleted Surface Water**

All information for area of potential impact of depleted surface water was collected in previous questions.

**Hydrogeologic Report**

<p>51. Does your project include one or more wells, pumping pits, or ponds that are in a basin closure area? If yes, fill out questions 52 to 53. Your project must have a Hydrogeologic Report that conforms with § 85-2-361 to comply with the requirements of § 85-2-360, MCA. A Hydrogeologic Report Addendum (Form 600-HRA) or Department Technical Analyses may be used to meet these requirements.</p>	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> F
<p>52. Did you elect in question 1 for the Department to conduct the Technical Analyses?</p>	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> F
<p>a. If yes, the Basin Closure Area Addendum (Form 600-BCA), Form 600-HRA, and Hydrogeologic Report are not required at this time. The Department’s Technical Analyses will meet requirements of §85-2-360, MCA for a Hydrogeologic Report and Form 600-HRA. Form 600-BCA will be required with application submittal.</p>		
<p>b. If no, submit the Basin Closure Area Addendum (Form 600-BCA) and Hydrogeologic Report Addendum (600-HRA) with your Technical Analyses.</p>	<input type="checkbox"/> S	<input type="checkbox"/> F
<p>53. If the Hydrogeologic Report indicates that the proposed groundwater use will impact a surface water source, identify and explain which of the following three options best describes your plan to mitigate depletions of hydraulically connected surface water and respond to the relevant questions below.</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Application to Change a Water Right to mitigate the adverse effects created</li> <li><input type="checkbox"/> Alternative mitigation plan</li> <li><input type="checkbox"/> Documentation to show a mitigation plan is not required</li> </ul>		
<p>a. Application to Change a Water Right to mitigate the adverse effects created: Submit a summary of your initial proposal. <i>A separate Preapplication Meeting will be required for each Application to Change a Water right to a mitigation or aquifer recharge purpose to qualify for expedited timelines and reduced filing fees for the project per ARM 36.12.1302(7)(a).</i></p>	<input type="checkbox"/> S	<input type="checkbox"/> F
<p>b. Alternative mitigation plan: Submit a summary of your initial proposal.</p>	<input type="checkbox"/> S	<input type="checkbox"/> F



i. Do you propose to use water with a marketing for mitigation/aquifer recharge purpose?	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> F
1. If yes,		
a. List the change authorization number(s) for all water rights proposed for use. _____	<input type="checkbox"/> A	<input type="checkbox"/> F
b. What is the area defined for marketing for all water rights proposed for use? _____	<input type="checkbox"/> A	<input type="checkbox"/> F
c. If Marketing for aquifer recharge, submit the analysis of the monthly accretions to hydraulically connected surface water(s); otherwise write "NA". _____	<input type="checkbox"/> S	<input type="checkbox"/> F
c. Documentation to show a mitigation plan is not required: Submit all documentation.	<input type="checkbox"/> S	<input type="checkbox"/> F



## MANDATORY 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.

### Project-Specific Questions: Controlled Groundwater Areas and Basin Closures

Questions, Narrative Responses, and Tables	Check-boxes	Follow-up
54. Does the project include one or more groundwater points of diversion located in the East Valley Controlled Groundwater Area (EVCGWA)?	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> F
a. If yes, is the use over 35 GPM or 10 AF/YR?	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> F
i. If no, this is the incorrect form. Use instead Form 600-EVCGWA: East Valley Controlled Groundwater Area Permit Application.		
ii. If yes, how does this project meet the specific requirements of the East Valley Controlled Groundwater Area? Include any relevant documentation.  _____	<input type="checkbox"/> A	<input type="checkbox"/> F
b. If no, skip to question 55.		
55. Does the project include one or more groundwater points of diversion located in the Yellowstone Controlled Groundwater Area?	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> F
a. If yes, is the proposed flow rate and volume over 35 GPM or 10 AF/YR?	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> F
i. If no, this is the incorrect form. Use instead Form 600-YCGA: Yellowstone Controlled Groundwater Area Permit Application.		
ii. If yes, answer the remaining parts of question 55 and submit <i>Form 600 YCGA: A Yellowstone Controlled Groundwater Area Addendum Over 35 gallons per minute</i> with the application.		
1. Does the proposed use require a point of diversion with water temperature of 60 degrees Fahrenheit or more?	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> F
2. If an application is in a basin tributary to a category 3 or 4 stream (generally in or upstream of Yellowstone National Park), submit with the application a report prepared by a qualified professional verifying that the appropriation is not hydrologically connected to surface flow that is tributary to the reserved portion of category 3 or 4 streams.		
b. If no, skip to question 56.		



<p>56. Is the project for surface water or groundwater and subject to one or more of the Controlled Groundwater Areas; administrative, Department ordered, or legislative basin closures; or compact closures listed on the Department's website (<a href="https://dnrc.mt.gov/Water-Resources/Water-Rights/Basin-Closures-Stream-Depletion-Controlled-Ground-Water-Areas">https://dnrc.mt.gov/Water-Resources/Water-Rights/Basin-Closures-Stream-Depletion-Controlled-Ground-Water-Areas</a>) not covered in questions 54 to 55?</p>	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> F
<p>a. If yes, identify each area and describe how the proposed project meets its requirements. An application must meet the specific requirements of the Controlled Groundwater Area or closure to be accepted by the Department.</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>	<input type="checkbox"/> A	<input type="checkbox"/> F



## 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
57. Describe your plan to ensure that existing water rights will be satisfied during times of water shortage. _____ _____ _____ _____ _____ _____ _____ _____ _____	<input type="checkbox"/> A
58. Explain how you can control your diversion in response to call being made. _____ _____ _____	<input type="checkbox"/> A
59. Are you aware of any calls that have been made on the source of supply or depleted surface water source?	<input type="checkbox"/> Y <input type="checkbox"/> N
a. If yes, explain. _____ _____ _____	<input type="checkbox"/> A
60. Does a water commissioner distribute water or oversee water distribution on your proposed source or depleted surface water source?	<input type="checkbox"/> Y <input type="checkbox"/> N



61. Will the point of diversion or conveyance infrastructure be shared with one or more existing water rights?	<input type="checkbox"/> Y <input type="checkbox"/> N
<p>a. If yes, explain how capacity of the shared point of diversion and/or conveyance infrastructure is sufficient for all water rights.</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>	<input type="checkbox"/> A

**Adequate Diversion Means and Operation**

62. Submit a diagram of how you will operate your system from the point of diversion to the place of use.	<input type="checkbox"/> S
<p>63. 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.</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>	<input type="checkbox"/> A



64. Describe the size, materials, capacity, and configuration of infrastructure to convey water from point of diversion to place of use. This may include but is not limited to, pipelines and ditches. Include a description of any losses related to the proposed conveyance. Ditch conveyance losses may be estimated numerous ways, which include a ditch loss rate or Department standard methods. You may work with the Department to estimate ditch conveyance losses but will need to provide sufficient baseline information; which includes ditch slope, dimensions, length, lining material, soil type, and location.

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65. Describe how the proposed diversion and conveyance infrastructure can provide the required flow and volume, for the purposes plus any conveyance losses and storage, throughout the proposed period of diversion.

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66. Provide a plan of operations, which includes 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.

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67. Does the proposed conveyance require easements?	<input type="checkbox"/> Y <input type="checkbox"/> N
a. If yes, explain. _____ _____ _____	<input type="checkbox"/> A
68. Do you own the land where all proposed points of diversion are located?	<input type="checkbox"/> Y <input type="checkbox"/> N
a. If no, documentation to show you have the right to use all points of diversion located on each property you do not own will be required upon application submittal. This may include, but is not limited to, a well agreement, an easement, or permission of the party that owns the property where the proposed point(s) of diversion are located.	
69. 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. _____ _____ _____ _____	<input type="checkbox"/> A
70. Do you have any plans to measure your diversion and use?	<input type="checkbox"/> Y <input type="checkbox"/> N
a. If yes, describe the plan and the type of measurements you will take. _____ _____ _____	<input type="checkbox"/> A

**Beneficial Use**

71. Does the Department have a standard for any of the purposes for which water is used? Department standards can be found in ARM 36.12.112 and ARM 36.12.115.	<input type="checkbox"/> Y <input type="checkbox"/> N
a. If yes, list the purposes for which the Department has a standard and note whether the proposed use falls within or outside the standard. _____ _____	



<p>72. If no Departmental standard exists for any proposed purpose, or if any proposed purpose falls outside of Department standards, explain how the use is reasonable for that purpose.</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>	<input type="checkbox"/> A
<p>73. Will your proposed project be subject to DEQ requirements for a public water supply (PWS) system or Certificate of Subdivision Approval (COSA)?</p>	<input type="checkbox"/> Y <input type="checkbox"/> N
<p>a. If yes,</p> <p>i. Have you researched or consulted with DEQ regarding those requirements?</p>	<input type="checkbox"/> Y <input type="checkbox"/> N
<p>74. Are you proposing to use surface water for in-house domestic use?</p>	<input type="checkbox"/> Y <input type="checkbox"/> N
<p>a. If yes, does a COSA exist for the proposed place of use?</p>	<input type="checkbox"/> Y <input type="checkbox"/> N
<p>i. If yes, please submit the COSA.</p>	<input type="checkbox"/> S
<p>ii. If no, have you researched or consulted with DEQ regarding their requirements?</p>	<input type="checkbox"/> Y <input type="checkbox"/> N

**Possessory Interest**

<p>75. Do you meet one of the exceptions to possessory interest requirements, pursuant to ARM 36.12.1802? Exceptions include cases 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.</p>	<input type="checkbox"/> Y <input type="checkbox"/> N
<p>a. If yes, explain.</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>	<input type="checkbox"/> A



b. If no,	
i. Do you own all proposed places of use?	<input type="checkbox"/> Y <input type="checkbox"/> N
1. If no,	
a. Explain. Documentation that shows you either have possessory interest or written permission of the parties with possessory interest of the place of use will be required at application submittal.  _____  _____  _____	<input type="checkbox"/> A
b. Would you like the water right to be appurtenant to the land? Please note that if your water right is not appurtenant to land it will not transfer by default with the conveyance of the property, pursuant to § 85-2-403.	<input type="checkbox"/> Y <input type="checkbox"/> N
i. If no, explain.  _____  _____	<input type="checkbox"/> A

