

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

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<b>APPLICATION FOR BENEFICIAL WATER USE PERMIT NO. 76K 30070577 ) BY JENIFER MOTZ REVOCABLE ) TRUST )</b>	<b>PRELIMINARY DETERMINATION TO GRANT PERMIT</b>
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On December 23, 2014, Jenifer Motz Trustee (Applicant) submitted Application for Beneficial Water Use Permit No. 76K 30070577 to the Missoula Water Resources Office of the Department of Natural Resources and Conservation (Department or DNRC) for 107 gallons per minute (GPM) and 16.84 acre-feet (AF) from Rumble Creek a tributary to the Swan River for irrigation use. The Department published receipt of the Application on its website. The Application was determined to be correct and complete as of June 12, 2015. An Environmental Assessment for this Application was completed on September 28, 2015.

**INFORMATION**

The Department considered the following information submitted by the Applicant.

Application as filed:

- Application for Beneficial Water Use Permit, Form 600 SW
- All necessary Application attachments
- Maps:

USGS Quadrangle 1" = 4,000' scale depicting point of diversion and place of use.

Color Aerial Photograph 1" = 300' scale depicting point of diversion and place of use.

Information within the Department's Possession/Knowledge

- Analysis of mean monthly flow estimates using USGS paper #2365, entitled "Methods of Estimating Monthly Stream flow Characteristics at Ungaged Sites in Western Montana".

- Legal availability analysis on Rumble Creek using the Department’s water right query system.

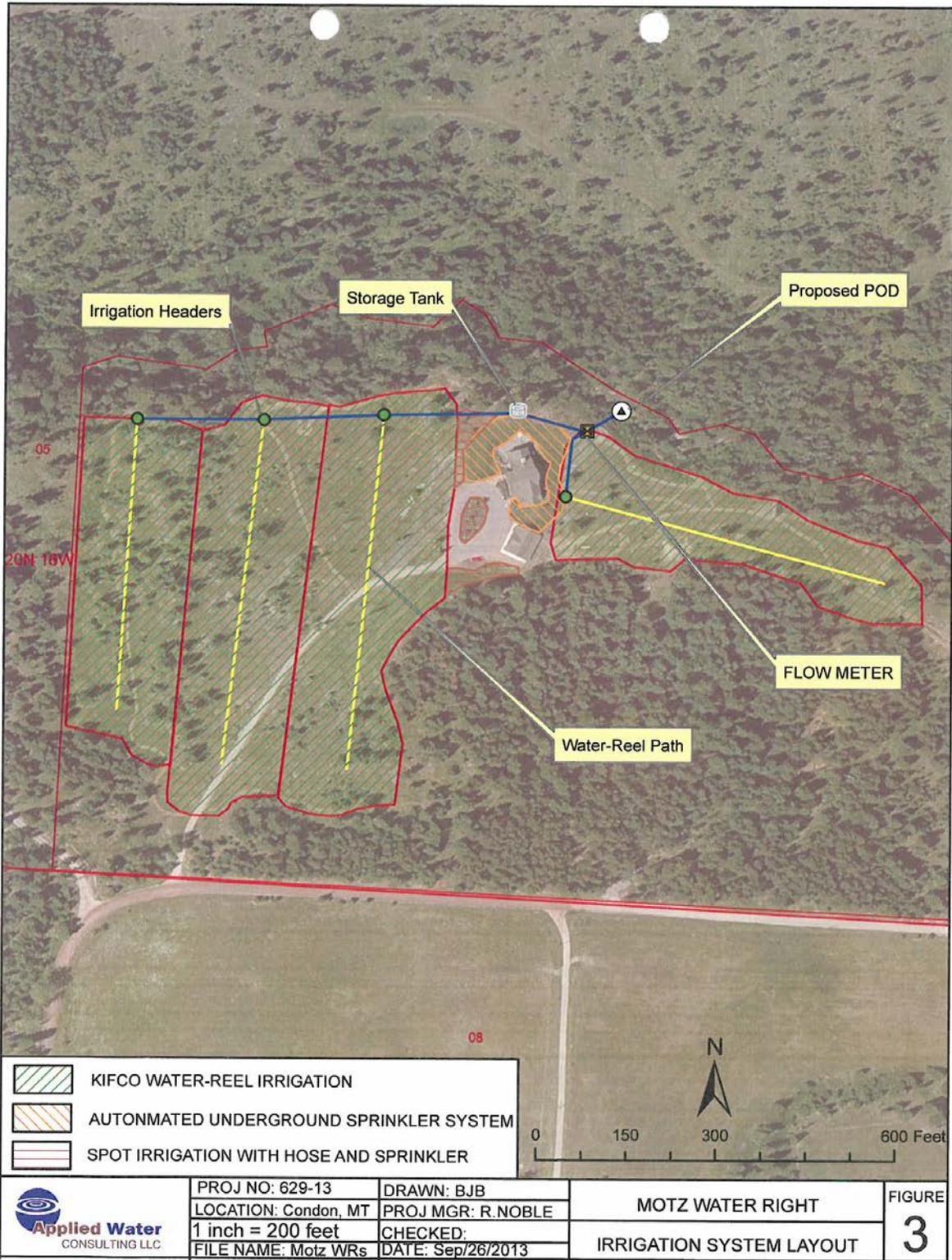
The Department has fully reviewed and considered the evidence and argument submitted in this Application and preliminarily determines the following pursuant to the Montana Water Use Act (Title 85, chapter 2, part 3, MCA).

