

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

IN THE MATTER OF APPLICATION FOR)	
BENEFICIAL WATER USE PERMIT NO.)	
40A-30105384 BY DEBUFF, DANIEL G.)	FINAL ORDER
AND SANDRA L.)	

Pursuant to its authority under §§ 2-4-601 et seq., 85-2-310, 85-2-402, MCA, and Mont. Admin. R. 36.12.201 et. seq, and 36.12.501 et seq., the Department of Natural Resources and Conservation (Department or DNRC) conducted a show cause hearing in this matter on November 1, 2018, to allow Daniel G. and Sandra L. Debuff (Applicants or Debuffs) the opportunity to show cause why Application No. 40A-30105384 should not be denied under the terms of the Preliminary Determination to Deny dated August 14, 2018 (PD to Deny or (PDD)).

APPEARANCES

Debuffs appeared at the hearing through counsel John E. Bloomquist. Dr. Willis D. Weight of WDW Writing, Consulting & Planning Inc., and Pat Riley, water right consultant, testified on behalf of Applicants. Mr. Bloomquist also called Doug Mann, DNRC Lewistown Regional Office Specialist/Hydrologist and Attila Fohnagy, DNRC Groundwater Hydrologist and questioned them about the Application.

EXHIBITS

Four Exhibits were admitted at the hearing as evidence:

Exhibit A-1 – consists of a 14 page “Summary of Expert Opinion” by Dr. Weight plus a hardcopy of a power point presentation prepared by Dr. Weight consisting of 39 pages.

Exhibit A-2 & A-2a – are two memoranda from Pat Riley to John Bloomquist on the subject “Debuff Determination to Deny and Show Cause” consisting of a total of 34 pages.

Exhibit A-3 – consists of a copy of a 4-page memorandum from Doug Mann to the Application file entitled “Monthly Watershed Yield of Elk Creek, tributary to Roberts Creek in Wheatland County.”

Exhibit A-4 – is a copy of a Proposal for Decision issued by DNRC in 1987 entitled “In the Matter of the Application for Beneficial Water Use Permit No. 55880-40A by Daniel Debuff” consisting of 16 pages.

PRELIMINARY MATTERS

On February 11, 2016, Applicants submitted Application for Beneficial Water Use Permit No. 40A 30105384 to the Department's Lewistown Water Resources Regional Office. The Department published receipt of the Application on its website. The Department sent Applicants a deficiency letter under § 85-2-302, Montana Code Annotated (MCA), dated August 8, 2016. Applicant responded with information received November 7, 2016. The Application was determined to be correct and complete on January 18, 2017. After the Department issued its Technical Report on March 23, 2017, the Applicant requested a waiver of the 120-day statutory timeline for issuing a Preliminary Determination on April 4, 2017. The waiver was requested for the Applicants to collect additional information/evidence to address the statutory criteria for permit issuance. On April 17, 2017 Applicants submitted additional information, upon which time the Department issued a revised/second Technical Report on November 14, 2017. An amendment to the application was received by the Department on March 5, 2018, requesting changes to the proposed flow rate, place of use, and irrigated acreage. The amendment resulted in a reset of the application received date to March 5, 2018. The Department reanalyzed the application and determined it to be correct and complete on April 16, 2018 and issued a revised/third Technical Report. Applicants responded to the Technical Report with an email memorandum on May 18, 2018. An Environmental Assessment for this Application was completed on July 27, 2018.

Upon review of Department File 40A-30105384, a PD to Deny was issued by the Lewistown Water Resources Regional Office on August 14, 2018. The denial was based on the Department's determination that the Applicants failed to prove by a preponderance of the evidence that "surface water is legally available from the Southern Springs discharge point and downgradient in the Elk Creek drainage, nor have they proven adverse effects would not result to water users in that drainage." (PDD p. 31)

"If the department proposes to deny an application for a permit or a change in appropriation right under 85-2-307 . . . the department shall hold a hearing pursuant to 2-4-604 after serving notice of the hearing by first-class mail upon the applicant for the applicant to show cause . . . as to why the permit or change in appropriation right should not be denied." § 85-2-310, MCA.

The Applicants were given the opportunity to show cause why Application for Beneficial Water Use Permit No. 40A-30105384 should not be denied. A show cause hearing was scheduled and held on November 1, 2018, before this Hearing Examiner.

The Department has followed the proper procedure as provided in §§ 85-2-307, 85-2-310 and 2-4-604, MCA, in this matter.

Having fully reviewed the record in this matter and the testimony and evidence produced at the show cause hearing, the Hearing Examiner makes the following Findings of Fact and Conclusions of Law.

This Order only addresses the Department's findings and conclusions, and the Applicants' argument why those findings and conclusions should be reversed, related to legal availability of surface water (specifically regarding what is referred to as the Southern Springs) and adverse effect of depletions in the Elk Creek drainage. All other Findings of Fact and Conclusions of Law in the PDD, including the legal availability of ground water are adopted and incorporated by reference in this Order. This Order must be read in conjunction with the Department's "Preliminary Determination to Deny Permit" dated August 14, 2018.

PROPOSED APPROPRIATION

FINDINGS OF FACT

1. The application was initially filed with the Department on February 11, 2016. The proposed appropriation of water included a flow rate of 3.63 cubic feet per second (CFS) and a volume of 552.69 acre-feet (AF). After the completion of various processing stages, analysis, and reporting by the Department, and submission of a waiver of statutory timelines for processing the application, the Applicants amended their proposed appropriation on March 5, 2018. The proposed appropriation of water was amended to a flow rate of 2.38 CFS, and the volume was amended to 216.4 AF. During a phone conversation with Applicants' Consultant, Pat Riley, on June 14, 2018, the flow rate was adjusted/clarified to 2.43 CFS (1,090 GPM). File; Memorandum dated June 14, 2018. (PDD)

