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

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| **APPLICATION FOR BENEFICIAL WATER USE PERMIT NO. 42J 30162285 BY TWIN HEARTS SMILING HORSES, INC.** | **)**<br>**)**<br>**)** | **PRELIMINARY DETERMINATION TO GRANT PERMIT** |

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On November 28, 2023, Twin Hearts Smiling Horses, Inc. (Applicant) submitted Application for Beneficial Water Use Permit No. 42J 30162285 to the Billings Regional Office of the Department of Natural Resources and Conservation (Department or DNRC) for 3,450 GPM flow rate and 218.2 AF volume for irrigation use. The Department published receipt of the application on its website. A preapplication meeting was held on November 9, 2023. Steve Held, owner of Twin Hearts Smiling Horses, Inc., and Mike Meredith, Consultant, were present for the Applicant. Mark Elison, Regional Manager, Christine Schweigert, Hydrologist, Veronica Corbett and Jill Lippard, Water Resource Specialists, were present for the Department. The Applicant amended the application on May 21, 2024, to change proposed points of diversion and volume requested. Timelines were reset. Mark Elison, Regional Manager for the Department, met with the Applicant and Mike Meredith, Consultant, on June 27, 2024. The Applicant amended the application on June 28, 2024, to alter on-farm efficiency and requested volume. The timelines were reset. The Applicant amended the application again on October 10, 2024, to change the requested volume. The timelines were reset. Following the most recent amendment the application is for 3,450 GPM (7,69 CFS) flow rate and 1,111.8 AF diverted volume for irrigation on 472.0 AC with a period of diversion and period of use of April 1 through October 31. The Application was determined to be correct and complete as of January 27, 2025. An Environmental Assessment for this Application was completed on January 30, 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
- Attachments

- Maps: 2021 aerial photograph at 1" = .25 mile showing proposed points of diversion, places of use, and distribution system.
- Aquifer Testing Addendum
- Form 633 in electronic format.
- Well logs for GWIC ID nos. 262375, 262377, 262378, 262379, 262380, 261267, and 261268.
- Letter from Sage Grouse Habitat Conservation Program dated November 22, 2023.
- Preliminary design plans for pivots, pumps and pipelines.
- Proposed pump curves.
- Pivot specifications from Agri Industries.

Information Received after Application Filed

- E-mail from Mike Meredith, consultant for the Applicant , to Christine Schweigert, Department Hydrologist, dated May 21, 2024, amending the application.
- Application amendment dated June 28, 2024, prepared by Mike Meredith, consultant, for the Applicant.
- Application amendment dated October 10, 2024, prepared by Mike Meredith, consultant, for the Applicant.
- Variance request form dated December 30, 2024, requesting variance from 36.12.121 (3)(a) & (e)(ii).
- Variance from 26.12.121 (3)(a) approval letter by Mark Elison dated January 10, 2025.

Information within the Department's Possession/Knowledge

- DNRC Water Rights Information System
- United States Geologic Survey (USGS) gage 06324710 Powder River at Broadus, MT with a period of record from 3/1/1982 to 9/30/1992
- United States Geologic Survey (USGS) gage 06324500 Powder River at Moorhead, MT with a period of record from 10/1/1929 to 11/30/2024
- Groundwater Permit Report by Evan Norman dated January 3, 2025.
- USGS StreamStats online tool at https://streamstats.usgs.gov/ss/
- Technical Report, by Mark Elison dated January 27, 2025.

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

means the Department of Natural Resources & Conservation; CFS means cubic feet per second; GPM means gallons per minute; AF means acre-feet; AC means acres; and AF/YR means acre-feet per year; POU means place of use, and POD means point of diversion.

## PROPOSED APPROPRIATION

FINDINGS OF FACT

1. The Applicant proposes to divert groundwater, by means of 7 wells, from 4/1 through 10/31 at 3,450 GPM up to 1,111.8 AF, for irrigation use from 4/1 through 10/31.

2. The points of diversion are listed in Table 1.

**Table 1. Proposed Points of Diversion**

| Well Number | GWIC ID Number | Depth | Legal Land Description |
|---|---|---|---|
| 1 | 262375 | 53 | NWNESW Section 12, T7S, R49E, Powder River Co |
| 2 | 262377 | 55 | NENESW Section 12, T7S, R49E, Powder River Co |
| 3 | 262378 | 53 | NWNWSE Section 12, T7S, R49E, Powder River Co |
| 4 | 262379 | 53 | NENWSE Section 12, T7S, R49E, Powder River Co |
| 5 | 262380 | 53 | NENESE Section 12, T7S, R49E, Powder River Co |
| 6 | Not Drilled | | NENENW Section 7, T7S, R50E, Powder River Co |
| 7 | Not Drilled | | NESWSE Section 6, T7S R50E, Powder River Co |

3. The Applicant proposes to irrigate 472.0 AC. The place of use is generally located approximately 20 miles southwest of Brodus, Montana. The place of use is listed in Table 2.

