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

APPLICATION FOR BENEFICIAL WATER USE PERMIT NO. 43B 30152558 BY
JEFFREY HENRY AND JENNY WOLFE

PRELIMINARY DETERMINATION TO GRANT PERMIT IN MODIFIED FORM

On June 24, 2021, Jeffrey Henry and Jenny Wolfe (Applicant) submitted Application for Beneficial Water Use Permit No. 43B 30152558 to the Bozeman Water Resources Office of the Department of Natural Resources and Conservation (Department or DNRC) for up to 30 gallons per minute and 0.55 acre-feet for lawn and garden irrigation of 0.22 acres. The Department published receipt of the Application on its website. The Application was determined to be correct and complete as of December 20, 2021. An Environmental Assessment for this Application was completed on April 8, 2022.

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-SW
- Attachments
- Maps: Map of proposed place of use and point of diversion
- Copy of pre-application meeting form with Applicant’s notes

Information Received after Application Filed

- Pump specifications for proposed point of diversion, email communication November 6, 2021
- Planned operations for proposed pumps, email communication November 11, 2021
- Pump location clarification, email communication March 4, 2022
- Sprinkler system specifications and clarification of requested flow rate, April 5, 2022

Information within the Department’s Possession/Knowledge

- US Geological Survey surface water data, retrieved on October 5, 2021:
USGS 06192500 Yellowstone River near Livingston, MT
USGS 06191500 Yellowstone River at Corwin Springs MT

- 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 Bozeman Regional Office at 406-556-3136 to request copies of the following documents.
  - Physical Availability of Surface Water with Gage Data, dated November 1, 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).

**PROPOSED APPROPRIATION**

**FINDINGS OF FACT**

1. The Applicant proposes to divert water from the Yellowstone River, by means of a pump, from June 1 to September 30 at a flow rate of up to 30 gallons per minute (GPM) and diverted volume of 0.55 acre-feet (AF), from a point in Govt Lot 9, SWSNWSE Section 34, T06S R07E, Park County, for lawn and garden irrigation from June 1 to September 30. The Applicant proposes to irrigate 0.22 acres of lawn and garden located in Govt Lot 11, NWNWSWSE Section 34, T06S R07E, Park County. Water will be conveyed by pipeline from a pump located directly in the Yellowstone River to a sprinkler system. The Applicant also intends to use the sprinkler system for emergency fire suppression, per ARM 36.12.105. The project is located approximately 21 miles north of Gardiner, MT and 11 miles south of Emigrant, MT.
2. The proposed lawn and garden irrigation of 0.22 acres will require a diverted volume of 0.55 AF and consumptive volume of 0.39 AF, based on the Department’s standard of 2.5 AF/acre and assumed sprinkler irrigation efficiency of 70% for lawn and garden irrigation (ARM 36.12.115).
3. As discussed further in the Physical and Legal Water Availability sections of this document, water is not considered legally available in the Yellowstone River for the entire...
requested period of diversion. As a result, the following streamflow trigger is included as a condition incorporated into the analysis of this preliminary determination:

Preliminary Determination to Grant Application for Beneficial Water Use Permit No. 43B 30152558.

Figure 1: Map of the proposed project location.
§ 85-2-311, MCA, BENEFICIAL WATER USE PERMIT CRITERIA

GENERAL CONCLUSIONS OF LAW

4. 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 . . .

5. 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.

6. 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.

7. The Montana Supreme Court further recognized in Matter of Beneficial Water Use Permit
Numbers 66459-76L, Ciotti: 64988-G76L, Starner (1996), 278 Mont. 50, 60-61, 923 P.2d 1073,
1079, 1080, 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).

8. 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. § 85-2-311(6), MCA.

9. 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

10. The Applicant proposes to divert water from the Yellowstone River, by means of a pump, from June 1 to September 30 at a flow rate of up to 30 gallons per minute (GPM) and diverted volume of 0.55 acre-feet (AF), from a point in Govt Lot 9, SWSWNWSE Section 34, T06S R07E, Park County, for lawn and garden irrigation of 0.22 acres from June 1 to September 30.