**Non-Mandatory Project Specific Questions**

*Place of Storage*

76. Does the proposal include at least one place of storage? If yes, answer questions 77 to 80 for each individual place of storage (use "Additional Place of Storage (600P)" sheet for additional places of storage). A Permit Storage Addendum (Form 600-SA) will be required at application submittal. If no, this section is complete, and you can skip to question 81.	<input type="checkbox"/> Y <input type="checkbox"/> N
77. Are preliminary designs available? Preliminary designs will be required at application submittal.	<input type="checkbox"/> S
a. If yes, submit preliminary designs.	<input type="checkbox"/> Y <input type="checkbox"/> N
78. Will the place of storage be lined?	<input type="checkbox"/> Y <input type="checkbox"/> N
79. What is the annual net evaporation of water from the place of storage, based on the Department's gridded net evaporation layer? If you propose a different method, attach an explanation and justification of the method.  _____	A



80. Is the place of storage capacity calculated to be greater than 50 AF?	<input type="checkbox"/> Y <input type="checkbox"/> N
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? This will be required by application submittal.	<input type="checkbox"/> Y <input type="checkbox"/> N

*Project-Specific Questions: Water Marketing*

81. Does the proposal include water marketing? If yes, please answer the questions in this section (questions 82 to 85). A Water Marketing Addendum Purpose Addendum (600/606-WMA) will be required at application submittal. If no, this section is complete.	<input type="checkbox"/> Y <input type="checkbox"/> N
82. For what purpose(s) will the marketed water be used? _____ _____ _____	<input type="checkbox"/> A
83. How will you control or limit access to the water? _____ _____ _____	<input type="checkbox"/> A
84. Do you have contracts for the entire volume and flow rate sought?	<input type="checkbox"/> Y <input type="checkbox"/> N
85. Provide a service area map. Create map on an aerial photograph or topographic map and show the following: general service area boundary, section corners, township and range, scale bar, and north arrow.	<input type="checkbox"/> S







MAY 27 2025

LEWISTOWN WATER  
RESOURCES

**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."

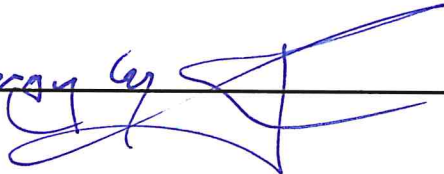
"Applicant acknowledges that any information provided by the Department during the preapplication meeting is preliminary and subject to change."


"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 five business days 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.

Northwestern Corp, d/b/a Northwestern Energy Corp  5/22/25  
 Applicant Signature Date

 5/27/25  
 Department Signature Date

**ATTACHMENT TO FORM 600P  
SURFACE WATER APPLICATION  
FILED BY NORTHWESTERN CORPORATION  
Redevelopment at Black Eagle Dam**

**INTRODUCTION**

NorthWestern Corporation d/b/a as NorthWestern Energy (NWE) proposes to modify its existing Black Eagle Hydroelectric Development (“Black Eagle”) by increasing its power generation capacity. This expansion requires a water right for an additional 1,602 cubic feet second (CFS) of water up to 1,005,684 acre feet per year, which is proposed in this application.

NWE’s current water rights for power generation at Black Eagle authorize a total flow rate of 5,040 CFS, and authorize storage volume at Black Eagle reservoir of 29,480 AF. The water right proposed herein would increase the non-consumptive power generation water rights at Black Eagle to a total 6,642 CFS.

Black Eagle is the first of five hydroelectric developments owned by NWE on the Missouri River in the Great Falls area, which form a portion of the Federal Energy Regulatory Commission (FERC) Missouri-Madison Project No. 2188. These Great Falls dams include Black Eagle, Rainbow, Cochrane, Ryan, and Morony. NWE’s water rights for other power generation facilities in this reach include: 10,000 CFS at Cochrane, 7,200 CFS at Ryan, 8,280 CFS at Morony, and 8,000 CFS at Rainbow. Accordingly, the proposed water right at Black Eagle will have no impact on water availability upstream of Great Falls.

Black Eagle is operated as a base-load, run-of-river facility. Under existing operations, the plant uses inflows as they occur and the reservoir level is maintained at a relatively constant level. As such water is spilled during high flows, and reduced power generation occurs during low flows. This operation will continue except the increase in power generation capacity will allow more water to be routed through the powerhouse and tailrace, rather than having that water flow over the Black Eagle spillway. The Black Eagle spillway and tailrace discharge to the same location on the Missouri River. The upgrades at Black Eagle will not alter flows at Morony, the farthest downstream of the Great Falls dams, so there will be no impact on downstream appropriators.

Two Non-Capacity License Amendment Applications for Black Eagle were approved by FERC (collectively “Amendments”). **Exhibit A** (Order Amending License, May 4, 2020) and **Exhibit B** (Order Amending License, Sept. 12, 2022). Under the first amendment application FERC authorized the replacement of Unit 1 turbine with an increased turbine capacity, resulting in a 0.86 MW increase in authorized installed capacity and increased best gate hydraulic capacity to 5,691 CFS. **Exhibit A**. Under the second amendment application FERC authorized the replacement of Unit 3 turbine with an increased turbine capacity, and refurbishment of Units 1 and 3 generators, resulting in an additional 2.1 MW increase in authorized installed capacity and increased best gate hydraulic capacity to 6,342 CFS. **Exhibit B**.

Together, the Amendments permitted the replacement of two turbines at Black Eagle and

refurbishment of two generators, and the continued operation of the third existing turbine and generator. The FERC licensing process requires applicants to address “best gate” or “best efficiency” ratings in the analysis of the turbines, however “best gate” is slightly lower than the actual maximum rated output of the turbines.<sup>1</sup> After these upgrades are complete, the two new turbines in the plant will each have a maximum capacity of 2,481 CFS, which combined with the existing 1,680 CFS turbine, results in a total plant capacity of 6,642 CFS (versus the 6,342 CFS “best gate” listed in the Amendments).

## **ATTACHMENT RESPONSES TO FORM 600P QUESTIONS**

**Question 2.** *Provide a 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 places of use for all overlapping water rights.*

See attached **Exhibits C and D**.

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<sup>1</sup> FERC’s analysis of the Amendment at “authorized installed capacity” (See **Exhibit A**, ¶11, p.4; **Exhibit B**, ¶20, p.6) assumes a ‘best gate’ efficiency, and does not limit or preclude NWE’s ability to operate Black Eagle at higher, maximum rated outputs.

The term “authorized installed capacity” is a term of art under FERC statutes and rules. FERC is required by 16 USC 803(e)(1) to collect annual charges from licensees for the cost of administering the Federal Power Act. Under rules interpreting that statute, “authorized installed capacity” is defined as the lesser of the ratings of the generator or turbine units with the rating of the turbine being the product of the turbine’s capacity in horsepower (hp) at best gate (maximum efficiency point) opening under the manufacturer’s rated head times a conversion factor of 0.75 kW/hp. See **Exhibit H** (18 CFR § 11.1(i)). A licensee must also submit to FERC an annual accounting of the gross amount of power generated. 18 CFR §1(4). The “authorized installed capacity” and the gross amount of power generated is then used to determine the annual charge for each project. 18 CFR § 11.1(3)(i).

It is understood by FERC that the amount of power generated may exceed the authorized installed capacity and is one of the reasons for requiring an annual accounting of power generated. Operating hydroelectric facilities at capacities higher than their best efficiency rating is a well-known and accepted practice.

As illustrated by the Turbine Data and Performance Curves attached as **Exhibits F and G** to the application, the maximum rated output of each of the three existing turbines is 1,608 CFS, while the maximum rated output of each of the two new turbines is 2,481 CFS. As indicated on the performance curve the maximum output is greater than the best efficiency output. Like a pump curve, peak efficiency is never at maximum output. Because flow rates are based on instantaneous maximums, it is appropriate to base the diverted flow rate on the maximum rated output of the turbines rather than the best efficiency rating.

**Question 10.a.** *Will other water right(s) supplement or overlap the place of use to contribute to the purpose(s)? If yes, summarize how the water rights will be operated as a whole to serve the purpose(s).*

The proposed new appropriation seeks to increase flows through the existing turbines. The existing water rights at Black Eagle will continue to be used as historically used, and the new appropriation will authorize increased flow rates and volumes through the turbines. Please also refer to “Introduction” above, and responses to Questions 57 and 63,

**Additional Responses to Question 20.** *What is the flow rate (GPM or CFS), volume (AF), period of diversion start date and end date (MM/DD-MM/DD), and source type (e.g., perennial, ephemeral) at each point of diversion? Use the same POD # as the project map (question 2) to label each point of diversion.*

\*Total flow rate sought is 1,602 CFS. All four point of diversion legal descriptions together describe Black Eagle Dam.

\*\*Total flow rate sought is 1,,005,684 AF. All four point of diversion legal descriptions together describe Black Eagle Dam.

**Additional Responses to Surface Water Analysis (Perennial) and Area of Potential Impact Analysis.**

NWE proposes that the area of potential impact analysis and Surface Water Analysis (Legal and physical availability) be conducted consistently with the DNRC’s prior analysis of legal availability under permit application 41QJ 30148072 (Ryan Dam), in which the area of impact was Ryan Dam downstream to the next nearest stream gage. For the present application, NWE proposes an area of potential impact being the Missouri River from Black Eagle Dam down to the next nearest gage, USGS Gage No. 0690300 Missouri River near Great Falls, MT.

