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January 27, 2026

VH Pipe, LLC
12670 County RD 352
Sidney, MT 59270

Subject: Preliminary Determination to Grant Beneficial Water Use Permit Application No. 42M
30163750

Dear Applicant,

The Department of Natural Resources and Conservation (Department or DNRC) has received and considered public comments pursuant to §85-2-307(5), MCA on the following aspects of the Department's Draft Preliminary Determination for your application:

- ☐ Four public comments were received regarding the physical availability analyses, and three issues were raised among these comments. These issues generally called into question the adequacy of the aquifer testing, subsequent modeling, and the finding by the Department of physical availability.
- ☐ One public comment was received regarding the legal availability analyses, and one issue was raised regarding the Department's finding based on the commenter's perceived lack of physical availability.
- ☐ Four public comments were received regarding adverse effect, and five issues were raised among these comments. These issues generally call into question the potential drawdown and subsequent effect, the liability holder for potential adverse effects, and the possible consequences of increased traffic.
- ☐ Three public comments were received regarding beneficial use, and three issues were raised among these comments. These issues generally call into question the lack of benefit to others,



the overabundance of industrial use of water in the area, and the environmental consequences.

- ☐ One public comment was submitted regarding water quality.

The Department has reviewed the public comments. Following consideration of the public comments for our evaluation of the criteria for issuance of 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 Preliminary Determination to Grant your application is attached.

The Department will prepare a notice of opportunity to object to the application based on issues identified in the public comment(s), pursuant to §85-2-308, MCA. If no valid objections are received within the objection period, the Department will issue the PD as final pursuant to §85-2-307(5)(c), MCA.

If valid objections are received, the Department will schedule a contested case hearing no more than 90 days after the objection filing deadline, per §85-2-309(1), MCA.

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. 42M 30163750 BY VH PIPE) LLC) | PRELIMINARY DETERMINATION TO GRANT PERMIT |
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* * * * *

On May 22, 2025, VH Pipe, LLC (Applicant) submitted Application for Beneficial Water Use Permit No. 42M 30163750 to the Glasgow Regional Office of the Department of Natural Resources and Conservation (Department or DNRC) for 240 GPM and 387 AF per year for Water Marketing. The Department published receipt of the application on its website. The Department sent the Applicant a deficiency letter under § 85-2-302, Montana Code Annotated (MCA), dated June 13, 2025. The Applicant responded with information dated August 1, 2025. A preapplication meeting was held between the Department and the Applicant on May 28, 2024, 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 November 27, 2024. The Department delivered the completed technical analysis on January 2, 2025. The application was determined to be correct and complete as of August 29, 2025. An Environmental Assessment for this application was completed on October 27, 2025. The Department provided notice of opportunity to provide public comments to this application per § 85-2-307(4), MCA on November 29, 2025. The Department received public comments from four commenters and this updated Preliminary Determination considers those public comments.

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:
 - Water Marketing Purpose Addendum, Form 600-WMA
 - Aquifer Testing Addendum, Form 600-ATA

- Attachments:
 - Well log report for GWIC ID 333630, ID 279575, and ID 269247
 - Photos submitted of water storage facility, flow meter and hook up location
 - Form 653 - ARM 36.12.121 (3)(f) and (g) testing requirements variance request dated November 15, 2024
 - Variance request approval letter from Lih-An Yang to William Van Hook Jr, dated November 22, 2024
- Maps: Undated aerial imagery showing the proposed point of diversion (POD) and place of use (POU)
- Department- completed technical analyses based on information provided in the Preapplication Checklist, dated January 2, 2025

Information Received after Application Filed

- Emails dated August 14 - 19, 2025 between Ashley Kemmis, Water Resource Specialist and William and Vonnie Van Hook clarifying information in the deficiency response. The email attachment included:
 - Place of use diagram
 - Narrative regarding possessory interest, adequacy of diversion and beneficial use
- Memo by Ashley Kemmis, Water Resource Specialist, dated August 14, 2025 documenting phone calls with William Van Hook Jr and Vonnie Van Hook
- Written request to update the Applicant name to VH Pipe LLC, dated October 17, 2025
- Surface Water Permit Technical Analyses Report – Notice of Errata, by Ashley Kemmis, Water Resource Specialist, dated October 28, 2025
- Groundwater Permit Technical Analyses Report – Part A - Notice of Erratum, by Melissa Brickl, Groundwater Hydrologist, sent to Applicant on October 28, 2025

Information within the Department's Possession/Knowledge

- DNRC Water Calculation Guide
- DNRC Water Rights Database
- Email with Arthur Robinson, dated December 11, 2024, verifying the GWIC IDs and explaining the variance permit
- File for Provisional Permit 42M 30065439
- 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 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

Public Comments Received

- The Department received four comments on this application and considered four of them. The Department responded to issues raised by comments in the relevant criteria sections. The Department determined that no modifications to the analyses determining the physical availability, legal availability, adverse effect, and beneficial use criterion were met was required. The preliminary determination decision is to Grant. The Public Comment forms received can be found in the administrative file.
 - Four public comments were received regarding the physical availability analyses, and three issues were raised among these comments. These issues generally called into question the adequacy of the aquifer testing, subsequent modeling, and the finding by the Department of physical availability.
 - One public comment was received regarding the legal availability analyses, and one issue was raised regarding the Department's finding based on the commenter's perceived lack of physical availability.
 - Four public comments were received regarding adverse effect, and five issues were raised among these comments. These issues generally call into question the potential drawdown and subsequent effect, the liability holder for potential adverse effects, and the possible consequences of increased traffic.
 - Three public comments were received regarding beneficial use, and three issues were raised among these comments. These issues generally call into question the lack of benefit to others, the overabundance of industrial use of water in the area, and the environmental consequences.
- Water quality comments are accepted during the public comment period. One public comment was submitted regarding water quality. The Department did not make changes to the draft preliminary determination regarding the water quality criterion. Pursuant to § 85-2-311(2), MCA, "the applicant is required to prove that the [water quality criterion has]

been met only if a valid objection has been filed". Objections may be filed pursuant to § 85-2 308, MCA. (Commenter: Partin)

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 by means of a well, which was drilled to 100 FT and is perforated 50 – 90 FT below ground surface (BGS), from January 1 to December 31 at 240 GPM up to 387 AF, from a point in the SESENE, Section 22, Township 23N, Range 59E, Richland County, for Water Marketing use from January 1 to December 31.
2. The place of use is the point of sale located in SESENE, Section 22, Township 23N, Range 59E, Richland County. The Applicant proposes to sell water to buyers who hold a firm contract. Water will be used for oil field development, with the general service area covering all of Richland County and Roosevelt County.
3. The proposed point of diversion is approximately 1.25 miles west of the Yellowstone River.
4. 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.
5. This permit will not be supplemental to any other water rights nor share a place of use. The Department is simultaneously processing an Application for Beneficial Water Use Permit No. 42M 30163788 by William Van Hook Jr. (manager of VH Pipe, LLC) and Exploration Drilling Inc. These two applications are not supplemental because they do not share a point of diversion nor place of use and are contracted to different entities.
6. Water sold under this appropriation will be used in the oil field industry. The amount of sales will vary with oil field activity during the year, not to exceed 387 AF per year. To substantiate the beneficial use and ensure that the requested flow rate and volume are not exceeded during years of high oil field activity, the Applicant will be required to submit a measurement report each year. The Applicant's design plans include the use of a totalizing flow meter.

7. The Applicant provided a water purchase contract with Kraken Resources, LLC, with a condition stating that water purchased will be used in Roosevelt and Richland counties in Montana. Depot access is limited to valid contract holders through landowner-controlled access.

42M 30163750

HOFF KENNETH L & EMILY T



Map Created: 9/10/2025
Author: Ashley Kemmis,
Water Resource Specialist
Elements depicted on this map are for illustrative purposes and have not been surveyed by the Department. MSDI PLSS; 2017 Aerials; World Hydrobase; Esri, USGS

- Parcels - Current
- Section
- Township & Range
- POD
- Storage Facility/POU

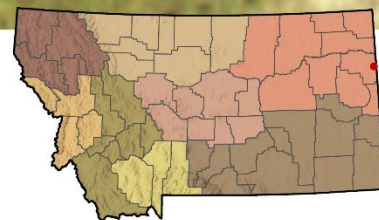


Figure 1: Map of the Applicant's proposed point of diversion, storage facility and place of use.

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

GENERAL CONCLUSIONS OF LAW

8. 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 . . .

9. 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.

10. 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.

11. The Montana Supreme Court further recognized in *Matter of Beneficial Water Use Permit Numbers 66459-76L, Ciotti: 64988-G76L, Starnes*, 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).

12. 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.

13. 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

14. The Applicant proposes to divert water year-round from a well at a rate of 240 GPM up to 387 AF for water marketing use. The Applicant proposes the contracted water will be used for oil field development. Water will be pumped to enclosed storage barrels for customer extraction. The proposed well was completed on April 29, 2024, and is assigned GWIC ID 333630 by the Montana Bureau of Mines and Geology Groundwater Information Center. It is completed to 100 FT and is perforated 50 – 90 FT below ground surface. The well is completed in an unconfined alluvial aquifer system consisting of unconsolidated sand and gravel deposits and derives water from an alluvial sedimentary package known as the Shallow Hydrologic Unit (SHU) of Yellowstone River valley alluvial terrace deposits.

15. A 72-hour aquifer test was conducted on the production well on October 23, 2024, and no Observation Well was monitored. Water levels during the aquifer test were collected using a Gonimi Generic water level meter in the Production Well. The discharge was measured with a McCrometer paddle wheel and conveyed 150 FT north of the production well into an alfalfa field.

16. A variance for ARM 36.12.121 (3)(f) and (3)(g) aquifer test requirements was granted from the Glasgow Regional office on November 22, 2024. No observation well was monitored during the test. The lack of observation well data did not affect the ability of the hydrologist to estimate aquifer properties. Background groundwater levels in the Production Well were monitored for 48

hours; monitoring occurred every 2 hours for the first 8 hours and then every 6 hours for the duration of the 48-hrs. Per Form 633 the minimum time increment is 1-hour. The deviation from the time increments did not affect the ability of the hydrologist to identify background trends.

17. 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 (Figure 2). The direction of groundwater flow is predominantly to the east and southeast, as such the width of the ZOI that is perpendicular to groundwater flow equals 33,600 FT. 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 = 8,000 FT²/day
- W = Width of ZOI = 33,600 FT
- i = Groundwater Gradient (from Patton et al., 1998 Water level contour map) = 0.006 FT/FT.

The calculated groundwater flux through the ZOI is 1,612,800 FT³/day or 13,513 AF/year.