### **PROPOSED APPROPRIATION**

#### **FINDINGS OF FACT**

1. The applicant proposes to divert water from Rumble Creek, a tributary to the Swan River, by means of an infiltration gallery 3 feet wide by 23 feet in length from May 1 to September 30 annually. The Applicant proposes to install 20 feet of slotted 8 inch diameter pipe within the excavated trench that will supply water in a 15 foot long 8 inch diameter pipe that will gravity feed water from the infiltration gallery to a booster pump station. The proposed diverted flow rate and volume from Rumble Creek is 107 GPM up to 16.84 AF annually, from a point in the NESWSE of Section 5, T20N, R16W, Missoula County, for irrigation and domestic lawn and garden irrigation.
2. Water is conveyed from the booster pump station through a 3 inch main line to four 2 inch headers fitted with ball valves and cam-lock fittings for connecting a Kifco Water-Reel. A single water-reel will be used to irrigate the 10.62 acre place of use for pasture irrigation.
3. The proposed diversion system will also provide water from the 3 inch main line to a 3,500 gallon storage tank for the domestic lawn and garden irrigation. Water will be pumped from the storage tank to an automated underground sprinkler system consisting of 9-zones with 6 sprinkler heads per zone. Two of the zones are drip irrigation systems. The Applicant proposes to use a garden hose and a sprinkler to manually spot irrigate portions of the domestic lawn and garden area not covered by the 9 zones but within the 0.52 acre domestic lawn and garden place of use.

4. The Applicant proposes to irrigate 10.62 acres of pasture grass and 0.52 acres of domestic lawn and garden, for a total of 11.14 acres. The place of use is generally located in the S2SE of Section 5, T20N, R16W, Missoula County.
5. Rumble Creek flows in a westerly direction from the Swan Mountain range and is a tributary to the Swan River. The proposed point of diversion is approximately 1.8 miles upstream from the confluence of Rumble Creek with Swan River. The confluence point being approximately 1.2 miles south of the Town of Condon, Missoula County.
6. Consumptive use for pasture and domestic lawn and garden irrigation is estimated to be 11.76AF annually using IWR software. The total diverted volume assuming a sprinkler efficiency rating of 70% is estimated to be 16.84 AF.
7. The Applicant has agreed to the following measurement condition: “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 beneficial water use permit is perfected and the department receives a project completion notice. Failure to submit reports may be cause for revocation of a permit or change. The records must be sent to the water resources regional office. The appropriator shall maintain the measuring device so it always operates properly and measures flow rate and volume accurately.”