**Table 2. Proposed Place of Use**

| Legal Land Description | Acres | Geocode |
|---|---|---|
| NE Section 14, T7S, R49E, Powder River Co | 31.0 | 09-0391-12-3-01-01-0000 |
| NW Section 13, T7S, R49E, Powder River Co | 30.6 | 09-0391-12-3-01-01-0000 |
| SW Section 12, T7S, R49E, Powder River Co | 105.2 | 09-0391-12-3-01-01-0000 |
| SE Section 12, T7S, R49E, Powder River Co | 51.2 | 09-0391-12-3-01-01-0000 |
| SE Section 11, T7S, R49E, Powder River Co | 10.0 | 09-0391-11-4-01-01-0000 |
| NW Section 7, T7S, R50E, Powder River Co | 68.4 | 09-0392-07-1-01-01-0000 |
| NE Section 7, T7S, R50E, Powder River Co | 23.7 | 09-0392-07-1-01-01-0000 |

| | | |
|---|---|---|
| SW Section 6, T7S, R50E, Powder River Co | 11.2 | 09-0392-06-3-04-01-0000 |
| SW Section 6, T7S, R50E, Powder River Co | 13.8 | 09-0392-06-3-01-04-0000 |
| SE Section 6, T7S, R50E, Powder River Co | 87.7 | 09-0392-06-3-01-04-0000 |
| NE Section 6, T7S, R50E, Powder River Co | 14.1 | 09-0392-06-3-01-04-0000 |
| NW Section 6, T7S, R50E, Powder River Co | 8.2 | 09-0392-06-3-01-04-0000 |
| NW Section 5, T7S, R50E, Powder River Co | 16.9 | 09-0392-05-2-03-01-0000 |
| **Total Acres Irrigated** | **472** | |

4. The proposed place of use lies adjacent to and south of the Powder River. The proposed wells are between 1,300 and 2,200 feet from the river.

5. Water rights 42J 1438-01, 42J 1438-02, 42J 1438-03, 42J 1438-04, 42J 1438-05, 42J 1438-06, and 42J 1438-07 from Buttermilk Creek, 42J 1440-00 and 42J 1440-01 from Daily Creek, 42J 1441-00 and 42J 1441-01 from Henning Creek, 42J 1443-01, and 42J 1443-02 from Alkali Creek, and 42J 1444-01, and 42J 1444-02 from Pine Creek partially overlap the proposed place of use. Water rights 42J 1439-01, 42J 1439-02, 42J 1439-03, 42J 1439-04, 42J 1439-05, 42J 1439-06, and 42J 1439-07 are irrigation water rights that divert from the Powder River and their places of use substantially overlap the proposed place of use.

**Controlled Groundwater Area**

FINDINGS OF FACT

6. This application is for irrigation use. This Application is within the Powder River Basin Controlled Groundwater Area.

7. Powder River Basin Controlled Groundwater Area shall apply only to wells designed and installed for the extraction of coalbed methane (CBM).

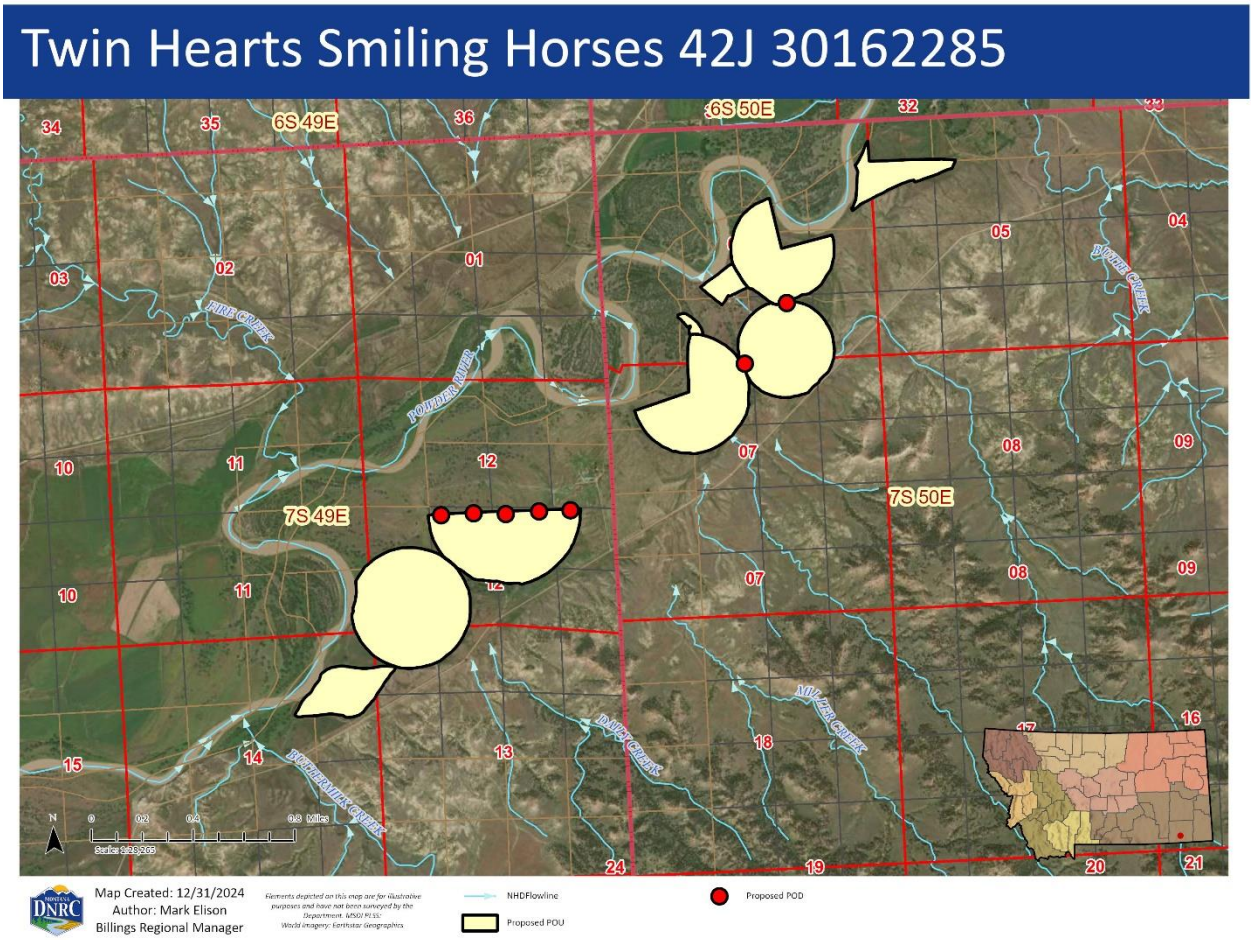


Figure 1. Location map showing proposed PODs and POU.