**Question 56.a.** *Is the project located in one of the administrative, Department ordered, or legislative closures listed on the Department’s website (<https://dnrc.mt.gov/Water-Resources/Water-Rights/Basin-Closures-Stream-Depletion-Controlled-Ground-Water-Areas>)? If yes, list which one and describe how the proposed project meet the requirements of the closure. An application must meet the specific requirements of the closure to be accepted by the Department.*

Yes. Pursuant to MCA §§ 85-2-319 and 85-2-343 (the applicable “basin closure statutes”), the DNRC may not grant an application for a permit to appropriate water in upper Missouri River basin. However, an exception to the basin closure statutes is “an application for a permit to appropriate water for a nonconsumptive use.” MCA § 85-2-343(2)(b). The proposed power generation appropriation in this application is a nonconsumptive use. Accordingly, the basin closure statutes do not prohibit DNRC from granting this application.

**Question 57.** *Describe your plan to ensure that existing water rights will be satisfied during times of water shortage.*

This application proposes a nonconsumptive water right. It is located at an existing instream diversion structure with existing water rights associated with the right. Under this appropriation an additional quantity of water would be routed through the Black Eagle intakes, penstock and turbines to generate power, and immediately thereafter routed back into the Missouri River through the tailrace which discharges immediately below the dam. Currently, this additional amount of water spills over the dam. The proposed appropriation will not change the time, amount, or location of any water flowing in the Missouri River. Accordingly, any water in the stream will be legally available to use under the circumstances of this specific new appropriation, and will have no effect on other existing water rights. Any use of this water will not interfere with, or diminish, water legally available to downstream existing water rights.

However, in the very unlikely situation that NWE would be required to bypass this water over the Black Eagle Dam spillway, rather than beneficially use it through its intake/powerhouse, NWE is physically able to do so. While such action would reduce NWE's ability to generate additional electricity, NWE would still be able operate the facility at flow rates lower than the maximum amount sought herein. NWE is able to make such adjustments through the intake structure, as conditions on the river change.

**Question 58.** *Explain how you can control your diversion in response to call being made.*

See Response to Question 57.

**Question 61.a.** *Will the point of diversion or conveyance infrastructure be shared with one or more existing water rights? If yes, explain how capacity of the shared point of diversion and/or conveyance infrastructure is sufficient for all water rights.*

Black Eagle Dam is an onstream reservoir that is designed and operated for the flow regime of the Missouri River. Currently, any water beneficially used under the existing water rights is routed through the Black Eagle intakes, penstock and turbines to generate power, and immediately thereafter routed back into the Missouri River through the tailrace which discharges immediately below the dam. Any additional flows on the river spill over the dam. This new appropriation of water accommodates the larger generators and turbines approved at Black Eagle Dam by FERC. Accordingly, the capacity of Black Eagle Dam is already sufficient for all water rights, and more water will be conveyed through the penstock rather than spilling over the dam.

**Question 62.** *Submit a diagram of how you will operate your system from the point of diversion to the place of use.*

See attached **Exhibit E**. Please review it in conjunction with Response to Question 63.

**Question 63.** *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.*

The Black Eagle facility consists of: (1) a 782-foot-long, 34.5-foot-high curved concrete gravity dam with a spillway crest elevation of 3,279 feet with 24 bays of 11-foot-high flashboards on top and 1 trash gate bay; (2) an impoundment, known as Black Eagle Reservoir, with a surface area of approximately 402 acres and an approximate storage capacity of 1,820 acre-feet, at an estimated 'normal' maximum operational water surface elevation of approximately 3,290 feet; (3) a 421-foot-long, 96-foot-wide forebay; (4) an intake structure; (5) three 15-foot-diameter riveted steel penstocks; (6) a powerhouse with three turbine-generator units with an authorized installed capacity of 23.90 MW; (7) an interconnection with the licensee's integrated transmission system at the powerhouse; (8) a tailrace; and (9) other appurtenances.

The intake (point of diversion) is located on the Black Eagle diversion dam. The intake is located at the end of a forebay section of the dam located at the left end of the spillway. The forebay forms the left abutment of the dam. It is a concrete structure with a combination of bedrock and concrete floor. It has a nominal length of 421 ft. and a width of 96 ft.; it directs flow to the powerhouse.

The inlet to the forebay structure is 95 ft. 6 3/4 in. wide. It is divided into four bays separated by 4 foot wide piers. The piers are equipped with guides for stoplogs to allow dewatering of the forebay. A wooden bridge, 6 ft. 8 in. wide, is supported by steel beams which span between the piers to provide access to the spillway and right forebay wall. The top of the forebay walls are at elevation 3,294.5 ft. and vary in width up to a maximum of 5 ft. 6 in. The right wall has a downstream slope of 2.6:12; the left wall has a downstream slope of 1:2. The forebay floor is at elevation 3,267 ft. The downstream end of the forebay forms the intake to the powerhouse.

The intake/powerhouse section is a concrete gravity structure, 96 ft. 6 in. wide, with the intake forming the back wall of the powerhouse.

The intake section contains three penstocks which provide water supply to three turbine generating units. The penstocks are riveted steel with a diameter of 15 ft. Centerline elevation of the penstocks is 3,266.5 ft. at the intake gate and 3,249.5 ft. at the centerline of the distributor for the hydraulic turbines. Closure of the main penstocks is provided by fabricated steel slide gates which are 15 ft. 11 5/8 in. wide by 19 ft. 3 in. high and are equipped with guide rollers. The gates are opened and closed mechanically by screw stems driven by an electrically operated line shaft. A flat intake screen structure, battered at 1:12, extends across the upstream face of the intake and prevents debris from entering the penstocks.

The powerhouse has a mass concrete substructure and a reinforced concrete superstructure with concrete floors and roof slabs supported by steel trusses. It is constructed integrally with the intake. Its average dimensions are 134 ft. 8 in. long by 49 ft. 8 in. wide. The building has four levels. The turbine floor contains three hydraulic turbines Units 1 and 3 rated at 11,283 hp each and Unit 2 rated at 9,300 hp. The generator floor houses three self-excited generators; Unit 1 is rated at 9,801 kVA and 0.92 power factor, Unit 2 is rated at 9,801 kVA and 0.80 power factor, and Unit 3 is rated at 10,496 kVA and 0.86 power factor. The control station, electrical busses, and switchgear are located on the other two floors. The turbine data and performance curves for both the existing turbine, and the two new turbines are attached as **Exhibits F and G**.

Flow through the turbines is discharged through three elbow draft tubes with a bottom elevation of 3,221.67 ft. Discharge into the Missouri River is through a tailrace channel approximately 1,500 ft. long with vertical concrete sidewalls with a batter of 1:2. These walls have been extended by dry wall masonry at the upper sections of the channel.

**Question 64.** *Describe the size, materials, capacity, and configuration of infrastructure to convey water from point of diversion to place of use. This may include but is not limited to, pipelines and ditches. Include a description of any losses related to the proposed conveyance. Ditch conveyance losses may be estimated numerous ways, which include a ditch loss rate or Department standard methods. You may work with the Department to estimate ditch conveyance losses but will need to provide sufficient baseline information; which includes ditch slope, dimensions, length, lining material, soil type, and location.*

See Response to Question 63. There are no appreciable losses associated with the diversion structure that is Black Eagle Dam.

**Question 65.** *Describe how the proposed diversion and conveyance infrastructure can provide the required flow and volume, for the purposes plus any conveyance losses and storage, throughout the proposed period of diversion.*

See Response to Question 63.

**Question 66.** *Provide a plan of operations, which includes 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.*

NWE operations of Black Eagle Dam is regulated by FERC licensing. For purposes of this response: When NWE needs to generate the additional power and when water is physically available at Black Eagle, the additional water under this appropriation will be diverted into the existing intake, used in the existing powerhouse to produce electricity, and then released through the existing tailrace back into the Missouri River. See also the Introduction section of this attachment, as well as Response to Question 63. See also **Exhibits A, B, and E.**

**Question 70.** *Do you have any plans to measure your diversion and use? If yes, describe the plan and the type of measurements you will take.*

Yes, water diverted through the powerhouse will be continuously measured at Black Eagle.

**Question 72.** *If no Departmental standard exists for any proposed purpose, or if any proposed purpose falls outside of Department standards, explain how the use is reasonable for that purpose.*

Power generation is recognized as a beneficial use of water at MCA § 85-2-102(4)(a). The Federal Energy Regulatory Commission (FERC) has authorized the proposed improvements

to the turbines and generators at Black Eagle Dam, allowing NWE to operate the hydropower generation facilities at Black Eagle at higher flow rates and volumes as requested in this application. Under this proposed appropriation, NWE will utilize water that is currently spilled over the dam to generate additional hydroelectric power at Black Eagle. After these upgrades are complete, Black Eagle will have an authorized installed capacity of 23.90 MW of electricity at Black Eagle. The improvements at two of the three turbines/generators will result in a maximum capacity of 2,481 CFS each, which combined with the third existing 1,680 CFS turbine, results in a total maximum plant capacity of 6,642 CFS. Since NWE has existing water rights at Black Eagle for 5,040 CFS, an addition 1,602 CFS up to 1,005,684 acre-feet per year is needed to generate hydroelectric power. The total maximum flow rates are based upon the new turbine data and performance curves. See also **Exhibit F**, depicting additional hydraulic capacity for the two turbine improvements at Black Eagle.

## **EXHIBITS**

- A. FERC, *Order Amending License, Approving Revised Exhibit A and Exhibit F Drawings, and Revising Annual Charges*, 171 FERC ¶ 62,077 (May 4, 2020).
- B. FERC, *Order Amending License, Revising Project Description, Revising Annual Charges, and Approving Revised Exhibit A and Exhibit F Drawings*, 180 FERC ¶ 62,131, (Sept. 12, 2022).
- C. Proposed Point of Diversion / Place of Use Map
- D. Site Map
- E. Labeled Diagram / Overview Photo of Black Eagle system.
- F. Turbine Data and Performance Curves, 2 new turbines
- G. Turbine Performance Curve, existing turbine
- H. 18 CFR § 11.1

**From:** [Shaw, Matthew](#)  
**To:** ["Ryan McLane"; Hamilton, Steven](#)  
**Cc:** [Blomquist, Claire](#)  
**Subject:** RE: NorthWestern 41Q 30170946, Form 600P B  
**Date:** Tuesday, October 21, 2025 10:18:00 AM  
**Attachments:** [image002.png](#)  
[image003.png](#)

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Ryan,

Thank you for sending the 600B over so promptly.

