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

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APPLICATION FOR BENEFICIAL WATER USE PERMIT NO. 41C 30103257 BY R&D LLC	)))	**PRELIMINARY DETERMINATION TO GRANT PERMIT**

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On July 22, 2015, R&D LLC (Applicant) submitted Application for Beneficial Water Use Permit No. 41C 30103257 to the Bozeman Water Resources Office of the Department of Natural Resources and Conservation (Department or DNRC) for a flow rate of 200 gallons per minute (GPM) and a volume of 0 acre-feet (AF) for the commercial purpose of gravel washing and dust abatement. This permit is associated with Ground Water Certificate No. 41C 30065402, which was issued to the Applicant for 35 GPM up to 8.34 AF and accounts for the full volume used under this permit. The Department published receipt of the Application on its website. The Application was determined to be correct and complete as of January 14, 2016. The Department met with the Applicant for a pre-application meeting on March 11, 2015. An Environmental Assessment for this Application was completed on February 3, 2016.

INFORMATION

The Department considered the following information submitted by the Applicant.

Application as Filed:

- Application for Beneficial Water Use Permit, Form 600 GW
- Attachments
- Maps:
    - Figure GW.3a: R & D LLC Water Right Location
    - Figure GW.3b: R & D LLC Water Right Proposed Project
- Aquifer Testing Report Addendum
    - July 25, 2013, Variance Request from Dave Maddison, JDL Construction Company, to Troy Benn, Department
    - August 29, 2013, letter granting variance request from Kerri Strasheim, Department, to Dave Maddison, JDL Construction Company

- Reservoir/Place of Storage Addendum
- Basin Closure Area Addendum
- Hydrogeologic Assessment Report Addendum
- Copy of Existing Ground Water Certificate No. 41C 30065402

Information Received after Application Filed

- May 9, 2016, memorandum summarizing phone call of same date with David Maddison regarding the point of diversion location

Information within the Department's Possession/Knowledge

- Ground Water Certificate File No. 41C 30065402 (associated right)
- S. Payne, I. Magruder and W. Woessner, "Application of a Groundwater Classification System and GIS Mapping System for the Lower Ruby Valley Watershed, Southwest Montana," *Journal of Water Resource and Protection*, Vol. 5 No. 8, 2013, pp. 775-791. doi: 10.4236/jwarp.2013.58079.

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 by means of a pump for the purpose of commercial aggregate washing and dust control from an existing gravel pit dug to groundwater. The pit is approximately 8 feet deep and has a surface area of 2.02 acres. The Applicant proposes to pump water from June 1 to September 30 of each year. They propose 20 days of pumping every two years, with a maximum of eight hours of pumping per day (one work shift per day). The maximum requested flow rate is 200 gallons per minute (GPM). The Applicant is requesting only additional flow rate because all of the volume used in this project is already accounted for in Ground Water Certificate 41C 30065402. Water will be pumped from the pit to the wash plant place of use with a pump located on a floating platform in the pit. According to a May 9, 2016, conversation with the Applicant, the operation of the project may require that the pump location

be moved, so a remark will be included on the permit and associated Ground Water Certificate indicating that the pump may be moved within the existing gravel pit located in the NWNWSW of Section 35, T04 S, R05 W, Madison County, as needed. All of the pit is located within the NWNWSW of Section 35. After use, water will be conveyed to a settling pond place of storage and, from there, ultimately discharged back into the pit.

2. This permit application for increased flow rate is associated with Ground Water Certificate 41C 30065402, which provides the full volume of water used under the Applicant's operations. Ground Water Certificate 41C 30065402 has a January 25, 2013, priority date and was issued for 35 GPM up to 8.34 AF. The 8.34 AF is broken down as follows: 0.9 AF of volume to fill the settling pond, 1.56 AF of volume lost to evaporation from the settling pond, and 5.89 AF of volume pumped from the gravel pit for aggregate washing and dust abatement. See file 41C 30065402 and the Beneficial Use Section of this document for further discussion of the volume. Ground Water Certificate 41C 30065402 is a Notice of Completion of Groundwater Development and, by its nature, is an exception to the permitting process and filed only after the owner has perfected the use. Since the use is perfected prior to filing the Notice, no verification/certification is conducted by the Department, and therefore, Notices of Completion stand at face value.