Preliminary Determination to Grant  
 Application for Beneficial Water Use Permit No. 76K 30070577

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

**GENERAL CONCLUSIONS OF LAW**

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

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

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

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

... the department shall issue a permit if the applicant proves by a preponderance of evidence that the following criteria are met:

(a) (i) there is water physically available at the proposed point of diversion in the amount that the applicant seeks to appropriate; and

(ii) water can reasonably be considered legally available during the period in which the applicant seeks to appropriate, in the amount requested, based on the records of the department and other evidence provided to the department. Legal availability is determined using an analysis involving the following factors:

(A) identification of physical water availability;

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

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

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

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

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

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

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

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

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

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

To meet the preponderance of evidence standard, “the applicant, in addition to other evidence demonstrating that the criteria of subsection (1) have been met, shall submit hydrologic or other evidence, including but not limited to water supply data, field reports, and other information developed by the applicant, the department, the U.S. geological survey, or the U.S. natural resources conservation service and other specific field studies.” § 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.

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

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

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

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

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

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

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

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

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

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

### **Physical Availability**

FINDINGS OF FACT

14. USGS gaging stations are not available on Rumble Creek to calculate physical availability of water for the proposed appropriation. The Department utilized USGS paper #2365, titled “Methods of Estimating Monthly Stream Flow Characteristics at Ungagged Sites in Western Montana”, to estimate mean monthly flows on Rumble Creek (Table 1). This is an acceptable method for estimating stream flow under ARM 36.12.1702. Mean monthly flows were also converted to mean monthly volumes (Table 2).

15. Physical availability at the proposed point of diversion was determined using USGS Montana StreamStats software. This program estimates mean monthly discharge in a designated basin using specific basin characteristic inputs. The program does not account for any water use occurring upstream of the proposed point of diversion, therefore to conservatively estimate flows at the proposed point of diversion upstream legal demands were subtracted from the estimated mean monthly flows during the period of diversion for these rights, (see Table 3 below). This method mimics the data obtained from actual USGS gage sites.

**Table 1: Mean Monthly Flow Estimates for Rumble Creek (CFS)**

	<b>January</b>	<b>February</b>	<b>March</b>	<b>April</b>	<b>May</b>	<b>June</b>
<b>USGS Paper 2365 Mean Monthly Flow Estimates (CFS)</b>	2.73	2.33	2.68	7.29	25.87	17.2
	<b>July</b>	<b>August</b>	<b>September</b>	<b>October</b>	<b>November</b>	<b>December</b>
	30.79	10.38	7.92	5.76	5.18	4.00

**Table 2: Mean Monthly Volume Estimates for Rumble Creek (AF)**

	<b>January</b>	<b>February</b>	<b>March</b>	<b>April</b>	<b>May</b>	<b>June</b>
<b>USGS Paper 2365 Mean Monthly Volume Estimates (AF)</b>	167.53	129.04	164.28	432.75	1587.79	1021.45
	<b>July</b>	<b>August</b>	<b>September</b>	<b>October</b>	<b>November</b>	<b>December</b>
	1889.68	637.32	470.72	353.61	307.64	245.24

16. The physical availability data is presented in the following table:

**Table 3: Physical Availability during months of proposed period of diversion**

Month	Stream Model Physical Availability (CFS)	Existing Legal Demands Upstream (CFS)	Physical Available water – Existing Upstream Legal Demands = Phy @ POD (CFS)
April	7.29	1.98	5.31
May	25.87	3.5	22.37
June	17.2	3.50	13.7
July	30.79	3.50	27.29
August	10.38	3.50	6.88
September	7.92	3.50	4.42
October	5.76	1.98	3.78

Stream flow gaging records are not available for Rumble Creek; however, the Applicant provided five flow measurements to support the estimation technique used by the Department for physical availability analysis. The Applicant’s measurements, while below the modeled flow, support water availability in the amount requested through this appropriation.

17. The stream flow measurements were taken at the proposed point of diversion during the months of May, June, July, August and September. The measurements represent a single point measurement taken on one day during a given month. A portable flowmeter (March-McBirney Model 2000) and standard USGS methodology were used to measure the discharge of Rumble Creek. The Department determined that the Applicant used an acceptable method to measure stream flow.

