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

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APPLICATION FOR BENEFICIAL WATER USE PERMIT NO. 76M 30164989 BY GRASS VALLEY GARDENS LLC	)))	**PRELIMINARY DETERMINATION TO GRANT PERMIT**

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On December 9, 2024, Grass Valley Gardens LLC (Applicant) submitted Application for Beneficial Water Use Permit No. 76M 30164989 to the Missoula Regional Office of the Department of Natural Resources and Conservation (Department or DNRC) for 600 gallons per minute (GPM), or 1.34 CFS, and 155.94 acre-feet (AF) from groundwater for commercial, multiple domestic, irrigation and lawn and garden uses. The Department published receipt of the application on its website on December 16, 2024. The application was determined to be correct and complete as of January 23, 2025. The Applicant designated that the technical analyses for this application would be completed by the Department. The Applicant's consultant (WGM Group) submitted an amendment on February 11, 2025, resulting in a reduced proposed diverted volume of 155.94 AF. An Environmental Assessment for this application was completed on 4/8/2025. The Draft Preliminary Determination to Grant was sent to the Applicant on April 28, 2025. The Department provided notice of opportunity to provide public comments to this application per § 85-2-307(4), MCA on May 22, 2025. The Department received 9 public comments, and this updated Preliminary Determination considers those public comments.

INFORMATION

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

Application as filed:

- Application for Beneficial Water Use Permit, Form 600
- Addenda
    - Technical Analysis Addendum, Form 600-TAA
    - Aquifer Testing Addendum, Form 600-ATA
    - Mitigation Purpose Addendum, Form 600-MIT
- Attachments:
    - Aquifer Test Data Form (No 633), CD included

- Variance Request, Form 653
- Application Narrative
- Ownership & Possessory Interest Documentation of the property at the proposed place of use and points of diversion
- Water Share Purchase Agreement between Grass Valley French Ditch Co and Grass Valley Holdings LLC, dated February 23, 2024
- Statement of Claim 76M 110493-00 Abstract (Grass Valley French Ditch Mitigation for Marketing/Aquifer Recharge water right)
- Grass Valley French Ditch Co Meeting Minutes, dated February 23, 2024
- Grass Valley French Ditch Co Share Certificate, dated September 30, 2024
- Mitigation & Marketing for Mitigation Reporting Form, regarding the sale of Grass Valley French Ditch Co Marketing for Mitigation shares under water right 76M 110493-00
- SR Series Submersible Pump Specs
- Well Logs, GWIC IDs 326475, 328213, 333352, 330384, 332088, 71039

- Maps:
  - Water System Diagram, dated 11/13/2024
  - Aquifer Testing Addendum Map, dated 10/15/2024
  - Technical Analysis Addendum Map with GWIC IDs, dated 11/6/2024
  - Proposed Point of Diversion & Place of Use Map, dated 12/6/2024

<u>Information Received after Application Filed</u>

- Amended Form 653 from WGM Group (Consultant), dated January 21, 2025
- Amendment/clarification email from Consultant dated February 11, 2025, regarding diverted volume, Net Irrigation Requirement (NIR), Commercial and irrigation use consumption rate and total requested flow rate
- 600 MIT attachment/ plan description, received February 11, 2025

<u>Information within the Department's Possession/Knowledge</u>

- Letter granting variance from aquifer testing requirements from the Department, dated January 23, 2025
- Department Technical Analyses Report, Part A
- Department Technical Analyses Report, Part B

- Data from the mean monthly flow estimates derived from USGS gage for the Clark Fork below Missoula (Gage # 12353000)
- DNRC surface water and groundwater right records
- Environmental Assessment dated April 8, 2025
- 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.
    - Department Technical Memorandum, dated November 1, 2019, Physical Availability of Surface Water with Gage Data
    - Department Memorandum, dated March 23, 2010, DNRC Consumptive Use Methodology – Turf Grass (New Projects)
    - Memorandum dated June 9, 2008, from John E. Tubbs, Administrator, regarding Permitting in the Open Clark Fork and Flathead Basins
    - Memorandum dated May 1, 2009, from John E. Tubbs, Administrator, regarding Permitting in the Open Clark Fork and Flathead Basins; Follow up to June 9, 2008 Memorandum.

Public Comments Received

- The Department received and considered the following comments for the Preliminary Determination. The Department has considered the public comments and has updated the criteria analysis for physical availability and adverse effect. The preliminary determination decision is to Grant. The comments are addressed in the respective criteria sections. The public comments received can be found in the administrative file.
    - Two public comments were received regarding physical availability and two issues were raised. These issues generally expressed concern that the 72-hour pump test was not sufficient to validate the water flow in the area and that there is not enough water in the groundwater aquifer for the Applicant's proposed appropriation.
    - Nine public comments regarding the adverse effect criterion were considered by the Department. Of those considered comments, seven issues were raised, generally calling into question the methodology used to evaluate adverse effect, expressing concern that the draft Preliminary Determination does not address adverse effect to their well, questioning if the Applicant would adhere to a water call and that such calls may result in the burden of lawsuits and legal fees, seeking clarification on the location

and extent of the groundwater aquifer/remaining groundwater, expressing concern that they have previously experienced water issues and that the Applicant's diversions would adversely affect their property rights, suggesting that additional groundwater data be collected to analyze adverse effect, and that many existing wells in the area are without a recorded water right and need to be grandfathered or protected from newer appropriations such as the Applicants.

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 groundwater from two wells drilled in the Missoula Valley aquifer for commercial, multiple domestic, lawn and garden and irrigation purposes. The primary production well, referred to as GVG4 (GWIC No. 332088), is 340 feet deep with a static water level at 103 feet, while the secondary production well, referred to as GVG3 (GWIC No. 330384), is 400 feet deep with a static water level at 104 feet. Both points of diversion are in the NESWSE of Section 20, T14N, Rge. 20W, Missoula County. Diversions will occur from January 1 to December 31 for commercial and in-house multiple domestic purposes, and from April 15 to

October 15 for lawn and garden and community garden irrigation purposes. Water will be diverted at a maximum rate of 1.34 CFS (approx. 600 GPM), with a total diverted volume of 155.94 AF. Of this requested volume, 4.39 AF is for commercial, 124.34 AF is for multiple domestic, and 27.22 AF is for irrigation purposes. There will be seven commercial lots with a place of use generally located in the SE of Sec. 20, T14N, R20W. The domestic use includes a total of 444 housing units, situated on 217 lots. There will be 262 multi-family units on 35 lots and 182 single family units each with their own lot (182 lots). The multiple domestic place of use is located across the SE and SW of Sec. 20, T14N, R20W, Missoula County. The development will also incorporate an additional utility lot (for a total of 218 lots), but no water use is proposed on this lot. The lawn and garden use is requested on a total of 11.20 acres within 224 of the domestic lots, with 3.75 AC in the NWSE, 0.05 AC in the NWSESE, 0.95 AC in the N2SWSE, 5.20 AC in the NESW, 0.90 AC in the E2NWSW and 0.35 AC in the NESESW, all in Sec. 20, T14N, R20W, Missoula County. The community garden space consists of 3.20 AC in the N2SWSE, Sec. 20, T14N, R20W, Missoula County. Figure 1 below shows the proposed points of diversion and places of use.

