

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

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**APPLICATION FOR BENEFICIAL  
WATER USE PERMIT NO. 40A 30049157** ) **PRELIMINARY DETERMINATION TO  
GRANT PERMIT**

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On August 31, 2010, Signal Peak Energy LLC (Applicant) submitted Application for Beneficial Water Use Permit No. 40A 30049157 to the Lewistown Water Resources Office of the Department of Natural Resources and Conservation (Department or DNRC) for an appropriation of 700 gallons per minute (GPM) up to 1,130 acre feet (AF) annually. The source is ground water, and the diversion means are two wells. The Department published receipt of the Application on its website. The Department sent Applicant a deficiency letter under § 85-2-302, Montana Code Annotated (MCA), dated November 18, 2010. The Applicant requested an additional 15 days beyond the 30 day deadline to provide the required information. The Applicant responded with information dated December 29, 2010. The Department requested further clarification of Applicant's deficiency response and the Applicant developed that information over the course of several months in 2011. The Application was determined to be correct and complete as of January 31, 2012. An Environmental Assessment for this Application was completed on March 30, 2012.

**INFORMATION**

The Department considered the following information submitted by the Applicant.

Application as filed:

- Application for Beneficial Water Use Permit, Form 600
- Attachments
- Maps: USGS Quadrangle 1" = 2000' scale depicting project place of use, aerial photo showing project area with well and reservoir locations, and preliminary design specifications illustrating the proposed reservoir plan.
- Aquifer testing and monitoring data.

EXHIBIT 2

### Information Received after Application Filed

- September 29, 2010 analysis (memorandum) from Department Groundwater Hydrologist regarding aquifer testing procedures and results.
- Applicant's response to the Department's deficiency letter dated and received on December 29, 2010.
- February 3, 2011 memorandum from Department Groundwater Hydrologist regarding Applicant's deficiency letter response.
- Applicant's clarification memorandum dated May 5, 2011 in response to the Department's Groundwater Hydrologists' February 3, 2011 analysis.
- Applicant's clarification memorandum for beneficial use dated September 13, 2011.
- Applicant's clarification memorandum for adequacy of diversion and physical availability dated December 9, 2011.
- Measurement reports for the two groundwater wells dated January 24, 2012.
- Phone conversations with mine superintendent Bob Oschner on February 21, 2012 and March 1, 2012 to confirm mine operations.

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 the Madison Formation by means of two wells located in Musselshell County and identified in the application materials as Madison Well #2 (MW2) and Madison Well #3 (MW3). An existing well, Madison Well #1 (MW1), was previously authorized a flow rate of 350 GPM up to 565 AF annually under Provisional Permit No. 40A 30022892 and is proposed to be used in conjunction with the two wells subject to this application. All three wells may be used simultaneously and in any combination, but will not exceed an appropriation of 700 GPM up to 1,130 AF annually. MW2 is 8,713 feet deep and is situated in the W2SWNE Section 14 T6N R26E. MW3 is 9,335 feet deep and is located in the

NWNE Section 14 T6N R26E. Water will be used for industrial purposes associated with coal mining operations at Bull Mountains Mine #1 and will be used from January 1 to December 31 of each year. Water will be pumped from the groundwater wells to two lined ponds, referred to as Madison Pond #1 (MP1) and Madison Pond #2 (MP2). MP1 is a 14.6 AF existing pond located in the E2SENE Section 14 T6N R26E. MP2 is an 11.6 AF proposed pond located in the S2SWNE Section 14 T6N R26E. The estimated annual evaporation for the ponds at full capacity is 8.3 AF per year. Water will be pumped to the preparation plant from the ponds and gravity fed to the underground coalmine to be used for dust abatement during the mining process. Water can also be fed to a thickener tank, where magnetite is introduced into the process as a sorbent to collect impurities and from which the coal can be conveyed to the preparation plant with the residuals deposited in an on-site solid waste storage facility. Wastewater from the thickener tank and preparation plant remains in a closed loop system. The place of use is both on the surface and subsurface and is generally located in multiple sections in T6N R26E and T6N R27E, in both Musselshell and Yellowstone counties.

2. As stated above, MW2 is drilled to a total depth of 8,713 feet, and MW3 is drilled to a depth of 9,335 feet. Water will be appropriated from the Madison Group Limestones, which are overlain by numerous confining geologic layers. After storage of the water in the two ponds, it is used in mining operations and does not return to the source aquifer. Therefore, all of the water is consumed in relation to the source aquifer.