**Table 3: Applicant Supplied Flow Measurements for Rumble Creek (CFS)**

	8/27/2013	9/30/2013	5/25/2014	6/27/2014	7/18/2014
<b>Applicant Supplied Flow Measurement (CFS)</b>	1.00	1.83	54.83	33.31	13.45

18. The Department’s calculation of mean monthly flow in Rumble Creek minus existing water rights upstream of the proposed point of diversion demonstrates that water is physically available at the proposed point of diversion in adequate quantities to supply the proposed rate of diversion of 107 GPM (0.24 CFS) up to 16.84 AF in every month of the proposed appropriation.

**CONCLUSIONS OF LAW**

19. 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.”

20. It is the applicant’s burden to produce the required evidence *In the Matter of Application for Beneficial Water Use Permit No. 27665-411 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).

21. 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).

22. I find the Applicant has proven that water is physically available at the proposed point of diversion in the amount Applicant seeks to appropriate. § 85-2-311(1)(a)(i), MCA. (Finding of Fact 14 -18.)

**Legal Availability:**

**FINDINGS OF FACT**

23. To determine legal availability the Department queried its records for all water rights listing Rumble Creek as the source between the proposed point of diversion downstream to the confluence of Rumble Creek and Swan River. There is one existing water right on Rumble

Creek below the Applicant’s proposed point of diversion, 76K 35102 with a flow rate of 0.11 CFS and an annual volume of up to 12 AF for irrigation.

24. The Department considers this to be an appropriate reach for calculating legal availability due to the amount of water determined to be physically available at the point of diversion. The source of appropriation and the reach of stream used for legal availability analysis are located in an area that is open to surface water appropriations and does not experience shortages or water disputes.

25. Legal availability analysis data was determined by subtracting downstream water rights from the estimated mean monthly flows at the point of diversion, as all upstream uses were accounted for in the physical availability calculations.

26. The existing legal demands were then compared to the estimated mean monthly flow and volume to determine legal availability. The following table lists monthly legal and physical availability in flow rate and volume compared to monthly existing legal demands in flow rate and volume:

**A comparison of the physical and legal water supply at the point of diversion to the existing water rights in the area of potential impact over the requested period of diversion**

Month	StreamStat Physical Availability (CFS)	Existing Legal Demands Upstream (CFS)	Physically Available at POD (CFS)	Existing Legal Demands Below POD	Legally Available (CFS)	Physically Available @ POD (AF)	Legally Available (AF)
April	7.29	1.98	5.31	0.11	5.20	315.41	308.88
May	25.87	3.5	22.37	0.11	22.26	1,373.07	1,366.32
June	17.2	3.50	13.7	0.11	13.59	813.78	807.25
July	30.79	3.50	27.29	0.11	27.18	1,675.06	1,668.31
August	10.38	3.50	6.88	0.11	6.77	422.29	415.54
September	7.92	3.50	4.42	0.11	4.31	262.55	256.01
October	5.76	1.98	3.78	0.11	3.67	232.02	225.26

27. The Department's calculation of the mean monthly flow and volume of water compared to existing legal demands on the source of supply demonstrates that the proposed appropriation of 107 GPM up to 16.84 AF is legally available in every month of the proposed period of diversion.

28. The Swan River flows into Flathead Lake which is controlled by Salish-Kootenai Dam. Confederated Salish & Kootenai Tribes owns the hydropower water rights for Salish-Kootenai Dam. The two claimed water rights for Salish-Kootenai Dam are for 14,540 CFS up to 614,200 AF for power generation, and a volume of 614,700 second foot days for storage for power generation which is equivalent to 1,217,106 AF. (A second foot day is the volume of water represented by a flow of 1 cubic foot per second for 24 hours. The term is used extensively as a unit of runoff volume or reservoir capacity.) The total volume from the two claimed rights is 614,200 AF plus 1,217,106 AF which equals 1,831,306 AF. Flathead Lake is managed to keep a full pool of water during the late spring and summer months. At the claimed flow rate of 14,540 CFS flowing 24 hours per day, both of the claimed water rights, the direct flow hydropower right and storage for hydropower water right, can be fulfilled over a period of 64 days.