2. The proposed wells are located approximately 2.7 miles west of the Clark Fork River, which is understood to be the potentially affected surface water source for the subject appropriation. These wells each consist of an 8-inch casing and will serve as the Public Water System (PWS) for the development.

3. Total consumptive use for the proposal is 37.37 AF. The consumed volume for the proposed period of use from January 1 to December 31 is 12.88 AF (0.44 AF for commercial, 5.10 AF for single family domestic, and 7.34 AF for multiple domestic uses). Consumed volume for the proposed period of use from April 15 to October 15 is 24.49 AF (19.05 AF for lawn and garden and 5.44 AF for community garden irrigation purposes).

4. The applicant proposes to fully mitigate the consumed volume through purchase of marketing for mitigation shares from Grass Valley French Ditch (GVFD). The mitigation water is authorized under GVFD Statement of Claim 76M 110493-00, which has a priority date of November 25, 1901. The applicant has completed the purchase of 58 shares (with 1 share equal to 1.13 AF of consumed volume), for a total of 65.54 AF. The entire consumed volume by this proposed appropriation will be offset with the purchased mitigation volume of 65.94 AF.

5. The Applicant is held to the following water measurement condition to meet the adverse effect criterion:

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 UNTIL THE PROVISIONAL PERMIT IS PERFECTED AND THE DEPARTMENT RECEIVES A PROJECT COMPLETION NOTICE. IN THE EVENT THAT PERMITTED FLOW RATES AND/OR VOLUMES HAVE BEEN EXCEEDED DURING PERFECTION OF THE PROVISIONAL PERMIT 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.

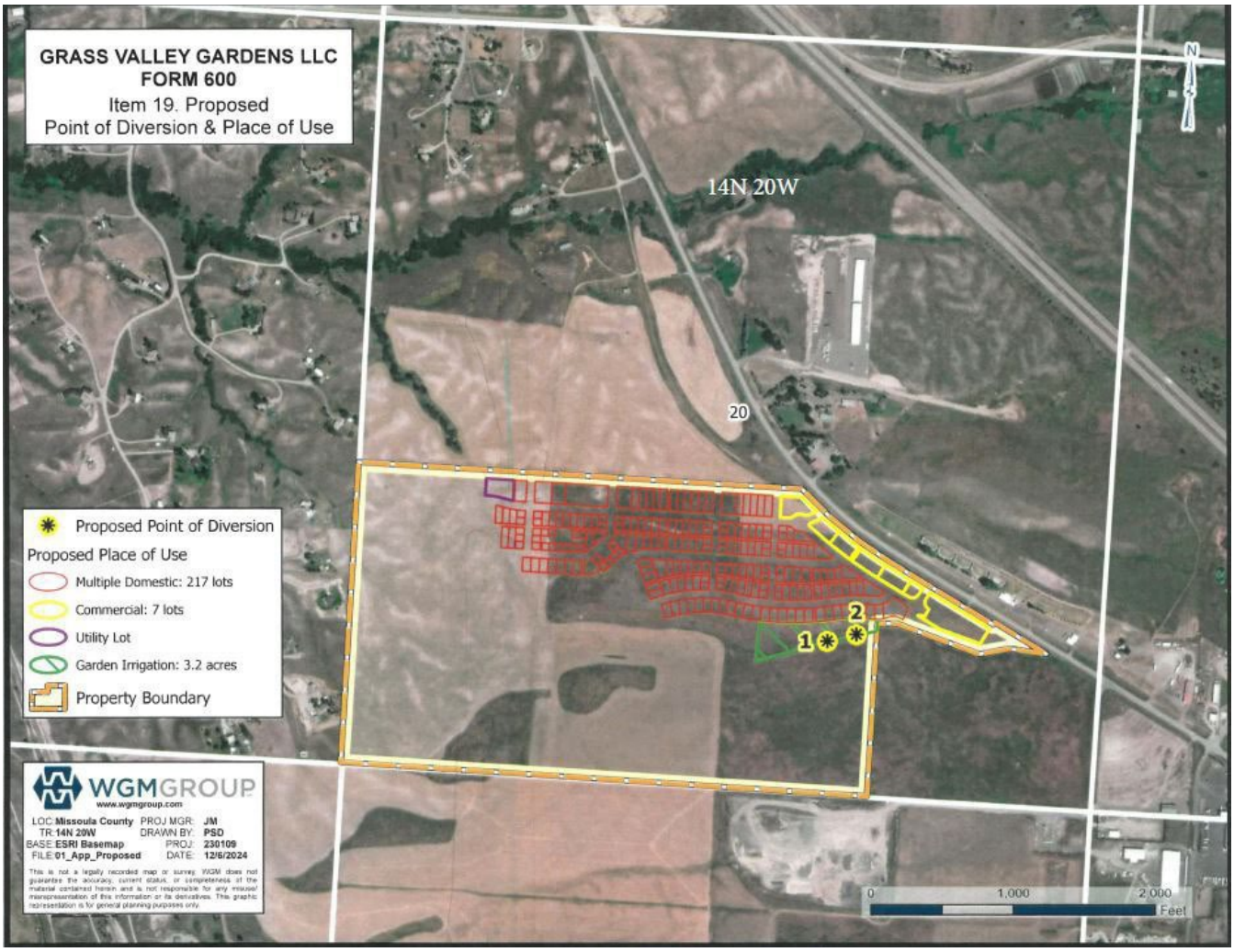

Figure 1 – Beneficial Use Permit No. 76M 30164989 Proposal

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

GENERAL CONCLUSIONS OF LAW

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

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

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

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

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

> … the department shall issue a permit if the Applicant proves by a preponderance of evidence that the following criteria are met:
> (a) (I) there is water physically available at the proposed point of diversion in the amount that the Applicant seeks to appropriate; and
> (ii) water can reasonably be considered legally available during the period in which the Applicant seeks to appropriate, in the amount requested, based on the records of the department and other evidence provided to the department. Legal availability is determined using an analysis involving the following factors:
> (A) identification of physical water availability;
> (B) identification of existing legal demands on the source of supply throughout the area of potential impact by the proposed use; and
> (C) analysis of the evidence on physical water availability and the existing legal demands, including but not limited to a comparison of the physical water supply at the proposed point of diversion with the existing legal demands on the supply of water.
> (b) the water rights of a prior appropriator under an existing water right, a certificate, a permit, or a state water reservation will not be adversely affected. In this subsection (1)(b), adverse effect must be determined based on a consideration of an Applicant's plan for the exercise of the permit that demonstrates that the Applicant's use of the water will be controlled so the water right of a prior appropriator will be satisfied;

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

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

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

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

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

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

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

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

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

(1) (a) The department may issue a permit for less than the amount of water requested, but may not issue a permit for more water than is requested or than can be beneficially used without waste for the purpose stated in the application. The department may require modification of plans and specifications for the appropriation

> or related diversion or construction. The department may issue a permit subject to terms, conditions, restrictions, and limitations it considers necessary to satisfy the criteria listed in 85-2-311 and subject to subsection (1)(b), and it may issue temporary or seasonal permits. A permit must be issued subject to existing rights and any final determination of those rights made under this chapter.

