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December 8, 2025

White Rock Oil & Gas LLC
c/o Brad Hall
5810 Tennyson Pkwy Ste 500
Plano, TX 75024-3523

Subject: Draft Preliminary Determination to Grant Beneficial Water Use Permit Application No. 40P 30171180

Dear Applicant,

The Department of Natural Resources and Conservation (Department or DNRC) has completed a preliminary review of your application. This review consists of an evaluation of the criteria for issuance of a permit authorization found in §85-2-311, MCA. The Department has preliminarily determined that the criteria are met, and this application should be granted. A copy of the Draft Preliminary Determination to Grant your application is attached.

You have the opportunity to request an extension of time to submit additional information for the Department to consider in the decision, within 15 business days of the date of this letter. If no written request for an extension is received by December 30, 2025, the Department will prepare a notice of opportunity to provide public comment per §85-2-307(4), MCA.

Please note that if you are granted an extension of time to submit additional information to the Department, additional information may be considered an amendment to your application, which may reset application timelines pursuant to ARM 36.12.1401.

Please let me know if you have any questions.

Best,

Ashley Kemmis
Water Resource Specialist
Water Rights Bureau
Water Resources Division

**BEFORE THE DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION OF THE STATE OF MONTANA**

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|---|---|---|
| **APPLICATION FOR BENEFICIAL WATER USE PERMIT NO. 40P 30171180 BY WHITE ROCK OIL & GAS, LLC** | ) ) ) | **DRAFT PRELIMINARY DETERMINATION TO GRANT PERMIT** |

* * * * * * *

On September 22, 2025, White Rock Oil & Gas LLC (Applicant) submitted Application for Beneficial Water Use Permit No. 40P 30171180 to the Glasgow Regional Office of the Department of Natural Resources and Conservation (Department or DNRC) for 240 GPM and 100 AF for Industrial use. The Department published receipt of the application on its website. A preapplication meeting was held between the Department and the Applicant on June 17, 2025, in which the Applicant designated that the technical analyses for this application would be completed by the Department. The Applicant returned the completed Preapplication Checklist on July 16, 2025. The Department delivered the Department- completed technical analyses on August 26, 2025. The application was determined to be correct and complete as of October 10, 2025. An Environmental Assessment for this application was completed on December 5, 2025.

## INFORMATION

The Department considered the following information submitted by the Applicant, which is contained in the administrative record.

Application as filed:

- Application for Beneficial Water Use Permit, Form 600
- Addenda:
  - Aquifer Testing Addendum, Form 600-ATA, received on June 17, 2025
  - Permit Storage Addendum, Form 600-SA, received on September 22, 2025
- Attachments:
  - Form 633, received on June 18, 2025
  - Variance request approval letter, by DNRC, dated July 15, 2025
  - Driller Well Log for GWIC ID 333539, by Agri Industries, completed on August 29, 2024
  - Well Logs for GWIC ID 256685 and GWIC ID 265584

- Email with DNRC Agriculture and Grazing Management Bureau, Water Resource Specialist Elizabeth Miller, dated December 20, 2024, regarding ownership

- Maps: Undated aerial and topographic imagery depicting the point of diversion and place of use
- Department- completed technical analyses based on information provided in the Preapplication Checklist, dated August 26, 2025

Information Received after Application Filed

- Email correspondence between Ashley Kemmis, Water Resource Specialist and Brad Hall of White Rock Oil & Gas, LLC on November 13-14, 2025

Information within the Department's Possession/Knowledge

- The Department also routinely considers the following information. The following information is not included in the administrative file for this application but is available upon request. Please contact the Glasgow Regional Office at 406-228-2561 to request copies of the following documents.
  - Technical Memorandum: Physical and Legal Availability of Ground Water, dated April 22, 2019
  - Technical Memorandum: Physical Availability of Surface Water with Gage Data, dated November 1, 2019
  - Technical Memorandum: Net Surface Water Depletion from Ground Water Pumping dated July 6, 2018
  - Technical Memorandum: Pond and Wetland Evaporation/Evapotranspiration dated June 7, 2023
  - Flow Records for USGS Gage #06177000, Missouri River near Wolf Point, MT
  - Flow Records for USGS Gage #06185500, Missouri River near Culbertson, MT
  - Gridded Net Evaporation Layer, Converge, ArcGIS Web Application
  - Provisional Permit No. 40P 30063842 Aquifer Test Report
  - File for pending Application 40P 30171180 by White Rock Oil & Gas LLC
  - Aquifer Testing Requirements Review, by the DNRC, dated July 11, 2025

The Department has fully reviewed and considered the evidence and argument submitted in this application and preliminarily determines the following pursuant to the Montana Water Use Act (Title 85, chapter 2, part 3, MCA).

For the purposes of this document, Department or DNRC means the Department of Natural Resources & Conservation; CFS means cubic feet per second; GPM means gallons per minute; AF means acre-feet; AC means acres; BGS means below ground surface; BTC means below top of casing; GWIC means Ground Water Information Center and AF/YR means acre-feet per year.

## PROPOSED APPROPRIATION

FINDINGS OF FACT

1. The Applicant proposes to divert groundwater from the Fox Hills-Hell Creek aquifer, by means of a well (1,128 FT BGS), from March 1 to November 30 at 240 GPM up to 100 AF per year, from a point in the NENENW, Section 35, T25N, R52E, Richland County, for industrial use from January 1 to December 31. The Applicant proposes to use water for oil field development. The proposed project includes a 34.4 AF lined storage pond located in S2NENW, Section 35, T25N, R52E, Richland County. The individual oil wells are considered the places of use and are in the following locations as shown in Table 1:

**Table 1: Places of Use**

| ID | Quarter Quarter | Section | Township | Range | County |
|---|---|---|---|---|---|
| 1 | NENW | 33 | 25N | 52E | Richland |
| 2 | NENE | 06 | 25N | 52E | Richland |
| 3 | NENW | 21 | 25N | 52E | Richland |
| 4 | SESW | 27 | 25N | 52E | Richland |
| 5 | NENW | 10 | 25N | 52E | Richland |
| 6 | NENE | 06 | 24N | 53E | Richland |
| 7 | NENE | 32 | 25N | 52E | Richland |
| 8 | NENW | 35 | 25N | 52E | Richland |
| 9 | SESE | 17 | 25N | 52E | Richland |
| 10 | NENE | 33 | 25N | 52E | Richland |
| 11 | NENE | 17 | 24N | 53E | Richland |
| 12 | NENW | 36 | 25N | 52E | Richland |
| 13 | NENE | 36 | 25N | 52E | Richland |
| 14 | SESE | 23 | 25N | 52E | Richland |
| 15 | NENE | 35 | 25N | 52E | Richland |
| 16 | SESE | 27 | 25N | 52E | Richland |
| 17 | NENE | 09 | 25N | 52E | Richland |
| 18 | SESE | 03 | 25N | 52E | Richland |
| 19 | NENE | 21 | 25N | 52E | Richland |
| 20 | SESE | 15 | 25N | 52E | Richland |
| 21 | SESE | 2 | 24N | 52E | Richland |

| | | | | | |
|---|---|---|---|---|---|
| 22 | SESE | 13 | 24N | 52E | Richland |
| 23 | NWNE | 35 | 25N | 52E | Richland |
| 24 | NENE | 35 | 25N | 52E | Richland |

2. The proposed point of diversion is located approximately 12.5 miles south of the Missouri River.

3. The consumptive use of the proposed diversion is 100% per the DNRC Technical Memorandum: Net Surface Water Depletion from Ground Water Pumping, dated July 6, 2018.

4. This permit will not be supplemental to any other water rights nor share a place of use.

5. Pursuant to § 85-2-312, MCA, the Department may condition permits as it deems necessary to meet the statutory criteria. The Application for 40P 30171180 is the same project as the pending Application for 40P 30163275. The Department denied the Application for 40P 30163275 in the updated Draft Preliminary Determination to deny, dated May 12, 2025, and it is currently in Show Cause Hearing as Case #24786 pursuant to § 2-4-604, MCA. The Applicant filed Application 40P 30171180 for the same project to avoid delay while the hearing for 40P 30162375 is in progress. This application will be subject to the following conditions:

1. SUBJECT TO THE OUTCOME OF THE SHOW CAUSE HEARING FOR CASE #24786, IF THE APPLICATION FOR 40P 30163275 IS ISSUED, THIS APPLICATION MUST BE WITHDRAWN.
2. THE APPROPRIATOR SHALL INSTALL A DEPARTMENT APPROVED IN-LINE FLOW METER AT A POINT IN THE DELIVERY LINE APPROVED BY THE DEPARTMENT. WATER MUST NOT BE DIVERTED UNTIL THE REQUIRED MEASURING DEVICE IS IN PLACE AND OPERATING. ON A FORM PROVIDED BY THE DEPARTMENT, THE APPROPRIATOR SHALL KEEP A WRITTEN MONTHLY RECORD OF THE FLOW RATE AND VOLUME OF ALL WATER DIVERTED, INCLUDING THE PERIOD OF TIME. RECORDS SHALL BE SUBMITTED BY JANUARY 31ST OF EACH YEAR AND UPON REQUEST AT OTHER TIMES DURING THE YEAR. FAILURE TO SUBMIT REPORTS MAY BE CAUSE FOR REVOCATION OF A PERMIT OR CHANGE. THE RECORDS MUST BE SENT TO THE GLASGOW WATER RESOURCES REGIONAL OFFICE. THE APPROPRIATOR SHALL MAINTAIN THE MEASURING DEVICE, SO IT ALWAYS OPERATES PROPERLY AND MEASURES FLOW RATE AND VOLUME ACCURATELY.

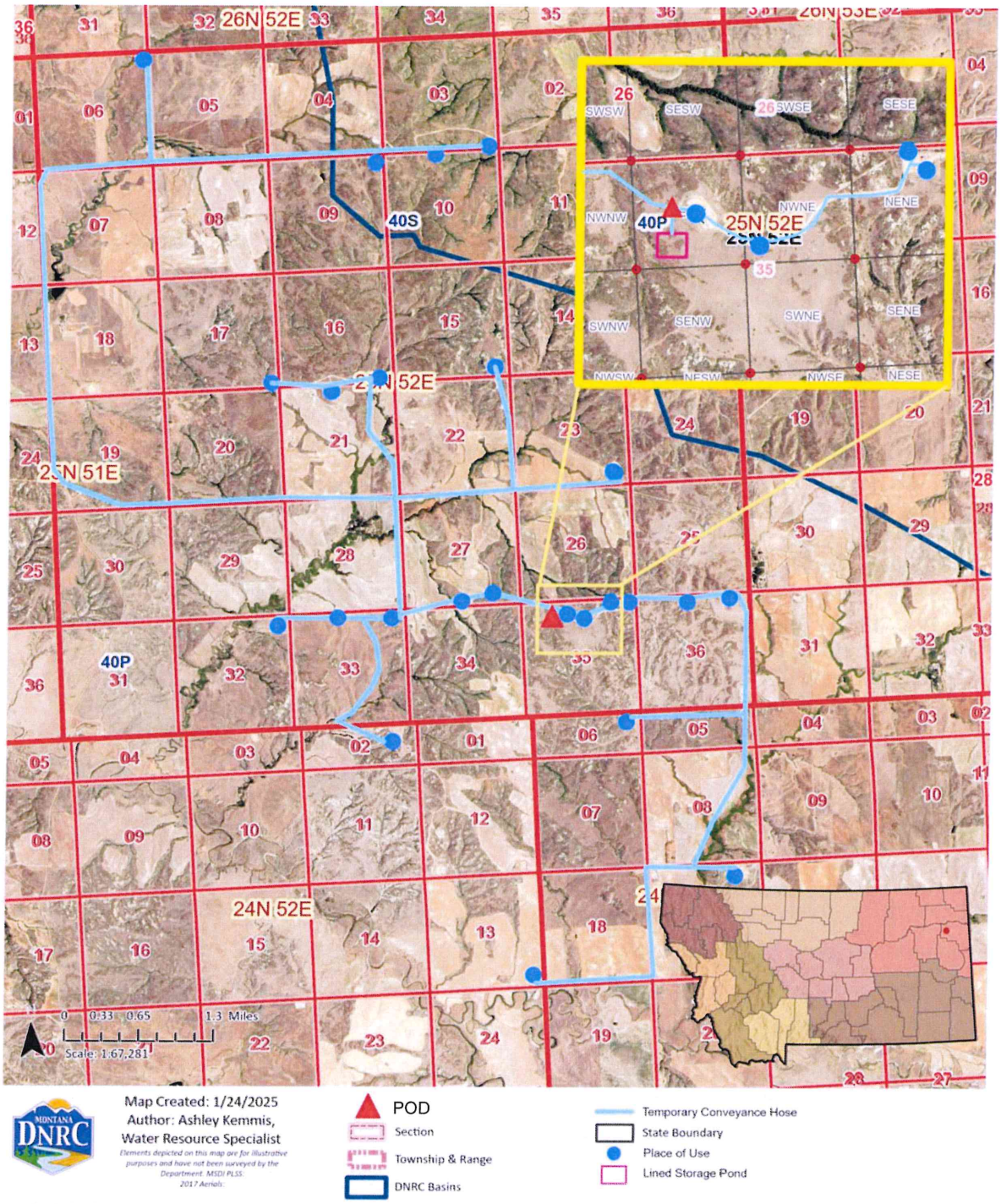


*Figure 1: Map of the Applicant's Point of Diversion, Place of Use, and Storage Pond*

## § 85-2-311, MCA, BENEFICIAL WATER USE PERMIT CRITERIA

GENERAL CONCLUSIONS OF LAW

6. The Montana Constitution expressly recognizes in relevant part that:

> (1) All existing rights to the use of any waters for any useful or beneficial purpose are hereby recognized and confirmed.
> (2) The use of all water that is now or may hereafter be appropriated for sale, rent, distribution, or other beneficial use . . . shall be held to be a public use.
> (3) All surface, underground, flood, and atmospheric waters within the boundaries of the state are the property of the state for the use of its people and are subject to appropriation for beneficial uses as provided by law.