3. The Applicant states it will use 8-inch inline McCrometer flow meters to record water use, and is agreeable to a condition for such use.

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

##### **GENERAL CONCLUSIONS OF LAW**

4. 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 . . .

5. 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.

6. 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); ARM 36.12.207.

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

The 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).

8. 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.

9. 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**

10. The proposed combined appropriation (two groundwater wells) is from the Madison Aquifer at a flow rate of 700 GPM and associated volume of up to 1,130 AF per year. Aquifer testing was conducted on both wells, MW2 and MW3. The Applicant conducted a 94.4-hour duration constant rate aquifer test on MW2 on August 10, 2009, and a 64.8-hour drawdown and yield test on MW3 on May 9, 2010. File.

#### **Groundwater Well MW2**

11. MW2 was pumped at an initial rate of 600 GPM, which increased to 650 GPM after one-half hour and then declined to a stabilized flow rate after 24 hours of pumping to 350 GPM throughout the remainder of the test. Applicant reports that the average flow rate for the test was 361.7 GPM (maximum expected withdrawal from each groundwater well is 350 GPM). As reported on its Aquifer Test Data Form, drawdown in MW2 at the end of the constant rate test was 4,227.6 feet, leaving less than 10 feet of water remaining above the pump intake. However, the Applicant explains the magnitude of drawdown was due to compaction and sealing of material (soil/rock) that occurred in the borehole during drilling. Subsequent to the drilling

operation, and aquifer testing, the borehole underwent acid treatment twice, increasing conductivity to the well. The Applicant reports that the compaction of material was corrected with this treatment. Department Hydrogeologist Russell Levens concurs that the acid treatment could improve physical water availability to the well by dissolving the carbonate rock compacted and sealed by the drilling process.

12. According to the Applicant, MW2 has been in operation (pumping) since July 2, 2010, except for a 4-hour period due to a power outage. Over this period (approximately 18 months), the well has continuously pumped at variable flow rates of up to the proposed flow rate, and water remains significantly above the pump intake. Records were filed with the Department showing measurements. Specifications in the file indicate the pump model is a Woods Group TE 11000. The pump curve indicates the pump is capable of achieving a flow rate of 350 GPM.

13. The radius of influence (ROI) of MW2 was calculated at 4.86 miles using aquifer parameters, the AQTESOLV program, and the Theis equation. Aquifer flux was calculated using the estimated ROI, a transmissivity value of 24 ft<sup>2</sup>/day and a hydraulic gradient of 0.01. Flux in the source aquifer is estimated to be 106 AF annually. Additionally, the Applicant included calculations for contributions of water leaking into the Madison aquifer from overlying and underlying stratigraphic layers. The Applicant's consultant used the Konikow and Neuzil equation to estimate that 1,340 AF per year is available from adjacent confined layer storage to the pumping well. The combined aquifer flux estimated to be available through the ROI is 1,446 AF per year (106 AF + 1,340 AF = 1,446 AF). This estimate exceeds the total volume appropriation requested of 1,130 AF. Department Hydrogeologist Russell Levens evaluated the method used by the Applicant in estimating aquifer flux, including contributions from surrounding strata, and found the results to be credible.

14. The Department finds that MW2 is capable of diverting a flow rate of 350 GPM, and that the volume of water physically available to MW2 exceeds the proposed combined volume of 1,130 AF.

#### Groundwater Well MW3

15. A yield test was performed on MW3 for 64.8 hours at an average flow rate of 330 GPM. This yield test occurred at the same time that MW2 was pumping. Maximum drawdown in



MW3 was recorded to be 2149.1 feet, leaving more than 2800 feet of water above the pump intake elevation upon the conclusion of the test.

16. The Applicant utilized MW3 throughout much of 2010 and 2011. Submitted reports indicate that MW3 was operating at 320 GPM in all but 88 days between May 9, 2010 and December, 2011. Between the period of December 21, 2011 and January 18, 2012 MW3 pumped continuously at 320 GPM. Although recent pumping of the well occurred at a flow rate of 320 GPM, The pump curve for MW3 indicates it is capable of achieving 350 GPM.

17. The ROI calculated for MW2 is similar to MW3, as the two wells are drilled to similar depths into the Madison Formation, are constructed similarly, and are located within 3/8 mile of each other. The aquifer flux exceeds the proposed combined appropriation of 1,130 AF.