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

GENERAL CONCLUSIONS OF LAW

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

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

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

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

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

… the department shall issue a permit if the Applicant proves by a preponderance of evidence that the following criteria are met:
(a) (I) there is water physically available at the proposed point of diversion in the amount that the Applicant seeks to appropriate; and
(ii) water can reasonably be considered legally available during the period in which the Applicant seeks to appropriate, in the amount requested, based on the records of the department and other evidence provided to the department. Legal availability is determined using an analysis involving the following factors:
(A) identification of physical water availability;
(B) identification of existing legal demands on the source of supply throughout the area of potential impact by the proposed use; and
(C) analysis of the evidence on physical water availability and the existing legal demands, including but not limited to a comparison of the physical water supply at the proposed point of diversion with the existing legal demands on the supply of water.
(b) the water rights of a prior appropriator under an existing water right, a certificate, a permit, or a state water reservation will not be adversely affected. In this subsection (1)(b), adverse effect must be determined based on a consideration of an Applicant's plan for the exercise of the permit that demonstrates that the Applicant's use of the water will be controlled so the water right of a prior appropriator will be satisfied;
(c) the proposed means of diversion, construction, and operation of the appropriation works are adequate;
(d) the proposed use of water is a beneficial use;
(e) the Applicant has a possessory interest or the written consent of the person with the possessory interest in the property where the water is to be put to beneficial use, or if the proposed use has a point of diversion, conveyance, or place of use on national forest system lands, the Applicant has any written special use authorization

required by federal law to occupy, use, or traverse national forest system lands for the purpose of diversion, impoundment, storage, transportation, withdrawal, use, or distribution of water under the permit;

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

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

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

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

To meet the preponderance of evidence standard, "the Applicant, in addition to other evidence demonstrating that the criteria of subsection (1) have been met, shall submit hydrologic or other evidence, including but not limited to water supply data, field reports, and other information developed by the Applicant, the department, the U.S. geological survey, or the U.S. natural resources conservation service and other specific field studies." Section 85-2-311(5), MCA (emphasis added). The determination of whether an application has satisfied the § 85-2-311, MCA criteria is committed to the discretion of the Department. *Bostwick Properties, Inc. v. Montana Dept. of Natural Resources and Conservation*, 2009 MT 181, ¶ 21. The Department is required grant a permit only if the § 85-2-311, MCA, criteria are proven by the Applicant by a preponderance of the evidence. Id. A preponderance of evidence is "more probably than not." *Hohenlohe v. DNRC*, 2010 MT 203, ¶¶ 33, 35, 357 Mont. 438, 240 P.3d 628.

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

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

*E.g., Montana Power Co. v. Carey* (1984), 211 Mont. 91, 96, 685 P.2d 336, 339 (requirement to grant applications as applied for, would result in, "uncontrolled development of a valuable natural

resource" which "contradicts the spirit and purpose underlying the Water Use Act."); *see also*, *In the Matter of Application for Beneficial Water Use Permit No. 65779-76M by Barbara L. Sowers* (DNRC Final Order 1988)(conditions in stipulations may be included if it further compliance with statutory criteria); *In the Matter of Application for Beneficial Water Use Permit No. 42M-80600 and Application for Change of Appropriation Water Right No. 42M-036242 by Donald H. Wyrick* (DNRC Final Order 1994); Admin. R. Mont. (ARM) 36.12.207.

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

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

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

## PHYSICAL AVAILABILITY

FINDINGS OF FACT

14. The Applicant proposes to divert 3,450 GPM up to 1,111.8 AF from groundwater from seven points of diversion for irrigation use.

15. Department Hydrogeologist, Evan Norman, modeled aquifer properties based on a 74.6-hour test on one of the wells (GWIC ID 262378) at an average flow rate of 601.1 GPM. A variance to aquifer testing requirements was granted on January 10, 2025. The variance was granted specifically for 36.12.121 (3)(a) because the discharge rate varied by more than 5% during the test. The results were compared to a 24.6-hour test on the same well at an average flow rate of 450 GPM. The 24.6-hour test had an observation well (GWIC ID 261267). Both Neuman and Cooper-Jacob solutions were modeled to generate type curves. The range of modeled transmissivity was from 7,954 to 16,540 $ft^2$/day and storativity was 0.04 to 0.06. The recommended aquifer values for analysis are a transmissivity of 10,090 $ft^2$/day and a specific yield of 0.1 from the literature for unconfined aquifers. Using a pumping rate of 196.4 GPM assigned to each of the seven proposed wells (flow rate to produce the requested volume) over the proposed period of diversion, the modeled 0.01-foot drawdown contour occurs at 2.7 miles (approximately 14,500 feet) from the proposed wells. The 0.01-foot drawdown contour is truncated to the southeast at the boundary of the alluvium and to the northeast at the constant head boundary represented by the Powder River. The 0.01-foot drawdown contour extends past the source aquifer boundaries toward the Fort Union Aquifer to the south; therefore, the radius was truncated to the alluvial aquifer boundary. The volume of total aquifer flux each year within the zone of influence as defined by 0.01-foot of drawdown is given by the equation Q = TWi, where T is transmissivity (10,090 $ft^2$/day), W is the width of the zone of influence, taken as 3,300 feet which is the width perpendicular to the groundwater flow direction, and i is the groundwater gradient (0.005 ft/ft from the average land surface slope). The volume of total aquifer flux is 166,485 $ft^3$/day (10,090 $ft^2$/day x 3,300 ft x 0.005 ft/ft = 166,485 $ft^3$/day) or 1,395 AF/YR.