ISSUES RAISED BY PUBLIC COMMENTS AND DEPARTMENT'S RESPONSES

18. The public submitted four comments on physical availability, and these comments raised three issues.

19. Issue 1: The commenters question the validity of the data provided, and state the suggested yield exceeds what has been reported as typical for this aquifer. They question whether the water is from the aquifer or from the Yellowstone River and how the river was considered in modeling. Specifically, the commenters question how the constant head boundary of the Yellowstone River is used in Theis equation because they believe the Theis equation assumes an infinite, homogenous 2-dimensional aquifer. The commenters also point out that flux is dependent on transmissivity and gradient, where the gradient depends on boundary conditions and recharge and may change through time due to changes in overall pumping, river stage, and recharge. Thus flux/availability may change through time. (Commenters: Lassey, Senior, Council)

20. Response 1: Groundwater flux, or annual yield, was calculated using aquifer transmissivity (T) and gradient within the 0.01-ft drawdown contour. T derived from the aquifer test was reasonable when compared to existing, nearby aquifer test data. T is the product of hydraulic conductivity and aquifer thickness, and hydraulic conductivity generally does not change over

time. Saturated aquifer thickness values may change seasonally or as a result of wet/dry periods as the water table rises and falls. According to Montana Bureau of Mines and Geology (MBMG) monitoring well GWIC ID 136651, nearby static water levels fluctuate 2-4 feet (ft) seasonally, and this fluctuation is fairly constant over the 35-year period of record. The average water level per year occurs in late summer/early fall, which is when the aquifer test was conducted. For the water right, a saturated aquifer thickness of 138 ft was used, which is the difference between the thickness of the mapped aquifer (150 ft, Patton et al., 1998) and static water level (12.3 ft) at time of the aquifer test. The gradient used to calculate flux was taken from a water level contour map produced by MBMG and represents average conditions. All variables used to calculate flux represent average values and are reasonable when compared to existing literature. In addition, a constant head boundary (Yellowstone River) was used in forward modeling to reflect that the Yellowstone River is directly connected to the aquifer and would be a significant source of recharge.

21. Issue 2: The commenters question the use of Theis equation for the determination of the 0.1 foot-drawdown because they believe the Theis equation is used to solve for aquifer properties under transient, not long-term, steady-state conditions. Also, no "time" was clearly specified for the computed results. The commenters remark that Theis commonly includes drawdown in one or more observation wells, but no observation well data were collected. (Commenters: Lassey, Senior, Council)

22. Response 2: The solution used to derive aquifer properties was Neuman (1974), not Theis (1935). The Theis (1935) solution was used to forward model, as the DNRC considers it a conservative model to forward model with. As stated in the Groundwater Permit Technical Analysis Report - Part A the Theis (1935) solution was used to forward model 1-yr, 5-yrs, and 100 years for criteria related to physical availability/adequacy of diversion, adverse effect, and net depletions, respectively. Data collected from 72-hr aquifer test was sufficient to derive aquifer properties of transmissivity (T). T can be calculated from production or observation well drawdown data. Because no observation well was monitored, Production Well data was used for modeling. This is a common hydrogeology practice. DNRC standard practice for unconfined aquifers is to use a specific yield value of 0.1 from Lohman (1972) rather than a specific yield derived from the aquifer test data. Moench (1994) states that, although an unconfined aquifer test analysis can account for S_y , evaluation of S_y should be done with caution because the very early time data are subject to large errors.

23. Issue 3: Four commenters state that the Applicant failed to have an observation well during the aquifer test and therefore did not complete testing to the Department standards. The commenters state the department cannot accurately model drawdown rates, recharge rates and volume in the aquifer because the applicant did not conduct the minimum requirements for the aquifer test. (Commenters: Lassey, Senior, Council, Partin)

24. Response 3: The Department granted a variance to the aquifer test requirements pursuant to ARM 36.12.123 because the Department had reliable data and information sufficient to conduct the technical analyses and estimate aquifer properties consistent with Department standards. Data collected from 72-hr aquifer test was sufficient to derive aquifer properties of transmissivity (T), as such a variance was granted from Aquifer Testing Requirements (ARM 36.12.121 (3)(f)). T can be calculated from production or observation well drawdown data. Because no observation well was monitored, Production Well data was used for modeling. This is a common hydrogeology practice. DNRC standard practice for unconfined aquifers is to use a specific yield value of 0.1 from Lohman (1972) rather than a specific yield derived from the aquifer test data. Moench (1994) states that, although an unconfined aquifer test analysis can account for Sy, evaluation of Sy should be done with caution because the very early time data are subject to large errors. Forward modeling was completed using DNRC standard practices, aquifer properties that represent average conditions, and took into considerations local flow and no-flow boundaries.

25. The public comments regarding the physical availability criterion have been considered and addressed in FOF 18-25. The public comments did not demonstrate that the criterion was inadequately addressed in the draft preliminary determination. The Department finds, by a preponderance of the evidence, that groundwater is physically available in the amount of 13,513 AF/year at the proposed point of diversion during the proposed period of diversion.

LEGAL AVAILABILITY

FINDINGS OF FACT

Groundwater

26. The Department calculated the ZOI to be 33,600 FT as shown in Figure 2. The 0.01-FT drawdown contour was modeled by the Department in FWD:SOLV (HydroSOLVE INC., 2024) using the following:

- Theis (1935) unconfined solution
- Constant pumping rate of 240.0 GPM for the period of diversion

- Constant head boundary 6,172 FT east of the well to represent the Yellowstone River
- An image well 12,344 FT west of the well, pumping at a constant rate of 240 GPM to create a no flow boundary that represents the Tongue River Member of the Fort Union Formation.
- Well radius of perforated interval 0.208 FT and screened interval of 40 FT
- Transmissivity = 8,000 FT²/day
- Specific Yield = 0.1 (Lohman, 1972)

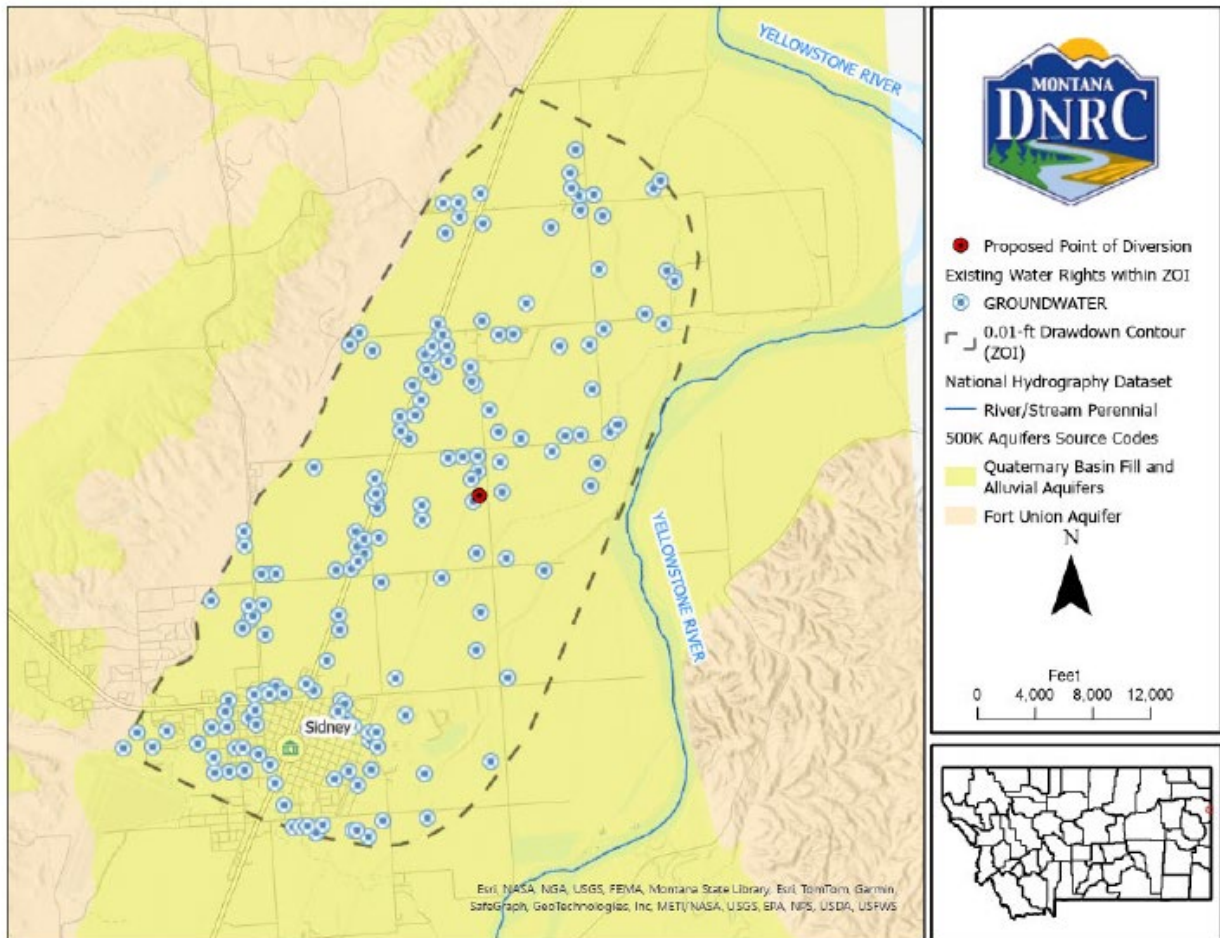


Figure 2: 0.01-FT drawdown contour and active water rights within the ZOI for Permit Application No. 42M 30163750.

27. According to the Department-completed Groundwater Permit Technical Analyses Report there are 216 active groundwater rights within the ZOI that need to be evaluated as a legal demand. See Table 1 for a list of these legal demands.

