

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

APPLICATION FOR BENEFICIAL WATER USE PERMIT NO. 76F 30072309 BY MATTHEW & MELISSA ARNO)))	PRELIMINARY DETERMINATION TO GRANT PERMIT
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On July 16, 2015, Matthew & Melissa Arno (Applicant) submitted Application for Beneficial Water Use Permit No. 76F 30072309 to the Missoula Water Resources Office of the Department of Natural Resources and Conservation (Department or DNRC) for 100 gallons per minute (GPM) and a volume of 68.5 acre-feet (AF) for the purpose of generating domestic hydroelectricity. The Department published receipt of the Application on its website. The Department sent the Applicant a deficiency letter under § 85-2-302, Montana Code Annotated (MCA), dated January 11, 2016. The Applicant requested additional time to provide information and submitted a deficiency response on February 22, 2016. On February 21, 2016, the Applicant submitted a request for variance from aquifer testing procedures as required by §85-2-311 MCA and outlined in ARM 36.12.121. The Application was determined to be correct and complete as of July 26, 2016. The Department first met with the Applicant on February 4, 2015. An Environmental Assessment for this Application was completed on July 28th, 2016.

INFORMATION

The Department considered the following information submitted by the Applicant.

Application as filed:

- Application for Beneficial Water Use Permit, Form 600;
- Attachments;
- Maps: A 1:29,800 scale WGM geologic map of the area surrounding the proposed point of diversion and place of use; a 1:6,860 scale WGM map of the proposed groundwater system layout; a 1:6,350 scale WGM map of the area including the place of use and proposed point of diversion;

- Micro hydro turbine energy output and design specifications.

Information Received after Application Filed

- Basin Closure Area Addendum, Form 600-BCA;
- A 1:6,800 scale map of the proposed groundwater system layout including the conveyance pipeline, place of use, and point of diversion;
- Letter from Applicant to DNRC dated February 25, 2016, Re: Period of diversion amendment, received by DNRC on February 26, 2016;
- Letter from Applicant to DNRC dated February 25, 2016, Re: Request for variance from aquifer testing requirements, received by DNRC on February 26, 2016;
- Letter from DNRC to Applicant dated April 25, 2016, Re: Variance request response (granted).

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 groundwater from an unnamed tributary of Burnt Bridge Creek (tributary to Gold Creek) by means of a developed spring, from October 16th to May 14th at 100 GPM up to 68.5 AF, from a point in the SENWNE of Section 25, T14N R17W, Missoula County, for the generation of domestic hydroelectricity. The place of use is generally located in the SWSENE of Section 25, T14N R17W.
2. Water will be conveyed from a spring box located at the source of the unnamed tributary through a 1,480-foot, 4-inch diameter HDPE pipe to the place of use where it will then course through a micro hydro turbine in order to generate approximately 4,464 kilowatt hours of electricity for domestic power use during the requested period of use. Electricity supplied by

solar power will be used while the hydropower system is offline in order to satisfy 100% of annual domestic power requirements.

3. Once it has passed through the turbine, the entire diverted volume of water will be returned to Burnt Bridge Creek via gravity discharge through a 20-foot, 6-inch diameter pipe. The proposed purpose is considered to be a non-consumptive beneficial use of groundwater.

BASIN CLOSURE

FINDINGS OF FACT

4. This Application is for the generation of hydroelectricity for domestic power generation, and is located within the Legislative Upper Clark Fork basin closure. The application is for a groundwater appropriation and is allowed as an exception to the basin closure under 85-2-336 (2)(a).

5. The Applicant did not submit an accompanying Application for Change in Water Right. The proposed appropriation is non-consumptive with diverted water returning directly to the tributary source with no delay. The Department's analysis showed that the proposed appropriation will not result in the depletion of any surface water and mitigation is not required.

CONCLUSIONS OF LAW

6. This Application is for a permit to appropriate groundwater. The Application falls under the exceptions for the basin closure, 85-2-336(2)(a), MCA.