Mont. Const. Art. IX, § 3. While the Montana Constitution recognizes the need to protect senior appropriators, it also recognizes a policy to promote the development and use of the waters of the state by the public. This policy is further expressly recognized in the water policy adopted by the Legislature codified at § 85-2-102, MCA, which states in relevant part:

> (1) Pursuant to Article IX of the Montana constitution, the legislature declares that any use of water is a public use and that the waters within the state are the property of the state for the use of its people and are subject to appropriation for beneficial uses as provided in this chapter. . . .
> (3) It is the policy of this state and a purpose of this chapter to encourage the wise use of the state's water resources by making them available for appropriation consistent with this chapter and to provide for the wise utilization, development, and conservation of the waters of the state for the maximum benefit of its people with the least possible degradation of the natural aquatic ecosystems. In pursuit of this policy, the state encourages the development of facilities that store and conserve waters for beneficial use, for the maximization of the use of those waters in Montana . . .

7. Pursuant to § 85-2-302(1), MCA, except as provided in §§ 85-2-306 and 85-2-369, MCA, a person may not appropriate water or commence construction of diversion, impoundment, withdrawal, or related distribution works except by applying for and receiving a permit from the Department. *See* § 85-2-102(1), MCA. An Applicant in a beneficial water use permit proceeding must affirmatively prove all of the applicable criteria in § 85-2-311, MCA. Section § 85-2-311(1) states in relevant part:

> ... the department shall issue a permit if the Applicant proves by a preponderance of evidence that the following criteria are met:
> (a) (I) there is water physically available at the proposed point of diversion in the amount that the Applicant seeks to appropriate; and
> (ii) water can reasonably be considered legally available during the period in which the Applicant seeks to appropriate, in the amount requested, based on the records of the department and other evidence provided to the department. Legal availability is determined using an analysis involving the following factors:

(A) identification of physical water availability;

(B) identification of existing legal demands on the source of supply throughout the area of potential impact by the proposed use; and

(C) analysis of the evidence on physical water availability and the existing legal demands, including but not limited to a comparison of the physical water supply at the proposed point of diversion with the existing legal demands on the supply of water.

(b) the water rights of a prior appropriator under an existing water right, a certificate, a permit, or a state water reservation will not be adversely affected. In this subsection (1)(b), adverse effect must be determined based on a consideration of an Applicant's plan for the exercise of the permit that demonstrates that the Applicant's use of the water will be controlled so the water right of a prior appropriator will be satisfied;

(c) the proposed means of diversion, construction, and operation of the appropriation works are adequate;

(d) the proposed use of water is a beneficial use;

(e) the Applicant has a 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, or if the proposed use has a point of diversion, conveyance, or place of use on national forest system lands, the Applicant has any written special use authorization required by federal law to occupy, use, or traverse national forest system lands for the purpose of diversion, impoundment, storage, transportation, withdrawal, use, or distribution of water under the permit;

(f) the water quality of a prior appropriator will not be adversely affected;

(g) the proposed use will be substantially in accordance with the classification of water set for the source of supply pursuant to 75-5-301(1); and

(h) the ability of a discharge permit holder to satisfy effluent limitations of a permit issued in accordance with Title 75, chapter 5, part 4, will not be adversely affected.

(2) The Applicant is required to prove that the criteria in subsections (1)(f) through (1)(h) have been met only if a valid objection is filed. A valid objection must contain substantial credible information establishing to the satisfaction of the department that the criteria in subsection (1)(f), (1)(g), or (1)(h), as applicable, may not be met. For the criteria set forth in subsection (1)(g), only the department of environmental quality or a local water quality district established under Title 7, chapter 13, part 45, may file a valid objection.

To meet the preponderance of evidence standard, "the Applicant, in addition to other evidence demonstrating that the criteria of subsection (1) have been met, shall submit hydrologic or other evidence, including but not limited to water supply data, field reports, and other information developed by the Applicant, the department, the U.S. geological survey, or the U.S. natural resources conservation service and other specific field studies." Section 85-2-311(5), MCA (emphasis added). The determination of whether an application has satisfied the § 85-2-311, MCA criteria is committed to the discretion of the Department. *Bostwick Properties, Inc. v. Montana Dept. of Natural Resources and Conservation*, 2009 MT 181, ¶ 21. The Department is required grant a permit only if the § 85-2-311, MCA, criteria are proven by the Applicant by a

preponderance of the evidence. Id. A preponderance of evidence is "more probably than not." *Hohenlohe v. DNRC*, 2010 MT 203, ¶¶ 33, 35, 357 Mont. 438, 240 P.3d 628.

8. Pursuant to § 85-2-312, MCA, the Department may condition permits as it deems necessary to meet the statutory criteria:

> (1) (a) The department may issue a permit for less than the amount of water requested, but may not issue a permit for more water than is requested or than can be beneficially used without waste for the purpose stated in the application. The department may require modification of plans and specifications for the appropriation or related diversion or construction. The department may issue a permit subject to terms, conditions, restrictions, and limitations it considers necessary to satisfy the criteria listed in 85-2-311 and subject to subsection (1)(b), and it may issue temporary or seasonal permits. A permit must be issued subject to existing rights and any final determination of those rights made under this chapter.

*E.g., Montana Power Co. v. Carey* (1984), 211 Mont. 91, 96, 685 P.2d 336, 339 (requirement to grant applications as applied for, would result in, "uncontrolled development of a valuable natural resource" which "contradicts the spirit and purpose underlying the Water Use Act."); *see also*, *In the Matter of Application for Beneficial Water Use Permit No. 65779-76M by Barbara L. Sowers* (DNRC Final Order 1988)(conditions in stipulations may be included if it further compliance with statutory criteria); *In the Matter of Application for Beneficial Water Use Permit No. 42M-80600 and Application for Change of Appropriation Water Right No. 42M-036242 by Donald H. Wyrick* (DNRC Final Order 1994); Admin. R. Mont. (ARM) 36.12.207.

9. The Montana Supreme Court further recognized in *Matter of Beneficial Water Use Permit Numbers 66459-76L, Ciotti: 64988-G76L, Stamer*, 278 Mont. 50, 60-61, 923 P.2d 1073, 1079, 1080 (1996), *superseded by legislation on another issue*:

> Nothing in that section [85-2-313], however, relieves an Applicant of his burden to meet the statutory requirements of § 85-2-311, MCA, before DNRC may issue that provisional permit. Instead of resolving doubts in favor of appropriation, the Montana Water Use Act requires an Applicant to make explicit statutory showings that there are unappropriated waters in the source of supply, that the water rights of a prior appropriator will not be adversely affected, and that the proposed use will not unreasonably interfere with a planned use for which water has been reserved.

*See also, Wesmont Developers v. DNRC*, CDV-2009-823, First Judicial District Court, *Memorandum and Order* (2011). The Supreme Court likewise explained that:

> .... unambiguous language of the legislature promotes the understanding that the Water Use Act was designed to protect senior water rights holders from encroachment by junior appropriators adversely affecting those senior rights.

*Montana Power Co.*, 211 Mont. at 97-98, 685 P.2d at 340; *see also* Mont. Const. art. IX §3(1).

10. An appropriation, diversion, impoundment, use, restraint, or attempted appropriation, diversion, impoundment, use, or restraint contrary to the provisions of § 85-2-311, MCA is invalid. An officer, agent, agency, or employee of the state may not knowingly permit, aid, or assist in any manner an unauthorized appropriation, diversion, impoundment, use, or other restraint. A person or corporation may not, directly or indirectly, personally or through an agent, officer, or employee, attempt to appropriate, divert, impound, use, or otherwise restrain or control waters within the boundaries of this state except in accordance with this § 85-2-311, MCA. Section 85-2-311(6), MCA.

11. The Department may take notice of judicially cognizable facts and generally recognized technical or scientific facts within the Department's specialized knowledge, as specifically identified in this document. ARM 36.12.221(4).

## PHYSICAL AVAILABILITY

FINDINGS OF FACT

12. The Applicant proposes to divert water year-round from a well at a rate of 240 GPM and volume of 100 AF for industrial use. The Applicant proposes to use water for oil field development. The proposed well was drilled on August 29, 2024, and is assigned GWIC ID 333539 by the Montana Bureau of Mines and Geology Groundwater Information Center. It is completed to 1,128 FT BGS, is perforated 897 to 939 FT and 949 to 1,128 FT BGS and is completed in the Fox Hills-Hell Creek aquifer. The Applicant also proposes to construct a lined storage pond with 34.4 AF capacity in S2NENW, Section 35, T25N, R52E, Richland County.

13. A variance from the requirements found in ARM 36.12.121 was requested on June 18, 2025, for the following requirements.

- ARM 36.12.121(3)(a) – pumping rate may not depart from the average pumping rate by more than +/- 5%
- ARM 36.12.121(3)(d) – pumping rate must be measured with a reliable measuring device and recorded with clock time according to the schedule on Form No. 633
- ARM 36.12.121(3)(e) – minimum duration of pumping during an aquifer test must be 24 hours for a proposed pumping and volume equal to or less than 150 GPM or 50 AF, or 72 hours for a proposed pumping rate and volume greater than 150 GPM or 50 AF

- ARM 36.12.121(3)(e)(iii) – the testing procedures for a minimum eight-hour drawdown and yield test performed on any production well must follow (a), (d), and (h)
- ARM 36.12.121(3)(h) – groundwater levels in the production and/or observation well(s) must be reported with 0.01-foot precision according to the schedule specified on Form No. 633.

DNRC Water Sciences Bureau (WSB) confirmed that the data provided would allow them to derive aquifer properties and assess adequacy of diversion and recommended granting the requested variances. The Glasgow regional office granted the variance request on July 15, 2025.

14. In lieu of the Applicant conducting a new 72-hour aquifer test per ARM 36.12.121, the variance request permitted the substitution of a 94-hour aquifer test completed on GWIC ID 256685 in 2012 for Provisional Permit No. 40P 30063842. This test was completed seven miles southeast of the proposed well and was previously analyzed by the DNRC for groundwater modeling. An 8.4 -hour drawdown and yield test on the proposed well (FW-1) was completed by the Applicant on September 3, 2024. Both tests were conducted at an average flow rate of 240 GPM.

15. An evaluation of groundwater availability in the source aquifer for the purpose of evaluating physical and legal availability was done by calculating groundwater flux through a zone of influence (ZOI) corresponding to the 0.01-FT drawdown contour. The calculation for groundwater flux (Q), the amount of physically available water, through the delineated area is given by the equation **Q=Twi**, where:

- T = Transmissivity = 229 $FT^2$/day
- W = Width of Zone of Influence = 166,900 FT
- i = Groundwater gradient (from LaFave, 1998) = 0.001 FT/FT

16. The calculated groundwater flux through the ZOI is 38,220 $FT^3$/day or 320 AF/year.

17. The Department finds groundwater is physically available in the amount of 320 AF/year at the proposed point of diversion during the proposed period of diversion.

## LEGAL AVAILABILITY

FINDINGS OF FACT

18. The Department modeled the 0.01-foot drawdown contour in FWD:SOLV (HydroSOLVE INC., 2024) using a constant pumping rate of 82.3 GPM for GWIC ID 333539 for the period of diversion (275 days of pumping and 90 days of no pumping within one year). As shown in Figure 2, the 0.01-foot drawdown contour extends 83,450 FT from the Applicant's well and was truncated to the Missouri River, where the aquifer outcrops. The direction of groundwater flow is

predominantly to the north and northeast, as such the width of the ZOI that is perpendicular to groundwater flow equals 166,900 FT.