16. The Department finds that groundwater is physically available in the amount requested by the Applicant at the proposed point of diversion during the proposed period of diversion.

## LEGAL AVAILABILITY

FINDINGS OF FACT

17. Based on a 0.01-foot drawdown contour at 14,500 feet from the proposed well, a Department Hydrogeologist determined that there are three existing groundwater rights within

the zone of influence. Of those, two are Powder River Declarations and one is a Ground Water Certificate.

**Table 3. Groundwater rights within the zone of influence.**

| Water Right Number | Owners | Purposes | Means of Diversion | Flow Rate (GPM) | Volume (AF |
|---|---|---|---|---|---|
| 42J 183 00 | LEVI R MCEUEN | DOMESTIC | WELL | 10 | 1.5 |
| 42J 184 00 | LEVI R MCEUEN | DOMESTIC | WELL | 3 | 1.5 |
| 42J 109956 00 | TWIN HEARTS SMILING HORSES INC | STOCK | WELL | 20 | 4.17 |

The total calculated annual legal demand on groundwater within the zone of influence is 7.17 AF/YR.

18. Below is a comparison of the water supply and current legal demands for groundwater.

**Table 4. Comparison of physically available groundwater and legal demands**

| Physically Available (AF/YR) | Existing Legal Demands (AF/YR) | Physically Available minus Existing Legal Demands (AF/YR) |
|---|---|---|
| 1,395 | 7.17 | 1,387.8 |

19. The Groundwater Permit Report, dated January 3, 2025, concludes that the reach of the Powder River downstream of the SWNENW Section 12, T7S, R49E, Powder River County, is hydraulically connected to the source aquifer. This is the upstream limit of the depleted reach for the calculation of surface water depletion.

**Table 5. Modeled depletion to the Powder River in volume (AF) and flow rate (GPM).**

| Month | Irrigation Diverted Volume (AF) | Irrigation Consumed Volume (AF) | Powder River Net Depletion (AF) | Powder River Net Depletion (GPM) |
|---|---|---|---|---|
| **January** | 0.0 | 0.0 | 35.6 | 260.1 |
| **February** | 0.0 | 0.0 | 28.2 | 228.0 |
| **March** | 0.0 | 0.0 | 27.8 | 202.7 |
| **April** | 4.5 | 3.5 | 25.6 | 192.8 |
| **May** | 141.4 | 108.5 | 60.9 | 444.9 |
| **June** | 234.0 | 179.6 | 97.8 | 737.9 |
| **July** | 326.2 | 250.3 | 142.9 | 1042.8 |
| **August** | 280.7 | 215.4 | 151.7 | 1107.0 |
| **September** | 125.0 | 95.9 | 115.6 | 872.2 |

| | | | | |
|---|---|---|---|---|
| **October** | 0.0 | 0.0 | 73.1 | 533.4 |
| **November** | 0.0 | 0.0 | 51.6 | 389.3 |
| **December** | 0.0 | 0.0 | 42.4 | 309.6 |
| **Total** | **1,111.8** | **853.2** | **853.2** | |

20. The area of potential impact for surface water depletions is the Powder River from SWNENW Section 12, T7S, R49E, Powder River County to the northeast corner of Section 22, T6S, R50E, Powder River County. This area of potential impact extends approximately 8.23 river miles downstream from the start of the modeled depletions, includes several tributaries, and increases the drainage area of the Powder River by over 125 square miles.

21. The United States Geological Survey (USGS) has maintained a gage on the Powder River at Moorhead since1929 (USGS 06324500 Powder River at Moorhead MT). The monthly volume and flow rate at the top of the depleted reach were determined by the drainage basin area ratio method. In this method, streamflow characteristics and contributing drainage area at a gage site and the drainage area of an ungaged site can be used in the following equation to estimate streamflow characteristics at an ungaged site:

$$Qu=Qg(Au/Ag)^{expQ,R}$$

where *Q* is the streamflow characteristic, *A* is the contributing drainage area, and subscripts *u* and *g* refer to the ungaged site (POD) and the gage, respectively. The exponent represents a drainage area ratio adjustment based on regression equations and varies for different streamflow characteristics (*Q*) and regions (*R*). In hydrologic regions 3, 4, 5 and 6 (northern and eastern Montana), the USGS did not create regression equations. In those regions the exponent is taken as 1.0 for all streamflow characteristics and all months. The drainage basin of the Powder River above the Moorhead gage is 8,029 square miles. The drainage basin of the Powder River above the top of the depleted reach is 8,317.8 square miles given by the USGS StreamStats tool. The ratio of the basin area above the top of the depleted reach to the drainage basin area above the gage is 1.036 (8,317.8/8,029 = 1.036). The flow rate at the beginning of the depleted reach was calculated by multiplying the median of the mean monthly flow at the gage by the ratio 1.036. The volume of water physically available at the top of the depleted reach in each month was calculated from the flow rate by multiplying by 1.98 and the number of days in the month.