29. Confederated Salish & Kootenai Tribes owns the hydropower water rights for Salish-Kootenai Dam. The two claimed water rights for Salish-Kootenai Dam are for 14,540 CFS up to 614,200 AF for power generation, and a volume of 614,700 second foot days for storage for power generation which is equivalent to 1,217,106 AF. (A second foot day is the volume of water represented by a flow of 1 cubic foot per second for 24 hours. The term is used extensively as a unit of runoff volume or reservoir capacity.) The total volume from the two claimed rights is 614,200 AF plus 1,217,106 AF which equals 1,831,306 AF. Flathead Lake is managed to keep a full pool of water during the late spring and summer months. At the claimed flow rate of 14,540 CFS flowing 24 hours per day, both of the claimed water rights, the direct flow hydropower right and storage for hydropower water right, can be fulfilled over a period of 64 days.

30. Salish-Kootenai Dam operations are complex and must accommodate many management factors including, but not limited to federal licensing (Flathead Lake levels required by FERC (Federal Energy Regulatory Commission)) for fish and recreation, instream flow requirements,

flood control, and irrigation needs. These factors fluctuate seasonally and from year to year. The average yearly flow of water through Flathead Lake is approximately 11,437 CFS as measured at the USGS gauge at Polson (12372000), for the time period of 1939-2006 (USGS, 2009). Even though hydropower water rights at Salish-Kootenai Dam require 1,831,306 AF to meet the hydropower water rights claimed in the adjudication, the records show that Salish-Kootenai Dam's reservoir, Flathead Lake, consistently obtains a full pool status each year.

31. Pending an adjudication of Confederated Salish & Kootenai Tribes hydropower water rights and completion of a water availability study that shows otherwise, the Department finds that water in Flathead River, Flathead Lake and the Stillwater River can reasonably be considered legally available during the period in which the Applicant seeks to appropriate. This finding is based on the information and on the records of the Department and other evidence provided to the Department.

#### CONCLUSIONS OF LAW

32. 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).

33. 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.

34. Applicant has proven by a preponderance of the evidence that water can reasonably be considered legally available during the period in which the applicant seeks to appropriate, in the amount requested, based on the records of the Department and other evidence provided to the Department. § 85-2-311(1)(a)(ii), MCA. (Findings of Fact 23-30)

### **Adverse Effect**

#### **FINDINGS OF FACT**

35. The Applicant proposes to divert water from Rumble Creek using an infiltration gallery. The Applicant's use of water can be controlled and the Applicant proposes to monitor usage with a totalizing flow meter installed in the main line.

36. The Applicant's plan to prevent adverse effect to water rights of a prior appropriator in times of extreme water shortage is as follows:

- 1) Initially reduce irrigation application by 50%
- 2) Irrigate only domestic lawn and garden immediately around the home; and
- 3) Cease irrigation diversion entirely until such time as stream flows return to levels that allow for continued diversion.

37. I find that water from Rumble Creek is both physically and legally available in amounts sufficiently exceeding the requested appropriation of 107 GPM and 16.84 AF to ensure no adverse effect to senior appropriators diverting from the same source.

#### CONCLUSIONS OF LAW

38. Pursuant to § 85-2-311(1)(b), MCA, the Applicant bears the affirmative burden of proving by a preponderance of the evidence that the water rights of a prior appropriator under an existing water right, a certificate, a permit, or a state water reservation will not be adversely affected. Analysis of adverse effect must be determined based on a consideration of an applicant's plan for the exercise of the permit that demonstrates that the applicant's use of the water will be controlled so the water right of a prior appropriator will be satisfied. See Montana Power Co. (1984), 211 Mont. 91, 685 P.2d 336 (purpose of the Water Use Act is to protect senior appropriators from encroachment by junior users); Bostwick Properties, Inc. ¶ 21.

39. An applicant must analyze the full area of potential impact under the § 85-2-311, MCA criteria. *In the Matter of Beneficial Water Use Permit No. 76N-30010429 by Thompson River Lumber Company* (DNRC Final Order 2006). While § 85-2-361, MCA, limits the boundaries expressly required for compliance with the hydrogeologic assessment requirement, an applicant is required to analyze the full area of potential impact for adverse effect in addition to the requirement of a hydrogeologic assessment. Id. ARM 36.12.120(8).