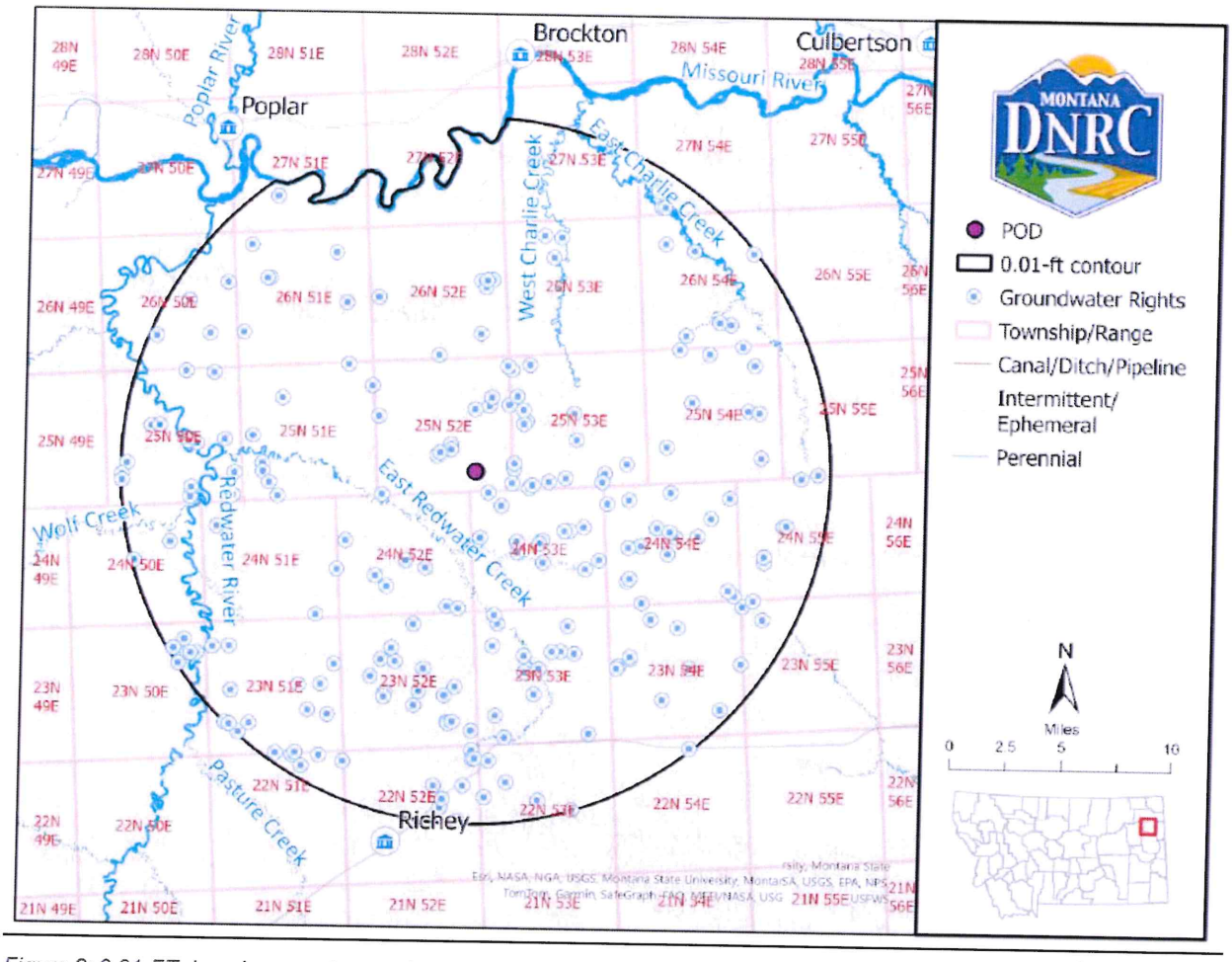


*Figure 2: 0.01-FT drawdown contour and active water rights within the ZOI. Map prepared by the Water Science Bureau in the Groundwater Permit Technical Analyses Report - Part A.*

19. According to the Department-completed Technical Analyses, there are 214 active groundwater rights within the 0.01-FT contour boundary. In alignment with the Department's Scientific Credibility Review, dated October 25, 2024, for the previous Application 40P 30163275, this legal availability analysis will consider 16 water rights as legal demand. The Department has records of well depth for these 16 water rights which confirm their source aquifer as the Fox Hills-Hell Creek formation. Table 2 lists these 16 active water rights. Groundwater rights without designated volumes were quantified using Department standards.

20. Table 2 lists 16 active water rights completed in the Fox Hills-Hell Creek formation within the ZOI considered for legal availability analysis. Groundwater rights without designated volumes were quantified using Department standards.

21. To assign volume to water rights without a designated volume in the zone of influence, the DNRC used the method below:

- Groundwater certificates issued without flow rate and volume are quantified by averaging the volume of other quantified groundwater certificates in the zone of influence per Department standard.

**Table 2: Water Rights within the Zone of Influence**

| A | B | C | D | E |
|---|---|---|---|---|
| **Water Right Number** | **Water Right Type** | **Water Right Owner** | **Volume (AF)** | **Well Depth (FT)** |
| 40S 30031046[1] | GROUND WATER CERTIFICATE | ROBERT R RALSTON | 3.11 | 190 |
| 40S 184 00[1] | GROUND WATER CERTIFICATE | REMI BIDEGARAY | 3.11 | 210 |
| 40S 48174 00 | GROUND WATER CERTIFICATE | REMI BIDEGARAY | 5.03 | 210 |
| 40S 76537 00 | GROUND WATER CERTIFICATE | TOM RUFFATTO | 9.65 | 353 |
| 40S 30006674 | GROUND WATER CERTIFICATE | LYNETTE RUFFATTO; TOM RUFFATTO | 4.25 | 370 |
| 40S 30112816 | GROUND WATER CERTIFICATE | CHEYANNE RAUSCHENDORFER; GREGORY RAUSCHENDORFER | 1.63 | 370 |
| 40P 30048062 | GROUND WATER CERTIFICATE | JERRY T RHINES; KATHY L RHINES | 2.2 | 440 |
| 40P 30047351 | GROUND WATER CERTIFICATE | JEREMIAH M RHINES | 2.31 | 442 |
| 40S 30005912[1] | GROUND WATER CERTIFICATE | SCHMITZ JOE & ANNA AND BURKE PAT & ANNA TRUST | 3.11 | 560 |
| 40S 1287 00[1] | GROUND WATER CERTIFICATE | JOSEPH F IRIGOIN | 3.11 | 665 |
| 40S 59672 00 | GROUND WATER CERTIFICATE | CAROLYN CASTERLINE | 4.86 | 815 |
| 40S 38443 00 | GROUND WATER CERTIFICATE | DEVILS ELBOW RANCH LLC | 6.35 | 895 |
| 40P 30071791 | GROUND WATER CERTIFICATE | EIGHT MILE RANCH | 0.65 | 940 |
| 40P 30063695 | GROUND WATER CERTIFICATE | HK FARM | 4.08 | 1000 |
| 40P 30063842 | PROVISIONAL PERMIT | PEASE RANCH INC | 107.3 | 1300 |
| 40P 31452 00 | GROUND WATER CERTIFICATE | CLAYTON K VAIRA | 9.25 | 1340 |

[1]Volume determined from the average of quantified groundwater certificates per Department standards.

22. The legal demands within the ZOI total 170 AF per year. Compared to groundwater flux of 320 AF per year, 150 AF per year remain legally available to appropriate after all existing water rights have been satisfied. Table 3 compares the physical groundwater supply, current legal demands, and the Applicant's requested volume. The calculations demonstrate that groundwater is legally available for the proposed appropriation.

| Table 3: Comparison of Physical Availability, Legal Availability and requested Volume | |
|---|---|
| Physical Availability (AF/YR) | 320 |
| Existing Legal Demands (AF/YR) | 170 |
| Legal Availability = Physical Availability – Existing Legal Demands (AF/YR) | 150 |
| Requested Appropriation (AF/YR) | 100 |
| Legal Availability – Requested Appropriation (AF/YR) | 50 |

Surface Water

23. Per ARM 36.12.1704, the Department is to determine legal availability in any hydraulically connected surface water sources in which water flow could be reduced by any amount as a result of the groundwater appropriation. The Department has determined that the Missouri River (12.5 miles north of well) is hydraulically connected to the source aquifer. Depletion by pumping in the source aquifer primarily occurs through propagation of drawdown through the confined aquifer. Net depletions start to accrue near the southern boundary of the SW of Section 29, T27N, R52E, Richland County. See the Permit Technical Analyses Report – Part A, dated August 26, 2025, for more information on the determination of the connected surface water source and location of net depletion.

24. The proposed industrial use is considered to be 100% consumptive, and depletions would accrue to the Missouri River as shown in Table 4.

| Table 4: Total Consumed Volume and Net Depletion to the Missouri River | | | | |
|---|---|---|---|---|
| **Month** | **Diverted Volume (AF)** | **Total Consumed Volume (AF)** | **Missouri River Net Depletion (AF)** | **Missouri River Net Depletion (GPM)** |
| January | 0.0 | 0.0 | 8.5 | 240.0 |
| February | 0.0 | 0.0 | 7.7 | 241.7 |
| March | 11.3 | 11.3 | 8.5 | 240 |
| April | 10.9 | 10.9 | 8.2 | 240.5 |
| May | 11.3 | 11.3 | 8.5 | 240.0 |
| June | 10.9 | 10.9 | 8.2 | 240.5 |
| July | 11.3 | 11.3 | 8.5 | 240.0 |
| August | 11.3 | 11.3 | 8.5 | 240.0 |

| | | | | |
|---|---|---|---|---|
| September | 10.9 | 10.9 | 8.2 | 240.6 |
| October | 11.3 | 11.3 | 8.5 | 240.1 |
| November | 10.9 | 10.9 | 8.2 | 240.6 |
| December | 0.0 | 0.0 | 8.5 | 240.1 |
| Total | 100.0 | 100.0 | 100.0 | |

25. To determine whether the amount of water to be depleted from the Missouri River is legally available, the Department will first determine its physical availability where depletion is identified to begin. Legal demands in the AOPI are then subtracted from physical availability.

Missouri River Physical Availability

26. Per the DNRC Technical Analysis, net depletions accrue to the Missouri River starting near the southern boundary of the SW of Section 29, T27N, R52E, Richland County, between USGS Gage 06185500, Missouri River near Culbertson and USGS Gage 06177000, Missouri River near Wolf Point, MT. The surface water depletions are approximately 42 river miles upstream of the USGS Gage 06185500 and 43 river miles downstream of USGS Gage 06177000. Missouri River Near Culbertson is the nearest gage to the proposed surface water depletion location. The date range includes the entire period of record for this gage.

27. Physical availability of the Missouri River water at the start of depletions will be quantified monthly. Department practice for physical availability analyses where the gage used is downstream of the POD is to add the monthly flow rates and volumes of existing water rights between the gage and the POD to the median of the mean monthly flows and volumes 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.

- The Department calculated the median of the mean monthly flow rates in cubic feet per second (CFS) for the Missouri River using USGS Gage 06185500 records for each month of the proposed period of diversion (Table 5, column B). Those flows were converted to monthly volumes in AF (Table 5, column C) using the following equation found on DNRC Water Calculation Guide: median of the mean monthly flow (CFS × 1.98 AF/day/1 CFS × days per month = AF/month).
- The Department calculated the monthly flows appropriated by existing users between the gage and the POD on the source (Table 5, column D) by:
    - Generating a list of existing water rights from the point of diversion to USGS Gage 06185500 (Table 6);

- Designating irrigation and lawn and garden uses with no period of diversion as occurring from April 1 to October 31;
- Designating all other water uses with no period of diversion as year-round;
- Calculating a flow rate for all livestock direct from source rights without a designated flow rate by assigning either 30 GPD/AU for Statements of Claim or 15 GPD/AU, multiplying by the number of Animal Units (AU), and adding that to 35 GPM.
- Calculating a volume for all livestock direct from source rights without a designated volume by multiplying the number of AU by 30 GPD/AU for Statements of Claim or 15 GPD/AU.
- The volume for the existing rights between the gage and point of diversion were calculated by dividing the annual volume by the number of months in the period of diversion.

28. Since the gage used is downstream of the POD, the Department added the flow rates and volumes of the existing rights between USGS Gage 06185500 and the POD (Table 5, column D and E) to the median of the mean monthly gage values (Table 5, column B and C) to determine physical availability (CFS and AF) at the POD (Table 5, column F and G).

**Table 5: Department Calculated Physical Availability at the Location of Surface Water Depletions on the Missouri River**

| A | B | C | D | E | F | G |
|---|---|---|---|---|---|---|
| **Month** | **Median of the Mean Monthly Flow at Gage #06185500 (CFS)** | **Median of the Mean Monthly Volume at Gage #06185500 (CFS)** | **Existing Rights from Start of Depletion to Gage 06185500 (CFS)** | **Existing Rights from POD Start of Depletion to Gage 06185500 (AF)** | **Physically Available Water at Start of Depletion (CFS)** | **Physically Available Water at Start of Depletion (AF)** |
| January | 11,210 | 688,070 | 5 | 112 | 11,215 | 688,182 |
| February | 11,340 | 628,690 | 5 | 112 | 11,345 | 628,802 |
| March | 9,986 | 612,910 | 16 | 236 | 10,002 | 613,146 |
| April | 8,000 | 475,200 | 221 | 3,179 | 8,221 | 478,379 |
| May | 8,656 | 531,305 | 278 | 4,194 | 8,934 | 535,499 |
| June | 9,547 | 567,092 | 289 | 4,594 | 9,836 | 571,685 |
| July | 9,371 | 575,192 | 289 | 4,594 | 9,660 | 579,786 |
| August | 8,973 | 550,763 | 289 | 4,594 | 9,262 | 555,356 |
| September | 7,836 | 465,458 | 283 | 4,248 | 8,119 | 469,706 |
| October | 6,976 | 428,156 | 219 | 3,175 | 7,195 | 431,331 |
| November | 7,280 | 432,432 | 19 | 267 | 7,299 | 432,699 |

| | | | | | | |
|---|---|---|---|---|---|---|
| December | 9,870 | 605,790 | 5 | 112 | 9,875 | 605,902 |

