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

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| **APPLICATION FOR BENEFICIAL WATER USE PERMIT NO. 43QJ 30165052 BY STILLWATER MINING COMPANY** | ) ) ) | **DRAFT PRELIMINARY DETERMINATION TO GRANT PERMIT** |

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On March 20, 2025, Stillwater Mining Company (Applicant) submitted Application for Beneficial Water Use Permit No. 43QJ 30165052 to the Billings Regional Office of the Department of Natural Resources and Conservation (Department or DNRC) for 385 gallons per minute (GPM) and 115.2 acre-feet (AF) for industrial use. The Department published receipt of the application on its website. A preapplication meeting was held between the Department and the Applicant on December 18, 2024, in which the Applicant designated that the technical analyses for this application would be completed by the Department. The Applicant returned the completed Preapplication Meeting Form on January 30, 2025. The Department delivered the Department-completed technical analyses on March 14, 2025. The application was determined to be correct and complete as of April 4, 2025. An Environmental Assessment for this application was completed on May 6, 2025.

## INFORMATION

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

Application as filed:

- Application for Beneficial Water Use Permit, Form 600
- Addenda:
    - Aquifer Testing Addendum, Form 600-ATA
    - Form 633 in electronic format
- Attachments:
    - Pump curve for Grundfos model 230S, 15 horsepower (hp), 6-inch, 230 GPM pump capable of a 160-320 GPM range
- Maps:
    - Undated aerial image with proposed points of diversion and place of use overlain

- Department-completed technical analyses based on information provided in the Preapplication Meeting Form, dated March 14, 2025

Information within the Department's Possession/Knowledge

- Variance request dated January 28, 2025, requesting variance from ARM 36.12.121(3)(a) – pumping rate may not depart from the average pumping rate by more than +/- 5%
- Variance approval letter dated January 30, 2025, granting a variance from ARM 36.12.121(3)(e) - the intent was to grant a variance for ARM 36.12.121(3)(a).
- Groundwater Permit Application Technical Analyses Report by Kimberly Bolhuis and Chris Schweigert dated March 14, 2025 (DNRC Report)
- DNRC Water rights information system (WRIS)
- National Hydrography Dataset (NHD)
- United States Geological Survey (USGS) Stream Gage No. 06192500 Yellowstone River near Livingston MT, with a period of record from 5/1/1897 to 10/31/2024
- USGS Stream Gage No. 06214500 Yellowstone River at Billings MT, with a period of record from 10/1/1928 to 10/31/2024
- USGS 2015. Methods for estimating streamflow characteristics at ungaged sites in western Montana based on data through water year 2009; Chapter G in Montana Streamstats
- USGS Streamstats web application at http://streamstats.usgs.gov/ss/
- 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 Billings Regional Office at 406-247-4415 to request copies of the following documents.
    - Department Technical Memorandum: Physical Availability of Surface Water with Gage Data dated November 1, 2019.
    - Department Standard Practice for Area of Potential Impact Analysis
    - Montana DNRC Permit Manual
    - Montana DNRC Change Manual
    - Montana DNRC Water Calculation Guide
    - Montana DNRC Water Rights Information System (WRIS or database)

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

For the purposes of this document, Department or DNRC means the Department of Natural Resources & Conservation; AF means acre-feet; AC means acres; AF/AC means acre-feet per acre; AF/YR means acre-feet per year; BGS means below ground surface; BGS means below ground surface; BTC means below top of casing; CFS means cubic feet per second; GPM means gallons per minute; GWIC means Groundwater Information Center; hp means horsepower; POD means point of diversion, POU means place of use; and SWL means static water level.

## PROPOSED APPROPRIATION

FINDINGS OF FACT

1. The Applicant proposes to divert groundwater by means of two wells. Well 1 (SPW-01) is approximately 32 ft. deep and Well 2 (SPW-02) is approximately 35 ft. deep. The proposed period of diversion and period of use is from January 1 to December 31 at a combined flow rate of 385 GPM up to 115.2 AF, from a point in the SWSENE (SPW-01) and a point in the NENESE (SPW-02) Sec. 27, T2S, R20E, Stillwater County. The Applicant proposes to use the water for industrial use and dust abatement. The volume to be used for industrial use is 115.15 AF and the volume to be used for dust abatement is 0.05AF. The place of use is generally located in the S2S2NE and N2N2NESE Sec. 27; and in the NWSW and SWSWNW Sec. 26, T2S, R20E, (in Blocks 7-11 Industrial Sites Addition in Columbus, COS 260429 and abandoned streets 16, 17, 18, 19), Stillwater County. The Applicant has used treated water from the City of Columbus for the same purposes historically. The proposed groundwater source would replace the use of the municipal water.

2. The proposed PODs are approximately 3,600 ft. north of the Yellowstone River. Department Groundwater Hydrologist Kimberly Bolhuis determined that the Yellowstone River will be depleted by the proposed appropriation below the NE corner of Sec. 34, T2S, R20E, Stillwater County.

3. The proposed use is industrial and dust abatement and is considered to be 100 percent consumed from the source. The total proposed consumed volume is 115.2 AF.