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

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

> Nothing in that section [85-2-313], however, relieves an Applicant of his burden to meet the statutory requirements of § 85-2-311, MCA, before DNRC may issue that provisional permit. Instead of resolving doubts in favor of appropriation, the Montana Water Use Act requires an Applicant to make explicit statutory showings that there are unappropriated waters in the source of supply, that the water rights of a prior appropriator will not be adversely affected, and that the proposed use will not unreasonably interfere with a planned use for which water has been reserved.

See also, Wesmont Developers v. DNRC, CDV-2009-823, First Judicial District Court, *Memorandum and Order* (2011). The Supreme Court likewise explained that:

> .... unambiguous language of the legislature promotes the understanding that the Water Use Act was designed to protect senior water rights holders from encroachment by junior appropriators adversely affecting those senior rights.

Montana Power Co., 211 Mont. at 97-98, 685 P.2d at 340; *see also* Mont. Const. art. IX §3(1).

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

boundaries of this state except in accordance with this § 85-2-311, MCA. Section 85-2-311(6), MCA.

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

PHYSICAL AVAILABILITY

FINDINGS OF FACT

12. To address the aquifer testing requirements of Administrative Rules of Montana (ARM) 36.12.121, the Applicant submitted Form 633 – Aquifer Test Data Form and Form 653 – Aquifer Variance Request on behalf of ARM 36.12.121 (3)(e)(i), 36.12.121(3)(e)(ii) and 36.12.121 (3)(g) on October 15, 2024. In conjunction with the submittal of Form 653, the Applicant was required to submit Form 600 - ATA Aquifer Testing Addendum in order the Department to begin the 30- day variance review. The Department received completed aquifer testing addendum and variance forms as part of the permit application documents on December 9, 2024.

13. The Consultant conducted the first pump test on the GVG3 well, with an abbreviated duration of 4 hours and 15 minutes. The Applicant requested variances to aquifer testing requirement of a minimum eight-hour drawdown and yield test on all new production wells (ARM 36.12.121)(3)(e)(i) and (e)(ii)) due to several reasons including; difficulties experienced with some of the pumping equipment, the desired flow rate not being achieved during the pump test, and that another well would need to be drilled since no drawdown was detected in the observation wells during the test.

14. A complete 72-hour test was performed on the main production well (GVG4), and the Department used the data from this test to estimate the properties of the source aquifer. Water level data was collected from GVG4 and four monitoring wells during this pump test (including the GVG3 well). Drawdown was observed in all monitoring wells and this aquifer test showed that both the GVG4 and GVG3 wells were hydraulically connected to one another. Due to timeline restrictions with the pump contractor and well driller, the Applicant requested a variance to the aquifer testing requirement that background water levels in the production and observation wells must be monitored for at least 48 hours prior to the beginning of the aquifer test (ARM 36.12.121(3)(g)). Collecting the required background data would have added significant costs to the Applicant. Recovery data was collected on the GVG4 main production well for 51 hours after the pump was shut off and the water level returned to approximately 99% of the static water level

after 102 minutes. Recovery data was monitored for 136 hours on the GVG3 observation well during the GVG4 pump test, and the static water level returned to 95% in approximately four minutes.

15. Department Groundwater Hydrologist Dave Parmelee reviewed the requested variances and aquifer testing data and considered the variances appropriate. The Department also recommended an additional variance from ARM 36.12.121(3)(d). An amended Form 653 to include ARM 36.12.121(3)(d) was received by the Department on January 21, 2025, and the Department granted all variances to the aquifer testing requirements on January 23, 2025.

16. The Department groundwater hydrologist reviewed the aquifer test report, aquifer testing requirements and application materials. He presented his review to the Missoula Regional Office in Groundwater Permit Technical Analysis Report - Part A, dated March 8, 2025.

17. The Department evaluated physical groundwater availability by calculating groundwater flux through a Zone of Influence (ZOI) determined by a 0.01-foot drawdown contour surrounding the points of diversion. The 0.01-foot drawdown contour, or ZOI was calculated using the Neuman (1974) solution with values of transmissivity (T) of 2,594 ft^2/day, storativity (S) of 5.0 x 10^{-4} and specific yield (S_y) of 0.11. With constant pumping rates of 60.3 GPM for GVG4 and 36.3 GPM for GVG3 throughout the period of diversion, the ZOI has a modeled distance of 10,450 feet from the center of the proposed production wells. The modeled drawdown from pumping the proposed wells at the requested diverted volume of 155.94 AF is the largest at the end of July during the fifth year of simulated pumping.

18. The groundwater flux through the ZOI is equal to 3,634 AF/YR. The Applicant is requesting a total diverted volume of 155.94 AF/YR.

19. The Department finds groundwater to be physically available at the requested annual diverted volume of 155.94 AF.

ISSUES RAISED BY PUBLIC COMMENTS AND DEPARTMENT'S RESPONSES

20. Two public comments regarding groundwater physical availability were considered by the Department. These comments raised two issues.

21. Issue 1: One comment expressed concern that a "*72-hour pump test done in Helena for this area is not sufficient to validate water flow in this area",* and that water in the area fluctuates. (Commenter: Titus).

22. Response 1: As Required by ARM 36.12.121(3)(e), the Applicant conducted a 72-hour

aquifer test on one of the proposed wells and a short-duration drawdown and yield test on the second proposed well. The 72-hour aquifer test completed in July 2024 was adequate and used to derive aquifer properties to be used in technical analyses. These aquifer properties were found to be reasonable when compared to aquifer properties calculated from existing, nearby aquifer test data. Groundwater physical availability is reported as flux, which is the volume of water passing through an area in a year. Flux is a function of the transmissivity of the aquifer, groundwater gradient, and width of the zone of influence (0.01-ft drawdown contour) at the end of one-year using the Applicant's proposed period of diversion and requested volume. Flux was calculated to be 3,634 AF per year and exceeded the sum of the legal demands (volume) of existing groundwater rights and the Applicant's requested volume.

23. Issue 2: Two comments expressed concern that there is insufficient water available in the groundwater aquifer for the proposed appropriation, and that existing wells and properties in the area would be negatively impacted due to reduced water availability. (Commenters: Titus and Lake).