| Table 6: Existing Water Rights between the Gage and the Start of Surface Water Depletion | | | |
|---|---|---|---|
| A | B | C | D |
| Water Right Number | Flow Rate (CFS) | Volume (AF) | Period of Diversion |
| 40S 142790 00 | 0.50 | 135.00 | 01/01 to 12/31 |
| 40S 30051664 | 2.25 | 270.60 | 01/01 to 12/31 |
| 40S 30073871 | | 304.00 | 01/01 to 12/31 |
| 40S 3619 00[1] | 0.10 | 1.19 | 01/01 to 12/31 |
| 40S 184965 00[1] | | 7.13 | 01/01 to 12/31 |
| 40S 30142620[1] | | 1.60 | 01/01 to 12/31 |
| 40S 30142628[1] | | 0.54 | 01/01 to 12/31 |
| 40S 30142617[1] | | 0.88 | 01/01 to 12/31 |
| 40S 30142619[1] | | 0.48 | 01/01 to 12/31 |
| 40S 30142616[1] | | 1.53 | 01/01 to 12/31 |
| 40S 30142618[1] | | 1.19 | 01/01 to 12/31 |
| 40S 30073870[1] | | 0.62 | 01/01 to 12/31 |
| 40S 30142621[1] | | 0.03 | 01/01 to 12/31 |
| 40S 1508 00[2] | 3.79 | 373.91 | 03/01 to 12/04 |
| 40S 30046592[2] | 7.35 | 737.06 | 03/01 to 12/04 |
| 40S 101303 00[3] | 1.21 | 523.80 | 04/01 to 09/30 |
| 40S 30025552 | 2.80 | 228.00 | 04/01 to 10/01 |
| 40S 80553 00 | 4.46 | 741.00 | 04/01 to 10/01 |
| 40S 46549 00[3] | 3.34 | 594.00 | 04/01 to 10/04 |
| 40S 116904 00 | 6.70 | 68.00 | 04/01 to 10/15 |
| 40S 30150186 | 0.78 | 69.00 | 04/01 to 10/15 |
| 40S 30104520 | 1.57 | 75.00 | 04/01 to 10/15 |
| 40S 30063091 | 1.45 | 92.00 | 04/01 to 10/15 |
| 40S 30104412 | 1.10 | 161.00 | 04/01 to 10/15 |
| 40S 30044041 | 1.78 | 176.90 | 04/01 to 10/15 |
| 40S 30072073 | 1.73 | 224.00 | 04/01 to 10/15 |
| 40S 30104519 | 5.08 | 242.50 | 04/01 to 10/15 |
| 40S 30027588 | 3.90 | 272.80 | 04/01 to 10/15 |
| 40S 30027595 | 4.10 | 283.60 | 04/01 to 10/15 |
| 40S 114741 00 | 6.55 | 312.50 | 04/01 to 10/15 |
| 40S 30012791 | 6.00 | 413.60 | 04/01 to 10/15 |
| 40S 30002059 | 4.90 | 569.00 | 04/01 to 10/15 |
| 40S 38071 00 | 1.07 | 162.00 | 04/01 to 10/31 |
| 40S 30159245 | 2.23 | 220.00 | 04/01 to 10/31 |

| | | | |
|---|---|---|---|
| 40S 70237 00 | 7.80 | 454.00 | 04/01 to 10/31 |
| 40S 78203 00 | 4.46 | 1,202.00 | 04/01 to 10/31 |
| 40S 178507 00[3] | 1.06 | 51.00 | 04/01 to 10/31 |
| 40S 163084 00[3] | 1.92 | 82.80 | 04/01 to 10/31 |
| 40S 30030883[2] | 6.24 | 373.91 | 04/01 to 10/31 |
| 40S 30030881[2] | 2.67 | 737.06 | 04/01 to 10/31 |
| 40S 89101 00[4] | 3.34 | - | 04/01 to 10/31 |
| 40S 182909 00[2] | 3.60 | 255.55 | 04/01 to 10/31 |
| 40S 168965 00[3] | 9.36 | 819.00 | 04/01 to 10/31 |
| 40S 130507 00[2] | 5.67 | 422.33 | 04/01 to 10/31 |
| 40S 30151578[2] | 11.49 | 855.42 | 04/01 to 10/31 |
| 40S 130506 00[2] | 2.89 | 215.20 | 04/01 to 10/31 |
| 40S 30043641 | 0.50 | 60.00 | 04/01 to 11/01 |
| 40S 57404 00 | 2.79 | 486.00 | 04/01 to 11/01 |
| 40S 30164956 | 8.70 | 590.25 | 04/01 to 11/01 |
| 40S 178504 00[2] | 1.78 | 430.40 | 04/01 to 11/01 |
| 40S 125402 00[3] | 2.79 | 250.00 | 04/01 to 11/19 |
| 40S 172266 00[3] | 9.00 | 600.00 | 04/15 to 10/04 |
| 40S 1666 00 | 4.46 | 99.00 | 04/15 to 10/15 |
| 40S 30152290 | 8.91 | 120.00 | 04/15 to 10/15 |
| 40S 30006748 | 1.60 | 125.95 | 04/15 to 10/15 |
| 40S 106984 00 | 2.93 | 284.00 | 04/15 to 10/15 |
| 40S 103671 00 | 2.50 | 360.00 | 04/15 to 10/15 |
| 40S 101055 00 | 3.60 | 560.00 | 04/15 to 10/15 |
| 40S 101092 00 | 3.60 | 636.00 | 04/15 to 10/15 |
| 40S 10761 00 | 2.22 | 640.00 | 04/15 to 10/15 |
| 40S 66284 00 | 4.46 | 700.00 | 04/15 to 10/15 |
| 40S 101074 00 | 5.80 | 927.00 | 04/15 to 10/15 |
| 40S 101076 00 | 7.35 | 1,272.00 | 04/15 to 10/15 |
| 40S 42906 00[3] | 3.60 | 123.00 | 04/15 to 10/19 |
| 40S 42905 00[3] | 1.02 | 228.50 | 04/15 to 10/19 |
| 40S 96357 00 | 5.80 | 795.00 | 04/15 to 10/31 |
| 40S 11957 00[3] | 1.00 | 150.00 | 05/01 to 09/19 |
| 40S 13878 00 | 13.37 | 189.00 | 05/01 to 09/30 |
| 40S 5421 00 | 7.20 | 1,290.00 | 05/01 to 09/30 |
| 40S 5134 00[3] | 1.45 | 162.00 | 05/01 to 09/30 |
| 40S 130565 00[3] | 1.11 | 116.00 | 05/01 to 09/30 |
| 40S 101292 00[2] | 6.24 | 1,869.55 | 05/01 to 10/19 |
| 40S 89100 00 | 3.90 | 292.50 | 05/01 to 10/31 |
| 40S 137 00 | 5.57 | 500.00 | 05/01 to 10/31 |
| 40S 17166 00[4] | 3.19 | - | 05/01 to 11/01 |
| 40S 171797 00[2] | 13.37 | 916.32 | 05/10 to 09/24 |

| | | | |
|---|---|---|---|
| 40S 3215 00[2] | 0.11 | 34.97 | 05/15 to 09/19 |
| 40S 17844 00 | 1.34 | 216.00 | 06/01 to 08/15 |
| 40S 30022924 | 1.26 | 232.00 | 06/01 to 09/01 |
| 40S 30022935 | 1.30 | 240.00 | 06/01 to 09/01 |
| 40S 4947 00 | 1.90 | 350.00 | 06/01 to 09/01 |
| 40S 171835 00[3] | 5.80 | 214.50 | 06/01 to 09/19 |
| 40S 1549 00 | 1.78 | 257.35 | 01/01 to 12/31 |
| 40S 77646 00 | 0.68 | 365.00 | 01/01 to 12/31 |

[1] Livestock direct from source – flow rate and volume calculated per Department standards
[2] Volume calculated using Department standard water use for irrigation in climatic area 2
[3] Volume as claimed
[4] Additional flow rate only

Missouri River Legal availability

29. The area of potential impact is approximately 18 miles downstream from the projected start of surface water depletions to the confluence of the Missouri River and Charlie Creek. Charlie Creek is a significant, perennial tributary to the Missouri River. The Department finds this to be an appropriate hydrologic boundary and will designate the said reach as the area of potential impact. A total of 32 water rights exist within this reach. This includes private water rights (Table 7), the Fort Peck-Montana Compact (Table 8), Richland County Conservation District Reservation, Roosevelt County Conservation District Reservation (Table 9), and the Montana Department of Fish, Wildlife and Parks Reservation 40S 30017671 (Table 10).

**Table 7: Private Water Rights Within the Area of Potential Impact**

| A | B | C | D | E |
|---|---|---|---|---|
| **Water Right Number** | **Period of Diversion** | **Water Right Type** | **Flow Rate (CFS)** | **Volume (AF)** |
| 40S 30142617 [2] | 01/01 to 12/31 | STATEMENT OF CLAIM | 0.08 | 1 |
| 40S 30142620 [2] | 01/01 to 12/31 | STATEMENT OF CLAIM | | 2 |
| 40S 30148233 | 01/01 to 12/31 | PROVISIONAL PERMIT | 4.90 | 3 |
| 40S 13878 00 | 05/01 to 09/30 | PROVISIONAL PERMIT | 13.37 | 189 |
| 40S 89100 00 | 05/01 to 10/31 | PROVISIONAL PERMIT | 3.90 | 293 |
| 40S 70237 00 | 04/01 to 10/31 | PROVISIONAL PERMIT | 7.80 | 454 |
| 40S 137 00 | 05/01 to 10/31 | PROVISIONAL PERMIT | 5.57 | 500 |
| 40S 10761 00 | 04/15 to 10/15 | PROVISIONAL PERMIT | 2.22 | 640 |
| 40S 80553 00 | 04/01 to 10/01 | PROVISIONAL PERMIT | 4.46 | 741 |

| | | | | |
|---|---|---|---|---|
| 40S 101076 00 | 04/15 to 10/15 | PROVISIONAL PERMIT | 7.35 | 1,272 |
| 40S 3215 00 [1] | 05/15 to 09/19 | STATEMENT OF CLAIM | 0.11 | 35 |
| 40S 130565 00 [1] | 05/01 to 09/30 | STATEMENT OF CLAIM | 1.11 | 156 |
| 40S 125402 00 [1] | 04/01 to 11/19 | STATEMENT OF CLAIM | 2.79 | 296 |
| 40S 17166 00 [1] | 05/01 to 11/01 | PROVISIONAL PERMIT | 3.19 | 296 |
| 40S 89101 00 [1] | 04/01 to 10/31 | PROVISIONAL PERMIT | 3.34 | 386 |
| 40S 182909 00 [1] | 04/01 to 10/31 | STATEMENT OF CLAIM | 3.60 | 256 |
| 40S 171835 00 [1] | 06/01 to 09/19 | STATEMENT OF CLAIM | 5.80 | 412 |
| 40S 171834 00 [1] | 06/01 to 09/19 | STATEMENT OF CLAIM | 6.68 | 363 |
| 40S 172266 00 [1] | 04/15 to 10/04 | STATEMENT OF CLAIM | 9.00 | 1,178 |
| 40S 168965 00 [1] | 04/01 to 10/31 | STATEMENT OF CLAIM | 9.36 | 734 |
| 40S 46465 00 [1] | 05/10 to 10/19 | STATEMENT OF CLAIM | 11.14 | 509 |
| 40S 171797 00 [1] | 05/10 to 09/24 | STATEMENT OF CLAIM | 13.37 | 916 |
| 40S 30152290 | 04/15 to 10/15 | PROVISIONAL PERMIT | 8.91 | 120 |
| 40S 1666 00 | 04/15 to 10/15 | PROVISIONAL PERMIT | 4.46 | 99 |
| 40S 130507 00 [1] | 04/01 to 10/31 | STATEMENT OF CLAIM | 5.67 | 422 |
| 40S 30151578 [1] | 04/01 to 10/31 | STATEMENT OF CLAIM | 11.49 | 855 |
| 40S 130506 00 [1] | 04/01 to 10/31 | STATEMENT OF CLAIM | 2.89 | 215 |
| 40S 57404 00 | 04/01 to 11/01 | PROVISIONAL PERMIT | 2.79 | 486 |

[1]Volume calculated using Department standard water use for irrigation in climatic area 2
[2]Livestock Direct - Flow rate and volume assigned per department standards

**Table 8: Fort Peck Tribal Compact**

| Month | Flowrate (CFS) | Volume (AF) |
|---|---|---|
| January | 652 | 40,000 |
| February | 722 | 40,000 |
| March | 652 | 40,000 |
| April | 842 | 50,000 |
| May | 1,711 | 105,000 |
| June | 2,441 | 145,000 |

| | | |
|---|---|---|
| July | 3,503 | 215,000 |
| August | 2,933 | 180,000 |
| September | 1,768 | 105,000 |
| October | 815 | 50,000 |
| November | 673 | 40,000 |
| December | 652 | 40,000 |

*Flow rate in CFS calculated by dividing the monthly volume in AF by the numbers of days in the month by 1.98

| Table 9: Conservation Districts Within the Area of Potential Impact | | | | |
|---|---|---|---|---|
| **Month** | **Richland CD Flowrate (CFS)** | **Richland CD Volume (AF)** | **Roosevelt CD Flowrate (CFS)** | **Roosevelt CD Flowrate (AF)** |
| April | 186.9 | 3,621 | 558.8 | 10,445 |
| May | 186.9 | 3,621 | 558.8 | 10,445 |
| June | 186.9 | 3,621 | 558.8 | 10,445 |
| July | 186.9 | 3,621 | 558.8 | 10,445 |
| August | 186.9 | 3,621 | 558.8 | 10,445 |
| September | 186.9 | 3,621 | 558.8 | 10,445 |
| October | 186.9 | 3,621 | 558.8 | 10,445 |

| Table 10: Montana Department of Fish, Wildlife & Parks Water Reservation | | |
|---|---|---|
| **Month** | **Flowrate (CFS)** | **Volume (AF)** |
| January | 5,178 | 317,826 |
| February | 5,178 | 287,068 |
| March | 5,178 | 317,826 |
| April | 5,178 | 307,573 |
| May | 5,178 | 317,826 |
| June | 5,178 | 307,573 |
| July | 5,178 | 317,826 |
| August | 5,178 | 317,826 |
| September | 5,178 | 307,573 |
| October | 5,178 | 317,826 |
| November | 5,178 | 307,573 |
| December | 5,178 | 317,826 |

30. The comparison between physically and legally available water in the Missouri River is shown in Table 11 below, indicating that water is legally available for the proposed appropriation.