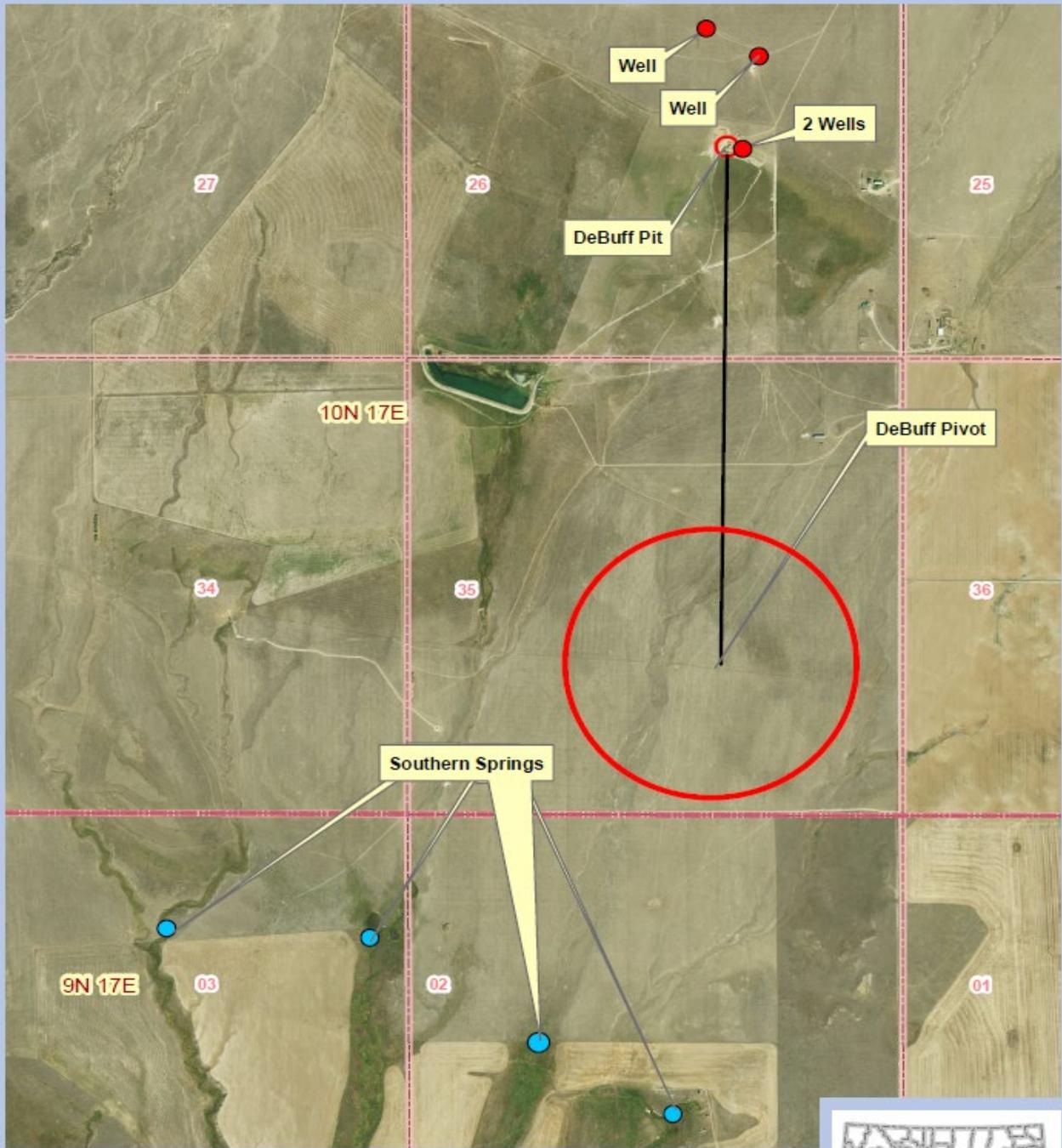
2. Applicants propose to divert groundwater from a shallow, unconfined gravel and sand aquifer system, by means of four wells (well depths are 54.5 feet, 55 feet, 65 feet, and 70 feet) and a groundwater pit (the pit is 39 feet deep and taps the shallow groundwater aquifer). The wells will discharge groundwater into the pit, and the combined, stored water will be pumped to a center pivot irrigation system. The combined flow rate of all wells is 2.43 CFS, based on pump testing. The flow rate of the secondary pumping system in the pit is 2.38 CFS. Since the secondary system diverts water from the pit at a flow rate less than the combined capacity of the

wells, no additional flow rate from the pit is factored into the appropriation. The period of diversion and use is from April 20 through October 10. The purpose of use is irrigation on 173.1 acres. Applicants' Amendment dated March 5, 2018; Memorandum dated June 14, 2018. (PDD)

3. The diversion points (wells and pit) are generally located in the E2 Section 26, and the place of use (center pivot) is located in Section 35, all in T10N, R17E, Wheatland County. The project is approximately 12 miles southeast of Judith Gap, Montana, adjacent to what is known as Living Springs. Application. (PDD)

4. The proposed capacity of the groundwater pit is 19.5 AF. The surface area is projected to be 1.0 acre in size, and its maximum depth is 39 feet. The pit is considered one of five diversions, as it is constructed (dug) to a depth that exposes the shallow groundwater system. It contains a buried, 5-foot diameter culvert that will act as a secondary diversion system. It will directly divert groundwater exposed by the pit as well. Application; Memorandum dated June 14, 2018. (PDD)

Proposed DeBuff Permit (40A 30105384)



N 1:17,067 Map Created: 7/27/2018
0 0.075 0.15 0.3 Miles



Service Layer Credits: U.S. Department of Agriculture Farm Services Agency Aerial Photography Field Office



ARGUMENTS

5. Applicants make three arguments at the show cause hearing why the Application should not be denied. First, Applicants contend that the Department’s own watershed yield analysis shows that water is legally available and there is enough water available to prevent adverse effect. Second, Applicants contend that the source aquifer for this Application is isolated and discontinuous with the surrounding aquifer. Applicants finally contend that the water rights that could be adversely affected are of a nature that would prevent them from being adversely affected and/or have been abandoned. (Applicants’ Show Cause Hearing Memorandum)

FINDINGS OF FACT (Monthly Watershed Yield)

6. Applicants contends that for the period of April through August, the figures in ¶ 7, *infra*, show that 761.4 AF is physically available in Elk Creek and that the “[l]egal demands for this period for irrigation . . . is 438.4 AF. This equates to 323 AF of surface water [being] legally available during this period.” Applicants conclude that even if all 216.4 AF of Applicants groundwater withdrawals resulted in depletions to Elk Creek, water would still be legally available. While the Hearing Examiner is unsure why the Applicants only included the irrigation component of legal demands, ultimately, as explained below, it is of no moment. (Applicants Show Cause Hearing Memorandum, p. 8)

7. The Department initially conducted an analysis of physical surface water availability for the Elk Creek drainage using “A monthly water-balance model driven by a graphical user interface: U.S. Geological Survey Open-File report 2007-1008” (“Thorntwaite Program”). While the Thorntwaite Program produces a reasonable annual runoff yield of 996.5 AF per year from the Elk Creek drainage, the Department determined that the monthly allocation of that annual yield was not reflected accurately by the Thorntwaite Program and made adjustments using a program known as Monthly Water Balance Model Futures Portal. The results are as follows:

	<u>Percent by Month</u>	<u>Elk Creek AF</u>
Jan	1.3%	13.3
Feb	1.3%	13.3
Mar	2.7%	26.6
Apr	7.3%	73.1
May	18.7%	186.0
June	22.7%	225.9

	Percent by Month	Elk Creek AF
July	15.3%	152.8
Aug	12.4%	123.6
Sept	9.2%	91.7
Oct	5.3%	53.1
Nov	2.4%	23.9
Dec	1.3%	13.3
Total	100%	996.5 acre-feet

The total annual runoff and monthly distribution as determined by the Thornthwaite Program and the Monthly Water Balance Model Futures Portal appear to give a reasonable picture of the physical water availability above the furthest downstream water right diversion within the Elk Creek drainage based on the assumption that Elk Creek is an intermittent drainage. (Exhibit A-3; File, "1st Technical Report" undated; testimony of Doug Mann)

8. There are water users that appropriate water from Elk Creek downstream from the Southern Springs. The following table reflects surface water rights downstream of the Southern Springs in the Elk Creek drainage (legal demands). (Department Revised Technical Reports 11/13/17 and 4/18/18; PDD ¶ 28)

TABLE 1: SURFACE WATER RIGHTS IN THE ELK CREEK DRAINAGE (ALSO KNOWN AS COLD SPRING CREEK) THROUGH THE POTENTIALLY AFFECTED AREA

Water Right	Purpose	Period of diversion	Flow Rate	Volume
40A 205932	Stock (415 AU)	1/1 to 12/31	35 GPM	14.0 AF**
40A 17798	Stock (150 AU)	1/1 to 12/31	35 GPM	5.1 AF**
40A 198179	Stock (50 AU)	4/1 to 10/31	35 GPM	1.0 AF**
40A 198181	Stock (50 AU)	4/1 to 10/31	35 GPM	1.0 AF**
40A 110133	Irrigation (100 acres)	4/1 to 7/15	3.78 CFS	274.0 AF
40A 110228	Irrigation (60 acres)	5/1 to 8/31	1.50 CFS	164.4 AF
Totals			5.59 CFS	459.5 AF

** Based on use of 30 gallons per day per animal unit.

9. Table 1 indicates legal demands of 459.5 AF within the potentially affected area. Notably, the estimated volume does not include an additional 458.5 AF of water rights from the Southern Springs complex (water right numbers 40A 184511, 40A 145907, 40A 205425, 40A 30107177, and 40A 30107178). Those five water rights were accounted for under the Department's *groundwater* analysis of the PDD because their sources are identified as springs. However, these water rights rely on natural groundwater discharge from the Southern Springs, and from the same aquifer as proposed under the appropriation. (Department Revised Technical Report; PDD ¶ 29)

10. The basis of the Department's use of the Thornthwaite Program to determine total annual runoff and distribute that runoff on a monthly basis was premised on an initial determination that the Elk Creek drainage is "an unmeasured, *intermittent* drainage." (Exhibit A-3) Subsequently, the Applicants and the Department agreed that the drainage area of Elk Creek above the Southern Springs is ephemeral in nature. (4/16/18 Depletion Report; 11/13/17 and 4/18/18 Technical Reports; Exhibit A-1 p. 5) As stated in both the 11/13/17 and 4/18/18 Technical Reports "Elk Creek and its tributaries are all ephemeral prior to reaching the southern springs and therefore a drainage basin analysis to estimate surface water availability is not appropriate for comparing legal availability of surface water." The Department thus abandoned its previous determination that there was an annual water yield of 996.5 AF from the Elk Creek drainage above the furthest downstream water right diversion. Applicants' reliance on the Department's analysis under the Thornthwaite Program is not well taken.