40. Applicant must prove that no prior appropriator will be adversely affected, not just the objectors. Sitz Ranch v. DNRC, DV-10-13390, Fifth Judicial District Court, *Order Affirming DNRC Decision*, (2011) Pg. 4.

41. In analyzing adverse effect to other appropriators, an applicant may use the water rights claims of potentially affected appropriators as evidence of their “historic beneficial use.” See Matter of Application for Change of Appropriation Water Rights Nos. 101960-41S and 101967-41S by Royston (1991), 249 Mont. 425, 816 P.2d 1054.

42. It is the applicant’s burden to produce the required evidence. E.g., Sitz Ranch v. DNRC, DV-10-13390, Fifth Judicial District Court, *Order Affirming DNRC Decision*, (2011) Pg. 7

(legislature has placed the burden of proof squarely on the applicant); *In the Matter of Application to Change Water Right No. 41H 1223599 by MGRR #1, LLC.*, (DNRC Final Order 2005). (DNRC Final Order 2005). The Department is required to grant a permit only if the § 85-2-311, MCA, criteria are proven by the applicant by a preponderance of the evidence. Bostwick Properties, Inc. ¶ 21.

43. Section 85-2-311 (1)(b) of the Water Use Act does not contemplate a de minimis level of adverse effect on prior appropriators. Wesmont Developers v. DNRC, CDV-2009-823, First Judicial District Court, *Memorandum and Order*, (2011) Pg. 8.

44. The Applicant has proven by a preponderance of the evidence that the water rights of a prior appropriator under an existing water right, a certificate, a permit, or a state water reservation will not be adversely affected. § 85-2-311(1)(b) , MCA. (Findings of Fact 35 - 37)

#### **Adequate Diversion**

#### **FINDINGS OF FACT**

45. The Applicant proposes to divert water from Rumble Creek using an infiltration gallery with an excavated trench approximately two feet below the low-water mark 3 feet wide and paralleling the bank for 23 feet. Twenty feet of 8-inch slotted PVC will be installed within the trench to divert water from Rumble Creek. A total of 4.8 cubic yards open-graded drain rock will be used to backfill the trench around the PVC to ensure sufficient permeability.

46. After collection in the infiltration gallery, the 8-inch slotted PVC pipe within the trench is connected to an 8-inch diameter casing that conveys water by gravity approximately 15-feet southwest to a booster pump site. The booster pump shall be a submersible pump housed in a 12-foot deep wet-well constructed using 48-inch concrete caisson. The proposed booster pump is a 15 horsepower Goulds model 95L15 submersible pump. The Applicant provided pump specifications to demonstrate the pump is capable of delivering up to 107 GPM at approximately 379 feet of head. The water system will be controlled by a 15-hp Aquivar SPD variable speed, constant pressure, single pump drive. The system pressure will be set for 150 psi to ensure an inlet pressure of near 141 psi at the water-reel.

47. From the booster pump, water is conveyed through 3-inch HDPE water main to four 2-inch headers. The headers are fitted with ball valve and cam-lock fittings for connecting to the Kifco T-200L Water-Reel. A single reel will be used to irrigate the 10.62 acre place of use for pasture irrigation.
48. The water-reel is equipped with a 0.7 inch diameter Nelson SR75 big-gun sprinkler that will provide 104 GPM at the operation pressure of 141 psi. The applicant submitted specifications for the Kifco Water-Reel.
49. The Applicant provided a hydraulic analysis of the designed irrigation system to show the pump will operate at a total dynamic head between 379 and 394 feet. The analysis indicates the flow rate at the end gun will range from 107 GPM at headers #1 and #2 to 105 GPM at header #4.
50. The main line also provides water to fill a 3,500 gallon storage tank that will be used to irrigate 0.52 acres of domestic lawn and garden irrigation. The water level in the tank is controlled by a 1/2 –inch Rojo Topaz differential float valve. The Applicant provided specifications for the float valve demonstrating the valve is capable of withstanding pressures of up to 150 psi and the float can be adjusted to minimize the cycling of the pump. The ½-inch model provides in excess of 35 GPM to the tank and will be set so the tank is kept at a capacity of 2,000 gallons. Once the water level drops below the 2,000 gallon level, the valve will open and fill until the capacity of the tank has been returned to 3,500 gallons.
51. Water from the storage tank used for domestic lawn and garden irrigation is pumped from the tank with a Flint and Walling ½ horse power, 10 GPM submersible pump. The pump is controlled by a Franklin-Electric constant pressure control system. The automated underground sprinkler system has 9-zones operating up to 6 sprinkler heads at one time. A total of 2,700 gallons per day will be used by the system. Two of the zones are drip irrigation systems. Typical operating pressure is near 50 psi at a flow rate of approximately 10 GPM. The Applicant provided pump curve specifications.