With this last outstanding item, we have marked the preapplication form as “received” in the Dept.’s database. Before we “accept” it, Claire will, as her schedule allows, be reading through the 600-B (and double checking the rest of the 600P) to make sure everything is satisfactory.

Assuming everything is in order, by early next week Claire should be mailing you (and emailing a copy) a “Complete Preapplication Form” letter.

Regards,



**Matthew Shaw** | Water Resource Specialist—New Appropriations  
Water Rights Bureau  
Montana Department of Natural Resources and Conservation  
Lewistown Water Regional Office, 613 NE Main St, Ste E, Lewistown, MT 59457  
**OFFICE:** 406-538-7459 **DIRECT:** 406-535-1927 **EMAIL:** [matthew.shaw@mt.gov](mailto:matthew.shaw@mt.gov)  
**Website** | **Facebook** | **X (Twitter)** | **Instagram**  
How did we do? Let us know here: [Feedback Survey](#)

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**From:** Ryan McLane <[ryan@franzdriscoll.com](mailto:ryan@franzdriscoll.com)>  
**Sent:** Monday, October 20, 2025 4:10 PM  
**To:** Hamilton, Steven <[Steven.Hamilton@mt.gov](mailto:Steven.Hamilton@mt.gov)>  
**Cc:** Shaw, Matthew <[Matthew.Shaw@mt.gov](mailto:Matthew.Shaw@mt.gov)>; Blomquist, Claire <[Claire.Blomquist@mt.gov](mailto:Claire.Blomquist@mt.gov)>  
**Subject:** [EXTERNAL] RE: NorthWestern 41Q 30170946, Form 600P B

Steven, Matthew, and Claire,

Thanks for letting me know that I did not attach the Form 600B and its required responses to our Form 600P-B responses sent last week. My apologies this was my inadvertent mistake.

Please find attached the entire NorthWestern Energy’s Form 600P-B responses for pre-application 41Q 30170946 – including the Form 600B responses. My understanding is that you have received the \$500 application check in the mail already, if this is in error, please let me know.

Please note that our Form 600B responses makes reference to the 1999 FEIS conducted by FERC concerning the Project 2188, the Missouri-Madison Project, which includes Black Eagle Reservoir.

This document was already in DNRC's possession as of the Ryan Reservoir application, however please find attached a link where the document can be downloaded. It is quite voluminous (816 pages) and cannot be sent by email.  [2188 FEIS - Sept 1999.pdf](#) [[franzanddriscoll-my.sharepoint.com](mailto:franzanddriscoll-my.sharepoint.com)]

Please let me know if there is anything else you need from us. Again, my apologies for the inconvenience of not sending everything you needed in the last email.

-Ryan

Ryan McLane  
Franz & Driscoll, PLLP  
P.O. Box 1155  
21 N. Last Chance Gulch, Ste. 210  
Helena, MT 59624  
406-442-0005 phone  
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---

**From:** Ryan McLane  
**Sent:** Friday, October 10, 2025 3:39 PM  
**To:** 'Hamilton, Steven' <[Steven.Hamilton@mt.gov](mailto:Steven.Hamilton@mt.gov)>  
**Cc:** Shaw, Matthew <[Matthew.Shaw@mt.gov](mailto:Matthew.Shaw@mt.gov)>; Blomquist, Claire <[Claire.Blomquist@mt.gov](mailto:Claire.Blomquist@mt.gov)>  
**Subject:** NorthWestern 41Q 30170946, Form 600P B

Steven, Matthew, and Claire,

Please find attached NorthWestern Energy's Form 600B for pre-application 41Q 30170946, regarding its proposed new appropriation at Black Eagle Dam.

I have placed a hard copy of the attached documents, together with a \$500 check in the US mail, addressed to your office.

Please let me know if there is anything else you need from us.

-Ryan

Ryan McLane  
Franz & Driscoll, PLLP  
P.O. Box 1155  
21 N. Last Chance Gulch, Ste. 210  
Helena, MT 59624  
406-442-0005 phone  
[ryan@franzdriscoll.com](mailto:ryan@franzdriscoll.com)

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---

**From:** Hamilton, Steven <[Steven.Hamilton@mt.gov](mailto:Steven.Hamilton@mt.gov)>  
**Sent:** Thursday, September 18, 2025 3:27 PM  
**To:** Ryan McLane <[ryan@franzdriscoll.com](mailto:ryan@franzdriscoll.com)>  
**Cc:** Shaw, Matthew <[Matthew.Shaw@mt.gov](mailto:Matthew.Shaw@mt.gov)>; Blomquist, Claire <[Claire.Blomquist@mt.gov](mailto:Claire.Blomquist@mt.gov)>  
**Subject:** RE: Form 600P A signature required; follow-up items

Good afternoon Ryan,

I don't see anything else we need to discuss on the draft technical analysis. I've been working on a sample of what the Scientific Credibility Review might look like (I've never done one before so it's not a fast process), but the theme of it is that the analysis appears to be credible based on what we've talked about and what you've provided in this follow-up. Matthew and Claire have also been reviewing and commenting on it as well so it's been a team effort from us here in Lewistown.

Please feel free to reach out with any questions you may have for me, Matthew, or Claire. We're always happy to help!

Have a great afternoon!



**Steven B. Hamilton** | Regional Manager  
Water Resources – Lewistown Regional Office  
Montana Department of Natural Resources and Conservation  
613 NE Main Street, Suite E, Lewistown, MT 59457  
**OFFICE:** 406-538-7459 **DIRECT:** 406-535-1922 **EMAIL:** [steven.hamilton@mt.gov](mailto:steven.hamilton@mt.gov)  
**Website** | **Facebook** [[facebook.com](https://www.facebook.com)] | **X (Twitter)** [[twitter.com](https://twitter.com)] | **Instagram** [[instagram.com](https://www.instagram.com)]  
**How did we do? Let us know here:** [Feedback Survey](https://forms.office.com) [[forms.office.com](https://forms.office.com)]

---

**From:** Ryan McLane <[ryan@franzdriscoll.com](mailto:ryan@franzdriscoll.com)>  
**Sent:** Tuesday, August 26, 2025 9:40 AM  
**To:** Hamilton, Steven <[Steven.Hamilton@mt.gov](mailto:Steven.Hamilton@mt.gov)>  
**Cc:** Shaw, Matthew <[Matthew.Shaw@mt.gov](mailto:Matthew.Shaw@mt.gov)>  
**Subject:** [EXTERNAL] RE: Form 600P A signature required; follow-up items

Steve & Matt,

Thanks for contacting me yesterday regarding your review of NorthWestern's draft technical analysis for the Black Eagle application. I have done some research, and I can now shed light on (1) Claim 43Q 94362-00, which you asked about, and (2) how nonconsumptive, non-diversionary rights are calculated under the permit application manual. I will discuss each in turn:

1. The bottom line is that I incorrectly filled in the attributes of 41Q 94362-00 right into Table 3. The Water Court determined that 41Q 94362-00 has no quantified flow rate and a quantified volume of 8,507 AFY.

To explain more fully, as originally claimed, 41Q 94362-00 had a flow rate of 532 cfs, and no quantified volume. However, this right is the storage right for Rainbow Dam and represents the amount of water historically used to fill/refill the onstream reservoir associated with Rainbow Dam. Pursuant to adjudication rules, onstream dams are not decreed a quantified flow rate, but are decreed a quantified volume. In 2018 the right was modified by the Water Court to remove a quantified flow rate, and include a quantified volume of 8,507 AFY (the largest historical volume NorthWestern could prove). Please see the attached Master's Report, Objection to Master's Report, and Order Amending and Adopting, which sets this all out.

I incorrectly included the flow rate for 41Q 94362-00 into Table 3 of the draft analysis I sent, but it was not intentional. Accordingly, the analysis will be modified to accurately describe 94362 as having a maximum quantified flow rate of "n/a" and a maximum volume of "8,507" AFY. That would result in a total flow on Table 3 of "10.6 CFS" (1/1-3/31, 10.1-12//31) and "11.1 CFS" (4/1-10/1). The total volumes on Table 3 would remain unchanged. I have made these changes on my draft.

2. You are correct that instream, non-diversionary water rights are not included in the calculation of physical demand in this situation. We agree. On page 69 of the DNRC Permit Application Manual (rev. Feb. 14, 2025) the physical availability analysis is discussed. It appears to us that the present application falls within "Situation 3," where the POD is located above the stream gage with intervening water rights. In subsection 3 of this Situation 3, the manual states:

Sum the monthly flow rates for all intervening water rights with diversions between the closest gage (either up or downstream) and POD. It is important to make a distinction between appropriations that divert water directly from the source (i.e., pumps, headgates, and even livestock direct) **versus nonconsumptive appropriations like instream flow, hydropower, or any other use where no water is diverted from the source.** Although instream flow water rights are legal demands, **they don't impact the physical flow of a source, as such they have no bearing on the stream's physical availability. Therefore, we ignore 'run of the river' hydropower** and instream demand when following the steps below.

Accordingly, your analysis is correct that NorthWestern's intervening instream hydropower rights are excluded from the analysis of physical availability. Thanks for bringing this to our attention.

Please let me know if there is anything else we need to discuss on the draft technical analysis. Otherwise, we will start preparing a Form 600B response.

