

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

**APPLICATION FOR BENEFICIAL
WATER USE PERMIT NO. 76LJ 30151310
BY WARDEN HUTTERIAN BRETHREN**) **PRELIMINARY DETERMINATION TO
GRANT PERMIT**

The Warden Hutterian Brethren (Applicant) submitted Groundwater Application for Beneficial Water Use Permit No. 76LJ 30151310 to the Kalispell Water Resources Office of the Department of Natural Resources and Conservation (Department or DNRC) on February 4, 2021. The Applicant proposes diverting up to 261.0 AF of volume annually at a flow rate of 1.5 CFS (670.0 GPM) from a well for irrigation use. The Department published receipt of the Application on its website on February 16, 2021. The application was determined to be correct and complete as of July, 7 2021. The Applicant submitted a waiver of the timelines per § 85-2-307, MCA on October 1, 2021. The Applicant submitted additional application information on November 9, 2022. The DNRC sent a revised Technical Report to the Applicant on April 3, 2024. An Environmental Assessment for this application was completed on April 12, 2024.

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-GW
- Addenda:
 - Aquifer Testing Addendum, Form 600-ATA
- Attachments:
 - Appendix A. Certificates of Survey
 - Appendix B. Land Use Agreements
 - Appendix C. Well Design Details
 - Appendix D. Variance Approval and Form 633

- Appendix E. Pivot Sprinkler Specifications
- Appendix F. Pump Specifications and Friction Loss Calculations
- Appendix G. Irrigation Water Requirements
- Maps/Figures:
 - Figure 1. Site Vicinity Map
 - Figure 2. Place of Use Map
 - Figure 3. Climate Zones
 - Figure 4. Aquifer Testing Map

Information Received after Application Filed

- Lithologic log for the production well created by the Applicant's consultant Water and Environmental Technologies, received April 2, 2021.
- Waiver of 120 Days Statutory Timeline for Preliminary Determination Decision Form 639 received October 1, 2021.
- Memorandum from Water and Environmental Technologies to the DNRC providing additional application information, received November 9, 2022.

Information within the Department's Possession/Knowledge

- Aquifer Test Report by DNRC Water Management Bureau Groundwater Hydrologist Evan Norman, dated April 21, 2021.
- Revised Depletion Report by DNRC Water Management Bureau Groundwater Hydrologists Evan Norman and Melissa Brickl, dated January 12, 2023 (original report dated April 21, 2021).
- Mean monthly stream flow data for the Flathead River from USGS Gaging Station No. 12363000 at Columbia Falls, MT. Period of record: October 1951 – June 2023.
- Mean monthly stream flow data for the Flathead River from USGS Gaging Station No. 12372000 near Polson, MT. Period of record: October 1938 – May 2023).
- Mean monthly stream flow data for Blaine Creek from DNRC Gaging Station No. 76LJ 001 at MSU Ag Station. Period of record: May 2017 – June 2020).
- Mean monthly stream flow data for Mill Creek from DNRC Gaging Station No. 76LJ 07500 below Creston Hatchery. Period of record: August 2016 – August 2022.

- List of existing surface water rights on the Flathead River from the USGS Gaging Station No. 12363000 at Columbia Falls, MT down to the Flathead Lake inlet.
- List of existing surface water rights on Flathead Lake from the Flathead Lake inlet down to USGS Gaging Station No. 12372000 near Polson, MT.
- List of existing surface water rights on Blaine Creek from DNRC Gaging Station No. 76LJ 001 down to Blaine Creek’s confluence with Mill Creek.
- List of existing surface water rights on Mill Creek from DNRC Gaging Station No. 76LJ 07500 down to Mill Creek’s confluence with the Flathead River.
- List of existing groundwater rights in the source aquifer that are expected to experience drawdown greater than one foot.
- Production well log GWIC ID: 313497.
- 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 Kalispell Regional Office at 406-752-2288 to request copies of the following documents:
- DNRC Technical Memorandum: Legal Availability of Groundwater in the Flathead Deep Aquifer, dated December 12, 2019.

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 and Conservation | |
| NRCS means the US Department of Agriculture’s Natural Resource Conservation Service | |
| AF means acre-feet | BGS means below ground surface |
| BTC means below top of casing | CFS means cubic feet per second |
| GPM means gallons per minute | GWIC means the groundwater information center |
| IWR means Irrigation Water Requirements | POD means point of diversion |
| PSI means pounds per square inch | SWL means static water level |
| TDH means total dynamic head | VFD means variable frequency drive |
| WSB means Water Sciences Bureau | --- |

PROPOSED APPROPRIATION

FINDINGS OF FACT

1. The Applicant proposes to divert groundwater by means of a production well (GWIC ID: 313497; completed to 315-foot BGS) from April 15 – October 15 at 1.5 CFS (670.0 GPM) up to 261.0 AF/year for irrigation of 139.0 acres from April 15 – October 15.
2. The proposed POD is in the NWNESE of Section 5, Township 28N, Range 20W, Flathead County, Montana (Figure 1). The proposed place of use is in the SE of Section 5, Township 28N, Range 20W, Flathead County, Montana (Figure 1). The POD is located approximately 2.3 miles northwest of a perennial reach of Blaine Creek, 2.3 miles northwest of Mill Creek, and 2.5 miles northeast of the Flathead River (Egan Slough). The POD is in the Flathead River Basin (to and including Flathead Lake) (76LJ) in an area that is not subject to water right basin closures or controlled groundwater area restrictions.

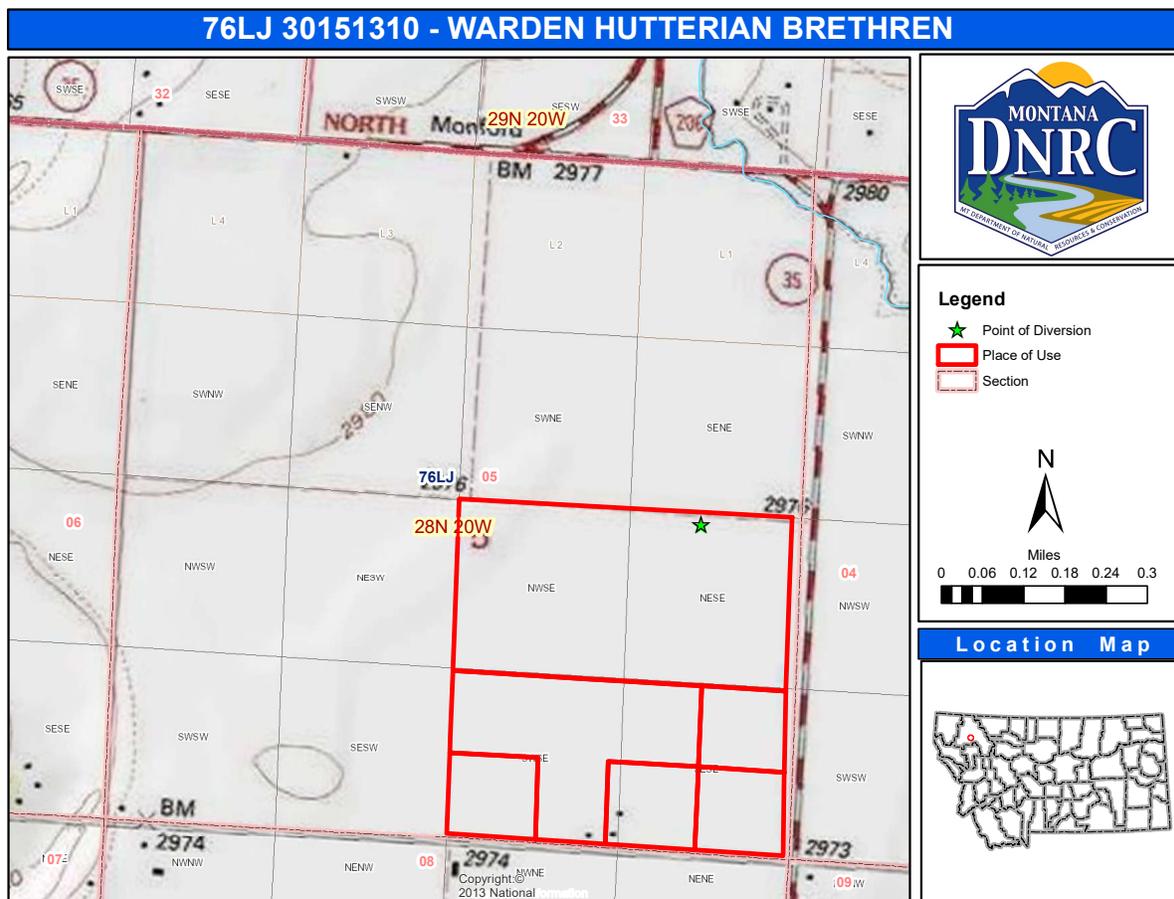


Figure 1: Map of the proposed place of use and point of diversion.