52. The Applicant proposes to use a garden hose and a sprinkler to manually spot irrigate portions of the lawn and garden area not covered by the 9 zones but within the 0.52 acre domestic lawn and garden place of use.

53. The Applicant provided an irrigation schedule based on data from the USDA's Irrigation Water Requirements (IWR) to show the annual irrigation diverted demand is 16.84 AF.

#### CONCLUSIONS OF LAW

54. 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.

55. 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.

56. Applicant has proven by a preponderance of the evidence that the proposed means of diversion, construction, and operation of the appropriation works are adequate for the proposed beneficial use. § 85-2-311(1)(c), MCA (Findings of Fact 45 -53).

#### Beneficial Use

#### FINDINGS OF FACT

57. The proposed appropriation of 107 GPM up to 16.84 AF per year from Rumble Creek is for the purpose of irrigation and domestic lawn and garden irrigation. Water will be appropriated and used from April 1 through September 30 annually. The place of use for lawn and garden use will consist of approximately 0.52 acres. The irrigation system will be set up in 9-zones with two zones being a drip system. Each zone will operate up to 6 sprinkler heads and will be limited by the 10 GPM capacity pump at the storage tank and the diverted volume will not exceed 0.93 AF per year for domestic lawn and garden.

58. The Applicant calculated diverted volume and consumptive use for domestic lawn and garden using USDA's Irrigation Water Requirements (IWR) software adjusted for turf grass.

The annual irrigation consumptive use calculated using IWR is 1.79 AF per acre, for a consumptive use of 0.93 AF for 0.52 acres of domestic lawn and garden. To achieve this consumptive use the Applicant must divert 1.33 AF due to the 70 % efficiency of the proposed sprinkler system.

59. The 10.62 acre place of use for pasture irrigation will be irrigated with a system consisting of a Kifco Water-Reel designed to achieve full service irrigation in sets shorter than 12-hours. The Applicant provided a diversion schedule with sets ranging from 6.1 hours during September to 11.1 hours in July. During the months of July and August, the irrigation system will be running daily. Irrigation sets shorter than 12-hours allow the Applicant to set the water-reel in place in the evening and run the sprinkler overnight.

60. The 10.62 acre pasture irrigation consumptive use was calculated using the USDA's Irrigation Water Requirements (IWR) software. The consumptive use was calculated to be 1.02 AF per acre, for an annual consumptive use of 10.83 AF for the 10.62 acre place of use. Based on a 70% efficient sprinkler system, the diverted volume was calculated to be 1.46 AF per acre, for a total appropriation of 15.51 AF (1.46 AF × 10.62 AC = 15.51 AF).

#### CONCLUSIONS OF LAW

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

62. An appropriator may appropriate water only for a beneficial use. See also, § 85-2-301 MCA. It is a fundamental premise of Montana water law that beneficial use is the basis, measure, and limit of the use. E.g., McDonald, supra; Toohey v. Campbell (1900), 24 Mont. 13, 60 P. 396. The amount of water under a water right is limited to the amount of water necessary to sustain the beneficial use. E.g., Bitterroot River Protective Association v. Siebel, Order on Petition for Judicial Review, Cause No. BDV-2002-519, Montana First Judicial District Court, Lewis and Clark County (2003), *affirmed on other grounds*, 2005 MT 60, 326 Mont. 241, 108 P.3d 518; *In The Matter Of Application For Beneficial Water Use Permit No. 43C 30007297 by Dee Deaterly* (DNRC Final Order), *affirmed other grounds, Dee Deaterly v. DNRC et al*, Cause No. 2007-186, Montana First Judicial District, *Order Nunc Pro Tunc on Petition for Judicial*