| Table 1: Active Water Rights within the Zone of Influence | | | | |
|---|--------------------------|---|-------------|-----------------|
| A | B | C | D | E |
| Water Right Number | Water Right Type | Owners | Volume (AF) | Well Depth (FT) |
| 42M 30021598* | GROUND WATER CERTIFICATE | BRANDI L GIDEON; JEFFREY P GIDEON | 3.84 | - |
| 42M 30023061* | GROUND WATER CERTIFICATE | SEM STREAM | 3.84 | 60 |
| 42M 12405 00* | GROUND WATER CERTIFICATE | DEAN W STEINLEY; TODD D STEINLEY | 3.84 | 121 |
| 42M 4985 00* | GROUND WATER CERTIFICATE | JAMES R BUCKLEY; STACY RAE BUCKLEY | 3.84 | 83 |
| 42M 30011465* | GROUND WATER CERTIFICATE | JJS LAND LLC | 3.84 | 35 |
| 42M 10379 00* | GROUND WATER CERTIFICATE | JENNIFER M BROWN; AUDIE L TAYLOR | 3.84 | 40 |
| 42M 30029902* | GROUND WATER CERTIFICATE | BRUCE D SORENSSEN; VIRGINIA SORENSSEN; SORENSSEN, BRUCE D & VIRGINIA LIVING TRUST 1 | 3.84 | 68 |
| 42M 11732 00* | GROUND WATER CERTIFICATE | HERBERT L SCHMIERER; SHARON A SCHMIERER | 3.84 | - |
| 42M 30011240* | GROUND WATER CERTIFICATE | RON BROWN; JACQUELINE E MCDERMOTT | 3.84 | 30 |
| 42M 430 00* | GROUND WATER CERTIFICATE | DAVID R STEINBEISSER | 3.84 | 55 |
| 42M 30014017* | GROUND WATER CERTIFICATE | JANICE DIGE; RUSSELL DIGE | 3.84 | 32 |
| 42M 30029296* | GROUND WATER CERTIFICATE | SUZANNA F ALDRICH | 3.84 | 40 |
| 42M 4296 00* | GROUND WATER CERTIFICATE | HARVEY H ASBECK; HUGO J ASBECK | 3.84 | 29 |
| 42M 30015419* | GROUND WATER CERTIFICATE | GAVIN W CLIFTON | 3.84 | 30 |
| 42M 30022661* | GROUND WATER CERTIFICATE | MICHAEL W STEPPE; THERESA J STEPPE | 3.84 | 61 |
| 42M 30016329* | GROUND WATER CERTIFICATE | NATHAN DAMM; SAMANTHA DAMM | 3.84 | 35 |
| 42M 30028182* | GROUND WATER CERTIFICATE | BARBARA J BREITLING; CASSIDY E DAMM; SCOTT L DAMM | 3.84 | 93 |
| 42M 1871 00* | GROUND WATER CERTIFICATE | MICHAEL W STEPPE; THERESA J STEPPE | 3.84 | 82 |
| 42M 30021686* | GROUND WATER CERTIFICATE | DAVID R MCMILLEN | 3.84 | - |
| 42M 30021952* | GROUND WATER CERTIFICATE | KRINGEN FAMILY LLLP | 3.84 | - |
| 42M 30021926* | GROUND WATER CERTIFICATE | SIDNEY GYMNASIIC CLUB | 3.84 | 60 |
| 42M 8155 00* | GROUND WATER CERTIFICATE | IVERSEN, DALE INC | 3.84 | 44 |
| 42M 4168 00* | GROUND WATER CERTIFICATE | FULKERSON, VIVIAN KAY TRUST | 3.84 | 40 |
| 42M 30025668* | GROUND WATER CERTIFICATE | AMC DEVELOPEMENT LLC | 3.84 | - |
| 42M 74 00* | GROUND WATER CERTIFICATE | DYNNESON LAND LLC | 3.84 | 32 |
| 42M 163164 00** | STATEMENT OF CLAIM | JJS LAND LLC | 23.80 | - |
| 42M 163313 00** | STATEMENT OF CLAIM | RANDY MILLER | 0.81 | - |
| 42M 2143 00** | STATEMENT OF CLAIM | MICHAEL A ALDRICH; SUZANNA F ALDRICH | 1.17 | - |
| 42M 165217 00** | STATEMENT OF CLAIM | MADISON, THE FAMILY TRUST | 10.20 | - |
| 42M 101503 00** | STATEMENT OF CLAIM | HARVEY H ASBECK; HUGO J ASBECK | 4.76 | - |
| 42M 122086 00** | STATEMENT OF CLAIM | THOMAS F SCHMITT; WAYNE P SCHMITT | 3.40 | - |
| 42M 7657 00** | STATEMENT OF CLAIM | NATALIE M ERIKSTRUP; TORBEN H ERIKSTRUP | 0.20 | - |
| 42M 111352 00 | EXEMPT RIGHT | NATHAN DAMM; SAMANTHA DAMM | 1.63 | - |
| 42M 30129337 | GROUND WATER CERTIFICATE | BRUCE G HARRIS | 0.03 | 160 |
| 42M 30105606 | GROUND WATER CERTIFICATE | HIGH PLAINS VETERINARY CLINIC INC | 0.06 | 35 |
| 42M 77504 00 | GROUND WATER CERTIFICATE | MONTANA DAKOTA UTILITIES CO | 0.22 | 36 |
| 42M 71765 00 | GROUND WATER CERTIFICATE | CURTIS L GOOD; LEVI KREHMEYER | 0.33 | 35 |
| 42M 66285 00 | GROUND WATER CERTIFICATE | CROSS PETROLEUM | 0.56 | 33 |
| 42M 42473 00 | GROUND WATER CERTIFICATE | MONTANA, STATE OF UNIVERSITY SYSTEM (MSU) | 0.63 | - |
| 42M 30065148 | GROUND WATER CERTIFICATE | CASTLE PINES PROPERTIES LLC | 0.67 | 115 |
| 42M 51906 00 | GROUND WATER CERTIFICATE | RAUSCHENDORFER, ROBERT FAMILY TRUST | 0.85 | 50 |
| 42M 30120344 | GROUND WATER CERTIFICATE | DENNIS WICK; LINDA WICK | 0.94 | 52 |

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Application for Beneficial Water Use Permit No. 42M 30163750

| | | | | |
|---------------|--------------------------|--|------|-----|
| 42M 30051702 | GROUND WATER CERTIFICATE | WILLIAM B VAN HOOK | 1 | 55 |
| 42M 61891 00 | GROUND WATER CERTIFICATE | MONTANA DAKOTA UTILITIES CO | 1 | 49 |
| 42M 30069571 | GROUND WATER CERTIFICATE | COLBY BRAUN | 1 | 88 |
| 42M 30029654 | GROUND WATER CERTIFICATE | RON LASSEY | 1 | 32 |
| 42M 30051703 | GROUND WATER CERTIFICATE | VAN HOOK, NANCY REVOCABLE LIVING TRUST; VAN HOOK, WILLIAM REVOCABLE LIVING TRUST | 1 | 55 |
| 42M 27936 00 | GROUND WATER CERTIFICATE | SIDNEY, CITY OF | 1 | 50 |
| 42M 30052076 | GROUND WATER CERTIFICATE | LOIS GOFF; WILLIAM PAT GOFF | 1 | 35 |
| 42M 30164021 | GROUND WATER CERTIFICATE | DENNIS W DIETZ; STEPHANIE M DIETZ | 1 | - |
| 42M 30102997 | GROUND WATER CERTIFICATE | BRANDI L GIDEON; JEFFREY P GIDEON | 1 | 140 |
| 42M 30047145 | GROUND WATER CERTIFICATE | SHOPS AT FOX RUN LLC | 1 | 30 |
| 42M 35624 00 | GROUND WATER CERTIFICATE | JAMES C CHRISTIANSON | 1 | - |
| 42M 93449 00 | GROUND WATER CERTIFICATE | SCOTT SHEEHAN | 1 | 36 |
| 42M 49046 00 | GROUND WATER CERTIFICATE | FLOYD M SHIRK | 1 | 41 |
| 42M 30066875 | GROUND WATER CERTIFICATE | CHAD MUELLER | 1 | 63 |
| 42M 13070 00 | GROUND WATER CERTIFICATE | JOANNE J BRENNER; WILLIAM A BRENNER | 1 | 50 |
| 42M 30045645 | GROUND WATER CERTIFICATE | GENE TRUDELL; NANCY TRUDELL | 1 | 43 |
| 42M 30068013 | GROUND WATER CERTIFICATE | CLAYTON S ZILER; LISA ZILER | 1 | 50 |
| 42M 30157939 | GROUND WATER CERTIFICATE | JIM & AMY METZ | 1 | 63 |
| 42M 30063173 | GROUND WATER CERTIFICATE | PAUL TJELDE | 1 | 55 |
| 42M 30108105 | GROUND WATER CERTIFICATE | FRANK K LINDEN | 1.05 | 70 |
| 42M 71746 00 | GROUND WATER CERTIFICATE | SIDNEY HEALTH CENTER | 1.12 | 55 |
| 42M 30069095 | GROUND WATER CERTIFICATE | SHARON S KRINGEN | 1.23 | 63 |
| 42M 30042552 | GROUND WATER CERTIFICATE | KAREN KYRSTYIE EARLE | 1.25 | 30 |
| 42M 101124 00 | GROUND WATER CERTIFICATE | JAMES HALL | 1.43 | 35 |
| 42M 30104472 | GROUND WATER CERTIFICATE | JAY HELFRICH; SUSAN HELFRICH | 1.45 | 60 |
| 42M 50291 00 | GROUND WATER CERTIFICATE | JEREMY WILCOXON; PAM WILCOXON | 1.5 | 60 |
| 42M 51913 00 | GROUND WATER CERTIFICATE | JENNIFER J FOSS | 1.5 | - |
| 42M 30871 00 | GROUND WATER CERTIFICATE | RANDALL R RADKE; SUZANN M RADKE | 1.5 | 107 |
| 42M 69226 00 | GROUND WATER CERTIFICATE | CRYSTAL STRAIT; MACKENZIE STRAIT | 1.5 | 38 |
| 42M 61813 00 | GROUND WATER CERTIFICATE | KAREN J SIVERTSON; TERRY J SIVERTSON | 1.5 | 30 |
| 42M 17200 00 | GROUND WATER CERTIFICATE | GARY A KINDOPP; LINDA C KINDOPP | 1.5 | 69 |
| 42M 17976 00 | GROUND WATER CERTIFICATE | SCOTT D JOHNSON | 1.5 | - |
| 42M 21371 00 | GROUND WATER CERTIFICATE | DEE ANN JOHNSON; DONALD R JOHNSON | 1.5 | 28 |
| 42M 71698 00 | GROUND WATER CERTIFICATE | JENNIFER H LOVEGREN; WILLIAM C LOVEGREN | 1.5 | 27 |
| 42M 26490 00 | GROUND WATER CERTIFICATE | RON GURNEY | 1.5 | 54 |
| 42M 59514 00 | GROUND WATER CERTIFICATE | CYNTHIA C BLOOMFIELD; SCOT A BLOOMFIELD | 1.5 | 40 |
| 42M 26090 00 | GROUND WATER CERTIFICATE | ROCKY G HARALSON | 1.5 | 136 |
| 42M 24376 00 | GROUND WATER CERTIFICATE | WADE J VAN EVERY; CHERYL L VANEVERY | 1.5 | 114 |
| 42M 51909 00 | GROUND WATER CERTIFICATE | HANSEN, ROBERT L & BETTY L 2000 FAMILY TRUST | 1.5 | 47 |
| 42M 16689 00 | GROUND WATER CERTIFICATE | KELLY MARKLE | 1.5 | 57 |
| 42M 69306 00 | GROUND WATER CERTIFICATE | EVAN BOUCHARD; TIM P BOUCHARD | 1.5 | 60 |
| 42M 13629 00 | GROUND WATER CERTIFICATE | CLINT D PERKINS; LILY L PERKINS | 1.5 | 38 |
| 42M 27937 00 | GROUND WATER CERTIFICATE | LORI B JOHNSON | 1.5 | 117 |
| 42M 44863 00 | GROUND WATER CERTIFICATE | ADAM KNUDSON; ROXANN ROTH | 1.5 | 0 |
| 42M 14782 00 | GROUND WATER CERTIFICATE | JOE M HALVORSEN | 1.5 | 0 |
| 42M 51809 00 | GROUND WATER CERTIFICATE | ALLISON BROWER; DEREK J BROWER | 1.5 | 70 |
| 42M 59639 00 | GROUND WATER CERTIFICATE | ANTIONETTE STRASHEIM | 1.5 | 65 |
| 42M 24974 00 | GROUND WATER CERTIFICATE | PATRICK E MATHERN | 1.5 | 80 |
| 42M 51914 00 | GROUND WATER CERTIFICATE | EMILY T HOFF; KENNETH L HOFF | 1.5 | - |
| 42M 59634 00 | GROUND WATER CERTIFICATE | DALE K NYGAARD; TAMI L NYGAARD | 1.5 | 42 |
| 42M 66159 00 | GROUND WATER CERTIFICATE | RON E STEFFENS | 1.5 | 60 |
| 42M 51905 00 | GROUND WATER CERTIFICATE | CHERYL L HANSEN; GREGORY R HANSEN | 1.5 | 43 |
| 42M 74093 00 | GROUND WATER CERTIFICATE | TIM LARSON | 1.5 | 50 |