**Table 6. Flow rate (CFS) and volume (AF) of water at the beginning of the depleted reach.**

| Month | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Median of Mean Monthly Flow Rate at Moorhead Gage (CFS) | 150.4 | 209.2 | 514 | 450.2 | 896.65 | 1138.5 | 294.45 | 113.2 | 97.8 | 199.5 | 223.75 | 154.7 |
| Drainage Basin Area Ratio | 1.036 | 1.036 | 1.036 | 1.036 | 1.036 | 1.036 | 1.036 | 1.036 | 1.036 | 1.036 | 1.036 | 1.036 |
| Flow at Beginning of Depleted Reach (CFS) | 155.8 | 216.7 | 532.5 | 466.4 | 928.9 | 1,179.5 | 305.1 | 117.3 | 101.3 | 206.7 | 231.8 | 160.3 |
| Volume at Beginning of Depleted Reach (AF) | 9,564 | 12,016 | 32,685 | 27,705 | 57,018 | 70,061 | 18,724 | 7,198 | 6,018 | 12,686 | 13,769 | 9,837 |

22. There are 18 legal demands on surface water in the Powder River in the area of potential impact. There are two Provisional Permits, One Statement of Claim, one Conservation District Record and 14 Powder River Declarations. Statement of Claim 42J 30142403 for livestock direct from source had no flow rate or volume. The volume was calculated as the number of animal units times 0.34 (30 gallons per day per animal unit). The flow rate was calculated as the flow required to produce the calculated volume plus 35 GPM per Department standard practice. Powder River Declarations 42J 3261-01 and 42J 3261-02 have no recorded flow rate. The flow rate was taken as 1.8 CFS for each water right based on information in the claim file. The legal demands are shown in table 7. The distribution of demands by month is in the file.

**Table 7. Surface water legal demands on the Powder River in the are of potential impact.**

| Water Right Number | Owners | Purposes | Flow Rate (CFS) | Acres | Volume (AF) |
|---|---|---|---|---|---|
| 42J 16026 00 | LEVI R MCEUEN | IRRIGATION | 4.45 | 50.00 | 50.00 |
| 42J 24580 00 | GAY RANCH INC | IRRIGATION | 11.00 | 26.00 | 60.00 |
| 42J 30142403 | USA (DEPT OF INTERIOR BUREAU OF LAND MGMT) | STOCK | 0.08 | 0.00 | 10.54 |
| 42J 3261 01 | BUSHMAN FAMILY MONTANA TRUST | IRRIGATION | 1.80 | 18.40 | 33.10 |

| | | | | | |
|---|---|---|---|---|---|
| 42J 3261 02 | BUSHMAN FAMILY MONTANA TRUST | IRRIGATION | 1.80 | 35.00 | 87.50 |
| 42J 4015 01 | BARRY L EMMONS; MARILYN K EMMONS; PATRICK EMMONS; PHILLIP EMMONS | IRRIGATION | 10.70 | 190.90 | 492.50 |
| 42J 4015 02 | BARRY L EMMONS; MARILYN K EMMONS; PATRICK EMMONS; PHILLIP EMMONS | STOCK | 0.02 | 0.00 | 1.50 |
| 42J 4015 03 | BARRY L EMMONS; MARILYN K EMMONS; PATRICK EMMONS; PHILLIP EMMONS | IRRIGATION | 10.70 | 15.00 | 22.50 |
| 42J 56572 00 | GAY RANCH INC; POWDER RIVER CONSERVATION DISTRICT | IRRIGATION | 14.92 | 30.00 | 75.00 |
| 42J 7034 01 | GAY RANCH INC | IRRIGATION | 12.50 | 168.40 | 409.00 |
| 42J 7034 02 | LEVI R MCEUEN | IRRIGATION | 10.00 | 206.50 | 497.00 |
| 42J 7034 03 | GAY RANCH INC | IRRIGATION | 10.00 | 49.40 | 74.10 |
| 42J 7034 04 | GAY RANCH INC | IRRIGATION | 10.00 | 36.00 | 27.00 |
| 42J 7034 05 | GAY RANCH INC | IRRIGATION | 10.00 | 20.00 | 30.00 |
| 42J 7040 00 | GAY RANCH INC | IRRIGATION | 18.00 | 45.20 | 113.00 |
| 42J 9536 00 | CAROLYN W SCHROEDER | STOCK | 0.02 | 0.00 | 1.50 |
| 42J 9539 00 | BUSHMAN FAMILY MONTANA TRUST | STOCK | 0.02 | 0.00 | 1.50 |
| 42J 9542 00 | TWIN HEARTS SMILING HORSES INC | STOCK | 0.02 | 0.00 | 2.25 |

23. The legal demands were subtracted from the physically available water at the beginning of the depleted reach to determine if water was legally available. Table 8 shows the legal demands subtracted from the amount of water available at the top of the depleted reach for both flow rate (CFS) and volume (AF).