24. Response 2: Pursuant to ARM 36.12.1703, physical availability of groundwater is determined by conducting a groundwater analysis and aquifer test pursuant to ARM 36.12.121. The Department followed standard practice and administrative rule to analyze the physical availability of groundwater in the source aquifer. Technical Analysis – Part A, as well as FOF No. 17 discuss the physical availability of groundwater in the source aquifer. The Department's analysis of physical availability showed that there was 3,634 AF/YR of groundwater flux through the ZOI. For the concerns of impacts to wells of existing water rights, this issue is considered in the evaluation of adverse effect criterion, not the physical availability criterion. The comment is outside the scope of the physical availability analysis for this application and does not impact the Department's evaluation of the physical availability criterion.

25. The public comments regarding the physical availability criterion have been addressed in FOF 21-24**.** Considering the public comments and the original analysis conducted, the Department finds that groundwater is physically available at the proposed points of diversion in the amount that the Applicant seeks to appropriate.

LEGAL AVAILABILITY

FINDINGS OF FACT

Legal Availability of Groundwater

26. Legal availability is a comparison of physical availability to existing legal demands within the Zone

of Influence (ZOI). The ZOI is the area surrounding the proposed points of diversion in which existing wells would experience drawdown of 0.01 feet or more. The Department defined the ZOI to extend 10,450 feet from the Applicant's wells. The Department considers all active groundwater rights within that area. Within the ZOI, there are a total of 457 active groundwater rights on record with the Department that were evaluated for legal demand (reference Appendix A in Groundwater Permit Technical Analysis Report- Part A).

27. The area of proposed water use is not within a controlled groundwater area. Currently, under § 85-2-306, MCA, the maximum volume allowed under a Ground Water Certificate (Certificate) outside of a controlled groundwater area is 10 AF. For those Certificates in Appendix A of the Technical Analysis Report -Part A without specific volumes, the Department assigned a volume of 10 AF. For those Statement of Claims in Appendix A that did not have a volume assigned, the Department allocated the volume claimed on the original application, if it was reasonable to the Department's standard for that purpose found in ARM 36.12.115. The only water right types in Appendix A without defined volumes were Certificates and Statement of Claims. Those groundwater rights within the ZOI have a total annual appropriation of 3,078.31 AF/YR. Subtracting the legal demands of 3,078.31 AF from the calculated groundwater flux of 3,634 AF/YR leaves 555.7 AF (3,634AF/YR – 3,078.31 AF/YR) of groundwater legally available for the proposed appropriation of 1.34 CFS and 155.94 AF.

28. The Department finds groundwater to be legally available at the requested annual diverted volume of 155.94 AF.

Legal Availability of Surface Water

29. The Department determined in its technical analysis that groundwater proposed to be appropriated by the Applicant is hydraulically connected to the Clark Fork River and the proposed GVG3 and GVG4 wells are located approximately 2.7 miles from the Clark Fork River. The amount of water depleted from the Clark Fork River under this proposal is equal to the calculated 37.4 AF of consumed volume (24.5 AF for irrigation and 12.9 AF for commercial and multiple domestic). Depletion to the Clark Fork River from the proposed groundwater pumping primarily occurs through propagation of drawdown through the confining layer over the groundwater aquifer to the Clark Fork River. Due to this confining layer, depletion effects are diminished, resulting in constant year-round surface water depletions. Net depletions resulting from the proposed appropriation are modeled to occur at a consistent rate of 23.2 GPM and range from a low of 2.9 AF to a high of 3.2 AF depending on the number of days each month. Based on this information, the Clark Fork River will experience depletions starting at the eastern half of Section 26, Township

14N, Range 21 West, Missoula County.

30. The Clark Fork River will be depleted year-round by the proposed groundwater appropriation at the respective constant pumping rates for GVG4 and GVG3. Depletions, as assessed by the Department are modeled to occur simultaneously with pumping and coincide with consumption. Those depletions throughout the year to the Clark Fork River resulting from the proposed pumping are modeled at a constant 23.2 GPM, and a range of 2.9 AF to 3.2 AF per month.

31. Physical availability in the locally affected reach of the Clark Fork River was assessed using USGS Gage #12353000 located on the Clark Fork River below Missoula. This gage is appropriate to use for physical availability in the depleted reach because it is located approximately 7.3 miles upstream. The table below represents the median of the mean monthly flow rates and volumes used to quantify physical availability of surface water at the location of depletion:

Month	Median of the Mean Monthly Flow at Gage 12353000 (CFS)	Median of the Mean Monthly Volume at Gage 12353000 (AF)
Jan	2,064	126,688
Feb	2,255	125,017
Mar	2,951	181,132
Apr	5,893	350,044
May	14,540	892,465
Jun	15,860	942,084
Jul	5,205	319,483
Aug	2,124	130,371
Sep	2,110	125,334
Oct	2,545	156,212
Nov	2,615	155,331
Dec	2,279	139,885

Table 1 – Clark Fork River Below Missoula – USGS Gage # 12353000

32. To assess if water is physically and legally available in the locally depleted reach of the Clark Fork River in excess of modeled depletions, the Department conducted a legal availability analysis of the Clark Fork River from USGS Gage #12353000 “Clark Fork below Missoula” downstream to

the western end of the Missoula Valley (near Huson, MT in Section 34, Township 15N, Range 22W). This reach of the Clark Fork fully encompasses the location where depletions will occur from the proposed groundwater appropriation.

33. The Department's legal availability analysis of surface water uses the median of the mean monthly streamflow measurements collected at USGS gaging station 12353000 to determine the flow rate and volume physically available. Then those figures are compared to active DNRC water right records for water rights with diversion on the Clark Fork River through the depleted reach. Table 2 below lists the flow rate and volume physically available at UGSG Gage #12353000 and legal demands on the river in the locally depleted reach (between the gage and the western end of the Missoula Valley near Huson, MT).

Month	Physical Availability (CFS) at Effected Reach	Physical Availability (AF) at Effective Reach	Existing Legal Demands (CFS) in Effected Reach	Existing Legal Demands (AF) Effective Reach to Huson	Physical Availability - Legal Demands (CFS)	Physical Availability - Legal Demands (AF)
Jan	2,063.92	126683.41	1.62	99.58	2,062.30	126583.83
Feb	2,254.92	125012.76	1.62	89.95	2,253.30	124922.82
Mar	2,950.70	181113.79	1.62	99.58	2,949.07	181014.21
Apr	5,715.91	339524.92	7.72	458.74	5,708.18	339066.18
May	14,362.91	881595.27	16.66	1022.80	14,346.24	880572.47
Jun	15,682.91	931564.72	19.23	1142.48	15,663.67	930422.24
Jul	5,027.91	308612.97	19.23	1180.56	5,008.67	307432.41
Aug	1,947.13	119514.87	19.23	1180.56	1,927.90	118334.31
Sep	1,933.13	114827.95	19.23	1142.48	1,913.90	113685.47
Oct	2,368.60	145384.92	7.00	429.40	2,361.61	144955.51
Nov	2,614.84	155321.50	1.62	96.37	2,613.22	155225.12
Dec	2,278.84	139875.20	1.62	99.58	2,277.22	139775.61

Table 2 – Clark Fork River Legal Availability in Locally Depleted Reach

34. The Department finds water in the locally depleted reach of the Clark Fork River is legally available in every month of the year in amounts exceeding the calculated annual stream depletion of 23.2 GPM up to an annual volume of 37.4 AF.