FINDINGS OF FACT (Nature of the Aquifer)

11. Exhibit A-1 and testimony from Applicants expert, Dr. Weight, characterize the source aquifer for the proposed wells as discontinuous and that no connection exists between the source aquifer and the Southern Springs. Dr. Weight contends that there will only be depletions to what is known as Living Springs (a large wetland complex adjacent to the project area) but that the aquifer being pumped is distinctly isolated and there is no communication of the aquifer with the Southern Springs. Dr. Weight bases his opinion on the fact that there is a syncline structure just to the north of the project area and his analysis of well logs both of which point to the aquifer "thinning or pinching out" towards the south before it reaches the Southern Springs. (Exhibit A-1; Testimony of Dr. Weight, audio Tk 5; PDD ¶21; File)

12. The zone of influence (ZOI) from pumping the proposed wells was determined by the 0.01 drawdown contour using the Theis solution. This resulted in a ZOI that would extend to wells up to 41,000 feet away from the Applicants' wells, however, that contour is beyond the aquifer

boundaries and the Department therefore truncated the ZOI by only extending the ZOI to Timber Creek to the west, Elk Creek to the east, and contacts with bedrock to the north/south. The geologic map of the ZOI shows the entire area to be classified as a Pediment Gravel (QTab) with a syncline slightly north of the proposed wells. The Southern Springs are within this zone of influence. The QTab is shown on the geologic map as continuous throughout the ZOI. (4/17/18 Revised Aquifer Test Report)

13. While the Department's hydrogeologist, Attila Fohnagy, agrees that the source aquifer pinches out to the south of the project area, that does not necessarily mean that the aquifer, in a broader sense is discontinuous. The Department's review of well logs shows a shallow sand and gravel aquifer at a depth similar to the Applicants' wells and the Applicants have not identified a geologic structure or bedrock high between the Applicants' wells and the Bunkhouse well to the south. Consistent with the QTab, the Department finds that the aquifer is continuous throughout the ZOI. Importantly, as described by Fohnagy:

The applicant describes [the Southern Springs] as the only surface expression of discharge from the Alluvium of braid plains (Qtab). This is the same geologic unit that is mapped by Porter et al. (1996) at the applicant's property. The applicant describes three of the four southern springs [] as having a perennial surface water flow, while they state that [the fourth spring] does not flow regularly.

(4/16/18 Revised Depletion Report; Testimony of Fohnagy)

14. The Department relied in part on a prior permit proceeding from 1987 regarding this same Applicant(s) and location. To wit:

In the 1987 permit proceeding before the Department, In the Matter of the Application for Beneficial Water Use Permit No. 40A 55880, by Daniel Debuff, the same Applicant as in the present proceeding acknowledged a hydraulic connection between the source aquifer at Living Springs and the Southern Springs. Additionally, the Department's Geohydrologist in 1987, Brian Harrison, projected a hydraulic connection between the two points. Both Debuff and Harrison believed there would be depletions to the Southern Springs from the irrigation project proposed at that time, which was to appropriate water from roughly the same area as in the present application. File for Application for Beneficial Water Use Permit No. 40A 55880, by Daniel Debuff.

(PDD ¶ 23)

15. Applicants take issue with the Department relying on a previous Department decision that denied a similar application in this same area. "DNRC's reliance on a 1987 Decision is also troubling in that at no time was it presented to the Applicants or its consultants for review. In fact, it is not even within the administrative record provided to the Hearing Examiner and the Applicants." (Applicants Show Cause Hearing Memorandum p. 5)

However, DNRC is well within its authority to rely on previous decisions as precedent especially in this instance where the facts at issue are identical (i.e. are the Southern Springs hydrologically connected to the source aquifer).

16. While there may be a legitimate expert disagreement over the continuity or connectivity of the source aquifer with the Southern Springs, the Hearing Examiner finds there is sufficient evidence in the record to support the Department's finding that the aquifer is continuous and that groundwater discharging to the Southern Springs is from the same aquifer that supplies Applicants' proposed wells and pit. (FOF 10 – 13; PD ¶¶ 20 - 23)

17. At the Department's review stage of the Application no evidence was provided regarding surface water issuing from the Southern Springs and their downstream channels. The only flow reading of record was made in 1987 from the previous permit proceeding and found an one time instantaneous flow from "a spring" "about one mile below" the DeBuff pit of 16.3 gpm. (Exhibit A-

18. At the show cause hearing the Applicants provided information regarding flows from two of the Southern Springs (DeBuff #2 and Holmes). That data shows that the Holmes spring flowed intermittently throughout the summer of 2018 with flows ranging from zero up to a maximum peak of over 1400 gallons per minute (gpm). The DeBuff #2 spring flowed more regularly than Holmes spring with most flows ranging from 50 to 100 gpm. No flow measurements have been provided further downstream from all the springs. (Exhibit A-1; Testimony of Weight)

19. As the Department noted, "[t]o determine if the physical water supply exceeds legal demands, the amount of water flowing from the Southern Springs and into the Elk Creek drainage must be known. However, insufficient data is available on water discharging from these springs and flowing in Elk Creek, and therefore no comparison between physical water availability and legal water availability can be made." The Applicants did not provide sufficient information to the Department or to the Hearing Examiner at the show cause hearing to support a finding by a preponderance of the evidence that water is legally available or that there will be no adverse effect.

FINDINGS OF FACT (Nature of Potentially Affected Water Rights)

20. Applicants assert that the potentially adversely affected water rights are used for water spreading and/or have been abandoned. Applicants also assert that some elements of the potentially adversely affected water rights are wrong (i.e. the period of diversion is excessive. (Exhibit A-2; Testimony of Riley)

21. The Department, in evaluating water rights that may be adversely affected, evaluates the water right as claimed in the Statement of Claim or issued permit. “A claim of existing right filed in accordance with 85-2-221 . . . constitutes prima facie evidence of its content until the issuance of a final decree.” § 85-2-227, MCA. The Department has no authority to find a claim abandoned and must view the water right as filed. Rights 40A-110133 and 40A-110288 both show that they are surface water rights with a use of flood irrigation. The Department is without authority to consider them in any other capacity. (Exhibit A-2)

22. The Department must consider the entire proposed period of use in its analysis of legal availability and adverse effect. An applicant must prove “water can reasonably be considered legally available *during the period in which the applicant seeks to appropriate*.” § 85-2-311(1)(a)(ii), MCA (emphasis provided). Even if Applicants in this matter are correct that “no adverse effect is even possible in the months of September and October”, the Department’s analysis is not limited to only that time. The Application under consideration is for a period of use from April 20 through August 10 and the Department must analyze for legal availability and adverse effect throughout that time period. Applicants have not provided sufficient information to enable the Department to conduct that analysis.