7. In reviewing an application for groundwater in a closed basin, the District Court in Sitz Ranch v. DNRC observed:

The basin from which applicants wish to pump water is closed to further appropriations by the legislature. The tasks before an applicant to become eligible for an exception are daunting. The legislature set out the criteria discussed above (§85-2-311, MCA) and placed the burden of proof squarely on the applicant. The Supreme Court has instructed that those burdens are exacting. It is inescapable that an applicant to appropriate water in a closed basin must withstand strict scrutiny of each of the legislatively required factors. Sitz Ranch v. DNRC, DV-10-13390, Fifth Judicial District Court, *Order Affirming DNRC*

Decision, (2011) Pg. 7.

A basin closure exception does not relieve the Department of analyzing § 85-2-311, MCA criteria. Qualification under a basin closure exception allows the Department to accept an application for processing. The Applicant must still prove the requisite criteria. *E.g., In the Matter of Application for Beneficial Water Use Permit No. 41K-30043385 by Marc E. Lee* (DNRC Final Order 2011); *In the Matter of Application for Beneficial Water Use Permit No. 41K-30045713 by Nicholas D. Konen*, (DNRC Final Order 2011).

§ 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. The Applicant requested and was granted a variance from the aquifer testing requirements pursuant to 85-2-311, MCA, due to the nature of the source and means of diversion not including a pump. The site's geologic characteristics and a site geology comparison to similar bedrock systems yielded a hydraulic conductivity estimate of less than 100 feet per day for the unconfined aquifer. The transmissivity and storage coefficients for the aquifer are not available as the thickness of the aquifer is unknown and pump test data is unavailable. Local geologic conditions indicate a groundwater flow direction along the Bonner Formation geologic fault. No pumping will occur that would create an unnatural drawdown effect within the source aquifer.

15. A 12-inch rectangular weir was used to measure the flow rate of the developed spring between December 2013 and November 2014 which resulted in the following flow rates:

Month	Physical Availability
January	209 GPM
February	No measurement
March	225 GPM
April	282 GPM
May 1 – 14	248 GPM
October 16 – 31	209 GPM
November	225 GPM
December	209 GPM

16. No flow measurement was provided with which to determine physical availability during the month of February, but for the purpose of this Application the Department assumed that flows during this time were no lower than 209 GPM as this is the lowest flow measurement collected for any month from the developed spring. Flow measurements from all other months show at least twice the requested 100 GPM flow rate.

17. All diverted water will be conveyed via a 1,480-foot, 4-inch diameter pipeline from the proposed point of diversion to the place of use where it will flow through a micro hydroelectric turbine to produce power for the Applicant's single family residence and shop. Once it has passed through the turbine, the diverted water will be returned to Burnt Bridge Creek via gravity discharge through a 20-foot, 6-inch diameter pipe.

18. The proposed use is considered non-consumptive and there is no net depletion downstream of the point of return to Burnt Bridge Creek.

19. The Department finds that groundwater is physically available in the amount proposed for diversion.

CONCLUSIONS OF LAW

20. 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."

21. 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).

22. 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).

23. 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. (FOF 14-19)

Legal Availability:

FINDINGS OF FACT

24. There are three senior surface water users (76F 30369, 76F 116291, and 76F 30049603) on Burnt Bridge Creek, and one other water right (76F 30071539) owned by the Applicant that diverts water from the same developed spring proposed in this application. Water right numbers 76F 116291 and 76F 30049603 are for instream stock watering out of Burnt Bridge Creek appurtenant to the Applicant's property and other properties located downgradient on the source. With the exception of the stock watering occurring on the Applicant's parcel, all other stock use occurs below the point of discharge and water quantity for these rights will not be affected by the proposed domestic hydropower use. For the purpose of legal availability the Department included 76F 116291, 76F 30049603, and 76F 30071539 in the analysis to be conservative. Water right numbers 76F 116291 and 76F 30049603, are filed for a combined 18 cows, or 18 animal units, with each animal unit representing a withdrawal from the source of 30 gallons per day (GPD). Calculated into a flow rate 18 animal units equals 540 GPD or 0.375 GPM. Water right number 76F 30071539 is a ground water certificate owned by the Applicant for domestic, stock, and lawn and garden irrigation that lists a flow rate of 35 GPM and a period of diversion that is year-round. Water right 76F 30369 is owned by Bonnie & Gary Farnum, and has a period of use listed as May 15th through October 15th. The diversion for this right is located in the reach of Burnt Bridge Creek between the Applicant's proposed point of diversion and point of discharge. The span of the period of diversion proposed by the Applicant (October 16th through May 14th) occurs entirely outside of and does not overlap with the Farnum period of diversion and the right is not considered in the legal availability analysis for this application. The legal availability of water during the period of diversion requested by the Applicant is summarized in the following table:

Month	Physical Availability	Existing Water Rights	Legally Available
January	209 GPM	35.38 GPM	173.62 GPM
February	No measurement	35.38 GPM	*173.62 GPM
March	225 GPM	35.38 GPM	189.62 GPM
April	282 GPM	35.38 GPM	246.62 GPM
May 1 – 14	248 GPM	35.38 GPM	212.62 GPM
October 16 – 31	209 GPM	35.38 GPM	173.62 GPM
November	225 GPM	35.38 GPM	189.62 GPM
December	209 GPM	35.38 GPM	173.62 GPM

*No flow measurement was provided on which to evaluate legal availability during the month of February, but for the purpose of this application, the Department assumed that flows during this month were no lower than 209 GPM as this is the lowest flow measurement collected for any month from the developed spring.

25. There are no other water users located between the proposed point of diversion and the reach of Burnt Bridge Creek into which return flows will reappear.

26. The physical amount of groundwater available is measured to be at least twice the Applicant’s requested flow rate of 100 GPM during the proposed period of diversion, and the absence of existing legal demands of water shows that water is legally available during the Applicant’s requested period of diversion.

CONCLUSIONS OF LAW

27. Pursuant to § 85-2-311(1)(a), MCA, an applicant must prove by a preponderance of the evidence that:

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

- (A) identification of physical water availability;
- (B) identification of existing legal demands on the source of supply throughout the area of potential impact by the proposed use; and
- (C) analysis of the evidence on physical water availability and the existing legal demands,

including but not limited to a comparison of the physical water supply at the proposed point of diversion with the existing legal demands on the supply of water.

E.g., ARM 36.12.101 and 36.12.120; Montana Power Co., 211 Mont. 91, 685 P.2d 336 (Permit granted to include only early irrigation season because no water legally available in late irrigation season); *In the Matter of Application for Beneficial Water Use Permit No. 81705-g76F by Hanson* (DNRC Final Order 1992).

28. It is the applicant's burden to present evidence to prove water can be reasonably considered legally available. *Sitz Ranch v. DNRC*, DV-10-13390, Fifth Judicial District Court, *Order Affirming DNRC Decision*, (2011) Pg. 7 (the legislature set out the criteria (§ 85-2-311, MCA) and placed the burden of proof squarely on the applicant. The Supreme Court has instructed that those burdens are exacting.); see also *Matter of Application for Change of 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.

29. Pursuant to *Montana Trout Unlimited v. DNRC*, 2006 MT 72, 331 Mont. 483, 133 P.3d 224, the Department recognizes the connectivity between surface water and ground water and the effect of pre-stream capture on surface water. E.g., *Wesmont Developers v. DNRC*, CDV-2009-823, Montana First Judicial District Court, *Memorandum and Order*, (2011) Pgs. 7-8; *In the Matter of Beneficial Water Use Permit Nos. 41H 30012025 and 41H 30013629 by Utility Solutions LLC* (DNRC Final Order 2006)(mitigation of depletion required), *affirmed*, *Faust v. DNRC et al.*, Cause No. CDV-2006-886, Montana First Judicial District (2008); see also *Robert and Marlene Takle v. DNRC et al.*, Cause No. DV-92-323, Montana Fourth Judicial District for Ravalli County, *Opinion and Order* (June 23, 1994) (affirming DNRC denial of Applications for Beneficial Water Use Permit Nos. 76691-76H, 72842-76H, 76692-76H and 76070-76H;

