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

*** * * * * * ***

APPLICATION FOR BENEFICIAL WATER USE PERMIT NO. 76M 30151075 BY MISSOULA COUNTY FAIRGROUNDS	**PRELIMINARY DETERMINATION TO GRANT PERMIT**

*** * * * * * ***

On January 1, 2021, the Missoula County Fairgrounds (Applicant) submitted Application for Beneficial Water Use Permit No. 76M 30151075 to the Missoula Regional Office of the Department of Natural Resources and Conservation (Department or DNRC) for 135 GPM and 10.8 AF for lawn & garden irrigation. The Department published receipt of the application on its website. The application was determined to be correct and complete as of July 16, 2021. The Department met with the Applicant and their consultant, WGM Group, as well as Missoula County staff and elected officials via Zoom on August 17, 2021, to discuss the application. A draft preliminary determination to deny the application was sent to the Applicant on October 29, 2021. The Applicant submitted a waiver of the timelines per § 85-2-307, MCA on November 10, 2021. An Environmental Assessment for this application was completed on October 29, 2021.

INFORMATION

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

Application as filed:

- Groundwater Application for Beneficial Water Use Permit, Form 600-GW
- Attachments:
    - Variance Request, dated October 3, 2019
        - Well log for GWIC ID 187793
        - Well log for GWIC ID 183547
        - Pumping Test Report for BLM Missoula Field Office, dated 2007
        - Pumping Test Report for Missoula Federal Credit Union, dated 2009

        - Pumping Test Report for Larchmont Golf Course, dated 2011
    - Variance Request Approval, dated November 20, 2019
    - Pump Curves for Pentair pump model Berkeley 5TMH-110
    - IWR data sheet for pasture grass irrigation with Missoula WSO AP climate data
- Maps:
    - GW.4 Beneficial Water Use, 2019 NAIP imagery
    - GW.5.A Supplemental Water Rights, 2019 NAIP imagery
    - Irrigation Cover Sheet, no imagery

Information Received after Application Filed

- Memo from WGM Group to DNRC dated August 30, 2021, Re: Missoula Fairgrounds Permit Application 76M 30151075, received by DNRC on August 30, 2021
- Email from Evan Norman to Kathy Schubert dated August 24, 2021, Re: Missoula Fairgrounds Depletion and Calculation Details
- Email correspondence between Jim Nave and Julie Merritt, dated October 14, 2021, Re: Response to Fairgrounds Memo

Information within the Department's Possession/Knowledge

- Aquifer Test Report, dated June 24, 2021
- Depletion Report, dated June 24, 2021
- Revised Depletion Report, dated August 24, 2021
- Flow records from USGS Gage #12340500 (Clark Fork River above Missoula) and #12352500 (Bitterroot River near Missoula)
- 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 Missoula Regional Office at 406 721-4284 to request copies of the following documents.
    - DNRC Consumptive Use Methodology – Turf Grass (New Projects) dated March 23, 2010

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.

PROPOSED APPROPRIATION

FINDINGS OF FACT

1. The Applicant proposes to divert water from the Missoula Valley Aquifer, by means of two wells: an 80-ft well in the SWNWNW Section 33, T13N, R19W (South Field Well), and a 100-ft well in the NWNWNW Section 33, T13N, R19W (Carnival Lot Well). Up to 10.8 AF of water will be diverted from April 1 to September 30 at 135 GPM and used for lawn and garden irrigation from April 1 to September 30. The Applicant proposes to irrigate 13.1 acres of lawn and garden, consisting of 11.6 acres of turf grass irrigated by sprinklers and 1.5 acres of trees and shrubs irrigated by dripline. The place of use is generally located in the NWNW and the N2SWNW Section 33, T13N, R19W. Table 1 below provides a summary of the proposed use.

Table 1: Summary of Proposed Use

Flow Rate	Volume	Purpose	Period Of Use	Place Of Use	Points Of Diversion	Priority Date
135 GPM	10.8 AF	Lawn and Garden	Apr. 1 – Sep. 30	NWNW & N2SWNW Sec. 33, T13N, R19W	SWNWNW & NWNWNW Sec. 33, T13N, R19W	1/19/2021

2. The proposed points of diversion are located approximately 8,400 ft south of the Clark Fork River and 11,200 ft east of the Bitterroot River. The consumptive use of the proposed appropriation is 10.0 AF, which is expected to result in 6.0 AF of depletions in the Clark Fork River, and 4.0 AF of depletions in the Bitterroot River.

3. There are four Ground Water Certificates on the Fairgrounds property. Two of these rights, Groundwater Certificates 76M 62677-00 and 76M 30119508, share a well located in

the NENWNW Section 33, T13N, R19W, and service the Rocky Mountain Gardens and Education Center in the NW portion of the Fairgrounds lot. These rights are not supplemental, as the 3 acres they irrigate do not overlap with the 13.1-acre place of use proposed under this permit.

4. The South Field Well is currently used to irrigate 4.60 acres of lawn and garden with 4.4 AF of water authorized under Ground Water Certificate 76M 30068062, and the Carnival Lot Well Is used to irrigate 4.85 acres with 4.7 AF of water authorized under Ground Water Certificate 76M 30068060. These water rights do not supply enough water to provide full-service irrigation to their combined 9.45-acre place of use. A portion of the volume on proposed Permit 76M 30151075 will be used to supplement irrigation on these 9.45 acres.