11. The Yellowstone River is generally a gaining stream as it flows from Yellowstone National Park towards Livingston. On a smaller reach-scale level, the Yellowstone River alternates between gaining and losing segments as the surficial geology changes. A 2005 report by Montana Bureau of Mines and Geology (MBMG) titled Impacts of Non-Point Source Pollution on Water Resources in the Paradise Valley investigated surface and groundwater interactions in the Upper Yellowstone River basin. The MBMG report estimated that the reach from Corwin Springs to Mill Creek gains groundwater at an average rate of approximately 50 CFS, whereas the reach from Mill Creek to Pine Creek Bridge loses approximately 60 CFS. Nearly all groundwater and surface water flows accumulate in the river at Carter’s Bridge, gaining approximately 330 CFS between Pine Creek Bridge and Carter’s Bridge (MBMG, 2005).
12. Two long-term stream gaging stations exist on the Upper Yellowstone River. The proposed point of diversion is located approximately 14 miles downstream of the USGS 06191500 Yellowstone River at Corwin Springs stream gage and approximately 32 miles upstream of the USGS 06192500 Yellowstone River near Livingston stream gage. Approved streamflow data was retrieved from the USGS website on October 5, 2021. Approved data was available from August 1889 to May 2021 for the Yellowstone River at Corwin Springs gage and May 1897 to March 2021 for the Yellowstone River near Livingston gage. Both stream gages have nearly a 135 year period of record and were used in the Department’s assessment of physical water availability at the proposed point of diversion.

13. Due to the number of ungaged tributaries and diversions between the proposed project area and both USGS stream gages, a logarithmic interpolation method was used to determine physical availability at the proposed point of diversion. A logarithmic interpolation is useful when the proposed point of diversion is located between two stream gages. This method estimates a streamflow characteristic at an intermediate location based on basin drainage area at the gaged sites and the ungaged site (proposed point of diversion). See DNRC memo dated November 1, 2019, for a detailed description of estimating physical water availability on surface water sources with gage data using the logarithmic interpolation method.

14. The Department’s December 20, 2021, Technical Report provides a detailed description of the water availability analysis for this permit application and a summary is provided below. The interpolated flow rates and volumes in the last two columns of Table 1 reflect the estimated physical water availability at the proposed point of diversion. The Department finds that water is physically available at the proposed point of diversion in the amount requested.
Table 1: Median of the mean monthly flows during the requested period of diversion (June 1 to September 30). The last two columns display the results of the interpolation method used to estimate physical water availability at the proposed point of diversion.

<table>
<thead>
<tr>
<th>MONTH</th>
<th>YELLOWSTONE RIVER NEAR LIVINGSTON, MT</th>
<th>YELLOWSTONE RIVER AT CORWIN SPRINGS, MT</th>
<th>INTERPOLATION</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FLOW RATE</td>
<td>VOLUME</td>
<td>FLOW RATE</td>
</tr>
<tr>
<td></td>
<td>UNITS</td>
<td>CFS</td>
<td>AF</td>
</tr>
<tr>
<td>Jan</td>
<td>1194.0</td>
<td>73287.7</td>
<td>837.1</td>
</tr>
<tr>
<td>Feb</td>
<td>1187.0</td>
<td>65807.3</td>
<td>813.2</td>
</tr>
<tr>
<td>Mar</td>
<td>1296.5</td>
<td>79579.2</td>
<td>911.6</td>
</tr>
<tr>
<td>Apr</td>
<td>1903.0</td>
<td>113038.2</td>
<td>1498.0</td>
</tr>
<tr>
<td>May</td>
<td>7220.0</td>
<td>443163.6</td>
<td>6167.0</td>
</tr>
<tr>
<td>Jun</td>
<td>13165.0</td>
<td>782001.0</td>
<td>11115.0</td>
</tr>
<tr>
<td>Jul</td>
<td>7490.0</td>
<td>459736.2</td>
<td>6543.5</td>
</tr>
<tr>
<td>Aug</td>
<td>3361.0</td>
<td>206298.2</td>
<td>2956.0</td>
</tr>
<tr>
<td>Sep</td>
<td>2279.0</td>
<td>135372.6</td>
<td>1858.0</td>
</tr>
<tr>
<td>Oct</td>
<td>1917.0</td>
<td>117665.5</td>
<td>1432.5</td>
</tr>
<tr>
<td>Nov</td>
<td>1644.0</td>
<td>97653.6</td>
<td>1160.0</td>
</tr>
<tr>
<td>Dec</td>
<td>1363.0</td>
<td>83660.9</td>
<td>961.5</td>
</tr>
</tbody>
</table>

CFS = cubic feet per second
AF = acre-feet

NOTE: Months outside of the requested period of diversion are shaded in gray.