| Table 11: Legal Availability Analysis of Missouri River from Start of Depletion to Charlie Creek | | | | | | |
|---|---|---|---|---|---|---|
| A | B | C | D | E | F | G |
| Month | Physically Available Water (CFS) | Physically Available Water (AF) | Existing Legal Demands between Surface Water Depletion and MT Border (CFS) | Existing Legal Demands between Depletion and MT Border (AF) | Legally Available Water (CFS) | Legally Available Water (AF) |
| January | 11,215.3 | 688,182.1 | 5,835.0 | 352,375.5 | 5,380.3 | 335,806.6 |
| February | 11,345.3 | 628,801.9 | 5,905.0 | 352,375.5 | 5,440.3 | 276,426.4 |
| March | 10,002.0 | 613,145.7 | 5,835.0 | 352,375.5 | 4,167.0 | 260,770.2 |
| April | 8,221.1 | 478,378.6 | 6,856.8 | 377,619.1 | 1,364.3 | 100,759.5 |
| May | 8,933.6 | 535,499.3 | 7,777.6 | 433,144.6 | 1,156.0 | 102,354.6 |
| June | 9,836.2 | 571,685.4 | 8,520.0 | 473,338.3 | 1,316.1 | 98,347.1 |
| July | 9,660.2 | 579,785.6 | 9,582.0 | 543,338.3 | 78.1 | 36,447.3 |
| August | 9,262.2 | 555,356.3 | 9,012.0 | 508,338.3 | 250.1 | 47,018.0 |
| September | 8,119.4 | 469,706.0 | 7,847.0 | 433,338.3 | 272.4 | 36,367.7 |
| October | 7,194.7 | 431,330.7 | 6,840.1 | 377,593.6 | 354.5 | 53,737.2 |
| November | 7,299.2 | 432,699.0 | 5,858.8 | 352,412.4 | 1,440.5 | 80,286.5 |
| December | 9,874.8 | 605,902.2 | 5,835.0 | 352,375.5 | 4,039.8 | 253,526.7 |

31. Refer to Table 3 for the modeled monthly net depletions to the Missouri River. Table 12 below demonstrates remaining availability on the Missouri River after the predicted monthly depletions.

| Table 12: Missouri River Availability after Depletion from Production Well | | | | | | |
|---|---|---|---|---|---|---|
| A | B | C | D | E | F | G |
| Month | Legally Available Water (CFS) | Legally Available Water (AF) | Missouri River Net Depletion (CFS) | Missouri River Net Depletion (AF) | Legally Available Water After Depletion (CFS) | Legally Available Water After Depletion (AF) |
| January | 5,380.3 | 335,806.6 | 0.5 | 8.5 | 5,379.8 | 335,798.1 |
| February | 5,440.3 | 276,426.4 | 0.5 | 7.7 | 5,439.8 | 276,418.7 |
| March | 4,167.0 | 260,770.2 | 0.5 | 8.5 | 4,166.4 | 260,761.7 |

| | | | | | | |
|---|---|---|---|---|---|---|
| April | 1,364.3 | 100,759.5 | 0.5 | 8.2 | 1,363.8 | 100,751.3 |
| May | 1,156.0 | 102,354.6 | 0.5 | 8.5 | 1,155.5 | 102,346.1 |
| June | 1,316.1 | 98,347.1 | 0.5 | 8.2 | 1,315.6 | 98,338.9 |
| July | 78.1 | 36,447.3 | 0.5 | 8.5 | 77.6 | 36,438.8 |
| August | 250.1 | 47,018.0 | 0.5 | 8.5 | 249.6 | 47,009.5 |
| September | 272.4 | 36,367.7 | 0.5 | 8.2 | 271.8 | 36,359.5 |
| October | 354.5 | 53,737.2 | 0.5 | 8.5 | 354.0 | 53,728.7 |
| November | 1,440.5 | 80,286.5 | 0.5 | 8.2 | 1,439.9 | 80,278.3 |
| December | 4,039.8 | 253,526.7 | 0.5 | 8.5 | 4,039.3 | 253,518.2 |

32. The Department finds that groundwater and surface water are legally available during the period in which the Applicant seeks to appropriate, in the amount requested.

## ADVERSE EFFECT

FINDINGS OF FACT

33. Groundwater is physically and legally available during the proposed period of diversion. Surface water from the hydraulically connected source is physically and legally available in all months with net depletions. If a call is made, the Applicant will reduce and/or cease pumping to satisfy senior water right holders.

34. In order to ensure that the requested flow rate and volume are not exceeded during years of high old field activity, the Applicant will be required to submit measurement report each year and the application is subject to the following conditions:

> THE APPROPRIATOR SHALL INSTALL A DEPARTMENT APPROVED IN-LINE FLOW METER AT A POINT IN THE DELIVERY LINE APPROVED BY THE DEPARTMENT. WATER MUST NOT BE DIVERTED UNTIL THE REQUIRED MEASURING DEVICE IS IN PLACE AND OPERATING. ON A FORM PROVIDED BY THE DEPARTMENT, THE APPROPRIATOR SHALL KEEP A WRITTEN MONTHLY RECORD OF THE FLOW RATE AND VOLUME OF ALL WATER DIVERTED, INCLUDING THE PERIOD OF TIME. RECORDS SHALL BE SUBMITTED BY JANUARY 31ST OF EACH YEAR AND UPON REQUEST AT OTHER TIMES DURING THE YEAR. FAILURE TO SUBMIT REPORTS MAY BE CAUSE FOR REVOCATION OF A PERMIT OR CHANGE. THE RECORDS MUST BE SENT TO THE GLASGOW WATER RESOURCES REGIONAL OFFICE. THE APPROPRIATOR SHALL MAINTAIN THE MEASURING DEVICE, SO IT ALWAYS

OPERATES PROPERLY AND MEASURES FLOW RATE AND VOLUME ACCURATELY.

35. For adverse effect, the Department evaluates groundwater rights predicted to experience drawdown equal to or greater than 1 FT due to the proposed pumping. The drawdown in existing wells was modeled in FWD:SOLV (HydroSOLVE INC., 2024) using a constant pumping rate of 82.3 GPM for GWIC ID 333539 for a period of five years assuming 275 days of pumping and 90 days of no pumping within each year. The drawdown is the largest at the end of November of the fifth year using the proposed pumping schedule. As identified in Figure 3, the 1-FT drawdown contour extends out approximately 96,000 FT from GWIC ID 333539 at the end of November of the fifth year.

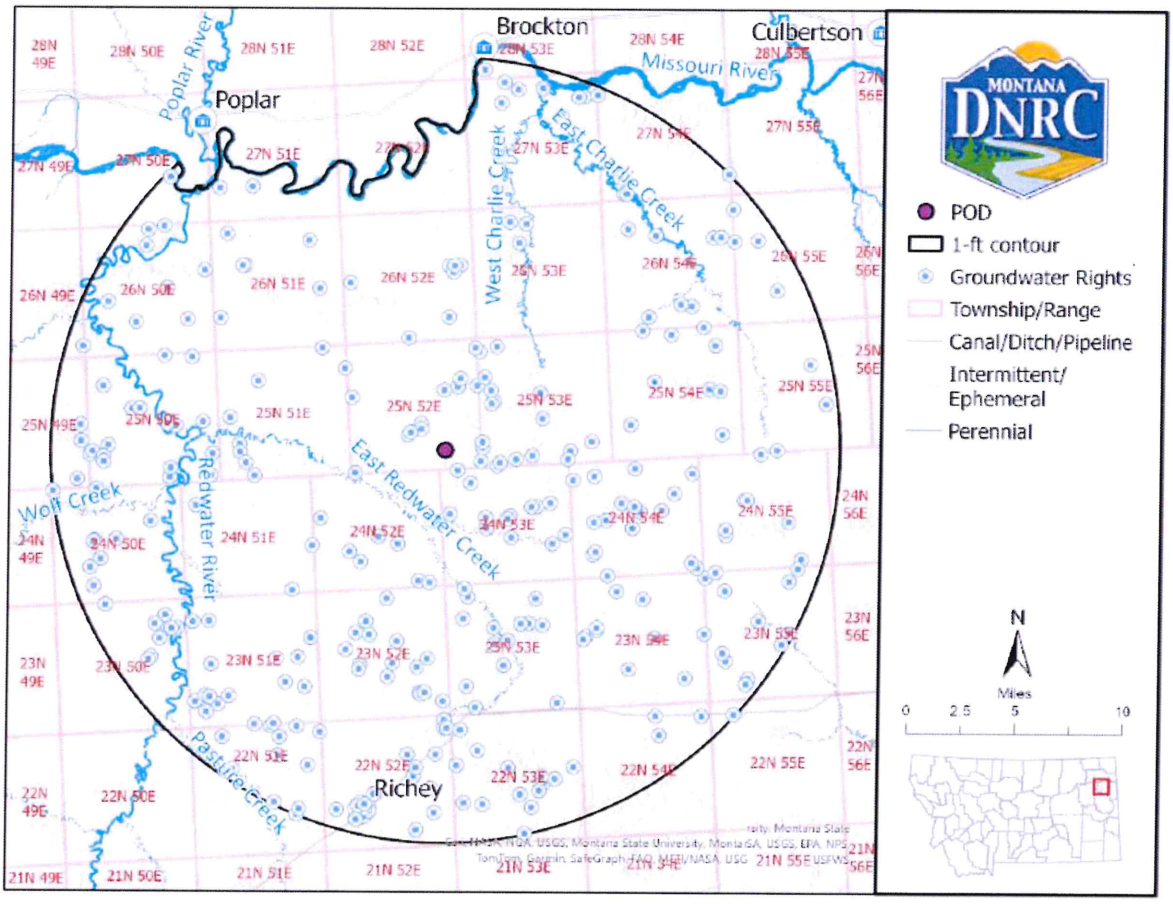


*Figure 3: 1-FT drawdown contour and the groundwater rights within. Map prepared by the Water Science Bureau in the Groundwater Permit Technical Analyses Report - Part A.*

36. Two hundred and eighty-eight groundwater rights are located within the 1-FT drawdown contour (Table 13). Wells were filtered based on location and depth. Water rights were included

with well depths greater than the mapped depth to top of the Fox Hills-Hell Creek formation as reported by Smith (1998a). Wells with no depth listed on the water right were also included, although predicted drawdown and remaining available water column could not be predicted. A comparison between the modeled drawdown and the existing static water level is shown in Table 13.

**Table 13: Water Rights Completed in the Source Aquifer that will Experience Drawdown Greater than 1.0 FT**

| Water Right No. | Total Depth (FT) | Static Water Level (FT) | Available Water Column (FT) | Predicted Drawdown (FT) | Predicted Remaining Available Water Column (FT) |
|---|---|---|---|---|---|
| 40S 30031046 | 190 | 135 | 55.00 | 3 | 52.00 |
| 40S 48174 00 | 210 | 70 | 140.00 | 3 | 137.00 |
| 40S 184 00 | 210 | 70 | 140.00 | 3 | 137.00 |
| 40S 46983 00 | 260 | 4 | 256.00 | 3 | 253.00 |
| 40S 30127722 | 280 | 148 | 132.00 | 3 | 129.00 |
| 40S 76537 00 | 353 | 280 | 73.00 | 5 | 68.00 |
| 40S 30112816 | 370 | 200 | 170.00 | 5 | 165.00 |
| 40S 30006674 | 370 | 200 | 170.00 | 5 | 165.00 |
| 40P 30048062 | 440 | 356 | 84.00 | 3 | 81.00 |
| 40P 30047351 | 442 | 321 | 121.00 | 3 | 118.00 |
| 40S 30005912 | 560 | 90 | 470.00 | 5 | 465.00 |
| 40S 30158643 | 600 | N/A | N/A | 3 | N/A |
| 40S 53264 00 | 619 | N/A | N/A | 3 | N/A |
| 40S 1287 00 | 665 | 150 | 515.00 | 7 | 508.00 |
| 40S 59672 00 | 815 | 32 | 783.00 | 3 | 780.00 |
| 40S 38443 00 | 895 | 42 | 853.00 | 3 | 850.00 |
| 40P 30071791 | 940 | 270 | 670.00 | 3 | 667.00 |
| 40P 30063695 | 1000 | 307 | 693.00 | 15 | 678.00 |
| 40P 30063842 | 1300 | N/A | N/A | 7 | N/A |
| 40P 117576 00 | 1318 | N/A | N/A | 3 | N/A |
| 40P 31452 00 | 1340 | 470 | 870.00 | 5 | 865.00 |
| 40S 23208 00 | 1780 | N/A | N/A | 3 | N/A |
| 40P 6855 00 | N/A | N/A | N/A | 3 | N/A |
| 40P 66319 00 | N/A | 35 | N/A | N/A | N/A |
| 40P 30138937 | N/A | N/A | N/A | N/A | N/A |
| 40S 34391 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 30106868 | N/A | N/A | N/A | N/A | N/A |
| 40S 39625 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 39624 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 48976 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 141198 00 | N/A | N/A | N/A | N/A | N/A |

| | | | | | |
|---|---|---|---|---|---|
| 40S 46371 00 | N/A | N/A | N/A | N/A | N/A |
| 40S 42788 00 | N/A | N/A | N/A | N/A | N/A |
| 40S 172301 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 47297 00 | N/A | N/A | N/A | N/A | N/A |
| 40S 30063366 | N/A | N/A | N/A | N/A | N/A |
| 42M 41497 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 30152061 | N/A | N/A | N/A | N/A | N/A |
| 40S 30064015 | N/A | N/A | N/A | N/A | N/A |
| 40S 22912 00 | N/A | N/A | N/A | N/A | N/A |
| 42M 30068800 | N/A | N/A | N/A | N/A | N/A |
| 40S 30159390 | N/A | N/A | N/A | N/A | N/A |
| 40P 30163772 | N/A | N/A | N/A | N/A | N/A |
| 40P 46620 00 | N/A | N/A | N/A | N/A | N/A |
| 40S 42789 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 42790 00 | N/A | N/A | N/A | N/A | N/A |
| 40S 30067139 | N/A | N/A | N/A | N/A | N/A |
| 40P 30138967 | N/A | N/A | N/A | N/A | N/A |
| 40P 30045132 | N/A | N/A | N/A | N/A | N/A |
| 40P 39229 00 | N/A | N/A | N/A | N/A | N/A |
| 42M 30104404 | N/A | N/A | N/A | N/A | N/A |
| 40P 138307 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 127487 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 138305 00 | N/A | N/A | N/A | N/A | N/A |
| 42M 30037 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 38928 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 8847 00 | N/A | N/A | N/A | N/A | N/A |
| 40S 172387 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 10025 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 42924 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 5532 00 | N/A | N/A | N/A | N/A | N/A |
| 40S 44872 00 | N/A | N/A | N/A | N/A | N/A |
| 40S 19655 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 42739 00 | N/A | N/A | N/A | N/A | N/A |
| 40S 166047 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 127394 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 38908 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 51885 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 12808 00 | N/A | N/A | N/A | N/A | N/A |
| 40S 171716 00 | N/A | N/A | N/A | N/A | N/A |
| 42M 30039 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 12793 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 42246 00 | N/A | N/A | N/A | N/A | N/A |