3. The Applicant proposes to irrigate 139.0 acres using three center pivot sprinkler systems. Two of the sprinkler systems are similarly sized and require 501.4 GPM and 507.1 GPM (1.1 CFS and 1.1 CFS, respectively). The third system is smaller and requires 168.5 GPM (0.4 CFS). The 501.4 GPM and the 168.5 GPM systems may operate simultaneously at the maximum requested flow rate. The 507.1 GPM system may only be operated individually. The Applicant intends to irrigate various crops on the agricultural property and may alternate crops from year to year. Irrigation is proposed to occur on portions of five parcels. The property owned by the Applicant encompasses a total of 79.1 acres. Four additional parcels will be irrigated through land use agreements between each owner and the Applicant. Copies of the land use agreements were included with the application.

4. The total annual consumption for the proposed 139.0 irrigated acres is based on a net irrigation requirement for alfalfa of 17.81 inches obtained from the Creston station in the NRCS IWR program. Total annual consumption for the proposed irrigation use is 206.3 AF (17.81 inches ÷ 12.0 inches/foot x 139.0 acres = 206.3 AF).

5. To satisfy the Adverse Effect criterion, the proposed provisional permit will be subject to the following condition upon issuance:

THE APPROPRIATOR SHALL INSTALL A DEPARTMENT APPROVED IN-LINE FLOW METER AT A POINT IN THE DELIVERY LINE APPROVED BY THE DEPARTMENT. WATER MUST NOT BE DIVERTED UNTIL THE REQUIRED MEASURING DEVICE IS IN PLACE AND OPERATING. ON A FORM PROVIDED BY THE DEPARTMENT, THE APPROPRIATOR SHALL KEEP A WRITTEN MONTHLY RECORD OF THE FLOW RATE AND VOLUME OF ALL WATER DIVERTED, INCLUDING THE PERIOD OF TIME. RECORDS SHALL BE SUBMITTED BY JANUARY 31 OF EACH YEAR AND UPON REQUEST AT OTHER TIMES DURING THE YEAR UNTIL A FORM 617 PROJECT COMPLETION NOTICE IS SUBMITTED. FAILURE TO SUBMIT REPORTS MAY BE CAUSE FOR REVOCATION OF THE PERMIT. THE RECORDS MUST BE SENT TO THE KALISPELL REGIONAL WATER RESOURCES OFFICE. THE APPROPRIATOR SHALL MAINTAIN THE MEASURING DEVICE SO IT ALWAYS OPERATES PROPERLY AND MEASURES FLOW RATE AND VOLUME ACCURATELY.

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

GENERAL CONCLUSIONS OF LAW

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

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

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

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

- ... the department shall issue a permit if the applicant proves by a preponderance of evidence that the following criteria are met:
 - (a) (i) there is water physically available at the proposed point of diversion in the amount that the applicant seeks to appropriate; and

(ii) water can reasonably be considered legally available during the period in which the applicant seeks to appropriate, in the amount requested, based on the records of the department and other evidence provided to the department. Legal availability is determined using an analysis involving the following factors:

(A) identification of physical water availability;

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

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

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

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

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

(e) the applicant has a possessory interest or the written consent of the person with the possessory interest in the property where the water is to be put to beneficial use, or if the proposed use has a point of diversion, conveyance, or place of use on national forest system lands, the applicant has any written special use authorization required by federal law to occupy, use, or traverse national forest system lands for the purpose of diversion, impoundment, storage, transportation, withdrawal, use, or distribution of water under the permit;

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

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

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

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

To meet the preponderance of evidence standard, “the Applicant, in addition to other evidence demonstrating that the criteria of subsection (1) have been met, shall submit hydrologic or other evidence, including but not limited to water supply data, field reports, and other information developed by the Applicant, the department, the U.S. geological survey, or the U.S. natural

resources conservation service and other specific field studies.” § 85-2-311(5), MCA (emphasis added). The determination of whether an application has satisfied the § 85-2-311, MCA criteria is committed to the discretion of the Department. *Bostwick Properties, Inc. v. Montana Dept. of Natural Resources and Conservation*, 2009 MT 181, ¶ 21. The Department is required grant a permit only if the § 85-2-311, MCA, criteria are proven by the Applicant by a preponderance of the evidence. *Id.* A preponderance of evidence is “more probably than not.” *Hohenlohe v. DNRC*, 2010 MT 203, ¶¶ 33, 35, 357 Mont. 438, 240 P.3d 628.

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

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

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

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

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

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

PHYSICAL AVAILABILITY

FINDINGS OF FACT

12. The Applicant proposes to divert groundwater at 1.5 CFS (670.0 GPM) up to 261.0 AF/year for irrigation of 139.0 acres. The proposed well was evaluated with an 8-hour yield and drawdown test performed at 800.0 GPM (1.8 CFS). The DNRC Kalispell Regional Office granted a variance from the aquifer testing requirement in ARM 36.12.121(3)(e) on October 6, 2020. This variance allowed the Applicant to conduct an 8-hour yield and drawdown test to demonstrate adequacy of the proposed well (as opposed to a 72-hour constant-rate test). Aquifer properties normally generated via a constant-rate aquifer test were demonstrated using existing neighboring aquifer test data.

13. Physical availability for this application was evaluated pursuant to the Memorandum to the Water Resources Division Administrator entitled *Technical Memorandum: Legal Availability of Groundwater in the Flathead Deep Aquifer*, dated December 12, 2019. As described in the Memorandum, groundwater levels in the Deep Aquifer (and physical availability of groundwater in the context of a legal availability analysis) are effectively controlled by the stage of Flathead River and Flathead Lake. Therefore, physical and legal availability for this application were evaluated for the Flathead River and Flathead Lake based on a surface water depletion analysis.

14. Net depletions to hydraulically connected surface water sources by pumping in the source aquifer primarily occur through propagation of drawdown through the overlying intertongued semi-confining layer. The DNRC identified three potentially hydraulically connected surface water sources: Blaine Creek, Mill Creek, and the Flathead River (including Flathead Lake). Depletion effects are expected to be dampened resulting in a constant year-round rate of depletion of 127.9 GPM (0.3 CFS) (equivalent to the total consumed volume of 206.3 AF). These depletions will manifest in Blaine Creek, Mill Creek, and the Flathead River at the locations and in the proportions identified in Table 1. The physical supplies of the Flathead River and Flathead Lake are evaluated in this section pursuant to DNRC Technical Memorandum: Legal Availability of Groundwater in the Flathead Deep Aquifer. The physical and legal availability evaluations of Blaine and Mill Creeks are found in the Legal Availability section of this document.

| Table 1: Upstream Location and Apportionment of Net Depletions to Potentially Affected Surface Water Sources | | | | | | |
|---|-------------|---------|----------|-------|---------------------------|--------------------------|
| Source | ¼ ¼ Section | Section | Township | Range | Distance from POD (miles) | % of Total Net Depletion |
| Blaine Creek | NW SW | 15 | 28N | 20W | 2.3 | 35 |
| Mill Creek | SW SE | 10 | 28N | 20W | 2.3 | 35 |
| Flathead River | NE SE | 18 | 28N | 20W | 2.5 | 30 |

15. *Flathead River – Physical Availability (quantified for the purpose of analyzing physical availability of the Deep Aquifer)*: Physical availability of the Flathead River from USGS Gaging Station No. 12363000 to the Flathead Lake inlet was quantified monthly. The Department used the Flathead River at Columbia Falls, MT USGS Gaging Station No. 12363000 (period of record: October 1951 – June 2023) to quantify the physically available monthly flow rates and volumes in this reach during the period of groundwater diversion and resulting surface water depletion (year-

round). DNRC WSB determined that the Flathead River downstream of the NESE of Section 18, Township 28N, Range 20W (location of Egan Slough) would be depleted. USGS Gage No. 12363000 is the nearest gage to the depleted reach of the Flathead River and is approximately 25 miles upstream of the beginning of the depleted reach. To simplify the physical and legal availability analysis of the depleted reach, the entire reach of the Flathead River from USGS Gaging Station No. 12363000 to the Flathead Lake inlet was considered for physical and legal availability.