CONCLUSIONS OF LAW

15. 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.”

16. 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).

17. 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
Legal Availability:

FINDINGS OF FACT

19. The area of potential impact for purposes of evaluating legal water availability is defined as the reach of the Yellowstone River beginning at the proposed point of diversion in Govt Lot 9, SWSWNWSE Section 34, T06S R07E, Park County and extending downstream to the confluence with Big Creek; a distance of approximately three miles. The Department’s standard for consideration of stream reach lengths in the upper Yellowstone River basin is 3 to 7 miles.

20. Table 2 below lists all of the surface water rights on the Yellowstone River with a point of diversion located between the proposed point of diversion and the confluence with Big Creek. The Department’s Water Right Query System was used to identify the water rights for the legal availability analysis. Nine surface water rights were identified as legal demands within the area of potential impact.
Table 2: List of water rights identified for legal demand within the area of potential impact and considered for adverse effect.

<table>
<thead>
<tr>
<th>WR Number</th>
<th>WR Type</th>
<th>OWNER NAME</th>
<th>PURPOSES</th>
<th>PRIORITY DATE</th>
<th>FLOW RATE (CFS)</th>
<th>VOLUME (AF)</th>
<th>PERIOD OF DIVERSION</th>
</tr>
</thead>
<tbody>
<tr>
<td>43B 108829 00</td>
<td>PROVISIONAL PERMIT</td>
<td>YELLOW RIVER LLC</td>
<td>LAWN AND GARDEN</td>
<td>7/16/1999</td>
<td>0.03</td>
<td>1.24</td>
<td>05/01 to 09/30</td>
</tr>
<tr>
<td>43B 194673 00</td>
<td>STATEMENT OF CLAIM</td>
<td>ROBERT R CARTIER</td>
<td>IRRIGATION</td>
<td>12/31/1935</td>
<td>0.01</td>
<td>0.5</td>
<td>05/31 to 10/01</td>
</tr>
<tr>
<td>43B 194674 00</td>
<td>STATEMENT OF CLAIM</td>
<td>WEST CREEK RANCH LLC</td>
<td>STOCK</td>
<td>10/23/1888</td>
<td>0.08</td>
<td>10.0813</td>
<td>01/01 to 12/31</td>
</tr>
<tr>
<td>43B 30045005</td>
<td>PROVISIONAL PERMIT</td>
<td>JOHN L LAKE</td>
<td>IRRIGATION</td>
<td>5/7/2009</td>
<td>4.46</td>
<td>198.5</td>
<td>04/20 to 10/10</td>
</tr>
<tr>
<td>43B 52998 00</td>
<td>PROVISIONAL PERMIT</td>
<td>CLAIR A ROBERTS</td>
<td>IRRIGATION</td>
<td>4/20/1983</td>
<td>0.11</td>
<td>2.7</td>
<td>04/01 to 10/31</td>
</tr>
<tr>
<td>43B 74927 00</td>
<td>PROVISIONAL PERMIT</td>
<td>BILLIE I KRENZLER; DAN L KRENZLER</td>
<td>IRRIGATION</td>
<td>7/13/1990</td>
<td>0.11</td>
<td>1.25</td>
<td>04/15 to 09/30</td>
</tr>
<tr>
<td>43B 194349 00</td>
<td>STATEMENT OF CLAIM</td>
<td>MONTANA, STATE OF DEPT OF FISH WILDLIFE &amp; PARKS</td>
<td>FISH AND WILDLIFE</td>
<td>12/14/1970</td>
<td>1200.0</td>
<td>395014</td>
<td>11/01 to 04/15</td>
</tr>
<tr>
<td>43B 194350 00</td>
<td>STATEMENT OF CLAIM</td>
<td>MONTANA, STATE OF DEPT OF FISH WILDLIFE &amp; PARKS</td>
<td>FISH AND WILDLIFE</td>
<td>12/14/1970</td>
<td>2000.0</td>
<td>789234</td>
<td>04/15 to 10/31</td>
</tr>
<tr>
<td>43B 30017770</td>
<td>WATER RESERVATION</td>
<td>MONTANA, STATE OF DEPT OF ENVIRONMENTAL QUALITY; MONTANA, STATE OF DEPT OF FISH WILDLIFE &amp; PARKS</td>
<td>FISHERY</td>
<td>12/15/1978</td>
<td>18200.0(^1)</td>
<td>1879813</td>
<td>1/1 to 12/31(^1)</td>
</tr>
</tbody>
</table>