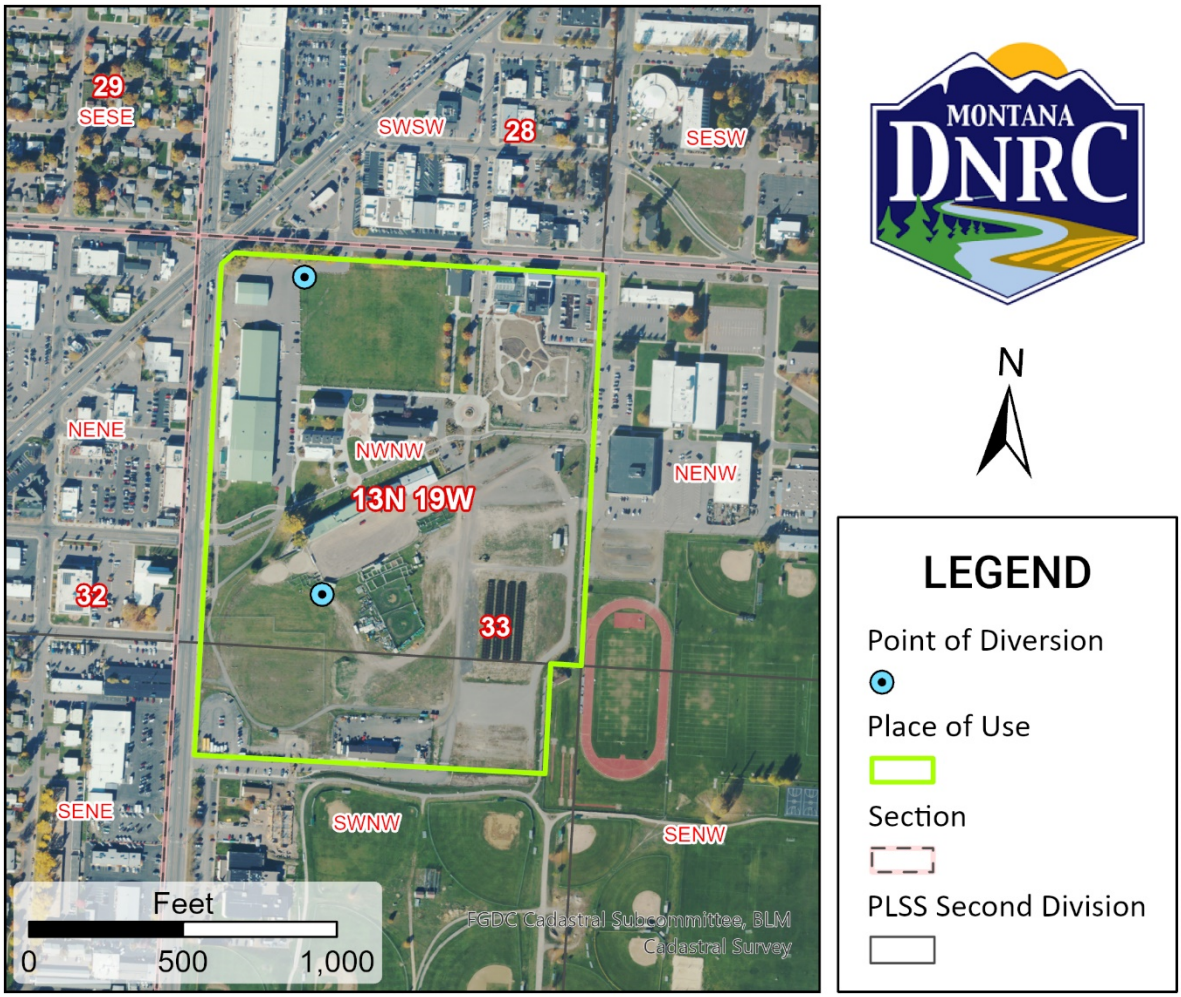


Figure 1. Map of proposed appropriation.

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

GENERAL CONCLUSIONS OF LAW

5. 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 . . .

6. 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.

7. 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.

8. 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).

9. 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.

10. 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

11. The Applicant proposes to divert up to 10.8 AF of water from two groundwater wells at a flow rate of 135 GPM for the purpose of lawn and garden irrigation on 13.1 acres.

12. The Applicant requested a variance from the Department's aquifer testing requirements on October 3, 2019. The Department granted a variance from ARM 36.12.121(1) and (2) on November 20, 2019, allowing the Applicant to utilize existing aquifer test data from previous permit applications and conduct an 8-hour test at 120 GPM on the two production wells. The Department evaluated the volume of water physically available in the source aquifer using Applicant-supplied data from the 8-hour test on the proposed points of diversion and aquifer test data from nearby wells. Department hydrologist Evan Norman completed an aquifer test report and a depletion report based on this information.

13. Using the Theis (1935) solution, a transmissivity (T) value of 120,965 ft^2/day, a specific yield of 0.1, and a pumping rate of 6.6 GPM for each of the two wells for the 184-day period of diversion (the constant flow rate required to appropriate the full proposed volume), a 0.01-ft drawdown contour (zone of influence) was calculated with a width of 1800 ft. The groundwater flux through the zone of influence is 3,649 AF/yr.