4. This permit will not be supplemental to any other water rights and will not share a place of use.

5. The project is located on the east end of Columbus, MT.

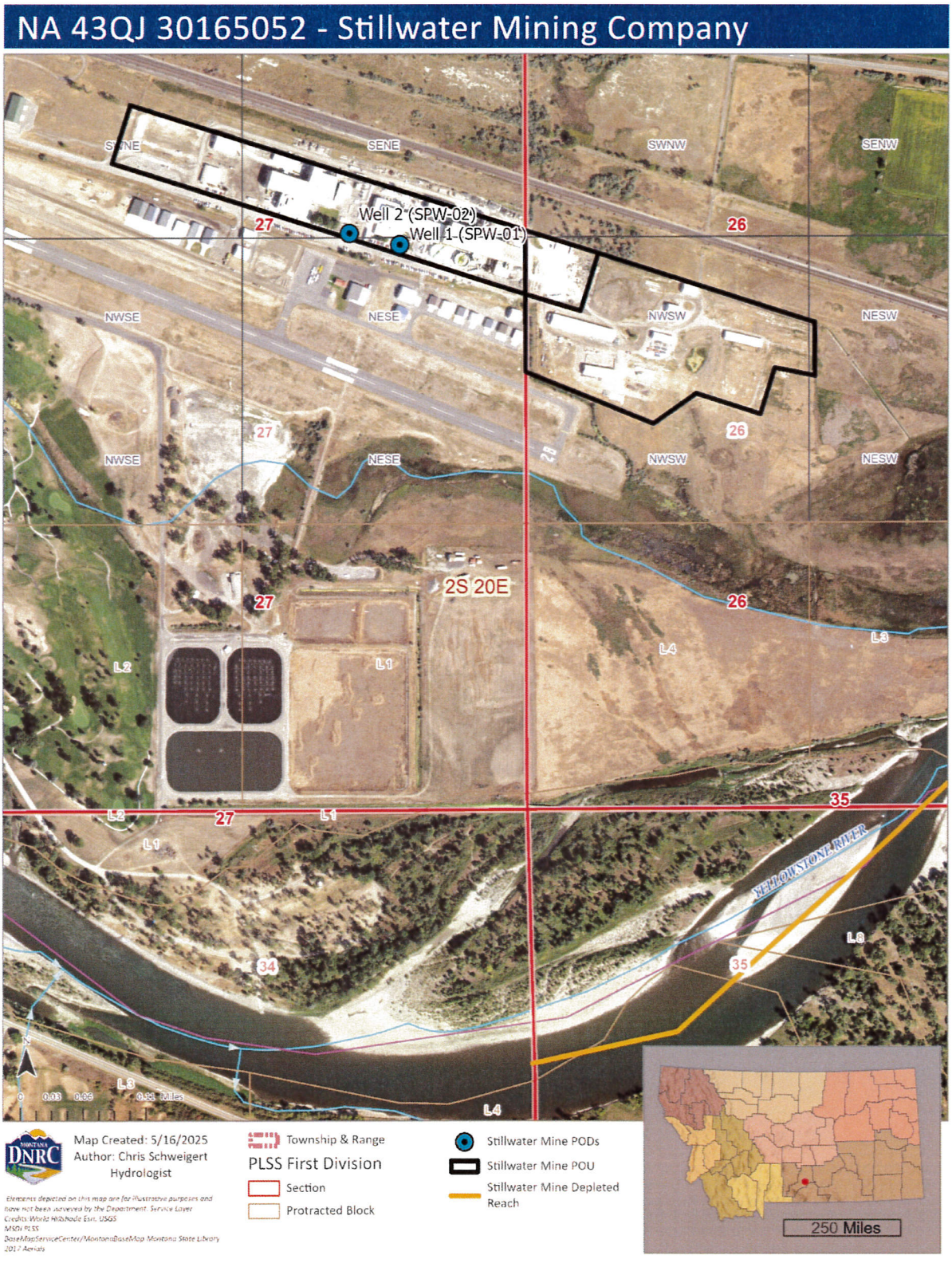


Figure 1. Proposed project area, points of diversion and place of use

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

GENERAL CONCLUSIONS OF LAW

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

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

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

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

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

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

(A) identification of physical water availability;

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

9. The Montana Supreme Court further recognized in *Matter of Beneficial Water Use Permit Numbers 66459-76L, Ciotti: 64988-G76L, 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 use up to 385 GPM flow rate up to 115.2 AF volume of groundwater for year-round industrial and dust abatement purposes.

13. The Applicant drilled two wells; Well 1 (SPW-01) is 32 ft. deep, and Well 2 (SPW-02) is 35 ft. deep. As required in ARM 36.12.1703 and 36.12.121, a 72-hour pump test was completed on Well 2 and an 8-hour drawdown and yield test was completed on Well 1. A variance from Aquifer Testing Requirements in ARM 36.12.121(3)(a) was requested and granted. This rule requires the Applicant to maintain the pumping rate within 5% of average for the duration of the test. The aquifer test data shows that the pump rate was 6.9% greater than the average for a brief period at the beginning of the test. Aquifer test data was provided to the Department on Form 633. Department Groundwater Hydrologist Kimberly Bolhuis used data from the aquifer tests to model aquifer properties and produce the March 14, 2025, Groundwater Permit Report, Part A (DNRC Report) in which she evaluated the volume of water that is physically available from the source aquifer.

14. The evaluation of groundwater availability was done by calculating groundwater flux through the zone of influence (ZOI) corresponding to the 0.01-foot drawdown contour. A distance-drawdown plot was generated using the Neuman (DNRC Report) unconfined solution with a Transmissivity (T) of 7,105 $ft^2$/day, Specific Yield ($S_y$) of 0.1, Elastic Storage (S) of 0.009, Anisotropy ratio of 1, Aquifer thickness of 20 ft., a pumping schedule for Well 1 and Well 2 based on the proposed use, and a constant pumping rate of 35.7 GPM. The constant pumping

rate is the rate required by both wells pumping simultaneously to produce the proposed volume over the proposed period of diversion. Detailed information on the modeling techniques and the determination of the above parameters are described in the DNRC Report. The width of the ZOI was found to be 6,888 ft. from the wells and is truncated by a no-flow boundary created by the bounding shale formations north of the production wells and by the Yellowstone River to the south.