21. Flow rates and volumes were identified from the water right general abstracts where available. Several water rights do not have a decreed volume and required further analysis. For irrigation water rights, a volume of two acre-feet/acre was used to define the diverted volume, which is the upper end of irrigation water requirements for Irrigation Climatic Area IV: Moderately Low Consumptive Use. For stock water rights, the adjudication standard of 30 gallons per day per animal unit was used for diverted volume. The number of animal units were identified from the original claim file.

Preliminary Determination to Grant Application for Beneficial Water Use Permit No. 43B 30152558.
22. The Montana Department of Fish, Wildlife, and Parks (FWP) has multiple instream flow water rights on the Yellowstone River within the area of potential impact. Two of these water rights, Statement of Claim Nos. 43B 194349-00 and 43B 194350-00, are commonly referred to as ‘Murphy Rights’ and were established in 1970 to protect instream flows on Blue Ribbon trout streams (Table 3). The reach of the Yellowstone River from Gardiner, MT to Livingston, MT also has an FWP Instream Flow Water Reservation (43B 30017770) with a priority date of 12/15/1978. This reservation was intended to operate concurrently with existing FWP instream flow water rights, not in addition to, and is enforced at the USGS Yellowstone River near Livingston stream gage. The enforcement point at the Livingston gage is outside of the area of potential impact, therefore the FWP instream flow water reservation was not included in the legal availability analysis. For much of the requested period of diversion, the physical supply exceeds the legal demand on the Yellowstone River. For the month of September, the Murphy Right flow rate is greater than the FWP Instream Flow Reservation. Therefore, the legal availability analysis using only the FWP Murphy Rights will determine whether the FWP Instream Flow Reservation legal demand is also satisfied during the requested period of diversion.

Table 3: FWP instream flow water rights

<table>
<thead>
<tr>
<th>WR Number</th>
<th>Type</th>
<th>Flow rate (CFS)</th>
<th>Volume (AF)</th>
<th>Period of diversion</th>
</tr>
</thead>
<tbody>
<tr>
<td>43B 19439-00</td>
<td>Murphy right</td>
<td>1,200</td>
<td>395,014</td>
<td>11/1-4/15</td>
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<tr>
<td>43B 19350-00</td>
<td>Murphy right</td>
<td>2,000</td>
<td>789,234</td>
<td>4/15-10/31</td>
</tr>
<tr>
<td>43B 30017770</td>
<td>Instream flow water reservation</td>
<td>9,000¹</td>
<td>1,879,813</td>
<td>1/1-12/31</td>
</tr>
</tbody>
</table>

¹Flow rate varies on a sub-monthly timescale, see water right abstract for complete list of flow rates and periods. Maximum flow rate of 9,000 CFS from 6/11 to 6/20 shown in table.

23. Table 4 shows the physical water availability at the proposed point of diversion, the existing legal demands for active water rights between the proposed point of diversion and the confluence with Big Creek, and the resultant legal water availability within the area of potential impact.
Table 4: A comparison of the physical water supply at the point of diversion to the existing water rights in the area of potential impact over the requested period of diversion. Months outside of the requested period of diversion (June 1 to September 30) are shaded in gray. Red text indicates no water is legally available for the respective month. The Montana Department of Fish, Wildlife, and Parks (FWP) Murphy Right flow rates are shown separately in the legal demands section of the table.