35. The Department must also consider downstream hydropower water rights owned by Avista

at Noxon Dam per the final order issued for Application for Beneficial Water Permit No. 76N 30010429 on December 21, 2006. In the final order, the Department found that surface water in the Clark Fork River was not legally available at Noxon Dam. For this subject application, the Department conducted a legal availability analysis of the Clark Fork River at Noxon Dam. To evaluate the legal availability of the lower reach of the Clark Fork River at Noxon Dam, the existing demands of Avista Corporation (Avista) hydropower water rights were subtracted from the median monthly flow of the USGS gage at the Clark Fork River below Noxon Rapids Dam near Noxon (Gage # 12391400). Table 3 below lists the median of the mean monthly flow rates to quantify legal availability of the Clark Fork River near Noxon Rapids Dam. The analysis shows there is not sufficient water in the Clark Fork River to satisfy Avasa's legal demands in any month of the year.

Month	Physical Availability at Gage 12391400 (CFS)	Avista Water Rights Legal Demands (CFS)	Legal Availability at Gage 12391400 (CFS)
January	13,905	50,000	-36,095
February	12,890	50,000	-37,110
March	14,785	50,000	-35,215
April	21,160	50,000	-28,840
May	38,030	50,000	-11,970
June	47,320	50,000	-2,680
July	22,280	50,000	-27,720
August	10,720	50,000	-39,280
September	10,166	50,000	-39,834
October	11,240	50,000	-38,760
November	12,605	50,000	-37,395
December	13,335	50,000	-36,665

Table 3 - Legal Availability of Clark Fork River Near Noxon Rapids Dam

36. To address legal availability in the lower Clark Fork River at Noxon Dam, the Applicant has purchased marketing for mitigation shares from the GVFD. GVFD was authorized a change in water use from irrigation to marketing for mitigation in Application to Change a Water Right No. 76M 30052086. The Preliminary Determination to Grant Change Application No. 76M 30052086 found that GVFD's mitigation plan provided effective year-round mitigation in the Clark Fork River for downstream hydropower rights at Noxon Dam. The Applicant provided proof of purchase of

mitigation shares from GVFD in excess of the calculated depletion to the Clark Fork River of 23.2 GPM up to 37.4 AF annually.

37. The Department finds that the Applicant has addressed legal availability of surface water by providing a mitigation plan which proposes to mitigate the depletions to surface water in full. This mitigation plan is fully addressed under "Adverse Effect" below.

ADVERSE EFFECT

FINDINGS OF FACT

Groundwater Adverse Effects

38. The Applicant did not provide a breakdown of monthly pumping rate, so the Department divided the requested annual volume by the duration of the period of diversion to determine the total pumping rate. Then the Department apportioned the total pumping rate to each production well based on their respective percentage of the total requested flow rate. The Department's groundwater hydrologist evaluated drawdown in nearby wells using the Neuman (1972) solution, a Transmissivity (T) value of 2,594 ft^2/day and a Specific Yield ($S_{y)}$= 0.1. Drawdown was modeled at the end of July, the month with the highest pumping rate, in the fifth year of pumping. Drawdown greater than or equal to one foot as modeled to occur within a 4,270 ft radius, centered on the proposed production wells. Based on these figures, there are 43 groundwater rights predicted to experience drawdown greater than or equal to one foot. The Department's hydrologist found that all groundwater rights modeled to experience one foot or greater drawdown will have an adequate remaining water column available within the well casing to prevent adverse effect (see Groundwater Permit Technical Analyses Report – Part A, Appendix B).

39. The Applicant has full control over their diversions. In the event a senior water user makes a valid call for water, the Applicant can curtail diversions for non-potable and domestic water uses since their diversions use submersible electric well pumps. A 500,000-gallon storage tank will also be incorporated into the system, in part, to help provide emergency flows if needed.

40. The Department finds that the proposed use of groundwater will not adversely affect other groundwater appropriators.

Surface Water Adverse Effects

41. The groundwater proposed to be appropriated by the Applicant is hydraulically connected to the Clark Fork River and the proposed consumptive volume is considered to deplete the Clark Fork River every month of the year. The Department calculated the consumptive use for each

month of the proposed period of appropriation. The total consumptive use associated with the proposed appropriation equals 37.4 AF, including 12.44 AF for domestic, 0.44 AF for commercial, 19.05 for lawn and garden irrigation and 5.44 AF for community garden irrigation.

42. The Department's analysis shows that surface water in the Clark Fork within the locally depleted reach is physically and legally available in excess of the predicted depletion throughout the year, see Table 2 in Finding of Fact No. 27. When comparing the physical availability and legal demand on the Clark Fork River within the locally depleted reach, the Department demonstrated that water is always available for all appropriations in the Clark Fork River within this area, and the additional constant depletion rate and volume of 23.2 GPM and up to 37.4 AF will not prevent surface water users on the Clark Fork River in the local reach of stream where depletions occur from exercising their water rights to their full amounts.

43. The Department must also consider downstream hydropower water rights owned by Avista at Noxon Dam. The Department cited the June 9, 2008, and May 1, 2009 Tubbs Memorandums regarding water right permitting in the lower Clark Fork basin. This memorandum states that, for groundwater sources in Basin 76M, "when net depletion to surface water sources is calculated to be greater than 35 GPM or greater than 10 AF per year, the Department must consider the Thompson River Lumber Company as precedent".

44. The Department analyzed adverse effects to Avista's senior hydropower water rights by assessing the availability of surface water on the Clark Fork using USGS Gage No. 12391400 "Clark Fork Below Noxon Rapids Dam near Noxon, MT". Avista's legal demands for hydropower were subtracted from the median monthly flow of the gage to show water availability at Noxon Dam. This data, which is included in the Technical Analysis – Part B and discussed in Finding of Fact 29-30 above, showed that there was not sufficient water legally available to satisfy Avista's Clark Fork River water rights in any month of the year.

45. To offset those depletions to the Clark Fork River the Applicant purchased 58 marketing for mitigation shares from GVFD. Each share is equivalent to 1.13 AF of historically consumed water changed to mitigation in Application to Change a Water Right 76M 30052087, for a total of 65.54 AF. During processing of Application to Change a Water Right 76M 30052087, the Department found that GVFD's proposed mitigation plan provided effective mitigation for Avista's downstream hydropower water rights. This mitigation provides an excess volume of 28.14 AF beyond the volume of 37.4 AF proposed to be consumed by this groundwater appropriation.

46. Pursuant to the Tubbs (2008 and 2009) memorandums, mitigation to surface water depletions is an acceptable method of preventing adverse effects to senior surface water rights

associated with new water uses.

47. The Department finds that the Applicant's proposed mitigation is sufficient to offset the proposed groundwater appropriation's depletions to the Clark Fork River and there will be no adverse effects to those surface water hydropower rights owned by Avista.