15. The groundwater flux (Q) through the ZOI was caclutated using the equation Q=TWi, where T is Transmissivity, W is the width of the ZOI, and i is groundwater gradient. Using a T of 7,105 $ft^2$/day, a W of 6,888 ft. and an i of 0.006 measured from water level elevations and map distance, the flux was calculated to be 309,139 $ft^3$/day or 2,591.3 AF/YR.

16. The Department finds that the amount of groundwater physically available at the proposed point of diversion is 2,591.3 AF/YR. The Department finds groundwater is physically available in the amount requested during the proposed period of diversion.

## LEGAL AVAILABILITY

### FINDINGS OF FACT

17. Department Groundwater Hydrologist Kimberly Bolhuis modeled the drawdown from the proposed appropriation after 5 years of pumping. The model predicted the ZOI would occur at 6,888 ft. from the proposed PODs. This ZOI is considered the area of potential impact (APOI) for the groundwater appropriation. Based on the 0.01-foot drawdown contour at 6,888 ft. from the proposed wells, truncated based on the structure of the aquifer and constant head boundaries, the DNRC report identified 164 active groundwater rights in the source aquifer within the ZOI. A list of the water rights are in the file. Of those water rights, 160 are Ground Water Certificates, two are Provisional Permits, and two are Statements of Claim. This includes 25 Ground Water Certificates for which no volume is recorded in the database. The legal demand for the Ground Water Certificates with no recorded volume was taken as 1.9 AF/YR representing the average volume of the Ground Water Certificates for which volumes are recorded, which is the standard Department methodology. The total annual legal demand on groundwater within the ZOI is 1,449.3 AF/YR.

*Table 1. Comparison of physically available groundwater to legal demands*

| Physically Available (AF/YR) | Existing Legal Demands (AF/YR) | Physically Available Minus Existing Legal Demands (AF/YR) |
|---|---|---|
| 2,591.3 | 1,449.3 | 1,142 |

18. The amount of groundwater physically available is 2,591.3 AF/YR and the existing legal demands total 1,449.3 AF/YR. The Department finds that the comparison shows groundwater

is legally available in excess of the amount requested by the Applicant (2,591.3 AF – 1,449.3 AF = 1,142 AF).

19. The DNRC Report concludes that the Yellowstone River is hydraulically connected to the source aquifer and would be depleted by the proposed appropriation. The depleted reach of the Yellowstone River is downstream of the eastern boundary of the NENE Sec. 34, T2S, R20E, Stillwater County. The estimated monthly depletions to the Yellowstone River are shown in Table 2. Monthly depletions are assumed to be equal to consumption. For this application, the proposed use is industrial and dust abatement. Based on information from the Applicant, the industrial use is entirely consumed by the smelting process. Based on DNRC standards, dust abatement use is also considered to be 100 percent consumed. The total annual consumed volume is equal to the diverted volume of 115.2 AF/YR.

*Table 2. Estimated monthly depletions to the Yellowstone River*

| Month | Diverted Volume (AF) | Consumed Volume (AF) | Yellowstone River Net Depletion (AF) | Yellowstone River Net Depletion (GPM) |
|---|---|---|---|---|
| **January** | 9.8 | 9.8 | 9.8 | 71.4 |
| **February** | 8.8 | 8.8 | 8.8 | 71.4 |
| **March** | 9.8 | 9.8 | 9.8 | 71.4 |
| **April** | 9.5 | 9.5 | 9.5 | 71.4 |
| **May** | 9.8 | 9.8 | 9.8 | 71.4 |
| **June** | 9.5 | 9.5 | 9.5 | 71.4 |
| **July** | 9.8 | 9.8 | 9.8 | 71.4 |
| **August** | 9.8 | 9.8 | 9.8 | 71.4 |
| **September** | 9.5 | 9.5 | 9.5 | 71.4 |
| **October** | 9.8 | 9.8 | 9.8 | 71.4 |
| **November** | 9.5 | 9.5 | 9.5 | 71.4 |
| **December** | 9.8 | 9.8 | 9.8 | 71.4 |
| **Total** | **115.2** | **115.2** | **115.2** | |

Mathematical errors are due to rounding

20. The Department used the "Between Gages: Interpolation" method outlined in the November 1, 2019, DNRC Technical Memorandum: Physical Availability of Surface Water with Gage Data to estimate physical availability of water at the top of the depleted reach for each month in the proposed period of diversion.

21. Where there is both an upstream and downstream gaging station relative to the depleted reach on the same source, the equation (equation 11) from USGS (2015) StreamStats, for Montana can be used to make a logarithmic linear interpolation between the two gages:

$$\log Q_u = \log Q_{g1} + \left(\frac{logQ_{g2} - logQ_{g1}}{logA_{g2} - logA_{g1}}\right)(logA_u - logA_{g1})$$

Where: $Q$ = streamflow characteristic
$A$ = drainage area
Subscripts *g1* and *g2* are gaged sites 1 and 2, respectively

Subscript u = ungaged site (top of the depleted reach)

22. The nearest upstream USGS gage is no. 06192500, Yellowstone River near Livingston, MT (Gage 1) which is located approximately 84 miles upstream has a period of record from May 1, 1897, to October 31, 2024. The nearest downstream USGS gage is no. 06214500, Yellowstone River at Billings, MT (Gage 1) which is located approximately 43 miles downstream and has a period of record from October 1, 1928, to October 31, 2024. These two gages meet the stream gaging requirements found in ARM 36.12.1702 and are acceptable for determining physical and legal availability of surface water in this application. The median of the mean monthly flow at the bounding gages are shown in Table 3. The basin drainage area at the gaged and ungaged sites on the Yellowstone River are shown in Table 4.