3. The project area is located approximately one mile south of the town of Sheridan in Madison County. The point of diversion is the gravel pit located in the NWNWSW of Section 35, T04 S, R05 W, Madison County. The place of use is the gravel wash plant and project site, also located in the NWNWSW of Section 35.

4. The project area is located on private property owned by the Applicant, approximately 4,800 feet south of Mill Creek and 9,500 feet northeast of the Ruby River. Ditches and ditch laterals are also located nearby, including the Vigilante Canal, the Duncan-Moulton-O'Mera Ditch, the Elser Tilton Ditch, and the Lueck Marsh Ditch, in addition to a number of ephemeral, unnamed streams.

5. According to calculations completed by the Applicant's consultant, over 70 percent of the water diverted from the pit is returned back to the source pit. The water that is not returned to the source is consumed by the gravel washing and dust abatement processes, conveyance losses, and

evaporation from the settling pond. All volume is accounted for under the existing Ground Water Certificate No. 41C 30065402.

6. Table 1, below, summarizes the existing right related to this permit application and the proposed new appropriation.

Table 1: Existing and Proposed Uses

Water Right No. (Basin 41C)	Purpose	Flow Rate (GPM)	Vol. (AF)	Period of Use	Point of Diversion[1]	Place of Use	Priority Date
Existing Ground Water Certificate							
30065402	Commercial	35	8.34	6/1 – 9/30	NWNWSW, Section 35, T04 S, R05 W	NWNWSW, Section 35, T04 S, R05 W	1/25/2013
Beneficial Water Use Permit Application							
30103257	Commercial	200	0	6/1 – 9/30	NWNWSW, Section 35, T04 S, R05 W	NWNWSW, Section 35, T04 S, R05 W	7/22/2015
Notes: [1]The point of diversion is the excavated pit dug to groundwater. Water is then conveyed from the pit to the place of use by a pump located on a floatable platform. The pump may be moved within the existing gravel pit, located in the NWNWSW of Section 35, as operational needs require.							