16. The Department calculated median of the mean monthly flow rates in CFS for the Flathead River using USGS Gaging Station No. 12363000 records for each month of the year (Table 2, column B). Those flow rates were converted to monthly volumes in AF (Table 2, column C) using the following equation found on DNRC Water Calculation Guide (formerly Form 615): median of the mean monthly flow (CFS) \times 1.98 (AF/day/1 CFS) \times days per month = AF/month. Since the gaging station marks the upstream extent of the identified reach, the gage values represent the physical quantity of water flowing through the depleted reach, and thus the Deep Aquifer.

| Table 2: Physical Availability Analysis of Flathead River from USGS Gage No. 12363000 at Columbia Falls, MT to the Flathead Lake Inlet | | |
|---|--|---|
| A | B | C |
| Month | Median of the Mean Monthly Flow at Gage 12363000 / Physically Available Water (CFS) | Median of the Mean Monthly Volume at Gage 12363000 / Physically Available Water (AF) |
| January | 5,149.0 | 316,045.6 |
| February | 4,851.0 | 268,939.4 |
| March | 4,805.0 | 294,930.9 |
| April | 10,680.0 | 634,392.0 |
| May | 22,660.0 | 1,390,870.8 |
| June | 24,680.0 | 1,465,992.0 |
| July | 11,415.0 | 700,652.7 |
| August | 5,444.0 | 334,152.7 |
| September | 4,440.5 | 263,765.7 |
| October | 4,955.0 | 304,137.9 |
| November | 4,565.0 | 271,161.0 |
| December | 5,499.0 | 337,528.6 |

17. Flathead Lake – Physical Availability (quantified for the purpose of analyzing physical availability of the Deep Aquifer): Physical availability of Flathead Lake from the lake inlet to USGS Gaging Station No. 12372000 was quantified monthly. The Department used the Flathead

River near Polson, MT USGS Gaging Station No. 12372000 (period of record: October 1938 – May 2023) to quantify physically available monthly flow rates and volumes in this reach during the period of groundwater diversion and resulting surface water depletion (year-round). USGS Gaging Station No. 12372000 is approximately 0.6 miles downstream of the Séliš Ksanka Qlispè Dam (SKQ Dam, formerly known as Kerr Dam). This gage is representative of the amount of water leaving Flathead Lake because it is the closest gage downstream of the dam and depletions to the Flathead River and Flathead Lake will reduce the total volume of water flowing down the river and leaving the lake (passing over/through the dam). The date range used includes the entire period of record for this gage.

18. The Department calculated median of the mean monthly flow rates in CFS for the Flathead River (Flathead Lake) using USGS Gaging Station No. 12372000 records for each month of the proposed period of depletion (Table 3, column B). Those flow rates were then converted to monthly volumes in AF (Table 3, column C).

19. The Department calculated the monthly flow rates appropriated by existing users upstream of the gage on the source (Table 3, column D) by:

- i. Generating a list of existing surface water rights from the Flathead Lake inlet to USGS Gaging Station No. 12372000 (list is included in the application file and available upon request);
- ii. Designating irrigation and lawn and garden uses as occurring from April 1 to October 31 while designating all other water uses as year-round uses;
- iii. Assigning a single combined flow rate of 35.0 GPM (0.1 CFS) to all livestock direct from source rights without a designated flow rate (per DNRC adjudication standards); and,
- iv. Assuming that the flow rate of each existing right is continuously diverted throughout each month of its period of diversion. This assumption is necessary due to the difficulty of differentiating the distribution of appropriated volume over the period of diversion. This leads to an overestimation of legal demands on the physical volume of water. The Department finds this method an appropriate measure of assessing existing rights as it protects existing water users.

20. The Department added the flow rates of the existing rights between Flathead Lake inlet and USGS Gaging Station No. 12372000 (Table 3, column D) to the median of the mean monthly gage values (Table 3, column B) to determine physical availability in this depleted reach, and thus the Deep Aquifer (Table 3, columns E-F).

| Table 3: Physical Availability Analysis of Flathead Lake from the Flathead Lake Inlet to USGS Gage #12372000 near Polson, MT | | | | | |
|---|---|--|--|---|--|
| A | B | C | D | E | F |
| Month | Median of the Mean Monthly Flow at Gage 12372000 (CFS) | Median of the Mean Monthly Volume at Gage 12372000 (AF) | Existing Rights from Flathead Lake Inlet to Gage 12372000 (CFS) | Physically Available Water in Depleted Reach (CFS) | Physically Available Water in Depleted Reach (AF) |
| January | 10,380.0 | 637,124.4 | 105.7 | 10,485.7 | 643,610.8 |
| February | 9,166.0 | 508,163.0 | 105.7 | 9,271.7 | 514,021.7 |
| March | 7,778.0 | 477,413.6 | 105.7 | 7,883.7 | 483,900.1 |
| April | 9,223.0 | 547,846.2 | 176.5 | 9,399.5 | 558,332.0 |
| May | 18,570.0 | 1,139,826.6 | 176.5 | 18,746.5 | 1,150,661.9 |
| June | 25,820.0 | 1,533,708.0 | 176.5 | 25,996.5 | 1,544,193.8 |
| July | 12,745.0 | 782,288.1 | 176.5 | 12,921.5 | 793,123.4 |
| August | 6,180.0 | 379,328.4 | 176.5 | 6,356.5 | 390,163.7 |
| September | 6,022.0 | 357,706.8 | 176.5 | 6,198.5 | 368,192.6 |
| October | 7,277.0 | 446,662.3 | 176.5 | 7,453.5 | 457,497.6 |
| November | 8,556.0 | 508,226.4 | 105.7 | 8,661.7 | 514,503.6 |
| December | 9,883.0 | 606,618.5 | 105.7 | 9,988.7 | 613,105.0 |

21. Stream flow data analysis of the Flathead River and Flathead Lake shows physically available monthly flow rates and volumes in those sources exceeding the flow rate and volume of the proposed appropriation. Therefore, the Department finds that the amount of groundwater the Applicant seeks to appropriate, 1.5 CFS (670.0 GPM) up to 261.0 AF, is physically available in the aquifer and the Flathead River and Flathead Lake.

LEGAL AVAILABILITY

FINDINGS OF FACT

22. The Applicant proposes to divert groundwater at 1.5 CFS (670.0 GPM) up to 261.0 AF/year for irrigation of 139.0 acres. DNRC Technical Memorandum: Legal Availability of Groundwater in the Flathead Deep Aquifer (2019) states that groundwater within the Deep Aquifer is controlled by the stage of the Flathead River/Flathead Lake, therefore these two sources were evaluated for

legal availability. Based on the surface water depletion analysis performed by the DNRC WSB in the Revised Groundwater Depletion Report dated January 12, 2023, the areas of potential impact for this Application are:

- i. The Flathead River (including Flathead Lake), from the NESE of Section 15, Township 28N, Range 20W down to USGS Gaging Station No. 12372000 near Polson, MT;
- ii. Blaine Creek, from the NWSW of Section 15, Township 28N, Range 20W down to its confluence with Mill Creek; and,
- iii. Mill Creek, from the SWSE of Section 15, Township 28N, Range 20W down to its confluence with the Flathead River.

23. Net depletions to hydraulically connected surface water sources by pumping in the source aquifer primarily occur through propagation of drawdown through the overlying intertongued semi-confining layer. Depletion effects are expected to be dampened resulting in a constant year-round rate of depletion of 127.9 GPM (equivalent to the total consumed volume of 206.3 AF), apportioned between the potentially impacted surface waters according to the percentages in Table 1. The legal availability analyses of the Flathead River and Flathead Lake are evaluated in this section pursuant to DNRC Technical Memorandum: Legal Availability of Groundwater in the Flathead Deep Aquifer. The physical and legal availability of the depleted reaches of Blaine and Mill Creeks are also evaluated in this section.

24. Flathead River – Legal Availability (quantified for the purpose of analyzing legal availability of the Deep Aquifer): The Department determined that the proposed use of groundwater from the Deep Aquifer will deplete the hydraulically connected reach of the Flathead River, reducing the total volume of water in this reach of the Flathead River. The Department quantified legal availability of this reach of the Flathead River during the period of surface water depletion (year-round) using the method below.

25. The Department quantified physically available monthly flow rates and volumes (Table 4, columns B-C) for the depleted reach of the Flathead River. The Department calculated the monthly flow rates appropriated by existing users (legal demands) on the source within the area of potential impact (Table 4, columns D) by:

- i. Generating a list of existing surface water rights from USGS Gaging Station No. 12363000 at Columbia Falls, MT to the Flathead Lake inlet (list is included in the application file and available upon request);
- ii. Designating irrigation and lawn and garden uses as occurring from April 1 to October 31 while designating all other water uses as year-round uses;
- iii. Assigning a single combined flow rate of 35.0 GPM (0.1 CFS) to all livestock direct from source rights without a designated flow rate (per DNRC adjudication standards); and,
- iv. Assuming that the flow rate of each existing right is continuously diverted throughout each month of its period of diversion. This assumption is necessary due to the difficulty of differentiating the distribution of appropriated volume over the period of diversion. This leads to an overestimation of legal demands on the physical volume of water. The Department finds this an appropriate measure of assessing existing rights as it protects existing water users.