| | | | | | |
|---|---|---|---|---|---|
| 40P 42239 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 138315 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 142780 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 51893 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 138316 00 | N/A | N/A | N/A | N/A | N/A |
| 42M 101497 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 101238 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 133037 00 | N/A | N/A | N/A | N/A | N/A |
| 40S 20990 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 127395 00 | N/A | N/A | N/A | N/A | N/A |
| 42M 101496 00 | N/A | N/A | N/A | N/A | N/A |
| 40S 168841 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 16588 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 41172 00 | N/A | N/A | N/A | N/A | N/A |
| 40S 166044 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 42738 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 138306 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 41133 00 | N/A | N/A | N/A | N/A | N/A |
| 40S 22300 00 | N/A | N/A | N/A | N/A | N/A |
| 40S 34747 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 46981 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 41715 00 | N/A | N/A | N/A | N/A | N/A |
| 40S 30158646 | N/A | N/A | N/A | N/A | N/A |
| 40S 30067865 | N/A | N/A | N/A | N/A | N/A |
| 40P 31950 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 2399 00 | N/A | N/A | N/A | N/A | N/A |
| 42M 11991 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 31534 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 146584 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 43538 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 114691 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 43539 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 28943 00 | N/A | N/A | N/A | N/A | N/A |
| 42M 49196 00 | N/A | N/A | N/A | N/A | N/A |
| 42M 6393 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 15455 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 30071538 | N/A | N/A | N/A | N/A | N/A |
| 40P 19811 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 117247 00 | N/A | N/A | N/A | N/A | N/A |
| 40S 130521 00 | N/A | N/A | N/A | N/A | N/A |
| 40S 30038 00 | N/A | N/A | N/A | N/A | N/A |
| 40S 44394 00 | N/A | N/A | N/A | N/A | N/A |

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|---|---|---|---|---|---|
| 40S 30002847 | N/A | N/A | N/A | N/A | N/A |
| 40P 2398 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 4231 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 4230 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 2397 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 51849 00 | N/A | N/A | N/A | N/A | N/A |
| 40S 17157 00 | N/A | N/A | N/A | N/A | N/A |
| 40S 130587 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 30065085 | N/A | N/A | N/A | N/A | N/A |
| 40P 71749 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 127481 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 135671 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 46365 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 30118789 | N/A | N/A | N/A | N/A | N/A |
| 40P 37469 00 | N/A | N/A | N/A | N/A | N/A |
| 40S 50254 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 97733 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 42329 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 47017 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 28970 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 30006465 | N/A | N/A | N/A | N/A | N/A |
| 40S 101069 00 | N/A | N/A | N/A | N/A | N/A |
| 40S 45896 00 | N/A | N/A | N/A | N/A | N/A |
| 40S 50253 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 127413 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 30136128 | N/A | N/A | N/A | N/A | N/A |
| 40S 49289 00 | N/A | N/A | N/A | N/A | N/A |
| 40S 34041 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 44965 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 28948 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 46746 00 | N/A | N/A | N/A | N/A | N/A |
| 40S 139990 00 | N/A | N/A | N/A | N/A | N/A |
| 40S 172294 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 101189 00 | N/A | N/A | N/A | N/A | N/A |
| 40S 171294 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 47645 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 5557 00 | N/A | N/A | N/A | N/A | N/A |
| 40S 171715 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 22448 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 28950 00 | N/A | N/A | N/A | N/A | N/A |
| 42M 11992 00 | N/A | N/A | N/A | N/A | N/A |
| 42M 30020775 | N/A | N/A | N/A | N/A | N/A |

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|---|---|---|---|---|---|
| 40S 139991 00 | N/A | N/A | N/A | N/A | N/A |
| 40S 113916 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 46755 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 146582 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 101230 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 38906 00 | N/A | N/A | N/A | N/A | N/A |
| 40S 46725 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 178296 00 | N/A | N/A | N/A | N/A | N/A |
| 40S 11175 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 38913 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 2394 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 30139179 | N/A | N/A | N/A | N/A | N/A |
| 40S 42937 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 5556 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 112510 00 | N/A | N/A | N/A | N/A | N/A |
| 40S 108476 00 | N/A | N/A | N/A | N/A | N/A |
| 40S 35146 00 | N/A | N/A | N/A | N/A | N/A |
| 40S 30027108 | N/A | N/A | N/A | N/A | N/A |
| 40S 166050 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 12807 00 | N/A | N/A | N/A | N/A | N/A |
| 42M 210947 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 11974 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 132952 00 | N/A | N/A | N/A | N/A | N/A |
| 40S 30021916 | N/A | N/A | N/A | N/A | N/A |
| 40P 127400 00 | N/A | N/A | N/A | N/A | N/A |
| 40S 22910 00 | N/A | N/A | N/A | N/A | N/A |
| 40S 35141 00 | N/A | N/A | N/A | N/A | N/A |
| 42M 101492 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 135022 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 127444 00 | N/A | N/A | N/A | N/A | N/A |
| 40S 6404 00 | N/A | N/A | N/A | N/A | N/A |
| 40S 30000 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 127410 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 138295 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 38909 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 4229 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 47647 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 132971 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 127405 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 2393 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 30021659 | N/A | N/A | N/A | N/A | N/A |
| 40S 130593 00 | N/A | N/A | N/A | N/A | N/A |

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|---|---|---|---|---|---|
| 40S 22908 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 101237 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 138289 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 42247 00 | N/A | N/A | N/A | N/A | N/A |
| 40S 146567 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 12796 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 5533 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 6780 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 138312 00 | N/A | N/A | N/A | N/A | N/A |
| 40S 46532 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 43058 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 30138966 | N/A | N/A | N/A | N/A | N/A |
| 40P 28946 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 127389 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 10003 00 | N/A | N/A | N/A | N/A | N/A |
| 40S 102343 00 | N/A | N/A | N/A | N/A | N/A |
| 40S 30008948 | N/A | N/A | N/A | N/A | N/A |
| 42M 9848 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 30021637 | N/A | N/A | N/A | N/A | N/A |
| 40P 30025877 | N/A | N/A | N/A | N/A | N/A |
| 40P 102896 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 112518 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 112519 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 135023 00 | N/A | N/A | N/A | N/A | N/A |
| 40S 172386 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 47642 00 | N/A | N/A | N/A | N/A | N/A |
| 40S 22911 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 28972 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 138286 00 | N/A | N/A | N/A | N/A | N/A |
| 40S 166048 00 | N/A | N/A | N/A | N/A | N/A |
| 42M 101493 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 43533 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 127401 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 156837 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 101190 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 138317 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 30020773 | N/A | N/A | N/A | N/A | N/A |
| 40P 146523 00 | N/A | N/A | N/A | N/A | N/A |
| 40S 30029827 | N/A | N/A | N/A | N/A | N/A |
| 40P 12806 00 | N/A | N/A | N/A | N/A | N/A |
| 40S 168837 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 43069 00 | N/A | N/A | N/A | N/A | N/A |

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|---|---|---|---|---|---|
| 40S 16394 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 178258 00 | N/A | N/A | N/A | N/A | N/A |
| 40S 168894 00 | N/A | N/A | N/A | N/A | N/A |
| 40S 172354 00 | N/A | N/A | N/A | N/A | N/A |
| 40S 22909 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 102889 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 127397 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 127483 00 | N/A | N/A | N/A | N/A | N/A |
| 40S 130498 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 4228 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 41173 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 38907 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 38916 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 2391 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 127486 00 | N/A | N/A | N/A | N/A | N/A |
| 42M 29987 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 101231 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 4975 00 | N/A | N/A | N/A | N/A | N/A |
| 40S 130522 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 101254 00 | N/A | N/A | N/A | N/A | N/A |
| 42M 29991 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 132953 00 | N/A | N/A | N/A | N/A | N/A |
| 42M 29990 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 12803 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 12795 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 101188 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 127407 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 38914 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 135670 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 2392 00 | N/A | N/A | N/A | N/A | N/A |
| 40S 28378 00 | N/A | N/A | N/A | N/A | N/A |
| 40S 172300 00 | N/A | N/A | N/A | N/A | N/A |
| 40S 112514 00 | N/A | N/A | N/A | N/A | N/A |
| 40S 35145 00 | N/A | N/A | N/A | N/A | N/A |
| 40S 30026601 | N/A | N/A | N/A | N/A | N/A |
| 40S 166049 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 101187 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 117246 00 | N/A | N/A | N/A | N/A | N/A |
| 40S 172393 00 | N/A | N/A | N/A | N/A | N/A |
| 42M 122042 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 12794 00 | N/A | N/A | N/A | N/A | N/A |
| 40S 30041871 | N/A | N/A | N/A | N/A | N/A |

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|---|---|---|---|---|---|
| 40P 22447 00 | N/A | N/A | N/A | N/A | N/A |
| 42M 30021685 | N/A | N/A | N/A | N/A | N/A |
| 40P 127480 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 138296 00 | N/A | N/A | N/A | N/A | N/A |
| 40P 127408 00 | N/A | N/A | N/A | N/A | N/A |

**N/A values were not evaluated due to lack of well data*

37. The Department finds the proposed use will not have an adverse effect because the amount of water requested is legally available and the Applicant's plan to curtail appropriation during times of water shortage is adequate.

## ADEQUATE MEANS OF DIVERSION

FINDINGS OF FACT

38. The Applicant plans to divert groundwater from a well located NENENW, Section 35, T25N, R52E, Richland County. The well log was certified by Agri Industries (license no. 834), acknowledging that all work performed and reported is in compliance with the Montana well construction standards. The well is registered with GWIC and was given the ID No. 333539. The well will be pumped with a 6" Franklin pump into a 4" Water Specialties Propeller meter by McCrometer. The 4" flow meter will be the primary method of tracking water volume. From the flow meter, water will be transferred down a 4" lay-flat hose which will discharge into a lined storage pond.

39. The proposed storage pond dimensions are 500 FT x 300 FT x 20 FT, with a 34.4 AF capacity. The proposed location is S2NENW, Section 35, T25N, R52E, Richland County. Once enough water is stored to meet the specific project demand, it will be transferred to a POU, an oil well pad. Water will be transferred from the pond via a 10" temporary lay-flat hose via two 10"x8" Redi-Prime 10"x8" 325-HP water transfer pumps (primary and backup). Both pumps are powered by diesel engines that meet tier 3/Stage III EPA emissions regulations. Pump curves supplied in the application materials show that the pumps are capable of supplying the requested flow rate.

40. The length and configuration of the lay-flat hose depend on the site-specific details of each place of use. Standard segments of lay-flat hose are 660 FT in length and multiple segments can be connected as needed to service the places of use. The Applicant works with landowners to secure temporary easements for the conveyance system. Road crossings will be protected by various sizes of temporary drive-overs. Lay-flats will not cross over any public roadways. Underground culverts will be utilized to reduce traffic interference. Encroachment permits will be obtained from Richland County Public Works or Montana Department of Transportation before

installation. The lay-flat hose and drive-over specifications are available in the application materials.

41. The POUs will be developed incrementally and will not all be served concurrently. At the POU, there will be approximately 10 water tanks, each with 500- BBL capacity that will be continuously filled during hydraulic fracturing operations. The tanks will be connected in a series (via 8" manifold) by using flanges and hose.

42. In the Department- completed Technical Analyses, dated August 26, 2025, the Department modeled the potentially available water column remaining in the proposed well using FWD:SOLV (HydroSOLVE INC., 2024) the pumping schedule for the proposed well identified in Table 14 for the period of diversion.

**Table 14: Assumed Monthly Pumping Schedule**

| Month | Year-Round Diverted Volume (AF) | Total Diverted Flow Rate (GPM) |
|---|---|---|
| January | 0.0 | 0.0 |
| February | 0.0 | 0.0 |
| March | 11.3 | 82.4 |
| April | 10.9 | 82.4 |
| May | 11.3 | 82.4 |
| June | 10.9 | 82.4 |
| July | 11.3 | 82.4 |
| August | 11.3 | 82.4 |
| September | 10.9 | 82.4 |
| October | 11.3 | 82.4 |
| November | 10.9 | 82.4 |
| December | 0.0 | 0.0 |
| Total | 100.0 | |

43. As identified in Table 15, total drawdown is the sum of interference drawdown and predicted drawdown with well loss. One well is proposed, and no interference drawdown was calculated. Predicted drawdown with well loss is calculated by dividing the predicted theoretical maximum drawdown by a well efficiency value. Well efficiency is calculated by dividing the maximum modeled drawdown for the aquifer test by the maximum observed drawdown of the aquifer test.