14. The Department finds that groundwater is physically available in the amount the Applicant seeks to appropriate during the proposed period of diversion.

LEGAL AVAILABILITY

FINDINGS OF FACT

15. The groundwater model in the Aquifer Test Report completed by Department hydrologist Evan Norman identified a zone of influence (ZOI) within which groundwater rights would experience 0.01 ft or more of drawdown. Legal availability of water was determined by subtracting the legal demands of water rights within the ZOI from the amount of water physically available in the ZOI.

16. Ground Water Certificates 76M 30068060 and 76M 30068062 were the only water rights identified by the Department within the ZOI. The combined legal demand of these rights is 9.80 AF. The legal availability of water in the ZOI is 3639.2 AF (3649 AF – 9.8 AF = 3639.2 AF).

17. Department hydrologist Evan Norman completed a Depletion Report, dated June 24, 2021, which described the depletions of the proposed appropriation to hydraulically

connected surface water sources. The Applicant met with the Department on August 17, 2021 to discuss the contents of this report. One of the outcomes of this discussion was the Department's issuance of a Revised Depletion Report, dated August 24, 2021.

18. The Revised Depletion Report found that the source aquifer was hydraulically connected to the Clark Fork River and the Bitterroot River. Depletions to the Clark Fork River begin downstream of the western boundary of Section 22, T13N, R19W, and depletions to the Bitterroot River begin downstream of Buckhouse Bridge in Section 1, R12N, T20W. The total consumptive use for the proposal was calculated by Department hydrologist Evan Norman to be 10.0 AF, and the depletion model predicted annual depletions of 6.0 AF and 4.0 AF to the Clark Fork River and Bitterroot River, respectively. Table 2 shows the volume and timing of these depletions, as well as the constant flow rate which would result in the listed volume depletion for a given month.

Table 2: Amount, Timing, and Location of Depletions from the Proposed Appropriation

Month	Consumption (AF)	Clark Fork River Depletion (AF)	Clark Fork River Depletion (GPM)	Bitterroot River Depletion (AF)	Bitterroot River Depletion (GPM)
January	0.0	0.4	2.7	0.3	2.1
February	0.0	0.3	2.5	0.2	2
March	0.0	0.3	2.0	0.2	1.6
April	0.2	0.3	2.0	0.2	1.5
May	1.2	0.3	2.2	0.2	1.5
June	1.9	0.4	3.3	0.3	2.0
July	2.8	0.6	4.6	0.4	2.6
August	2.5	0.8	5.9	0.5	3.4
September	1.3	0.9	6.5	0.5	3.9
October	0.1	0.7	5.4	0.5	3.6
November	0.0	0.6	4.2	0.4	3.1
December	0.0	0.4	3.2	0.3	2.4
Total	**10.0**	**6.0**		**4.0**	

19. The Department used the median of the mean monthly flow rates at USGS Gage #12340500 (Clark Fork River above Missoula) and USGS Gage #12352500 (Bitterroot River near Missoula) to determine physical availability on the Clark Fork River and Bitterroot River.

20. The point of depletions on the Clark Fork River is approximately 4 miles downstream of the Clark Fork River gage. The Department assumed full utilization of water rights in this reach, subtracting the legal demands for flow rate of these rights from the median of the mean monthly flow at the gage to arrive at physically available flow at the point of depletions. Physically available volumes were calculated as the amount of water that would flow through the river at the point of depletions given a constant flow rate of the physically available CFS in each month. The physical availability of water in the Clark Fork River at the point of depletions is shown in Table 3.

Table 3: Physical Availability of Water in the Clark Fork River at the Point of Depletions

Month	Physical Availability at Gage (CFS)	Legal Demands Between Gage and Point of Depletions (CFS)	Physical Availability at Point of Depletions (CFS)	Physical Availability at Point of Depletions (AF)
January	1,225.0	0.1	1,224.9	75,299.7
February	1,392.0	0.1	1,391.9	77,285.1
March	1,794.5	1.2	1,793.3	110,240.3
April	3,422.5	197.3	3,225.2	191,867.8
May	7,281.5	197.4	7,084.1	435,483.6
June	7,752.0	197.4	7,554.6	449,425.8
July	2,805.0	197.4	2,607.6	160,299.7
August	1,444.0	197.4	1,246.6	76,635.0
September	1,386.0	197.4	1,188.6	70,712.5
October	1,518.0	197.3	1,320.7	81,188.1
November	1,519.0	0.1	1,518.9	90,360.7
December	1,340.0	0.1	1,339.9	82,369.1

21. The point of depletions on the Bitterroot River is at the same location as the Bitterroot River gage; thus, the median of the mean monthly flow recorded at this gage was used to

quantify physical availability with no adjustments. The physical availability of water in the Bitterroot River at the point of depletions is shown in Table 4.

Table 4: Physical Availability of Water in the Bitterroot River at the Point of Depletions

Month	Physical Availability at Point of Depletions (CFS)	Physical Availability at Point of Depletions (AF)
January	782.5	48,102.6
February	820.0	45,529.7
March	1164.0	71,554.6
April	2829.0	168,297.2
May	6849.0	421,028.6
June	7577.5	450,785.5
July	2335.0	143,539.5
August	846.4	52,030.7
September	806.4	47,969.8
October	917.8	56,419.9
November	1022.0	60,798.8
December	872.8	53,650.6

22. Legal availability of water on the depleted sources was calculated by subtracting the legal demands of water rights between the points of depletion and the confluence of the Clark Fork River and Bitterroot River from the amount of water found to be physically available at the points of depletion. A quantification of legal availability on the Clark Fork River and Bitterroot River can be found in Tables 6 and 7.