26. The Department subtracted the flow rates of the existing legal demands (Table 4, column D) within the area of potential impact from the physically available water (Table 4, column B) to determine legal availability within the area of potential impact (Table 4, columns E-F).

| Table 4: Legal Availability Analysis of Flathead River from USGS Gage # 12363000 at Columbia Falls, MT to the Flathead Lake Inlet | | | | | |
|--|---|--|---|--|---|
| A | B | C | D | E | F |
| Month | Physically Available Water in the Depleted Reach (CFS) | Physically Available Water in the Depleted Reach (AF) | Existing Legal Demands from Gage 12363000 to Flathead Lake Inlet (CFS) | Physically Available Water Minus Existing Legal Demands (CFS) | Physically Available Water Minus Existing Legal Demands (AF) |
| January | 5,149.0 | 316,045.6 | 3,508.3 | 1,640.7 | 100,704.9 |
| February | 4,851.0 | 268,939.4 | 3,508.3 | 1,342.7 | 74,438.2 |
| March | 4,805.0 | 294,930.9 | 3,508.3 | 1,296.7 | 79,590.2 |
| April | 10,680.0 | 634,392.0 | 6,814.1 | 3,865.9 | 229,637.0 |
| May | 22,660.0 | 1,390,870.8 | 8,289.1 | 14,370.9 | 882,088.5 |
| June | 24,680.0 | 1,465,992.0 | 8,289.1 | 16,390.9 | 973,622.0 |
| July | 11,415.0 | 700,652.7 | 5,566.1 | 5,848.9 | 359,008.1 |
| August | 5,444.0 | 334,152.7 | 3,664.1 | 1,779.9 | 109,252.9 |
| September | 4,440.5 | 263,765.7 | 3,664.1 | 776.4 | 46,120.7 |
| October | 4,955.0 | 304,137.9 | 3,664.1 | 1,290.9 | 79,238.1 |
| November | 4,565.0 | 271,161.0 | 3,508.3 | 1,056.7 | 62,766.8 |
| December | 5,499.0 | 337,528.6 | 3,508.3 | 1,990.7 | 122,187.9 |

27. *Flathead Lake – Legal Availability (quantified for the purpose of analyzing legal availability of the Deep Aquifer):* SKQ Dam near Polson is the control structure for Flathead Lake and depletions from groundwater pumping will reduce the total volume of water leaving the Lake (passing over/through the dam). USGS Gaging Station No. 12372000 near Polson, MT is approximately 0.6 miles downstream of the dam. Legal availability of Flathead Lake was quantified monthly using the method below.

28. The Department quantified physically available monthly flow rates and volumes (Table 5, columns B-C) for the depleted reach of Flathead Lake. The Department calculated the monthly flow rates appropriated by existing users (legal demands) on the source within the area of potential impact (Table 5, columns D) by:

- i. Generating a list of existing surface water rights from the Flathead Lake inlet to USGS Gaging Station No. 12372000 (list is included in the application file and available upon request);
- ii. Designating irrigation and lawn and garden uses as occurring from April 1 to October 31 while designating all other water uses as year-round uses;

- iii. Assigning a single combined flow rate of 35.0 GPM (0.1 CFS) to all livestock direct from source rights without a designated flow rate (per DNRC adjudication standards); and,
- iv. Assuming that the flow rate of each existing right is continuously diverted throughout each month of its period of diversion. This assumption is necessary due to the difficulty of differentiating the distribution of appropriated volume over the period of diversion. This leads to an overestimation of legal demands on the physical volume of water. The Department finds this an appropriate measure of assessing existing rights as it protects existing water users.

29. The Department subtracted out the flow rates of the existing legal demands (Table 5, column D) within the area of potential impact from the physically available water (Table 5, column B) to determine legal availability in the depleted reach (Table 5, columns E-F).

| Table 5: Legal Availability Analysis of Flathead Lake from the Flathead Lake Inlet to USGS Gage # 12372000 near Polson, MT | | | | | |
|---|---|--|--|--|---|
| A | B | C | D | E | F |
| Month | Physically Available Water in the Depleted Reach (CFS) | Physically Available Water in the Depleted Reach (AF) | Existing Legal Demands in Flathead Lake (CFS) | Physically Available Water Minus Existing Legal Demands (CFS) | Physically Available Water Minus Existing Legal Demands (AF) |
| January | 10,485.7 | 643,610.8 | 105.7 | 10,380.0 | 637,124.4 |
| February | 9,271.7 | 514,021.7 | 105.7 | 9,166.0 | 508,163.0 |
| March | 7,883.7 | 483,900.1 | 105.7 | 7,778.0 | 477,413.6 |
| April | 9,399.5 | 558,332.0 | 176.5 | 9,223.0 | 547,846.2 |
| May | 18,746.5 | 1,150,661.9 | 176.5 | 18,570.0 | 1,139,826.6 |
| June | 25,996.5 | 1,544,193.8 | 176.5 | 25,820.0 | 1,533,708.0 |
| July | 12,921.5 | 793,123.4 | 176.5 | 12,745.0 | 782,288.1 |
| August | 6,356.5 | 390,163.7 | 176.5 | 6,180.0 | 379,328.4 |
| September | 6,198.5 | 368,192.6 | 176.5 | 6,022.0 | 357,706.8 |
| October | 7,453.5 | 457,497.6 | 176.5 | 7,277.0 | 446,662.3 |
| November | 8,661.7 | 514,503.6 | 105.7 | 8,556.0 | 508,226.4 |
| December | 9,988.7 | 613,105.0 | 105.7 | 9,883.0 | 606,618.5 |

30. The Confederated Salish & Kootenai Tribes own the hydropower water rights for SKQ Dam. Statements of Claim 76L 94408-00 and 76L 94409-00 for SKQ Dam are for 14,540 CFS up to 614,200 AF for power generation, and a volume of 614,700 second foot days for storage for power generation (equivalent to 1,217,106 AF), respectively. A second foot day is the volume of water

represented by a flow of one cubic foot per second for 24 hours. The term is used extensively as a unit of runoff volume or reservoir capacity. The total volume from the two claimed rights is 614,200 AF plus 1,217,106 AF which equals 1,831,306 AF. Flathead Lake is managed to keep a full pool of water during the late spring and summer months. At the combined claimed flow rate of 14,540 CFS flowing 24 hours per day, the direct flow hydropower right and storage for hydropower water right, can be fulfilled over a period of 64 days.

31. SKQ Dam operations are complex and must accommodate many management factors including, but not limited to federal licensing (Flathead Lake levels required by the Federal Energy Regulatory Commission) for fish and recreation, instream flow requirements, flood control, and irrigation needs. These factors fluctuate seasonally and from year to year. The average yearly flow of water through Flathead Lake is approximately 11,437 CFS as measured at the USGS Gaging Station No. 12372000 at Polson, for the period of 1939-2006 (USGS, 2009). Even though hydropower water rights at SKQ Dam require 1,831,306 AF, to meet the hydropower water rights claimed in the adjudication, the records show that SKQ Dam's reservoir, Flathead Lake, consistently reaches a full pool status each year.

32. Pending an adjudication of Confederated Salish & Kootenai Tribes hydropower water rights and completion of a water availability study that shows otherwise, the Department finds that water in the Flathead River and Flathead Lake can reasonably be considered legally available during the period in which the Applicants seek to appropriate. This finding is based on the records of the Department and other evidence provided to the Department.

33. Blaine Creek – Physical Availability (quantified for the purpose of analyzing legal availability of this depleted surface water source): Physical availability of Blaine Creek from the NWSW of Section 15, Township 28N, Range 20W downstream to its confluence with Mill Creek was quantified monthly. The Department used the Blaine Creek at MSU Ag Station DNRC Gaging Station No. 76LJ 001 (period of record: May 2017 – June 2020) to quantify physically available monthly flow rates and volumes in this reach during the period of groundwater diversion and resulting surface water depletion (year-round). DNRC WSB determined that depletion effects due to groundwater pumping are expected to first manifest in Blaine Creek in the NWSW of Section 15, Township 28N, Range 20W. DNRC Gage 76LJ 001 is located approximately 300-feet downstream of the northern boundary of the NWSW of Section 15 with no intervening water rights

or points of diversion, meaning the gage effectively represents the upstream extent of the depleted reach.

34. The Department calculated the mean monthly flow rates in CFS for Blaine Creek using DNRC Gaging Station No. 76LJ 001 records for each month of the year (Table 6, column B). Those flow rates were converted to monthly volumes in AF (Table 6, column C). For analysis of a reach where the gaging station used represents the upstream extent of the depleted reach, as is the case for this source, the mean monthly gage values also represent physical availability for the reach (Table 6, columns B-C).

| Table 6: Physical Availability of Blaine Creek from DNRC Gage 76LJ 001 to Mill Creek (the Depleted Reach) | | |
|--|---|--|
| A | B | C |
| Month | Physically Available Flow: Mean Monthly Flow in the Depleted Reach (CFS) | Physically Available Flow: Mean Monthly Volume in the Depleted Reach (AF) |
| January | 0.3 | 19.5 |
| February | 0.6 | 35.3 |
| March | 1.4 | 86.7 |
| April | 1.4 | 86.0 |
| May | 11.4 | 698.8 |
| June | 28.8 | 1,708.0 |
| July | 12.1 | 739.8 |
| August | 2.3 | 141.5 |
| September | 0.4 | 25.6 |
| October | 0.1 | 8.7 |
| November | 0.3 | 17.9 |
| December | 0.2 | 10.6 |

35. Blaine Creek – Legal Availability: Legal availability of Blaine Creek from the NWSW of Section 15, Township 28N, Range 20W downstream to its confluence with Mill Creek was quantified monthly. The Department determined that the proposed use of groundwater from the Deep Aquifer will deplete Blaine Creek starting in the NWSW of Section 15, Township 28N, Range 20W, thus reducing the total volume of water in this reach of Blaine Creek. The Department quantified legal availability of this reach of Blaine Creek during the period of surface water depletion (year-round).