*Review* (2009); Worden v. Alexander (1939), 108 Mont. 208, 90 P.2d 160; Allen v. Petrick (1924), 69 Mont. 373, 222 P. 451; *In the Matter of Application for Beneficial Water Use Permit No. 41S-105823 by French* (DNRC Final Order 2000).

Amount of water to be diverted must be shown precisely. Sitz Ranch v. DNRC, DV-10-13390, Fifth Judicial District Court, *Order Affirming DNRC Decision*, (2011) Pg. 3 (citing BRPA v. Siebel, 2005 MT 60, and rejecting applicant's argument that it be allowed to appropriate 800 acre-feet when a typical year would require 200-300 acre-feet).

63. Applicant proposes to use water for irrigation and domestic lawn and garden irrigation which is a recognized beneficial use. § 85-2-102(4), MCA. Applicant has proven by a preponderance of the evidence irrigation is a beneficial use and that 16.84 AF of diverted volume and 107 GPM of water requested is the amount needed to sustain the beneficial use. § 85-2-311(1)(d), MCA, (Findings of Fact 56 - 59)

### **Possessory Interest**

#### **FINDINGS OF FACT**

64. The applicant signed and had the affidavit on the application form notarized affirming the applicant has possessory interest, or the written consent of the person with the possessory interest, in the property where the water is to be put to beneficial use.

#### **CONCLUSIONS OF LAW**

65. 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.

66. 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.

67. The Applicant has proven by a preponderance of the evidence that it has a possessory interest, or the written consent of the person with the possessory interest, in the property where the water is to be put to beneficial use. § 85-2-311(1)(e), MCA. (Findings of Fact 63)

### **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. 76K 30070577 should be GRANTED.

The Department determines the applicant may divert water from Rumble Creek, by means of an infiltration gallery, from May 1 to September 30 at 107 GPM up to 16.84 AF, from a point in the NESWSE of Section 5, T20N, R16W, Missoula County, for irrigation and domestic lawn and garden irrigation from April 1 through September 30. The applicant may irrigate 10.62 acres of pasture and 0.52 acres of domestic lawn and garden. The place of use is located S2SWSE of Section 5, T20N, R16W, Missoula County.

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

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 BENEFICIAL WATER USE PERMIT IS PERFECTED AND THE DEPARTMENT RECEIVES A PROJECT COMPLETION NOTICE. FAILURE TO SUBMIT REPORTS MAY BE CAUSE FOR REVOCATION OF A PERMIT OR CHANGE. THE RECORDS MUST BE SENT TO THE WATER RESOURCES REGIONAL OFFICE. THE APPROPRIATOR SHALL MAINTAIN THE MEASURING DEVICE SO IT ALWAYS OPERATES PROPERLY AND MEASURES FLOW RATE AND VOLUME ACCURATELY.

**NOTICE**

This Department will provide public notice of this Application and the Department's Preliminary Determination to Grant pursuant to §§ 85-2-307, MCA. The Department will set a deadline for objections to this Application pursuant to §§ 85-2-307, and -308, MCA. If this Application receives no valid objection or all valid objections are unconditionally withdrawn, the Department will grant this Application as herein approved. If this Application receives a valid objection, the application and objection will proceed to a contested case proceeding pursuant to Title 2 Chapter 4 Part 6, MCA, and § 85-2-309, MCA. If valid objections to an application are received and withdrawn with stipulated conditions and the department preliminarily determined to grant the permit or change in appropriation right, the department will grant the permit or change subject to conditions necessary to satisfy applicable criteria.

DATED this 28<sup>th</sup> day of September 2015

/Original signed by Jim Nave/  
Jim Nave, Regional Manager  
Missoula Regional Office  
Department of Natural Resources and Conservation