CONCLUSIONS OF LAW (Legal Availability and Adverse Effect)

23. 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. However, as previously explained, the show cause proceeding in this matter was limited to the legal availability and adverse effect criteria which provide 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 . . . ;

§ 85-2-311(1)(a) and (b), MCA (emphasis provided)

24. 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 provided). 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. DNRC (Bostwick I), 2009 MT 181, ¶21, 351 Mont. 26, 208 P.3d 868. 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.

25. With regard to the burden of proof, the Montana Supreme Court further recognized:

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.

Matter of Beneficial Water Use Permit Numbers 66459-76L, Ciotti: 64988-G76L, Starnier, 278 Mont. 50, 60-61, 933 P.2d 1073, 1079, 1080 (1996)(superseded by legislation on another issue: 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. v. Carey, 211 Mont. 91, 97-98, 685 P.2d 336, 340; see also Mont. Const. art.

IX §3(1).

26. It is well settled that a ground water appropriation can deplete hydrologically connected surface water and impact surface water rights through induced infiltration and/or pre-stream capture. E.g. Montana Trout Unlimited v. DNRC, 2006 MT 72, 331 Mont. 483, 133 P.3d 224; Perkins v. Kramer, 148 Mont. 355, 423 P.2d 587 (1966); Granite Ditch Co. v. Anderson, 204 Mont. 10, 662 P.2d 1312(1983). E.g. Montana Trout Unlimited v. DNRC, 2006 MT 72, 331 Mont. 483, 133 P.3d 224; Perkins v. Kramer, 148 Mont. 355, 423 P.2d 587 (1966); Granite Ditch Co. v. Anderson, 204 Mont. 10, 662 P.2d 1312(1983). Where a proposed groundwater appropriation will deplete surface water, an applicant must analyze legal availability and adverse effect for both ground water and surface water even if the hydrologic connection is attenuated and the depletion small. E.g. Bostwick v. DNRC (Bostwick II) 2013 MT 48, ¶¶ 32-41, 369 Mont. 150, 296 P.3d 1154; Sitz Ranch v. DNRC, DV-10-13390, Fifth Judicial District Court, *Order Affirming DNRC Decision*, Pg. 4-5 (2011); ARM §§ 36.12.1705(2) and 1706(2)

27. An applicant must prove legal availability of amount of depletion to hydrologically connected surface water throughout the period of diversion either by establishing surface water is legally available in the amount of the depletion through comparative analysis of the legal demands and physical availability of water in the surface water source; or, through a mitigation/aquifer recharge plan to offset depletions to the surface water source. §85-2-311(1)(a), MCA; §§ 36.12.1704 through 1706; Eg. Bostwick v. DNRC (Bostwick II) 2013 MT 48, ¶¶ 32-36, 369 Mont. 150, 296 P.3d 1154; 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); 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 permit application explaining that ground water tributary flow cannot be taken to the detriment of other appropriators including surface appropriators and ground water appropriators must prove unappropriated surface water); 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 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)); *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 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); *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); *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).

28. 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 rights of all prior appropriators will be satisfied. See Montana Power Co., 211 Mont. 91, 685 P.2d 336 (purpose of the Water Use Act is to protect senior appropriators from encroachment by junior users); Bostwick I, at ¶ 21; Sitz Ranch, Order Affirming DNRC Decision, Pg. 4. In analyzing adverse effect to other appropriators, it is appropriate to rely upon the water rights claims of potentially affected appropriators as evidence of their "historic beneficial use." See Matter of Application for Change of Appropriation Water Rights Nos. 101960-41S and 101967-41S by Royston, 249 Mont. 425, 816 P.2d 1054 (1991). Similar to proof of legal availability, a mitigation plan may be used to prove lack of adverse effect. § 36.12.1706(2), ARM.

29. The analysis conducted by the DNRC in the PDD establishes that the proposed groundwater withdrawals will deplete surface water in the Southern Springs at a constant year-round rate equally proportioned between the individual sources. Although the Applicants criticized the findings and conclusions reached in the PDD, they did not provide reliable model as an alternate to that used by the DNRC. The assertion that the source aquifer is not hydrologically connected to the Southern Springs fails to meet the Applicants' burden. Bostwick II, at ¶ 36.

30. The evidence establishes that the proposed appropriation will cause year-round

depletions at a constant rate at Southern Springs. The record is devoid of information regarding the physical availability of surface water in Elk Creek below Southern Springs and as such no finding of legal availability or lack of adverse effect can be made. Accordingly, this Hearing Examiner concludes that the Applicants have not proven by a preponderance of evidence that surface water can reasonably be considered legally available in Elk Creek during the period in which the Applicants seek to appropriate, in the amount consumed nor have they proven by a preponderance of the evidence that no adverse effect would result from their proposed use.

CONCLUSION

For the reasons set forth above and those found in the Preliminary Determination to Deny dated August 14, 2018, Application for Beneficial Water Use Permit No. 40A-30105384 by Daniel G. and Sandra L. DeBuff is **DENIED**.

NOTICE

This *Final Order* is the Department's final decision in this matter. A Final Order may be appealed by a party who has exhausted all administrative remedies before the Department in accordance with the Montana Administrative Procedure Act (Title 2, Chapter 4, Mont. Code Ann.) by filing a petition in the appropriate court within 30 days after service of the order

If a petition for judicial review is filed and a party to the proceeding elects to have a written transcript prepared as part of the record of the administrative hearing for certification to the reviewing district court, the requesting party must make arrangements for preparation and payment of the written transcript. If no request is made, the Department will transmit only a copy of the audio recording of the oral proceedings to the district court.

Dated this 28th day of January 2019.

/Original signed by David A. Vogler/

David A. Vogler, Hearing Examiner
Department of Natural Resources
and Conservation
Water Resources Division
P.O. Box 201601
Helena, Montana 59620-1601
(406) 444-6835

CERTIFICATE OF SERVICE

This certifies that a true and correct copy of the FINAL ORDER was served upon all parties listed below on this 28th day of January 2019 by first class United States mail.

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

APPLICATION FOR BENEFICIAL WATER USE PERMIT NO. 40A 30105384 BY DANIEL AND SANDRA DEBUFF	}	PRELIMINARY DETERMINATION TO DENY PERMIT
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On February 11, 2016, Daniel G. and Sandra Debuff (Applicants) submitted Application for Beneficial Water Use Permit No. 40A 30105384 to the Lewistown Water Resources Regional Office of the Department of Natural Resources and Conservation (Department or DNRC). 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 August 8, 2016. Applicant responded with information received November 7, 2016. The Application was determined to be correct and complete on January 18, 2017. After the Department issued its Technical Report on March 23, 2017, the Applicant requested a waiver of the 120-day statutory timeline for issuing a Preliminary Determination on April 4, 2017. The waiver was requested for the Applicants to collect additional information/evidence to address the statutory criteria for permit issuance. On April 17, 2017 Applicants submitted additional information, upon which time the Department issued a revised/second Technical Report on November 14, 2017. An amendment to the application was received by the Department on March 5, 2018, requesting changes to the proposed flow rate, place of use, and irrigated acreage. The amendment resulted in a reset of the application received date to March 5, 2018. The Department reanalyzed the application and determined it to be correct and complete on April 16, 2018 and issued a revised/third Technical Report. Applicant responded to the Technical Report with an email memorandum on May 18, 2018. An Environmental Assessment for this Application was completed on July 27, 2018.