48. To ensure that the proposed flow rate and volume of water are not exceeded, and that the amount of mitigation water provided to the Clark Fork River is adequate to offset adverse effect, the Applicant will be required to adhere to the following water measurement conditions:

DIVERSION UNDER THIS PERMIT MAY NOT COMMENCE UNTIL THE MITIGATION OR AQUIFER RECHARGE PLAN DESCRIBED IN THIS DECISION IS LEGALLY IMPLEMENTED. DIVERSION UNDER THIS PERMIT MUST STOP IF THE MITIGATION OR AQUIFER RECHARGE PLAN AS HEREIN REQUIRED IN AMOUNT, LOCATION AND DURATION CEASES IN WHOLE OR IN PART.

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 UNTIL THE PROVISIONAL PERMIT IS PERFECTED AND THE DEPARTMENT RECEIVES A PROJECT COMPLETION NOTICE. IN THE EVENT THAT PERMITTED FLOW RATES AND/OR VOLUMES HAVE BEEN EXCEEDED DURING PERFECTION OF THE PROVISIONAL PERMIT 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.

49. The Department finds that with the Applicant's purchase of mitigation water, the proposed

diverted volume of 155.94 AF, total consumed volume of 37.4 AF and total flow rate of 1.34 CFS will not have an adverse effect on existing surface water users.

ISSUES RAISED BY PUBLIC COMMENTS AND DEPARTMENT'S RESPONSES

50. The Department considered 9 comments regarding adverse effect. These comments raised seven issues.

51. Issue 1: Six comments expressed concerns regarding the methodology to evaluate adverse effect, citing that it was flawed or inadequate. (Commenters: Lester, Remington, Dorsett, Hurrelbrink, Bidlake, Stewart).

52. Response 1: Pursuant to ARM 36.12.1706 (3), the Department evaluates the adverse effect criterion by evaluating how water levels in wells of prior rights could be lowered by the proposed appropriation (with the data available to the Department), the rate, timing, and location where water flow could be reduced in hydraulically connected surface waters, how the Applicant will comply with a valid call for water, and how the proposed appropriation can be regulated in times of water shortage so the water rights of prior appropriators will not be adversely affected. Through the abovementioned analyses, the Department found that the Applicant has proven the adverse effect criterion by a preponderance of the evidence. Additionally, none of the commenters' water rights were within the 1-foot drawdown contour.

53. Issue 2: One commenter cited that the draft PD does not address potential adverse effects to their well. (Commenter: Remington).

54. Response 2: The Department determined the area of potential adverse effect (1-foot drawdown contour) using the following inputs: estimated aquifer properties, distances to hydrologic boundaries and proposed pump schedule for five years. For subject permit application 76M 30164989, the Department identified 43 groundwater rights that may experience at least one foot of drawdown after five years. These water rights are listed in the Groundwater Permit Technical Analyses Report – Part A, Appendix B: Groundwater Rights Within the 1-foot Drawdown Contour. The well associated with Water Right No. 76M 30163097, referenced by commenter Remington, was predicted to have 0.67 ft of drawdown after five years due to the proposed diversion. Because this is below the Department's one-foot threshold, this water right is not included in Appendix B.

55. Issue 3: Five comments expressed concern that if their existing rights are affected, they question the likelihood that the Applicant would respond appropriately and that such actions would burden them with lawsuits and legal fees. (Commenters: Lester, Remington, Grib, Stewart,

Hebnes).

56. Response 3: The Applicant's appropriation is subject to all prior existing water rights in the source of supply. Any lawsuits or legal fees are not within the scope of the Department's jurisdiction and its analysis of the Applicant's proposal or determination of adverse effect. FOF 39 also discusses the Applicant's plan to respond to a valid call for water.

57. Issue 4: Six comments expressed a need to understand the location and extent of the underground aquifer, as well as the remaining available ground water for surrounding property owners. (Commenters: Lester, Dorsett, Grib, Bidlake, Stewart, Hebnes).

58. Response 4: The hydrogeology of the Missoula Valley is described in the Groundwater Permit Technical Analyses Report – Part A, Section 2.0 and in numerous studies published by the Montana Bureau of Mines and Geology (MBMG), several of which are listed in the references section of the Technical Analyses Report. The boundaries of the basin-fill aquifer from which the proposed wells would pump water correspond to the extent of Quaternary and Tertiary alluvial sediments in the Missoula Valley and encompass an area of approximately 105 square miles. Sources of natural recharge to the basin-fill aquifer include leakage from the Clark Fork River, mountain runoff, precipitation, and flow from underlying bedrock aquifers. Groundwater physical availability is reported as flux, which is the volume of water passing through an area in a year. Flux is a function of the transmissivity of an aquifer, the horizontal hydraulic gradient, and the width of the zone of influence (0.01-ft drawdown contour) at the end of one year using the Applicant's proposed period of diversion and requested volume. Because the characteristics of the basin-fill aquifer, including transmissivity, storativity, hydraulic gradient, and presence of confining layers, are variable throughout the valley, flux also varies. Using Department standard practices, flux through the zone of influence of the proposed diversion was calculated to be 3,634 AF per year. This exceeds the sum of existing groundwater legal demands (3,078.31 AF) and the Applicant's requested volume.

59. Issue 5: All 9 comments considered expressed concern that their property rights would be adversely affected. There were concerns that the Applicant's groundwater pumping would reduce the available groundwater and cause decreased property values. Several comments also cited prior instances of reduced water pressure, previously having to drill new wells, deepen their wells, or lower the pump. One Commenter (Remington) specifically cited that their well would be competing with the same groundwater as the Applicant. Commenters: Lester, Remington, Dorsett, Stewart, Grib, Titus, Bidlake, Stewart, Lake, Hebnes).

60. Response 5: The Department has found by a preponderance of the evidence that the

physical and legal availability criteria have been met. The adverse effect criterion is independent of the physical availability and legal availability criteria. The Department assesses the adverse effect criterion by evaluating how water levels in wells of prior water rights could be lowered by the proposed appropriation (with the data available to the Department), the rate, timing, and location where water flow could be reduced in hydraulically connected surface waters, how the Applicant will comply with a valid call for water, and how the proposed appropriation can be regulated in times of water shortage so the water rights of prior appropriators will not be adversely affected. Through the abovementioned analyses, the Department found that the Applicant has proven the adverse effect criterion by a preponderance of the evidence. Priority of an appropriation does not include the right to prevent changes by later appropriator in the condition of water occurrence such as lowering of a water table or artesian pressure if the prior appropriator can reasonably exercise their right. See Section 85-2-401(1), MCA. This issue has been further discussed in previous orders issued by the Department (see permit application 76LJ 81523-00). The Department hearing order found that "to hold that an appropriator is entitled to maintenance of a certain static water level or a shallow well barely penetrating the aquifer against any subsequent appropriators would be to allow a single appropriator or a limited number of appropriators to control an entire aquifer simply to make their own means of diversion easier and less costly. Both case law and statutes controvert such a result" (see proposal for decision issued August 26, 1994, on permit application 76LJ 81523-00).