<table>
<thead>
<tr>
<th>MONTH</th>
<th>PHYSICAL WATER AVAILABILITY</th>
<th>LEGAL DEMANDS</th>
<th>LEGAL WATER AVAILABILITY</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FLOW RATE</td>
<td>VOLUME</td>
<td>FLOW RATE</td>
</tr>
<tr>
<td>UNITS</td>
<td>(CFS)</td>
<td>(AF)</td>
<td>(CFS)</td>
</tr>
<tr>
<td>Jan</td>
<td>924.6</td>
<td>56753.1</td>
<td>0.1</td>
</tr>
<tr>
<td>Feb</td>
<td>904.0</td>
<td>50120.3</td>
<td>0.1</td>
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<tr>
<td>Mar</td>
<td>1006.1</td>
<td>61753.9</td>
<td>0.1</td>
</tr>
<tr>
<td>Apr</td>
<td>1601.8</td>
<td>95147.9</td>
<td>4.8</td>
</tr>
<tr>
<td>May</td>
<td>6445.3</td>
<td>395613.8</td>
<td>4.8</td>
</tr>
<tr>
<td>Jun</td>
<td>11654.5</td>
<td>692277.3</td>
<td>4.8</td>
</tr>
<tr>
<td>Jul</td>
<td>6795.8</td>
<td>417124.7</td>
<td>4.8</td>
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<tr>
<td>Aug</td>
<td>3064.2</td>
<td>188081.5</td>
<td>4.8</td>
</tr>
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CFS = cubic feet per second  AF = acre-feet

24. Generally, streamflow in the Yellowstone River is sufficient to meet all existing demands during the spring and early summer months. The period starting in late summer through the beginning of spring runoff generally does not have sufficient flows to meet existing legal demands. The proposed period of diversion for this permit application is June 1 to September 30. As shown in Table 4, water is not legally available in the month of September for the requested period of diversion.

25. Further analysis of September streamflow records by the Department indicates that water can be considered legally available during certain periods. A flow duration curve, shown in Figure 2 below, indicates that water has been legally available during the month of September at the proposed point of diversion approximately 46 percent of the time throughout the period of record. In addition, median mean daily discharge data for the month of September, shown in Figure 3, shows that streamflow in the Yellowstone River at the proposed point of diversion is less than the legal demand threshold beginning on approximately September 12, but has been
legally available every day of the month at least once during the period of record (December 20, 2021, Technical Report).

Figure 2: Flow duration curve for the month of September. Interpolated daily mean discharge data for the month of September was used for this analysis to show the exceedance probability for estimated discharge data at the proposed point of diversion. Discharge at the proposed point of diversion has been equal to or greater than the legal demand threshold of 2004.8 CFS, shown as the orange marker, 46 percent of the time during the period of record (1928-2021).

Figure 3: Scatterplot of interpolated daily mean discharge values for the period of record from 1928 to 2021 for the month of September. The legal demand threshold of 2004.8 CFS is represented by the solid orange line. The median of the mean daily discharge values are represented by the blue line.
26. The Applicant has agreed to curtail diversions from the Yellowstone River under this
Provisional Permit when flows in the Yellowstone River at the USGS Yellowstone River near
Livingston stream gage fall below a threshold identified in a condition incorporated into the
analysis of this Preliminary Determination. The Department finds that water is legally available
in the amount requested during the proposed period of diversion.

CONCLUSIONS OF LAW

27. 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).

28. 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
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.
29. 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 Nos. 19-26)

**Adverse Effect:**

**FINDINGS OF FACT**

30. The Applicant has agreed to curtail diversions from the Yellowstone River when water is not legally available at the proposed point of diversion. Real-time streamflow records are available online for the two USGS stream gage stations used in the Department’s physical and legal availability analyses and a trigger flow has been incorporated as a condition to the Provisional Permit.

31. The Applicant will curtail diversions from the Yellowstone River under this Provisional Permit when flows in the Yellowstone River at the USGS Yellowstone River near Livingston stream gage fall below 2,000 CFS identified in the following condition incorporated into the analysis of this Preliminary Determination. The Department finds no adverse effect will occur with the proposed appropriation under the terms and conditions set out in this Preliminary Determination.

CONCLUSIONS OF LAW

32. 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. (1984), 211 Mont. 91, 685 P.2d 336 (purpose of the Water Use Act is to protect senior appropriators from encroachment by junior users); Bostwick Properties, Inc. ¶ 21.

33. 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(8).

34. 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, (2011) Pg. 4.

35. 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 (1991), 249 Mont. 425, 816 P.2d 1054.

36. 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, (2011) Pg. 7 (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). (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.

37. 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, (2011) Pg. 8.