*Table 3. Median of the mean monthly flow at upstream and downstream USGS gages*

| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Median of the mean monthly flow at Gage 1 (Livingston 06192500 - upstream) (CFS)** | 1,191 | 1,185 | 1,293 | 1,903 | 7,207 | 13,315 | 7,319 | 3,332 | 2,270.5 | 1,916 | 1,637 | 1,359.5 |
| **Median of the mean monthly flow at Gage 2 (Billings 06214500 - downstream) (CFS)** | 2,513.50 | 2,523 | 2,893.50 | 3,971.50 | 12,885 | 24,270 | 12,405 | 4,571 | 3,717.5 | 3,911 | 3,572 | 2,787.5 |

*Table 4. Basin drainage area at the gaged and ungaged sites on the Yellowstone River*

| Location | Drainage Area (Sq. mi.) | Drainage Area Ratio of Ungaged Site to Gage Location |
|---|---|---|
| **USGS Yellowstone River near Livingston** | 3,551 | 2.23 |
| **USGS Yellowstone River at Billings** | 11,414 | 0.69 |
| **Yellowstone River at top of depleted reach (ungaged site)** | 7,928.7 | 1.0 |

23. The Department estimated the available flow at the top of the depleted reach (ungaged site) using the interpolation method along with the data from the upstream gage at Livingston (06192500) and the downstream gage at Billings (06214500). The drainage basin areas for the two gaged sites were taken from the USGS gage records. The drainage basin area for the ungaged site (top of the depleted reach) was taken from StreamStats. The results from the interpolation method are considered reasonable, although the ungaged area is outside of the suggested parameters of $0.5A_g$ -$1.5A_g$ with the ungaged area being 0.69 times the size of the Billings gaged area and 2.23 times the size of the Livingston gaged area. Because the streamflow conditions are similar for the source at both gages, and the periods of record for the gages are similar, the method is considered adequate. Use of this method is standard practice when the surface water depletion from a groundwater appropriation is to a perennial source with

both upstream and downstream gages. This method provides a more realistic estimate of stream flow conditions than adding or subtracting monthly legal demands to or from a single set of USGS stream gage data.

24. The median of the mean monthly flow rate in CFS and volume in AF were calculated using the USGS gage records at Livingston and Billings, MT, as shown in Table 3. The monthly volume was calculated using the following equation found on the DNRC Water Calculation Guide: Median of the mean monthly flow (CFS) x 1.98 (AF/day/1 CFS) x days per month = AF/month. The median of the mean monthly flow rates and the drainage basin areas were entered into equation 11 for each month of the year (USGS, 2015). The results are shown in Table 5.

*Table 5. Median of the mean monthly flow and volume at gaged and ungaged sites*

| | **USGS gage near Livingston 06192500 – gage 1, Upstream** | | **USGS gage at Billings 06214500 – gage 2, Downstream** | | **Interpolation** | |
|---|---|---|---|---|---|---|
| **Month** | **Median of the Mean Monthly Flow at gage 06192500 (CFS)** | **Median of the Mean Monthly Volume at gage 06192500 (AF)** | **Median of the Mean Monthly Flow at gage 06214500 (CFS)** | **Median of the Mean Monthly Volume 06214500 (AF)** | **Median of the Mean Monthly Flow at Top of the Depleted Reach (CFS)** | **Median of the Mean Monthly Volume Top of the Depleted Reach (AF)** |
| **January** | 1,191.0 | 73,103.6 | 2,513.5 | 154,278.6 | 1,990.89 | 122,201.1 |
| **February** | 1,185.0 | 65,696.4 | 2,523.0 | 139,875.1 | 1,992.92 | 110,487.7 |
| **March** | 1,293.0 | 79,364.3 | 2,893.5 | 177,603.0 | 2,250.34 | 138,125.7 |
| **April** | 1,903.0 | 113,038.2 | 3,971.5 | 235,907.1 | 3,156.73 | 1877,510.0 |
| **May** | 7,207.0 | 442,365.7 | 12,885.0 | 790,881.3 | 10,748.20 | 659,724.3 |
| **June** | 13,315.0 | 790,911.0 | 24,270.0 | 1,441,638.0 | 20,123.33 | 1,195,325.8 |
| **July** | 7,319.0 | 449,240.2 | 12,405.0 | 761,418.9 | 10,521.65 | 645,818.6 |
| **August** | 3,332.0 | 204,518.2 | 4,571.0 | 280,568.0 | 4,141.52 | 254,206.5 |
| **September** | 2,270.5 | 134,867.7 | 3,717.5 | 220,819.5 | 3,187.31 | 189,326.1 |
| **October** | 1,916.0 | 117,604.1 | 3,911.0 | 240,057.2 | 3,130.22 | 192,132.8 |
| **November** | 1,637.00 | 97,237.8 | 3,572.00 | 212,176.8 | 2,799.99 | 166,319.6 |
| **December** | 1,359.50 | 83,446.1 | 2,787.50 | 171,096.8 | 2,227.90 | 136,748.3 |