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|---------------|--------------------------|--|------|------|
| 42M 61797 00 | GROUND WATER CERTIFICATE | AMBER J BANDEROB | 1.5 | 38 |
| 42M 27403 00 | GROUND WATER CERTIFICATE | DABBLE VENTURE LLC | 1.5 | - |
| 42M 28782 00 | GROUND WATER CERTIFICATE | DEAN W STEINLEY; TODD D STEINLEY | 1.5 | 100 |
| 42M 42848 00 | GROUND WATER CERTIFICATE | BONNIE MUELLER; BRADY J MUELLER; BRANDON M MUELLER; CHAD MUELLER; TARRY L MUELLER | 1.5 | - |
| 42M 30611 00 | GROUND WATER CERTIFICATE | CHRIS E SEVERSON; LINDA JO SEVERSON | 1.5 | - |
| 42M 51882 00 | GROUND WATER CERTIFICATE | LONE TREE RANCH INC | 1.5 | 120 |
| 42M 61812 00 | GROUND WATER CERTIFICATE | PERRY ROTH | 1.5 | 31 |
| 42M 22604 00 | GROUND WATER CERTIFICATE | MONICA J FLEISCHMANN; ROSE MARY LADINSKY; DAVID R STEINBEISSER; WILLIAM C STEINBEISSER | 1.5 | - |
| 42M 30063264 | GROUND WATER CERTIFICATE | LAWRENCE E DENOWH | 1.58 | 70 |
| 42M 30148640 | GROUND WATER CERTIFICATE | LYLE PARTIN; MARILYN PARTIN | 1.58 | 27 |
| 42M 30065095 | GROUND WATER CERTIFICATE | DANNY STRASHEIM | 1.58 | 75 |
| 42M 30151791 | GROUND WATER CERTIFICATE | MICHELLE DIAZ | 1.63 | - |
| 42M 91920 00 | GROUND WATER CERTIFICATE | ERIN D GRAVES; TYREL W GRAVES | 1.63 | 65 |
| 42M 93492 00 | GROUND WATER CERTIFICATE | CYNDEE BROWN; RONALD BROWN | 1.63 | 27 |
| 42M 101084 00 | GROUND WATER CERTIFICATE | HEIDI MORAN; MICHAEL J MORAN | 1.63 | 32 |
| 42M 30017221 | GROUND WATER CERTIFICATE | DAVID L REIDLE; REBBECA L REIDLE | 1.63 | 65 |
| 42M 91892 00 | GROUND WATER CERTIFICATE | PAUL TJELDE | 1.63 | 280 |
| 42M 81327 00 | GROUND WATER CERTIFICATE | DIETZ, STEPHANIE M LIVING TRUST | 1.63 | 32 |
| 42M 114667 00 | GROUND WATER CERTIFICATE | MICHAEL STEFFAN; NANCY M STEFFAN | 1.63 | 60 |
| 42M 101081 00 | GROUND WATER CERTIFICATE | ORIN P COUNCIL; LAURA B SENIOR | 1.63 | 28 |
| 42M 99126 00 | GROUND WATER CERTIFICATE | JOHANNA R LEPEL | 1.63 | 41 |
| 42M 101102 00 | GROUND WATER CERTIFICATE | DANNY STRASHEIM | 1.63 | 33 |
| 42M 106940 00 | GROUND WATER CERTIFICATE | JAMES M COTTER; RAYMOND T COTTER | 1.63 | - |
| 42M 114571 00 | GROUND WATER CERTIFICATE | ELAINE A HUTTON; HUGH L HUTTON | 1.63 | 34 |
| 42M 79875 00 | GROUND WATER CERTIFICATE | JOSEPH G MCKINLEY; SARAH A MCKINLEY | 1.63 | 30 |
| 42M 51943 00 | GROUND WATER CERTIFICATE | LARRY SCHMITT; MARILYN SCHMITT | 1.66 | - |
| 42M 64049 00 | GROUND WATER CERTIFICATE | KYM TAYLOR; RHONDA TAYLOR | 1.67 | 43 |
| 42M 89108 00 | GROUND WATER CERTIFICATE | JSBA INC | 1.7 | 40 |
| 42M 30045792 | GROUND WATER CERTIFICATE | CHRIS HILLESAND | 1.83 | 35 |
| 42M 28075 00 | GROUND WATER CERTIFICATE | LOWMAN, CHARLES & MARLEEN FAMILY TRUST | 1.84 | 1370 |
| 42M 30015418 | GROUND WATER CERTIFICATE | MARLO M HOLZWORTH | 1.88 | 54 |
| 42M 30121762 | GROUND WATER CERTIFICATE | LISA SHARP | 2 | - |
| 42M 51808 00 | GROUND WATER CERTIFICATE | MARLYS DYNNESON | 2 | 27 |
| 42M 99041 00 | GROUND WATER CERTIFICATE | ANGELA J HANDFORD; DUANE J HANDFORD | 2.03 | 30 |
| 42M 30121668 | GROUND WATER CERTIFICATE | AAA FARMS LLC | 2.25 | - |
| 42M 30042592 | GROUND WATER CERTIFICATE | ERIC S STEINBEISSER; SARA M STEINBEISSER | 2.25 | 35 |
| 42M 30021326 | GROUND WATER CERTIFICATE | JESSICA L DORWART; ROBERT J SCROGGIE | 2.25 | - |
| 42M 59487 00 | GROUND WATER CERTIFICATE | HANSON IND FARMS LLC | 2.4 | 455 |
| 42M 111368 00 | GROUND WATER CERTIFICATE | LOWMAN, CHARLES & MARLEEN FAMILY TRUST | 2.5 | 38 |
| 42M 102775 00 | GROUND WATER CERTIFICATE | BRIAN T LUNDERBY | 2.5 | 88 |
| 42M 101120 00 | GROUND WATER CERTIFICATE | MICHAEL A ALDRICH; SUZANNA F ALDRICH | 2.5 | 35 |
| 42M 101075 00 | GROUND WATER CERTIFICATE | P & Q FARM CORP | 2.5 | 42 |
| 42M 16569 00 | GROUND WATER CERTIFICATE | DALE E IVERSEN; KENNETH A IVERSEN; THERESA M IVERSEN; IVERSEN, MARK W TRUST | 2.62 | 83 |
| 42M 103695 00 | GROUND WATER CERTIFICATE | MARLYS DYNNESON | 2.63 | 40 |
| 42M 30043469 | GROUND WATER CERTIFICATE | CARRIE S NIBLOCK; MATTHEW REYNOLDS | 2.78 | 106 |
| 42M 114665 00 | GROUND WATER CERTIFICATE | J L D M LLC | 2.87 | 44 |
| 42M 104487 00 | GROUND WATER CERTIFICATE | DAWN CLAYMORE; TED CLAYMORE | 2.88 | - |
| 42M 55513 00 | GROUND WATER CERTIFICATE | FRANK K LINDEN | 3 | 37 |

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|---------------|--------------------------|---|--------|------|
| 42M 34346 00 | GROUND WATER CERTIFICATE | RICHLAND COUNTY FAIRGROUNDS | 3 | - |
| 42M 28898 00 | GROUND WATER CERTIFICATE | VETERAN HOLDINGS LLC | 3 | 47 |
| 42M 30128010 | GROUND WATER CERTIFICATE | HENNING SKOV | 3.4 | 30 |
| 42M 30063387 | GROUND WATER CERTIFICATE | DOTTIE SHEEHAN | 3.5 | 50 |
| 42M 86161 00 | GROUND WATER CERTIFICATE | JENNIFER J FOSS | 3.5 | 30 |
| 42M 114657 00 | GROUND WATER CERTIFICATE | EGT LLC | 3.5 | 70 |
| 42M 106989 00 | GROUND WATER CERTIFICATE | CASEY THIEL; GINA THIEL | 3.5 | 45 |
| 42M 30103243 | GROUND WATER CERTIFICATE | DEBORAH J PROPP; RICHARD PROPP | 3.5 | - |
| 42M 30024600 | GROUND WATER CERTIFICATE | AFTON DALIMATA; FRANCIS DALIMATA | 3.5 | 28 |
| 42M 30067499 | GROUND WATER CERTIFICATE | KYLE J BOUSQUET; DANIELLE J SCHIFF; TEGAN J SIVERTSON | 3.51 | 80 |
| 42M 30154368 | GROUND WATER CERTIFICATE | KATHLEEN IVERSEN; MARK W IVERSEN | 4.25 | 43 |
| 42M 64086 00 | GROUND WATER CERTIFICATE | WILLIAM M IVERSEN | 4.26 | 30 |
| 42M 106995 00 | GROUND WATER CERTIFICATE | PERRY ROTH; VALORIE ROTH | 4.38 | 25 |
| 42M 45415 00 | GROUND WATER CERTIFICATE | ELAINE A HUTTON; HUGH L HUTTON | 5 | - |
| 42M 30122210 | GROUND WATER CERTIFICATE | PETERSEN, J K INC | 5.1 | 220 |
| 42M 30122495 | GROUND WATER CERTIFICATE | BRUNNER JODYS PROTECTION TRUST | 6 | 135 |
| 42M 30065147 | GROUND WATER CERTIFICATE | CHRIS E SEVERSON | 6 | 80 |
| 42M 1330 00 | GROUND WATER CERTIFICATE | HANSON LINDA L TRUST | 6.5 | 44 |
| 42M 77510 00 | GROUND WATER CERTIFICATE | CONOCO INC | 6.72 | - |
| 42M 30050002 | GROUND WATER CERTIFICATE | JODY A KAPPEL | 7.6 | 34 |
| 42M 74345 00 | GROUND WATER CERTIFICATE | JANETTE K MCCOLLUM | 8.2 | 40 |
| 42M 104418 00 | GROUND WATER CERTIFICATE | RUTH E IVERSEN | 8.26 | 40 |
| 42M 114671 00 | GROUND WATER CERTIFICATE | WILLIAM C STEINBEISSER | 8.5 | 1280 |
| 42M 30114043 | GROUND WATER CERTIFICATE | LARRY C TURBIVILLE | 8.6 | 86 |
| 42M 99102 00 | GROUND WATER CERTIFICATE | WILLIAM C STEINBEISSER | 10 | 45 |
| 42M 27529 00 | GROUND WATER CERTIFICATE | WCT RENTALS LLC | 10 | 1255 |
| 42M 51904 00 | GROUND WATER CERTIFICATE | DENNIS WICK | 16.8 | 1440 |
| 42M 21289 00 | GROUND WATER CERTIFICATE | HOWARD MARTINI; MARION MARTINI | 30 | - |
| 42M 17547 00 | GROUND WATER CERTIFICATE | JODY A KAPPEL | 33.46 | 45 |
| 42M 77511 00 | GROUND WATER CERTIFICATE | CONOCO INC | 40.32 | - |
| 42M 75822 00 | GROUND WATER CERTIFICATE | CONOCO INC | 112.9 | - |
| 42M 30064941 | PROVISIONAL PERMIT | WCT RENTALS LLC | 16.5 | 45 |
| 42M 30159885 | PROVISIONAL PERMIT | RICHLAND COUNTY PUBLIC WORKS | 40.1 | 120 |
| 42M 30066151 | PROVISIONAL PERMIT | MAIN STREET WATER LLC | 45.44 | - |
| 42M 31303 00 | PROVISIONAL PERMIT | SIDNEY COUNTRY CLUB | 135 | 150 |
| 42M 30066155 | PROVISIONAL PERMIT | MONTANA H2O LLC | 247.19 | 72 |
| 42M 30062767 | PROVISIONAL PERMIT | MONTANA H2O LLC | 247.19 | 70 |
| 42M 30108750 | PROVISIONAL PERMIT | MONTANA H2O LLC | 247.19 | 75 |
| 42M 30066963 | PROVISIONAL PERMIT | CR126 WATER DEPOT LLC | 322 | - |
| 42M 61784 00 | PROVISIONAL PERMIT | SIDNEY, CITY OF | 470 | - |
| 42M 168996 00 | STATEMENT OF CLAIM | MARTIN S PEREZ | 0.4 | - |
| 42M 163427 00 | STATEMENT OF CLAIM | LORI NORBY | 0.8 | - |
| 42M 142788 00 | STATEMENT OF CLAIM | BNSF RAILWAY CO | 1.5 | - |
| 42M 2145 00 | STATEMENT OF CLAIM | MICHAEL A ALDRICH; SUZANNA F ALDRICH | 1.5 | - |
| 42M 168997 00 | STATEMENT OF CLAIM | JOSEPH G MCKINLEY; SARAH A MCKINLEY | 1.5 | - |
| 42M 122087 00 | STATEMENT OF CLAIM | THOMAS F SCHMITT; WAYNE P SCHMITT | 1.5 | - |
| 42M 107266 00 | STATEMENT OF CLAIM | MONTANA, STATE OF UNIVERSITY SYSTEM (MSU) | 1.5 | - |
| 42M 30113448 | STATEMENT OF CLAIM | LAVONNE M ROLAND | 1.5 | - |
| 42M 165220 00 | STATEMENT OF CLAIM | MADISON, THE FAMILY TRUST | 1.5 | - |
| 42M 169116 00 | STATEMENT OF CLAIM | CORNELIUS T DONVAN; LYNN A DONVAN | 1.6 | - |
| 42M 169117 00 | STATEMENT OF CLAIM | CORNELIUS T DONVAN; LYNN A DONVAN | 1.6 | - |
| 42M 30122934 | STATEMENT OF CLAIM | ANNETTE JOSLIN | 2 | - |
| 42M 30113435 | STATEMENT OF CLAIM | JESSE NICHOLSON | 2.07 | - |
| 42M 25508 00 | STATEMENT OF CLAIM | GARTNER DENOWH ANGUS RANCH | 2.2 | - |
| 42M 117164 00 | STATEMENT OF CLAIM | DAVID R SMITH; KATHIE L SMITH | 2.3 | 87 |