18. Department hydrogeologist Russell Levens has reviewed the yield test results, calculations, and models used to estimate the Applicant's conclusions for MW3, and believes the information to be credible.

19. The Department finds that MW3 is capable of diverting a flow rate of 350 GPM, and that the volume of water physically available to it exceeds the proposed combined volume of 1,130 AF.

#### Combined Appropriation of MW2 and MW3

20. The Department finds that MW2 and MW3 are capable of diverting a combined flow rate of 700 GPM, and that the volume of water physically available to both wells exceeds the proposed combined volume of 1,130 AF.

#### CONCLUSIONS OF LAW

21. 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."

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, and that at least in some years no legitimate calls for water will be made by a senior appropriator.

23. 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).

24. 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, 20)

**Legal Availability:**

**FINDINGS OF FACT**

25. The estimated ROI extends a distance of approximately five miles from the proposed groundwater wells. The only existing demands on the same source aquifer are water rights owned by the Applicant or Applicant's parent company. Provisional Permit No. 40A 30004013, owned by Bull Mountain Development CO #1 LLC, and Provisional Permit No. 40A 30022892 owned by Signal Peak Energy LLC, are the only legal demands in the Madison aquifer for a distance of at least 20 miles. These wells are cased to a minimum of 7900 feet below ground surface, with open borehole from that point to final well depth. The Applicant states that both Bull Mountain and Signal Peak are owned by the same parent company and at present, Bull Mountain Development is in the process of deeding their surface and water rights to Signal Peak Energy LLC.

26. The legal demand associated with Provisional Permit 40A 30004013 is 1,100 GPM with an associated volume of up to 1,774 AF annually. The legal demand associated with Provisional Permit 40A 30022892 is 350 GPM up to 565 AF, combining for a total yearly legal demand of 1,450 GPM and 2,339 AF. The estimated aquifer flux within the ROI is 1,446 AF, which is less than the existing permitted uses (Provisional Permit 40A 30004013 is still an unperfected permit at this time). Both the Applicant and Bull Mountain Development are owned by the same parent company, and as such, appropriations from all existing water rights will be managed in coordination with each other. However, Provisional Permit Nos. 40A 30004013 and 40A 30022892 are senior to this proposed appropriation, and may "call" the proposed appropriation if actual groundwater availability is less than the legal demand. In order to meet the legal availability criteria the Applicant must be capable of controlling its diversion works and responding to future calls, should there be any. The Applicant has control over its diversion

works (well) and can cease appropriations by shutting down its pump. In addition, the Applicant has agreed to a condition being placed on its permit that acknowledges the other legal demands within the ROI and requires it to cease appropriations if necessary to meet those demands.

27. Applicant discussed the potential for surface water depletions due to the proposed groundwater appropriation, and determined any connection was unlikely. The evaluation included potential impacts to Big Springs near Lewistown, Montana, the nearest estimated surface discharge point for Madison Aquifer groundwater. The Applicant found there are numerous structural and hydraulic boundaries lying between the proposed appropriation and Big Springs, and that Big Springs is 80 miles distant, therefore making depletions extremely unlikely. The Department's Hydrogeologist, Russell Levens, agreed that the Applicant's analysis was credible, and therefore surface water would not be depleted. Phone communication with Russell Levens.

28. The Applicant has met its burden of proof in regard to legal availability, given its ability to control and cease appropriations to meet legal demands, if necessary. The Applicant has agreed to a condition acknowledging its obligation to manage appropriations to meet legal demands. See condition in the Conditions section of this Order.

#### CONCLUSIONS OF LAW

29. 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.

30. It is the applicant's burden to present evidence to prove water can be reasonably considered legal available.

31. 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., *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. Dillion 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).

32. 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); *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). 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.

33. The Applicant has agreed to a condition to ensure legal demands are met by prior appropriations, and therefore has proven by a preponderance of the evidence that groundwater can reasonably be considered legally available during the period in which it seeks to appropriate. (FOF 28)

### **Adverse Effect**

### **FINDINGS OF FACT**

34. The Applicant states it will measure and record water use to ensure it does not appropriate more water than has been authorized. A water measurement condition is included in this Preliminary Determination so that the Applicant can monitor appropriations.