underground tributary flow cannot be taken to the detriment of other appropriators including surface appropriators and ground water appropriators must prove unappropriated surface water, *citing* Smith v. Duff, 39 Mont. 382, 102 P. 984 (1909), and Perkins v. Kramer, 148 Mont. 355, 423 P.2d 587 (1966)); *In the Matter of Beneficial Water Use Permit No. 80175-s76H by Tintzman* (DNRC Final Order 1993)(prior appropriators on a stream gain right to natural flows of all tributaries in so far as may be necessary to afford the amount of water to which they are entitled, *citing* Loyning v. Rankin (1946), 118 Mont. 235, 165 P.2d 1006; Granite Ditch Co. v. Anderson (1983), 204 Mont. 10, 662 P.2d 1312; Beaverhead Canal Co. v. Dillon Electric Light & Power Co. (1906), 34 Mont. 135, 85 P. 880); *In the Matter of Beneficial Water Use Permit No. 63997-42M by Joseph F. Crisafulli* (DNRC Final Order 1990)(since there is a relationship between surface flows and the ground water source proposed for appropriation, and since diversion by applicant's well appears to influence surface flows, the ranking of the proposed appropriation in priority must be as against all rights to surface water as well as against all groundwater rights in the drainage.) Because the applicant bears the burden of proof as to legal availability, the applicant must prove that the proposed appropriation will not result in prestream capture or induced infiltration and cannot limit its analysis to ground water. § 85-2-311(a)(ii), MCA. Absent such proof, the applicant must analyze the legal availability of surface water in light of the proposed ground water appropriation. *In the Matter of Application for Beneficial Water Use Permit No. 41H 30023457 By Utility Solutions LLC* (DNRC Final Order 2007) (permit denied); *In the Matter of Application for Beneficial Water Use Permit No. 76H-30028713 by Patricia Skergan and Jim Helmer* (DNRC Final Order 2009); Sitz Ranch v. DNRC, DV-10-13390, Fifth Judicial District Court, *Order Affirming DNRC Decision*, (2011) Pg. 5 ; Wesmont Developers v. DNRC, CDV-2009-823, First Judicial District Court, *Memorandum and Order*, (2011) Pgs. 11-12.

30. Where a proposed ground water appropriation depletes surface water, applicant must prove legal availability of amount of depletion of surface water throughout the period of diversion either through a mitigation /aquifer recharge plan to offset depletions or by analysis of the legal demands on, and availability of, water in the surface water source. Robert and Marlene Takle v.

DNRC et al., 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 et al., 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.

31. A flow of water on a given date does not show that water is legally available without showing that all prior appropriators were diverting all claimed water at that moment. Sitz Ranch v. DNRC, DV-10-13390, Fifth Judicial District Court, *Order Affirming DNRC Decision*, (2011) Pgs. 5-6. A flow of water past a point on a particular date or dates does not demonstrate that water is legally available. Id.

32. 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.

33. *In the Matter of Beneficial Water Use Permit No. 62935-s76LJ by Crop Hail Management* (DNRC Final Order 1991)(Applicant showed water physically available for appropriation by producing evidence based on upstream diversions; however, he failed to show water legally available with information of downstream uses).

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. (FOF 24-26)

Adverse Effect

FINDINGS OF FACT

35. No net depletion of surface water is expected from the Applicant’s proposed purpose as the volume of water that will be returned to Burnt Bridge Creek via a 20-foot long, 6-inch diameter pipe after it has been used to generate hydroelectricity equals the total diverted volume, and the proposed period of diversion occurs entirely outside of the period of diversion of the only potentially impacted surface water right. In addition, diversion design specifications limit the developed spring’s flow rate to (or lower than) the requested rate of 100 GPM.

36. Since the developed spring is the source of an unnamed stream that is tributary to Burnt Bridge Creek, the Applicant's proposed beneficial use is considered non-consumptive as all diverted water will be completely enclosed in a pipeline until it is ultimately discharged approximately 1,530 feet downstream of the point of diversion back into Burnt Bridge Creek where it will then be available to downstream users.

37. The Department finds that the Applicant's proposed non-consumptive purpose, pattern of use, and plan to discharge all diverted water back to Burnt Bridge Creek after it is put to beneficial use will not cause adverse effect to the other water users located within the potentially impacted area.