7. Figure 1, on the next page, is an overview map of the project area.

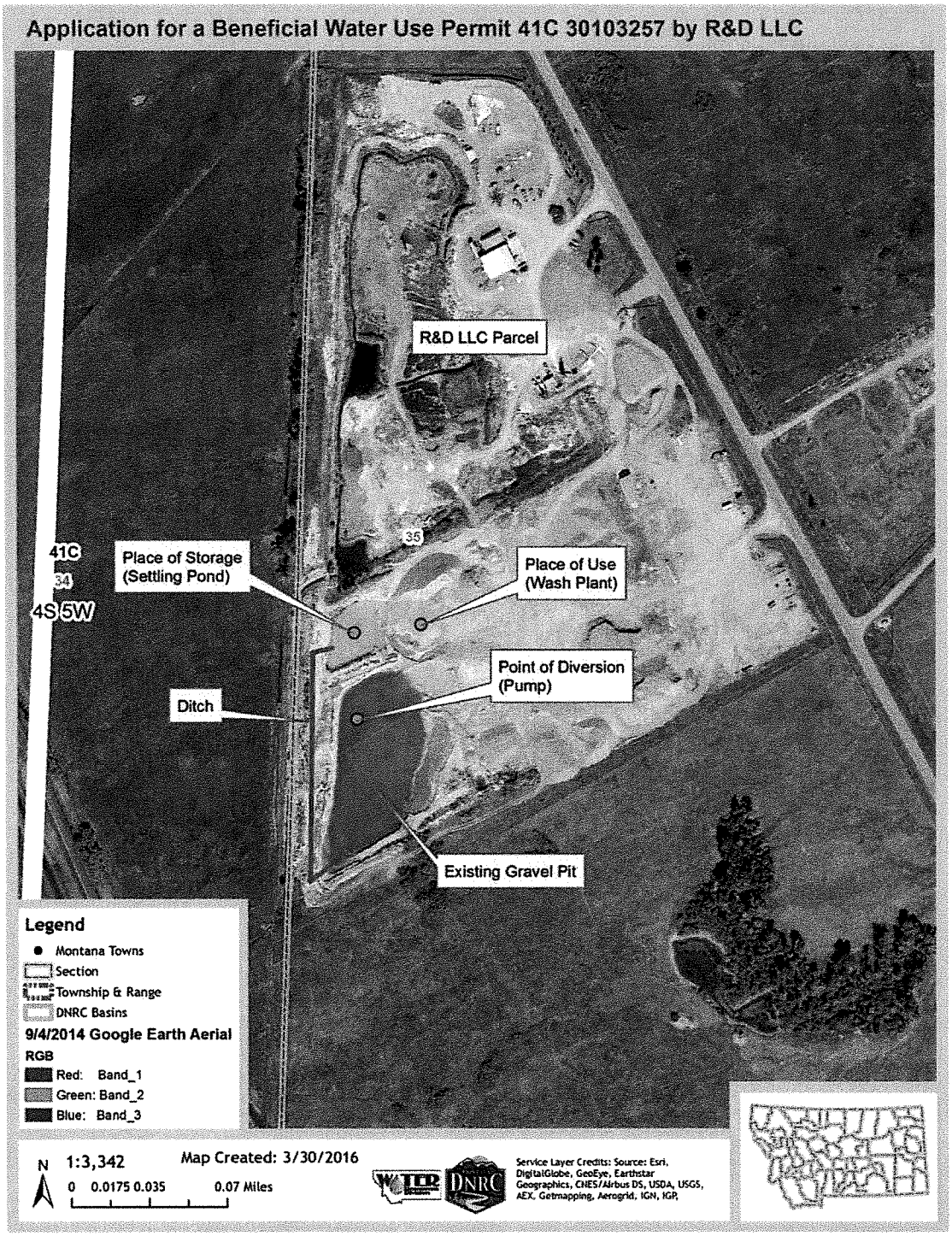

Figure 1: Project Overview Map. Water is pumped from the existing gravel pit and used at the wash plant and surrounding area for gravel washing and dust abatement. Then it is discharged into the settling pond and, from there, conveyed back to the gravel pit via an existing ditch.

BASIN CLOSURE

FINDINGS OF FACT

8. This Application is for commercial use (dust abatement and gravel washing). This Application is located within the Upper Missouri River Basin, which was legislatively closed effective April 16, 1993.

9. The Applicant submitted a Hydrogeologic Assessment Report determined to be correct and complete. They further received a variance from the aquifer testing requirements in an August 29, 2013, letter.

10. The Applicant did not submit an accompanying Application for Change in Water Right.

CONCLUSIONS OF LAW

11. DNRC cannot grant an application for a permit to appropriate water within the Upper Missouri River Basin until final decrees have been issued in accordance with Title 85, chapter 2, part 2, MCA, for all of the sub-basins of the Upper Missouri River Basin. § 85-2-343(1), MCA. The Upper Missouri River Basin consists of the drainage area of the Missouri River and its tributaries above Morony Dam. (§ 85-2-342(3), MCA). The proposed appropriation is located within the Upper Missouri River Basin closure area.

12. This Application is for a nonconsumptive use (additional flow rate only, no volume). The Application falls under the exceptions for the basin closure, § 85-2-342(2)(b), MCA.

13. 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

14. 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 . . .

15. 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.

16. 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.

17. 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.

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).

18. 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.