Table 6: Legal Availability of Water in the Clark Fork River at the Point of Depletions

Month	Physical Availability at Point of Depletions (CFS)	Legal Demands Between Point of Depletions and Confluence (CFS)	Legal Availability at Point of Depletions (CFS)	Legal Availability at Point of Depletions (AF)
January	1,224.9	49.9	1,175.0	72,232.1
February	1,391.9	49.9	1,342.0	74,514.4
March	1,793.3	52.1	1,741.2	107,036.2
April	3,225.2	301.0	2,924.2	173,959.8

May	7,084.1	301.0	6,783.1	416,976.7
June	7,554.6	301.0	7,253.6	431,514.2
July	2,607.6	301.0	2,306.6	141,791.1
August	1,246.6	301.0	945.6	58,126.4
September	1,188.6	301.0	887.6	52,800.9
October	1,320.7	301.0	1,019.7	62,685.5
November	1,518.9	194.8	1,324.1	78,768.3
December	1,339.9	50.0	1,289.9	79,291.9

Table 7: Legal Availability of Water in the Bitterroot River at the Point of Depletions

Month	Physical Availability at Point of Depletions (CFS)	Legal Demands Between Point of Depletions and Confluence (CFS)	Legal Availability at Point of Depletions (CFS)	Legal Availability at Point of Depletions (AF)
January	782.5	900.4	-117.9	-7,250.1
February	820.0	900.4	-80.4	-4,466.4
March	1164.0	900.4	263.6	16,201.8
April	2829.0	902.4	1,926.6	114,613.4
May	6849.0	22,703.4	-15,854.4	-82,267.5
June	7577.5	22,703.5	-15,126.0	-37,242.5
July	2335.0	603.5	1,731.5	106,438.7
August	846.4	603.5	242.9	14,929.9
September	806.4	602.4	204.0	12,133.0
October	917.8	902.1	15.8	968.2
November	1022.0	900.6	121.4	7,224.5
December	872.8	900.4	-27.7	-1,702.2

23. Statement of Claim 76H 151306-00 is an instream flow water right for one day of peak flow between May 1 and June 30. This right has a flow rate of 15,000 CFS. When the Technical Report for this Application was written, it was the Department's practice not to consider the legal demands of this water right due to its 24-hour usage and the impracticability of making call with it. Since then, the Department's practice has changed to include this right in a legal availability analysis. The Technical Report's table calculating legal availability in the Bitterroot

River has been modified to include the demands of this right in Table 7. This does not result in any change to the overall status of water, since whether Statement of Claim 76H 151306-00 is included in the analysis or not, water is not legally available in both May and June.

24. Downstream hydropower rights owned by Avista Corporation at Noxon Dam were addressed in a memorandum by Division Administrator John E. Tubbs on May 1, 2009. This document established a policy for permitting groundwater rights in parts of the lower Clark Fork River Basin (including all of Basin 76M) that when the surface water depletions for an application amount to less than 35 GPM and 10 AF per year, the Department will not consider the 2006 Thompson River Lumber Company permit application 76N 30010429 final order as precedent when evaluating issuance criteria.

25. The depletions to the Clark Fork River resulting from this proposal are 6.0 AF per year, and the maximum depleted flow rate is 6.5 GPM. As a result, this proposal falls into the category of application where the Department will not consider downstream hydropower rights per Tubbs' May 1, 2009 memo.

26. According to the above analyses, water is legally available in the Clark Fork River year-round but not legally available in the Bitterroot River during the months of January, February, May, June, and December.

27. The Applicant has addressed legal availability of surface water by providing a mitigation plan which proposes to mitigate the depletions to surface water. If granted, the application is subject to the condition described in FOF 35 to meet the legal availability and adverse effect criteria. The mitigation plan is fully addressed under "Adverse Effect" below.

28. The Department finds the proposed appropriation of 135 GPM and 10.8 AF/yr to be legally available in the groundwater aquifer during the proposed period of diversion.

ADVERSE EFFECT

FINDINGS OF FACT

29. To determine if existing water rights would be adversely affected by this project, the Department's Water Science Bureau modeled the drawdown in the groundwater aquifer that would result from the proposed appropriation. Within the modeled 0.01-ft drawdown contour, groundwater was found to be legally available. Additionally, the model found that

after 5 years of pumping, no wells would experience drawdown of 1 foot or more. The Department finds that no groundwater rights will be adversely affected by the proposed diversion.

30. The proposed appropriation results in 4.0 AF of annual depletions to the Bitterroot River. During the months of January, February, May, June, and December, water is not legally available. The total volume of depletions during these months is 1.3 AF.

31. The Applicant proposes to mitigate their depletions to the Bitterroot River using water made available in Change Application 76H 30161876. This change proposes to retire 7 acres of lawn and garden irrigated under Provisional Permit 76H 4927-00 at Fort Missoula Regional Park. This retirement will result in historically consumed water being left in the groundwater aquifer to mitigate depletions to the Bitterroot River by reducing pre-stream capture. The monthly depletions expected for this permit modeled by the August 24, 2021, Revised Depletion Report are matched or exceeded in every month by the mitigation water provided by the retirement of irrigation under Change Application 76H 30161876. A comparison of the modeled depletions for the proposed permit and FMRP mitigation water is shown in Table 8. Note that due to rounding, the Net Effect (AF) column is not always equal to the difference of the depletions and mitigation water columns displayed in the table.