Best Regards, and Thanks so much for your time,

-Ryan

Ryan McLane  
Franz & Driscoll, PLLP  
P.O. Box 1155  
21 N. Last Chance Gulch, Ste. 210  
Helena, MT 59624  
406-442-0005 phone  
[ryan@franzdriscoll.com](mailto:ryan@franzdriscoll.com)

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**From:** Hamilton, Steven <[Steven.Hamilton@mt.gov](mailto:Steven.Hamilton@mt.gov)>  
**Sent:** Monday, August 25, 2025 12:51 PM  
**To:** Ryan McLane <[ryan@franzdriscoll.com](mailto:ryan@franzdriscoll.com)>  
**Cc:** Shaw, Matthew <[Matthew.Shaw@mt.gov](mailto:Matthew.Shaw@mt.gov)>  
**Subject:** RE: Form 600P A signature required; follow-up items

Good afternoon Ryan,

I wanted to touch bases with you this afternoon to let you know that I'm almost finished with my review and notes and Matthew is working independently and we're comparing notes at regular intervals. I think we may have a couple of questions about a few numbers, just to make sure we're on the same page, but nothing that is too substantial (certainly nothing that would hold up the process). I just want to make sure you're getting the most accurate information from me since this is the first time we're doing one of these from this angle. I can give you a call this afternoon between meetings or tomorrow morning first thing, whichever you prefer.

Thanks!



**Steven B. Hamilton** | Regional Manager  
Water Resources – Lewistown Regional Office  
Montana Department of Natural Resources and Conservation  
613 NE Main Street, Suite E, Lewistown, MT 59457  
**OFFICE:** 406-538-7459 **DIRECT:** 406-535-1922 **EMAIL:** [steven.hamilton@mt.gov](mailto:steven.hamilton@mt.gov)  
**Website** | **Facebook** [[facebook.com](https://www.facebook.com)] | **X (Twitter)** [[twitter.com](https://twitter.com)] | **Instagram** [[instagram.com](https://www.instagram.com)]  
**How did we do? Let us know here:** [Feedback Survey](https://forms.office.com) [[forms.office.com](https://forms.office.com)]

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**From:** Ryan McLane <[ryan@franzdriscoll.com](mailto:ryan@franzdriscoll.com)>  
**Sent:** Monday, August 18, 2025 5:08 PM

**To:** Hamilton, Steven <[Steven.Hamilton@mt.gov](mailto:Steven.Hamilton@mt.gov)>; Shaw, Matthew <[Matthew.Shaw@mt.gov](mailto:Matthew.Shaw@mt.gov)>

**Subject:** [EXTERNAL] RE: Form 600P A signature required; follow-up items

Steven & Matt,

I am following up on this request to review NorthWestern Energy's draft technical analysis regarding the Black Eagle Pre-application. It's been a bit over a month since I sent it over, and I'm starting to hit internal deadlines telling me that I need to submit the formal 600B response. I want to file the 600B with enough time that if you guys have problems, I can still fix it within the pre-application deadline. Let me know where you are at on this, and whether we need to discuss timelines etc.

Best,

-Ryan

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**From:** Hamilton, Steven <[Steven.Hamilton@mt.gov](mailto:Steven.Hamilton@mt.gov)>

**Sent:** Friday, July 11, 2025 10:19 AM

**To:** Ryan McLane <[ryan@franzdriscoll.com](mailto:ryan@franzdriscoll.com)>; Shaw, Matthew <[Matthew.Shaw@mt.gov](mailto:Matthew.Shaw@mt.gov)>

**Subject:** RE: Form 600P A signature required; follow-up items

Hello Ryan,

Thanks for sending this to us. We'll start reviewing it here shortly!



**Steven B. Hamilton** | Regional Manager

Water Resources – Lewistown Regional Office

Montana Department of Natural Resources and Conservation

613 NE Main Street, Suite E, Lewistown, MT 59457

**OFFICE:** 406-538-7459 **DIRECT:** 406-535-1922 **EMAIL:** [steven.hamilton@mt.gov](mailto:steven.hamilton@mt.gov)

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

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**From:** Ryan McLane <[ryan@franzdriscoll.com](mailto:ryan@franzdriscoll.com)>

**Sent:** Wednesday, July 9, 2025 3:38 PM

**To:** Shaw, Matthew <[Matthew.Shaw@mt.gov](mailto:Matthew.Shaw@mt.gov)>

**Cc:** Hamilton, Steven <[Steven.Hamilton@mt.gov](mailto:Steven.Hamilton@mt.gov)>

**Subject:** [EXTERNAL] RE: Form 600P A signature required; follow-up items

Steve & Matt,

This email pertains to NorthWestern Energy's (NWE) pre-application 41Q 30170946, regarding its proposed appropriation at Black Eagle Dam.

Specifically this email pertains to a phone call Steve and I had about two weeks ago concerning NWE's election of who would prepare the technical analyses. As I said at the time, NWE was leaning towards electing to do that work itself, as it had already done a draft analysis before filing this pre-application meeting request. NWE used as a template, the previous work done by the Lewistown DNRC when it reviewed NWE's Ryan Dam Permit Application (41Q 30148072).

At the conclusion of my call with Steven, I understood that DNRC was willing to review that 'draft' work and let us know if it was the same structure and analysis DNRC would undertake. If so, it seems likely we would elect to do the technical analysis and submit this work, since we already did it. If not, more discussion may be needed to understand what problems may exist.

In any event, please find attached that draft work. I look forward to hearing from you more on this.

Best,

-Ryan

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---

**From:** Ryan McLane

**Sent:** Friday, May 16, 2025 2:35 PM

**To:** Shaw, Matthew <[Matthew.Shaw@mt.gov](mailto:Matthew.Shaw@mt.gov)>

**Cc:** Hamilton, Steven <[Steven.Hamilton@mt.gov](mailto:Steven.Hamilton@mt.gov)>

**Subject:** RE: Form 600P A signature required; follow-up items

Matt,

Received. I appreciate the very clear instructions – it makes my life much easier.

We will get that signed as quickly as possible and get it returned.

Best regards,

-Ryan

---

**From:** Shaw, Matthew <[Matthew.Shaw@mt.gov](mailto:Matthew.Shaw@mt.gov)>  
**Sent:** Friday, May 16, 2025 2:32 PM  
**To:** Ryan McLane <[ryan@franzdriscoll.com](mailto:ryan@franzdriscoll.com)>  
**Cc:** Hamilton, Steven <[Steven.Hamilton@mt.gov](mailto:Steven.Hamilton@mt.gov)>  
**Subject:** Form 600P A signature required; follow-up items

Ryan,

Attached is the completed preapplication meeting form (600P-A) for your proposed change. Please review the items (3) for follow-up on page 39 (and the instructions above the table). Also, please have the Applicant sign page 41 with a wet (hand-written/ink) signature and return it to the Lewistown Regional Office either in person or through the mail on or before May 29 (10-business days after the pre-app meeting). Note that the entire 606P-A document does not need to be mailed, only the signature page (page 41).

The following link is for Part B of the Pre-App Mtg form and will be where the follow-up information (and any amendments, if necessary) will be added/made. A wet signature from the Applicant is required on this form as well. Once completed, the 600-B form should be mailed or hand delivered, in its entirety, to the Lewistown Regional Office. Note that the Applicant has 180-calendar days to submit the completed 600-B, which is November 10, 2025. The \$500 pre-application fee is to accompany the completed Form 600- B. If the Applicant elects to do the Technical Analysis, it is also due at that time. ([https://dnrc.mt.gov/docs/water/Water-Rights-Forms/606P-B\\_02.2025.pdf](https://dnrc.mt.gov/docs/water/Water-Rights-Forms/606P-B_02.2025.pdf))

Once the Dept. obtains all items (Form 600P-A, p.41 signed; Form 606P - B completed/signed; the fee; and the Technical Analysis, if applicable) the Dept. will consider your preapplication submission complete and will begin timelines (45-calendar days) to complete the Technical Analyses/Scientific Credibility Review (as applicable).

If you have any questions, please don't hesitate to ask! We're happy to help as we understand this is a complex process.

Regards,



**Matthew Shaw** | Water Resource Specialist—New Appropriations  
Water Rights Bureau

Montana Department of Natural Resources and Conservation  
Lewistown Water Regional Office, 613 NE Main St, Ste E, Lewistown, MT 59457

**OFFICE:** 406-538-7459 **DIRECT:** 406-535-1927 **EMAIL:** [matthew.shaw@mt.gov](mailto:matthew.shaw@mt.gov)

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---

[EXTERNAL] RE: NorthWestern 41Q 30170946, Form 600P B

---

From Ryan McLane <ryan@franzdriscoll.com>

Date Mon 10/20/2025 4:11 PM

To Hamilton, Steven <Steven.Hamilton@mt.gov>

Cc Shaw, Matthew <Matthew.Shaw@mt.gov>; Blomquist, Claire <Claire.Blomquist@mt.gov>


 1 attachment (6 MB)

251020 Black Eagle 600P-B, 41Q 30170946.pdf;

Steven, Matthew, and Claire,

Thanks for letting me know that I did not attach the Form 600B and its required responses to our Form 600P-B responses sent last week. My apologies this was my inadvertent mistake.

Please find attached the entire NorthWestern Energy's Form 600P-B responses for pre-application 41Q 30170946 – including the Form 600B responses. My understanding is that you have received the \$500 application check in the mail already, if this is in error, please let me know.

Please note that our Form 600B responses makes reference to the 1999 FEIS conducted by FERC concerning the Project 2188, the Missouri-Madison Project, which includes Black Eagle Reservoir. This document was already in DNRC's possession as of the Ryan Reservoir application, however please find attached a link where the document can be downloaded. It is quite voluminous (816 pages) and cannot be sent by email.  [2188 FEIS - Sept 1999.pdf](#)  
[\[franzanddriscoll-my.sharepoint.com\]](http://franzanddriscoll-my.sharepoint.com)

Please let me know if there is anything else you need from us. Again, my apologies for the inconvenience of not sending everything you needed in the last email.

-Ryan

Ryan McLane  
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## Shaw, Matthew

---

**From:** Shaw, Matthew  
**Sent:** Tuesday, October 14, 2025 8:53 AM  
**To:** 'Ryan McLane'; Hamilton, Steven  
**Cc:** Blomquist, Claire  
**Subject:** RE: NorthWestern 41Q 30170946, Form 600P B

Ryan,

Received, thank you.

Please note that the official 'Preapplication Meeting form Received' event date will be the day the check is received. From that date the Lewistown Regional Office will have 5 days to determine if all parts of the pre-app form (including follow-up items) are satisfactory and create the 'Preapplication Meeting Form Accepted Event' (or a 'Preapplication Meeting Form Returned,' if unresolved issues persist). Then begins the 45-day window for the Dept. to issue the Technical Analyses.