19. 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

20. The Applicant proposes to increase the flow rate at which they pump water from the existing gravel pit from 35 GPM to 200 GPM. Volume is not requested, as the Applicant has sufficient volume under Ground Water Certificate 41C 30065402, which was issued for 35 GPM up to 8.34 AF per year. The use of groundwater under 41C 30065402 does not exceed 35 GPM or 10 AF per year, so it does not require a permit and is not required to demonstrate any of the criteria for issuance of a permit. As determined in the Technical Report, the pit has a volume of approximately 16.16 AF. As described in their pumping plan, the Applicant proposes to pump water for a maximum of 8 hours per work shift during 20 days every 2 years. According to calculations in the file for Ground Water Certificate 41C 30065402, 200 GPM pumped for 8 hours per day for 20 days equates to 5.89 AF of volume. This is the maximum annual appropriation perfected in Ground Water Certificate 41C 30065402, but the Applicant plans to pump that volume over the course of 2 years under typical operations. The maximum annual use is significantly less than the volume of water exposed in the gravel pit. Water is physically available in excess of the flow rate requested. No volume is requested, so physical availability is not analyzed on a volumetric basis.

21. The pit was dug to groundwater and is hydraulically connected to the adjacent Sheridan Fan aquifer, a shallow aquifer located in a Quaternary alluvial fan. The water level in the gravel pit reflects groundwater levels in the aquifer. Groundwater from the surrounding aquifer will replenish the water diverted from the pit. Furthermore, approximately 70 percent of the water diverted from the pit will be returned to the pit under the Applicant's normal operations. The only other water right with a point of diversion in this gravel pit is the Applicant's Ground Water Certificate 41C 30065402, which will be operated in conjunction with this permit.

22. The Applicant proposes to pump water from an existing gravel pit. The gravel pit has a surface area of 2.02 acres, according to information submitted with the Application and recent aerial imagery. Furthermore, the pit's volume is calculated at 16.16 AF. Due to the large surface area, the storage capacity of the pit, and the properties of the surrounding alluvial aquifer, an increase in flow rate will not cause the pit to experience significant drawdown or create a significant cone of depression in the surrounding aquifer. The Sheridan Fan aquifer is a

Quaternary alluvial fan aquifer, and Payne et al. (2013) classified the portion nearest to the project site as having intermediate flow class potential. They state that the aquifer is "capable of providing adequate water for individual households and other uses" and that "larger yield wells, meaning water wells useful to supply irrigation and municipal needs at flow rates much larger than single domestic water wells, can be developed" in the aquifer if design standards for production wells are followed. The alluvial aquifer has moderately high transmissivity, which allows for water movement. Additionally, Payne et al., found that the portion of the aquifer nearest to the project site receives significant recharge from surface water; according to their tests, approximately 25 percent of the flow of surface water in the area was lost to groundwater recharge. Based on the flow potential and the aquifer characterization by Payne et al. and when considering the volume of water stored in the pit, the pit and aquifer are capable of sustaining the proposed flow rate of 200 GPM.

23. The proposed flow rate of 200 GPM is physically available.

CONCLUSIONS OF LAW

24. 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."

25. It is the applicant's burden to produce the required evidence. *In the Matter of Application for Beneficial Water Use Permit No. 27665-41I by Anson* (DNRC Final Order 1987)(applicant produced no flow measurements or any other information to show the availability of water; permit denied); *In the Matter of Application to Change Water Right No. 41H 1223599 by MGRR #1, LLC.,* (DNRC Final Order 2005).

26. 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).

27. The Applicant has proven that water is physically available at the proposed point of diversion in the amount Applicant seeks to appropriate of 200 GPM. § 85-2-311(1)(a)(i), MCA. (FOF Nos. 20 – 23)

Legal Availability:

FINDINGS OF FACT

28. Legal availability of groundwater is normally calculated by subtracting the demands of existing groundwater rights from the aquifer flux. In this case, the Applicant is not requesting any volume or altering their pattern of use, so the source will not experience any additional volumetric demand. The proposed increase in flow rate will not increase the annual volumetric demand on the aquifer, and the Applicant is not changing the pattern of use. According to the Department's records, the only other right with a point of diversion located on this pit is the Applicant's Ground Water Certificate 41C 30065402, which will be operated in conjunction with this permit. The proposed increase in flow rate will not increase volumetric demand on the groundwater in this area.