36. The Department quantified physically available monthly flow rates and volumes (Table 6, columns B-C) for the depleted reach of Blaine Creek. The Department calculated the monthly flow

rates appropriated by existing users (legal demands) on the source within the area of potential impact (Table 8, column C) by:

- i. Generating a list of existing water rights on Blaine Creek from DNRC Gage 76LJ 001 to Blaine Creek’s confluence with Mill Creek (Table 7);
- ii. Assigning a single combined flow rate of 35.0 GPM (0.1 CFS) to all livestock direct from source rights without a designated flow rate (per DNRC adjudication standards); and,
- iii. Assuming that the flow rate of each existing right is continuously diverted throughout each month of its period of diversion. This assumption is necessary due to the difficulty of differentiating the distribution of appropriated volume over the period of diversion. This leads to an overestimation of legal demands on the physical volume of water. The Department finds this an appropriate measure of assessing existing rights as it protects existing water users.

37. The Department subtracted out the flow rates of the existing legal demands (Table 8, column C) within the area of potential impact from the physically available water (Table 8, column B) to determine legally available flow and volume in the depleted reach (Table 8, columns D-E).

| Table 7: Existing Rights on Blaine Creek from DNRC Gage 76LJ 001 to Mill Creek (the Depleted Reach) | | | |
|--|--------------------|-----------------|-------------------|
| WRNUMBER | WRTYPE | PURPOSES | FLW_RT_CFS |
| 76LJ 30116575 | STATEMENT OF CLAIM | STOCK | 0.1* |
| 76LJ 30126685 | STATEMENT OF CLAIM | STOCK | 0.1* |

**In order to account for livestock direct from source rights, Department practice is to assign one combined total flow rate of 35 GPM (0.1 CFS) for all stock rights without a designated flow rate.*

| Table 8: Legal Availability of Blaine Creek from DNRC Gage 76LJ 001 to Mill Creek (the Depleted Reach) | | | | |
|---|--|---|---|--------------------------------------|
| A | B | C | D | E |
| Month | Physically Available Flow in the Depleted Reach (CFS) | Existing Legal Demands within the Depleted Reach (CFS) | Legally Available Flow: Physically Available Flow minus Existing Legal Demands (CFS) | Legally Available Volume (AF) |
| January | 0.3 | 0.1 | 0.2 | 14.6 |
| February | 0.6 | 0.1 | 0.6 | 30.9 |
| March | 1.4 | 0.1 | 1.3 | 81.8 |
| April | 1.4 | 0.1 | 1.4 | 81.2 |
| May | 11.4 | 0.1 | 11.3 | 693.9 |
| June | 28.8 | 0.1 | 28.7 | 1,703.2 |
| July | 12.1 | 0.1 | 12.0 | 734.9 |
| August | 2.3 | 0.1 | 2.2 | 136.6 |
| September | 0.4 | 0.1 | 0.4 | 20.8 |
| October | 0.1 | 0.1 | 0.1 | 3.7 |
| November | 0.3 | 0.1 | 0.2 | 13.2 |
| December | 0.2 | 0.1 | 0.1 | 5.7 |

38. Mill Creek – Physical Availability (quantified for the purpose of analyzing legal availability of this depleted surface water source): Physical availability of Mill Creek from the SWSE of Section 10, Township 28N, Range 20W downstream to its confluence with the Flathead River was quantified monthly. The Department used the Mill Creek below Creston Hatchery DNRC Gaging Station No. 76LJ 07500 (period of record: August 2016 – August 2022) to quantify physically available monthly flow rates and volumes in this reach during the period of groundwater diversion and resulting surface water depletion (year-round). DNRC WSB determined that depletion effects due to groundwater pumping are expected to first manifest in Mill Creek in the SWSE of Section 10, Township 28N, Range 20W. DNRC Gage 76LJ 07500 is the closest gage to the depleted reach and is located approximately 850-feet upstream of the SWSE of Section 10. To simplify the physical and legal availability analysis of the depleted reach, the entire reach of Mill Creek from Gage 76LJ 07500 to the confluence with the Flathead River will be considered for physical and legal availability.

39. The Department calculated the mean monthly flow rates in CFS for Mill Creek using DNRC Gage 76LJ 07500 records for each month of the year (Table 9, column B). Those flow rates were then converted to monthly volumes in AF (Table 9, column C). For analysis of a reach where the

gaging station used represents the upstream extent of the depleted reach, as is the case for this source, the mean monthly gage values also represent physical availability for the reach (Table 9, columns B-C).

| Table 9: Physical Availability of Mill Creek from DNRC Gage 76LJ 07500 to the Flathead River (the Depleted Reach) | | |
|--|---|--|
| A | B | C |
| Month | Physically Available Flow: Mean Monthly Flow in the Depleted Reach (CFS) | Physically Available Flow: Mean Monthly Volume in the Depleted Reach (AF) |
| January | 26.3 | 1,613.6 |
| February | 25.2 | 1,397.8 |
| March | 24.6 | 1,510.5 |
| April | 25.0 | 1,485.1 |
| May | 26.1 | 1,604.0 |
| June | 30.8 | 1,827.9 |
| July | 28.7 | 1,763.2 |
| August | 26.5 | 1,624.9 |
| September | 25.4 | 1,509.5 |
| October | 25.7 | 1,580.0 |
| November | 25.6 | 1,519.0 |
| December | 25.7 | 1,576.8 |

40. Mill Creek – Legal Availability: Legal availability of Mill Creek from the SWSE of Section 10, Township 28N, Range 20W downstream to its confluence with the Flathead River was quantified monthly. The Department determined that the proposed use of groundwater from the Deep Aquifer will deplete Mill Creek starting in the SWSE of Section 10, Township 28N, Range 20W, thus reducing the total volume of water in this reach of Mill Creek. The Department quantified legal availability of this reach of Mill Creek during the period of surface water depletion (year-round).

41. The Department quantified physically available monthly flow rates and volumes (Table 9, columns B-C) for the depleted reach of Mill Creek. The Department calculated the monthly flow rates appropriated by existing users (legal demands) on the source within the area of potential impact (Table 11, column C) by:

- i. Generating a list of existing water rights on Mill Creek from DNRC Gage 76LJ 07500 to Mill Creek’s confluence with the Flathead River (Table 10);
- ii. Designating uses as occurring during their claimed periods of diversion;

- iii. Assigning a single combined flow rate of 35 GPM (0.1 CFS) to all livestock direct from source rights without a designated flow rate (per DNRC adjudication standards); and,
- iv. Assuming that the flow rate of each existing right is continuously diverted throughout each month of its period of diversion. This assumption is necessary due to the difficulty of differentiating the distribution of appropriated volume over the period of diversion. This leads to an overestimation of legal demands on the physical volume of water. The Department finds this an appropriate measure of assessing existing rights as it protects existing water users.