We will be watching for the check and will be sure to notify you the day it is received.

Regards,



**Matthew Shaw** | Water Resource Specialist—New Appropriations  
Water Rights Bureau  
Montana Department of Natural Resources and Conservation  
Lewistown Water Regional Office, 613 NE Main St, Ste E, Lewistown, MT 59457  
**OFFICE:** 406-538-7459 **DIRECT:** 406-535-1927 **EMAIL:** matthew.shaw@mt.gov  
**Website** | [Facebook](#) | [X \(Twitter\)](#) | [Instagram](#)  
**How did we do? Let us know here:** [Feedback Survey](#)

**From:** Ryan McLane <ryan@franzdriscoll.com>  
**Sent:** Friday, October 10, 2025 3:40 PM  
**To:** Hamilton, Steven <Steven.Hamilton@mt.gov>  
**Cc:** Shaw, Matthew <Matthew.Shaw@mt.gov>; Blomquist, Claire <Claire.Blomquist@mt.gov>  
**Subject:** [EXTERNAL] NorthWestern 41Q 30170946, Form 600P B

Steven, Matthew, and Claire,

Please find attached NorthWestern Energy's Form 600B for pre-application 41Q 30170946, regarding its proposed new appropriation at Black Eagle Dam.

I have placed a hard copy of the attached documents, together with a \$500 check in the US mail, addressed to your office.

Please let me know if there is anything else you need from us.

-Ryan

## Shaw, Matthew

---

**From:** Ryan McLane <ryan@franzdriscoll.com>  
**Sent:** Friday, October 10, 2025 3:40 PM  
**To:** Hamilton, Steven  
**Cc:** Shaw, Matthew; Blomquist, Claire  
**Subject:** [EXTERNAL] NorthWestern 41Q 30170946, Form 600P B  
**Attachments:** 251010 Black Eagle 600-B, 41Q 30170946.pdf

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I have placed a hard copy of the attached documents, together with a \$500 check in the US mail, addressed to your office.

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**From:** Hamilton, Steven <Steven.Hamilton@mt.gov>  
**Sent:** Thursday, September 18, 2025 3:27 PM  
**To:** Ryan McLane <ryan@franzdriscoll.com>  
**Cc:** Shaw, Matthew <Matthew.Shaw@mt.gov>; Blomquist, Claire <Claire.Blomquist@mt.gov>  
**Subject:** RE: Form 600P A signature required; follow-up items

Good afternoon Ryan,

I don't see anything else we need to discuss on the draft technical analysis. I've been working on a sample of what the Scientific Credibility Review might look like (I've never done one before so it's not a fast process), but the theme of it is that the analysis appears to be credible based on what we've talked about and what you've provided in this follow-up. Matthew and Claire have also been reviewing and commenting on it as well so it's been a team effort from us here in Lewistown.

Please feel free to reach out with any questions you may have for me, Matthew, or Claire. We're always happy to help!

Have a great afternoon!

## Shaw, Matthew

---

**From:** Ryan McLane <ryan@franzdriscoll.com>  
**Sent:** Tuesday, August 26, 2025 9:40 AM  
**To:** Hamilton, Steven  
**Cc:** Shaw, Matthew  
**Subject:** [EXTERNAL] RE: Form 600P A signature required; follow-up items  
**Attachments:** 180629 41Q-22 Order Amending and Adopting Master's Report.pdf; 180606 41Q-22 objection to master's report.pdf; 180525 41Q-22 Notice of Filing of Master's Report.pdf

Steve & Matt,

Thanks for contacting me yesterday regarding your review of NorthWestern's draft technical analysis for the Black Eagle application. I have done some research, and I can now shed light on (1) Claim 43Q 94362-00, which you asked about, and (2) how nonconsumptive, non-diversionary rights are calculated under the permit application manual. I will discuss each in turn:

1. The bottom line is that I incorrectly filled in the attributes of 41Q 94362-00 right into Table 3. The Water Court determined that 41Q 94362-00 has no quantified flow rate and a quantified volume of 8,507 AFY.

To explain more fully, as originally claimed, 41Q 94362-00 had a flow rate of 532 cfs, and no quantified volume. However, this right is the storage right for Rainbow Dam and represents the amount of water historically used to fill/refill the onstream reservoir associated with Rainbow Dam. Pursuant to adjudication rules, onstream dams are not decreed a quantified flow rate, but are decreed a quantified volume. In 2018 the right was modified by the Water Court to remove a quantified flow rate, and include a quantified volume of 8,507 AFY (the largest historical volume NorthWestern could prove). Please see the attached Master's Report, Objection to Master's Report, and Order Amending and Adopting, which sets this all out.

I incorrectly included the flow rate for 41Q 94362-00 into Table 3 of the draft analysis I sent, but it was not intentional. Accordingly, the analysis will be modified to accurately describe 94362 as having a maximum quantified flow rate of "n/a" and a maximum volume of "8,507" AFY. That would result in a total flow on Table 3 of "10.6 CFS" (1/1-3/31, 10.1-12//31) and "11.1 CFS" (4/1-10/1). The total volumes on Table 3 would remain unchanged. I have made these changes on my draft.

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Accordingly, your analysis is correct that NorthWestern's intervening instream hydropower rights are excluded from the analysis of physical availability. Thanks for bringing this to our attention.

Please let me know if there is anything else we need to discuss on the draft technical analysis. Otherwise, we will start preparing a Form 600B response.

Best Regards, and Thanks so much for your time,  
-Ryan

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**Sent:** Monday, August 25, 2025 12:51 PM  
**To:** Ryan McLane <ryan@franzdriscoll.com>  
**Cc:** Shaw, Matthew <Matthew.Shaw@mt.gov>  
**Subject:** RE: Form 600P A signature required; follow-up items

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**How did we do? Let us know here:** [Feedback Survey](https://forms.office.com) [[forms.office.com](https://forms.office.com)]

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**Sent:** Monday, August 18, 2025 5:08 PM  
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**To:** Ryan McLane <[ryan@franzdriscoll.com](mailto:ryan@franzdriscoll.com)>; Shaw, Matthew <[Matthew.Shaw@mt.gov](mailto:Matthew.Shaw@mt.gov)>  
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**How did we do? Let us know here:** [Feedback Survey](https://forms.office.com) [[forms.office.com](https://forms.office.com)]

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In any event, please find attached that draft work. I look forward to hearing from you more on this.

Best,  
-Ryan

Ryan McLane  
Franz & Driscoll, PLLP  
P.O. Box 1155  
21 N. Last Chance Gulch, Ste. 210  
Helena, MT 59624  
406-442-0005 phone  
[ryan@franzdriscoll.com](mailto:ryan@franzdriscoll.com)

This message is intended only for the use of the individual or entity to which it is addressed and may contain information that is privileged and confidential. If you are not the intended recipient, you are hereby notified that dissemination, distribution or forwarding this communication is prohibited. If you have received this communication in error, please notify us immediately and delete this message from any device or media where it is stored. Thank you.

**From:** Ryan McLane  
**Sent:** Friday, May 16, 2025 2:35 PM  
**To:** Shaw, Matthew <[Matthew.Shaw@mt.gov](mailto:Matthew.Shaw@mt.gov)>  
**Cc:** Hamilton, Steven <[Steven.Hamilton@mt.gov](mailto:Steven.Hamilton@mt.gov)>  
**Subject:** RE: Form 600P A signature required; follow-up items

Matt,  
Received. I appreciate the very clear instructions – it makes my life much easier.  
We will get that signed as quickly as possible and get it returned.  
Best regards,  
-Ryan

**From:** Shaw, Matthew <[Matthew.Shaw@mt.gov](mailto:Matthew.Shaw@mt.gov)>  
**Sent:** Friday, May 16, 2025 2:32 PM

## Shaw, Matthew

---

**From:** Hamilton, Steven  
**Sent:** Friday, July 11, 2025 10:19 AM  
**To:** Ryan McLane; Shaw, Matthew  
**Subject:** RE: Form 600P A signature required; follow-up items

Hello Ryan,

Thanks for sending this to us. We'll start reviewing it here shortly!



**Steven B. Hamilton** | Regional Manager  
Water Resources – Lewistown Regional Office  
Montana Department of Natural Resources and Conservation  
613 NE Main Street, Suite E, Lewistown, MT 59457  
**OFFICE:** 406-538-7459 **DIRECT:** 406-535-1922 **EMAIL:** [steven.hamilton@mt.gov](mailto:steven.hamilton@mt.gov)  
[Website](#) | [Facebook](#) | [X \(Twitter\)](#) | [Instagram](#)  
How did we do? Let us know here: [Feedback Survey](#)

**From:** Ryan McLane <[ryan@franzdriscoll.com](mailto:ryan@franzdriscoll.com)>  
**Sent:** Wednesday, July 9, 2025 3:38 PM  
**To:** Shaw, Matthew <[Matthew.Shaw@mt.gov](mailto:Matthew.Shaw@mt.gov)>  
**Cc:** Hamilton, Steven <[Steven.Hamilton@mt.gov](mailto:Steven.Hamilton@mt.gov)>  
**Subject:** [EXTERNAL] RE: Form 600P A signature required; follow-up items

Steve & Matt,

This email pertains to NorthWestern Energy's (NWE) pre-application 41Q 30170946, regarding its proposed appropriation at Black Eagle Dam.

Specifically this email pertains to a phone call Steve and I had about two weeks ago concerning NWE's election of who would prepare the technical analyses. As I said at the time, NWE was leaning towards electing to do that work itself, as it had already done a draft analysis before filing this pre-application meeting request. NWE used as a template, the previous work done by the Lewistown DNRC when it reviewed NWE's Ryan Dam Permit Application (41Q 30148072).

At the conclusion of my call with Steven, I understood that DNRC was willing to review that 'draft' work and let us know if it was the same structure and analysis DNRC would undertake. If so, it seems likely we would elect to do the technical analysis and submit this work, since we already did it. If not, more discussion may be needed to understand what problems may exist.