25. The Department considered the potentially impacted reach (AOPI) on the source of supply by accounting for the location of the proposed project and downstream water users on the Yellowstone River. This reach extends from the top of the depleted reach at the NE corner of Sec. 34, T2S, R20E, Stillwater County, downstream to the confluence of Tutt Creek and the Yellowstone River in Government Lot 5 (SWNW), Sec. 9, T3S, R21E, Stillwater County. This is an acceptable AOPI because the reach includes several tributaries and an additional 69.4 sq. mi. of drainage area. Water rights within the reach were identified using the DNRC water right

database and Esri ArcGIS application Converge. The Department quantified the flow rate and volume of the surface water rights using the following methods:

1. The flow rate and volume for each water right were taken from the face value on the abstracts.
2. Water rights without an assigned flow rate or volume were quantified using further analysis:
    a. The adjudication standard of 30 gallons per day per animal unit was used for stock claim volumes.
    b. Stock direct from ditch water rights were assigned the claimed flow rate during the months the ditch was not being used for irrigation. The flow rate assigned during the irrigation season was zero because the required flow rate was provided by their associated irrigation right.
    c. Irrigation rights were assigned a volume of 2.69 AF/AC, which is the low range of the Department's standard for diverted volume at 60% efficiency in Climatic Area II, per ARM 36.12.115.
    d. Assuming that the flow rate of each existing water right is continuously diverted throughout each month of the period of diversion. This assumption is necessary due to the difficulty of differentiating the distribution of appropriated volume over the period of diversion which leads to an overestimation of existing uses from the source. The Department finds this an appropriate measure of assessing existing rights as it protects existing water users. The quantification of said water rights is not a re-adjudication or historical use analysis.
    e. The monthly volume for the Montana Fish, Wildlife & Parks fish and wildlife rights were taken from "Table 2" on page 24 of each of the scanned claim files for 43QJ 188698-00 and 43QJ 188699-00.

26. The area of potential impact (AOPI) on the depleted source is approximately 5.7 miles from the top of the depleted reach to the confluence of Tutt Creek and the Yellowstone River. There are 19 existing surface water rights within the AOPI, with the legal demands in the reach totaling 4,608.5 CFS and 1,617,421.5 AF, as shown in Table 6.

*Table 6. Existing water rights within the AOPI*

| Water Right No. | Owners | Purpose | Period of Diversion | Maximum Flow Rate (CFS) | Annual Volume (AF) |
|---|---|---|---|---|---|
| 43QJ 188698 00 | Montana, State Of Dept Of Fish Wildlife & Parks | Fish And Wildlife | 4/15 to 10/31 | 2,600.0 | 1,026,005.0 |

| | | | | | |
|---|---|---|---|---|---|
| 43QJ 188699 00 | Montana, State Of Dept Of Fish Wildlife & Parks | Fish And Wildlife | 11/01 to 4/19 | 1,500.0 | 493,769.0 |
| 43QJ 195781 00 | Yellowstone Ditch Co | Irrigation | 3/15 to 10/31 | 40.0 | 7,892.5 |
| 43QJ 195782 00 | Yellowstone Ditch Co | Irrigation | 3/15 to 10/31 | 70.0 | 7,892.5 |
| 43QJ 195783 00 | Yellowstone Ditch Co | Irrigation | 3/15 to 10/31 | 2.5 | 7,892.5 |
| 43QJ 30016204 | Cove Irrigation Co; Stillwater Conservation District | Irrigation | 4/1 to 11/1 | 0.9 | 64.0 |
| 43QJ 30067683 | Mt Marian Enterprises; Stillwater Conservation District | Irrigation | 4/1 to 11/1 | 2.2 | 197.0 |
| 43QJ 30104955 | Cove Irrigation Co; Stillwater Conservation District | Irrigation | 4/1 to 11/1 | 1.3 | 242.0 |
| 43QJ 30119616 | Cove Irrigation Co; Stillwater Conservation District | Irrigation | 4/1 to 11/1 | 1.2 | 246.0 |
| 43QJ 12187 00 | Means Family Trust | Irrigation | 4/1 to 11/1 | 5.0 | 1,100.0 |
| 43QJ 197345 00 | Peterson Farm LLC | Irrigation | 4/1 to 11/20 | 1.3 | 102.2 |
| 43QJ 5337 00 | Julie M Clark; Wayne A Clark | Irrigation | 4/15 to 10/15 | 1.0 | 99.3 |
| 43QJ 19149 00 | Cove Irrigation Co | Irrigation | 4/15 to 11/1 | 258.7 | 18,370.0 |
| 43QJ 28749 00 | Debra J McDonnell; Leo McDonnell; Stevan S Williams | Irrigation | 5/1 to 10/15 | 6.5 | 460.0 |
| 43QJ 15661 00 | Chris Thompson; Helen N Thompson | Irrigation | 5/1 to 10/15 | 4.0 | 560.0 |
| 43QJ 195780 00 | Yellowstone Ditch Co | Irrigation | 3/15 to 10/31 | 112.5 | 51,750.0 |
| 43QJ 30105763 | Cove Irrigation Co; Stillwater Conservation District | Irrigation | 4/1 to 10/1 | 1.0 | 203.0 |
| 43QJ 28750 00 | Debra J McDonnell; Leo McDonnell; Stevan S Williams | Stock | 1/1 to 12/31 | 0.4 | 10.1 |
| 43QJ 45735 00 | Cove Irrigation Co | Stock | 4/15 to 11/1 | 0.0 | 566.5 |

27. The comparison between physically available and legally available water in the Yellowstone River is shown in Tables 7 and 8, indicating that water is legally available for the proposed appropriation.