44. The aquifer adjacent to GWIC ID 333539 would experience a predicted total drawdown of 125.48 FT at the end of the first year of the assumed monthly pumping schedule. The remaining available water column for the proposed well is equal to the available drawdown above the bottom of the perforations minus total drawdown, 561.02 FT.

| Table 15: Remaining Available Water Column for the Production Well | |
|---|---|
| **Drawdown Estimate** | **Proposed Well** |
| Total Depth at Bottom of Perforated Interval (FT BTC)[1] | 1,128.0 |
| Pre-Test Static Water Level (FT BTC) | 441.5 |
| Available Drawdown Above Bottom of Well (FT) | 686.5 |
| Observed Drawdown of Aquifer Test (FT) | 132.57 |
| Modeled Drawdown Using Mean Aquifer Test Rate (FT) | 269.18 |
| Well Efficiency (%) | 100% |
| Predicted Theoretical Maximum Drawdown (FT) | 125.48 |
| Predicted Drawdown with Well Loss (FT) | 125.48 |
| Interference Drawdown (FT) | 0.0 |
| Total Drawdown (FT) | 125.48 |
| **Remaining Available Water Column (FT)** | **561.02** |

45. The Department finds that the proposed means of diversion and conveyance are capable of diverting and conveying the proposed flow rate and volume.

## BENEFICIAL USE

FINDINGS OF FACT

46. The Applicant requests to divert up to 100 AF of water per year at a rate of 240 GPM annually, for industrial use supporting oil field development. No Department standard exists for industrial use; the Applicant is able to explain how the proposed flow rate and volume meet the beneficial use as required in ARM 36.12.1801.

47. Water will be used to hydraulically fracture oil wells. The Applicant's operation includes a combination of refracturing existing wells along with new drills consisting of 2-mile and 3-mile laterals. Each refrac lateral requires approximately 108,612 BBLs (14 AF) of water, a new 2-mile lateral requires approximately 304,114 BBLs (39.2 AF), and a new 3-mile lateral requires approximately 431,345 BBLs (55.6 AF).

48. Within the 24 proposed POU, the Applicant has identified 62 refrac lateral targets and 5 new drill lateral targets. White Rock plans to complete one 2-mile well (39.2 AF) and one 3-mile well (55.6 AF) in 2026 for approximately 95 AF. The remaining volume, 5 AF, accounts for net evaporation from the storage pond (3.4 surface acres x 1.6 FT/year net evaporation = 5 AF). The evaporation was calculated per the DNRC Technical Memorandum: Pond and Wetland

Evaporation/Evapotranspiration (2023) using the gridded monthly net evaporation layer on the ArcGIS web application, Converge.

49. The requested flow rate of 240 GPM is needed for the duration of the project to satisfy hydraulic fracturing operations reflected in the pumping schedule. Projections for future water needs through 2036 were provided in the Application materials.

50. The Department finds the proposed water use is beneficial, and that the requested flow rate of 240 GPM and 100 AF per year is reasonably justified per ARM 36.12.1801(3).

## POSSESSORY INTEREST

FINDINGS OF FACT

51. The Applicant signed the application form affirming that the Applicant has possessory interest or the written consent of the person with possessory interest, in the property where the water is to be put to beneficial use.

## CONCLUSIONS OF LAW

*PHYSICAL AVAILABILITY*

52. Pursuant to § 85-2-311(1)(a)(i), MCA, an Applicant must prove by a preponderance of the evidence that "there is water physically available at the proposed point of diversion in the amount that the Applicant seeks to appropriate."

53. It is the Applicant's burden to produce the required evidence. *In the Matter of Application for Beneficial Water Use Permit No. 27665-41I by Anson* (DNRC Final Order 1987) (Applicant produced no flow measurements or any other information to show the availability of water; permit denied); *In the Matter of Application to Change Water Right No. 41H 1223599 by MGRR #1, LLC.,* (DNRC Final Order 2005).

54. An Applicant must prove that at least in some years there is water physically available at the point of diversion in the amount the Applicant seeks to appropriate. *In the Matter of Application for Beneficial Water Use Permit No. 72662s76G by John Fee and Don Carlson* (DNRC Final Order 1990); *In the Matter of Application for Beneficial Water Use Permit No. 85184s76F by Wills Cattle Co. and Ed McLean* (DNRC Final Order 1994).

55. Use of published upstream gauge data minus rights of record between gauge and point of diversion adjusted to remove possible duplicated rights shows water physically available. *In the Matter of Application for Beneficial Water Use Permit No. 41P-105759 by Sunny Brook Colony* (DNRC Final Order 2001)

56. The Applicant has proven that water is physically available at the proposed point of diversion in the amount Applicant seeks to appropriate. Section 85-2-311(1)(a)(i), MCA. (FOF 12-17)

*LEGAL AVAILABILITY*

57. Pursuant to § 85-2-311(1)(a), MCA, an Applicant must prove by a preponderance of the evidence that:

> (ii) water can reasonably be considered legally available during the period in which the Applicant seeks to appropriate, in the amount requested, based on the records of the department and other evidence provided to the department. Legal availability is determined using an analysis involving the following factors:
> (A) identification of physical water availability;
> (B) identification of existing legal demands on the source of supply throughout the area of potential impact by the proposed use; and
> (C) analysis of the evidence on physical water availability and the existing legal demands, including but not limited to a comparison of the physical water supply at the proposed point of diversion with the existing legal demands on the supply of water.

*E.g.*, ARM 36.12.101 and 36.12.120; *Montana Power Co.*, 211 Mont. 91, 685 P.2d 336 (Permit granted to include only early irrigation season because no water legally available in late irrigation season); *In the Matter of Application for Beneficial Water Use Permit No. 81705-g76F by Hanson* (DNRC Final Order 1992).

58. It is the Applicant's burden to present evidence to prove water can be reasonably considered legally available. *Sitz Ranch v. DNRC*, DV-10-13390, Fifth Judicial District Court, *Order Affirming DNRC Decision*, (2011) Pg. 7 (the legislature set out the criteria (§ 85-2-311, MCA) and placed the burden of proof squarely on the Applicant. The Supreme Court has instructed that those burdens are exacting.); *see also Matter of Application for Change of Appropriation Water Rights Nos. 101960-41S and 101967-41S by Royston* (1991), 249 Mont. 425, 816 P.2d 1054 (burden of proof on Applicant in a change proceeding to prove required criteria); *In the Matter of Application to Change Water Right No. 41H 1223599 by MGRR #1, LLC.*, (DNRC Final Order 2005) )(it is the Applicant's burden to produce the required evidence.); *In the Matter of Application for Beneficial Water Use Permit No. 41H 30023457 by Utility Solutions, LLC* (DNRC Final Order 2007) (permit denied for failure to prove legal availability); *see also*_ARM 36.12.1705.

59. Pursuant to *Montana Trout Unlimited v. DNRC*, 2006 MT 72, 331 Mont. 483, 133 P.3d 224, the Department recognizes the connectivity between surface water and ground water and the effect of pre-stream capture on surface water. *E.g., Wesmont Developers v. DNRC*, CDV-2009-823, Montana First Judicial District Court, *Memorandum and Order*, (2011) Pgs. 7-8; *In the Matter of Beneficial Water Use Permit Nos. 41H 30012025 and 41H 30013629 by Utility Solutions LLC*

(DNRC Final Order 2006) (mitigation of depletion required), *affirmed*, *Faust v. DNRC et al.*, Cause No. CDV-2006-886, Montana First Judicial District (2008); *see also Robert and Marlene Takle v. DNRC et al.*, Cause No. DV-92-323, Montana Fourth Judicial District for Ravalli County, *Opinion and Order* (June 23, 1994) (affirming DNRC denial of Applications for Beneficial Water Use Permit Nos. 76691-76H, 72842-76H, 76692-76H and 76070-76H; underground tributary flow cannot be taken to the detriment of other appropriators including surface appropriators and ground water appropriators must prove unappropriated surface water, *citing Smith v. Duff*, 39 Mont. 382, 102 P. 984 (1909), and *Perkins v. Kramer*, 148 Mont. 355, 423 P.2d 587 (1966)); *In the Matter of Beneficial Water Use Permit No. 80175-s76H by Tintzman* (DNRC Final Order 1993)(prior appropriators on a stream gain right to natural flows of all tributaries in so far as may be necessary to afford the amount of water to which they are entitled, *citing Loyning v. Rankin* (1946), 118 Mont. 235, 165 P.2d 1006; *Granite Ditch Co. v. Anderson* (1983), 204 Mont. 10, 662 P.2d 1312; *Beaverhead Canal Co. v. Dillon Electric Light & Power Co.* (1906), 34 Mont. 135, 85 P. 880); *In the Matter of Beneficial Water Use Permit No.* 63997-*42M by Joseph F. Crisafulli* (DNRC Final Order 1990) (since there is a relationship between surface flows and the ground water source proposed for appropriation, and since diversion by Applicant's well appears to influence surface flows, the ranking of the proposed appropriation in priority must be as against all rights to surface water as well as against all groundwater rights in the drainage).

60. Because the Applicant bears the burden of proof as to legal availability, the Applicant must prove that the proposed appropriation will not result in prestream capture or induced infiltration and cannot limit its analysis to ground water. Section 85-2-311(a)(ii), MCA. Absent such proof, the Applicant must analyze the legal availability of surface water in light of the proposed ground water appropriation. *In the Matter of Application for Beneficial Water Use Permit No. 41H 30023457 By Utility Solutions LLC* (DNRC Final Order 2007) (permit denied); *In the Matter of Application for Beneficial Water Use Permit No. 76H-30028713 by Patricia Skergan and Jim Helmer* (DNRC Final Order 2009); *Sitz Ranch v. DNRC*, DV-10-13390, Fifth Judicial District Court, *Order Affirming DNRC Decision*, (2011) Pg. 5 ; *Wesmont Developers v. DNRC*, CDV-2009-823, First Judicial District Court, *Memorandum and Order*, (2011) Pgs. 11-12.

61. Where a proposed ground water appropriation depletes surface water, Applicant must prove legal availability of amount of depletion of surface water throughout the period of diversion either through a mitigation /aquifer recharge plan to offset depletions or by analysis of the legal demands on, and availability of, water in the surface water source. *Robert and Marlene Takle v. DNRC*, Cause No. DV-92-323, Montana Fourth Judicial District for Ravalli County, *Opinion and Order*

(June 23, 1994); *In the Matter of Beneficial Water Use Permit Nos. 41H 30012025 and 41H 30013629 by Utility Solutions LLC* (DNRC Final Order 2006) (permits granted), *affirmed*, *Faust v. DNRC et al.*, Cause No. CDV-2006-886, Montana First Judicial District (2008); *In the Matter of Application for Beneficial Water Use Permit 41H 30019215 by Utility Solutions LLC* (DNRC Final Order 2007 )(permit granted), *affirmed*, *Montana River Action Network et al. v. DNRC*, Cause No. CDV-2007-602, Montana First Judicial District (2008); *In the Matter of Application for Beneficial Water Use Permit No. 41H 30023457 by Utility Solutions LLC* (DNRC Final Order 2007) (permit denied for failure to analyze legal availability outside of irrigation season (where mitigation applied)); *In the Matter of Application for Beneficial Water Use Permit No. 41H 30026244 by Utility Solutions LLC* (DNRC Final Order 2008); *In the Matter of Application for Beneficial Water Use Permit No. 76H-30028713 by Patricia Skergan and Jim Helmer* (DNRC Final Order 2009)(permit denied in part for failure to analyze legal availability for surface water depletion); *Sitz Ranch v. DNRC*, DV-10-13390, Fifth Judicial District Court, *Order Affirming DNRC Decision*, (2011) Pg. 5 (Court affirmed denial of permit in part for failure to prove legal availability of stream depletion to slough and Beaverhead River); *Wesmont Developers v. DNRC*, CDV-2009-823, First Judicial District Court, *Memorandum and Order*, (2011) Pgs. 11-12 ("DNRC properly determined that Wesmont cannot be authorized to divert, either directly or indirectly, 205.09 acre-feet from the Bitterroot River without establishing that the water does not belong to a senior appropriator"; Applicant failed to analyze legal availability of surface water where projected surface water depletion from groundwater pumping); *In the Matter of Application for Beneficial Water Use Permit No. 76D-30045578 by GBCI Other Real Estate, LLC* (DNRC Final Order 2011) (in an open basin, Applicant for a new water right can show legal availability by using a mitigation/aquifer recharge plan or by showing that any depletion to surface water by groundwater pumping will not take water already appropriated; development next to Lake Koocanusa will not take previously appropriated water). Applicant may use water right claims of potentially affected appropriators as a substitute for "historic beneficial use" in analyzing legal availability of surface water under § 85-2-360(5), MCA. *Royston, supra*.

62. Use of published upstream gauge data minus rights of record between gauge and point of diversion adjusted to remove possible duplicated rights shows water physically available. Using same methodology and adding rights of record downstream of point of diversion to the mouth of the stream shows water legally available. *In the Matter of Application for Beneficial Water Use Permit No. 41P-105759 by Sunny Brook Colony* (DNRC Final Order 2001); *In the Matter of*

*Application for Beneficial Water Use Permit No. 81705-g76F by Hanson* (DNRC Final Order 1992);

63. Applicant has proven by a preponderance of the evidence that water can reasonably be considered legally available during the period in which the Applicant seeks to appropriate, in the amount requested, based on the records of the Department and other evidence provided to the Department. Section 85-2-311(1)(a)(ii), MCA. (FOF 18-31.)

*ADVERSE EFFECT*

64. Pursuant to § 85-2-311(1)(b), MCA, the Applicant bears the affirmative burden of proving by a preponderance of the evidence that the water rights of a prior appropriator under an existing water right, a certificate, a permit, or a state water reservation will not be adversely affected. Analysis of adverse effect must be determined based on a consideration of an Applicant's plan for the exercise of the permit that demonstrates that the Applicant's use of the water will be controlled so the water right of a prior appropriator will be satisfied. *See Montana Power Co.*, 211 Mont. 91, 685 P.2d 336 (1984) (purpose of the Water Use Act is to protect senior appropriators from encroachment by junior users); *Bostwick Properties, Inc.*, ¶ 21.