**Table 8. Comparison between the amount of water at the beginning of the depleted reach and the legal demands within the area of potential impact.**

| Month | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Flow at Top of Depleted Reach (CFS) | 155.8 | 216.7 | 532.5 | 466.4 | 928.9 | 1,179.5 | 305.1 | 117.3 | 101.3 | 206.7 | 231.8 | 160.3 |
| Legal Demands in the Area of Potential Impact (CFS) | 0.2 | 0.2 | 4.6 | 73.5 | 126.0 | 121.6 | 121.6 | 121.6 | 126.0 | 82.1 | 4.6 | 4.6 |
| Flow at the Beginning of Depleted Reach minus Legal Demands (CFS) | 155.7 | 216.6 | 527.9 | 392.9 | 802.9 | 1,057.9 | 183.5 | -4.3 | -24.7 | 124.6 | 227.2 | 155.7 |
| Volume at Beginning of Depleted Reach (AF) | 9,564 | 12,016 | 32,685 | 27,705 | 57,018 | 7,0061 | 1,8724 | 7,198 | 6,018 | 12,686 | 13,769 | 9,837 |
| Legal Demands in the Area of Potential Impact (AF) | 1.5 | 1.3 | 10.5 | 135.7 | 320.1 | 301.2 | 311.0 | 311.0 | 305.6 | 278.1 | 10.2 | 1.8 |
| Flow at the Beginning of Depleted Reach minus Legal Demands (AF) | 9,562 | 12,014 | 32,675 | 27,569 | 56,698 | 69,760 | 18,413 | 6,887 | 5,713 | 12,408 | 13,759 | 9,836 |

24. The table above suggests that in August and September the legal demands in flow rate exceed the flow rate available. The Powder River is unusual in terms of water usage because very high flow rates were decreed for relatively small acreages. For example, 42J 7034-04 has a 10 CFS flow rate for 27 AC which equates to over 166 GPM/AC. The Department adjudication standard is 17 GPM/AC. These high flow rates result from the practice of using high volume (Crisafulli) pumps for short intervals of time and then moving the pump. A report of a July 24, 1984, field investigation by Walter Rolf, former DNRC employee, contained in the file for Provisional Permit 42J 24580-00 states that water rights 42J 24580-00, 42J 7034-02, 42J 7034-

03, 42J 7034-04, and 42J 7034-05 share the same pump. 42J 7034-02, 42J 7034-03, 42J 7034-04, and 42J 7034-05 all have decreed flow rates of 10 CFS. Because the same pump is used for all these rights, they can not be used simultaneously. When added, as in Table 8, these five water rights have a legal demand of 51 CFS. Only a maximum of 11 CFS can be used at any one time. The reduction in legal demand by 40 CFS would leave 15.3 CFS flow rate of water available in excess of legal demands in September. Another way to look at his, is that the legally available volume in September equates to a flow rate of 96 CFS. Other water rights within the listed legal demands may share pumps as well. The maximum modeled depletion to the Powder River is 1,107 GPM (2.5 CFS).

25. The Department finds that groundwater at the proposed point of diversion during the proposed period of diversion is legally available and that surface water in the Powder River can be reasonably considered legally available in excess of modeled depletions.

## ADVERSE EFFECT

FINDINGS OF FACT

26. The Applicant has the ability to cease diversion by shutting down the pumps at all wells. The Applicant will cease diversion if call is made.

27. After five years, assuming the wells are pumped according to a schedule based on irrigation water requirements, theoretical drawdown is maximum, and one groundwater right in the source aquifer is predicted to experience drawdown equal to or greater than 1-foot. Groundwater Certificate 42J 109956-00 is for stock, is owned by the Applicant, and is predicted to experience 7.1 feet of drawdown. Given that the static water level in the area is between 11 and 16 feet below ground surface, there would be approximately 17 feet of available water column in this well.

28. Because there would be available water column in wells that would experience more than one foot of drawdown, because groundwater is available in excess of legal demands, because water can be considered legally available in excess of modeled depletions to the Powder River and, because the Applicant has the ability to cease diversion in the event of a call, the Department finds that the proposed appropriation of 3,450 GPM up to 1,111.8 AF for irrigation will not have an adverse effect on existing water users.

## ADEQUATE MEANS OF DIVERSION

FINDINGS OF FACT

29. The Applicant proposes to divert groundwater from seven wells using submersible pumps.

30. Maximum theoretical drawdown based on a pumping schedule to provide irrigation water requirements, the observed drawdown during testing, and calculated well efficiency was added to interference drawdown caused by pumping all of the wells. Total drawdown ranged from 15.6 to 27.0 feet for the existing wells. Remaining water column ranges between 7.0 and 15.7 feet. Similar available drawdown is expected for the other two wells not yet drilled assuming they are completed to a comparable depth. Because the analysis contained in this preliminary determination is based upon the new wells being drilled to comparable depths to tested wells, the Department will add the following condition:

IMPORTANT INFORMATION: THE APPROPRIATOR WILL COMPLETE THE TWO ADDITIONAL UNDRILLED WELLS IN THE POWDER RIVER ALLUVIUM AQUIFER AND PROVIDE A COPY OF THE WELL LOGS TO THE WATER RESOURCES REGIONAL OFFICE WHEN COMPLETE.

31. The pumps will be connected directly to a system of buried 10-inch irrigation pipe that will connect to five center pivot irrigation systems and standpipe discharges at four flood irrigated fields.

32. During operation, the entire system will be pressurized and the flow rate and discharge at any location controlled by valves at each standpipe and pivot. There will be two mainline valves that will alow isolation of pivot #5 and the eastern flood filed to be separated from the rest of the system and allow wells #6 and #7 to supply the northeast place of use independent of the other five wells.

33. All points of diversion and all irrigation systems are connected to the same system of piping and any well or combination of wells can supply water to any POU. The total lentgh of 10-inch pipe to the pivots and standpipes including connections to all well is 16,500 feet. In addition, there will be 3,800 feet of 10-inch gated pipe for flood irrigation.