61. Issue 6: Two comments suggested that additional groundwater data should be collected to analyze the aquifer and related adverse effect. (Commenter: Remington, Titus).

62. Response 6: Water-level data were collected at the proposed points of diversion and in nearby observation wells before, during, and after the 72-hour aquifer test, as required under ARM 36.12.121. Pre- and post-test water-level monitoring are summarized in the Groundwater Permit Technical Analyses Report – Part A, Section 3.0, and the complete datasets are available in the Applicant's submitted Form 633. Submitted 72-hour aquifer-test data showed groundwater levels were stable at the time of the test. Following pump shut-off at the completion of the 72-hour aquifer test, the Applicant monitored water levels in the production and observation wells for lengths of time ranging from 15.1 to 136.4 hours. The final static water levels (swls) measured in the production well and in observation well GWIC ID 330384, both of which experienced significant drawdown during the test, were 99.8 and 97.3% of their pre-test swls, respectively. The final swls in the other three observation wells, each of which experienced little or no drawdown during the test, were within 0.25 feet of their pre-test swls. There is no authorizing

statute or rule requiring the Department to require aquifer tests longer than 72 hours or multiple aquifer tests on a single well. The purpose of an aquifer test is to determine intrinsic properties of an aquifer, such as its transmissivity and storativity, that can be used to model the long-term effects of a proposed groundwater diversion. The Department finds the 72-hour test conducted was sufficient to derive these properties. The properties of an aquifer are essentially constant over time, and conducting a test for a greater duration, in multiple seasons, or across multiple years, is unlikely to yield results that differ beyond the uncertainty of the analyses.

63. Issue 7: One comment cited many wells in the area do not have recorded water rights, as those property owners were not aware they needed an associated water right for their well. Further, there was concern that these wells without water rights would not be able to make a call for water on the Applicant and sentiment that the unrecorded water use should be protected. (Commenter: Remington).

64. Response 7: The Department used available data in its analysis of adverse effect. Those wells without a recorded water right were not included in the legal availability analysis or the adverse effect analysis pursuant to § 85-2-311, MCA.

65. The comments regarding the adverse effect criterion have been addressed in FOF 51-64. Considering the public comments and the original analysis conducted, the Department finds that the proposed use of 600 GPM and 155.94 AF will not have an adverse effect because the amount of water requested is physically and legally available and the Applicant's plan to prevent adverse effects to existing water rights is considered adequate. Further, none of the commenter's water rights were within the 1-foot drawdown contour and the Applicant must adhere to valid calls for water by senior water users.

ADEQUATE MEANS OF DIVERSION

FINDINGS OF FACT

66. The Applicant is requesting to divert up to 1.34 CFS and 155.94 AF from two PWS wells, GVG 4 (GWIC ID 332088) and GVG3 (GWIC ID 330384). The GVG4 well will serve as the primary production well and GVG3 will serve as the secondary well. Both wells were completed in 2024 by Coldwater Drilling and Pumps, License No. WWC-624.

67. Both groundwater wells are situated approximately 200 feet apart, and each is proposed to be equipped with a Franklin Electric SR Series submersible pump. An 8-inch pump will be installed in GVG4, and a 6-inch pump will be installed in GVG3. The wells and pumps have the capacity to produce 375 GPM and 225 GPM from GVG4 and GVG3 respectively (for a total of 1.34 CFS as

requested by this permit application).

68. Aquifer pump tests were completed on each well, with an abbreviated pump test on GVG3 and a full 72-hour test on GVG4. The abridged test on GVG3 was conducted using a 25-hp pump for 4 hours and 15 minutes at a pumping rate of 225 GPM. The GVG4 pump test utilized a 40-hp pump, and based on instantaneous discharge measurements, the average pumping rate was 378 GPM.

69. The Applicant will also integrate a 500,000-gallon welded steel ground tank with a mechanical mixing system, and a booster station with one 12-inch fire suppression line and one 6-inch domestic suction line. Water will be distributed through C-900 PVC mainlines within the subdivision.

70. Groundwater pumping for commercial, domestic, lawn and garden, and irrigation uses will occur simultaneously, and the system must be capable of accommodating these various water uses during times of peak demands while also maintaining sufficient pressure in the system. The Applicant is requesting the combined pumping rate capacity of GVG4 and GVG3 (375 GPM + 225 GPM = 600 GPM) derived from the combined maximum pumping rate achieved during the aquifer tests.

71. The Department's analysis of adequacy of diversion found that Production Wells GWIC ID 332088 and 330384 would experience 28.8 and 15.8 feet of drawdown after the first year of pumping at the requested annual volume. This would leave approximately 209.9 and 195.9 feet of available water column above the bottom of the perforated interval.

72. The Department finds that the proposed means of diversion and conveyance are capable of diverting and conveying the proposed rate and volume requested in this application.

BENEFICIAL USE

FINDINGS OF FACT

73. The Applicant is proposing to divert groundwater from two wells drilled in the Missoula Valley aquifer from January 1 to December 31 for commercial and multiple domestic purposes and from April 15 to October 15 for irrigation of a community garden and lawn and garden areas.

74. Both the 3.2 acres of community garden (irrigation purpose) and the 11.2 acres of landscaping (lawn and garden purpose) will be irrigated using an automated irrigation system with sprinklers and drip irrigation. Although the two purposes are listed as lawn and garden and irrigation, the proposed water requirements are the same, and the irrigation methods are the

same. The requested volume use rate for both irrigation and lawn and garden irrigation is 1.89 AF/AC.

75. The irrigation system will be 90% efficient due to automation, drip irrigation and perennial landscaping. The Applicant used the NRCS Irrigation Water Requirements (IWR) program, adjusted for turf grass per the Department's Consumptive Use Methodology – Turf Grass (New Projects) dated March 23, 2010, to estimate the diverted volume for both community garden irrigation (3.20 AC) and lawn and garden purposes (11.20 AC). With the IWR program, the Net Irrigation Requirement (NIR) was calculated to be 1.7 AF/AC based on sprinkler irrigation, pasture grass and dry year estimates, adjusted for turf grass.

76. To get the irrigated diverted volume, the Applicant divided the NIR figure (1.70 AF/AC) by 0.9 (90 % system efficiency), for a result of 1.89 AF/AC (1.7AF/acre/0.9). Based on 1.89 AF/AC, the diverted volume was calculated to be 6.05 AF (3.20 AF*1.89AF/AC) for the irrigation purpose and 21.17 AF (11.20 AC*1.89 AF/AC) for lawn and garden purpose. The Department found the proposed diverted volumes for lawn and garden, and irrigation purposes to be reasonable.

77. The period of use and period of diversion for the multiple domestic, lawn and garden, and irrigation purposes are consistent with the standards found in ARM 36.12.112(1).