INFORMATION

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

Application as filed:

- Application for Beneficial Water Use Permit, Form 600
- Attachments
 - Maps
 - Place of Storage Addendum
 - Aquifer Testing Addendum
 - Memorandum from the Department granting a variance for select aquifer testing requirements (dated December 9, 2015)
 - System design specifications and charts
 - Well log reports
 - Hydrogeologist Report

Information Received after Application Filed

- Applicants' Deficiency Response, dated November 7, 2016.
- Hydrogeologist Reports dated April 17, 2017, December 8, 2017, and May 17, 2018 (via email) from Applicants' consultant, Willis Weight, PhD, PE Hydrogeologist
- Multiple email communications with Applicant's consultant, Willis Weight, PhD, PE Hydrogeologist
- Waiver of 120 Day Statutory Timeline for Preliminary Determination Decision, received April 4, 2017
- Amendment to Application, received on March 5, 2018
- Phone communication with Pat Riley, consultant for Applicant, on June 14, 2018 regarding flow rate (documented in a Memorandum dated June 14, 2018)

Information within the Department's Possession/Knowledge

- Department's Aquifer Test Report, dated December 29, 2016, and revised on April 17, 2018, by Attila Felnagy, Groundwater Hydrologist

- Department's Depletion Report, dated December 30, 2016, and subsequent revisions on August 30, 2017 and April 16, 2018, by Attila Folnagy, Groundwater Hydrologist
- Memorandum from Department Groundwater Hydrologist Attila Folnagy to Doug Mann, Lewistown Regional Office, dated January 13, 2017, regarding Folnagy's analysis of information supplied by the Applicant in relation to the hydraulic connection between groundwater and surface water
- Department's Groundwater Permit Application Technical Report (revised on April 18, 2018) (Technical Report)
- Water right records
- Proposal for Decision (dated November 9, 1987) and Final Order (dated December 1, 1987), In the Matter of the Application for Beneficial Water Use Permit No. 40A 55880, by Daniel Debuff.

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

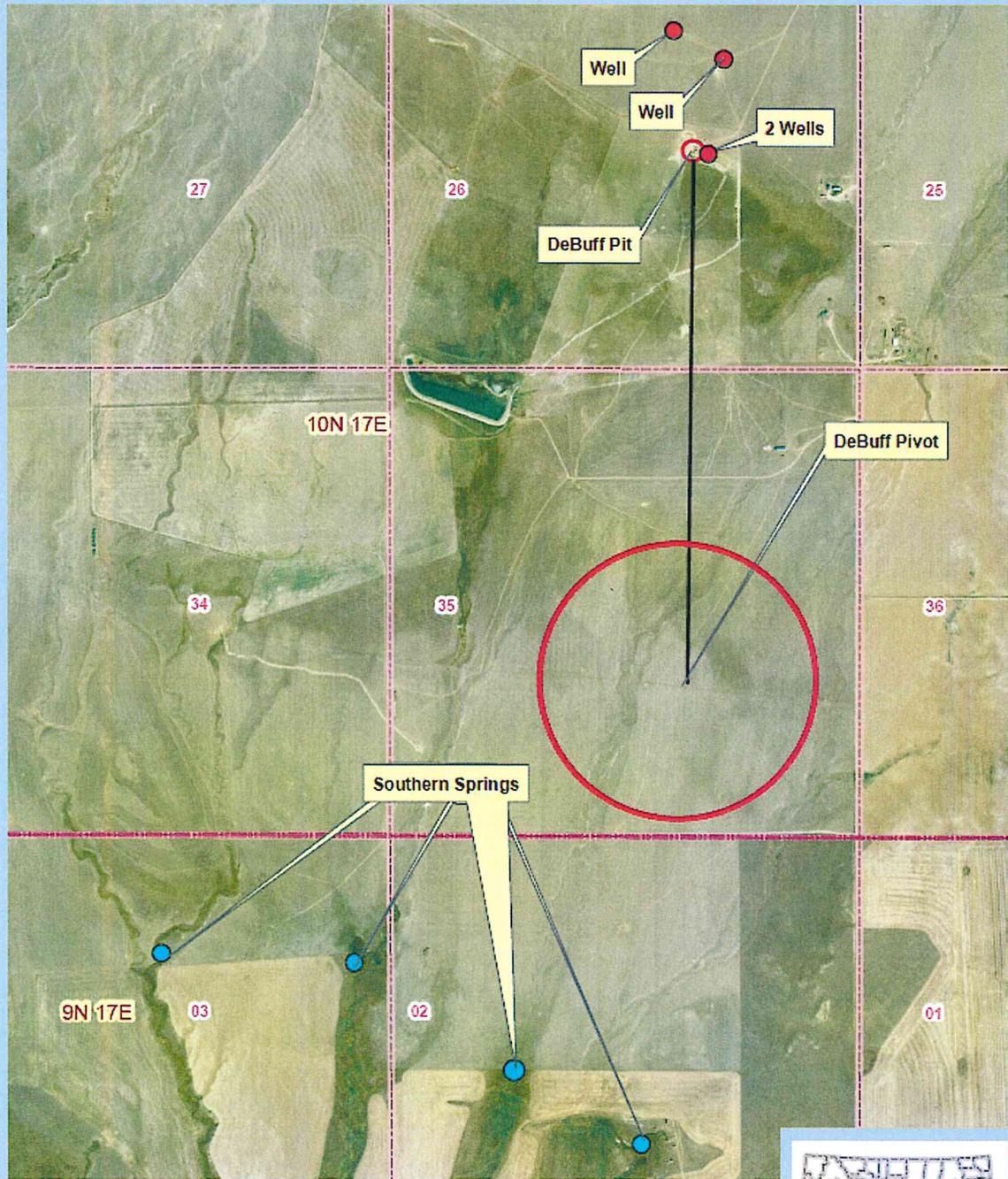
1. The application was initially filed with the Department on February 11, 2016. The proposed appropriation of water included a flow rate of 3.63 cubic feet per second (CFS) and a volume of 552.69 acre-feet (AF). After the completion of various processing stages, analysis, and reporting by the Department, and submission of a waiver of statutory timelines for processing the application, the Applicants amended their proposed appropriation on March 5, 2018. The proposed appropriation of water was amended to a flow rate of 2.38 CFS, and the volume was amended to 216.4 AF. During a phone conversation with Applicants' Consultant, Pat Riley, on June 14, 2018, the flow rate was adjusted/clarified to 2.43 CFS (1,090 GPM). File; Memorandum dated June 14, 2018.

2. Applicants propose to divert groundwater from a shallow, unconfined gravel and sand aquifer system, by means of four wells (well depths are 54.5 feet, 55 feet, 65 feet, and 70 feet) and a groundwater pit (the pit is 39 feet deep and taps the shallow groundwater aquifer). The wells will discharge groundwater into the pit, and the combined, stored water will be pumped to a center pivot irrigation system. The combined flow rate of all wells is 2.43 CFS, based on pump testing. The flow rate of the secondary pumping system in the pit is 2.38 CFS. Since the secondary system diverts water from the pit at a flow rate less than the combined capacity of the wells, no additional flow rate from the pit is factored into the appropriation. The period of diversion and use is from April 20 through October 10. The purpose of use is irrigation on 173.1 acres. Applicants' Amendment dated March 5, 2018; Memorandum dated June 14, 2018.

3. The diversion points (wells and pit) are generally located in the E2 Section 26, and the place of use (center pivot) is located in Section 35, all in T10N, R17E, Wheatland County. The project is approximately 12 miles southeast of Judith Gap, Montana, adjacent to what is known as Living Springs. Application.

4. The proposed capacity of the groundwater pit is 19.5 AF. The surface area is projected to be 1.0 acre in size, and its maximum depth is 39 feet. The pit is considered one of five diversions, as it is constructed (dug) to a depth that exposes the shallow groundwater system. It contains a buried, 5-foot diameter culvert that will act as a secondary diversion system. It will directly divert groundwater exposed by the pit as well. Application; Memorandum dated June 14, 2018.

Proposed DeBuff Permit (40A 30105384)

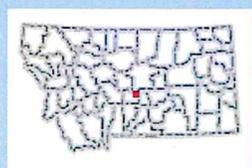


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Map Created: 7/27/2018



Service Layer Credits: U.S. Department of Agriculture Farm Services Agency Aerial Photography Field Office



Preliminary Determination to Deny
Application for Beneficial Water Use Permit No. 40A 30105384

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

GENERAL CONCLUSIONS OF LAW

5. 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 . . .