Preliminary Determination to Grant
Application for Beneficial Water Use Permit No. 43B 30152558.
38. 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 Nos. 30-31)

Adequate Diversion:

FINDINGS OF FACT

39. The Applicant intends to use two water pumps to provide redundancy in the system. The gasoline powered pump is a Briggs and Stratton Intek 190 5.5 horsepower water pump rated by the manufacturer for an operating flow rate of up to 140 GPM and connected to a 2-inch outlet pipe. The electric pump is a Red Lion 1.5 horsepower 120/240 volt pump rated by the manufacturer for a maximum flow rate of 71 GPM and connected to a 1.5-inch outlet pipe (email communication, November 11, 2021).

40. The Applicant intends to primarily use the electric pump to supply six sprinkler heads for lawn and garden irrigation. The gasoline pump will be primarily used as a redundant supply and to provide additional water volume for fire suppression emergency use only (email communication, November 11, 2021). The Applicant clarified in an April 5, 2022, email that the six sprinkler heads are capable of operating at a maximum flow rate of 5 GPM per head and a cumulative flow rate of 30 GPM.

41. The Applicant stated in a March 4, 2022, email that the pump site will be in a fixed location in the Yellowstone River. Due to the current configuration of the river, the requested point of diversion is the only suitable location for the pump and the Applicant has not requested a transitory reach for the pump site.

42. The Department finds that the proposed diversion infrastructure is adequate for diverting the proposed maximum flow rate of 30 GPM and volume of 0.55 AF.

CONCLUSIONS OF LAW

43. 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.

44. 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.

45. The 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 Nos. 39-42).

**Beneficial Use:**

**FINDINGS OF FACT**

46. The Applicant proposes to divert water by means of a pump located directly in the Yellowstone River at a maximum flow rate of up to 30 GPM and diverted volume of 0.55 AF for lawn and garden irrigation of 0.22 acres.

47. The requested flow rate was determined by the maximum capacity of the proposed sprinkler system, with a maximum capacity of 30 GPM for six sprinkler heads.

48. The volume requested is based on the lawn and garden irrigation volume standard of 2.5 AF/acre, pursuant to ARM 36.12.115. The Department finds the proposed appropriation to be a beneficial use of water.

**CONCLUSIONS OF LAW**

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

50. 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, supra; 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 et al, 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).

51. 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, (2011) Pg. 3 (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).

52. Applicant proposes to use water for lawn and garden irrigation which is a recognized beneficial use. § 85-2-102(5), MCA. The Applicant has proven by a preponderance of the evidence the lawn and garden irrigation is a beneficial use and that 0.55 AF of diverted volume and up to 30 GPM of water requested is the amount needed to sustain the beneficial use. § 85-2-311(1)(d), MCA. (FOF Nos. 46-48)

Possessory Interest:
FINDINGS OF FACT

53. 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

54. 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.

55. 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.

56. 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 No. 53)
Preliminary Determination to Grant Application for Beneficial Water Use Permit No. 43B 30152558.

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. 43B 30152558 should be GRANTED.

The Applicant may divert water from the Yellowstone River, by means of a pump, from June 1 to September 30 up to a flow rate of 30 gallons per minute and diverted volume of 0.55 acre-feet for lawn and garden irrigation of 0.22 acres from June 1 to September 30. The point of diversion is located at a point on the Yellowstone River in Govt Lot 9 SWSWNWSE Section 34, T06S R07E, Park County. The place of use is located in Govt Lot 11 NWNWSWSE Section 34, T06S R07E, Park County.

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

NOTICE

This 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 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, the application and objection will proceed to a contested case proceeding pursuant to Title 2 Chapter 4 Part 6, MCA, and § 85-2-309, MCA. If valid objections to an application are received and withdrawn with stipulated conditions and the department preliminarily determined to grant the permit or change in appropriation right, the department will grant the permit or change subject to conditions necessary to satisfy applicable criteria.

DATED this 8th day of April 2022.

/Original signed by Kerri Strasheim/
Kerri Strasheim, Manager
Bozeman Regional 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 8th day of April 2022, by first class United States mail.

JEFFREY HENRY AND JENNY WOLFE
171 EAST RIVER RD
EMIGRANT, MT 59027

__________________
Jack Landers
Bozeman Regional Office, (406) 556-4500