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November 14, 2025

Oliver J Urick
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Stanford, MT 59479-0556

Subject: Draft Preliminary Determination to Grant Beneficial Water Use Permit Application No. 40C 30163283

Dear Applicant,

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

You have the opportunity to request an extension of time to submit additional information for the Department to consider in the decision, within 15 business days of the date of this letter. If no written request for an extension is received by December 8, 2025, the Department will prepare a notice of opportunity to provide public comment per §85-2-307(4), MCA.

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

If you have further questions regarding the Application, please reach out to me at (406) 808-7076.

Best,

Lih-An Yang
Regional Manager
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. 40C 30163283 BY KELLY WITT, MARNIE WITT, TROY A WITT, WALKING J RANCH LLC, CRISTINA JOHNSON, MICHELLE CLEARWATER, USA DEPARTMENT OF INTERIOR BUREAU OF LAND MANAGEMENT	)))	**DRAFT PRELIMINARY DETERMINATION TO GRANT PERMIT**

* * * * * * *

On April 21, 2025, Kelly Witt, Marnie Witt, Troy A Witt, Walking J Ranch LLC, Cristina Johnson, Michelle Clearwater and USA Department of Interior Bureau of Land Management (Applicants) submitted Application for Beneficial Water Use Permit No. 40C 30163283 to the Glasgow Regional Office of the Department of Natural Resources and Conservation (Department or DNRC) for 39 GPM and 26.5 AF for livestock use. 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 May 5, 2025. The Applicant responded with information dated August 26, 2025. A preapplication meeting was held between the Department and the Applicants on March 13, 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 September 13, 2024. The Department delivered the completed technical analysis on October 24, 2024. The application was determined to be correct and complete as of September 23, 2025. An Environmental Assessment for this application was completed on Nove 13, 2025.

INFORMATION

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

Application as filed:

- Application for Beneficial Water Use Permit, Form 600
- Addenda
    - Aquifer Testing Addendum, Form 600-ATA
- Attachments:

- Form 653 Variance Request dated April 23, 2024, with supporting information provided by Mike Meredith, hydrogeologist of HydroSolutions dated April 23, 2024, and additional pump test data provided by the Applicants on July 23, 2024.
- Variance request approval letter from Lih-An Yang to the Applicants, dated August 29, 2024
- Attachment A: List of POU geocodes and legal land descriptions
- Consultation review letter for Project No. 3647 by Montana Sage Grouse Habitat Conservation Program, dated July 24, 2019

- Maps: Undated aerial imagery showing the proposed points of diversion (POD), places of use, cisterns, and pipeline routes.
- Department- completed Groundwater Permit Technical Analyses Reports--Part A and Part B, dated October 24, 2024.

Information Received after Application Filed

- Deficiency Response, dated August 26, 2025
- Email dated September 18, 2025 between Lih-An Yang, Glasgow Regional Manager and Oliver J. Urick, attorney representing the Applicants, clarifying diversion and conveyance system information in the deficiency response.
- Application Affidavit and Certification page signed byTroy A. Witt on August 25, 2025, which added Troy A. Witt to the water right applicants.
- Notice of Erratum to Groundwater Permit Technical Analyses Report-- Part A, Water Sciences Bureau, received by Glasgow Regional Office on November 6, 2025.

Information within the Department's Possession/Knowledge

- DNRC Water Calculation Guide
- DNRC Water Rights Database
- 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.
    - Flow Records for USGS Gage #06130500 Musselshell River at Mosby, MT
    - Technical Memorandum: Physical Availability of Surface Water with Gage Data, dated November 1, 2019

- Technical Memorandum: Net Surface Water Depletion from Ground Water Pumping, 2018

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 Applicants propose to divert groundwater, by means of four wells in a manifold system, from January 1 to December 31 at 39 GPM up to 26.5 AF, from Sections 21, 23, 25 and 35, T18N, R32E, Garfield County, for livestock use for 800 animal units (AU) from January 1 to December 31. Table 1 summarizes the proposed use of the four wells:

Table 1: Proposed use of the four-well manifold system

	LLD (All in T18N, R32E)	Flow Rate (GPM)	Volume (AF)	Period of Diversion and Use	Depth (FT)	GWIC* ID	Existing Water Right
POD #1	SENESE Sec. 35	10	3.8	1/1 - 12/31	300	290948	
POD #2	SWSWSW Sec. 25	10	3.8	1/1 - 12/31	390	145589	40C 91842 00
POD #3	SESWNE Sec. 23	9	6.8	1/1 - 12/31	433	248226	40C 30048243
POD #4	NWNWNE Sec. 21	10	6.1	1/1 - 12/31	435	294281	

* Montana Bureau of Mines and Geology (MBMG) Groundwater Water Information Center (GWIC)

2. The proposed well manifold system is approximately 16 miles west of the Musselshell River. The stock tanks are spread out over five landownership entities. All landowners have signed the application affirming their possessory interest.

3. POD #2 is currently appropriated with Groundwater Certificate 40C 91842 00 for 15 GPM and 6.8 AF for year-round livestock use. Water right owners, Kelly and Marnie Witt, have agreed to withdraw the right upon permit issuance.

4. POD #3 is currently appropriated with Groundwater Certificate 40C 30048243 for 10 GPM and 6.8 AF for year-round livestock use. Water right owners, Kelly and Marnie Witt, have agreed to withdraw the right upon permit issuance.

5. The proposed project will not be supplemental to any other water rights nor share a place of use.

6. The places of use are 55 stock tanks located on private and BLM land in Garfield County. Table 2 summarizes the proposed places of use as follows:

Table 2: Proposed places of use (stock tanks)

POU#	Qtr	Sec	Twp/Rge	POU#	Qtr	Sec	Twp/Rge
1	NW NE SW	36	18 N 32 E	29	NWNW SW	4	18 N 32 E
2	SE SE SW	35	18 N 32 E	30	SW SE NW	14	18 N 32 E
3	NE NE NE	35	18 N 32 E	31	SWSW NW	15	18 N 32 E
4	NE NE NW	35	18 N 32 E	32	NW NW NE	10	18 N 32 E
5	SE SE NE	34	18 N 32 E	33	SW SE SW	3	18 N 32 E
6	NE SE SW	27	18 N 32 E	34	SW NE SE	4	18 N 32 E
7	NW NW NW	27	18 N 32 E	35	NE NW NE	4	18 N 32 E
8	SE NW NE	28	18 N 32 E	36	NE NE NW	33	19 N 32 E
9	NW NW SE	21	18 N 32 E	37	NE NW SE	28	19 N 32 E
10	NE NW SW	22	18 N 32 E	38	NW NW NE	28	19 N 32 E
11	NE SE SE	22	18 N 32 E	39	NW NW NE	29	19 N 32 E
12	NE NE NW	25	18 N 32 E	40	NE SW NE	21	19 N 32 E
13	SE NE NE	26	18 N 32 E	41	NW SE NE	20	19 N 32 E
14	NE NE SW	23	18 N 32 E	42	NW SW NW	20	19 N 32 E
15	NW SW NW	24	18 N 32 E	43	SE SW NE	17	19 N 32 E
16	NE NE NE	24	18 N 32 E	44	NE SE NW	17	19 N 32 E
17	NW SW NW	19	18 N 33 E	45	SW SE NE	18	19 N 32 E
18	SW NE SW	13	18 N 32 E	46	NW SE SW	18	19 N 32 E
19	NW NE NE	11	18 N 32 E	47	NW SE NE	35	19 N 32 E
20	SE NE SW	2	18 N 32 E	48	NE NW NW	35	19 N 32 E
21	SE NE NE	20	18 N 32 E	49	NE NW SW	31	19 N 33 E
22	NE NE NW	20	18 N 32 E	50	NE SE SE	26	19 N 32 E

Table 2: Proposed places of use (stock tanks)							
POU#	**Qtr**	**Sec**	**Twp/Rge**	**POU#**	**Qtr**	**Sec**	**Twp/Rge**
23	NE NE SW	17	18 N 32 E	51	NW SE NW	26	19 N 32 E
24	SE NE SE	8	18 N 32 E	52	NE SE SE	27	19 N 32 E
25	NE NW NE	8	18 N 32 E	53	SW SW SE	27	19 N 32 E
26	NW NW SE	9	18 N 32 E	54	NE SW NW	27	19 N 32 E
27	SE SE NW	5	18 N 32 E	55	NW NW NE	27	19 N 32 E
28	NW NE NE	5	18 N 32 E				

7. The Department considers stock use to be 100% consumptive per Technical Memorandum: Net Surface Water Depletion from Ground Water Pumping, 2018. Therefore, the diverted and consumed volume for the proposed livestock purpose for 800 AU is 26.5 AF per year.

8. All portions of the proposed places of use lie within the area designated as General Habitat for sage grouse. The Applicants obtained a consultation review letter for Project No. 3647, dated July 24, 2019, from the Montana Sage Grouse Habitat Conservation Program. The review confirmed that the Applicants' livestock grazing is consistent with the Montana Sage Grouse Conservation Strategy.

9. Figure 1 shows the locations of the proposed wells, stock tanks, cisterns, and water lines.

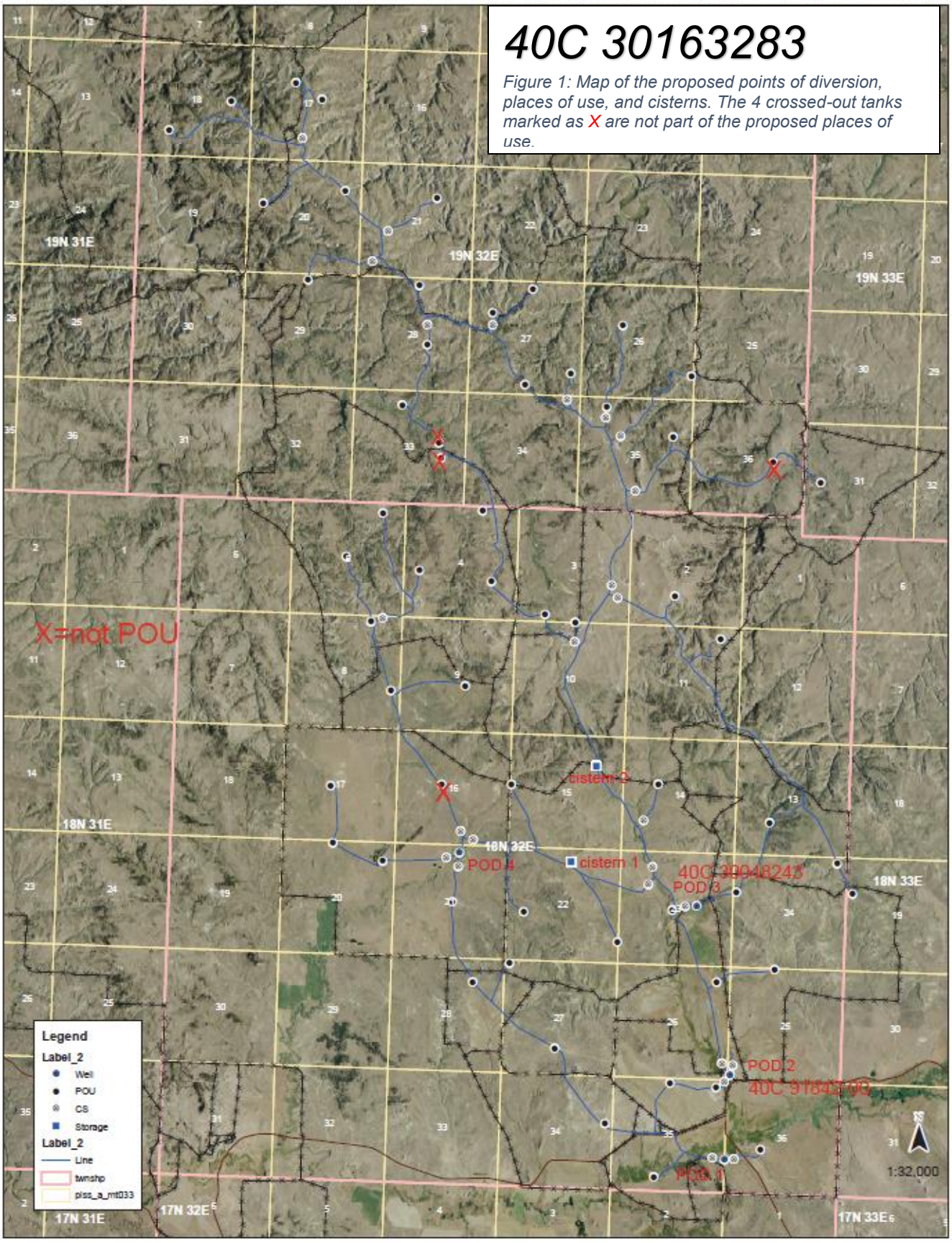

Figure 1: Map of the proposed points of diversion, places of use, and cisterns. The 4 crossed-out tanks marked as X are not part of the proposed places of use.