35. The only wells diverting water from the source aquifer within the ROI are owned by the Applicant or by the Applicant's parent company. The Applicant must adjust its operations so that any combination of pumping wells are not affected by any single pumping well. Conditions have been placed in this Order to protect existing uses, and the Applicant acknowledges and accepts those conditions.

36. The Department finds that ground water rights will not be adversely affected by the proposed appropriation because the Applicant has a plan to meet existing legal demands, and it will measure, monitor and control its appropriations.

37. The Applicant provided a discussion concerning groundwater/surface water interaction and has shown it is unlikely that interaction will occur. The Department's reviewing Hydrogeologist concurs with this conclusion. The Department finds that surface water rights will not be adversely affected by the proposed appropriation because the source aquifer is confined at great depth and the wells are drilled a great distance from any known Madison Formation recharge or discharge areas. Phone communication with Russell Levens.

#### 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).

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. It is the applicant's burden to produce the required evidence. *E.g., 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. *E.g., In the Matter of Application for Beneficial Water Use Permit Nos. 56782-76H and 5830-76H by Bobby D. Cutler* (DNRC 1987) (constant call is adverse effect); *In the Matter of Application for Beneficial Water Use Permit No. 80175-s76H by Tintzmen* (DNRC 1993) (constant call is adverse effect); *In the Matter of Application for Beneficial Water Use Permit No. 81705-g76F by Hanson* (DNRC 1992)(applicant must show that at least in some years no legitimate call will be made); *In the Matter of Application for Beneficial Water Use Permit No. 76N 30010429 by Thompson River Lumber Company* (DNRC 2006).

41. 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. (FOFs 36 and 37)

### **Adequate Diversion**

#### **FINDINGS OF FACT**

42. Water will be appropriated via two groundwater wells. The wells were drilled by Gordon Drilling, a licensed well driller located in Roundup, Montana. MW2 is equipped with a 600 horsepower motor to power a 60 hertz 155-stage Wood Group TE 11000 submersible pump, while MW3 is equipped with a Global artificial lift installation consisting of one 450 horsepower Series 562 45-70 hertz variable frequency drive motor to power two 48-stage Series GD5-8500 CMP HSS pumps. The pump intake for MW2 is set at approximately 4,677 feet below ground surface, with the pump intake for MW3 set at 4,761 feet below ground surface. The sustainable well yield for each pump is predicted to be 350 GPM. The two proposed wells will be used in combination with an existing well. The three wells may operate simultaneously, but will not exceed a flow rate of 700 GPM. The schedule for diverting groundwater will depend on varying

mining operations and the amount of water in storage. Water meters will be installed to monitor and record flow rate and volume. Department file.

43. Buried 8-inch pipe (Driscoll Pipe SDR11) will deliver water from the groundwater wells to either Madison Pond #1 (MP1) or Madison Pond #2 (MP2), or the thickener tank. A pump station (secondary diversion point) will pump water from MP1 to the preparation plant, from which water is either used in the preparation plant or distributed by gravity to the coalmine. MP1 has a capacity of 14.6 AF, and MP2 will have a capacity of 11.6 AF. Pond location and plans are included in the application materials. Department file.

44. The Department finds the proposed means of diversion, construction, and operation of the appropriation works are adequate for the proposed beneficial use.

#### CONCLUSIONS OF LAW

45. 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. 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.

46. Water wells must be constructed according to the laws, rules and standards of the Board of Water Well Contractors to prevent contamination of the aquifer. *In the Matter of Application for Beneficial Water Use Permit No. 411-105511 by Flying J Inc.* (DNRC Final Order 1999).

47. 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. (FOF 44)

#### Beneficial Use

#### FINDINGS OF FACT



48. Groundwater will be used for industrial purposes at a maximum flow rate of 700 GPM up to 1,130 AF annually. The purpose of use is associated with coal mine operations, including coal preparation and dust suppression.

49. The Applicant plans to operate each well to meet design production at the mine. In other words, mine operation is adapted to well production and the wells' ability to keep the ponds supplied with water. The requested volume includes a plan of full-time operation, which the Applicant says at 700 GPM and 1,130 AF per year would equate to production of about one million tons of coal per month. Water is also proposed to be used for dust abatement purposes on surface roads during dry weather conditions.