Table 8: Comparison of Depletions to Mitigation Water.

Month	Modeled Depletions from Proposed Appropriation (AF)	FMRP Mitigation Water (AF)	Net Effect (AF)
January	0.2	0.3	0.0
February	0.2	0.2	0.0
March	0.2	0.2	0.0
April	0.2	0.3	0.2
May	0.2	1.0	0.8
June	0.3	1.7	1.4
July	0.5	2.6	2.1
August	0.6	2.7	2.1
September	0.6	2.0	1.4
October	0.5	1.0	0.5

November	0.3	0.5	0.1
December	0.3	0.3	0.0

32. The priority date for Provisional Permit 76H 4927-00 is February 25, 1975. The Applicant is not aware of any call ever having been made on this water right.

33. The Department finds the mitigation plan to be adequate to prevent adverse effect to existing water users as the plan will offset depletions to surface water in the necessary amount, location, and duration.

34. In the event of a legitimate call for water, the Applicant can cease diversion from the production wells.

35. The volume of water consumed under the proposed appropriation in each much must not exceed the volume of mitigation water made available during that month. To ensure that the adverse effect criterion is met, the Applicant is held to the following conditions:

1. THE APPROPRIATOR'S USE OF WATER UNDER THIS PERMIT IS CONDITIONED UPON THE 12.7 AC-FT OF MITIGATION VOLUME REQUIRED TO OFFSET ADVERSE EFFECTS FROM NET DEPLETION TO THE CLARK FORK RIVER. DIVERSION UNDER THIS PERMIT MAY NOT COMMENCE UNTIL THE MITIGATION PLAN AS SPECIFICALLY DESCRIBED AND APPROVED THROUGH CHANGE AUTHORIZATION 76M 30161876 IS LEGALLY IMPLEMENTED. DIVERSION UNDER THIS PERMIT MUST STOP IF MITIGATION AS HEREIN REQUIRED IN AMOUNT, LOCATION, AND DURATION CEASES.
2. WATER MEASUREMENT-INLINE FLOW METER REQUIRED: THE APPROPRIATOR SHALL INSTALL A DEPARTMENT APPROVED IN-LINE FLOW METER AT A POINT IN THE DELIVERY LINE APPROVED BY THE DEPARTMENT. WATER MUST NOT BE DIVERTED UNTIL THE REQUIRED MEASURING DEVICE IS IN PLACE AND OPERATING. ON A FORM PROVIDED BY THE DEPARTMENT, THE APPROPRIATOR SHALL KEEP A WRITTEN MONTHLY RECORD OF THE FLOW RATE AND VOLUME OF ALL WATER DIVERTED, INCLUDING THE PERIOD OF TIME. RECORDS SHALL BE SUBMITTED BY NOVEMBER 30 OF EACH YEAR AND UPON REQUEST AT OTHER

TIMES DURING THE YEAR. IN THE EVENT THAT AUTHORIZED FLOW RATES AND/OR VOLUMES HAVE BEEN EXCEEDED DURING PERFECTION OF THE CHANGE AUTHORIZATION OR THE APPROPRIATOR FAILS TO SUBMIT ANNUAL REPORTS, THE DEPARTMENT MAY CONTINUE TO REQUIRE ANNUAL SUBMISSIONS OF MONTHLY FLOW RATE AND VOLUME RECORDS. FAILURE TO SUBMIT REPORTS MAY BE CAUSE FOR REVOCATION OF A PERMIT OR CHANGE. THE RECORDS MUST BE SENT TO THE MISSOULA WATER RESOURCES REGIONAL OFFICE. THE APPROPRIATOR SHALL MAINTAIN THE MEASURING DEVICE SO IT ALWAYS OPERATES PROPERLY AND MEASURES FLOW RATE AND VOLUME ACCURATELY.

36. The Department finds that the proposed use of 10.0 AF of consumed volume and 135 GPM will not have an adverse effect on existing water rights.

ADEQUATE MEANS OF DIVERSION

FINDINGS OF FACT

37. The means of diversion consists of an 80-ft well in the SWNWNW Section 33, T13N, R19W (South Field Well) and a 100-ft well in the NWNWNW Section 33, T13N, R19W (Carnival Lot Well). Both wells are equipped with a Pentair pump with a 7.5 hp motor and variable frequency drive. The head pressures on the South Field Well and Carnival Lot Well are 198 ft and 215 ft, respectively, and the pump ratings at these pressures are 115 GPM and 90 GPM. The combined flow rate of 205 GPM is the amount necessary to supply the 135 GPM proposed under this application and the 70 GPM authorized under Ground Water Certificates 76M 30068060 and 76M 30068062, which divert water from the Carnival Lot Well and South Field Well, respectively.

38. The irrigation system consists of buried mainlines and laterals consisting of 2.5-inch PVC schedule 40 piping. Pop-up rotator sprinkler heads will be used to irrigate 11.6 acres of turf grass, while driplines will be used on 1.5 acres of trees, shrubs, and other perennials.