In any event, please find attached that draft work. I look forward to hearing from you more on this.

Best,  
-Ryan

## Shaw, Matthew

---

**From:** Hamilton, Steven  
**Sent:** Tuesday, August 19, 2025 10:19 AM  
**To:** Ryan McLane; Shaw, Matthew  
**Subject:** RE: Form 600P A signature required; follow-up items

Hello Ryan,

I've been going through the draft and have a few minor notes so far. I've been running it through the Scientific Credibility Review process to make sure it fits well with those too. It's the first time I've done that process so it's going a little slower than I anticipated, but I'm almost finished with it and then Matthew's going to look it over and then I'll be in touch.

So far, I've only ran into a few very minor issues that are easily fixable and don't change the end result. I'm just being very careful so that what I'm getting you is the best review.

I'll have an update by the end of the week if I don't have my review complete by then (but my goal is before then).



**Steven B. Hamilton** | Regional Manager

Water Resources – Lewistown Regional Office  
Montana Department of Natural Resources and Conservation  
613 NE Main Street, Suite E, Lewistown, MT 59457

**OFFICE:** 406-538-7459 **DIRECT:** 406-535-1922 **EMAIL:** [steven.hamilton@mt.gov](mailto:steven.hamilton@mt.gov)

**Website** | [Facebook](#) | [X \(Twitter\)](#) | [Instagram](#)

**How did we do? Let us know here:** [Feedback Survey](#)

**From:** Ryan McLane <[ryan@franzdriscoll.com](mailto:ryan@franzdriscoll.com)>  
**Sent:** Monday, August 18, 2025 5:08 PM  
**To:** Hamilton, Steven <[Steven.Hamilton@mt.gov](mailto:Steven.Hamilton@mt.gov)>; Shaw, Matthew <[Matthew.Shaw@mt.gov](mailto:Matthew.Shaw@mt.gov)>  
**Subject:** [EXTERNAL] RE: Form 600P A signature required; follow-up items

Steven & Matt,

I am following up on this request to review NorthWestern Energy's draft technical analysis regarding the Black Eagle Pre-application. It's been a bit over a month since I sent it over, and I'm starting to hit internal deadlines telling me that I need to submit the formal 600B response. I want to file the 600B with enough time that if you guys have problems, I can still fix it within the pre-application deadline. Let me know where you are at on this, and whether we need to discuss timelines etc.

Best,  
-Ryan

Ryan McLane  
Franz & Driscoll, PLLP  
P.O. Box 1155

RECEIVED - DNRC

MAY 27 2025

**FRANZ & DRISCOLL, PLLP**  
Attorneys at Law

WILLIAM P. DRISCOLL  
wpd@franzdriscoll.com

RYAN P. MCLANE  
ryan@franzdriscoll.com

21 NORTH LAST CHANCE GULCH  
SUITE 210  
HELENA, MONTANA 59601

MAILING ADDRESS:  
P.O. BOX 1155  
HELENA, MONTANA 59624-1155

**LEWISTOWN WATER  
RESOURCES**

LEGAL ASSISTANT:  
GALEN BREWER  
galen@franzdriscoll.com

TELEPHONE: (406) 442-0005

May 23, 2025

Steven Hamilton  
DNRC, Lewistown Regional Office  
613 NE Main, Ste E  
Lewistown, MT 59457-2020

Re: Signature Page Form 600 A, Pre-application 41Q 30170946, NorthWestern Energy

Dear Steven,

Please find enclosed the signature page (p. 41) of the Form 600 A, the Pre-application form for NorthWestern Energy's contemplated application 41Q 30170946.

I will be sending an email with a scanned copy of the signature page, but enclosed is the wet signature.

Thank you to you and Matt very much for all the help thusfar.

Sincerely,

Franz & Driscoll, PLLP



Ryan McLane

Enc.

MAY 27 2025

LEWISTOWN WATER  
RESOURCES

### 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 meeting is preliminary and subject to change."

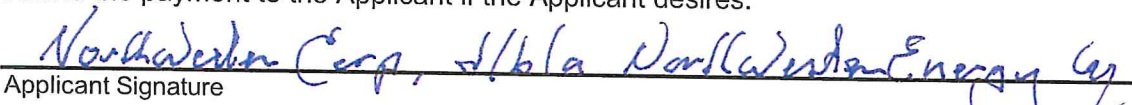
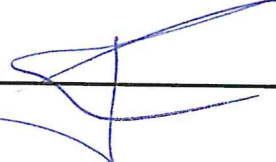
"Applicant acknowledges that if the follow-up information provided to the Department substantially changes the proposed project, for example in a way that alters which sections of the form are applicable or which technical analyses are required, or who is to complete the technical analyses, the applicant 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 five business days 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.

COPY



  
 Applicant Signature Sr. Corp Counsel 5/22/25  
Date

Applicant Signature Date

Department Signature Date

## Shaw, Matthew

---

**From:** Shaw, Matthew  
**Sent:** Tuesday, May 27, 2025 10:50 AM  
**To:** Ryan McLane  
**Cc:** Hamilton, Steven  
**Subject:** RE: Form 600P A signature required; follow-up items

Thank you, Ryan.



**Matthew Shaw** | Water Resource Specialist—New Appropriations  
Water Rights Bureau  
Montana Department of Natural Resources and Conservation  
Lewistown Water Regional Office, 613 NE Main St, Ste E, Lewistown, MT 59457  
**OFFICE:** 406-538-7459 **DIRECT:** 406-535-1927 **EMAIL:** [matthew.shaw@mt.gov](mailto:matthew.shaw@mt.gov)  
**Website** | [Facebook](#) | [X \(Twitter\)](#) | [Instagram](#)  
How did we do? Let us know here: [Feedback Survey](#)

**From:** Ryan McLane <[ryan@franzdriscoll.com](mailto:ryan@franzdriscoll.com)>  
**Sent:** Tuesday, May 27, 2025 9:44 AM  
**To:** Shaw, Matthew <[Matthew.Shaw@mt.gov](mailto:Matthew.Shaw@mt.gov)>  
**Cc:** Hamilton, Steven <[Steven.Hamilton@mt.gov](mailto:Steven.Hamilton@mt.gov)>  
**Subject:** [EXTERNAL] RE: Form 600P A signature required; follow-up items

Matt,  
Please find attached the signature page for the Form 600 A, Northwestern Energy's Black Eagle Permit, which it has been assigned 41Q 30170946. The wet signature page was put in the mail this last Friday. So I would hope that it arrives in the next day or two.

Best,  
-Ryan

**From:** Ryan McLane  
**Sent:** Friday, May 16, 2025 2:35 PM  
**To:** Shaw, Matthew <[Matthew.Shaw@mt.gov](mailto:Matthew.Shaw@mt.gov)>  
**Cc:** Hamilton, Steven <[Steven.Hamilton@mt.gov](mailto:Steven.Hamilton@mt.gov)>  
**Subject:** RE: Form 600P A signature required; follow-up items

Matt,  
Received. I appreciate the very clear instructions – it makes my life much easier.  
We will get that signed as quickly as possible and get it returned.  
Best regards,  
-Ryan

## Shaw, Matthew

---

**From:** Ryan McLane <ryan@franzdriscoll.com>  
**Sent:** Friday, May 16, 2025 2:35 PM  
**To:** Shaw, Matthew  
**Cc:** Hamilton, Steven  
**Subject:** [EXTERNAL] RE: Form 600P A signature required; follow-up items

Matt,  
Received. I appreciate the very clear instructions – it makes my life much easier.  
We will get that signed as quickly as possible and get it returned.  
Best regards,  
-Ryan

**From:** Shaw, Matthew <Matthew.Shaw@mt.gov>  
**Sent:** Friday, May 16, 2025 2:32 PM  
**To:** Ryan McLane <ryan@franzdriscoll.com>  
**Cc:** Hamilton, Steven <Steven.Hamilton@mt.gov>  
**Subject:** Form 600P A signature required; follow-up items

Ryan,

Attached is the completed preapplication meeting form (600P-A) for your proposed change. Please review the items (3) for follow-up on page 39 (and the instructions above the table). Also, please have the Applicant sign page 41 with a wet (hand-written/ink) signature and return it to the Lewistown Regional Office either in person or through the mail on or before May 29 (10-business days after the pre-app meeting). Note that the entire 606P-A document does not need to be mailed, only the signature page (page 41).

The following link is for Part B of the Pre-App Mtg form and will be where the follow-up information (and any amendments, if necessary) will be added/made. A wet signature from the Applicant is required on this form as well. Once completed, the 600-B form should be mailed or hand delivered, in its entirety, to the Lewistown Regional Office. Note that the Applicant has 180-calendar days to submit the completed 600-B, which is November 10, 2025. The \$500 pre-application fee is to accompany the completed Form 600- B. If the Applicant elects to do the Technical Analysis, it is also due at that time. ([https://dnrc.mt.gov/\\_docs/water/Water-Rights-Forms/606P-B\\_02.2025.pdf](https://dnrc.mt.gov/_docs/water/Water-Rights-Forms/606P-B_02.2025.pdf))

Once the Dept. obtains all items (Form 600P-A, p.41 signed; Form 606P - B completed/signed; the fee; and the Technical Analysis, if applicable) the Dept. will consider your preapplication submission complete and will begin timelines (45-calendar days) to complete the Technical Analyses/Scientific Credibility Review (as applicable).

If you have any questions, please don't hesitate to ask! We're happy to help as we understand this is a complex process.