*Table 7. Comparison of physical and legal availability in the AOPI by flow rate (CFS)*

| Month | Interpolated Flow at Ungaged Site (CFS) | Legal Demands (CFS) | Flow Minus Demands (CFS) | Depletion (CFS) | Flow Minus Depletion (CFS) |
|---|---|---|---|---|---|
| **January** | 1,990.9 | 1,500.4 | 490.5 | 0.2 | 490.3 |
| **February** | 1,992.9 | 1,500.4 | 492.5 | 0.2 | 492.3 |
| **March** | 2,250.3 | 1,725.4 | 524.9 | 0.2 | 524.7 |
| **April** | 3,156.7 | 3,097.6 | 59.1 | 0.2 | 59.0 |
| **May** | 10,748.2 | 3,108.1 | 7,640.1 | 0.2 | 7,639.9 |
| **June** | 20,123.3 | 3,108.1 | 17,015.2 | 0.2 | 17,015.1 |
| **July** | 10,521.6 | 3,108.1 | 7,413.5 | 0.2 | 7,413.4 |
| **August** | 4,141.5 | 3,108.1 | 1,033.4 | 0.2 | 1,033.3 |
| **September** | 3,187.3 | 3,108.1 | 79.2 | 0.2 | 79.0 |
| **October** | 3,130.2 | 3,108.1 | 22.1 | 0.2 | 21.9 |
| **November** | 2,800.0 | 1,501.7 | 1,298.3 | 0.2 | 1,298.1 |
| **December** | 2,227.9 | 1,500.4 | 727.5 | 0.2 | 727.3 |

Mathematical errors are due to rounding

*Table 8. Comparison of physical and legal availability in the AOPI by volume (AF)*

| Month | Interpolated Volume at Ungaged Site (AF) | Legal Demands (AF) | Flow Minus Demands (AF) | Depletion (AF) | Flow Minus Depletion (AF) |
|---|---|---|---|---|---|
| **January** | 122,201.1 | 92,769.6 | 29,431.5 | 9.8 | 29,421.7 |
| **February** | 110,487.7 | 83,791.9 | 26,695.8 | 8.8 | 26,687.0 |
| **March** | 138,125.7 | 96,676.6 | 41,449.1 | 9.8 | 41,439.3 |
| **April** | 187,510.0 | 131,310.5 | 56,199.4 | 9.5 | 56,190.0 |
| **May** | 659,724.3 | 170,475.4 | 489,248.9 | 9.8 | 489,239.1 |
| **June** | 1,195,325.8 | 164,976.2 | 1,030,349.5 | 9.5 | 1,030,340.1 |
| **July** | 645,818.6 | 170,475.4 | 475,343.1 | 9.8 | 475,333.4 |
| **August** | 254,206.5 | 170,475.4 | 83,731.1 | 9.8 | 83,721.3 |
| **September** | 189,326.1 | 164,976.2 | 24,349.9 | 9.5 | 24,340.4 |
| **October** | 192,132.8 | 170,336.6 | 21,796.2 | 9.8 | 21,786.4 |
| **November** | 166,319.6 | 3,104.9 | 163,214.7 | 9.5 | 163,205.2 |
| **December** | 136,748.3 | 2,993.4 | 133,755.0 | 9.8 | 133,745.2 |

28. The Department finds the proposed depletion to the Yellowstone River of 0.2 CFS and up to 9.8 AF per month to be legally available in the AOPI during the proposed period of diversion.

29. The Department finds the proposed appropriation of 385 GPM up to 115.2 AF per year of groundwater to be legally available during the proposed period of diversion (FOF 18).

## ADVERSE EFFECT

### FINDINGS OF FACT

30. The Applicant's plan to prevent adverse effect is to shut down their pumps and cease diversion if a valid call is made by a senior water user.

31. The Applicant's data from aquifer testing and Department modeling demonstrate that the requested flow rate and volume are physically and legally available in the amount that the Applicant proposes to divert (FOF 16 and 18).

32. As discussed in the Legal Availability section, the Yellowstone River is considered hydraulically connected to the source aquifer. Table 2 (FOF 19) shows the modeled monthly depletions to the Yellowstone River by flow rate and volume. Physical availability of water in the depleted reach exceeds all legal demands and the modeled depletions in all months within the proposed period of diversion (FOF 27).

33. Department Groundwater Hydrologist Kimberly Bolhuis modeled drawdown in existing wells using aquifer properties from the Applicant's aquifer test and existing literature (DNRC Report). Using the Applicant's proposed pumping schedule and associated annual volume, potential impacts to existing water rights were evaluated by modeling drawdown in nearby wells and net depletions to surface water. The maximum modeled drawdown was greatest at the end of December of the fifth year of pumping using the proposed pumping schedule. After five years of the monthly pumping schedule, the maximum modeled drawdown occurs approximately 100 ft. from the production wells. The maximum modeled drawdown is 1.5 ft. at the end of the fifth year. As such, zero water rights are expected to experience drawdown equal to or greater than one foot.

34. Based on findings that water availability exceeds legal demands on the depleted surface water source, groundwater modeling which indicates no water rights would experience drawdown equal to or in excess of one foot, and the Applicant's plan to prevent adverse effect through ceasing diversion if a valid call for water is made, the Department finds that the proposed appropriation of 385 GPM up to 115.2 AF/YR for industrial and dust abatement use will not cause adverse effect to other existing water rights or reservations.