65. An Applicant must analyze the full area of potential impact under the § 85-2-311, MCA criteria. *In the Matter of Beneficial Water Use Permit No. 76N-30010429 by Thompson River Lumber Company* (DNRC Final Order 2006). While § 85-2-361, MCA, limits the boundaries expressly required for compliance with the hydrogeologic assessment requirement, an Applicant is required to analyze the full area of potential impact for adverse effect in addition to the requirement of a hydrogeologic assessment. *Id.* ARM 36.12.120(5).

66. Applicant must prove that no prior appropriator will be adversely affected, not just the objectors. *Sitz Ranch v. DNRC*, DV-10-13390, Fifth Judicial District Court, *Order Affirming DNRC Decision*, 4 (2011).

67. In analyzing adverse effect to other appropriators, an Applicant may use the water rights claims of potentially affected appropriators as evidence of their "historic beneficial use." *See Matter of Application for Change of Appropriation Water Rights Nos. 101960-41S and 101967-41S by Royston*, 249 Mont. 425, 816 P.2d 1054 (1991).

68. It is the Applicant's burden to produce the required evidence. *E.g., Sitz Ranch v. DNRC*, DV-10-13390, Fifth Judicial District Court, *Order Affirming DNRC Decision*, 7 (2011) (legislature has placed the burden of proof squarely on the Applicant); *In the Matter of Application to Change Water Right No. 41H 1223599 by MGRR #1, LLC.*, (DNRC Final Order 2005). The Department

is required to grant a permit only if the § 85-2-311, MCA, criteria are proven by the Applicant by a preponderance of the evidence. *Bostwick Properties, Inc.*, ¶ 21.

69. Section 85-2-311 (1)(b) of the Water Use Act does not contemplate a de minimis level of adverse effect on prior appropriators. *Wesmont Developers v. DNRC*, CDV-2009-823, First Judicial District Court, *Memorandum and Order*, 8 (2011).

70. Artesian pressure is not protectable and a reduction by a junior appropriator is not considered adverse effect as long as an appropriator can reasonable exercise his or her water right. *See In re Application No. 72948-G76L by Cross* (DNRC Final Order 1991); *In re Application No. 75997-G76L by Carr* (DNRC Final Order 1991);*In the Matter of Application for Beneficial Water Use Permit No. 41S 30005803 by William And Wendy Leininger* (DNRC Final Order 2006) (Artesian pressure not protectable, may have to install pump, worst case scenario that objector may run out of water after 80 years held not to be adverse effect.); *see* §§ 85-2-311(1)(b) and -401, MCA.

71. The Applicant has proven by a preponderance of the evidence that the water rights of a prior appropriator under an existing water right, a certificate, a permit, or a state water reservation will not be adversely affected. Section 85-2-311(1)(b), MCA. (FOF 32-36)

*ADEQUATE DIVERSION*

72. Pursuant to § 85-2-311(1)(c), MCA, an Applicant must demonstrate that the proposed means of diversion, construction, and operation of the appropriation works are adequate.

73. The adequate means of diversion statutory test merely codifies and encapsulates the case law notion of appropriation to the effect that the means of diversion must be reasonably effective, i.e., must not result in a waste of the resource. *In the Matter of Application for Beneficial Water Use Permit No. 33983s41Q by Hoyt* (DNRC Final Order 1981); § 85-2-312(1)(a), MCA.

74. Whether party presently has easement not relevant to determination of adequate means of diversion. *In the Matter of Application to Change a Water Right No. G129039-76D by Keim/Krueger* (DNRC Final Order 1989).

75. Water wells must be constructed according to the laws, rules, and standards of the Board of Water Well Contractors to prevent contamination of the aquifer. *In the Matter of Application for Beneficial Water Use Permit No.* 41I-105511 *by Flying J Inc.* (DNRC Final Order 1999).

76. Information needed to prove that proposed means of diversion, construction, and operation of the appropriation works are adequate varies, based upon project complexity design by licensed engineer adequate. *In the Matter of Application for Beneficial Water Use Permit No. 41C-11339900 by Three Creeks Ranch of Wyoming LLC* (DNRC Final Order 2002).

77. Applicant has proven by a preponderance of the evidence that the proposed means of diversion, construction, and operation of the appropriation works are adequate for the proposed beneficial use. Section 85-2-311(1)(c), MCA (FOF 37-44).

*BENEFICIAL USE*

78. Under § 85-2-311(1)(d), MCA, an Applicant must prove by a preponderance of the evidence the proposed use is a beneficial use.

79. An appropriator may appropriate water only for a beneficial use. See also, § 85-2-301 MCA. It is a fundamental premise of Montana water law that beneficial use is the basis, measure, and limit of the use. *E.g.*, *McDonald*; *Toohey v. Campbell* (1900), 24 Mont. 13, 60 P. 396. The amount of water under a water right is limited to the amount of water necessary to sustain the beneficial use. *E.g.*, *Bitterroot River Protective Association v. Siebel, Order on Petition for Judicial Review*, Cause No. BDV-2002-519, Montana First Judicial District Court, Lewis and Clark County (2003), *affirmed on other grounds*, 2005 MT 60, 326 Mont. 241, 108 P.3d 518; *In The Matter Of Application For Beneficial Water Use Permit No. 43C 30007297 by Dee Deaterly* (DNRC Final Order), *affirmed other grounds*, *Dee Deaterly v. DNRC* , Cause No. 2007-186, Montana First Judicial District, *Order Nunc Pro Tunc on Petition for Judicial Review* (2009); *Worden v. Alexander* (1939), 108 Mont. 208, 90 P.2d 160; *Allen v. Petrick* (1924), 69 Mont. 373, 222 P. 451; *In the Matter of Application for Beneficial Water Use Permit No. 41S-105823 by French* (DNRC Final Order 2000).

80. Amount of water to be diverted must be shown precisely. *Sitz Ranch v. DNRC*, DV-10-13390, Fifth Judicial District Court, *Order Affirming DNRC Decision*, 3 (2011) (citing *BRPA v. Siebel*, 2005 MT 60, and rejecting Applicant's argument that it be allowed to appropriate 800 acre-feet when a typical year would require 200-300 acre-feet).

81. It is the Applicant's burden to produce the required evidence. *Bostwick Properties, Inc. v. DNRC*, 2013 MT 48, ¶ 22, 369 Mont. 150, 296 P.3d 1154 ("issuance of the water permit itself does not become a clear, legal duty until [the applicant] proves, by a preponderance of the evidence, that the required criteria have been satisfied"); *Sitz Ranch v. DNRC*, DV-10-13390, Fifth Judicial District Court, *Order Affirming DNRC Decision*, (2011) Pg. 7; *In the Matter of Application to Change Water Right No. 41H 1223599 by MGRR #1, LLC.*, (DNRC Final Order 2005); *see also Royston; Ciotti.*

82. Applicant proposes to use water for industrial use which is a recognized beneficial use. Section 85-2-102(5), MCA. Applicant has proven by a preponderance of the evidence industrial

use is a beneficial use and that 100 AF of diverted volume and 240 GPM is the amount needed to sustain the beneficial use. Section 85-2-311(1)(d), MCA. (FOF 45-49)

*POSSESSORY INTEREST*

83. Pursuant to § 85-2-311(1)(e), MCA, an Applicant must prove by a preponderance of the evidence that it has a 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, or if the proposed use has a point of diversion, conveyance, or place of use on national forest system lands, the Applicant has any written special use authorization required by federal law to occupy, use, or traverse national forest system lands for the purpose of diversion, impoundment, storage, transportation, withdrawal, use, or distribution of water under the permit.

84. Pursuant to ARM 36.12.1802:

> (1) An Applicant or a representative shall sign the application affidavit to affirm the following:
> (a) the statements on the application and all information submitted with the application are true and correct and
> (b) except in cases of an instream flow application, or where the application is for sale, rental, distribution, or is a municipal use, or in any other context in which water is being supplied to another and it is clear that the ultimate user will not accept the supply without consenting to the use of water on the user's place of use, the Applicant has possessory interest in the property where the water is to be put to beneficial use or has the written consent of the person having the possessory interest.
> (2) If a representative of the Applicant signs the application form affidavit, the representative shall state the relationship of the representative to the Applicant on the form, such as president of the corporation, and provide documentation that establishes the authority of the representative to sign the application, such as a copy of a power of attorney.
> (3) The department may require a copy of the written consent of the person having the possessory interest.

85. The Applicant has proven by a preponderance of the evidence that it has a 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. Section 85-2-311(1)(e), MCA. (FOF 50)

**PRELIMINARY DETERMINATION**

Subject to the terms, analysis, and conditions in this Order, the Department preliminarily determines that this Application for Beneficial Water Use Permit No. 40P 30171180 should be GRANTED.

The Department determines the Applicant may divert groundwater from the Fox Hills-Hell Creek aquifer, by means of a well (1,128 FT BGS), from March 1 to November 30 at 240 GPM up to 100 AF per year, from a point in the NENENW, Section 35, T25N, R52E, Richland County, for industrial use from January 1 to December 31. The Applicant proposes to use water for oil field development. The proposed project includes a 34.4 AF lined storage pond located in S2NENW, Section 35, T25N, R52E, Richland County. The place of use is in the following locations as described below:

| Places of Use | | | | | |
|---|---|---|---|---|---|
| ID | Legal Land Description | Section | Township | Range | County |
| 1 | NENW | 33 | 25N | 52E | Richland |
| 2 | NENE | 06 | 25N | 52E | Richland |
| 3 | NENW | 21 | 25N | 52E | Richland |
| 4 | SESW | 27 | 25N | 52E | Richland |
| 5 | NENW | 10 | 25N | 52E | Richland |
| 6 | NENE | 06 | 24N | 53E | Richland |
| 7 | NENE | 32 | 25N | 52E | Richland |
| 8 | NENW | 35 | 25N | 52E | Richland |
| 9 | SESE | 17 | 25N | 52E | Richland |
| 10 | NENE | 33 | 25N | 52E | Richland |
| 11 | NENE | 17 | 24N | 53E | Richland |
| 12 | NENW | 36 | 25N | 52E | Richland |
| 13 | NENE | 36 | 25N | 52E | Richland |
| 14 | SESE | 23 | 25N | 52E | Richland |
| 15 | NENE | 35 | 25N | 52E | Richland |
| 16 | SESE | 27 | 25N | 52E | Richland |
| 17 | NENE | 09 | 25N | 52E | Richland |
| 18 | SESE | 03 | 25N | 52E | Richland |
| 19 | NENE | 21 | 25N | 52E | Richland |
| 20 | SESE | 15 | 25N | 52E | Richland |
| 21 | SESE | 2 | 24N | 52E | Richland |
| 22 | SESE | 13 | 24N | 52E | Richland |
| 23 | NWNE | 35 | 25N | 52E | Richland |
| 24 | NENE | 35 | 25N | 52E | Richland |

The application will be subject to the following conditions, limitations, or restrictions:

1. SUBJECT TO THE OUTCOME OF THE SHOW CAUSE HEARING FOR CASE #24786, IF THE APPLICATION FOR 40P 30163275 IS ISSUED, THIS APPLICATION MUST BE WITHDRAWN.

2. THE APPROPRIATOR SHALL INSTALL A DEPARTMENT APPROVED IN-LINE FLOW METER AT A POINT IN THE DELIVERY LINE APPROVED BY THE DEPARTMENT. WATER MUST NOT BE DIVERTED UNTIL THE REQUIRED MEASURING DEVICE IS IN PLACE AND OPERATING. ON A FORM PROVIDED BY THE DEPARTMENT, THE APPROPRIATOR SHALL KEEP A WRITTEN MONTHLY RECORD OF THE FLOW RATE AND VOLUME OF ALL WATER DIVERTED, INCLUDING THE PERIOD OF TIME. RECORDS SHALL BE SUBMITTED BY JANUARY 31ST OF EACH YEAR AND UPON REQUEST AT OTHER TIMES DURING THE YEAR. FAILURE TO SUBMIT REPORTS MAY BE CAUSE FOR REVOCATION OF A PERMIT OR CHANGE. THE RECORDS MUST BE SENT TO THE GLASGOW WATER RESOURCES REGIONAL OFFICE. THE APPROPRIATOR SHALL MAINTAIN THE MEASURING DEVICE, SO IT ALWAYS OPERATES PROPERLY AND MEASURES FLOW RATE AND VOLUME ACCURATELY.

**NOTICE**

The Department will provide a notice of opportunity for public comment on this application and the Department's Draft Preliminary Determination to Grant pursuant to § 85-2-307, MCA. The Department will set a deadline for public comments to this application pursuant to §§ 85-2-307, and -308, MCA. If this application receives public comment pursuant to § 85-2-307(4), the Department shall consider the public comments, respond to the public comments, and issue a preliminary determination to grant the application, grant the application in modified form, or deny the application. If no public comments are received pursuant to § 85-2-307(4), MCA, the Department's preliminary determination will be adopted as the final determination.

DATED this 5th day of December, 2025.

Lih-An Yang

Lih-An Yang, Manager
Glasgow Regional Office
Montana Department of Natural Resources and Conservation

**CERTIFICATE OF SERVICE**

This certifies that a true and correct copy of the DRAFT PRELIMINARY DETERMINATION TO GRANT was served upon all parties listed below on this 8th day of December, 2025, by first class United States mail.

WHITE ROCK OIL & GAS LLC
5810 TENNYSON PKWY
SUITE 500
PLANO, TX 75024-3523

GLASGOW Regional Office, (406) 228-2561