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. (FOF 35-37)

Adequate Diversion

FINDINGS OF FACT

45. Flow rate measurements were taken by using a 12-inch rectangular weir located immediately down gradient of the developed spring. The hydropower operation was designed and construction was overseen by Solar Plexus – a Missoula based alternative energy development company – and the proposed system was found to be capable of diverting, utilizing, and redistributing the developed water.
46. Preliminary designs include installing a permanent diversion dam and attaching a 4-inch diameter pipeline into the dam. The system will be equipped with throttle valves to limit the diverted flow rate to the requested rate of 100 GPM, or less. The pipeline will the convey water

at or below the requested rate of 100 GPM over approximately 1,480 feet to the power house containing the micro hydro turbine. The elevation change between the point of diversion and place of use is approximately 180 feet and is considered high enough to sufficiently power the system, which operates at vertical heads of 6 feet or more.

47. The proposed hydropower system will be completely enclosed by pipeline. After traveling through the turbine discharged water will enter a settling basin before it is gravity-discharged by a 20-foot long, 6-inch diameter pipe back into Burnt Bridge Creek.

48. The Department finds that the proposed diversion construction and operation are capable of delivering water at the requested rate of 100 GPM.

CONCLUSIONS OF LAW

49. 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.

50. 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.

51. Applicant has proven by a preponderance of the evidence that the proposed means of diversion, construction, and operation of the appropriation works are adequate for the proposed beneficial use. § 85-2-311(1)(c), MCA (FOF 45-48).

Beneficial Use

FINDINGS OF FACT

52. The Applicant proposes to divert water from a developed spring at a rate of 100 GPM (up to 68.5 AF) for the purpose of generating hydroelectricity to meet domestic power needs. Total water use will be limited by a hydropower system equipped with throttle valves that will be used to keep the flow rate at or below 100 GPM. Solar power will be used in conjunction with the

hydropower system to satisfy 100% of domestic power demands at the place of use during times when the proposed hydropower system is offline.

53. According to the design specifications of the proposed hydropower system the requested flow rate of 100 GPM will be capable of generating 1,200 watts of electricity, or 28.8 kilowatt hours of electricity per day, 864 kilowatt hours per month, and approximately 4,464 kilowatt hours for the duration of the requested period of diversion (October 16th through May 14th, or 155 days).

54. The elevation change between the point of diversion and place of use is approximately 180 feet and is considered high enough to sufficiently power the system, which operates at heads of about 6 feet or more. In addition, the Department has found that the proposed hydro turbine's electrical output of 1,200 watts aligns with the power output expected to result from an elevation change (or vertical head) of approximately 180 feet and a flow rate of 100 GPM.

CONCLUSIONS OF LAW

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

56. #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).

57. Applicant proposes to use water for domestic hydropower generation which is a recognized beneficial use. § 85-2-102(4), MCA. Applicant has proven by a preponderance of the evidence that hydropower generation is a beneficial use and that 68.8 AF of diverted volume and 100 GPM of water requested is the amount needed to sustain the beneficial use. § 85-2-311(1)(d), MCA, (FOF 52-54)

Possessory Interest

FINDINGS OF FACT

58. 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

59. 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.

60. 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.

61. The Applicant has proven by a preponderance of the evidence that it has a possessory interest, or the written consent of the person with the possessory interest, in the property where the water is to be put to beneficial use. § 85-2-311(1)(e), MCA. (FOF No. 58)

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. 76F 30072309 should be GRANTED.

The Department determines the Applicant may divert groundwater from an unnamed tributary of Burnt Bridge Creek in Missoula County, by means of a developed spring, from October 16th to May 14th at 100 GPM up to 68.5 AF, from a point in the SENWNE of Section 25, T14N R17W, Missoula County, for the generation of domestic hydroelectricity use from October 16th to May 14th. The place of use is located in the SWSENE of Section 25, T14N R17W, in Missoula County.

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 5th day of August, 2016.

/Original signed by Jim Nave/

Jim Nave, Manager

Missoula Regional Office

Department of Natural Resources and Conservation

CERTIFICATE OF SERVICE

This certifies that a true and correct copy of the PRELIMINARY DETERMINATION TO GRANT was served upon all parties listed below on this 5th day of August, 2016, by first class United States mail.

MATTHEW & MELISSA ARNO
P.O. BOX 956
BONNER, MONTANA 59823

DANIKA HOLMES

DATE