39. The diversion and conveyance system for this proposal was designed by professional engineers. In applications where engineers design the diversion and conveyance system, the

Department trusts that the system will operate effectively on the basis of the technical expertise of the designers.

40. The Department finds that the proposed means of diversion and conveyance are capable of diverting and conveying the proposed flow rate and volume of 135 GPM and 10.8 AF.

BENEFICIAL USE

FINDINGS OF FACT

41. The Applicant proposes to divert 10.8 AF of water at 135 GPM for lawn and garden irrigation on 13.1 acres. Sprinkler irrigation will be used on 11.6 acres of turf grass, of which 9.45 acres are supplementally irrigated by Ground Water Certificates 76M 30068060 and 76M 30068062. Dripline irrigation will be used on the remaining 1.5 acres, which consists of beds of trees, shrubs, and other perennial plants.

42. The Applicant states that the flow rate required for the proposed irrigation system to run effectively is 135 GPM. The Department accepts this value as it is based on the expertise of the professional engineers who designed the irrigation system.

43. The Applicant opted to calculate the consumptive use of the turf grass area using the document *DNRC Consumptive Use Methodology – Turf Grass (New Projects)*, dated March 23, 2010. This memo allows an Applicant to calculate the consumptive use of turf grass with local climate data by using the USDA Irrigation Water Requirements program. The Applicant used the Missoula WSO AP weather station to calculate consumptive use, arriving at an annual consumptive use of 20.38 inches, or 1.70 AF/ac. The DNRC standard for calculating sprinkler irrigation efficiency is 70%, however, the Applicant asserted that their system achieves an efficiency of 90%. The Department finds the proposed design plans substantial and credible.

44. The area to be irrigated by dripline consists of planting beds with trees and shrubs. While the total area of the beds is 1.5 acres, the plants within the beds will be spaced apart and much of the beds will be covered with mulch. The Applicant estimates the total vegetated area will be about 50% of the beds, or 0.75 acres. The Applicant estimates that these plants have a much lower water requirement than turf grass, consuming only 0.3 AF/ac. A similar

value for drip-irrigated vegetation was accepted by the Department in Change Application 76H 30069080.

45. Department hydrologist Evan Norman calculated consumptive use to create a Depletion Report, dated June 24, 2021. The Department met with the Applicant on August 17, 2021 to discuss several issues, including depletions, legal availability, and adverse effect. As a result of this meeting, Mr. Norman composed a Revised Depletion Report, dated August 24, 2021.

46. The calculations of consumptive use in the Revised Depletion Report varied from those submitted by the Applicant. The MSO 2 NE weather station was used instead of the MSO WSO AP station, resulting in an IWR of 19.52 inches, or 1.63 AF/ac. For the 9.45 acres supplementally irrigated by Ground Water Certificates 76M 30068060 and 76M 30068062, the required consumptive volume was calculated as 1.63 AF/ac × 9.45 ac = 15.37 AF. The required volume contribution for the proposed permit was calculated as this value minus the 9.1 AF already authorized under the groundwater certificates: 15.37 AF – 9.1 AF = 6.27 AF. The 2.15 acres solely supplied by the proposed appropriation was calculated to need 1.63 × 2.15 = 3.50 AF. The total volume required for sprinkler irrigation is thus 6.27 + 3.50 = 9.77 AF.

47. The Revised Depletion Report calculated dripline irrigation consumptive use as the Applicant proposed. Using an irrigation requirement of 0.3 AF/acre and 1.5 acres of beds with 50% vegetated cover, the consumptive use was calculated to be 0.3 × 1.5 × 0.5 = 0.23 AF.

48. The total consumptive use of the proposed appropriation was equal to the sprinkler irrigation consumption plus the drip line irrigation consumption, or 9.77 + 0.23 = 10.00 AF.

49. Drip line irrigation is considered 100% efficient, so a 0.23 AF consumptive volume translates to 0.23 AF of diverted volume. Since the total proposed diverted volume is 10.8 AF, the proposed diverted volume available for sprinkler irrigation is 10.8 - 0.23 = 10.57 AF. The efficiency of sprinkler irrigation can be calculated by dividing the consumptive volume by the diverted volume: 9.77 / 10.57 = 0.92, an efficiency of 92%. The Department finds this value close enough to the Applicant's stated 90% efficiency to find 10.57 AF of diverted volume for sprinkler irrigation a credible beneficial use.

50. The Department finds the proposed water use is beneficial, and that the requested flow rate of 135 GPM and annual volume of 10.8 AF are reasonably justified per ARM 36.12.1801(3).

POSSESSORY INTEREST

FINDINGS OF FACT

51. The Applicant owns the property where water is to be put to beneficial use, which demonstrates possessory interest. The Department finds the possessory interest criterion to be met.

CONCLUSIONS OF LAW

PHYSICAL AVAILABILITY

52. 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."

53. 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).

54. 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).

55. 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 11-14)

LEGAL AVAILABILITY

56. 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).

57. 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.

58. 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).

59. 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.

60. 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 resulted 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*.

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

62. Based on the Applicant's proposed mitigation/aquifer recharge plan, the Department finds that the Applicant has proven by a preponderance of the evidence that surface water can reasonably be considered legally available during the period in which the Applicant seeks to appropriate, in the amount requested. (FOF 27, 31-33)

63. 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 15-28)

ADVERSE EFFECT

64. 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.