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| | | | | |
|---------------|--------------------|---|------|-----|
| 42M 163165 00 | STATEMENT OF CLAIM | JJS LAND LLC | 2.5 | - |
| 42M 7658 00 | STATEMENT OF CLAIM | NATALIE M ERIKSTRUP; TORBEN H ERIKSTRUP | 2.75 | - |
| 42M 101504 00 | STATEMENT OF CLAIM | HARVEY H ASBECK; HUGO J ASBECK | 2.8 | - |
| 42M 107296 00 | STATEMENT OF CLAIM | MONTANA, STATE OF UNIVERSITY SYSTEM (MSU) | 3 | - |
| 42M 163314 00 | STATEMENT OF CLAIM | RANDY MILLER | 3.5 | - |
| 42M 30133633 | STATEMENT OF CLAIM | JALAL D JABRO | 4 | - |
| 42M 30133667 | STATEMENT OF CLAIM | HENNING SKOV | 4 | - |
| 42M 30121932 | STATEMENT OF CLAIM | PETERSEN, J K INC | 4.5 | - |
| 42M 107297 00 | STATEMENT OF CLAIM | MONTANA, STATE OF UNIVERSITY SYSTEM (MSU) | 5 | - |
| 42M 30121931 | STATEMENT OF CLAIM | PETERSEN, J K INC | 9 | 33 |
| 42M 440 00 | STATEMENT OF CLAIM | FOUR SEASONS RV & TRAILER PARK, LLC | 37.5 | - |
| 42M 16352 00 | STATEMENT OF CLAIM | SIDNEY, CITY OF | 47 | - |
| 42M 16348 00 | STATEMENT OF CLAIM | SIDNEY, CITY OF | 76 | 110 |
| 42M 16347 00 | STATEMENT OF CLAIM | SIDNEY, CITY OF | 107 | 110 |
| 42M 163491 00 | STATEMENT OF CLAIM | SIDNEY COUNTRY CLUB | 219 | 120 |
| 42M 16349 00 | STATEMENT OF CLAIM | SIDNEY, CITY OF | 239 | - |
| 42M 16351 00 | STATEMENT OF CLAIM | SIDNEY, CITY OF | 390 | - |
| 42M 16350 00 | STATEMENT OF CLAIM | SIDNEY, CITY OF | 463 | - |

*Volume was quantified by averaging the volume of other groundwater certificates

**Volume determined by multiplying the number of animals units by 30 Gallons per day/animal unit.

28. 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.
- Statements of claim for stock use with no flow rate or volume were assigned a volume based on the Department standard of 30 Gallons per day per animal unit.

29. The legal demands within the ZOI total 4,097 AF per year. Compared to groundwater flux of 13,513 AF per year, 9,416 AF per year remain legally available to appropriate after all existing water rights have been satisfied. Table 2 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 2: Comparison of Physical Availability, Legal Availability and requested Volume | |
|--|--------|
| Physical Availability (AF/YR) | 13,513 |
| Existing Legal Demands (AF/YR) | 4,097 |
| Legal Availability = Physical Availability – Existing Legal Demands (AF/YR) | 9,416 |
| Requested Appropriation (AF/YR) | 387 |
| Legal Availability – Requested Appropriation (AF/YR) | 9,029 |

Surface Water

30. 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 Yellowstone River

(1.25 miles east of well) is hydraulically connected to the source aquifer. According to the Groundwater Permit Technical Analyses Report – Part A, depletion by pumping in the source aquifer primarily occurs through propagation of drawdown through the unconfined aquifer to the potentially affected reach of the Yellowstone River. The depleted reach starts near the southern border of the NW of Section 24, T23N, R59E, Richland County.

31. The proposed water marketing use is constant year-round and is considered 100% consumptive. Depletions would accrue to the Yellowstone as shown in Table 3.

| Table 3: Total Consumed Volume and Net Depletion to Surface Water for the Production Well | | | |
|--|-----------------------------------|---|--|
| Month | Total Consumed Volume (AF) | Yellowstone River Net Depletion (AF) | Yellowstone River Net Depletion (GPM) |
| January | 32.9 | 32.8 | 240.0 |
| February | 29.7 | 29.9 | 241.7 |
| March | 32.9 | 32.8 | 240 |
| April | 31.8 | 31.8 | 240.5 |
| May | 32.9 | 32.8 | 240.0 |
| June | 31.8 | 31.8 | 240.5 |
| July | 32.9 | 32.8 | 240.0 |
| August | 32.9 | 32.8 | 240.0 |
| September | 31.8 | 31.8 | 240.6 |
| October | 32.9 | 32.8 | 240.1 |
| November | 31.8 | 31.8 | 240.6 |
| December | 32.9 | 32.8 | 240.1 |
| Total | 387.0 | 387.0 | |

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

Yellowstone River Physical Availability

33. Per the DNRC Technical Analysis, the depleted reach of the Yellowstone River starts near the southern border of the NW of Section 24, Township 23N, Range 59E, Richland County. USGS Gage #06329500 is the nearest gage to the identified depletion on the Yellowstone River. The date range used includes the entire period of record for this gage.

34. Physical availability of Yellowstone River water at the location of the surface water depletion will be quantified monthly. Department practice for physical availability analyses where the gage used is upstream of the start of depletion is to subtract the monthly flow rates of existing water

rights between the gage and the start of surface water depletion from the median of the mean monthly flows at the gage. The DNRC used the method below to quantify physically available monthly flows and volumes at the start of depletion during the proposed period of diversion:

- The Department calculated median of the mean monthly flow rates in cubic feet per second (CFS) for the Yellowstone River using USGS Gage #06329500 records for each month of the proposed period of diversion (Table 4, column B). Those flows were converted to monthly volumes in AF (Table 4, 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 (Table 4, column D) and volumes (Table 4, column E) appropriated by existing users between the gage and the start of surface water depletion by the following procedure outlined in the Department permit manual:
 - i. Generating a list of existing water rights between the gage and the start of surface water depletion (Table 5).
 - ii. 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.
 - iii. 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.
 - iv. Evenly distributing each water right's volume by months within the period of diversion.

35. Since the gage used is upstream of the start of depletion, the Department subtracted the flow rates and volumes of the existing rights between USGS Gage #06329500 and the start of surface water depletion (Table 4, columns D and E) from the median of the mean monthly gage values (Table 4, columns B and C) to determine physical availability at the start of depletion (Table 4, columns F and G).

| Table 4: Physical Availability at the Top of Depletion on Yellowstone River | | | | | | |
|---|---|--------------------------------------|--|---|---|--|
| A | B | C | D | E | F | G |
| Month | Median of the Mean Monthly Flow at Gage | Median of the Mean Monthly Volume at | Existing Rights from Surface Water Depletion | Existing Rights from Surface Water Depletion to | Physically Available Water at POD (CFS) | Physically Available Water at POD (AF) |

| | 06329500 (CFS) | Gage 06329500 (AF) | to Gage 06329500 (CFS) | Gage 06329500 (AF) | | |
|-------|---------------------------|-------------------------------|-----------------------------------|-------------------------------|--------|-----------|
| Jan | 5,657 | 347,196 | 83 | 4,312 | 5,574 | 342,884 |
| Feb | 6,023 | 333,887 | 83 | 4,312 | 5,940 | 329,575 |
| March | 9,323 | 572,246 | 83 | 4,312 | 9,240 | 567,934 |
| April | 9,149 | 543,451 | 278 | 10,105 | 8,871 | 533,346 |
| May | 17,560 | 1,077,833 | 281 | 10,135 | 17,279 | 1,067,698 |
| June | 40,270 | 2,392,038 | 281 | 10,135 | 39,989 | 2,381,903 |
| July | 21,490 | 1,319,056 | 281 | 10,135 | 21,209 | 1,308,921 |
| Aug | 7,507 | 460,780 | 281 | 10,135 | 7,226 | 450,645 |
| Sep | 6,709 | 398,515 | 278 | 10,105 | 6,431 | 388,410 |
| Oct | 7,794 | 478,396 | 276 | 10,036 | 7,518 | 468,360 |
| Nov | 7,297 | 433,442 | 83 | 4,312 | 7,214 | 429,130 |
| Dec | 5,926 | 363,707 | 83 | 4,312 | 5,843 | 359,395 |

| Table 5: Existing Water Rights between the Gage and the Start of Surface Water Depletion | | | | |
|---|--|----------------------------|------------------------|--------------------------------|
| A | B | C | D | E |
| Water Right Number | Water Right Owner | Flow Rate (CFS) | Volume (AF) | Period of Diversion |
| 42M 104422 00 | PATRICIA S BELL; RAYMOND L BELL; RICHLAND COUNTY CONSERVATION DISTRICT | 4.7 | 913.0 | 04/01 to 10/15 |
| 42M 104509 00 | RICHLAND COUNTY CONSERVATION DISTRICT; T4 FAMILY LIMITED PARTNERSHIP | 2.1 | 412.0 | 04/01 to 10/01 |
| 42M 114728 00 | RICHLAND COUNTY CONSERVATION DISTRICT; MICHAEL STEFFAN | 1.7 | 271.0 | 04/01 to 11/01 |
| 42M 119268 00 ² | SIDNEY WATER USERS IRRIGATION DISTRICT | * | * | 04/01 to 10/31 |
| 42M 119269 00 | SIDNEY WATER USERS IRRIGATION DISTRICT | 133.2 | 37,845.0 | 04/01 to 10/31 |
| 42M 119271 00 ³ | SIDNEY WATER USERS IRRIGATION DISTRICT | * | * | 04/01 to 10/31 |
| 42M 119272 00 | SIDNEY WATER USERS IRRIGATION DISTRICT | 43.0 | 33.3 | 04/01 to 10/31 |
| 42M 137600 00 ¹ | MONTANA STATE BOARD OF LAND COMMISSIONERS | 0.1 | 0.5 | 01/01 to 12/31 |
| 42M 137617 00 ¹ | MONTANA STATE BOARD OF LAND COMMISSIONERS | 0.1 | 0.7 | 01/01 to 12/31 |
| 42M 165230 00 | MONTANA DAKOTA UTILITIES CO | 65.5 | 47,422.0 | 01/01 to 12/31 |
| 42M 30051296 | PATRICIA S BELL; RAYMOND L BELL; RICHLAND COUNTY CONSERVATION DISTRICT | 1.1 | 136.0 | 04/01 to 10/15 |
| 42M 31493 00 | HANSON IND FARMS LLC | 8.9 | 2,163.0 | 01/01 to 12/31 |
| 42M 3656 00 | BELL, RYAN & NICOLE FAMILY TRUST | 3.0 | 118.3 | 05/01 to 09/01 |

| | | | | |
|--------------|--|-----|---------|----------------|
| 42M 80579 00 | RICHLAND COUNTY CONSERVATION DISTRICT; T4 FAMILY LIMITED PARTNERSHIP | 8.7 | 870.0 | 04/01 to 11/01 |
| 42M 31493 00 | HANSON IND FARMS LLC | 8.9 | 2,163.0 | 01/01 to 12/31 |