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

GENERAL CONCLUSIONS OF LAW

10. 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 . . .

11. 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.

12. 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.

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

14. 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.

15. 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

16. The Applicants propose to divert water year-round from four wells at a cumulative rate of 39 GPM and volume of 26.5 AF for livestock use from January 1 to December 31. The four wells are a manifold system which supplies water to 55 stock tanks. The proposed wells are completed in the Fox Hills-Hell Creek (FHHC) aquifer. According to the Department-completed Groundwater Permit Technical Analyses Report—Part A, the Hell Creek Formation consists of two aquifers described as an upper and lower hydrologic unit. The upper unit is composed of mudstones and siltstones whereas the lower unit includes fine grained sandstone and mudstones reaching a thickness of 360 ft locally. The Fox Hills Formation underlies the Hell Creek and is composed of sandstone with hummocky cross bedding. Due to discontinuity in layers, the Fox Hills Formation typically is grouped with the lower hydrologic unit of the Hell Creek Formation creating the Fox Hills-Hell Creek aquifer. As a confined system, its permeability and yield vary with sandstone thickness.

17. The Applicants provided aquifer test data to satisfy aquifer testing requirements per ARM 36.12.121 and to support variance request per ARM 36.12.123. Table 3 summarizes the pump test performed for each well:

Table 3: Pump test performed for each well					
	Type of Test	**Date**	**Test Rate (GPM)**	**Duration**	**Note**
POD #1	Air test documented on well log	11/3/2016	10	1 hour	0.25 hour recovery
POD #2	24-hour test	8/10/2023	7.6	24 hr	39 hour recovery
POD #2	Step test	1/6/2021	2.5, 5, 7.5	1 hr 11 minutes	0.5 hour recovery
POD #3	Step test	1/6/2021	2.5, 5, 7.5	1 hour	5 min recovery
POD #4	Step test	5/29/2024	5, 10, 15	6 hour	4.5 hour recovery

18. A variance from aquifer test requirement ARM 36.12.121(3)(e) was requested by the Applicants on April 23, 2024. However, the Aquifer Testing Requirements Review dated August 27, 2024 by Water Sciences Bureau (WSB) groundwater hydrologist indicated that the testing varied from ARM 36.12.121(3)(a)(b)(c)(e) (ii, iii) and (f). WSB recommended approval for these variances as the hydrologist was able to derive aquifer properties and conduct analysis from the available data. The variance request was granted by the Glasgow Regional Manager, Lih-An Yang on August 29, 2024.

19. A 24-hour aquifer test was conducted on Well #2 (GWIC 145589) beginning on August 10, 2023, including an observation well (GWIC 206041) 3,932 feet south of Well #2. Water levels during the 24-hour aquifer test were collected using In-Situ Level Troll Model 500 dataloggers in the production well and observation well. Groundwater levels were monitored during the recovery period for 39 hours in the production and observation wells. At the end of the recovery period the production well was 0.02 ft below pre-test static water levels. However, the observation well was 4.96 ft above the pre-static water level. The WSB was able to derive the aquifer properties based on this 24-hour test.

20. A 6-hour drawdown and yield test was also conducted on Well #4 (GWIC ID 294281) on May 29, 2024. The Applicants monitored the recovery for 4.5-hour; during this time the water level recovered to 4 ft below the pre-test static water level. Steps tests are useful for determining well yield and operations but provide minimal information when analyzing aquifer properties.

21. The Department-completed Technical Analysis, dated October 24, 2024, evaluated the groundwater physical availability in the source aquifer. Availability is determined by calculating groundwater flux through a zone of influence (ZOI) corresponding to the 0.01-ft drawdown

contour. The four wells were modeled as two wells at the centroid of both grouping of wells. A no-flow boundary was placed representing the fault that runs northeast to southwest between the two grouping of wells. The ZOI was truncated to the Musselshell River to the west acting as a constant head boundary. Groundwater flow is predominantly from southeast to northwest; the width of the ZOI that is perpendicular to groundwater flow is 194,944 ft (See Figure 2).

22. The ZOI was modeled in FWD:SOLV (HydroSOLVE INC., 2024) using the Theis (1935) confined solution, a constant pumping rate of 8.25 GPM for each well grouping, a transmissivity (T) value of 92.4 ft^2/day, and storativity (S) of 6.47 x $10^{-4.}$ The calculation for groundwater flux (Q) through the delineated area is given by the equation **Q=Twi**, where:

T = Transmissivity = 92.4 ft^2/day

W = Width of Zone of Influence = 194,944 ft

i = Groundwater Gradient (calculated from wells in the area) = 0.006 ft/ft.

The calculated groundwater flux through the ZOI is 108,077 ft^3/day, or 905.6 AF/year.

23. The Department finds groundwater is physically available in the amount of 905.6 AF/YR at the proposed point of diversion during the proposed period of diversion.

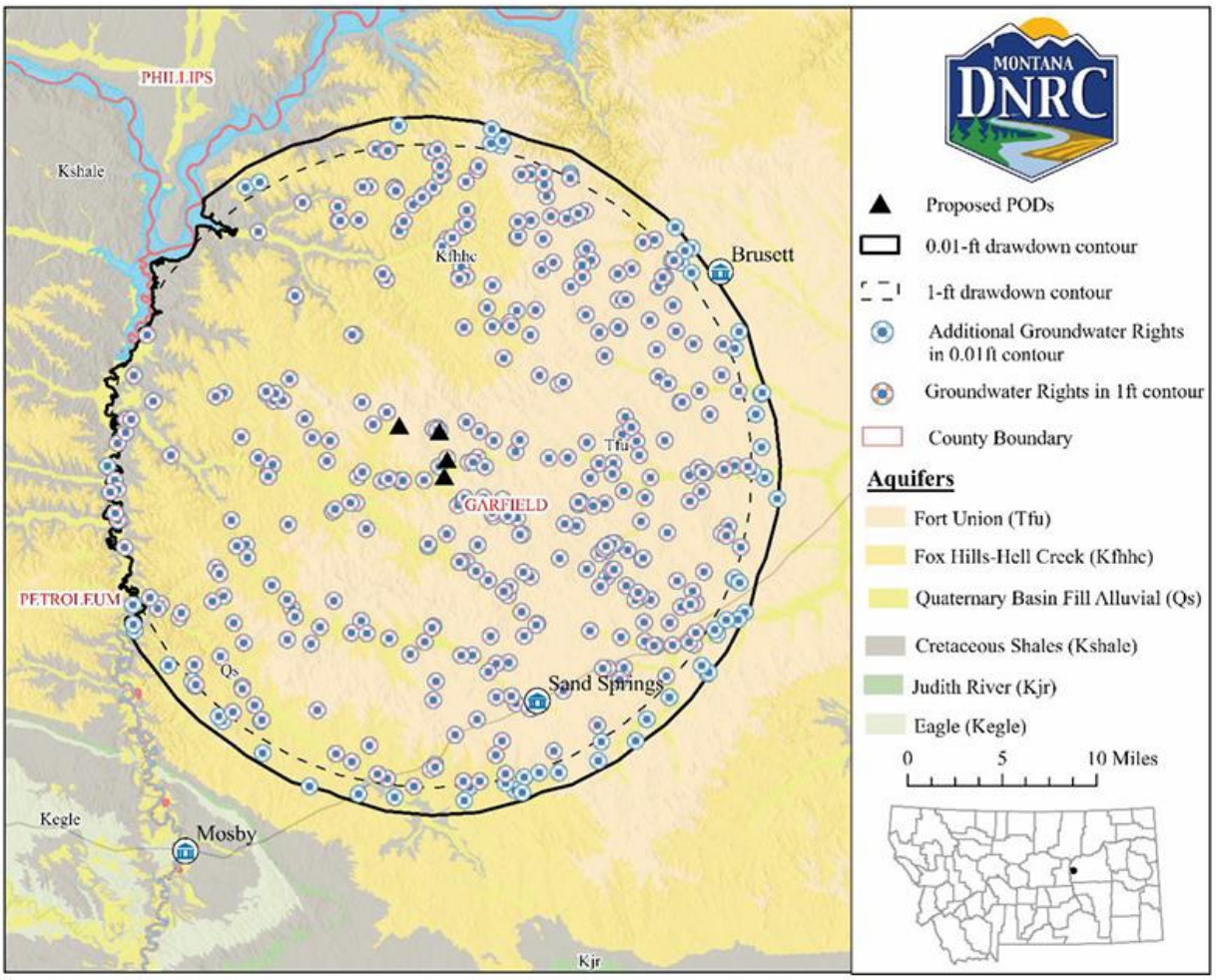

Figure 2: Extent of the 0.01-ft drawdown contour which contains active water rights for legal demand evaluation. The 1-ft drawdown contour is shown in dashed line which contains groundwater rights that would experience drawdown greater than or equal to one foot from the proposed pumping.

LEGAL AVAILABILITY

FINDINGS OF FACT

Groundwater

24. Groundwater legal demand for the proposed project is determined by calculating groundwater flux through a zone of influence (ZOI) corresponding to the 0.01-ft drawdown contour (see Figure 2). According to the Department-completed Groundwater Permit Technical Analyses Report Part A, there are 486 active groundwater rights within the ZOI. The report indicated that the maximum regional depth of the FHHC aquifer is 600 ft below ground surface. Based on Department's standard practice at the time the Technical Analyses were completed, the Department considered 161 water rights within the ZOI for which the Department has records of

well depth data. These 161 rights represent the legal demand within the ZOI. The known well depths are all less than or equal to 600 ft. These 161 water rights are listed in Table 4:

Table 4: Groundwater Legal Demand in the Zone of Influence

Water Right Number	Purpose	Flow Rate (GPM)	Volume (AF)	Well Depth (FT)
40C 30069295	STOCK	5	1.46	20
40C 36062 00	STOCK	25	3.5	24
40C 96373 00	STOCK	6	5.1	25
40C 47008 00	STOCK	8	12.9	26
40C 47009 00	STOCK	6	8.4	27
40D 30042686	STOCK	20	2.6	28
40C 30068029	DOMESTIC; STOCK	3	2.46	28
40C 30125754	DOMESTIC	10	1	37
40C 111399 00	STOCK	4	5.1	40
40E 76568 00	STOCK	14	1.7	40
40C 30013739	STOCK	***	3.05*	41
40E 30017345	DOMESTIC; LAWN AND GARDEN	***	3.05*	45
40C 101040 00	DOMESTIC	12	1.63	48
40D 103708 00	STOCK	10	3.4	50
40D 33727 00	DOMESTIC; STOCK	10	3.34	50
40C 30064197	STOCK	5	3.4	55
40E 30025353	STOCK	***	3.05*	60
40E 63940 00	DOMESTIC; STOCK	5	2.18	65
40D 30115754	STOCK	7	2.53**	66
40E 30065762	DOMESTIC; LAWN AND GARDEN; STOCK	5	5.4	80
40E 30024602	DOMESTIC; STOCK	12	2.96	80
40E 63982 00	DOMESTIC	4	1.5	85
40C 117579 00	STOCK	22	4.5	85