65. 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).

66. 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).

67. 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).

68. 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.

69. 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).

70. The Department can and routinely does, condition a new permit's use on use of that special management, technology, or measurement such as augmentation now generally known as mitigation and aquifer recharge. *See* § 85-2-312; § 85-2-360 et seq., MCA; *see, e.g.*, *In the Matter of Beneficial Water Use Permit No. 107-41I by Diehl Development* (DNRC Final Order 1974) (No adverse effect if permit conditions to allow specific flow past point of

diversion.); *In the Matter of Combined Application for Beneficial Water Use Permit No. 76H-30043133 and Application No. 76H-30043132 to Change Water Right Nos. 76H-121640-00, 76H-131641-00 and 76H-131642-00 by the Town of Stevensville* (DNRC Final Order 2011).

71. A plan to prove legal availability and prevent adverse effect can be to use mitigation or augmentation. Section 85-2-360, MCA; e.g., *In the Matter of Beneficial Water Use Permit Application Nos. 41H 30012025 and 41H 30013629 by Utility Solutions, LLC* (DNRC Final Order 2006) (permit conditioned to mitigate/augment depletions to the Gallatin River by use of infiltration galleries in the amount of .55 cfs and 124 AF), *affirmed*, *Faust v. DNRC*, Cause No. CDV-2006-886, Montana First Judicial District (2008); *In the Matter of Beneficial Water Use Permit Application Nos. 41H 30019215 by Utility Solutions, LLC* (DNRC Final Order 2007) (permit conditioned to mitigate 6 gpm up to 9.73 AF of potential depletion to the Gallatin River), affirmed, *Montana River Action Network v. DNRC*, Cause No. CDV-2007-602, Montana First Judicial District Court, (2008); *Sitz Ranch v. DNRC*, DV-10-13390, Fifth Judicial District Court, *Order Affirming DNRC Decision*, (2011) Pg. 7; *Wesmont Developers v. DNRC*, CDV-2009-823, First Judicial District Court, *Memorandum and Order*, (2011) Pg. 12; *In the Matter of Application for Beneficial Water Use Permit No. 41H 30026244 By Utility Solutions LLC* (DNRC 2008) (permit conditioned on mitigation of 3.2 gpm up to 5.18 AF of depletion to the Gallatin River); *In the Matter of Application for Beneficial Water Use Permit No. 76H-30028713 by Patricia Skergan and Jim Helmer* (HB 831, DNRC Final Order 2009) (permit denied in part for failure to analyze legal availability for surface water for depletion of 1.31 AF to Bitterroot River); § 85-2-360, MCA. The Department has a history of approving new appropriations where Applicant will mitigate/augment to offset depletions caused by the new appropriation. *In the Matter of Beneficial Water Use Permit Application No. 41I-104667 by Woods and Application to Change Water Right No 41I-G(W) 125497 by Ronald J. Woods* (DNRC Final Order 2000); *In The Matter of Application To Change Appropriation Water Right 76GJ 110821 by Peterson and MT Department of Transportation* (DNRC Final Order 2001); *In The Matter of Application To Change Appropriation Water Right No. 76G-3235699 by Arco Environmental Remediation LLC* (DNRC Final Order 2003) (allows water under claim 76G-32356 to be exchanged for water appropriated out of priority by permits at the wet closures and wildlife

to offset consumption). *In The Matter of Designation of the Larsen Creek Controlled Groundwater Area as Permanent, Board of Natural Resources Final Order* (1988). Montana case law also provides a history of mitigation, including mitigation by new or untried methods. *See Thompson v. Harvey* (1974),154 Mont. 133, 519 P.2d 963; *Perkins v. Kramer* (1966), 148 Mont. 355, 423 P.2d 587. Augmentation/mitigation is also recognized in other prior appropriation states for various purposes. *E.g.* C.R.S.A. § 37-92-302 (Colorado); A.R.S. § 45-561 (Arizona); RCWA 90.46.100 (Washington); ID ST § 42-1763B and § 42-4201A (Idaho).

The requirement for mitigation in closed basins has been codified in § 85-2-360, *et seq.*, MCA. Section 85-2-360(5), MCA provides in relevant part:

> A determination of whether or not there is an adverse effect on a prior appropriator as the result of a new appropriation right is a determination that must be made by the d*epartment based on the amount*, location, and duration of the amount of net depletion that causes the adverse effect relative to the historic beneficial use of the appropriation right that may be adversely affected.
>
> (Emphasis added.)

72. Pursuant to § 85-2-362, MCA, a mitigation plan must include: where and how the water in the plan will be put to beneficial use; when and where, generally, water reallocated through exchange or substitution will be required; the amount of water reallocated through exchange or substitution that is required; how the proposed project or beneficial use for which the mitigation plan is required will be operated; evidence that an application for a change in appropriation right, if necessary, has been submitted; evidence of water availability; and evidence of how the mitigation plan will offset the required amount of net depletion of surface water in a manner that will offset an adverse effect on a prior appropriator.

73. In this case Applicant proposes to mitigate only that portion of the consumptive use under the proposed application which would accrue to a surface water source where water is not legally available, namely, the Bitterroot River. This mitigation provides mitigation of full depletion of surface waters by the proposed appropriation in amount, location, and duration of the depletions to the Bitterroot River. Because the Applicant proposes to mitigate the full amount of its consumptive use to the surface water source where water is not legally

available, there is no adverse effect from depletion of surface waters to the historical beneficial use of surface water rights.