6. 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.

7. 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.

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

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

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

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

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

9. 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.

10. 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

11. The source is shallow groundwater from an unconfined gravel and sand aquifer system, and the means of diversion consists of four wells (well depths are 54.5 feet, 55 feet, 65 feet, and 70 feet) and a groundwater pit (the pit is 39 feet deep and exposes the shallow groundwater aquifer). The wells will discharge groundwater into the pit, and the combined, stored water will be pumped from a secondary diversion point to a center pivot irrigation system. The combined flow rate of all wells and any contribution of groundwater upwelling in the pit is 2.43 CFS and the proposed volume is 216.4 AF. The period of diversion and use is from April 20 through October 10. The purpose of use is irrigation on 173.1 acres. Application; Department Memorandum dated June 14, 2018.

12. *Flow Rate.* Applicants conducted multiple aquifer tests to address the physical availability criteria. One of the production wells was pumped for 73 hours during the first test, from September 26 – September 29, 2014, at an average flow rate of 425 GPM. A second well was evaluated with a 72-hour drawdown and yield test at 290 GPM. A third well was evaluated with an 8-hour drawdown and yield test at 275 GPM. And a fourth well was evaluated with a 10-hour drawdown and yield test at 100 GPM. Finally, an 88.5-hour aquifer test was conducted on three of the production wells with a flow rate that fluctuated between 895 GPM and 1,895 GPM. The fourth well was monitored for water level impacts during the 88.5-hour test. Collectively, the various tests showed the four wells capable of diverting a combined flow rate of 1,090 GPM, or 2.43 CFS. The testing did not include a specific aquifer test on the groundwater pit. Since the secondary diversion in the pit will pump to the irrigation system at a rate less than the combined rate of the four wells, there is no need to factor in an additional appropriation (flow rate) from the pit. The testing data show water is physically available for sustaining the maximum requested flow rate (2.43 CFS). Department Revised Aquifer Test Report, April 17, 2018.

13. *Volume.* Groundwater flux through the zone-of-influence (ZOI) was calculated by the Department to evaluate physical water availability. The predicted ZOI was determined by modeling the areal extent of groundwater drawdown of the 0.01-foot contour and was based on a

constant pumping rate of 283 GPM throughout the period of diversion. The 283 GPM pumping rate was determined by calculating the average flow rate necessary to produce the proposed volume (216.4 AF) within the period of diversion. Using the Theis equation, a transmissivity of 166,000 ft² per day and a storativity value of 0.1, the resultant ZOI extends 41,000 feet from the proposed well field. Since the predicted ZOI extends past aquifer boundaries, it was truncated to the extent of those aquifer boundaries. The Department interpreted the boundary in the north/south direction based on formation outcrop, and to the stream channels of Timber Creek to the west, and Elk Creek to the east. A groundwater flux of 39,642 AF/year through the ZOI was calculated by multiplying the width of the ZOI (9,500 feet) by the aquifer transmissivity (166,000 ft²/day) and groundwater gradient (0.003 ft/ft). The calculations show there is sufficient volume of water available to meet the proposed volume of 216.4 AF. Department Revised Aquifer Test Report, April 17, 2018.

CONCLUSIONS OF LAW

14. 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.”

15. It is the applicant’s burden to produce the required evidence. *In the Matter of Application for Beneficial Water Use Permit No. 27665-411 by Anson* (DNRC Final Order 1987)(applicant produced no flow measurements or any other information to show the availability of water; permit denied); *In the Matter of Application to Change Water Right No. 41H 1223599 by MGRR #1, LLC.*, (DNRC Final Order 2005).

16. 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).

17. The Applicants have proven that water is physically available at the proposed point of diversion in the amount Applicants seek to appropriate. § 85-2-311(1)(a)(i), MCA. FOFs 12-13.

LEGAL AVAILABILITY

FINDINGS OF FACT

18. *Groundwater.* Department Groundwater Hydrologist Attila Folnagy predicted the width of the zone-of-influence at 9,500 feet, which encompassed 21 groundwater rights. The cumulative volume of the 21 water rights is 612.3 AF.

TABLE 1: GROUNDWATER RIGHTS LOCATED WITHIN THE ZONE-OF-INFLUENCE

WR NUMBER	WR OWNER	MEANS OF DIVERSION	VOLUME (AF)
40A 30104440	Lee	Well	5.1
40A 206037	Lee	Well	0.9
40A 206034	Lee	Well	1.7
40A 7207	Warner	Well	3.8
40A 206038	Lee	Spring	0.9
40A 206039	Lee	Spring	0.9
- 40A 184511	Glennie	Spring	418.5
- 40A 145907	Glennie	Spring	5.9
- 40A 205425	Berg	Spring	13.9
40A 206035	Lee	Spring	1.7
40A 14346	Warner	Well	0.8
40A 53490	Debuff	Spring	80.5
40A 30106006	Lee	Well	2.55
- 40A 30107177	Debuff	Spring	10.1
- 40A 30107178	Debuff	Spring	10.1
40A 30107179	Debuff	Spring	10.1
40A 30107182	Debuff	Spring	10.1
40A 30107183	Debuff	Spring	10.1
40A 30107184	Debuff	Spring	10.1
40A 30112242	Warner	Well	6.12
40A 30115423	Debuff	Well	8.43
Total			612.3 AF

19. Folnagy predicts groundwater flux of 39,642 AF/year through the ZOI. In comparison, legal demands are 612.3 AF, for an estimated surplus of 39,030 AF. The Department finds that

groundwater is legally available in the amount proposed in this application. Department Revised Depletion Report; Department Technical Report.

20. *Surface Water.* The source aquifer for the proposed appropriation is hydraulically-connected to surface water. The project lies adjacent to a large wetland complex known as Living Springs. Downgradient from Living Springs is an ephemeral tributary of Elk Creek, which rarely flows. Application materials. Further downgradient (south), about two miles from the project, lies a series of naturally-flowing springs referred to in this Preliminary Determination as the Southern Springs. Groundwater discharges to at least three of the Southern Springs on a perennial basis and contributes to surface water flows downstream of the spring discharge points. Willis Weight Memo to Doug Mann, dated April 17, 2017; Department Revised Depletion Report.

21. Applicants' consultant Willis Weight asserts that depletions from the appropriation will only occur to Living Springs, and the source aquifer is not hydraulically connected to the Southern Springs. He characterizes the source aquifer as discontinuous and distinctly isolated, pinching out before it reaches the Southern Springs. He offered multiple alternatives for the water discharging from the Southern Springs, including from a collection of unknown sources, bedrock, and/or what is identified on a geologic map as the Qtab, a mapped geological unit of surficial sediments. File Memos from Willis Weight.

22. Department staff Attila Fohnagy found that the source aquifer is hydraulically connected to the Southern Springs. The Qtab (source aquifer for both the points of diversion and Southern Springs) is mapped by Porter, et al. (1996) as continuous between the points of diversion and Southern Springs. The source aquifer is composed of gravels in a sand and clay matrix from the Living Springs area to the Southern Springs area. Fohnagy acknowledges that the shallow gravel lens near Living Springs thins or pinches out, but the pinching out does not constitute separate aquifers. These sand and gravel lenses are vertically and horizontally interconnected, water-bearing zones within one source aquifer. Well logs indicate a continuance of the shallow sand and gravel aquifer at a similar depth to the south. Fohnagy states there is no mapped bedrock feature (e.g. no flow boundary) that would prevent depletions to the Southern Springs.

Department Revised Depletion Report; Memo from Attila Fohnagy to Doug Mann, January 13, 2017.