Regards,



**Matthew Snaw** | Water Resource Specialist—New Appropriations

Water Rights Bureau

Montana Department of Natural Resources and Conservation

Lewistown Water Regional Office, 613 NE Main St, Ste E, Lewistown, MT 59457

**OFFICE:** 406-538-7459 **DIRECT:** 406-535-1927 **EMAIL:** [matthew.shaw@mt.gov](mailto:matthew.shaw@mt.gov)

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

**How did we do? Let us know here:** [Feedback Survey \[forms.office.com\]](#)

## Shaw, Matthew

---

**From:** Shaw, Matthew  
**Sent:** Friday, May 16, 2025 2:32 PM  
**To:** Ryan McLane  
**Cc:** Hamilton, Steven  
**Subject:** Form 600P A signature required; follow-up items  
**Attachments:** 600P A Black Eagle\_sigs needed.pdf

Ryan,

Attached is the completed preapplication meeting form (600P-A) for your proposed change. Please review the items (3) for follow-up on page 39 (and the instructions above the table). Also, please have the Applicant sign page 41 with a wet (hand-written/ink) signature and return it to the Lewistown Regional Office either in person or through the mail on or before May 29 (10-business days after the pre-app meeting). Note that the entire 606P-A document does not need to be mailed, only the signature page (page 41).

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Once the Dept. obtains all items (Form 600P-A, p.41 signed; Form 606P - B completed/signed; the fee; and the Technical Analysis, if applicable) the Dept. will consider your preapplication submission complete and will begin timelines (45-calendar days) to complete the Technical Analyses/Scientific Credibility Review (as applicable).

If you have any questions, please don't hesitate to ask! We're happy to help as we understand this is a complex process.

Regards,



**Matthew Shaw** | Water Resource Specialist—New Appropriations  
Water Rights Bureau  
Montana Department of Natural Resources and Conservation  
Lewistown Water Regional Office, 613 NE Main St, Ste E, Lewistown, MT 59457  
**OFFICE:** 406-538-7459 **DIRECT:** 406-535-1927 **EMAIL:** matthew.shaw@mt.gov  
**Website** | **Facebook** | **X (Twitter)** | **Instagram**  
How did we do? Let us know here: [Feedback Survey](#)



# REQUEST FOR PREAPPLICATION MEETING

ARM 36.12.1302(2)  
(Revised 02/2025)

For Department Use Only

### Instructions

Use this optional form to submit a written request for a preapplication meeting, as required in ARM 36.12.1302(2) for applicants electing to complete a preapplication meeting with the department prior to submitting an application for a beneficial water use permit or change in appropriation right pursuant to § 85-2-302, MCA. Use additional sheets as necessary.

Submit this form to the appropriate regional office; see contact information on the last page of this form.

Date Received	<u>4/8/25</u>
Received By	<u>SH</u>
Scheduled Meeting Date	<u>6/10/25</u>

**1. Applicant Name** Northwestern Corporation d/b/a NorthWestern Energy  
 Mailing Address 208 N. Montana, Suite 200  
 City Helena State MT Zip 59601  
 Home Phone 406-443-8983 Other Phone \_\_\_\_\_  
 Email: John.Tabaracci@northwestern.com

**2. Representative Name** (if other than Applicant) Ryan McLane, Franz & Driscoll  
 Representative is Consultant  Representative is Attorney  Representative is Other  
 Mailing Address PO Box 1155  
 City Helena State MT Zip 59625-1155  
 Home Phone 406-442-0005 Other Phone \_\_\_\_\_  
 Email: ryan@franzdriscoll.com

**3. Are you requesting a preapplication meeting for a permit or change application?**  
 Permit  Change

**4. Describe your project:**

Please see the attachment for responses to Questions 4 and 5(b).  
Questions 5(f) through 5(i) are inapplicable to this proposed project.





g) For a change in appropriation right, an explanation of historical use of the right(s) proposed for change:

h) Any proposed place of storage, if applicable (only if storage capacity is greater than 0.1 acre-feet):

#1 Capacity: Surface Acres \_\_\_\_\_ x Max Depth (feet) \_\_\_\_\_ x (.4 for dams/.5 for pits) = \_\_\_\_\_ Acre-Feet

Location: \_\_\_ 1/4 \_\_\_ 1/4 \_\_\_ 1/4 Section \_\_\_, Township \_\_\_  N  S, Range \_\_\_  E  W

#2 Capacity: Surface Acres \_\_\_\_\_ x Max Depth (feet) \_\_\_\_\_ x (.4 for dams/.5 for pits) = \_\_\_\_\_ Acre-Feet

Location: \_\_\_ 1/4 \_\_\_ 1/4 \_\_\_ 1/4 Section \_\_\_, Township \_\_\_  N  S, Range \_\_\_  E  W

#3 Capacity: Surface Acres \_\_\_\_\_ x Max Depth (feet) \_\_\_\_\_ x (.4 for dams/.5 for pits) = \_\_\_\_\_ Acre-Feet

Location: \_\_\_ 1/4 \_\_\_ 1/4 \_\_\_ 1/4 Section \_\_\_, Township \_\_\_  N  S, Range \_\_\_  E  W

i) For applications proposing a well or wells, the well depth(s) and location. If more than two wells, attach a separate sheet to this request:

Well #1    New Well    Existing Well

*For existing well, if available, Water Right # \_\_\_\_\_ GWIC ID \_\_\_\_\_*

1/4 \_\_\_ 1/4 \_\_\_ 1/4 Section \_\_\_, Township \_\_\_  N  S, Range \_\_\_\_\_  E  W

County \_\_\_\_\_

Lot/Tract \_\_\_\_\_ Block \_\_\_\_\_ Subdivision Name \_\_\_\_\_

Estimated Well Depth \_\_\_\_\_ Feet

Well #2    New Well    Existing Well

*For existing well, if available, Water Right # \_\_\_\_\_ GWIC ID \_\_\_\_\_*

\_\_\_\_ 1/4 \_\_\_ 1/4 \_\_\_ 1/4 Section \_\_\_\_\_, Township \_\_\_  N  S, Range \_\_\_  E  W

County \_\_\_\_\_

Lot/Tract \_\_\_\_\_ Block \_\_\_\_\_ Subdivision Name \_\_\_\_\_

Estimated Well Depth \_\_\_\_\_ Feet



**ATTACHMENT TO DNRC FORM “REQUEST FOR PREAPPLICATION MEETING”  
SURFACE WATER APPLICATION  
FILED BY NORTHWESTERN CORPORATION**

**Q4: Describe your Project:**

NorthWestern Corporation d/b/a as NorthWestern Energy (NWE) proposes to modify its existing Black Eagle Hydroelectric Development (“Black Eagle”) by increasing its power generation capacity. This expansion requires a water right for an additional 1,602 cubic feet second (CFS) of water up to 1,005,684 acre feet per year, which is proposed in this application.

NWE’s current water rights for power generation at Black Eagle authorize a total flow rate of 5,040 CFS, and authorize storage volume at Black Eagle reservoir of 29,480 AF. The water right proposed herein would increase the non-consumptive power generation water rights at Black Eagle to a total 6,642 CFS.

Black Eagle is the first of five hydroelectric developments owned by NWE on the Missouri River in the Great Falls area, which form a portion of the Federal Energy Regulatory Commission (FERC) Missouri-Madison Project No. 2188. These Great Falls dams include Black Eagle, Rainbow, Cochrane, Ryan, and Morony. NWE’s water rights for other power generation facilities in this reach include: 10,000 CFS at Cochrane, 7,200 CFS at Ryan, 8,280 CFS at Morony, and 8,000 CFS at Rainbow. Accordingly, the proposed water right at Black Eagle will have no impact on water availability upstream of Great Falls.

Black Eagle is operated as a base-load, run-of-river facility. Under existing operations, the plant uses inflows as they occur and the reservoir level is maintained at a relatively constant level. As such water is spilled during high flows, and reduced power generation occurs during low flows. This operation will continue except the increase in power generation capacity will allow more water to be routed through the powerhouse and tailrace, rather than having that water flow over the Black Eagle spillway. The Black Eagle spillway and tailrace discharge to the same location on the Missouri River. The upgrades at Black Eagle will not alter flows at Morony, the farthest downstream of the Great Falls dams, so there will be no impact on downstream appropriators.

Two Non-Capacity License Amendment Applications for Black Eagle were approved by FERC (collectively “Amendments”). *See* Order Amending License, (May 4, 2020) and Order Amending License, (Sept. 12, 2022). Under the first amendment application FERC authorized the replacement of Unit 1 turbine with an increased turbine capacity, resulting in a 0.86 MW increase in authorized installed capacity and increased best gate hydraulic capacity to 5,691 CFS. Under the second amendment application FERC authorized the replacement of Unit 3 turbine with an increased turbine capacity, and refurbishment of Units 1 and 3 generators, resulting in an additional 2.1 MW increase in authorized installed capacity and increased best gate hydraulic capacity to 6,342 CFS.

Together, the Amendments permitted the replacement of two turbines at Black Eagle and refurbishment of two generators, and the continued operation of the third existing turbine and

generator. The FERC licensing process requires applicants to address “best gate” or “best efficiency” ratings in the analysis of the turbines, however “best gate” is slightly lower than the actual maximum rated output of the turbines.<sup>1</sup> After these upgrades are complete, the two new turbines in the plant will each have a maximum capacity of 2,481 CFS, which combined with the existing 1,680 CFS turbine, results in a total plant capacity of 6,642 CFS (versus the 6,342 CFS “best gate” listed in the Amendments).

**Question 5(b): The point of diversion**

The point of diversion is the existing Black Eagle Dam. Describing this point of diversion to the nearest  $\frac{1}{4}$   $\frac{1}{4}$   $\frac{1}{4}$  Section, is as follows:

1. SW NW NW, Section 5, T20N, R4E, Cascade Co.
2. NW SW NW, Section 5, T20N, R4E, Cascade Co.
3. SE NE NE, Section 6, T20N, R4E, Cascade Co.
4. NE SE NE, Section 6, T20N, R4E, Cascade Co.

---

<sup>1</sup> FERC’s analysis of the Amendment at “authorized installed capacity” assumes a ‘best gate’ efficiency, and does not limit or preclude NWE’s ability to operate Black Eagle at higher, maximum rated outputs. See 18 CFR § 11.1(i). Turbine Data and Performance Curves for this project establish the maximum rated output of the single existing turbines at 1,680 CFS, while the maximum rated output of each of the two new turbines is 2,481 CFS.