¹ Livestock direct from source – flow rate and volume calculated per Department standards.

² Redundant to Statement of Claim 42M 119269 00

³ Redundant to Statement of Claim 42M 119272 00

Yellowstone River Legal Availability

36. For the scope of this application, the Department identified the area of potential impact as approximately three miles downstream from the start of surface water depletion on the Yellowstone River to the Montana/North Dakota state border. The Department will only assess water rights located in Montana. The surface water depletion begins in the NW of Section 24, Township 23 N, Range 59 E, Richland County, and the river crosses the Montana/North Dakota border in the E2, Section 8 and 17, T23N, R60E. A total of five surface water rights exist within this reach. These downstream legal demands are summarized in Table 6.

| Table 6: Water Rights Downstream of Depletion from the Yellowstone River in the AOPI | | | | |
|--|--|-----------------|--------------|---------------------|
| A | B | C | D | E |
| Water Right Number | Water Right Owner | Flow Rate (CFS) | Volume (AF) | Period of Diversion |
| 42M 30017772 ² | MONTANA, STATE OF DEPT OF ENVIRONMENTAL QUALITY; MONTANA, STATE OF DEPT OF FISH WILDLIFE & PARKS | 25,140.00 | 5,492,310.00 | 01/01 to 12/31 |
| 42M 6815 00 | RIDGELAWN COUNTY WATER & SEWER DIST | 12.00 | 2,200.0 | 05/01 to 09/15 |
| 42M 137605 00 ¹ | MONTANA STATE BOARD OF LAND COMMISSIONERS | 0.08 | 0.2 | 01/01 to 12/31 |
| 42M 137597 00 ¹ | LORI NORBY | 0.08 | 6.9 | 01/01 to 12/31 |
| 42M 137604 00 ¹ | MONTANA STATE BOARD OF LAND COMMISSIONERS | 0.08 | 0.7 | 01/01 to 12/31 |

¹ Livestock Direct from Source - Flow Rate assigned using the standard of 30 GPD/AU plus 35 GPM. Volume assigned using the standard of 0.034 AF/Year/AU.

² Was originally excluded from the Surface Water Permit Technical Analyses Report, dated January 2, 2025. A Surface Water Permit Technical Analyses Report – Notice of Errata was issued on October 28, 2025, to include this water reservation as a legal demand.

37. The comparison between physically and legally available water in the Yellowstone River is shown in Table 7 below, indicating that water is legally available for the proposed appropriation.

| Table 7: Legal Availability Analysis of Yellowstone River from Area of Depletion to MT Border | | | | | | |
|---|----------------------------------|---------------------------------|--|---|-------------------------------|------------------------------|
| 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 | 5,574 | 342,884 | 3,738 | 229,439 | 1,836 | 113,445 |
| February | 5,940 | 329,575 | 4,327 | 239,890 | 1,613 | 89,685 |
| March | 9,240 | 567,934 | 6,778 | 416,034 | 2,462 | 151,900 |
| April | 8,871 | 533,346 | 6,808 | 404,396 | 2,063 | 128,950 |
| May | 17,279 | 1,067,698 | 11,976 | 734,791 | 5,303 | 332,907 |
| June | 39,989 | 2,381,903 | 25,152 | 1,493,757 | 14,837 | 888,146 |
| July | 21,209 | 1,308,921 | 10,538 | 646,527 | 10,671 | 662,394 |
| August | 7,226 | 450,645 | 2,682 | 164,325 | 4,544 | 286,320 |
| September | 6,431 | 388,410 | 3,288 | 195,035 | 3,143 | 193,375 |
| October | 7,518 | 468,360 | 6,008 | 368,772 | 1,510 | 99,588 |
| November | 7,214 | 429,130 | 5,848 | 347,372 | 1,366 | 81,758 |
| December | 5,843 | 359,395 | 3,998 | 245,398 | 1,845 | 113,997 |

38. Refer to Table 3 for the modeled monthly net depletions to the Yellowstone River. Table 8 below demonstrates remaining availability on the Yellowstone River after the predicted monthly depletions:

| Table 8: Yellowstone River Availability after Depletion from Production Well | | | | | | |
|--|-------------------------------|------------------------------|---------------------------------------|--------------------------------------|---|--|
| A | B | C | D | E | F | G |
| Month | Legally Available Water (CFS) | Legally Available Water (AF) | Yellowstone River Net Depletion (CFS) | Yellowstone River Net Depletion (AF) | Legally Available Water After Depletion (CFS) | Legally Available Water After Depletion (AF) |
| January | 1,836 | 113,445 | 0.5 | 32.8 | 1,835 | 113,412 |
| February | 1,613 | 89,685 | 0.5 | 29.9 | 1,612 | 89,656 |
| March | 2,462 | 151,900 | 0.5 | 32.8 | 2,461 | 151,867 |
| April | 2,063 | 128,950 | 0.5 | 31.8 | 2,062 | 128,918 |
| May | 5,303 | 332,907 | 0.5 | 32.8 | 5,302 | 332,874 |
| June | 14,837 | 888,146 | 0.5 | 31.8 | 14,836 | 888,115 |
| July | 10,671 | 662,394 | 0.5 | 32.8 | 10,670 | 662,362 |
| August | 4,544 | 286,320 | 0.5 | 32.8 | 4,543 | 286,287 |
| September | 3,143 | 193,375 | 0.5 | 31.8 | 3,142 | 193,343 |
| October | 1,510 | 99,588 | 0.5 | 32.8 | 1,509 | 99,556 |
| November | 1,366 | 81,758 | 0.5 | 31.8 | 1,365 | 81,726 |

| | | | | | | |
|----------|-------|---------|-----|------|-------|---------|
| December | 1,845 | 113,997 | 0.5 | 32.8 | 1,844 | 113,964 |
|----------|-------|---------|-----|------|-------|---------|

ISSUES RAISED BY PUBLIC COMMENTS AND DEPARTMENT'S RESPONSES

39. The public submitted one comment regarding legal availability, and this comment raised one issue.
40. Issue 1: The commenter states that legal availability cannot be accurately identified because physical availability cannot be modeled. (Commenter: Partin)
41. Response 1: No information was provided by the commenter to demonstrate how the legal availability criterion was inadequately addressed. Without information to show how the criterion was not met, the Department will not modify the criterion analysis. Physical availability has been addressed in FOF 14-25.
42. 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

43. Water is physically and legally available in all months with net depletions for both groundwater and hydraulically connected surface waters. If a call is made, the Applicant will make the necessary adjustments, including cessation of diversion, to ensure that senior water rights are satisfied.
44. In order to ensure that the requested flow rate and volume are not exceeded during years of high oil field activity, the Applicant will be required to submit measurement report each year, and the application is subject to the following conditions:
1. 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 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 UNIT OFFICE. THE APPROPRIATOR SHALL

MAINTAIN THE MEASURING DEVICE SO IT ALWAYS OPERATES PROPERLY AND MEASURES FLOW RATE AND VOLUME ACCURATELY.

2. WATER APPROPRIATED UNDER THIS PERMIT SHALL NOT BE TRANSPORTED OUTSIDE THE STATE OF MONTANA. CUSTOMERS SHALL BE INFORMED OF THIS CONDITION BY THE LANGUAGE INCLUDED IN THE CONTRACT AND SIGNS POSTED AT THE DEPOT.

3. ACCESS AT THE DEPOT SHALL BE CONTROLLED ENSURING ONLY THOSE USERS WITH CONTRACTS ARE ABLE TO ACQUIRE WATER.

45. The Department-completed Technical Analysis modeled the extent of drawdown in existing wells. The drawdown is the largest at the end of the fifth year using the proposed pumping schedule. The 1-foot drawdown contour occurs approximately 7,600 FT to 4,300 FT north and south and 9,900 FT to 3,400 FT west and east of the proposed well at the end of the fifth year (see Figure 2).

46. Eighty-two water rights are predicted to experience drawdown equal to or greater than one foot. A comparison between the modeled drawdown and the existing static water level is shown in Table 9, indicating that the rights with known well depths have available drawdown.

| Table 9: Water Rights Completed in the Source Aquifer that will Experience Drawdown Greater than 1.0 FT | | | | |
|--|-----------------------|------------------------|------------------------------|---|
| Water Right No. | Depth (FT BGS) | Static (FT BGS) | Modeled Drawdown (FT) | Remaining Available Water Column |
| 42M 30122210 | 220 | 75 | 1.40 | 143.60 |
| 42M 30102997 | 140 | 18 | 1.55 | 120.45 |
| 42M 4985 00 | 83 | 8 | 1.33 | 73.67 |
| 42M 30108750 | 75 | 8 | 2.16 | 64.84 |
| 42M 30066155 | 72 | 6 | 2.16 | 63.84 |
| 42M 30063264 | 70 | 12 | 2.12 | 55.88 |
| 42M 30108105 | 70 | 6 | 1.52 | 62.48 |
| 42M 114657 00 | 70 | 9 | 1.66 | 59.34 |
| 42M 30062767 | 70 | 0 | 2.16 | 67.84 |
| 42M 17200 00 | 69 | 13 | 1.77 | 54.23 |
| 42M 91920 00 | 65 | 10 | 1.83 | 53.17 |
| 42M 50291 00 | 60 | 7 | 2.29 | 50.71 |
| 42M 30021926 | 60 | 10 | 1.43 | 48.57 |
| 42M 69306 00 | 60 | 8 | 1.63 | 50.37 |
| 42M 30069029 | 55 | 13.9 | 1.58 | 39.52 |
| 42M 30051702 | 55 | 15 | 2.22 | 37.78 |
| 42M 430 00 | 55 | 8 | 1.55 | 45.45 |