23. In the 1987 permit proceeding before the Department, In the Matter of the Application for Beneficial Water Use Permit No. 40A 55880, by Daniel Debuff, the same Applicant as in the present proceeding acknowledged a hydraulic connection between the source aquifer at Living Springs and the Southern Springs. Additionally, the Department's Geohydrologist in 1987, Brian Harrison, projected a hydraulic connection between the two points. Both Debuff and Harrison believed there would be depletions to the Southern Springs from the irrigation project proposed at that time, which was to appropriate water from roughly the same area as in the present application. Further Findings of Fact regarding the 1987 proceeding are outlined in the Adverse Effect section below. File for Application for Beneficial Water Use Permit No. 40A 55880, by Daniel Debuff.

24. The Department finds that groundwater discharging to the Southern Springs is from the same aquifer that supplies Applicants' proposed groundwater wells and pit. Department Revised Depletion Report; Department Technical Report.

25. The appropriation of groundwater is predicted to deplete surface water by propagation of drawdown through the unconfined aquifer to Living Springs. However, depletions will ultimately manifest to the Southern Springs because the aquifer supplying both is the same. Depletions to the Southern Springs, and further downstream to the Elk Creek drainage, are predicted by the Department to occur by pre-stream capture and the reduction of discharge from the aquifer to the springs at a constant year-round rate of 134 gallons per minute. Department Revised Depletion Report.

26. Applicants have not provided information related to flows issuing from the Southern Springs and their downstream channels.

27. The Department based the downstream extent of the Southern Springs groundwater contributions to the Elk Creek drainage by analyzing shade contrast of various aerial photos. The terminus of baseflows was estimated at the confluence of Elk Creek and Roberts Creek.

Therefore, the Department’s legal demands analysis includes Elk Creek water rights upstream of its confluence with Roberts Creek. Department Revised Technical Report.

28. There are no surface water users appropriating water from Living Springs. However, there are water users that appropriate water from Elk Creek. The following table reflects surface water rights downstream of the Southern Springs in the Elk Creek drainage (legal demands).

Department Revised Technical Report.

TABLE 2: SURFACE WATER RIGHTS IN THE ELK CREEK DRAINAGE (ALSO KNOWN AS COLD SPRING CREEK) THROUGH THE POTENTIALLY AFFECTED AREA

Water Right	Purpose	Period of diversion	Flow Rate	Volume
40A 205932	Stock (415 AU)	1/1 to 12/31	35 GPM	14.0 AF**
40A 17798	Stock (150 AU)	1/1 to 12/31	35 GPM	5.1 AF**
40A 198179	Stock (50 AU)	4/1 to 10/31	35 GPM	1.0 AF**
40A 198181	Stock (50 AU)	4/1 to 10/31	35 GPM	1.0 AF**
40A 110133	Irrigation (100 acres)	4/1 to 7/15	3.78 CFS	274.0 AF
40A 110228	Irrigation (60 acres)	5/1 to 8/31	1.50 CFS	164.4 AF
Totals			5.59 CFS	459.5 AF

** Based on use of 30 gallons per day per animal unit.

29. Table 2 indicates legal demands of 459.5 AF within the potentially affected area. Notably, the estimated volume does not include an additional 458.5 AF of water rights from the Southern Springs complex, that were accounted for in Table 1 (water right numbers 40A 184511, 40A 145907, 40A 205425, 40A 30107177, and 40A 30107178). The Table 1 water rights were accounted for under the Department’s groundwater analysis because their sources are identified as springs. However, these water rights rely on natural groundwater discharge from the Southern Springs, and from the same aquifer as proposed under the appropriation. Department Revised Technical Report.

30. To determine if the physical water supply exceeds legal demands, the amount of water flowing from the Southern Springs and into the Elk Creek drainage must be known. However, insufficient data is available on water discharging from these springs and flowing in Elk Creek,

and therefore no comparison between physical water availability and legal water availability can be made. Applicants have offered to monitor and gather data on the Southern Springs and have suggested the Department approve the application upon conditioning the Permit with such a plan. However, the plan fails to meet the test of proving the legal availability criteria *before* Permit issuance. Willis Weight Memo to Doug Mann, dated April 17, 2017.

31. Applicants have not proven there is sufficient surface water legally available in Elk Creek for appropriation below the Southern Springs' discharge point.

CONCLUSIONS OF LAW

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

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

(A) identification of physical water availability;

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

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

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

33. It is the applicant's burden to present evidence to prove water can be reasonably considered legally available. Sitz Ranch v. DNRC, DV-10-13390, Fifth Judicial District Court, *Order Affirming DNRC Decision*, (2011) Pg. 7 (the legislature set out the criteria (§ 85-2-311, MCA) and placed the burden of proof squarely on the applicant. The Supreme Court has instructed that those burdens are exacting.); *see also* Matter of Application for Change of Appropriation Water Rights Nos. 101960-41S and 101967-41S by Royston (1991), 249 Mont. 425, 816 P.2d 1054 (burden of proof on applicant in a change proceeding to prove required criteria); *In the Matter of*

Application to Change Water Right No. 41H 1223599 by MGRR #1, LLC., (DNRC Final Order 2005) (it is the applicant's burden to produce the required evidence.); *In the Matter of Application for Beneficial Water Use Permit No. 41H 30023457 by Utility Solutions, LLC* (DNRC Final Order 2007)(permit denied for failure to prove legal availability); see also ARM 36.12.1705.

34. 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 groundwater. § 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.

35. 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*.

36. In analyzing legal availability for surface water, applicant was required to evaluate legal demands on the source of supply throughout the “area of potential impact” by the proposed use under §85-2-311(1)(a)(ii), MCA, not just within the “zone of influence.” Sitz Ranch v. DNRC, DV-10-13390, Fifth Judicial District Court, *Order Affirming DNRC Decision*, (2011) Pg. 6.

37. Applicants *have proven* by a preponderance of the evidence that groundwater 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. (FOF’s 18-19). However, Applicants *have not proven* by a preponderance of the evidence that surface water can reasonably be considered legally available during the period in which the applicants seek to appropriate. §85-2-311(1)(a)(ii), MCA. (FOF’s 20-31).

ADVERSE EFFECT

FINDINGS OF FACT

38. The Applicants propose to divert groundwater from a shallow, unconfined gravel and sand aquifer system, by means of four wells and a groundwater pit. The combined flow rate of all diversions is 2.43 CFS and the proposed volume is 216.4 AF. The proposed appropriation of groundwater is projected to deplete surface water by propagation of drawdown through the unconfined aquifer to Living Springs, a prominent wetland complex. The Department also projects depletions to occur to a series of springs about two miles south of the wells, the Southern Springs, that discharge to surface water in the Elk Creek drainage, a tributary of Roberts Creek. Depletions to the Southern Springs will occur by the reduction of discharge from the aquifer to the springs at a constant year-round rate of 134 gallons per minute. Revised Depletion Report, April 16, 2018; Department Revised Technical Report.

39. Department modeling shows that there are no wells within the area of potential impact (1-foot drawdown contour) that will experience drawdown greater than one foot after five years of pumping. No adverse effects will result from the proposed appropriation to other groundwater users.

40. The Department's groundwater hydrologist, Attila Fohnagy, predicts the proposed pumping project will capture groundwater before it discharges at Living Springs and that net depletion will cumulate in the Southern Springs (pre-stream capture). There are no other water users appropriating surface water from Living Springs, but there are six water rights that rely on water issuing from the Southern Springs to supply a combined volume of 459.5 AF. Arguably, there are an additional five water rights, with a combined volume of 458.5 AF, to account for in a surface water analysis. These five water rights rely on discharge from the Southern Springs to fulfill their allocation of water, even though their source is defined as groundwater (springs). Department Revised Depletion Report; water right records.

41. To the Department's knowledge, only one of the Southern Springs has been measured on one occasion in 1987. Sterling Sundheim of the Lewistown Regional Office measured the flow of the westernmost spring at 16.3 gallons per minute. No additional discharge data are known to

have been collected. No flow data were provided by the Applicant, and the Department is unaware of publicly-available data on the springs. File for Application for Beneficial Water Use Permit No. 40A 55880, by Daniel Debuff.