42. The Department subtracted out the flow rates of the existing legal demands (Table 11, column C) within the area of potential impact from the physically available water (Table 11, column B) to determine legally available flow and volume in the depleted reach (Table 11, columns D-E).

| Table 10: Existing Rights on Mill Creek from DNRC Gage 76LJ 07500 to the Flathead River (the Depleted Reach) | | | |
|---|--------------------|-----------------|-------------------|
| WRNUMBER | WRTYPE | PURPOSES | FLW RT CFS |
| 76LJ 118138 00 | STATEMENT OF CLAIM | STOCK | 0.1* |
| 76LJ 124149 00 | STATEMENT OF CLAIM | IRRIGATION | 0.2 |
| 76LJ 118140 00 | STATEMENT OF CLAIM | IRRIGATION | 1.1 |
| 76LJ 118139 00 | STATEMENT OF CLAIM | IRRIGATION | 0.9 |
| 76LJ 103343 00 | STATEMENT OF CLAIM | IRRIGATION | 2.2 |
| 76LJ 9142 00 | STATEMENT OF CLAIM | STOCK | 0.1* |
| 76LJ 143780 00 | STATEMENT OF CLAIM | IRRIGATION | 0.5 |
| 76LJ 128926 00 | STATEMENT OF CLAIM | IRRIGATION | 0.8 |
| 76LJ 9108 00 | STATEMENT OF CLAIM | IRRIGATION | 2.0 |
| 76LJ 9143 00 | STATEMENT OF CLAIM | IRRIGATION | 1.1 |
| 76LJ 9460 00 | STATEMENT OF CLAIM | IRRIGATION | 1.8 |
| 76LJ 30013813 | EXEMPT RIGHT | STOCK | 0.1* |
| 76LJ 103252 00 | STATEMENT OF CLAIM | IRRIGATION | 1.5 |
| 76LJ 162703 00 | STATEMENT OF CLAIM | IRRIGATION | 2.0 |
| 76LJ 147064 00 | STATEMENT OF CLAIM | STOCK | 0.0 |
| 76LJ 118136 00 | STATEMENT OF CLAIM | DOMESTIC | 0.1* |
| 76LJ 107274 00 | STATEMENT OF CLAIM | IRRIGATION | 0.8 |

**In order to account for livestock direct from source rights, Department practice is to assign one combined total flow rate of 35 GPM (0.1 CFS) for all stock rights without a designated flow rate.*

| Table 11: Legal Availability of Mill Creek from DNRC Gage 76LJ 07500 to Flathead River (the Depleted Reach) | | | | |
|--|--|---|---|--------------------------------------|
| A | B | C | D | E |
| Month | Physically Available Flow in the Depleted Reach (CFS) | Existing Legal Demands within the Depleted Reach (CFS) | Legally Available Flow: Physically Available Flow minus Existing Legal Demands (CFS) | Legally Available Volume (AF) |
| January | 26.3 | 0.1 | 26.2 | 6.8 |
| February | 25.2 | 0.1 | 25.1 | 6.1 |
| March | 24.6 | 2.3 | 22.3 | 143.6 |
| April | 25.0 | 4.6 | 20.4 | 271.5 |
| May | 26.1 | 13.4 | 12.7 | 824.3 |
| June | 30.8 | 13.4 | 17.3 | 797.7 |
| July | 28.7 | 15.0 | 13.8 | 917.6 |
| August | 26.5 | 15.0 | 11.5 | 917.6 |
| September | 25.4 | 15.0 | 10.5 | 888.0 |
| October | 25.7 | 6.9 | 18.8 | 424.7 |
| November | 25.6 | 2.3 | 23.2 | 139.0 |
| December | 25.7 | 0.1 | 25.6 | 6.8 |

43. The total annual consumption for the proposed 139.0 irrigated acres is based on a net irrigation requirement for alfalfa of 17.81 inches obtained from the Creston station in the NRCS IWR program. Total annual consumption for the proposed irrigation use is 206.3 AF (17.81 inches ÷ 12.0 inches/foot x 139.0 acres = 206.3 AF).

44. The proposed well is approximately 2.3 miles northwest from a perennial reach of Blaine Creek, 2.3 miles northwest of Mill Creek, and 2.4 miles north of the Flathead River near Egan Slough. The DNRC identified these sources for calculation of stream depletion. Following procedures described in Section 3.2 of the guidance document developed by the Province of British Columbia and consistent with DNRC’s Technical Memorandum: Net Surface Water Depletion from Groundwater Pumping, net depletions were apportioned to perennial reaches of Blaine Creek, Mill Creek, and the Flathead River based on the sources distance from the proposed point of diversion. Monthly consumed volumes were apportioned to each source according to the percentages identified in Table 1. As identified in Table 12, the total consumed volume for the proposed use equals 206.3 AF and results in year-round net depletions to Blaine Creek, Mill Creek, and the Flathead River.

Table 12: Total Consumed Volume and Net Depletion to Blaine Creek, Mill Creek, and the Flathead River

| Month | Consumption | Net Depletion | Total Net Depletion to Surface Water | | Net Depletion to Blaine Creek | Net Depletion to Blaine Creek | | Net Depletion to Mill Creek | Net Depletion to Mill Creek | | Net Depletion to Flathead River | Net Depletion to Flathead River | |
|--------------|--------------|---------------|--------------------------------------|------------|-------------------------------|-------------------------------|------------|-----------------------------|-----------------------------|------------|---------------------------------|---------------------------------|------------|
| | | | GPM | CFS | | GPM | CFS | | GPM | CFS | | GPM | CFS |
| Units | <i>AF</i> | <i>AF</i> | <i>GPM</i> | <i>CFS</i> | <i>AF</i> | <i>GPM</i> | <i>CFS</i> | <i>AF</i> | <i>GPM</i> | <i>CFS</i> | <i>AF</i> | <i>GPM</i> | <i>CFS</i> |
| January | 0.0 | 17.5 | 127.9 | 0.3 | 6.1 | 44.8 | 0.1 | 6.1 | 44.8 | 0.1 | 5.3 | 38.4 | 0.1 |
| February | 0.0 | 15.8 | 127.9 | 0.3 | 5.5 | 44.8 | 0.1 | 5.5 | 44.8 | 0.1 | 4.7 | 38.4 | 0.1 |
| March | 0.0 | 17.5 | 127.9 | 0.3 | 6.1 | 44.8 | 0.1 | 6.1 | 44.8 | 0.1 | 5.3 | 38.4 | 0.1 |
| April | 0.0 | 17.0 | 127.9 | 0.3 | 5.9 | 44.8 | 0.1 | 5.9 | 44.8 | 0.1 | 5.1 | 38.4 | 0.1 |
| May | 15.1 | 17.5 | 127.9 | 0.3 | 6.1 | 44.8 | 0.1 | 6.1 | 44.8 | 0.1 | 5.3 | 38.4 | 0.1 |
| June | 46.8 | 17.0 | 127.9 | 0.3 | 5.9 | 44.8 | 0.1 | 5.9 | 44.8 | 0.1 | 5.1 | 38.4 | 0.1 |
| July | 65.6 | 17.5 | 127.9 | 0.3 | 6.1 | 44.8 | 0.1 | 6.1 | 44.8 | 0.1 | 5.3 | 38.4 | 0.1 |
| August | 57.2 | 17.5 | 127.9 | 0.3 | 6.1 | 44.8 | 0.1 | 6.1 | 44.8 | 0.1 | 5.3 | 38.4 | 0.1 |
| September | 21.7 | 17.0 | 127.9 | 0.3 | 5.9 | 44.8 | 0.1 | 5.9 | 44.8 | 0.1 | 5.1 | 38.4 | 0.1 |
| October | 0.0 | 17.5 | 127.9 | 0.3 | 6.1 | 44.8 | 0.1 | 6.1 | 44.8 | 0.1 | 5.3 | 38.4 | 0.1 |
| November | 0.0 | 17.0 | 127.9 | 0.3 | 5.9 | 44.8 | 0.1 | 5.9 | 44.8 | 0.1 | 5.1 | 38.4 | 0.1 |
| December | 0.0 | 17.5 | 127.9 | 0.3 | 6.1 | 44.8 | 0.1 | 6.1 | 44.8 | 0.1 | 5.3 | 38.4 | 0.1 |
| TOTAL | 206.3 | 206.3 | --- | | 72.2 | --- | | 72.2 | --- | | 61.9 | --- | |

45. The stream flow data analysis of the Flathead River and Flathead Lake finds legally available monthly flow rates and volumes in those sources exceeding the flow rate and volume of the proposed appropriation. The legal availability analyses for the Flathead River, Flathead Lake, Blaine Creek, and Mill Creek found that water is legally available in those sources during the period of expected surface water depletion due to groundwater pumping (year-round) in amounts equaling or exceeding net depletions. The Department finds that the amount of groundwater the Applicant seeks to appropriate, 1.5 CFS (670.0 GPM) up to 261.0 AF, is legally available in the aquifer and the hydraulically connected surface water sources.

ADVERSE EFFECT

FINDINGS OF FACT

46. The Applicant proposes to divert groundwater at 1.5 CFS (670.0 GPM) up to 261.0 AF/year for irrigation of 139.0 acres. The Applicant provided a plan showing they can regulate their water use to satisfy the water rights of senior appropriators. During times of water shortage, the Applicant will:

- i. Initially reduce irrigation application by 50-percent; and,
- ii. Upon receiving a valid call from a senior water right holder, the Applicant will turn off the well pump.