Table 4: Groundwater Legal Demand in the Zone of Influence				
Water Right Number	**Purpose**	**Flow Rate (GPM)**	**Volume (AF)**	**Well Depth (FT)**
40C 30115751	STOCK	5	1	90
40C 71748 00	STOCK	15	1.42	90
40D 30367 00	DOMESTIC; STOCK	20	4	100
40E 30115445	STOCK	10	2.55	100
40D 93444 00	STOCK	20	1.7	100
40C 80482 00	STOCK	35	1.33	100
40C 10591 00	STOCK	5	1.5	100
40E 30062957	DOMESTIC	3	3.05*	100
40D 93442 00	STOCK	8	1.7	100
40D 93445 00	STOCK	20	1.7	100
40C 30127954	STOCK	35	0.69	100
40C 4068 00	DOMESTIC; STOCK	30	3.05*	110
40C 94603 00	DOMESTIC	6	1.63	120
40E 101053 00	STOCK	6	0.68	120
40C 187531 00	STOCK	10	8.07**	120
40D 34463 00	STOCK	5	0.7	120
40C 30031200	STOCK	***	3.05*	120
40C 4420 00	STOCK	9	3.05*	123
40E 111373 00	DOMESTIC	6	1.63	125
40D 30030996	DOMESTIC; LAWN AND GARDEN; STOCK	***	3.05*	131
40C 30031196	STOCK	***	3.05*	135
40C 91858 00	DOMESTIC; STOCK	15	6.18	135
40D 30048509	STOCK	20	1.7	140
40C 4421 00	STOCK	6	3.05*	140
40E 47331 00	DOMESTIC	3	1.5	140
40C 30031201	STOCK	***	3.05*	140

Table 4: Groundwater Legal Demand in the Zone of Influence				
Water Right Number	**Purpose**	**Flow Rate (GPM)**	**Volume (AF)**	**Well Depth (FT)**
40D 30111104	STOCK	4	5.04**	141
40D 93441 00	STOCK	15	1.7	150
40E 91883 00	STOCK	5	5.1	160
40C 111400 00	STOCK	10	5.1	164
40D 93443 00	STOCK	20	1.7	180
40C 30031197	STOCK	***	3.05*	180
40D 53267 00	STOCK	10	3.36	180
40E 30154441	LAWN AND GARDEN; DOMESTIC; STOCK	2	2.78	180
40C 26004 00	DOMESTIC; STOCK	10	9.4	190
40C 17281 00	STOCK	3	0.84	190
40C 57271 00	STOCK	10	3.4	198
40D 30107515	STOCK	8	6.8	200
40C 104449 00	STOCK	10	3.06	200
40E 30007629	DOMESTIC; STOCK	***	3.05*	200
40C 117572 00	DOMESTIC; STOCK	14	4.33	200
40C 111406 00	STOCK	5	8.06	200
40D 30015621	DOMESTIC; LAWN AND GARDEN; STOCK	10	10.4	200
40D 99043 00	STOCK	15	10	206
40C 4531 00	STOCK	6	3.05*	210
40C 16310 00	DOMESTIC; STOCK	5	2.25	220
40D 30111100	DOMESTIC; STOCK	15	3.75	220
40D 53338 00	STOCK	16	4.25	220
40D 114797 00	STOCK	10	3.4	220
40E 101052 00	STOCK	15	1.7	220
40D 80546 00	STOCK	10	1.7	220

Table 4: Groundwater Legal Demand in the Zone of Influence				
Water Right Number	**Purpose**	**Flow Rate (GPM)**	**Volume (AF)**	**Well Depth (FT)**
40D 91865 00	STOCK	10	0.85	225
40C 55558 00	STOCK; WILDLIFE/WATERFOWL	8	0.75	237
40C 57442 00	STOCK	20	2.72	240
40C 111407 00	STOCK	5	2.72	240
40C 10034 00	STOCK	20	3.05*	240
40D 71773 00	DOMESTIC; STOCK	7	6.81	240
40C 30008991	DOMESTIC; STOCK	***	3.05*	255
40D 59555 00	STOCK	10	3.4	255
40C 2472 00	DOMESTIC; STOCK	4	3.05*	260
40D 66320 00	STOCK	2	2.55	260
40D 30051739	STOCK	5	1.53	260
40E 30022006	DOMESTIC; STOCK	11	2.87	270
40C 111415 00	STOCK	15	5.1	270
40C 30115753	DOMESTIC	5	2.7	270
40C 38403 00	STOCK	10	3.36	280
40C 30160513	STOCK	10	2.55	280
40C 111414 00	STOCK	12	5.1	280
40D 97739 00	STOCK	20	2.55	280
40E 111364 00	DOMESTIC	10	0.68	280
40C 30119379	STOCK	7	5.1	280
40D 30026145	STOCK	***	3.05*	280
40C 30031195	STOCK	***	3.05*	280
40D 38537 00	STOCK	10	3.52	280
40D 16248 00	STOCK	15	3.75	285
40D 30028618	STOCK	***	3.05*	290
40E 30104482	STOCK	12	5.95	290

Table 4: Groundwater Legal Demand in the Zone of Influence				
Water Right Number	**Purpose**	**Flow Rate (GPM)**	**Volume (AF)**	**Well Depth (FT)**
40C 30065538	DOMESTIC; STOCK; LAWN AND GARDEN	15	4.2	290
40D 101125 00	DOMESTIC; STOCK	15	3.76	300
40E 30063021	DOMESTIC; STOCK	6	5.25	300
40D 169416 00	STOCK	12	3.36**	300
40C 101064 00	DOMESTIC; STOCK	20	6.73	300
40C 30015684	DOMESTIC	***	3.05*	300
40C 104462 00	STOCK	10	8.5	300
40D 30119549	STOCK	20	5.1	310
40C 109564 00	STOCK	10	6.8	320
40C 86179 00	MULTIPLE DOMESTIC; STOCK	10	4.43	320
40E 30115444	STOCK	3	1.51	320
40C 111460 00	STOCK	10	8.7	320
40D 91857 00	MULTIPLE DOMESTIC; STOCK	12	16.28	320
40E 30049635	STOCK	15	5.1	320
40D 15818 00	STOCK	5	1.5	320
40E 15022 00	DOMESTIC; STOCK	15	3.75	320
40C 30119378	STOCK	14	5.1	327
40C 26005 00	STOCK	10	3.4	330
40C 61778 00	STOCK	5	1.28	335
40D 30157849	STOCK	15	0.71	340
40C 77161 00	STOCK	15	0.56	340
40C 59643 00	DOMESTIC; STOCK	14	4.02	345
40E 15857 00	STOCK	5	2.41	358
40D 51802 00	DOMESTIC; STOCK	10	7.49	360

Table 4: Groundwater Legal Demand in the Zone of Influence				
Water Right Number	**Purpose**	**Flow Rate (GPM)**	**Volume (AF)**	**Well Depth (FT)**
40C 30041690	DOMESTIC; STOCK	***	3.05*	360
40C 30031198	DOMESTIC; STOCK	***	3.05*	380
40D 30107432	DOMESTIC; LAWN AND GARDEN; STOCK	15	5.99	380
40C 109565 00	STOCK	10	6.8	380
40E 117569 00	STOCK	10	1.7	380
40D 77137 00	STOCK	20	2.57	380
40C 30124426	DOMESTIC; STOCK	6	2.28	380
40D 30115263	STOCK	15	5.53	380
40E 30006642	STOCK	10	0.29	385
40E 30048244	STOCK	6	8.5	390
40C 91842 00	STOCK	15	6.8	390
40C 30031199	DOMESTIC; STOCK	***	3.05*	400
40E 114666 00	STOCK	10	4.25	400
40E 30070338	STOCK	10	1.43	400
40C 114730 00	STOCK	10	8.5	400
40E 30062982	DOMESTIC	2	1	400
40C 30119375	STOCK	10	3.4	400
40C 3646 00	STOCK	15	3.05*	420
40C 30024698	STOCK	***	3.05*	420
40E 1158 00	DOMESTIC; STOCK	12	12.9	420
40D 30125087	DOMESTIC; STOCK	10	0.68	430
40C 30048243	STOCK	10	6.8	433
40C 30048950	DOMESTIC	15	1	440
40D 96325 00	STOCK	10	10	440
40E 30127716	STOCK	7	1.7	460
40D 48973 00	STOCK	12	3.36	480

Table 4: Groundwater Legal Demand in the Zone of Influence				
Water Right Number	**Purpose**	**Flow Rate (GPM)**	**Volume (AF)**	**Well Depth (FT)**
40D 30103097	MULTIPLE DOMESTIC; LAWN AND GARDEN; STOCK	20	7.22	482
40D 59642 00	DOMESTIC; STOCK	3.5	2	490
40D 114663 00	STOCK	5	0.59	500
40C 30103858	DOMESTIC; COMMERCIAL; INSTITUTIONAL; INSTITUTIONAL	10	1.47	500
40C 104426 00	STOCK	10	5.1	520
40D 30028619	STOCK	***	3.05*	520
40D 30027936	STOCK	***	3.05*	520
40D 30065813	MULTIPLE DOMESTIC; STOCK	30	9.65	540
40C 76554 00	STOCK	5	1.7	552
40E 30064267	STOCK	8	3.66	600
40C 586 00	DOMESTIC; STOCK	15	3.05*	600
Total Volume			**602.67**	

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

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

***These groundwater certificates do not have assigned flow rate. The flow rate is limited to the actual amount used up to 35 gallons per minute.

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

a. Groundwater certificates issued without volume are quantified by averaging the volume of other quantified groundwater certificates in the zone of influence per Department standard.
b. 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.

26. The legal demands within the ZOI total 602.67 AF per year. Compared to groundwater flux of 905.6 AF per year, 302.93 AF per year remain legally available to appropriate after all existing water rights have been satisfied. Table 5 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 5: Comparison of Physical Availability, Legal Availability and Requested Volume	
Physical Availability (AF/YR)	905.6
Existing Legal Demands (AF/YR)	602.67
Legal Availability = Physical Availability – Existing Legal Demands (AF/YR)	302.93
Requested Appropriation (AF/YR)	26.5
Legal Availability – Requested Appropriation (AF/YR)	276.43

Surface Water

27. Per ARM 36.12.1704, the Department is to evaluate 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 Musselshell River (approximately 16 miles west of wells) 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 and would result in constant year-round depletions to the Musselshell River beginning near the confluence with Lodgepole Creek along the western boundary of Section 18, T18N, R30E, Garfield County.

28. The proposed project would divert and consume 26.5 AF per year for livestock purpose. Depletions to the Musselshell River at a constant rate are equal to the diverted flow rate and volume shown in Table 6.

Table 6: Total Consumed Volume and Net Depletion to Surface Water for the Proposed Wells			
Month	**Total Consumed Volume (AF)**	**Musselshell River Net Depletion (AF)**	**Musselshell River Net Depletion (GPM)**
January	2.3	2.3	16.5
February	2.0	2.0	16.5
March	2.3	2.3	16.5
April	2.2	2.2	16.5
May	2.3	2.3	16.5
June	2.2	2.2	16.5
July	2.3	2.3	16.5
August	2.3	2.3	16.5

September	2.2	2.2	16.5
October	2.3	2.3	16.5
November	2.2	2.2	16.5
December	2.3	2.3	16.5
Total	26.5	26.5	

29. To determine whether the amount of water to be depleted from the Musselshell River is legally available, the Department will first determine its physical availability at the location where depletion is identified to begin. The Department will then analyze legal availability to the extent of the affected surface water.

Musselshell River Physical Availability

30. Per the DNRC Technical Analysis, the net depletion to the Musselshell River is projected to accrue near the western boundary of Section 18, T18N, R30E, Garfield County. USGS Gage #06130500, Musselshell River at Mosby, MT, is the nearest gage and is approximately 44 river miles upstream. The flow records used for analysis range from Jan 2013 to April 2024.

31. When net depletion is projected to start below the gage, the standard DNRC practice to estimate physical availability is to subtract water rights between the gage and the start of depletion from the monthly median of the mean gage values. However, because the start of depletion is approximately 44 river miles downstream, and there are several tributaries in between, the Department used the Drainage Area Ratio Method to analyze physical availability.

32. DNRC Technical Memorandum: Physical Availability of Surface Water with Gage Data clarifies that the Department may use the Drainage Area Ratio Method detailed in USGS (2015) StreamStats, Chapter G, p. 13 if additional analysis is needed. The two sites referred to in this analysis are USGS Gage #06130500 (gaged site) and the location of surface water depletions (ungaged site). This method assumes the streamflow characteristics of the two sites are similar and that the sites are located on the same stream. This method is limited to sites that are within a range of 0.5A-1.5A. In this case, the un-gaged site (8,462.30 sq. mi.) is 1.09A the gaged site (7,784 sq. mi per USGS Gage #06130500 site description). The drainage area of the ungaged site was delineated using the USGS StreamStats web application.

33. The Department calculated median of the mean monthly flow rates in cubic feet per second (CFS) for the Musselshell River using USGS Gage #06130500 records for each month of the proposed period of diversion (Table 7, column B).