78. The commercial purpose is expected to be used for retail and food establishments operating year-round. Diverted volume for commercial use is based on 7 lots, 20 gallons per day (GPD) per employee with an average of 13 employees per lot and 3 GPD per customer with an average of 100 customers per day per commercial lot. Based on these figures, the commercial use requires 3,920 GPD (7 lots*20 GPD*13 employees/lot = 1,820 GPD + 7 lots*3 GPD/ customer*100 customers/day = 2,100 GPD), or 0.63 AF/YR/lot (3,920 GPD *365 days/ 325,851 gallons/AF/7 lots). In total, the commercial purpose requires 4.39 AF per year.

79. The multiple domestic diverted volume is based on 250 GPD per dwelling unit. Based on this figure, the 182 single-family units will use 45,550 GPD (182 units *250 GPD), or 0.28 AF/year/unit (45,550 GPD *365 days/ 325,851 gallons/AF/182 units). The 262 multi-family units will use up to 65,550 GPD (262 units *250 GPD), or 0.28 AF/year/unit (65,550 GPD *365 days/ 325,851 gallons/AF/262 units). In total, the multiple domestic purpose requires 124.34 AF per year.

80. The Applicant substantiated the requested flow rate of 1.34 CFS (600 GPM) by the need to meet peak instantaneous demand for supplying water for the requested purposes, to maintain adequate system pressure and to ensure the storage tank is always full in the event it is needed for emergency purposes.

81. The Department finds the proposed water use is beneficial, and that the requested flow rate of 1.34 CFS and annual diverted volume of 155.94 AF are reasonably justified per ARM 36.12.1801(3).

POSSESSORY INTEREST

FINDINGS OF FACT

82. The application was signed by Matthew Mellot, and current Montana Secretary of State records list Mr. Mellot as a registered agent of Grass Valley Gardens LLC. The Applicant signed the application form affirming that the Applicant has possessory interest or the written consent of the person with the possessory interest, in the property where the water is to be put to beneficial use.

83. The Department finds that the Applicant has possessory interest of the location of the point of diversion and place of use requested.

CONCLUSIONS OF LAW

PHYSICAL AVAILABILITY

84. 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."

85. 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).

86. 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).

87. The Applicant has proven that water is physically available at the proposed point of diversion in the amount Applicant seeks to appropriate. Section 85-2-311(1)(a)(i), MCA. (FOF 12 - 25).

LEGAL AVAILABILITY

88. 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).

89. 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.

90. 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 groundwater 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 groundwater 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 groundwater 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).

91. 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 groundwater. 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 groundwater 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.

92. Where a proposed groundwater 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*.

93. 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.

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

Application for Beneficial Water Use Permit No. 81705-g76F by Hanson (DNRC Final Order 1992);

95. 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 29 - 37).

96. 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 26 - 28).

ADVERSE EFFECT

97. 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.

98. 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).

99. 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).

100. 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).

101. 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.

102. 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).

103. 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).

104. It was within the discretion of the Department to decline to consider an undeveloped mitigation proposal as mitigation for adverse effect in a permit proceeding. *Wesmont Developers v. DNRC*, CDV-2009-823, First Judicial District Court, *Memorandum and Order*, (2011) Pg. 10.

105. 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).

106. 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).

107. 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.

108. 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.)

109. 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.

110. In this case Applicant proposes to mitigate its full consumptive use under the proposed appropriation. This mitigation provides mitigation of full depletion of surface waters by the

proposed appropriation in amount, location, and duration of the depletion. Because Applicant proposes to mitigate the full amount of its consumptive use, there is no adverse effect from depletion of surface waters to the historic beneficial use of surface water rights. *E.g.*, *In the Matter of Application for Beneficial Water Use Permit No. 41H 30026244 By Utility Solutions LLC* (DNRC Final Order 2008).

111. 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 38 - 65).

ADEQUATE DIVERSION

112. 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.

113. 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.

114. 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).

115. 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).

116. Adequate diversions can include the requirement to bypass flows to senior appropriators. E.g., *In the Matter of Application for Beneficial Water Use Permit No. 61293-40C by Goffena* (DNRC Final Order 1989) (design did not include ability to pass flows, permit denied).

117. 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 66 - 72).

BENEFICIAL USE

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

119. 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). 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 AF when a typical year would require 200-300 AF).

120. 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*.

121. Applicant proposes to use water for commercial, multiple domestic and irrigation purposes which are recognized beneficial uses. Section 85-2-102(5), MCA. Applicant has proven by a preponderance of the evidence commercial, single-family, multi-family, community garden irrigation and lawn and garden irrigation are beneficial uses and that 155.94 AF of diverted volume and 1.34 CFS is the amount needed to sustain the beneficial uses. Section 85-2-311(1)(d), MCA. (FOF 73 - 81).

POSSESSORY INTEREST

122. 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.

123. 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.

124. 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 82 - 83).

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 30164989 should be GRANTED.

The Department determines the Applicant may divert groundwater by means of pumps from two PWS wells (GVG4/GWIC ID 332088, completed 340 ft below ground surface and GVG3/GWIC ID, completed 400 ft below ground surface), from January 1 - December 31 for commercial (4.39 AF) and multiple domestic (124.34 AF) purposes, and April 15 - October 15 for irrigation (6.05 AF) and lawn and garden (21.17 AF) purposes, at 1.34 CFS (600 GPM) and up to 155.94 AF. The two wells divert water in the NESWSE, Sec. 20, T14N, R20W, Missoula County

Montana. The Applicant may irrigate a community garden on 3.20 acres and lawn and garden spaces on a total of 11.20 acres. The place of use is in the SE, NESW, NWSW and SESW of Sec. 20, T14N, R20W, Missoula County, Montana.

The application will be subject to the following conditions, limitations, or restrictions to meet the adverse effect criterion:

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 UNTIL THE PROVISIONAL PERMIT IS PERFECTED AND THE DEPARTMENT RECEIVES A PROJECT COMPLETION NOTICE. IN THE EVENT THAT PERMITTED FLOW RATES AND/OR VOLUMES HAVE BEEN EXCEEDED DURING PERFECTION OF THE PROVISIONAL PERMIT 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 PERMIT MAY NOT COMMENCE UNTIL THE MITIGATION OR AQUIFER RECHARGE PLAN DESCRIBED IN THIS DECISION IS LEGALLY IMPLEMENTED. DIVERSION UNDER THIS PERMIT MUST STOP IF THE MITIGATION OR AQUIFER RECHARGE PLAN AS HEREIN REQUIRED IN AMOUNT, LOCATION AND DURATION CEASES IN WHOLE OR IN PART.

The area that will be depleted is located along the Clark Fork River. To mitigate the affected reach, the appropriator has purchased 58 marketing for mitigation shares from Grass Valley French Ditch, for a total of 65.54 AF of effective mitigation. These mitigation shares will offset the net depletions to the Clark Fork River that will occur as a result of pumping the proposed wells.

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 July, 2025.

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 July 2025, by first class United States mail.

GRASS VALLEY GARDENS LLC
2829 GREAT NORTHERN LP SUITE 200
MISSOULA, MT 59808

CC:

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