47. Evaluation of drawdown in existing wells was done using the Neuman-Witherspoon (1969) solution with the following inputs: transmissivity = 4,337 ft²/day and storativity = 7.5 x 10⁻⁴. After the end of the fifth July of an assumed monthly pumping schedule (Table 13), drawdown in excess of 1.0 foot extends 9,100 feet from the applicant’s well. The monthly pumping schedule was obtained by evenly distributing the requested irrigation volume based on the net irrigation requirement from the Creston Station in the IWR program. The DNRC identified 174 water rights within 9,100-feet of the production well. Of those 174 water rights, 118 have wells with a known depth of at least 100 feet that are predicted to experience drawdown greater than 1.0 foot. The remaining 56 water rights either did not provide well depth information to the DNRC upon filing (48 water rights) or were completed to a depth less than 100 feet (8 water rights). All wells with a known depth will have remaining water column available. A list of these water rights is included in the application file and is available upon request.

| Table 13: Assumed Monthly Pumping Schedule for Irrigation Use of the Proposed Well | | | | |
|---|----------------------|-------------------------|----------------------------|------------|
| Month | IWR – Creston | Diversion Volume | Diversion Flow Rate | |
| Units | <i>Inches</i> | <i>AF</i> | <i>GPM</i> | <i>CFS</i> |
| January | 0.0 | 0.0 | 0.0 | 0.0 |
| February | 0.0 | 0.0 | 0.0 | 0.0 |
| March | 0.0 | 0.0 | 0.0 | 0.0 |
| April | 0.0 | 0.0 | 0.0 | 0.0 |
| May | 1.3 | 19.0 | 205.3 | 0.5 |
| June | 4.0 | 59.2 | 446.5 | 1.0 |
| July | 5.7 | 82.9 | 605.4 | 1.4 |
| August | 4.9 | 72.4 | 528.4 | 1.2 |
| September | 1.9 | 27.4 | 229.6 | 0.5 |
| October | 0.0 | 0.0 | 0.0 | 0.0 |
| November | 0.0 | 0.0 | 0.0 | 0.0 |
| December | 0.0 | 0.0 | 0.0 | 0.0 |
| TOTAL | 17.8 | 261.0 | --- | |

48. To ensure that the permitted volume is not exceeded and that senior water users are not adversely affected, the provisional permit will be subject to the following measurement condition upon issuance:

THE APPROPRIATOR SHALL INSTALL A DEPARTMENT APPROVED IN-LINE FLOW METER AT A POINT IN THE DELIVERY LINE APPROVED BY THE DEPARTMENT. WATER MUST NOT BE DIVERTED UNTIL THE REQUIRED MEASURING DEVICE IS IN PLACE AND OPERATING. ON A FORM PROVIDED BY THE DEPARTMENT, THE APPROPRIATOR SHALL KEEP A WRITTEN MONTHLY RECORD OF THE FLOW RATE AND VOLUME OF ALL WATER DIVERTED, INCLUDING THE PERIOD OF TIME. RECORDS SHALL BE SUBMITTED BY JANUARY 31 OF EACH YEAR AND UPON REQUEST AT OTHER TIMES DURING THE YEAR UNTIL A FORM 617 PROJECT COMPLETION NOTICE IS SUBMITTED. FAILURE TO SUBMIT REPORTS MAY BE CAUSE FOR REVOCATION OF THE PERMIT. THE RECORDS MUST BE SENT TO THE KALISPELL REGIONAL WATER RESOURCES OFFICE. THE APPROPRIATOR SHALL MAINTAIN THE MEASURING DEVICE SO IT ALWAYS OPERATES PROPERLY AND MEASURES FLOW RATE AND VOLUME ACCURATELY.

49. The Department finds there will be no adverse effect to senior surface or groundwater appropriators on the potentially affected surface and groundwater sources resulting from the Applicant's proposed use of water based on:

- iii. The Applicant's proposal to regulate their water use to satisfy the water rights of senior appropriators;
- iv. The analysis of potential drawdown in neighboring wells demonstrating that all wells will have remaining water column;
- v. The Department's findings that water is legally available in the aquifer; and,
- vi. The Department's finding that water is legally available in the hydraulically connected reaches of the Flathead River, Flathead Lake, Blaine Creek, and Mill Creek.

ADEQUATE MEANS OF DIVERSION

FINDINGS OF FACT

50. The Applicant proposes to divert groundwater at 1.5 CFS (670.0 GPM) up to 261.0 AF/year for irrigation of 139.0 acres. The Applicant proposes to The DNRC Kalispell Regional Office granted a variance from the aquifer testing requirement in Administrative Rule of Montana (ARM) 36.12.121(3)(e) on October 6, 2020. This variance allowed the applicant to conduct an 8-hour yield and drawdown test to demonstrate adequacy of the proposed well (as opposed to a 72-hour constant-rate test). Aquifer properties normally generated via a constant-rate aquifer test was demonstrated using existing neighboring aquifer test data.

51. The proposed well was evaluated with an 8-hour yield and drawdown test performed at 800.0 GPM. The test saw a maximum drawdown of 127.6 feet below the SWL of 26.0 feet BTC, leaving 172.4 feet above the well's bottom. The flow rate for the yield and drawdown test exceeded the requested maximum flow rate of 1.5 CFS (670.0 GPM).

52. Drawdown was modeled for the period of diversion by assigning the proposed well an assumed pumping schedule (Table 13) and a calculated well efficiency. This analysis used the Neuman-Witherspoon (1969) solution with inputs of transmissivity = 4,337 ft²/day, storativity = 7.5×10^{-4} , and the Department standards for T2 of 1,000 ft²/day and S2 of 0.01. The unpumped aquifer properties (T2 and S2; the "leaky aquifer" area above the pumped aquifer that is contributing some volume to the well) are considered negligible because they have little to no influence on the AQTESOLV[®] predicted drawdown curve match; however, they can have a significant impact on long-term drawdown projections. The monthly pumping schedule was obtained by evenly distributing the requested irrigation volume based on the net irrigation requirement from the Creston Station in the IWR program.

53. The well efficiency was calculated by modeling the proposed well's yield and drawdown test and dividing the predicted drawdown by the observed drawdown. The predicted actual drawdown with well loss was calculated by applying the well efficiency to the predicted theoretical drawdown at the end of July of the fifth year. The aquifer adjacent to the proposed well would experience a predicted theoretical maximum drawdown of 30.6 feet at the end of July the fifth year of operating on the monthly pumping schedule identified in Table 13. The remaining available water column

for the proposed well is equal to the available drawdown above the bottom of the well minus total drawdown (Table 14).

| Table 14: Remaining Available Water Column for Production Well | | | | | | | |
|--|------------------|-----------------------------|--|-----------------|--------------------|-----------------------------------|---|
| Well | Well Total Depth | Pre-Test Static Water Level | Total Available Drawdown above Well Bottom | Well Efficiency | Predicted Drawdown | | Remaining Available Water Column from Well Bottom |
| | (ft) | (ft btc) | (ft) | (%) | Theoretical (ft) | Actual (including well loss) (ft) | (ft) |
| Production Well (GWIC ID: 313497) | 315.0 | 26.0 | 289.1 | 24.0 | 30.6 | 127.5 | 161.6 |

54. The proposed water system includes:

- i. Production well (GWIC ID: 313497) completed to a depth of 315.0 feet BGS by O’Keefe Drilling Co. (WWD-126) on October 8, 2020 in the Deep Aquifer. The well is screened between 275.0 and 315.0 feet BGS.
 - a. The well is equipped with a 150-HP Goulds Model 9RCHC submersible turbine pump (or equivalent) controlled by a VFD;
- ii. Pump house with system controls;
- iii. Buried eight-inch PVC distribution piping; and,
- iv. Three center-pivot sprinkler systems with end guns and hour meters:
 - a. “West 8 Tower” system (eight support towers) which will operate at 507.1 GPM;
 - b. “East 8 Tower” system (eight support towers) which will operate at 501.4 GPM;
 - c. “North 3 Tower Mini” system (three support towers) which will operate at 168.5 GPM.

55. The Applicant will pump water from the well to the center-pivot systems through buried eight-inch water mains. The mains convey water to the three systems along four water main sections. Main Section 1 conveys water from the well to the East 8 Tower system located on the eastern side of the place of use. Main Section 2 conveys water from the well to a splitting tee. Main Section 3 conveys water from the tee to the North 3 Tower Mini system located on the northern end of the place of use. Main Section 4 conveys water from the tee to the West 8 Tower system

located on the western side of the place of use. The Applicant will divert water as needed to meet crop demand throughout the irrigation season.

56. The VFD controlling the well pump will allow the water system to be operated over a variety of conditions, including the "West 8 Tower" system by itself (referred to as Scenario 1 by Applicant; 507.1 GPM) and the "East 8 Tower" and the "North 2 Tower Mini" systems simultaneously (referred to as Scenario 2 by Applicant; 1.5 CFS (670.0 GPM)). The water system is designed to provide a minimum inlet pressure of 55 PSI (127 feet of head) at the "North 3 Tower Mini" and "East 8 Tower" systems and a minimum inlet pressure of 25 PSI (57.8 feet of head) at the "West 8 Tower," as indicated in the pivot sprinkler system specifications provided by the vendor and included with the application. During operation of the water system, friction losses within the water lines utilized to convey water to the "North 3 Tower Mini" and "East 8 Tower" systems (Main Sections 1 – 3) are estimated to range from 0.5 to 6.3 feet of head. Operating pressure at the control point near the wellhead will be set to maintain a minimum pressure of 58 PSI.