34. The equation used to calculate predicted monthly flows at the proposed POD (Table 7, Column C) is $Qu=Qg(Au/Ag)^{EXPQR}$, where Qu is the streamflow characteristic for the ungaged site (i.e. median of the mean monthly flow), Qg is the streamflow characteristic for the gaging station (i.e. median of the mean monthly flow), Au is the contributing drainage area for the ungaged site (in square miles), Ag is the contributing drainage area for the gaging station (in square miles) and EXP is the coefficient for drainage area adjustment for the streamflow characteristic (Q) and region (R) of the gaging station. Because there are no regression equations for this part of eastern Montana, the coefficient is taken as 1.

35. The monthly flows were converted to monthly volumes in AF (Table 7, column D) by multiplying the predicted flow at the ungaged site/proposed POD (CFS) by 1.98 times the number of days each month.

Table 7: Predicted Monthly Flow and Volume at the Start of Depletion

A	B	C	D
Month	**Median of the Mean Monthly Flow at Gage #06130500 (CFS)**	**Predicted Monthly Flow Rate at Non-Gaged Site/ Proposed POD (CFS)**	**Predicted Monthly Volume at Non-Gaged Site/ Proposed POD (AF)**
January	87.75	95.40	5,855.44
February	168.75	183.45	11,260.46
March	283.65	308.37	18,927.59
April	165.05	179.43	11,013.57
May	506.8	550.96	33,818.09
June	674.7	733.49	45,021.83
July	150.4	163.51	10,035.99
August	120.5	131.00	8,040.80
September	90.7	98.60	6,052.29
October	106.4	115.67	7,099.93
November	150.5	163.61	10,042.66
December	79.3	86.21	5,291.58

Musselshell River Legal Availability

36. For the scope of this application, the Department delineates the area of potential impact as the 10-mile reach from the start of surface water depletion to the Musselshell River's confluence with the Fort Peck Reservoir. Four surface water rights exist within this reach. These downstream legal demands are summarized in Table 8.

Table 8: Water Rights within the Area of Potential Impact on Musselshell River				
Water Right Number	**Period of Diversion**	**Water Right Type**	**Flow Rate (CFS)**	**Volume (AF)**
40A 26235 00	01/01 to 12/31	Statement of claim	0.67	12.00
40C 168060 00*	04/15 to 10/15	Statement of claim	11.48	1075.65
40C 30008850	01/01 to 12/31	Water reservation	70.00	50674.23
40C 30132098**	01/01 to 12/31	Statement of claim	0.13	33.70

*Irrigation – Volume assigned per acreage and climatic area per Department standards.
**Livestock Direct – Flow rate assigned per Department standards.

37. The comparison between physically available surface water and existing legal demand in the area of potential impact is shown in Table 9 below, indicating that water is legally available for the projected net depletion:

Table 9: Legal Availability Analysis of Musselshell River in Area of Potential Impact						
A	**B**	**C**	**D**	**E**	**F**	**G**
Month	**Physically Available Water (CFS)**	**Physically Available Water (AF)**	**Existing Legal Demands in the Area of Potential Impact (CFS)**	**Existing Legal Demands in the Area of Potential Impact (AF)**	**Legally Available Water (CFS)**	**Legally Available Water (AF)**
January	95.40	5,855.44	70.8	4,226.66	24.6	1,628.78
February	183.45	11,260.46	70.8	4,226.66	112.65	7,033.80
March	308.37	18,927.59	70.8	4,226.66	237.57	14,700.93
April	179.43	11,013.57	82.28	4,380.33	97.15	6,633.24
May	550.96	33,818.09	82.28	4,380.33	468.68	29,437.76
June	733.49	45,021.83	82.28	4,380.33	651.21	40,641.50
July	163.51	10,035.99	82.28	4,380.33	81.23	5,655.66
August	131.00	8,040.80	82.28	4,380.33	48.72	3,660.47
September	98.60	6,052.29	82.28	4,380.33	16.32	1,671.96
October	115.67	7,099.93	82.28	4,380.33	33.39	2,719.60
November	163.61	10,042.66	70.8	4,226.66	92.81	5,816.00
December	86.21	5,291.58	70.8	4,226.66	15.41	1,064.92

38. Refer to Table 6 for the modeled monthly net depletions to the Musselshell River. Table 10 below demonstrates remaining availability on the Musselshell River after the predicted monthly depletions:

Table 10: Musselshell River Availability after Depletion by Production Wells						
A	**B**	**C**	**D**	**E**	**F**	**G**
Month	**Legally Available Water (CFS)**	**Legally Available Water (AF)**	**Musselshell River Net Depletion (16.5 GPM converted to CFS)**	**Musselshell River Net Depletion (AF)**	**Remaining Available Water After Depletion (CFS)**	**Remaining Available Water After Depletion (AF)**
January	24.6	1,628.78	0.04	2.3	24.56	1,626.48
February	112.65	7,033.80	0.04	2	112.61	7,031.80
March	237.57	14,700.93	0.04	2.3	237.53	14,698.63
April	97.15	6,633.24	0.04	2.2	97.11	6,631.04
May	468.68	29,437.76	0.04	2.3	468.64	29,435.46
June	651.21	40,641.50	0.04	2.2	651.17	40,639.30
July	81.23	5,655.66	0.04	2.3	81.19	5,653.36
August	48.72	3,660.47	0.04	2.3	48.68	3,658.17
September	16.32	1,671.96	0.04	2.2	16.28	1,669.76
October	33.39	2,719.60	0.04	2.3	33.35	2,717.30
November	92.81	5,816.00	0.04	2.2	92.77	5,813.80
December	15.41	1,064.92	0.04	2.3	15.37	1,062.62

39. The Department finds that groundwater and surface water are legally available in the amount requested during the period in which the Applicants seek to appropriate.

ADVERSE EFFECT

FINDINGS OF FACT

40. Groundwater is physically and legally available during the proposed period of diversion. Depletion of hydraulically connected surface water is physically and legally available in all months with net depletions. If a call is made, the Applicants have the ability to satisfy senior water rights. The Applicants can shut off well(s) and close valves to disconnect segment(s) of the stock tank system from water supply. If necessary, the Applicants have the ability to reduce livestock herd,

reduce period of diversion and period of use, or rotate grazing in such manner as to reduce demand on certain well(s) or stock tanks.

41. The Department-completed Technical Analysis modeled the extent of drawdown in existing wells for proposed conditions with the following inputs: Theis (1935) solution, a T value of 92.4 ft^2/day, S value of 6.47x 10^{-4}, the monthly pumping schedule identified in Table 11 for a period of five years, and a no-flow boundary. The drawdown is the largest at the end of the fifth year using the proposed pumping schedule. The 1-ft drawdown contour is predicted to occur 179,760 ft from the Applicants' wells (Figure 2).

Table 11: Assumed Monthly Pumping Schedule for the Production Wells.

Month	Total Diverted Volume (AF)	Total Diverted Flow Rate (GPM	Diverted Flow Rate for Wells #1-#3 each (GPM)	Diverted Flow Rate for Well #4(GPM)
January	2.3	16.5	4.2	3.8
February	2.0	14.9	3.8	3.4
March	2.3	16.5	4.2	3.8
April	2.2	15.9	4.1	3.7
May	2.3	16.5	4.2	3.8
June	2.2	15.9	4.1	3.7
July	2.3	16.5	4.2	3.8
August	2.3	16.5	4.2	3.8
September	2.2	15.9	4.1	3.7
October	2.3	16.5	4.2	3.8
November	2.2	15.9	4.1	3.7
December	2.3	16.5	4.2	3.8
Total	**26.5**			

42. For adverse effect, the Department evaluates groundwater rights predicted to experience drawdown equal to or greater than 1 foot due to the proposed pumping. Table 12 lists 420 groundwater rights in the 1-ft drawdown contour. A comparison between the modeled drawdown and the existing static water level is shown in Table 12. The wells for which the Department has well depth data are shown to have available water column after the proposed pumping. For wells which the Department does not have well depth or static water level data, the modeled drawdown is provided.

Table 12: Groundwater Rights within the 1-ft Drawdown Contour					
WR Number	**Owners**	**Total Well Depth (ft)**	**Static Water Level (ft)**	**Modeled Drawdown (ft)**	**Available Water Column (ft)**
40C 111399 00	MATTHEW J BLISS	40	30	6.2	3.8
40C 47008 00	AMERICAN PRAIRIE FOUNDATION	26	18	1	7
40C 30069295	DANIEL R JOHNSON	20	10	1	9
40D 30042686	DEAN R ROGGE; TANNA R ROGGE	28	15	3	10
40C 47009 00	BARBARA A SHALLENBERGER; JAMES SHALLENBERGER	27	15	1	11
40C 96373 00	AMERICAN PRAIRIE FOUNDATION	25	10	1	14
40C 30068029	DANIEL R JOHNSON	28	11	1	16
40D 30107515	LONE TREE LAND & LIVESTOCK LLC	200	180	1	19
40D 103708 00	MONTANA STATE BOARD OF LAND COMMISSIONERS	50	26	2.6	21.4
40C 30125754	AMERICAN PRAIRIE FOUNDATION	37	13	1	23
40E 76568 00	CRAIG SHAWVER; TAMERA S SHAWVER	40	15	2	23
40C 91858 00	MATTHEW J BLISS	135	108	3.4	23.6
40D 93442 00	JOHN B WHEATCROFT	100	75	1	24
40E 30017345	CHAMBERLIN FAMILY TRUST	45	15	1	29
40E 30062957	BETH PIERCE; CHRISTO PIERCE	100	70	1	29
40C 30064197	KENNETH W RICH; LINDA A RICH	55	20	2.6	32.4
40C 101040 00	ERIC D BRENCO; SUSAN I BRENCO; CHRISTINE A OSLER; RYAN OSLER; GORDON ZUEHLSDORFF; IRENE P ZUEHLSDORFF	48	13	1	34
40D 33727 00	BILL HARRIS	50	15	1	34
40E 63940 00	STEPHEN O NEGAARD	65	30	1	34
40C 111400 00	CHERYLE A BLISS; K L BLISS	164	120	8.7	35.3
40E 101053 00	7-V RANCH LLC	120	80	1.6	38.4
40E 111373 00	CHAMBERLIN FAMILY TRUST	125	85	1.4	38.6
40E 30022006	STEPHEN O NEGAARD	270	230	1.4	38.6

Table 12: Groundwater Rights within the 1-ft Drawdown Contour					
WR Number	**Owners**	**Total Well Depth (ft)**	**Static Water Level (ft)**	**Modeled Drawdown (ft)**	**Available Water Column (ft)**
40C 16310 00	BLISS LIVESTOCK CO	220	170	7.2	42.8
40E 101052 00	7-V RANCH LLC	220	175	1.6	43.4
40C 111414 00	O CONNOR RANCH INC	280	230	2	48
40C 111407 00	CHARANGUS RANCH INC	240	190	1.8	48.2
40C 10034 00	DIXON T MURNION; ZANE J MURNION	240	185	6.4	48.6
40E 47331 00	BARBARA L CLARK; R DEAN CLARK	140	90	1	49
40E 30154441	ELBERT D LOOMIS	180	130	1	49
40E 30025353	SEVEN BLACKFOOT CO LLC	60	7	1	52
40C 117579 00	BEN H MURNION; NATALI MURNION; JUSTIN S OCONNOR; LANCE A OCONNOR; MARTY S OCONNOR; MICHAEL L OCONNOR; MURREY C OCONNOR; PAT R OCONNOR; RICHARD C OCONNOR; SUSAN M OCONNOR; SALLY M ROSS	85	30	2.6	52.4
40E 30065762	JOHN A OCONNOR	80	25	1.6	53.4
40D 93444 00	RICHARD B WHEATCROFT	100	45	1	54
40C 30015684	D K INC	300	240	5.8	54.2
40D 30051739	NY RANCH LLC	260	200	3.8	56.2
40C 26004 00	I O U RANCH; DAVID F WITT	190	125	8	57
40C 111406 00	CHARANGUS RANCH INC	200	140	2.8	57.2
40E 30007629	JONES FAMILY PRTNRSHP	200	140	1.4	58.6
40D 30367 00	LAWRENCE REVOCABLE LIVING TRUST	100	40	1	59
40C 104462 00	MATTHEW J BLISS	300	235	5	60
40C 4068 00	KENNETH W RICH; LINDA A RICH	110	45	2.6	62.4
40D 99043 00	MATTHEW J BLISS	206	140	3.6	62.4
40C 117572 00	KENNETH W RICH; LINDA A RICH	200	135	2.4	62.6
40C 30124426	JAY R GAROUTTE; MEGAN M GAROUTTE	380	315	1.8	63.2
40C 30031196	L-O CATTLE CO	135	65	6.5	63.5