29. This project is located in the Sheridan Fan aquifer, a shallow aquifer in a Quaternary alluvial fan (also named the Sheridan Fan). According to Payne et al., groundwater in this area is "very shallow" (less than 2 meters) and is hydraulically connected to surface water. Payne et al. characterized the portion of the aquifer nearest to the project site as receiving significant recharge from surface water; according to their tests, approximately 25 percent of the flow of surface water in the area was lost to groundwater recharge. The project site is near Mill Creek, the Ruby River, and numerous ditches and ditch laterals. However, the Applicant is not requesting any volume and is not proposing to alter their pattern of use. The proposed increase in flow rate will not increase demand on or cause depletions to any surface water sources.

30. The proposed flow rate of 200 GPM is legally available.

CONCLUSIONS OF LAW

31. 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).

32. 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.

33. 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.

34. 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.

35. The Applicant has proven by a preponderance of the evidence that water can reasonably be considered legally available from June 1 to September 30 at a flow rate of 200 GPM, as requested, based on the records of the Department and other evidence provided to the Department.§ 85-2-311(1)(a)(ii), MCA. (FOF Nos. 28 – 30)

Adverse Effect

FINDINGS OF FACT

36. The Applicant proposes to increase the flow rate at which they pump water from an existing gravel pit from 35 GPM to 200 GPM. All volume is already accounted for under Ground Water Certificate 41C 30065402, and the Applicant is not proposing to alter the pattern of use.

37. In an August 29, 2013, letter, the Applicant was granted a variance from the Aquifer Testing Report requirements. Because the Applicant is not requesting additional volume or proposing to alter the pattern of use, the Technical Report did not calculate groundwater flux or identify a zone of influence. Furthermore, the gravel pit has a surface area of 2.02 acres and a volume of 16.16 AF. The proposed increase in flow rate, with no additional volume or alteration in the pattern of use, will not result in an increase in the maximum monthly drawdown in groundwater developments for prior water rights or in a cone of depression in the surrounding aquifer. Nearby groundwater developments will not be adversely impacted.

38. Groundwater in the project area is shallow and hydraulically connected to nearby surface water. Mill Creek and the Ruby River are the nearest surface water sources, located approximately 4,800 feet and 9,500 feet away, respectively. Ditches and ditch laterals are also located nearby, including the Vigilante Canal, the Duncan-Moulton-O'Mera Ditch, the Elser Tilton Ditch, and the Lueck Marsh Ditch, in addition to a number of ephemeral, unnamed streams. However, this application is for additional flow rate only and does not propose to alter the pattern of use. Therefore, this application will not reduce flows in any hydraulically connected surface waters. Nearby surface water users will not be adversely impacted.

39. Over 70 percent of the water will be recycled back to the gravel pit source. Some water is lost to evaporation, conveyance losses, and other losses inherent in the gravel washing and dust abatement processes, but the remainder will returned to the source. All volume is already accounted for under Ground Water Certificate 41C 30065402.

40. If a senior appropriator makes a call for water because of the increased flow rate, the Applicant could respond by shutting off their pump. The Department does not have any knowledge of calls on small groundwater uses in the area, and no change in the call pattern is anticipated.

41. The requested increase in flow rate will not cause an adverse effect to the water rights of prior appropriators under existing water rights, certificates, permits, or state water reservations.

CONCLUSIONS OF LAW

42. 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.

43. 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).

44. 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.

45. 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.

46. 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.

47. 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.

48. 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 Nos. 35 – 40).

Adequate Diversion

FINDINGS OF FACT

49. For an overview map of the proposed project and surrounding area, see Figure 1 in the Proposed Appropriation Section of this document. The gravel washing operation will use water pumped directly from an existing pit excavated to groundwater. The gravel pit is the primary point of diversion and the location at which groundwater is diverted from the underlying aquifer by means of the excavated pit. From the pit, water is then conveyed to the place of use by a pump and the conveyance system described later in this section. The pump is mobile and may be moved within the existing gravel pit, located in the NWNWSW of Section 35, as operational needs require.