74. 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 29-36)

ADEQUATE DIVERSION

75. 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.

76. 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.

77. 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).

78. 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 37-40).

BENEFICIAL USE

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

80. 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).

81. 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).

82. 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*.

83. Applicant proposes to use water for lawn and garden irrigation which is a recognized beneficial use. Section 85-2-102(5), MCA. Applicant has proven by a preponderance of the evidence that lawn and garden irrigation is a beneficial use and that 10.8 AF of diverted volume and 135 GPM is the amount needed to sustain the beneficial use. Section 85-2-311(1)(d), MCA. (FOF 41-50)

POSSESSORY INTEREST

84. 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.

85. 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.

86. 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 51)

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. 76M 30151075 should be GRANTED.

The Department determines the Applicant may divert water from the groundwater in the Missoula Valley Aquifer, by means of two wells: a 100-ft well in the SWNWNW Section 33, T13N, R19W, and an 80-ft well in the NWNWNW Section 33, T13N, R19W. Up to 10.8 AF of water will be diverted from April 1 to September 30 at 135 GPM and used for lawn and garden irrigation on 13.1 acres from April 1 to September 30. The place of use is generally located in the NWNW and the N2SWNW Section 33, T13N, R19W.

The application will be subject to the following conditions to meet the legal availability and adverse effect criteria:

1. THE APPROPRIATOR'S USE OF WATER UNDER THIS PERMIT IS CONDITIONED UPON THE 12.7 AC-FT OF MITIGATION VOLUME REQUIRED TO OFFSET ADVERSE EFFECTS FROM NET DEPLETION TO THE CLARK FORK RIVER. DIVERSION UNDER THIS PERMIT MAY NOT COMMENCE UNTIL THE MITIGATION PLAN AS SPECIFICALLY DESCRIBED AND APPROVED THROUGH CHANGE AUTHORIZATION 76M 30161876 IS LEGALLY IMPLEMENTED. DIVERSION UNDER THIS PERMIT MUST STOP IF MITIGATION AS HEREIN REQUIRED IN AMOUNT, LOCATION, AND DURATION CEASES.
2. WATER MEASUREMENT-INLINE FLOW METER REQUIRED: THE APPROPRIATOR SHALL INSTALL A DEPARTMENT APPROVED IN-LINE FLOW METER AT A POINT IN THE DELIVERY LINE APPROVED BY THE DEPARTMENT. WATER MUST NOT BE DIVERTED UNTIL THE REQUIRED MEASURING DEVICE IS IN PLACE AND OPERATING. ON A FORM PROVIDED BY THE DEPARTMENT, THE APPROPRIATOR SHALL KEEP A WRITTEN MONTHLY RECORD OF THE FLOW RATE AND VOLUME OF ALL WATER DIVERTED, INCLUDING THE PERIOD OF TIME. RECORDS SHALL BE SUBMITTED BY NOVEMBER 30 OF EACH YEAR AND UPON REQUEST AT OTHER TIMES DURING THE YEAR. IN THE EVENT THAT AUTHORIZED FLOW RATES

AND/OR VOLUMES HAVE BEEN EXCEEDED DURING PERFECTION OF THE CHANGE AUTHORIZATION OR THE APPROPRIATOR FAILS TO SUBMIT ANNUAL REPORTS, THE DEPARTMENT MAY CONTINUE TO REQUIRE ANNUAL SUBMISSIONS OF MONTHLY FLOW RATE AND VOLUME RECORDS. FAILURE TO SUBMIT REPORTS MAY BE CAUSE FOR REVOCATION OF A PERMIT OR CHANGE. THE RECORDS MUST BE SENT TO THE MISSOULA WATER RESOURCES REGIONAL OFFICE. THE APPROPRIATOR SHALL MAINTAIN THE MEASURING DEVICE SO IT ALWAYS OPERATES PROPERLY AND MEASURES FLOW RATE AND VOLUME ACCURATELY.

Diversion under this Beneficial Water Use Permit No. 76M 30151075 may not commence until the mitigation plan described in this decision is legally implemented. Diversion under Beneficial Water Use Permit No. 76M 30151075 must cease if the mitigation plan as herein required in amount, location and duration ceases in whole or in part.

The area that will be depleted and requires mitigation is the Bitterroot River downstream of Buckhouse Bridge in Section 1, R12N, T20W. The appropriator will mitigate their depletions to the Bitterroot River using water made available in Change Application 76H 30161876. This change proposes to retire 7 acres of lawn and garden irrigated under Provisional Permit 76H 4927-00 at Fort Missoula Regional Park. This retirement will result in historically consumed water being left in the groundwater aquifer to mitigate depletions to the Bitterroot River by reducing pre-stream capture.

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 21st day of September, 2026.

Jim Nave, Manager
Missoula 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 21st day of September, 2026, by first class United States mail.

MISSOULA COUNTY FAIRGROUNDS
200 W BROADWAY ST
MISSOULA, MT 59802-4216

ATTN: JULIE MERRITT
WGM GROUP
1111 E BROADWAY ST
MISSOULA, MT 59802-4909

Benjamin Thomas

Missoula Regional Office

(406) 721-4284