Table 12: Groundwater Rights within the 1-ft Drawdown Contour					
WR Number	**Owners**	**Total Well Depth (ft)**	**Static Water Level (ft)**	**Modeled Drawdown (ft)**	**Available Water Column (ft)**
40E 63982 00	BURL A JONES; EUNICE C JONES	85	20	1	64
40E 30104482	CLAUDE N SAYLOR	290	220	3.4	66.6
40D 91857 00	K L BLISS	320	250	2.8	67.2
40E 30070338	DANA G PHIPPS; TIMOTHY A PHIPPS	400	330	1.8	68.2
40C 30127954	MONTANA STATE BOARD OF LAND COMMISSIONERS; PAPAS RIVER RANCH LLC	100	28	1.2	70.8
40C 80482 00	USA (DEPT OF INTERIOR BUREAU OF LAND MGMT)	100	28	1.2	70.8
40D 91865 00	LAWRENCE REVOCABLE LIVING TRUST	225	150	1.6	73.4
40C 55558 00	USA (DEPT OF INTERIOR BUREAU OF LAND MGMT)	237	160	1.4	75.6
40E 114666 00	DANA G PHIPPS; TIMOTHY A PHIPPS	400	320	4.4	75.6
40D 96325 00	K L BLISS	440	360	4	76
40C 109564 00	L-O CATTLE CO	320	240	3.2	76.8
40E 30049635	CLAUDE N SAYLOR	320	240	3.2	76.8
40C 111415 00	O CONNOR RANCH INC	270	190	2.2	77.8
40D 114797 00	MONTANA STATE BOARD OF LAND COMMISSIONERS	220	140	2	78
40D 34463 00	LAWRENCE REVOCABLE LIVING TRUST	120	40	1.2	78.8
40D 71773 00	COULTER RANCHES INC	240	160	1.2	78.8
40C 187531 00	JOSEPH C GIBSON; SANDY GIBSON	120	40	1	79
40C 94603 00	JOSEPH C GIBSON; SANDY GIBSON	120	40	1	79
40E 30062982	BETH PIERCE; CHRISTO PIERCE	400	320	1	79
40E 30048244	KELLY WITT; MARNIE WITT	390	306	2.8	81.2
40E 30115445	RANDAL W BRUSETT; SHARON L BRUSETT	100	13	2	85
40C 30031197	L-O CATTLE CO	180	90	3	87
40D 97739 00	LINDA K FITZGERALD	280	190	2.4	87.6
40C 86179 00	CHARANGUS RANCH INC	320	230	1.8	88.2

Table 12: Groundwater Rights within the 1-ft Drawdown Contour					
WR Number	**Owners**	**Total Well Depth (ft)**	**Static Water Level (ft)**	**Modeled Drawdown (ft)**	**Available Water Column (ft)**
40C 104449 00	CHARANGUS RANCH INC	200	110	1.6	88.4
40E 1158 00	CHAMBERLIN FAMILY TRUST	420	330	1.6	88.4
40C 30160513	DK INC	280	180	9.4	90.6
40E 30006642	USA (DEPT OF INTERIOR BUREAU OF LAND MGMT)	385	290	2.8	92.2
40D 30048509	MATTHEW J BLISS	140	45	2.6	92.4
40C 30065538	KENNETH W RICH; LINDA A RICH	290	195	2.4	92.6
40C 104426 00	MARK L JOHNSON; ROMAINE K JOHNSON	520	420	6.6	93.4
40D 66320 00	CORTANI M BRUSETT	260	165	1.2	93.8
40C 30031200	L-O CATTLE CO	120	25	1	94
40E 117569 00	DANIEL L EDDY; TARA B EDDY	380	280	3.4	96.6
40E 15857 00	6M RANCH INC	358	260	1	97
40E 30127716	DANIEL L EDDY; TARA B EDDY	460	360	3	97
40C 4420 00	DIXON T MURNION; ZANE J MURNION	123	20	5.9	97.1
40D 38537 00	HARRY M MERLAK; MARIAN R MERLAK	280	180	2	98
40C 30008991	DOERING LAND COMPANY, LLC	255	150	2.6	102.4
40D 59555 00	ALEXANDER J WHEATCROFT	255	150	1.6	103.4
40D 53267 00	ALEXANDER J WHEATCROFT	180	75	1.4	103.6
40C 57271 00	L-O CATTLE CO	198	90	2.8	105.2
40C 4421 00	DIXON T MURNION; ZANE J MURNION	140	30	4.6	105.4
40C 4531 00	MARGO WITT; TROY A WITT	210	90	14.4	105.6
40E 15022 00	DANIEL L EDDY; TARA B EDDY	320	210	3.4	106.6
40C 101064 00	D K INC	300	180	11.5	108.5
40C 111460 00	D K INC	320	200	7.4	112.6
40C 57442 00	ANN KIBLER	240	120	7.1	112.9
40D 16248 00	HARRY M MERLAK; MARIAN R MERLAK	285	170	2	113
40C 17281 00	CALF CREEK CATTLE CO LLC	190	75	1	114
40C 30048243	KELLY WITT; MARNIE WITT	433	308	10.7	114.3
40D 30028618	K L BLISS	290	170	2	118

Table 12: Groundwater Rights within the 1-ft Drawdown Contour					
WR Number	**Owners**	**Total Well Depth (ft)**	**Static Water Level (ft)**	**Modeled Drawdown (ft)**	**Available Water Column (ft)**
40C 30024698	L-O CATTLE CO	420	300	1.4	118.6
40D 30026145	HOOKER, ALAN L TRUST; HOOKER, MILDRED F TRUST	280	160	1.2	118.8
40E 30115444	RANDAL W BRUSETT; SHARON L BRUSETT	320	184	1.8	134.2
40C 114730 00	LITTLE ROSIE LLC	400	255	8.3	136.7
40D 169416 00	CORTANI M BRUSETT	300	150	1.8	148.2
40D 101125 00	KIMBERLY K PHIPPS; REX N PHIPPS	300	150	1	149
40C 38403 00	DIXON T MURNION; ZANE J MURNION	280	120	5.8	154.2
40C 77161 00	L-O CATTLE CO	340	180	3.4	156.6
40D 51802 00	CLYDE R SAYLOR	360	200	2.4	157.6
40D 53338 00	DEAN R ROGGE; TANNA R ROGGE	220	60	2.2	157.8
40D 30027936	BEN H MURNION; NATALI MURNION	520	360	1.6	158.4
40C 30041690	BEN H MURNION; NATALI MURNION; O CONNOR RANCH INC; JUSTIN S OCONNOR; LANCE A OCONNOR; MARTY S OCONNOR; MICHAEL L OCONNOR; MURREY C OCONNOR; PAT R OCONNOR; RICHARD C OCONNOR; SUSAN M OCONNOR; SALLY M ROSS	360	190	2.6	167.4
40E 30064267	CHARLES A PHIPPS; MARY ANN PHIPPS	600	430	1.4	168.6
40D 30157849	MONTANA STATE BOARD OF LAND COMMISSIONERS	340	170	1	169
40C 59643 00	RONDA L ROGGE; WESLEY E ROGGE	345	170	2.6	172.4
40C 30031198	L-O CATTLE CO	380	200	1	179
40D 48973 00	COULTER RANCHES INC	480	300	1	179
40C 30119379	L-O CATTLE CO	280	96	3.6	180.4
40D 30115263	HOOKER LIVESTOCK INC	380	190	1.4	188.6

Table 12: Groundwater Rights within the 1-ft Drawdown Contour					
WR Number	**Owners**	**Total Well Depth (ft)**	**Static Water Level (ft)**	**Modeled Drawdown (ft)**	**Available Water Column (ft)**
40D 30065813	COULTER RANCHES INC	540	340	1	199
40C 3646 00	MARK L JOHNSON; ROMAINE K JOHNSON	420	210	10.9	199.1
40C 30031199	L-O CATTLE CO	400	190	1	209
40C 30048950	KIBLER OUTFITTING & CHARTER FISHING LLP	440	220	10.2	209.8
40C 30119378	L-O CATTLE CO	327	110	3	214
40D 114663 00	JOHN A MCKEEVER	500	280	2.6	217.4
40C 26005 00	MATTHEW J BLISS	330	100	7.2	222.8
40D 30107432	BEN H MURNION; NATALI MURNION	380	145	1.2	233.8
40E 30063021	PRENTICE PHIPPS; JODI PIERSON; KELLY PIERSON	300	57	1	242
40C 61778 00	JAY R GAROUTTE; MEGAN M GAROUTTE	335	75	1.8	258.2
40C 76554 00	SNOWBELT ANGUS RANCH CO	552	292	1.6	258.4
40C 30103858	KRISTINE A CLAYBROOK; PAUL A CLAYBROOK; GARFIELD COUNTY SCHOOL DIST #42; MONTANA STATE BOARD OF LAND COMMISSIONERS; SANDS SPRINGS COMMUNITY CHURCH	500	230	1.6	268.4
40D 15818 00	MONTANA STATE BOARD OF LAND COMMISSIONERS	320	40	4.2	275.8
40D 30028619	MATTHEW J BLISS	520	160	1.8	358.2
40C 586 00	DEAN KIBLER	600	205	11.2	383.8
40D 30107516	LONE TREE LAND & LIVESTOCK LLC		30	1	NA
40D 59642 00	MATTHEW J BLISS	490		3.6	NA
40C 91842 00	KELLY WITT; MARNIE WITT	390		13	NA
40C 30031195	L-O CATTLE CO	280		1	NA
40D 93443 00	ALEXANDER J WHEATCROFT	180		1.4	NA
40E 91883 00	KELLY WITT; MARNIE WITT	160		2.6	NA

Table 12: Groundwater Rights within the 1-ft Drawdown Contour					
WR Number	**Owners**	**Total Well Depth (ft)**	**Static Water Level (ft)**	**Modeled Drawdown (ft)**	**Available Water Column (ft)**
40C 36062 00	HARRIS LAND & LIVESTOCK LLC; USA (DEPT OF INTERIOR BUREAU OF LAND MGMT)	24		1	NA
40C 14175 00	DAVID B DUTTON; NANCY L DUTTON			1	NA
40C 14167 00	DAVID B DUTTON; NANCY L DUTTON			1	NA
40C 187530 00	JOSEPH C GIBSON; SANDY GIBSON			1	NA
40C 22487 00	JAMIE C GIBSON; JOSEPH C GIBSON; SANDY GIBSON; TY F GIBSON			1	NA
40C 14174 00	DAVID B DUTTON; NANCY L DUTTON			1	NA
40C 51820 00	DAVID B DUTTON; NANCY L DUTTON			1	NA
40C 189827 00	DAVID B DUTTON; NANCY L DUTTON			1.2	NA
40C 30019 00	MONTANA STATE BOARD OF LAND COMMISSIONERS			1.2	NA
40C 113875 00	NG, KATHERINE C TRUST; JOHN S WILLIAMS; WILLIAMS, LYTLE S TRUST			1	NA
40C 167983 00	CHARANGUS RANCH INC			1	NA
40C 37460 00	MONTANA STATE BOARD OF LAND COMMISSIONERS			1.2	NA
40C 187536 00	CHARANGUS RANCH INC			1.2	NA
40D 38827 00	DANA G PHIPPS; TIMOTHY A PHIPPS; SNOWBELT ANGUS RANCH CO			1	NA
40C 10097 00	CALF CREEK CATTLE CO LLC			1	NA
40C 30070064	COLE LAWSON			1	NA
40C 167984 00	CHARANGUS RANCH INC			1.6	NA
40C 187534 00	CHARANGUS RANCH INC			1.6	NA
40C 167985 00	CHARANGUS RANCH INC			1.6	NA
40C 187533 00	CHARANGUS RANCH INC			1.6	NA
40C 75809 00	CALF CREEK CATTLE CO LLC			1.2	NA
40C 167978 00	CHARANGUS RANCH INC			1.6	NA