34. The Applicant proposes to operate pumps in Wells #1 through #5 at 450 GPM each while wells #6 and #7 will operate at 600 GPM. Pump curves for Goulds and Grundfos pumps included in the application materials demonstrate the ability to produce those flow rates.

35. Five pivots (from southwest to northeast would use 675 GPM, 840 GPM, 480 GPM, 550 GPM, and 510 GPM, respectively. The standpipes for flood irrigation would use between 50 and 225 GPM each. A peak output scenario presented by the Applicant would entail wells #1 through #5 simultaneously pumping at 450 GPM and serving Pivots 1, 2, and 3 and the western flood irrigation standpipe, while wells #6 and #7 would pump at 600 GPM each and serve pivots 4 and 5 and the northeastern flood irrigation.

36. Each well will have a valve that allows the flow rate to be adjusted as needed.

37. The center pivot irrigation systems was designed by AgriIndustries, a respected irrigation supply company.

38. The Department finds that the proposed means of diversion and conveyance are capable of diverting and conveying the proposed volume and flow rate to the proposed place of use.

## BENEFICIAL USE

FINDINGS OF FACT

39. The Applicant requests 3,450 GPM (7.69 CFS) up to 1,111.8 AF of groundwater for irrigation on 472 AC. The volume requested is based on DNRC standards for pivot irrigation (404.7 AC at 2.30 AF/AC) and flood irrigation (67.3 AC at 2.69 AF/AC) in climate area II. The Applicant requests the DNRC standard period of diversion and period of use for climate area II of April1 through October 31.

40. The flow rate is based upon system design and allows all pivot and flood irrigation to occur simultaneously if necessary.

41. The Department finds the proposed water use is beneficial, and that the requested flow rate of 3,450 GPM and annual volume of 1,111.8 AF are reasonably justified.

42. The flow rate and volume requested by the Applicant are designed to provide full-service irrigation. Water rights 42J 1438-01, 42J 1438-02, 42J 1438-03, 42J 1438-04, 42J 1438-05, 42J 1438-06, and 42J 1438-07 from Buttermilk Creek, 42J 1440-00 and 42J 1440-01 from Daily Creek, 42J 1441-00 and 42J 1441-01 from Henning Creek, 42J 1443-01 and 42J 1443-02 from Alkali Creek, and 42J 1444-01 and 42J 1444-02 from Pine Creek partially overlap the proposed place of use. These water rights are from ephemeral drainages to the southeast of the proposed place of use. Water availability from these sources is unreliable and only used when available. Water rights 42J 1439-01, 42J 1439-02, 42J 1439-03, 42J 1439-04, 42J 1439-05, 42J 1439-06, and 42J 1439-07 are irrigation water rights that divert from the Powder River and substantially overlap the proposed place of use. Applicant intends to maintain these surface water rights and periodically use them (in place of the proposed groundwater appropriation) on their historical place of use when sufficient water is physically and legally available from the Powder River.

43. Because the places of use overlap and the proposed appropriation is for full-service irrigation the Department will add the following condition:

CONDITION: WATER MEASUREMENT REQUIREMENT

THE WATER RIGHT OWNER WILL MEASURE THE VOLUME OF ALL WATER DIVERTED FROM THE WELLS AND ALL SUPPLEMENTAL WATER DIVERTED FROM THE POWDER RIVER , BUTTERMILK CREEK, DAILY CREEK, HENNING CREEK, ALKALI CREEK, AND PINE CREEK ANNUALLY. THE TOTAL VOLUME OF WATER DIVERTED SHALL NOT EXCEED 1,111.8 AF. THE APPLICANT WILL SUBMIT MEASUREMENT RECORDS TO THE DEPARTMENT UPON REQUEST.

44. The Department finds the proposed water use is beneficial, and that the requested flow rate of 3,450 GPM and annual volume of 1,111.8 AF are reasonably justified.

## POSSESSORY INTEREST

FINDINGS OF FACT

45. Stephen Held, owner of Twin Hearts Smiling Horses Inc. signed the application form affirming the Applicant has possessory interest in the property where the water is to be put to beneficial use.

## CONCLUSIONS OF LAW

*CONTROLLED GROUNDWATER AREA*

46. Pursuant to Order dated December 15, 1999, *In the Matter of Designation of the Powder River Basin Controlled Groundwater Area*, the Department may process and grant a permit for groundwater subject to the well(s) not being designed and installed for the extraction of coalbed methane. This application may be processed under the terms of the Order establishing this Controlled Ground Water Area, subject to proof of the applicable permit criteria.

*PHYSICAL AVAILABILITY*

47. 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."

48. 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).

49. 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).

50. The Applicant has proven that water is physically available at the proposed point of diversion in the amount Applicant seeks to appropriate. Section 85-2-311(1)(a)(i), MCA. (FOF 14 - 16)

*LEGAL AVAILABILITY*

51. 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).

52. 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.

53. 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).

54. 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.

55. 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*.

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 - 25)

*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. Constant call is adverse effect. *In the Matter of Application for Beneficial Water Use Permit Nos. 56782-76H and 5830-76H by Bobby D. Cutler* (DNRC Final Order 1987); *In the Matter of Application for Beneficial Water Use Permit No. 80175-s76H by Tintzmen* (DNRC Final Order 1993); In the Matter of Application for Beneficial Water Use Permit No. 81705-g76F by Hanson (DNRC Final Order 1992) (Applicant must show that at least in some years no legitimate call will be made): *In the Matter of Application for Beneficial Water Use Permit No. 76N 30010429 by Thompson River Lumber Company* (DNRC 2006).