50. The gravel pit already exists and is an adequate point of diversion for the proposed use. The existing gravel pit will be able to maintain an adequate water column during periods of pumping. This permit requests additional flow rate only and does not alter the pattern of use, so the gravel pit will not experience an increase in volumetric demand. The pit has a surface area of 2.02 acres and a volume of 16.16 AF. Due to the large surface area, the storage capacity of the pit, and the properties of the surrounding alluvial aquifer, an increase in flow rate will not cause the pit to

experience significant drawdown or create a significant cone of depression in the surrounding aquifer. The maximum volume that could be pumped in one year is 5.89 AF, which is approximately one-third of the volume stored in the pit. The Applicant proposes to pump this volume over the course of two years, as described previously in this document. As described in the Physical Availability Section of this document, Payne et al. (2013) classified the portion of the Sheridan Fan alluvial aquifer nearest to the project site as having intermediate flow class potential. The moderately high transmissivity of the aquifer will allow groundwater to replenish water pumped from the pit. Furthermore, groundwater in this area is recharged with surface water, as described previously and as determined by Payne et al. The flow potential, aquifer characterization, and volume of water stored in the pit make the gravel pit an adequate point of diversion for sustaining the increased flow rate of 200 GPM requested in this Application.

51. A pump will convey water from a floating platform in the pit through an 8-inch-diameter, 30-foot-long rubber hose. The hose is coupled to an 8-inch-diameter, 300-foot-long aluminum pipe, which then conveys the water to the gravel washing area. From here, water moves through a pressure gage, and the aluminum pipe is connected to a 4-inch-diameter, 20-foot-long rubber hose, which feeds the 90 nozzles that are ultimately used to wash the gravel. The pump capacity determination was conducted by a professional engineer licensed in the State of Montana and is capable of pumping a flow rate of 200 GPM as requested. The rest of the conveyance system was also reviewed by a professional engineer, who determined that it was an adequate means of diversion and conveyance for the proposed use at the planned volume and flow rate.

52. After being used to wash gravel at the wash plant, water will be discharged into a nearby settling pond, and from there it will be conveyed back to the gravel pit via an existing ditch. As calculated in the Technical Report for this Application, the ditch's capacity is significantly greater than the full 200 GPM requested in this permit.

53. The Applicant has designed and installed the conveyance system. A licensed professional engineer from Pioneer Technical Services Inc. verified the calculations and provided details of the system in submittals for Ground Water Certificate 41C 30065402 and the present permit application. The gravel pit already exists and is an adequate point of diversion for the proposed use. The settling pond and conveyance systems have likewise already been constructed. The Applicant has already been issued Ground Water Certificate 41C 30065402, which accounts for

all of the volume used under this permit. The Applicant filed Notice of Completion 41C 30065402 on January 25, 2013, and signed the form, affirming that the water had been put to use for the purposes identified in the amount of 8.34 AF per year. The 35 GPM flow rate allowable under a Notice of Completion was insufficient for the Applicant's use, and subsequent calculations from a professional engineer indicated that a flow rate of 200 GPM was required for proper operation of the aggregate washing system. A professional engineer licensed in the State of Montana indicated that the Applicant's proposed system constitutes an adequate means of diversion and conveyance. These calculations were verified in the Department's Technical Report.

54. The proposed means of diversion and conveyance are adequate for the proposed use at the planned volume and flow rate.

CONCLUSIONS OF LAW

55. 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.

56. 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.

57. Information needed to prove that proposed means of diversion, construction, and operation of the appropriation works are adequate varies, based upon project complexity design by licensed engineer adequate. *In the Matter of Application for Beneficial Water Use Permit No. 41C-11339900 by Three Creeks Ranch of Wyoming LLC* (DNRC Final Order 2002).

58. Specific ditch segments would be adequate after completion of maintenance and rehabilitation work. *In the Matter of Application for Beneficial Water Use Permit No. 43B-30002710 by USDA*. (DNRC Final Order 2005).