Table 12: Groundwater Rights within the 1-ft Drawdown Contour					
WR Number	**Owners**	**Total Well Depth (ft)**	**Static Water Level (ft)**	**Modeled Drawdown (ft)**	**Available Water Column (ft)**
40C 30006 00	MONTANA STATE BOARD OF LAND COMMISSIONERS			2	NA
40C 30148605	CHARANGUS RANCH INC; MONTANA STATE BOARD OF LAND COMMISSIONERS			1.6	NA
40C 167944 00	CHARANGUS RANCH INC			2.2	NA
40D 179395 00	HOOKER, ALAN L TRUST; HOOKER, MILDRED F TRUST			1.2	NA
40D 164599 00	HOOKER, ALAN L TRUST; HOOKER, MILDRED F TRUST			1	NA
40C 167976 00	CHARANGUS RANCH INC			2.2	NA
40D 179380 00	HOOKER, ALAN L TRUST; HOOKER, MILDRED F TRUST			1.4	NA
40D 164636 00	HOOKER, ALAN L TRUST; HOOKER, MILDRED F TRUST			1.4	NA
40D 179378 00	HOOKER, ALAN L TRUST; HOOKER, MILDRED F TRUST			1.4	NA
40C 109757 00	CARL F HAYDEN; MICHAEL J WAMSLEY			1	NA
40C 167979 00	CHARANGUS RANCH INC			2.4	NA
40C 167977 00	CHARANGUS RANCH INC			2.4	NA
40C 130956 00	USA (DEPT OF INTERIOR BUREAU OF LAND MGMT)			1.2	NA
40C 167980 00	CHARANGUS RANCH INC			2.8	NA
40C 30046905	USA (DEPT OF INTERIOR BUREAU OF LAND MGMT)			2.8	NA
40D 164595 00	HOOKER, ALAN L TRUST; HOOKER, MILDRED F TRUST			1.2	NA
40D 44884 00	HOOKER, ALAN L TRUST; HOOKER, MILDRED F TRUST			1.2	NA
40D 44886 00	HOOKER, ALAN L TRUST; HOOKER, MILDRED F TRUST			1	NA
40D 164619 00	HOOKER, ALAN L TRUST; HOOKER, MILDRED F TRUST			1	NA
40D 24885 00	MONTANA STATE BOARD OF LAND COMMISSIONERS			1	NA
40C 75808 00	CALF CREEK CATTLE CO LLC			1.6	NA

Table 12: Groundwater Rights within the 1-ft Drawdown Contour					
WR Number	**Owners**	**Total Well Depth (ft)**	**Static Water Level (ft)**	**Modeled Drawdown (ft)**	**Available Water Column (ft)**
40D 179381 00	HOOKER, ALAN L TRUST; HOOKER, MILDRED F TRUST			1.4	NA
40C 30031204	L-O CATTLE CO			3	NA
40D 164634 00	HOOKER, ALAN L TRUST; HOOKER, MILDRED F TRUST			1.6	NA
40C 167981 00	MONTANA STATE BOARD OF LAND COMMISSIONERS			3	NA
40C 167982 00	CHARANGUS RANCH INC			2.6	NA
40D 179390 00	HOOKER, ALAN L TRUST; HOOKER, MILDRED F TRUST			2	NA
40C 30031202	L-O CATTLE CO			3.4	NA
40C 167988 00	CHARANGUS RANCH INC			2.8	NA
40C 72945 00	USA (DEPT OF INTERIOR BUREAU OF LAND MGMT)			1.6	NA
40D 179379 00	HOOKER, ALAN L TRUST; HOOKER, MILDRED F TRUST			1.4	NA
40C 88243 00	USA (DEPT OF INTERIOR BUREAU OF LAND MGMT)			1.2	NA
40C 130957 00	THEODORE T BROWNING; THOMAS S BROWNING; TIMOTHY G BROWNING; TRAVIS J BROWNING			1.2	NA
40C 167939 00	CHARANGUS RANCH INC			3.2	NA
40D 37458 00	MONTANA STATE BOARD OF LAND COMMISSIONERS			1.2	NA
40D 164288 00	HOOKER LIVESTOCK INC			1.2	NA
40C 30143488	DANIEL R JOHNSON			1	NA
40D 164282 00	HOOKER LIVESTOCK INC			1.2	NA
40C 73759 00	USA (DEPT OF INTERIOR BUREAU OF LAND MGMT)			1.6	NA
40C 30041689	O CONNOR RANCH INC			3.4	NA
40D 169450 00	MATTHEW J BLISS			1.6	NA
40C 30135435	DAVID L HAMILTON			1	NA
40C 73760 00	MONTANA STATE BOARD OF LAND COMMISSIONERS			1.8	NA
40D 169431 00	MATTHEW J BLISS			1.8	NA
40C 24362 00	DIXON T MURNION; ZANE J MURNION			3.8	NA

Table 12: Groundwater Rights within the 1-ft Drawdown Contour					
WR Number	**Owners**	**Total Well Depth (ft)**	**Static Water Level (ft)**	**Modeled Drawdown (ft)**	**Available Water Column (ft)**
40C 24374 00	DIXON T MURNION; ZANE J MURNION			3.8	NA
40D 169436 00	K L BLISS			1.8	NA
40D 169437 00	K L BLISS			1.8	NA
40D 53210 00	K L BLISS			1.8	NA
40C 24375 00	DIXON T MURNION; ZANE J MURNION			4	NA
40D 30010 00	MONTANA STATE BOARD OF LAND COMMISSIONERS			1.2	NA
40C 24379 00	DIXON T MURNION; ZANE J MURNION			4	NA
40D 179369 00	LINDA K FITZGERALD			2.4	NA
40C 167946 00	CHARANGUS RANCH INC			3.8	NA
40C 24376 00	DIXON T MURNION; ZANE J MURNION			4.2	NA
40C 24373 00	DIXON T MURNION; ZANE J MURNION			4.2	NA
40D 179399 00	HOOKER LIVESTOCK INC			1.2	NA
40C 24377 00	DIXON T MURNION; ZANE J MURNION			5.2	NA
40D 169440 00	MATTHEW J BLISS			2.4	NA
40D 211700 00	JEANA M BLISS; MATTHEW J BLISS			2.4	NA
40D 178565 00	LINDA K FITZGERALD			2.8	NA
40C 24378 00	DIXON T MURNION; ZANE J MURNION			5.9	NA
40D 169457 00	BLISS LIVESTOCK CO			2	NA
40D 167754 00	K L BLISS			2.6	NA
40D 30006468	JEANA M BLISS; MATTHEW J BLISS			2.2	NA
40D 167750 00	K L BLISS			2.8	NA
40D 30013 00	MONTANA STATE BOARD OF LAND COMMISSIONERS			1	NA
40C 167460 00	ANN KIBLER			7	NA
40C 30064198	KENNETH W RICH; LINDA A RICH			2.4	NA
40D 167752 00	K L BLISS			2.8	NA
40D 167753 00	K L BLISS			2.8	NA

Table 12: Groundwater Rights within the 1-ft Drawdown Contour					
WR Number	**Owners**	**Total Well Depth (ft)**	**Static Water Level (ft)**	**Modeled Drawdown (ft)**	**Available Water Column (ft)**
40D 167751 00	K L BLISS			2.8	NA
40D 47629 00	JEANA M BLISS; MATTHEW J BLISS			2.6	NA
40D 37675 00	JARDEN RANCH CO			1	NA
40C 167761 00	K L BLISS			5.4	NA
40C 167761 00	K L BLISS			5.3	NA
40C 167446 00	D K INC			7.8	NA
40D 30007 00	MONTANA STATE BOARD OF LAND COMMISSIONERS			1.2	NA
40D 162668 00	ALEXANDER J WHEATCROFT; GEORGE WHEATCROFT; JOHN B WHEATCROFT; LORI S WHEATCROFT			1.8	NA
40C 30031203	L-O CATTLE CO			6.3	NA
40D 169453 00	BLISS LIVESTOCK CO			3.6	NA
40C 37456 00	MONTANA STATE BOARD OF LAND COMMISSIONERS			3.8	NA
40D 169455 00	MATTHEW J BLISS			2.2	NA
40C 114772 00	HARRIS LAND & LIVESTOCK LLC			1	NA
40C 30064199	KENNETH W RICH; LINDA A RICH			2.4	NA
40C 24433 00	EL DIAMOND RANCH LLC			1	NA
40C 37455 00	MONTANA STATE BOARD OF LAND COMMISSIONERS			5.9	NA
40C 37454 00	MONTANA STATE BOARD OF LAND COMMISSIONERS			6.4	NA
40C 22257 00	POLLARD RANCH CO			5.5	NA
40C 22255 00	POLLARD RANCH CO			5.5	NA
40C 22254 00	POLLARD RANCH CO			5.6	NA
40C 22256 00	POLLARD RANCH CO			5.6	NA
40D 169442 00	BLISS LIVESTOCK CO			3.4	NA
40C 167439 00	D K INC			9.9	NA
40D 169456 00	BLISS LIVESTOCK CO			3.8	NA
40D 169451 00	BLISS LIVESTOCK CO			3	NA
40C 9641 00	L-O CATTLE CO			6.8	NA
40D 167759 00	K L BLISS			3.8	NA
40D 167759 00	K L BLISS			3.8	NA

Table 12: Groundwater Rights within the 1-ft Drawdown Contour					
WR Number	**Owners**	**Total Well Depth (ft)**	**Static Water Level (ft)**	**Modeled Drawdown (ft)**	**Available Water Column (ft)**
40C 167447 00	D K INC			10.2	NA
40D 169429 00	DEAN R ROGGE; TANNA R ROGGE			2.2	NA
40D 169454 00	MATTHEW J BLISS			2.6	NA
40C 167464 00	ANN KIBLER			11.2	NA
40C 73772 00	USA (DEPT OF INTERIOR BUREAU OF LAND MGMT)			1	NA
40C 168066 00	AMERICAN PRAIRIE FOUNDATION			1	NA
40C 189828 00	ANN KIBLER			13.2	NA
40C 167463 00	ANN KIBLER			10.2	NA
40D 169452 00	BLISS LIVESTOCK CO			3.6	NA
40C 3941 00	I O U RANCH			7.6	NA
40D 162673 00	ALEXANDER J WHEATCROFT			1.6	NA
40C 168001 00	MATTHEW J BLISS			3.6	NA
40D 187730 00	ALEXANDER J WHEATCROFT			1.4	NA
40D 187731 00	ALEXANDER J WHEATCROFT			1.4	NA
40D 46769 00	JOHN D MURNION; MURNION LIVESTOCK INC			1.2	NA
40C 122292 00	MARK L JOHNSON; ROMAINE K JOHNSON			9.1	NA
40D 37672 00	JARDEN RANCH CO			1	NA
40C 167999 00	MATTHEW J BLISS			3.6	NA
40C 167998 00	MATTHEW J BLISS			3.6	NA
40C 168000 00	MATTHEW J BLISS			3.6	NA
40D 32071 00	K HEART BAR RANCH TRUST			3.2	NA
40D 169427 00	K HEART BAR RANCH TRUST			3	NA
40C 122299 00	MARK L JOHNSON; ROMAINE K JOHNSON			10.3	NA
40C 122322 00	MARK L JOHNSON; ROMAINE K JOHNSON			10.9	NA
40C 30046950	USA (DEPT OF INTERIOR BUREAU OF LAND MGMT)			5.8	NA
40D 121984 00	MARK L JOHNSON; ROMAINE K JOHNSON			5	NA
40C 86243 00	USA (DEPT OF INTERIOR BUREAU OF LAND MGMT)			3.2	NA