## ADEQUATE MEANS OF DIVERSION

### FINDINGS OF FACT

35. The proposed means of diversion is two wells; Well 1 (SPW-01) is 32 ft. deep, and Well 2 (SPW-02) is 35 ft. deep. The wells were drilled by a licensed water well contractor. A 72-hour pump test was completed on Well 2 and an 8-hour drawdown and yield test was completed on Well 1. The wells are completed in the unconfined Quaternary alluvial aquifer approximately 3,600 ft. north of the Yellowstone River on the east end of the City of Columbus, MT. The wells will be plumbed into the Applicant's Metallurgical Complex (MET) building using independent 4-inch diameter pipes which will connect to the existing piping in the MET building. The existing

infrastructure includes hose bibs and fill stations allowing for dust suppression on the grounds adjacent to the MET building as necessary. This infrastructure has been in place and functional when the Applicant used municipal water from the city. The water will be used and consumed in the industrial processes at the MET building and no water will be discharged.

36. The final pumps for the wells are designed to operate at a total dynamic head of 240 ft. which is intended to supply water at 80 psi to the MET process building to match the water supply from the City of Columbus.

37. Department Groundwater Hydrologist Kim Bolhuis modeled adequacy of diversion using the Neuman (DNRC Report) solution with a T= 7,105 $ft^2$/day and Sy = 0.1 (DNRC Report). Predicted theoretical drawdown for the proposed wells were modeled for the period of diversion using the monthly pumping schedule identified in Table 9. The Applicant requests 115.2 AF, year-round, for industrial use and dust abatement. Each well would need to be pumped at a constant rate of 35.6 GPM to achieve the requested volume, as such, the volume was distributed equally to both production wells. The constant rate of 35.6 GPM is for modeling purposes only. The requested flow rate of 385 GPM is the amount needed for beneficial use.

*Table 9. Assumed monthly pumping schedule for both production wells*

| Month | Total Diverted Volume (AF) | Diverted Volume for Each Well (AF) | Diverted Flow Rate for Each Well (GPM) |
|---|---|---|---|
| **January** | 9.8 | 4.9 | 35.6 |
| **February** | 8.8 | 4.4 | 35.6 |
| **March** | 9.8 | 4.9 | 35.6 |
| **April** | 9.5 | 4.7 | 35.6 |
| **May** | 9.8 | 4.9 | 35.6 |
| **June** | 9.5 | 4.7 | 35.6 |
| **July** | 9.8 | 4.9 | 35.6 |
| **August** | 9.8 | 4.9 | 35.6 |
| **September** | 9.5 | 4.7 | 35.6 |
| **October** | 9.8 | 4.9 | 35.6 |
| **November** | 9.5 | 4.7 | 35.6 |
| **December** | 9.8 | 4.9 | 35.6 |
| **Total** | **115.2** | **57.6** | |

Mathematical errors are due to rounding

38. As shown in Table 10 and described in the DNRC Report, the aquifer adjacent to Well 1 would experience a predicted total drawdown of 10.9 ft at the end of the first year leaving 12.0 ft. of remaining available water column. The aquifer adjacent to Well 2 would experience a total drawdown of 2.5 ft. leaving an available water column of 18.8 ft. Remaining available water column is equal to the available drawdown above the bottom of the well minus total drawdown.

*Table 10. Remaining available water column for the Production Wells*

| Drawdown Estimate | Well 1 | Well 2 |
|---|---|---|
| Total Depth at Bottom of Perforated Interval (ft.) | 27.0 | 30.0 |
| Pre-Test Static Water Level (ft. BTC) | 9.1 | 8.7 |
| Available Drawdown Above Bottom of Well (ft.) | 17.9 | 21.3 |
| Observed Drawdown of Aquifer Test (ft.) | 8.8 | 3.7 |
| Modeled Drawdown Using Mean Aquifer Test Rate (ft.) | 5.3 | 7.1 |
| Well Efficiency (%) | 61 | 100 |
| Predicted Theoretical Maximum Drawdown (ft.) | 1.1 | 1.1 |
| Predicted Drawdown with Well Loss (ft.) | 1.8 | 0.0 |
| Interference Drawdown (ft.) | 0.4 | 0.4 |
| Total Drawdown (ft.) | 2.2 | 0.4 |
| Remaining Available Water Column (ft)[1] | 15.7 | 20.8 |

[1]The total well depth measuring point (ft. BGS) was adjusted to the top of the well casing based on a 2.0 ft. well casing stick-up reported on the well log.

39. The Department finds that the proposed means of diversion and conveyance can divert the proposed volume and flow rate.

## BENEFICIAL USE

FINDINGS OF FACT

40. The Applicant requests 385 GPM flow rate and 115.2 AF volume for industrial and dust abatement uses.

41. The Applicant proposes industrial use within their MET building and dust abatement as needed around the building. As part of their metallurgic process, the facility uses water that has historically been purchased from the City of Columbus, MT. Potable water is not necessary for their process therefore they would prefer to use untreated groundwater. The proposed flow rate of 385 GPM is based on the yield of the wells and the peak instantaneous demand of the facility. The annual volume of 115.2 AF requested is based on the peak demands from city records from the 2018-2024 period.

42. Department finds that the proposed water use is beneficial, and that the requested flow rate of 385 GPM and annual volume of 115.2 AF are reasonably justified per ARM 36.12.1801(3).

## POSSESSORY INTEREST

FINDINGS OF FACT

43. The Applicant signed the application form affirming that 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*

44. 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."

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

46. 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).

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

48. The Applicant has proven that water is physically available at the proposed point of diversion in the amount Applicant seeks to appropriate. Section 85-2-311(1)(a)(i), MCA. (FOF 12-16)

*LEGAL AVAILABILITY*

49. 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).

50. 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.