57. The Applicant calculated the following TDH conditions for operating Scenarios 1 and 2 based on anticipated operation and the system specifications:

- i. Scenario 1: 507.1 GPM at 276-feet TDH; and,
- ii. Scenario 2: 670.0 GPM (the maximum requested volume of 1.5 CFS) at 312-feet TDH.

The selected pump can produce up to 1,177.0 GPM at a maximum TDH of 402-feet and at the lower flow rates utilizing the VFD. This pump was selected because the Applicant may seek additional water rights in the future for the maximum diversion rate which would enable them to operate all three pivot systems simultaneously. The Applicant provided a copy of the pump curve for the submersible turbine pump and the friction loss calculations for the different operating scenarios.

58. Based on the results of the 8-hour yield and drawdown test on the production well, existing neighboring aquifer test data, and the system specifications, the Department finds that the diversion and conveyance system is adequate to supply the requested flow rate of 1.5 CFS (670.0 GPM) and annual volume of 261.0 AF.

BENEFICIAL USE

FINDINGS OF FACT

59. The Applicant proposes to divert groundwater at 1.5 CFS (670.0 GPM) up to 261.0 AF/year for irrigation of 139.0 acres. Using the NRCS IWR software and assuming 70 percent sprinkler irrigation efficiency, the Applicants identified a gross irrigation requirement in a dry year of 22.5 inches per acre (1.9 AF) per year for the Creston area (15.8 inches/acre net irrigation requirement \div 0.7 efficiency factor = 22.5 inches/acre gross irrigation requirement \div 12.0 inches/foot = 1.9 AF). The point of diversion is located in NRCS Climatic Area IV, while the place of use (irrigated area) is located in both NRCS Climatic Areas III and IV. Per DNRC standards in ARM 36.12.115, a reasonable volume for sprinkler irrigation in Climate Zone III ranges from 2.1 to 2.4 AF/acre, and a reasonable volume for sprinkler irrigation in Climate Zone IV ranges from 1.8 to 2.1 AF/acre. The volume requirement of 1.9 AF/acre calculated using IWR is reasonable when compared to the DNRC standard volumes. The requested volume of 261.0 AF/year to irrigate 139.0 acres was determined using the IWR value (139.0 acres x 1.9 AF/acre = 261.0 AF/year).

60. The 139.0 acres are irrigated by three center pivot sprinkler systems under two operating scenarios:

- i. Scenario 1: the "West 8 Tower" system operating by itself at 507.1 GPM to irrigate 65.0 acres; and,
- ii. Scenario 2: the "East 8 Tower" and the "North 2 Tower Mini" systems operating simultaneously at 670.0 GPM (1.5 CFS) to irrigate 74.0 acres.

During peak irrigation demand (July), the gross irrigation requirement per IWR is 6.6 inches/acre or 0.6 AF (6.6 inches/acre \div 12.0 inches/foot = 0.6 AF). Irrigating the 65.0 acres under Scenario 1 during July requires 35.7 AF or 11,623,959 gallons (65.0 acres x 0.6 AF = 35.7 AF x 325,851 gallons/AF = 11,623,959 gallons), which is equivalent to 374,966 gallons/day (11,623,959 gallons \div 31 days in July = 374,966 gallons/day). Satisfying the irrigation demand of the 65.0 acres irrigated under operating Scenario 1 during the month of July will require pumping at 507.1 GPM for 12.3 hours/day (374,966 gallons/day \div 507.1 GPM = 739.4 minutes/day \div 60 minutes/hour = 12.3 hours/day). Following the same logic for the 74.0 acres irrigated under operating Scenario 2 yields a pumping requirement of 10.6 hours/day. In total, the pump must operate for 22.9 hours/day

during peak use in July to satisfy the irrigation requirements for all 139.0 acres. This demonstrates that the requested flow rate can satisfy the requested beneficial use volume of 261.0 AF/year.

61. Based on the IWR calculations and the peak demand pumping analysis, the Department finds that the proposed water use is beneficial, and that the requested flow rate of 1.5 CFS (670.0 GPM) and annual volume of 261.0 AF are reasonably justified per ARM 36.12.1801(3).

POSSESSORY INTEREST

FINDINGS OF FACT

62. The Applicant signed the application form affirming the Applicant has 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.

CONCLUSIONS OF LAW

PHYSICAL AVAILABILITY

63. 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.”

64. It is the Applicant’s burden to produce the required evidence. *In the Matter of Application for Beneficial Water Use Permit No. 27665-411 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).

65. 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).

66. The Applicant has proven that water is physically available at the proposed point of diversion in the amount Applicant seeks to appropriate. § 85-2-311(1)(a)(i), MCA. (Findings of Fact (FOF) 12-21)

LEGAL AVAILABILITY

67. 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).

68. 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.

69. 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 flow 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 flow and the ground water source proposed for appropriation, and since diversion by applicant's well appears to influence surface flow, 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.)

70. 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. § 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.

71. 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*.

72. 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. § 85-2-311(1)(a)(ii), MCA. (FOF 22-45)

ADVERSE EFFECT

73. 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.

74. 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).

75. 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).

76. 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).

77. 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.

78. 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).

79. 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. § 85-2-311(1)(b), MCA. (FOF 46-49)

ADEQUATE DIVERSION

80. 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.

81. 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.

82. 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).

83. 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).

84. 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. § 85-2-311(1)(c), MCA (FOF 50-58)

BENEFICIAL USE

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

86. 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).

87. 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).

88. 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*.

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

beneficial use and that 261.0 AF of diverted volume and 1.5 CFS (670.0 GPM) is the amount needed to sustain the beneficial use. § 85-2-311(1)(d), MCA. (FOF 59-61)

POSSESSORY INTEREST

90. 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.

91. 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.

92. The Applicant has proven by a preponderance of the evidence that it has a possessory interest, or the written consent of the person with the possessory interest, in the property where the water is to be put to beneficial use. § 85-2-311(1)(e), MCA. (FOF 62)

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. 76LJ 30151310 should be GRANTED.

The Department determines the Applicant may divert groundwater by means of a production well (GWIC ID: 313497; completed to 315-foot BGS) from April 15 – October 15 at 1.5 CFS (670.0 GPM) up to 261.0 AF/year for irrigation of 139.0 acres from April 15 – October 15. The point of diversion is in the NWNESE of Section 5, Township 28N, Range 20W, Flathead County, Montana. The place of use is in the SE of Section 5, Township 28N, Range 20W, Flathead County, Montana.

To satisfy the Adverse Effect criterion, the proposed provisional permit will be subject to the following condition upon issuance:

THE APPROPRIATOR SHALL INSTALL A DEPARTMENT APPROVED IN-LINE FLOW METER AT A POINT IN THE DELIVERY LINE APPROVED BY THE DEPARTMENT. WATER MUST NOT BE DIVERTED UNTIL THE REQUIRED MEASURING DEVICE IS IN PLACE AND OPERATING. ON A FORM PROVIDED BY THE DEPARTMENT, THE APPROPRIATOR SHALL KEEP A WRITTEN MONTHLY RECORD OF THE FLOW RATE AND VOLUME OF ALL WATER DIVERTED, INCLUDING THE PERIOD OF TIME. RECORDS SHALL BE SUBMITTED BY JANUARY 31 OF EACH YEAR AND UPON REQUEST AT OTHER TIMES DURING THE YEAR UNTIL A FORM 617 PROJECT COMPLETION NOTICE IS SUBMITTED. FAILURE TO SUBMIT REPORTS MAY BE CAUSE FOR REVOCATION OF THE PERMIT. THE RECORDS MUST BE SENT TO THE KALISPELL REGIONAL WATER RESOURCES OFFICE. THE APPROPRIATOR SHALL MAINTAIN THE MEASURING DEVICE SO IT ALWAYS OPERATES PROPERLY AND MEASURES FLOW RATE AND VOLUME ACCURATELY.

NOTICE

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

DATED this 12th Day of April 2024.

/Original signed by James Ferch/
James Ferch, Regional Manager
Kalispell Regional Water Resources Office
Department of Natural Resources and Conservation

CERTIFICATE OF SERVICE

This certifies that a true and correct copy of the PRELIMINARY DETERMINATION TO GRANT was served upon all parties listed below on this 12th Day of April 2024, by first class United States mail.

WARDEN HUTTERIAN BRETHREN
ATTN: PAUL WOLLMAN
1054 W HARDER RD
WARDEN, WA 98857-9650

WATER & ENVIRONMENTAL TECHNOLOGIES
ATTN: BRAD BENNETT
102 COOPERATIVE WAY, STE 100
KALISPELL, MT 59901-2382

TRAVIS WILSON
Kalispell Regional Office, (406) 752-2288

DATE