Table 12: Groundwater Rights within the 1-ft Drawdown Contour					
WR Number	**Owners**	**Total Well Depth (ft)**	**Static Water Level (ft)**	**Modeled Drawdown (ft)**	**Available Water Column (ft)**
40C 122326 00	MARK L JOHNSON; ROMAINE K JOHNSON			9.6	NA
40D 169428 00	DEAN R ROGGE; TANNA R ROGGE			2.4	NA
40C 168061 00	USA (DEPT OF INTERIOR BUREAU OF LAND MGMT)			1.6	NA
40D 167704 00	CLIFFORD H HIGHLAND			3.6	NA
40D 162674 00	ALEXANDER J WHEATCROFT			2.4	NA
40C 122321 00	LITTLE ROSIE LLC			7.8	NA
40C 122290 00	LITTLE ROSIE LLC			7.8	NA
40D 162678 00	ALEXANDER J WHEATCROFT			1.8	NA
40C 122306 00	MARK L JOHNSON; ROMAINE K JOHNSON			6.2	NA
40C 88244 00	USA (DEPT OF INTERIOR BUREAU OF LAND MGMT)			2.8	NA
40D 167703 00	CLIFFORD H HIGHLAND			2.6	NA
40D 169471 00	CLIFFORD H HIGHLAND			2.6	NA
40C 168064 00	AMERICAN PRAIRIE FOUNDATION			1	NA
40C 168063 00	AMERICAN PRAIRIE FOUNDATION			1	NA
40C 122285 00	KELLY WITT; MARNIE WITT			10.8	NA
40C 122286 00	KELLY WITT; MARNIE WITT			10.8	NA
40C 122288 00	KELLY WITT; MARNIE WITT			10.8	NA
40C 122339 00	KELLY WITT; MARNIE WITT			10.8	NA
40C 122307 00	KELLY WITT; MARNIE WITT			10.9	NA
40C 122344 00	KELLY WITT; MARNIE WITT			10.9	NA
40C 122297 00	KELLY WITT; MARNIE WITT			10.5	NA
40C 122342 00	KELLY WITT; MARNIE WITT			10.5	NA
40D 162677 00	ALEXANDER J WHEATCROFT			2.4	NA
40C 122341 00	KELLY WITT; MARNIE WITT			8	NA
40C 122296 00	KELLY WITT; MARNIE WITT			8	NA
40C 122308 00	LITTLE ROSIE LLC			8.8	NA
40C 122343 00	LITTLE ROSIE LLC			8.6	NA
40C 109773 00	WEDER AGRICULTURAL LLC; WEDER AGRICULTURAL LTD			4.4	NA
40C 122340 00	KELLY WITT; MARNIE WITT			8.1	NA

Table 12: Groundwater Rights within the 1-ft Drawdown Contour					
WR Number	**Owners**	**Total Well Depth (ft)**	**Static Water Level (ft)**	**Modeled Drawdown (ft)**	**Available Water Column (ft)**
40C 122291 00	KELLY WITT; MARNIE WITT			8.1	NA
40E 30149915	DK INC			6.4	NA
40D 165401 00	CORTANI M BRUSETT			1.6	NA
40D 165402 00	CORTANI M BRUSETT			1.6	NA
40C 30046961	USA (DEPT OF INTERIOR BUREAU OF LAND MGMT)			1.2	NA
40C 113867 00	WEDER AGRICULTURAL LTD			3.4	NA
40C 109774 00	CHRISTINE L WEDER; ERWIN M WEDER			3.6	NA
40C 122283 00	CHRISTINE L WEDER; ERWIN M WEDER			3.6	NA
40C 109776 00	CHRISTINE L WEDER; ERWIN M WEDER			3.6	NA
40C 30125755	AMERICAN PRAIRIE FOUNDATION			2.2	NA
40C 109760 00	WEDER AGRICULTURAL LLC; WEDER AGRICULTURAL LTD			3	NA
40C 122284 00	CHRISTINE L WEDER; ERWIN M WEDER			3.2	NA
40C 109775 00	CHRISTINE L WEDER; ERWIN M WEDER			3.2	NA
40C 69253 00	USA (DEPT OF INTERIOR BUREAU OF LAND MGMT)			2.2	NA
40C 109780 00	WEDER AGRICULTURAL LLC; WEDER AGRICULTURAL LTD			3	NA
40D 24879 00	NY RANCH LLC			3.6	NA
40C 109759 00	WEDER AGRICULTURAL LLC; WEDER AGRICULTURAL LTD			3.4	NA
40C 30064484	USA (DEPT OF INTERIOR FISH & WILDLIFE SERVICE)			1	NA
40E 57387 00	USA (DEPT OF INTERIOR BUREAU OF LAND MGMT)			4	NA
40C 30064483	USA (DEPT OF INTERIOR FISH & WILDLIFE SERVICE)			1	NA
40E 109768 00	WEDER AGRICULTURAL LLC; WEDER AGRICULTURAL LTD			3.8	NA
40E 63637 00	USA (DEPT OF INTERIOR BUREAU OF LAND MGMT)			3.8	NA

Table 12: Groundwater Rights within the 1-ft Drawdown Contour					
WR Number	**Owners**	**Total Well Depth (ft)**	**Static Water Level (ft)**	**Modeled Drawdown (ft)**	**Available Water Column (ft)**
40E 63636 00	USA (DEPT OF INTERIOR BUREAU OF LAND MGMT)			3.8	NA
40D 30022234	SAYLOR ENTERPRISES INC			2.2	NA
40D 169413 00	RANDAL W BRUSETT; SHARON L BRUSETT			1.2	NA
40D 30116405	RANDAL W BRUSETT; SHARON L BRUSETT			1.2	NA
40E 30155011	NATHAN SAYLOR			4	NA
40E 30052012	CLAUDE N SAYLOR			3.6	NA
40D 169412 00	RANDAL W BRUSETT; SHARON L BRUSETT			1.4	NA
40D 125258 00	6M RANCH INC			2.2	NA
40E 30065763	JOHN A OCONNOR			1.6	NA
40E 169406 00	TARA B EDDY			1.6	NA
40E 169405 00	TARA B EDDY			1.6	NA
40E 63625 00	USA (DEPT OF INTERIOR BUREAU OF LAND MGMT)			2.2	NA
40E 63624 00	USA (DEPT OF INTERIOR BUREAU OF LAND MGMT)			2.2	NA
40D 164649 00	COULTER RANCHES INC; COULTER, KENNETH A			1.2	NA
40E 24435 00	DANA G PHIPPS; TIMOTHY A PHIPPS			2.8	NA
40E 122159 00	KELLY WITT; MARNIE WITT			2.8	NA
40E 122164 00	KELLY WITT; MARNIE WITT			2.8	NA
40E 122160 00	KELLY WITT; MARNIE WITT			2.8	NA
40E 122161 00	KELLY WITT; MARNIE WITT			2.8	NA
40D 187605 00	COULTER RANCHES INC; COULTER, KENNETH A			1	NA
40E 30065814	COULTER RANCHES INC			1.8	NA
40E 164926 00	COULTER RANCHES INC; COULTER, KENNETH A			1.8	NA
40E 122338 00	KELLY WITT; MARNIE WITT			2.6	NA
40E 122295 00	KELLY WITT; MARNIE WITT			2.6	NA
40E 30065765	JOHN A OCONNOR			1.4	NA
40E 166514 00	RANDAL W BRUSETT; SHARON L BRUSETT			2	NA

Table 12: Groundwater Rights within the 1-ft Drawdown Contour					
WR Number	**Owners**	**Total Well Depth (ft)**	**Static Water Level (ft)**	**Modeled Drawdown (ft)**	**Available Water Column (ft)**
40E 166515 00	RANDAL W BRUSETT; SHARON L BRUSETT			2	NA
40E 30065764	JOHN A OCONNOR			1.2	NA
40E 66168 00	USA (DEPT OF INTERIOR BUREAU OF LAND MGMT)			2.6	NA
40E 165080 00	COULTER RANCHES INC; COULTER, KENNETH A			1.6	NA
40D 15856 00	6M RANCH INC			1	NA
40D 125230 00	6M RANCH INC			1	NA
40D 125231 00	6M RANCH INC			1	NA
40D 125228 00	6M RANCH INC			1	NA
40D 125229 00	6M RANCH INC			1	NA
40E 30065815	COULTER RANCHES INC			1.6	NA
40E 122158 00	BARKAN BACKHOE AND TRENCHING, INC			1.4	NA
40E 122171 00	BARKAN BACKHOE AND TRENCHING, INC			1.4	NA
40E 24853 00	MONTANA STATE BOARD OF LAND COMMISSIONERS			2.2	NA
40E 125234 00	6M RANCH INC			1	NA
40D 153014 00	6M RANCH INC			1	NA
40E 24854 00	MONTANA STATE BOARD OF LAND COMMISSIONERS			2	NA
40E 30116402	RANDAL W BRUSETT; SHARON L BRUSETT			1.6	NA
40E 24440 00	DANA G PHIPPS; TIMOTHY A PHIPPS			1.8	NA
40E 112693 00	CHRISTINE L WEDER; ERWIN M WEDER			1.2	NA
40E 122172 00	WEDER AGRICULTURAL LTD			1.2	NA
40E 114023 00	7-V RANCH LLC			1.8	NA
40E 30103486	EDWARD F RYAN			1.8	NA
40E 30103488	EDWARD F RYAN			1.8	NA
40E 32169 00	BURL A JONES; EUNICE C JONES			1.8	NA
40E 38948 00	7-V RANCH LLC			1.6	NA
40E 164973 00	CHAMBERLIN FAMILY TRUST			1.4	NA

Table 12: Groundwater Rights within the 1-ft Drawdown Contour					
WR Number	**Owners**	**Total Well Depth (ft)**	**Static Water Level (ft)**	**Modeled Drawdown (ft)**	**Available Water Column (ft)**
40E 122263 00	DANA G PHIPPS; TIMOTHY A PHIPPS			1.2	NA
40E 122262 00	DANA G PHIPPS; TIMOTHY A PHIPPS			1.2	NA
40E 122282 00	DANA G PHIPPS; TIMOTHY A PHIPPS			1.2	NA
40E 122281 00	DANA G PHIPPS; TIMOTHY A PHIPPS			1.2	NA
40E 122133 00	RORY E LOOMIS; RYAN D LOOMIS			1.2	NA
40E 122143 00	RORY E LOOMIS; RYAN D LOOMIS			1.2	NA
40E 122132 00	RORY E LOOMIS; RYAN D LOOMIS			1.2	NA
40E 30103487	EDWARD F RYAN			1.6	NA
40E 114021 00	7-V RANCH LLC			1.4	NA
40E 32170 00	BURL A JONES; EUNICE C JONES			1.6	NA
40E 38947 00	7-V RANCH LLC			1.2	NA
40E 32171 00	BURL A JONES; EUNICE C JONES			1.4	NA
40E 32152 00	BURL A JONES; EUNICE C JONES			1.4	NA
40E 122136 00	RORY E LOOMIS; RYAN D LOOMIS			1.2	NA
40E 32173 00	BURL A JONES; EUNICE C JONES			1.4	NA
40E 32163 00	BURL A JONES; EUNICE C JONES			1.4	NA
40E 32166 00	BURL A JONES; EUNICE C JONES			1.4	NA
40E 32150 00	BURL A JONES; EUNICE C JONES			1.2	NA
40E 32147 00	BURL A JONES; EUNICE C JONES			1.2	NA
40E 32149 00	BURL A JONES; EUNICE C JONES			1.2	NA

Table 12: Groundwater Rights within the 1-ft Drawdown Contour					
WR Number	**Owners**	**Total Well Depth (ft)**	**Static Water Level (ft)**	**Modeled Drawdown (ft)**	**Available Water Column (ft)**
40E 30151837	PRENTICE PHIPPS; JODI PIERSON; KELLY PIERSON			1.2	NA
40E 122265 00	STEPHEN O NEGAARD			1.2	NA
40E 122264 00	STEPHEN O NEGAARD			1.2	NA
40E 122274 00	STEPHEN O NEGAARD			1.2	NA
40E 30113015	CRANE LAND & LIVESTOCK LLC			1	NA
40E 122137 00	LOOMIS, JUNE E REVOCABLE LIVING TRUST DTD 6/8/92			1	NA
40E 122142 00	LOOMIS, JUNE E REVOCABLE LIVING TRUST DTD 6/8/92			1	NA
40E 169495 00	PRENTICE PHIPPS; JODI PIERSON; KELLY PIERSON			1	NA
40E 122267 00	STEPHEN O NEGAARD			1	NA
40E 32157 00	BURL A JONES; EUNICE C JONES			1	NA
40E 32159 00	BURL A JONES; EUNICE C JONES			1	NA

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

ADEQUATE MEANS OF DIVERSION

FINDINGS OF FACT

44. Water Sciences Bureau issued a Notice of Erratum on November 6, 2025 which corrected two static water level values and calculations for drawdown and available water column in the Groundwater Permit Technical Analyses Report—Part A, originally published on October 24, 2024.

45. In the October 24, 2024 Report Table 2, the static water levels of POD #2 and POD #3 were incorrectly listed as 239.00 ft and 328.00 ft, respectively. The Notice of Erratum corrected these values to 221.41 ft and 308 ft. The POD #2 static water level of 221.41 ft was

the background water level reported in the August 10, 2023 pump test. The POD #3 static water level of 308 ft is reported in GWIC well log report.