50. The Department finds the proposed amounts of water to be a beneficial use.

#### CONCLUSIONS OF LAW

51. Under § 85-2-311(1)(d), MCA, an Applicant must prove by a preponderance of the evidence the proposed use is a beneficial use. An appropriator may appropriate water only for a beneficial use. See also, §§ 85-2-301 and 402(2)(c), 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.

52. 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

53. Evidence must be presented to show the amount of water is necessary for beneficial use. *In the Matter of Application for Beneficial Water Use Permit No. 41S-105823 by French* (DNRC Final Order 2000).

54. It is the applicant's burden to produce the required evidence. *In the Matter of Application to Change Water Right No. 41H 1223599 by MGRR #1, LLC.*, (DNRC Final Order 2005); see also Royston; Ciotti.

55. Applicant proposes to use water for Industrial purposes at a coalmine which is a recognized beneficial use. § 85-2-102(4), MCA. Applicant has proven by a preponderance of the evidence that 1,130 AF of diverted volume and 700 GPM of water requested is the amount needed to sustain the beneficial use. (FOF 50)

### **Possessory Interest**

#### **FINDINGS OF FACT**

56. 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**

57. 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.

58. 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.

59. 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 56)

### CONDITIONS

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

1. **\*\*WATER MEASUREMENT RECORDS REQUIRED**  
THE APPROPRIATOR SHALL INSTALL DEPARTMENT APPROVED IN-LINE FLOW METERS IN THE DELIVERY LINES OF THE TWO GROUNDWATER WELLS ASSOCIATED TO THIS WATER RIGHT. THE LOCATION OF THE FLOW METERS MUST BE APPROVED BY THE DEPARTMENT. WATER MUST NOT BE DIVERTED UNTIL THE REQUIRED MEASURING DEVICES ARE IN PLACE AND OPERATING. 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. FAILURE TO SUBMIT RECORDS MAY BE CAUSE FOR REVOCATION OF THE AUTHORIZATION. THE RECORDS MUST BE SENT TO THE LEWISTOWN WATER RESOURCES REGIONAL OFFICE. THE APPROPRIATOR SHALL MAINTAIN THE MEASURING DEVICES SO THEY ALWAYS OPERATE PROPERLY AND MEASURE THE FLOW RATE AND VOLUME ACCURATELY.

SUBMIT RECORDS TO:  
LEWISTOWN WATER RESOURCES OFFICE  
613 NE MAIN ST, SUITE E  
LEWISTOWN, MT  
PHONE: 406-538-7459  
FAX: 406-538-7012

2. **\*\* IMPORTANT INFORMATION**  
THIS PROVISIONAL PERMIT IS ASSOCIATED TO PROVISIONAL PERMIT NO. 40A 30022892. WATER MAY BE APPROPRIATED FROM ANY COMBINATION OF THE THREE GROUNDWATER WELLS ASSOCIATED WITH THE TWO PERMITS UP TO 700 GPM AND 1,130 AF.
  
3. **\*\* IMPORTANT INFORMATION**  
OPERATION OF THIS PROVISIONAL PERMIT IS SUBJECT TO WATER BEING LEGALLY AVAILABLE FROM THE MADISON GROUP AQUIFER. THIS PERMIT IS JUNIOR IN PRIORITY AND IS REQUIRED TO CEASE DIVERSION SHOULD A VALID CALL ON WATER BE PLACED BY OPERATORS OF SENIOR WATER RIGHTS.

### **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. 40A 30049157 should be GRANTED.

The Department determines the Applicant may divert water from the Madison Group Aquifer by means of two groundwater wells from January 1 to December 31. MW2 is 8,713 feet deep and is located in the W2SWNE Section 14 T6N R26E. MW3 has a total depth of 9,335 feet and is in the NWNENE Section 14 T6N R26E. The authorized flow rate is 700 GPM, with an associated volume of up to 1,130 AF per year. The water will be used for industrial purposes to support year around coalmine operations. The place of use is subsurface and can generally be described as multiple sections in T6N R26E and T6N R27E in Musselshell County and multiple sections in T6N R27E in Yellowstone County. The Applicant may store water in two reservoirs, MP1 is a 14.6 AF reservoir located in the E2SENE Section 14 T6N R26E and MP2 is an 11.6 AF reservoir located in the S2SWNE Section 14 T6N R26E.

### **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 2<sup>nd</sup> day of April 2012.

/Original signed by Scott Irvin/  
Scott Irvin, Manager  
Lewistown Regional Office  
Department of Natural Resources and Conservation