| | | | | |
|---------------|----|------|------|-------|
| 42M 30051703 | 55 | 12 | 3.26 | 39.74 |
| 42M 30015418 | 54 | 10 | 1.65 | 42.35 |
| 42M 30120344 | 52 | 16.5 | 2.79 | 32.71 |
| 42M 30068013 | 50 | 10 | 1.46 | 38.54 |
| 42M 30472 00 | 49 | 18 | 1.58 | 29.42 |
| 42M 28898 00 | 47 | 7 | 1.78 | 38.22 |
| 42M 106989 00 | 45 | 10 | 1.58 | 33.42 |
| 42M 99102 00 | 45 | 9 | 1.53 | 34.47 |
| 42M 1330 00 | 44 | 5 | 1.70 | 37.30 |
| 42M 114665 00 | 44 | 12 | 1.77 | 30.23 |
| 42M 30154368 | 43 | 11 | 2.08 | 29.92 |
| 42M 30045645 | 43 | 12 | 1.33 | 29.67 |
| 42M 59634 00 | 42 | 8 | 1.80 | 32.20 |
| 42M 101075 00 | 42 | 9 | 1.71 | 31.29 |
| 42M 30029296 | 40 | 12 | 1.82 | 26.18 |
| 42M 103695 00 | 40 | 12 | 1.48 | 26.52 |
| 42M 104418 00 | 40 | 13 | 1.33 | 25.67 |
| 42M 30063213 | 40 | 20 | 1.58 | 18.42 |
| 42M 89108 00 | 40 | 7 | 1.47 | 31.53 |
| 42M 61797 00 | 38 | 7 | 1.64 | 29.36 |
| 42M 111368 00 | 38 | 10 | 1.52 | 26.48 |
| 42M 55513 00 | 37 | 8 | 1.47 | 27.53 |
| 42M 30011465 | 35 | 9 | 2.21 | 23.79 |
| 42M 30042592 | 35 | 12 | 1.80 | 21.20 |
| 42M 101120 00 | 35 | 6 | 1.81 | 27.19 |
| 42M 114571 00 | 34 | 13 | 1.36 | 19.64 |
| 42M 30121931 | 33 | 12 | 1.83 | 19.17 |
| 42M 30029654 | 32 | 9 | 1.67 | 21.33 |
| 42M 74 00 | 32 | 9 | 1.40 | 21.60 |
| 42M 101084 00 | 32 | 8 | 1.47 | 22.53 |
| 42M 61812 00 | 31 | 8 | 2.29 | 20.71 |
| 42M 30011240 | 30 | 10 | 2.21 | 17.79 |
| 42M 30128010 | 30 | 17 | 1.58 | 11.42 |
| 42M 61813 00 | 30 | 20 | 2.29 | 7.71 |
| 42M 64086 00 | 30 | 8 | 1.19 | 20.81 |
| 42M 4296 00 | 29 | 11 | 1.88 | 16.12 |
| 42M 101081 00 | 28 | 8 | 1.43 | 18.57 |
| 42M 30024600 | 28 | 12 | 1.31 | 14.69 |
| 42M 51808 00 | 27 | 9 | 1.43 | 16.57 |
| 42M 30148640 | 27 | 17 | 2.27 | 7.73 |
| 42M 93492 00 | 27 | 8 | 1.85 | 17.15 |

| | | | | |
|---------------|----|----|------|-------|
| 42M 106995 00 | 25 | 9 | 2.29 | 13.71 |
| 42M 101503 00 | NA | NA | 1.83 | NA |
| 42M 30133667 | NA | NA | 1.58 | NA |
| 42M 163165 00 | NA | NA | 2.21 | NA |
| 42M 17976 00 | NA | NA | 1.43 | NA |
| 42M 2145 00 | NA | NA | 1.83 | NA |
| 42M 51943 00 | NA | NA | 1.46 | NA |
| 42M 42848 00 | NA | NA | 1.46 | NA |
| 42M 163164 00 | NA | NA | 2.21 | NA |
| 42M 122086 00 | NA | NA | 1.70 | NA |
| 42M 44863 00 | NA | NA | 1.32 | NA |
| 42M 104487 00 | NA | NA | 2.64 | NA |
| 42M 2143 00 | NA | NA | 1.83 | NA |
| 42M 25508 00 | NA | NA | 2.12 | NA |
| 42M 51914 00 | NA | NA | 2.84 | NA |
| 42M 11732 00 | NA | NA | 1.59 | NA |
| 42M 30021598 | NA | NA | 1.57 | NA |
| 42M 30133633 | NA | NA | 1.65 | NA |
| 42M 30121668 | NA | NA | 1.69 | NA |
| 42M 101504 00 | NA | NA | 1.83 | NA |
| 42M 22604 00 | NA | NA | 1.78 | NA |
| 42M 122087 00 | NA | NA | 1.70 | NA |
| 42M 30121932 | NA | NA | 1.83 | NA |
| 42M 45415 00 | NA | NA | 1.39 | NA |

*NA values were not evaluated due to lack of well data

ISSUES RAISED BY PUBLIC COMMENTS AND DEPARTMENT'S RESPONSES

47. The public submitted three comments regarding adverse effect, and these comments raised five issues.

48. Issue 1: The commenters state that a nearby monitoring well placed by Montana Bureau of Mines and Geology (MBMG) has documented fluctuations in water levels since 1987. They state water levels can vary by multiple feet due to variation in precipitation or drought. (Commenters: Lassey, Senior, Council)

49. Response 1: Forward modeling to assess adequacy of diversion and adverse effect were completed using DNRC standard practices, aquifer properties that represent average hydrogeologic conditions, and aquifer boundaries. The thickness of the mapped aquifer is approximately 150 ft (Patton et al., 1998). According to MBMG monitoring well GWIC ID 136651, nearby water levels on average fluctuate 2-4 ft per year and can be 5-15 ft below ground surface

(bgs). Forward modeling used a static water level of 13.2 ft bgs (taken from the 72-hr aquifer test), which is slightly below the average static water level for GWIC ID 136651 for the 35-period of record (10.1 ft bgs). The static water level used for forward modeling reflects normal to low water year conditions.

50. Issue 2: The commenters are concerned that the drawdown associated with this project is unsustainable based on recharge rates for this region and the modeled drops in the water table would likely cause the existing well to run dry. (Commenters: Lassey, Senior, Council)

51. Response 2: The Department determined that water is physically available for the proposed appropriation and that the proposed use would not cause adverse effect to existing wells using DNRC standard practices. The Department used aquifer properties to represent average conditions and considered local constant head and no-flow boundaries in forward modeling scenarios. Flux is the amount of groundwater that passes through a certain area of the aquifer per year, while recharge is a specific type of flux (precipitation, surface water, etc.) where water is entering the aquifer from above. DNRC modeling quantifies flux (groundwater physical availability) but does not identify the portion of flux that originates from storage, induced infiltration, prestream capture, and precipitation. DNRC does consider groundwater connected to surface water and models depletions to hydraulically connected sources (Yellowstone River). A constant head boundary (Yellowstone River) was used in forward modeling, because the river is directly connected to the aquifer, and would be a significant source of recharge.

52. Issue 3: The commenters point out the lack of information regarding additional effects of drawdown based on the two coinciding applications (42M 30163750 and 42M 30163788) and suggested that continuous water-level monitoring throughout the affected area should be required. (Commenters: Lassey, Senior, Council)

53. Response 3: Per ARM 36.12.1706, “for groundwater applications, the department will evaluate how water levels in wells of prior water rights could be lowered and the rate, timing, and location where water flow could be reduced by any amount from hydraulically connected surface waters.” The Department considers prior water rights in its analyses. Pending applications without a final agency decision granting a permit or change in appropriation right are not considered.

54. Issue 4: Commenters state that the modeled drops in water would likely cause their existing well to run dry, and they already had the pump lowered in 2024 by a well installation company (Commenters: Senior, Council)

55. Response 4: In the adverse effect criterion analysis, the Department evaluated how water levels in wells of prior water rights could be lowered by the proposed appropriation (using data available to the Department). Drawdown for the water right held by the commenters (42M 101081 00) was modeled to be 1.43 FT leaving a remaining water column of 18.57 FT. Well data in the file for 42M 101081 00 showed a well depth of 28 FT BGS and a static water level of 8 FT BGS. Section 85-2-401(1), MCA, states that: "Priority of appropriation does not include the right to prevent changes by later appropriators in the condition of water occurrence such as the lowering of a water table or artesian pressure if the prior appropriator can reasonably exercise their right." Based on this model, the proposed appropriation will not cause the commenter to be unable to reasonably exercise their water right.

56. Issue 5: The commenters raise issues regarding increased traffic and taxation. (Commenters: Lassey, Senior, Council, Partin)

57. Response 5: The adverse effect criterion in § 85-2-311, MCA, refers to the Department's consideration of the Applicant's plan to control the use of water to satisfy the rights of senior appropriators. The potential traffic and taxation caused by the proposed appropriation is outside of the scope of the § 85-2-311, MCA, criteria assessment for new appropriations.

58. The public comments regarding the adverse effect criterion have been considered and addressed in FOF 47-57. The public comments did not demonstrate that the criterion was inadequately addressed in the draft preliminary determination. The Department finds, by a preponderance of evidence, 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

59. Water will be diverted via a well, located in SESENE, Section 22, Township 23N, Range 59E, Richland County. The well was drilled to 100 FT, perforated 50 – 90 FT below ground surface, and has a casing diameter of 8 inches. The proposed well was completed on April 29, 2024, and is assigned GWIC ID 333630 by the Montana Bureau of Mines and Geology Groundwater Information Center

60. The well contains a 10 HP Franklin Electric SSI series submersible turbine pump model 260SSI10F66-0364. The Applicant provided pump curves, which shows the requested flow rate of 240 GPM is within the preferred operating region.

61. From the well, water will flow via schedule 40 black iron pipes through the 3-4" check valve meter (McCrometer 4" Propeller Flow Meter Flanged) and 4" valves to four-400 barrel upright storage tanks. Water is then routed to a valve on the exterior of the building to be loaded via truck and dispersed to various locations within the service area. Winterization measures include a heated building for storage tanks, and insulation/heat tape for external piping. The facility is fully fenced, gated, and surveilled via video.