46. The correction of POD #2 and POD #3 static water levels necessitated a recalculation of available drawdown above the bottom of the wells, and remaining available water column. Table 14 contains the results.

47. Table 13 below summarizes the development and lithology in each well:

Table 13: Production Well Information					
PODl #	GWIC ID	Depth (ft) – Below Ground Surface	Screened Interval (ft) Below Ground Surface	Static Water Level (ft) Below Top of Casing	Lithology
1	290948	300	240-300	196	Sand
2	145589	390	320-390	221.41	Sand
3	248226	433	393-433	308	Sand and clay
4	294281	435	360-400	210	Silty sand and shale

48. As identified in Table 14**,** total drawdown is the sum of interference drawdown and predicted drawdown with well loss. 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.

49. An evaluation of the potentially available water column remaining in the production wells was modeled in FWD:SOLV (HydroSOLVE INC., 2024). Due to the distance between two groupings of wells and the variation in lithology, there were two T values used across two groups of two wells. The following parameters are used:

a. Theis (1935) solution with a T=92.4 ft^2/day and T=13.6 ft^2/day
b. Monthly pumping schedule identified in Table 11 for the period of diversion.
c. Storativity (storage coefficient) S = 6.47 x 10^{-4} (Lohman, 1972)

50. The aquifer adjacent to the proposed wells would experience 106.9 ft of maximum total drawdown. The remaining available water column for Well #1 through Well #4 is 9.9, 119.6, 20.1 and 105.6 ft and is equal to the available drawdown above the bottom of the well minus total drawdown accounting for 2-ft of well casing stickup above ground surface. (see Table 14).

Table 14: Remaining Available Water Column in the Proposed Wells				
Drawdown Estimate	**Well #1**	**Well #2**	**Well #3**	**Well #4**
Total Depth at Bottom of Perforated Interval (ft)[1]	302.0	392.0	435.0	402.0

Static Water Level (ft)	196.0	221.4	308.0	210.0
Available Drawdown Above Bottom of Well (ft)	106.0	170.6	127.0	192.0
Observed Drawdown of Aquifer Test (ft)	54.9	54.9	140.0	140.0
Modeled Drawdown Using Mean Aquifer Test Rate (ft)	9.4	18.8	141.3	141.3
Well Efficiency (%)	17.1	34.2	100.0	100.0
Predicted Theoretical Maximum Drawdown (ft)	15.7	16.0	102.6	80.7
Predicted Drawdown with Well Loss (ft)	92.0	46.9	102.6	80.7
Interference Drawdown Proposed Wells (ft)	4.1	4.1	4.3	5.7
Total Drawdown (ft)	96.1	51.0	106.9	86.4
Remaining Available Water Column (ft)	**9.9**	**119.6**	**20.1**	**105.6**

1. The total well depth measuring point was adjusted to the top of well casing based on a 2 ft well casing stickup reported on the well log.

51. Water will be diverted via four wells located in Sections 35, 25, 23 and 21, T18N, R32E, Garfield County. The four wells are a manifold system with Grundhos pumps operating at 1.5 HP, 2 HP, 2 HP, and 3 HP, respectively, at POD #1, POD #2, POD #3 and POD #4. The system supplies to two underground cisterns and 55 stock tanks year-round. The connecting pipelines are 2-inch poly pipe buried 6 ft deep. The pipline is reduced to a 1-inch pipe 50 ft from each tank and a curb stop is installed so that each tank can be isolated if a repair is needed or if a tank needs to be shut off. There are valves near each of the wells which can completely turn off a well independently of others. The Applicants estimate that no more than two out of four wells run at the same time. USDA NRCS assisted with the design and installation of the stock water system.

52. Generally, the nearest well to the grazing pasture is the well that will be in operation. During peak consumption in the summer, the Applicants pump from two wells at the same time as necessary to satisfy demand and to avoid stressing a single well.

53. Each of the two cisterns has 20,000 gallon capacity. They are maintained at 75% capacity and can gravity-feed water to the tanks in case of a well or power failure. Each cistern and rubber tire tank has a float switch which prevents overflow. There is no conveyance loss in the closed manifold system.

54. For system winterization, the cisterns are drained. Any tanks and pipeline sections that are not used in the winter are also drained.

55. All four wells were drilled by licensed well drillers. The Applicants provided the name and license number of each well driller in the application.

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

BENEFICIAL USE

FINDINGS OF FACT

57. The Applicants propose to divert 26.5 AF of groundwater up to 39 GPM year-round for 800 cow/calf pairs. The livestock watering system includes four wells in manifold supplying to 55 stock tanks crossing five landownerships.

58. The proposed flow rate of 39 GPM represents the maximum diversionary capacitiy of the manifold system if all four wells were to run at the same time. In the Applicants' routine operation, no more than two wells will pump simultaneously. The selection of operating pumps depends on proximity to the cattle grazing rotation.

59. The Applicants propose a water use standard that exceeds the Department's Water Calculation Guide of 15 gallons per day per animal unit. Citing information published by North Carolina State University Extension Water for Beef Cattle | NC State Extension (https://beef.ces.ncsu.edu/water-for-beef-cattle/), the Applicants explained that their cattle require as much as two gallons of water per 100 lbs of body weight per day. As their cattle avergae 1200 to 1400 lbs, the consumptive need for a cow/calf pair is nearly 30 gallons per day during summer season. The Applicants also stated that their cattle operation is located in dry, hilly terrain, which increases the cattle's reliance on the proposed watering system. At 30 gallons per day, the Applicants' beneficial water use for 800 AU is approximately 26.5 AF per year.

60. The Department's GIS program, Converge, shows the project area in Irrigation Climate Area I--high consumptive use. The Department finds the climatic factor of the area justifies the Applicants' explanation for exceeding the Department's Water Calculation Guide of 15 gallons per day per animal unit.

61. The Department finds that the proposed use is beneficial, and that the requested flow rate of 39 GPM and annual volume of 26.5 AF is the amount needed to accomplish the beneficial use.

POSSESSORY INTEREST

FINDINGS OF FACT

62. Seven Applicants signed the application form affirming the Applicants' 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. Applicants include private landowners and the U.S. Department of Interior Bureau of Land Management.

63. The Department finds the Applicants satisfied the possessory interest criterion for the property where the water is to be put to beneficial use.

CONCLUSIONS OF LAW

PHYSICAL AVAILABILITY

64. 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."

65. 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).

66. 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).

67. 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 16-23)

LEGAL AVAILABILITY

68. 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).

69. 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.

70. 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).

71. 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.

72. 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*.

73. In analyzing legal availability for surface water, Applicant was required to evaluate legal demands on the source of supply throughout the "area of potential impact" by the proposed use under § 85-2-311(1)(a)(ii), MCA, not just within the "zone of influence." *Sitz Ranch v. DNRC*, DV-10-13390, Fifth Judicial District Court, *Order Affirming DNRC Decision*, (2011) Pg. 6.

74. 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 24-39)

ADVERSE EFFECT

75. 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.

76. 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).

77. 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).

78. 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).

79. 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.

80. 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).

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

82. 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 40-43)

ADEQUATE DIVERSION

83. 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.

84. 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.

85. 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).

86. 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).

87. 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).

88. 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 44-56).

BENEFICIAL USE

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

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

Matter of Application for Beneficial Water Use Permit No. 41S-105823 by French (DNRC Final Order 2000).

91. 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).

92. 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.

93. 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).

94. 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*.

95. Applicants propose to use water for livestock purpose which is a recognized beneficial use. Section 85-2-102(5), MCA. Applicant has proven by a preponderance of the evidence livestock use is a beneficial use and that 26.5 AF of diverted volume and 39 GPM is the amount needed to sustain the beneficial use. Section 85-2-311(1)(d), MCA. (FOF 57-61)

POSSESSORY INTEREST

96. 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.

97. 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.

98. The Applicants have 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 62-63)

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. 40C 30163283 should be GRANTED.

The Department determines that the Applicants may divert groundwater, by means of four wells in a manifold system, from January 1 to December 31 at 39 GPM up to 26.5 AF, from Sections 21, 23, 25 and 35, T18N, R32E, Garfield County, for livestock use for 800 animal units from January 1 to December 31. The points of diversion are listed in Table 1 and the places of use are listed in Table 2, repeated below:

Table 1: Proposed use of the four-well manifold system

	LLD (All in T18N, R32E)	Flow Rate (GPM)	Volume (AF)	Period of Diversion and Use	Depth (FT)	GWIC ID	Existing Water Right
POD #1	SENESE Sec 35	10	3.8	1/1 - 12/31	300	290948	
POD #2	SWSWSW Sec. 25	10	3.8	1/1 - 12/31	390	145589	40C 91842 00
POD #3	SESWNE Sec. 23	9	6.8	1/1 - 12/31	433	248226	40C 30048243
POD #4	NWNWNE Sec. 21	10	6.1	1/1 - 12/31	435	294281	

Table 2: Proposed places of use (stock tanks)

POU#	Qtr	Sec	Twp/Rge	POU#	Qtr	Sec	Twp/Rge
1	NW NE SW	36	18 N 32 E	29	NWNW SW	4	18 N 32 E
2	SE SE SW	35	18 N 32 E	30	SW SE NW	14	18 N 32 E

POU#	Qtr	Sec	Twp/Rge	POU#	Qtr	Sec	Twp/Rge
3	NE NE NE	35	18 N 32 E	31	SWSW NW	15	18 N 32 E
4	NE NE NW	35	18 N 32 E	32	NW NW NE	10	18 N 32 E
5	SE SE NE	34	18 N 32 E	33	SW SE SW	3	18 N 32 E
6	NE SE SW	27	18 N 32 E	34	SW NE SE	4	18 N 32 E
7	NW NW NW	27	18 N 32 E	35	NE NW NE	4	18 N 32 E
8	SE NW NE	28	18 N 32 E	36	NE NE NW	33	19 N 32 E
9	NW NW SE	21	18 N 32 E	37	NE NW SE	28	19 N 32 E
10	NE NW SW	22	18 N 32 E	38	NW NW NE	28	19 N 32 E
11	NE SE SE	22	18 N 32 E	39	NW NW NE	29	19 N 32 E
12	NE NE NW	25	18 N 32 E	40	NE SW NE	21	19 N 32 E
13	SE NE NE	26	18 N 32 E	41	NW SE NE	20	19 N 32 E
14	NE NE SW	23	18 N 32 E	42	NW SW NW	20	19 N 32 E
15	NW SW NW	24	18 N 32 E	43	SE SW NE	17	19 N 32 E
16	NE NE NE	24	18 N 32 E	44	NE SE NW	17	19 N 32 E
17	NW SW NW	19	18 N 33 E	45	SW SE NE	18	19 N 32 E
18	SW NE SW	13	18 N 32 E	46	NW SE SW	18	19 N 32 E
19	NW NE NE	11	18 N 32 E	47	NW SE NE	35	19 N 32 E
20	SE NE SW	2	18 N 32 E	48	NE NW NW	35	19 N 32 E
21	SE NE NE	20	18 N 32 E	49	NE NW SW	31	19 N 33 E
22	NE NE NW	20	18 N 32 E	50	NE SE SE	26	19 N 32 E
23	NE NE SW	17	18 N 32 E	51	NW SE NW	26	19 N 32 E
24	SE NE SE	8	18 N 32 E	52	NE SE SE	27	19 N 32 E
25	NE NW NE	8	18 N 32 E	53	SW SW SE	27	19 N 32 E
26	NW NW SE	9	18 N 32 E	54	NE SW NW	27	19 N 32 E
27	SE SE NW	5	18 N 32 E	55	NW NW NE	27	19 N 32 E
28	NW NE NE	5	18 N 32 E				

NOTICE

The Department will provide a notice of opportunity for public comment on this application and the Department's Draft Preliminary Determination to Grant pursuant to § 85-2-307, MCA. The Department will set a deadline for public comments to this application pursuant to §§ 85-2-307, and -308, MCA. If this application receives public comment pursuant to § 85-2-307(4), the

Department shall consider the public comments, respond to the public comments, and issue a preliminary determination to grant the application, grant the application in modified form, or deny the application. If no public comments are received pursuant to § 85-2-307(4), MCA, the Department's preliminary determination will be adopted as the final determination.

DATED this 14TH day of NOVEMBER, 2025.

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

CERTIFICATE OF SERVICE

This certifies that a true and correct copy of the DRAFT PRELIMINARY DETERMINATION TO GRANT was served upon all parties listed below on this 14TH day of November, 2025 by first class United States mail.

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