51. Pursuant to *Montana Trout Unlimited v. DNRC*, 2006 MT 72, 331 Mont. 483, 133 P.3d 224, the Department recognizes the connectivity between surface water and ground water and the effect of pre-stream capture on surface water. *E.g., Wesmont Developers v. DNRC*, CDV-2009-823, Montana First Judicial District Court, *Memorandum and Order*, (2011) Pgs. 7-8; *In the Matter of Beneficial Water Use Permit Nos. 41H 30012025 and 41H 30013629 by Utility Solutions LLC* (DNRC Final Order 2006) (mitigation of depletion required), *affirmed*, *Faust v. DNRC et al.*, Cause No. CDV-2006-886, Montana First Judicial District (2008); *see also Robert and Marlene Takle v. DNRC et al.*, Cause No. DV-92-323, Montana Fourth Judicial District for Ravalli County, *Opinion and Order* (June 23, 1994) (affirming DNRC denial of Applications for Beneficial Water Use Permit Nos. 76691-76H, 72842-76H, 76692-76H and 76070-76H; underground tributary flow cannot be taken to the detriment of other appropriators including surface appropriators and ground water appropriators must prove unappropriated surface water, *citing Smith v. Duff*, 39 Mont. 382, 102 P. 984 (1909), and *Perkins v. Kramer*, 148 Mont. 355, 423 P.2d 587 (1966)); *In the Matter of Beneficial Water Use Permit No. 80175-s76H by Tintzman* (DNRC Final Order 1993)(prior appropriators on a stream gain right to natural flows of

all tributaries in so far as may be necessary to afford the amount of water to which they are entitled, *citing Loyning v. Rankin* (1946), 118 Mont. 235, 165 P.2d 1006; *Granite Ditch Co. v. Anderson* (1983), 204 Mont. 10, 662 P.2d 1312; *Beaverhead Canal Co. v. Dillon Electric Light & Power Co.* (1906), 34 Mont. 135, 85 P. 880); *In the Matter of Beneficial Water Use Permit No.* 63997-*42M by Joseph F. Crisafulli* (DNRC Final Order 1990) (since there is a relationship between surface flows and the ground water source proposed for appropriation, and since diversion by Applicant's well appears to influence surface flows, the ranking of the proposed appropriation in priority must be as against all rights to surface water as well as against all groundwater rights in the drainage).

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

53. 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*.

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

55. Use of published upstream gauge data minus rights of record between gauge and point of diversion adjusted to remove possible duplicated rights shows water physically available. Using same methodology and adding rights of record downstream of point of diversion to the mouth of the stream shows water legally available. *In the Matter of Application for Beneficial Water Use Permit No. 41P-105759 by Sunny Brook Colony* (DNRC Final Order 2001); *In the Matter of Application for Beneficial Water Use Permit No. 81705-g76F by Hanson* (DNRC Final Order 1992);

56. Applicant has proven by a preponderance of the evidence that water can reasonably be considered legally available during the period in which the Applicant seeks to appropriate, in the amount requested, based on the records of the Department and other evidence provided to the Department. Section 85-2-311(1)(a)(ii), MCA. (FOF 17-29)

*ADVERSE EFFECT*

57. 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.

58. 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).

59. 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).

60. 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).

61. 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.

62. 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).

63. The Applicant has proven by a preponderance of the evidence that the water rights of a prior appropriator under an existing water right, a certificate, a permit, or a state water reservation will not be adversely affected. Section 85-2-311(1)(b), MCA. (FOF 30-34)

*ADEQUATE DIVERSION*

64. 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.

65. 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.

66. 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).

67. 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).

68. Applicant has proven by a preponderance of the evidence that the proposed means of diversion, construction, and operation of the appropriation works are adequate for the proposed beneficial use. Section 85-2-311(1)(c), MCA (FOF 35-39).

*BENEFICIAL USE*

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

70. 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).

71. 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).

72. 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.*

73. Applicant proposes to use water for industrial and dust abatement which are recognized beneficial uses. Section 85-2-102(5) and 410(1), MCA. Applicant has proven by a preponderance of the evidence industrial and dust abatement are beneficial uses and that 115.2 AF of diverted volume and 385 GPM is the amount needed to sustain the beneficial uses. Section 85-2-311(1)(d), MCA. (FOF 40-42)

*POSSESSORY INTEREST*

74. 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.

75. 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.

76. The Applicant has proven by a preponderance of the evidence that it has a possessory interest, or the written consent of the person with the possessory interest, in the property where the water is to be put to beneficial use. Section 85-2-311(1)(e), MCA. (FOF 43)

## 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. 43QJ 30165052 should be GRANTED.

The Department determines the Applicant may divert groundwater from the Yellowstone alluvial aquifer, by means of two wells, Well 1 is 32 ft. deep and Well 2 is 35 ft. deep, from January 1 to December 31 at 385 GPM up to 115.2 AF, Well 1 from a point in the NENESE and Well 2 from a point in the SWSENE, for industrial and dust abatement uses from January 1 to December 31. The place of use is located in the S2S2NE and N2N2NESE Sec. 27 and NWSW and SWSWNW Sec. 26, T2S, R20E, (in Blocks 7-11 Industrial Sites Addition in Columbus, COS 260429 and abandoned streets 16, 17, 18, 19), Stillwater County.

## NOTICE

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

Dated this 2nd day of June, 2025.

Christine Schweigert, Hydrologist
Billings Regional Office
Montana Department of Natural Resources and Conservation

**CERTIFICATE OF SERVICE**

This certifies that a true and correct copy of the DRAFT PRELIMINARY DETERMINATION TO GRANT was served upon all parties listed below on this 2nd day of June, 2025, by first class United States mail.

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