59. The 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 Nos. 48 – 53).

Beneficial Use

FINDINGS OF FACT

60. The purpose of this Application is for additional flow rate for the commercial purpose of dust control and aggregate washing. The use of water for commercial purposes is a recognized beneficial use in the State of Montana.

61. The Department issued Ground Water Certificate 41C 30065402 to the Applicant for 35 GPM up to 8.34 AF per year on April 8, 2015. This certificate accounts for the full volume put to use by the Applicant for the commercial purpose of dust control and aggregate washing. The Applicant proposes to wash approximately 16,000 tons of gravel every two years at a rate of 100 – 150 tons per hour. Washing 16,000 tons of gravel at 100 tons per hour equates to 160 hours of work (or 20 eight-hour shifts). The maximum flow rate of 200 GPM used at 160 hours results in 5.89 AF of volume. The settling pond volume is 0.90 AF, and 1.56 AF is lost from the settling pond to evaporation. Thus, the total volume used under 41C 30065402 is 0.90 AF + 1.56 AF + 5.89 AF = 8.43 AF. This permit does not alter the volumetric capacity of the system; it increases only the flow rate.

62. The Applicant has requested a flow rate up to 200 GPM to be pumped from an existing gravel pit. The flow rate is to allow the Applicant's gravel washing plant to operate at its full capacity. The Applicant and their consultant submitted calculations and a description of the system to demonstrate the need to pump at a flow rate of 200 GPM. The gravel wash plant operates at a flow rate between 100 – 200 GPM. In order for proper operation, a pressure gage must maintain constant pressure to feed the 90 nozzles used for gravel washing. The 35 GPM authorized under Ground Water Certificate 41C 30065402 was insufficient for the Applicant's system.

63. The Applicant has proven that the requested 200 GPM is necessary to the operation of their commercial dust control and aggregate washing activities.

CONCLUSIONS OF LAW

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

65. 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).

66. It is the applicant's burden to produce the required evidence. Sitz Ranch v. DNRC, DV-10-13390, Fifth Judicial District Court, *Order Affirming DNRC Decision*, (2011) Pg. 7; *In the Matter of Application to Change Water Right No. 41H 1223599 by MGRR #1, LLC.*, (DNRC Final Order 2005); see also Royston; Ciotti.

67. The Applicant proposes to use water for commercial purposes, which is a recognized beneficial use. § 85-2-102(4), MCA. The Applicant has proven by a preponderance of the evidence that commercial aggregate washing and dust control are beneficial uses and that 0 AF of diverted volume and 200 GPM of water requested is the amount needed to sustain the beneficial use under this permit. § 85-2-311(1)(d), MCA, (FOF Nos. 59 – 62)

Possessory Interest

FINDINGS OF FACT

68. The Applicant affirmed by signing the application form and declared under penalty of perjury and under the laws of the State of Montana that they have 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.

69. According to the Montana Department of Revenue's records, the Applicant is the sole owner of the project area, encompassing the place of use, the point of diversion, and all conveyance structures.

CONCLUSIONS OF LAW

70. 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.

71. 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.

72. 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 Nos. 67 – 68).

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. 41C 30103257 should be GRANTED subject to the following:

The Department determines that the Applicant may divert water from the existing gravel pit, by means of a pump, from June 1 to September 30 at a flow rate of 200 GPM, from a point in the NWNWSW of Section 35, T04 S, R05 W, Madison County, for the purpose of commercial aggregate washing and dust control from June 1 to September 30. The pump may be moved within the gravel pit located in NWNWSW of Section 35 as operational needs require. The place of use is located in the NWNWSW of Section 35, T04 S, R05 W, Madison County, approximately one mile south of Sheridan, Montana. This permit will be operated in conjunction with Ground Water Certificate 41C 30065402, which was issued to the Applicant for a maximum use of 35 GPM up to 8.34 AF per year and accounts for the full volume diverted under this project.

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 13th day of May 2016.

Kerri Strasheim, Regional Manager
Bozeman 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 13th day of May 2016, by first class United States mail.

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