62. In the Department-completed Technical Analyses, dated January 2, 2025, the Department modeled the potentially available water column remaining in the production well with FWD:SOLV (HydroSOLVE INC., 2024) using the following:

- Theis (1935) unconfined solution
- Monthly pumping schedule identified in Table 10 for the period of diversion.
- Constant head boundary 6,172 FT east of the well to represent the Yellowstone River
- An image well 12,344 FT west of the well with a pump schedule outlined in Table 10, to mimic a no flow boundary that represents the Tongue River Member of the Fort Union Formation.
- Well radius of 0.208 FT and screened interval of 40 FT
- Transmissivity = 8,000 FT²/DAY
- Specific Yield = 0.1 (Lohman, 1972)

63. The Applicant proposes to divert 387.0 AF at a constant rate year-round for water marketing, which was apportioned monthly based on the number of days per month (Table 10).

| Table 10: Assumed Monthly Pumping Schedule | | |
|--|---------------------------------|--------------------------------|
| Month | Year-Round Diverted Volume (AF) | Total Diverted Flow Rate (GPM) |
| January | 32.9 | 240.0 |
| February | 29.7 | 240.0 |
| March | 32.9 | 240.0 |
| April | 31.8 | 240.0 |
| May | 32.9 | 240.0 |
| June | 31.8 | 240.0 |
| July | 32.9 | 240.0 |
| August | 32.9 | 240.0 |
| September | 31.8 | 240.0 |
| October | 32.9 | 240.0 |
| November | 31.8 | 240.0 |
| December | 32.9 | 240.0 |

| | | |
|-------|-------|--|
| Total | 387.0 | |
|-------|-------|--|

64. As identified in Table 11, total drawdown is the sum of interference drawdown and predicted drawdown with well loss. Only one well is proposed, as such no interference drawdown was calculated. Well loss is calculated by dividing the predicted theoretical maximum drawdown by a well efficiency value. Well efficiency is calculated by dividing the modeled maximum drawdown for the aquifer test by the maximum observed drawdown of the aquifer test. The aquifer adjacent to the proposed well would experience a predicted total drawdown of 25.5 FT at the end of the first year. The remaining available water column for the proposed well is 54.2 FT and is equal to the available drawdown above the bottom of the perforated interval minus total drawdown.

| Table 11: Remaining Available Water Column for the Production Well | |
|---|-------------------------|
| Drawdown Estimate | Proposed Well |
| Total Depth at Bottom of Perforated Interval (FT BTC) ¹ | 92.0 |
| Pre-Test Static Water Level (FT BTC) | 12.3 |
| Available Drawdown Above Bottom of Well (FT) | 79.7 ² |
| Observed Drawdown of Aquifer Test (FT) | 20.0 |
| Modeled Drawdown Using Mean Aquifer Test Rate (FT) | 7.6 |
| Well Efficiency (%) | 38.1 |
| Predicted Theoretical Maximum Drawdown (FT) | 9.7 |
| Predicted Drawdown with Well Loss (FT) | 25.5 |
| Interference Drawdown (FT) | 0.0 |
| Total Drawdown (FT) | 25.5 |
| Remaining Available Water Column (FT) | 54.2² |

¹The total well depth measuring point (bgs) was adjusted to the top of well casing based on a 2 FT well casing stickup reported on the well log. This was done to reflect the same datum as measured static water levels.

² Was corrected from the Surface Water Permit Technical Analyses Report, dated January 2, 2025. A Surface Water Permit Technical Analyses Report – Notice of Errata was issued on October 28, 2025, with the correct values.

65. The Department finds that the proposed means of diversion and conveyance are capable of diverting the proposed appropriation.

BENEFICIAL USE

FINDINGS OF FACT

66. The Applicant proposes to divert 387 AF of water at a rate of 240 GPM for the beneficial use of water marketing for oil field development. The general service area is Richland and Roosevelt County as depicted in the maps accompanying the commercial water purchase agreement.

67. The Department does not have a standard water use calculation for water marketing. The requested 387 AF per year was determined by assuming a continuous flow rate of 240 GPM throughout the period of diversion. The proposed flow rate of 240 GPM was based on the limitations of the system. The Applicant currently trucks water purchased from a third party for oil field activities, and propose to replace a portion with water from this proposed appropriation. They will continue to provide water for demands over 387 AF from a third party.

68. The Applicant provided a Commercial Water Purchase Agreement between William Van Hook Jr. and Kraken Resources LLC, for up to 387 AF per year used in Roosevelt and Richland County. This agreement includes a service area map, describes the nature of the relationship between the Applicant and each entity, and demonstrates sufficient terms to the bona fide intent to use the water under § 85-2-310(9)(c)(v), MCA.

ISSUES RAISED BY PUBLIC COMMENTS AND DEPARTMENT'S RESPONSES

69. The public submitted three comments regarding beneficial use, and these comments raised two issues.

70. Issue 1: The commenters state the approval of this application benefits very few and would damage the many who have relied upon their wells for fresh water. (Lassey, Senior, Council)

71. Response 1: MCA 85-2-102(5)(a) defines beneficial use as “a use of water for the benefit of the appropriator, other persons, or the public, including but not limited to agricultural, stock water, domestic, fish and wildlife, industrial, irrigation, mining, municipal, power, and recreational uses”. The Department evaluated the beneficial use criterion on the benefit to the appropriator. The proposed use is water marketing, which statute recognizes as a beneficial use of water (MCA 85-2-310(8)(c)(v)). The Department finds that the Applicant met the beneficial use criterion by a preponderance of the evidence.

72. Issue 2: The commenters state there is an existing water depot in the same section, and there are four industrial wells already established, and they question the number of industrial wells being permitted. The commenters state that commercial operations inflict long-term environmental damage to the land, air and water of the region, and may be threatening to the supply of water, quality of life, and property values. (Senior, Council)

73. Response 2: A beneficial use in the § 85-2-311, MCA, permit criteria is specific to the proposed appropriation. Water marketing is a beneficial use (§ 85-2-310(8)(c)(v), MCA). The potential environmental impact caused by the proposed appropriation is outside of the scope of the permit criteria assessment.

74. The public comments regarding the beneficial use criterion have been considered and addressed in FOF 69-73. The public comments did not demonstrate that the criteria were inadequately addressed in the draft preliminary determination. The Department finds that the proposed use is beneficial, and that the requested flow rate of 240 GPM and annual volume of 387 AF is the amount needed to meet the beneficial use.

POSSESSORY INTEREST

FINDINGS OF FACT

75. 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. A Commercial Water Purchase Agreement with Kraken Resources, LLC dated October 11, 2024, was supplied by the Applicant. The general service area is depicted in the commercial water purchase agreement, which shows all of Richland and Roosevelt County.

76. The Department finds the Applicant has satisfied the possessory interest criterion for the property where the water is to be put to beneficial use.

CONCLUSIONS OF LAW

PHYSICAL AVAILABILITY

77. 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.”

78. 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).

79. 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).

80. 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 14-25)

LEGAL AVAILABILITY

81. 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).

82. 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.

83. 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).

84. 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.

85. 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*.

86. 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 26-42.)

ADVERSE EFFECT

87. 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.

88. 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).

89. 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).

90. 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).

91. 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.

92. 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).

93. Artesian pressure is not protectable and a reduction by a junior appropriator is not considered adverse effect as long as an appropriator can reasonably 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.

94. 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 43-58)

ADEQUATE DIVERSION

95. 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.

96. 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.

97. 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).

98. 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).

99. 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).

100. 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 59-65).

BENEFICIAL USE

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

102. 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 on 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).

103. 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).

104. Applicant seeks a change authorization to market water to others for beneficial use, which is a recognized beneficial use. Section 85-2-102(5), and -310(9)(c)(v), MCA; Mont. Const. Art. IX, § 3(2) (1972). The Montana Legislature enacted additional requirements upon Applicants seeking permits to market water to others for use, codified at § 85-2-310(9)(c)(v), MCA, which provides:

(v) except as provided in subsection (10), if the water applied for is to be appropriated above that which will be used solely by the Applicant or if it will be marketed by the Applicant to other users, information detailing:

(A) each person who will use the water and the amount of water each person will use;

(B) the proposed place of use of all water by each person;

(C) the nature of the relationship between the Applicant and each person using the water; and

(D) each firm contractual agreement for the specified amount of water for each person using the water;

Failure to satisfy these criteria mandates that “the department shall find that an application is not in good faith or does not show a bona fide intent to appropriate water for a beneficial use. . . .” Section 85-2-310(9), MCA. Thus, a proposed water marketing use is not a beneficial use for purposes of §§ 85-2-102(5), and -311(1)(d) MCA, unless it satisfies § 85-2-310(9)(c), MCA.

105. The legislative purpose of § 85-2-310(9)(v), MCA, was to prohibit the appropriations of water based upon a speculative intent. Chapter 399, Laws of Montana 1985. To that end § 85-2-310(9), MCA, includes express criteria for the DNRC to consider when evaluating an application for a permit or change authorization to market water to others for use. See DNRC Written Testimony, HB No. 396 (Mar. 25, 1985). These criteria ensure that other water users are committed to the beneficial use of the full quantity of water requested by the Applicant. The terms of a “firm contractual agreement” must include sufficient certainty to ensure that a specific volume of water will actually be put to beneficial use by the contracting party in order to comply with the anti-speculation doctrine and satisfy the requirement of bona fide intent to put the water to beneficial use. See Colo. River Water Conservation Dist. v. Vidler Tunnel Water Co., 594 P.2d 566 (Colo. 1979) (Applicant failed to prove intent to appropriate water for beneficial use where it did not have firm contractual commitments or other evidence of privity between the Applicant and the actual beneficial user of the water).

106. 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.

107. Applicant proposes to use water for water marketing use which is a recognized beneficial use. Section 85-2-102(5), MCA. Applicant has proven by a preponderance of the evidence water marketing use is a beneficial use and that 387 AF of diverted volume and 240 GPM is the amount needed to sustain the beneficial use. Section 85-2-311(1)(d), MCA. (FOF 66-74)

POSSESSORY INTEREST

108. 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.

109. 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.

110. 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 75-76)

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. 42M 30163750 should be GRANTED.

The Department determines the Applicant may divert groundwater, by means of a well which was drilled to 100 FT and is perforated 50 – 90 FT BGS, from January 1 to December 31 at 240 GPM up to 387 AF per year, from a point in the SESENE, Section 22, Township 23N, Range 59E, Richland County, for Water Marketing use from January 1 to December 31. The place of use is the point of sale located in SESENE, Section 22, Township 23N, Range 59E, Richland County.

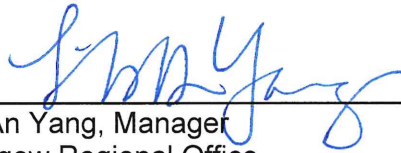
The application will be subject to the following conditions, limitations, or restrictions:

1. 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 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 UNIT OFFICE. THE APPROPRIATOR SHALL MAINTAIN THE MEASURING DEVICE SO IT ALWAYS OPERATES PROPERLY AND MEASURES FLOW RATE AND VOLUME ACCURATELY.
2. WATER APPROPRIATED UNDER THIS PERMIT SHALL NOT BE TRANSPORTED OUTSIDE THE STATE OF MONTANA. CUSTOMERS SHALL BE INFORMED OF THIS CONDITION BY THE LANGUAGE INCLUDED IN THE CONTRACT AND SIGNS POSTED AT THE DEPOT.
3. ACCESS AT THE DEPOT SHALL BE CONTROLLED ENSURING ONLY THOSE USERS WITH CONTRACTS ARE ABLE TO ACQUIRE WATER.

NOTICE

The Department will provide public notice of this application and the Department's Preliminary Determination to Grant pursuant to § 85-2-307, MCA. The Department will set a deadline for objections to this application pursuant to §§ 85-2-307, and -308, MCA. If this application receives a valid objection, it will proceed to a contested case proceeding pursuant to Title 2 Chapter 4 Part 6, MCA, and § 85-2-309, MCA. If this application receives no valid objection or all valid objections are unconditionally withdrawn, the Department will grant this application as herein approved. If this application receives a valid objection(s) and the valid objection(s) are conditionally withdrawn, the Department will consider the proposed condition(s) and grant the application with such conditions as the Department decides necessary to satisfy the applicable criteria. Sections 85-2-310, -312, MCA.

DATED this 27th day of January, 2026



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 PRELIMINARY DETERMINATION TO GRANT was served upon all parties listed below on this 27th day of January, 2026, by first class United States mail.

VH Pipe, LLC
12670 COUNTY RD 352
SIDNEY, MT 59270

A handwritten signature in blue ink, consisting of a stylized 'R' followed by a horizontal line.

GLASGOW Regional Office, (406) 228-2561