64. Adverse effect not required to be measurable but must be calculable. *Sitz Ranch v. DNRC*, DV-10-13390, Fifth Judicial District Court, *Order Affirming DNRC Decision*, 7 (2011) (DNRC permit denial affirmed; 3 gpm and 9 gpm depletion to surface water not addressed in legal availability or mitigation plan.); *Wesmont Developers v. DNRC*, CDV-2009-823, First Judicial District Court, *Memorandum and Order*, 12 (2011) ("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 depletion from groundwater pumping); *In the Matter of Beneficial Water Use Permit No. 76N-30010429 by Thompson River Lumber Company* (DNRC Final Order 2006); *see also Robert and Marlene Tackle v. DNRC*, Cause No. DV-92-323, Montana Fourth Judicial District for Ravalli County, *Opinion and Order* (June 23, 1994). Artesian pressure is not protectable and a reduction by a junior appropriator is not considered an adverse effect. *See In re Application No. 72948-G76L by Cross*, (DNRC Final Order 1991); *see also In re Application No. 75997-G76L by Carr*, (DNRC Final Order 1991).

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

may run out of water after 80 years held not to be adverse effect.); *see* §§ 85-2-311(1)(b) and -401, MCA.

66. 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 26 - 28)

*ADEQUATE DIVERSION*

67. 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.

68. 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.

69. 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).

70. 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).

71. 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 29 - 38).

*BENEFICIAL USE*

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

73. 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).

74. 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).

75. 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*.

76. Applicant proposes to use water for irrigation which is a recognized beneficial use. Section 85-2-102(5), MCA. Applicant has proven by a preponderance of the evidence irrigation is a beneficial use and that 1,111.8 AF of diverted volume and 3,450 GPM flow rate is the amount needed to sustain the beneficial use. Section 85-2-311(1)(d), MCA. (FOF 39 - 43)

*POSSESSORY INTEREST*

77. 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.

78. 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.

79. 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 44)

**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. 42J 30162285 should be GRANTED.

The Department determines the Applicant may divert groundwater, by means of seven wells approximately 55 feet deep, from April 1 to October 31 at 3,450 GPM up to 1,111.8 AF, from points in the NWNESW, NENESW, NWNWSE, NENWSE, and NENESE Section 12, T7S, R49E, the NESWSE Section 6, and NENENW Section 7, T7S, R50E, all in Powder River County for irrigation use from April 1 to October 31. The Applicant may irrigate 472 acres. The place of use is:

| **Legal Land Description** | **Acres** |
|---|---|
| NE Section 14, T7S, R49E, Powder River Co | 31.0 |
| NW Section 13, T7S, R49E, Powder River Co | 30.6 |
| SW Section 12, T7S, R49E, Powder River Co | 105.2 |

| | |
|---|---|
| SE Section 12, T7S, R49E, Powder River Co | 51.2 |
| SE Section 11, T7S, R49E, Powder River Co | 10.0 |
| NW Section 7, T7S, R50E, Powder River Co | 68.4 |
| NE Section 7, T7S, R50E, Powder River Co | 23.7 |
| SW Section 6, T7S, R50E, Powder River Co | 11.2 |
| SW Section 6, T7S, R50E, Powder River Co | 13.8 |
| SE Section 6, T7S, R50E, Powder River Co | 87.7 |
| NE Section 6, T7S, R50E, Powder River Co | 14.1 |
| NW Section 6, T7S, R50E, Powder River Co | 8.2 |
| NW Section 5, T7S, R50E, Powder River Co | 16.9 |

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

IMPORTANT INFORMATION: THE APPROPRIATOR WILL COMPLETE THE TWO ADDITIONAL UNDRILLED WELLS IN THE POWDER RIVER ALLUVIUM AQUIFER AND PROVIDE A COPY OF THE WELL LOGS TO THE WATER RESOURCES REGIONAL OFFICE WHEN COMPLETE.

CONDITION: WATER MEASUREMENT REQUIREMENT

THE WATER RIGHT OWNER WILL MEASURE THE VOLUME OF ALL WATER DIVERTED FROM THE WELLS AND ALL SUPPLEMENTAL WATER DIVERTED FROM THE POWDER RIVER , BUTTERMILK CREEK, DAILY CREEK, HENNING CREEK, ALKALI CREEK, AND PINE CREEK ANNUALLY. THE TOTAL VOLUME OF WATER DIVERTED SHALL NOT EXCEED 1,111.8 AF. THE APPLICANT WILL SUBMIT MEASUREMENT RECORDS TO THE DEPARTMENT UPON REQUEST.

## NOTICE

The Department will provide public notice of this application and the Department's Preliminary Determination to Grant pursuant to § 85-2-307, MCA. The Department will set a deadline for objections to this application pursuant to §§ 85-2-307, and -308, MCA. If this application receives a valid objection, it will proceed to a contested case proceeding pursuant to Title 2 Chapter 4 Part 6, MCA, and § 85-2-309, MCA. If this application receives no valid objection

or all valid objections are unconditionally withdrawn, the Department will grant this application as herein approved. If this application receives a valid objection(s) and the valid objection(s) are conditionally withdrawn, the Department will consider the proposed condition(s) and grant the application with such conditions as the Department decides necessary to satisfy the applicable criteria. Sections 85-2-310, -312, MCA.

Dated this 6th day of March 2025.

Mark Elison, Manager
Billings Regional Office
Montana Department of Natural Resources and Conservation

**CERTIFICATE OF SERVICE**

This certifies that a true and correct copy of the PRELIMINARY DETERMINATION TO GRANT was served upon all parties listed below on this 6th day of March 2025, by first class United States mail.

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