42. On December 1, 1987 the Department issued a Final Order in the Matter of the Application for Beneficial Water Use Permit No. 40A 55880, by Daniel Debuff, the same Applicant that has applied for a Permit in this matter. The Order denied the Applicant's proposed shallow groundwater diversion (drain tile system) located generally in the W2 Section 26, T10N, R17E. The diversion system in the 1987 matter is adjacent to the current proposed diversions and was slated to be used for irrigation purposes. The system consisted of 4,000 feet of 4-inch and 6-inch tile, laid 5-6 feet below the ground surface. It proposed to appropriate water from the same shallow aquifer as in the instant matter. Following are references to Findings of Fact and a Conclusion of Law in the 1987 Order:

“The evidence in the matter indicates that the Applicant's proposed appropriation of additional groundwater would result in a very small lowering of the groundwater table in the immediate area of his diversion, given worst case scenario conditions (see January 22, 1986 Report by Brian Harrison), and in an unquantified reduction in the surface water flow of Cold Spring Creek.....” Finding of Fact No. 9, pages 8-9, Proposal for Decision.

“The Applicant testified that he believes that his proposed water use will have some effect on Cold Spring Creek, because if he does not appropriate the water it goes underground and emerges “down lower” in springs. However, he does not think that downstream users will be affected to any great extent because the drainage area above his diversion is a small portion of the total drainage area, and because he believes the proposed storage will stabilize flows once water has seeped into the soil.” Finding of Fact No. 9, page 9, Proposal for Decision

“Mr. Harrison stated that he believes the Applicant's appropriation has some effect on Cold Spring Creek downstream from the drain system, but that he cannot estimate what the

effects might be, especially in the long term. In response to questioning, he agreed that there is a strong correlation between groundwater and surface water in the area.” Finding of Fact No. 10, page 10, Proposal for Decision.

“The Applicant has not provided substantial, credible evidence that the water rights of prior appropriators downstream on Cold Spring Creek will not be adversely affected.

The Applicant’s appropriation has some effect on the surface water flow of Cold Spring Creek (Findings of Fact 8, 10), as the Applicant himself agrees. (See Finding of Fact 9.) However, the Applicant did not provide any evidence which suggests that the resulting reduction in stream flow would not aggravate these water shortages experienced downstream from his project.” Proposed Conclusion of Law No. 9, page 13, Proposal for Decision.

43. While the 1987 proposal and the instant proposal are not identical in design, they are similar. They both included groundwater diversions for irrigation purposes from the same general location and water source (shallow aquifer) and involved a storage component. The Findings and Conclusions in the 1987 Proposal for Decision show that Cold Springs Creek would be depleted in some unquantified amount, and, importantly, it noted the Applicant’s knowledge of depletions to the creek and springs “down lower” in the drainage (where the springs emerge). The 1987 matter referred to the depleted source as Cold Springs Creek, which is the same source predicted to be depleted in this matter, Elk Creek (different maps show different names, but they are the same source). Brian Harrison, the “Mr. Harrison” referred to in the 1987 Finding of Fact No. 10, was a Department hydrogeologist. The 1987 proposal failed on the grounds that Cold Springs Creek, or Elk Creek, would be depleted to some extent, and that the extent to downstream surface water users was indeterminable (one of the objectors in 1987 was located about 12 miles downstream). Proposal for Decision and Final Order, In the Matter of the Application for Beneficial Water Use Permit No. 40A 55880, by Daniel Debuff.

44. The determination of Department Groundwater Hydrologist Attila Felnagy and the Department’s Geohydrologist in 1987, Brian Harrison, regarding water source and impacts of

appropriations from the shallow groundwater aquifer, are aligned. Even Mr. Debuff agreed in 1987 that the shallow groundwater system is hydraulically connected to the Southern Springs. The record reflects that depletions will occur to the Southern Springs, and subsequently, Elk Creek. File; File for 40A 55880.

45. According to the Department's Depletion Report, the predicted depletion to the Southern Springs is 216.4 AF, and a constant flow rate of 134 gallons per minute. Department Revised Depletion Report; Department Revised Technical Report.

46. The amount of water issuing from the Southern Springs is unknown. Applicant has not measured or attempted to quantify those spring flows.

47. Applicants' consultant, Dr. Willis Weight, proffered a future monitoring plan for two of the Southern Springs located on the Applicants' property. The plan proposes monitoring to determine whether impacts from Applicants' appropriations occur to spring discharge. However, with no background data on the Southern Springs there is no reliable way to compare future flows to past flows and seasonal changes. The only data collected would be under the Applicants' new pumping regime. Additionally, measuring and correlating the timing of net depletions to the proposed pumping will be difficult in responding to a call on water. Weight's plan ignores the complexity of such a situation. Due to the uncertainty in measuring and analyzing the impacts of net depletions to the Southern Springs, the Department does not find the plan to be sufficient to prevent adverse effects.

48. The Department finds that the Applicants have not proven by a preponderance of the evidence that the proposed appropriation will not adversely affect the rights of other appropriators. Water will be depleted from Southern Springs and the Elk Creek drainage, and there has not been a showing that water is legally available in that drainage. Applicants' plan to monitor spring flows after a Permit is issued is insufficient to correlate spring discharge with pumping depletions, and the Applicants could not possibly respond in a timely manner to a call on water.

CONCLUSIONS OF LAW

49. 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.
50. An applicant must analyze the full area of potential impact under the § 85-2-311, MCA criteria. *In the Matter of Beneficial Water Use Permit No. 76N-30010429 by Thompson River Lumber Company* (DNRC Final Order 2006). While § 85-2-361, MCA, limits the boundaries expressly required for compliance with the hydrogeologic assessment requirement, an applicant is required to analyze the full area of potential impact for adverse effect in addition to the requirement of a hydrogeologic assessment. Id. ARM 36.12.120(5).
51. 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.
52. 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.
53. 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.

54. 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.

55. Simply asserting that an acknowledged reduction, however small, would not affect those with a prior right does not constitute the preponderance of the evidence necessary to sustain applicant's burden of proof. Westmont Developers v. DNRC, CDV-2009-823, First Judicial District Court, *Memorandum and Order*, (2011) Pgs. 11 (Court rejected applicant's argument that net depletion of .15 millimeters in the level of the Bitterroot River could not be adverse effect.); Sitz Ranch v. DNRC, DV-10-13390, Fifth Judicial District Court, *Order Affirming DNRC Decision*, (2011) Pgs. 3-4 (Court rejected applicant's arguments that its net depletion (3 and 9 gpm, respectively to Black Slough and Beaverhead River) was "not an adverse effect because it's not measurable," and that the depletion "won't change how things are administered on the source.").

After calculating the projected depletion for the irrigation season, the District Court in Sitz Ranch v. DNRC explained:

Section 85-2-363(3)(d) MCA requires analysis whether net depletion will adversely affect prior appropriators. Many appropriators are those who use surface water. Thus, surface water must be analyzed to determine if there is a net depletion to that resource. Sitz's own evidence demonstrates that about 8 acre feet of water will be consumed each irrigation season. Both Sitz and any other irrigator would claim harm if a third party were allowed to remove 8 acre feet of water each season from the source upon which they rely.

Sitz Ranch v. DNRC, DV-10-13390, Fifth Judicial District Court, *Order Affirming DNRC Decision*, (2011) Pgs. 3-4.

56. No evidence that the resulting reduction in flows in the creek would not aggravate water shortages experienced downstream from area affected by project. *In the Matter of Beneficial Water Use Permit No. 55880-40A by Daniel Debuff* (DNRC Final Order 1987);

57. Adverse effect is not required to be measurable but must be calculable. Sitz Ranch v. DNRC, DV-10-13390, Fifth Judicial District Court, *Order Affirming DNRC Decision*, (2011) Pg. 7 (DNRC permit denial affirmed; 3 gpm and 9 gpm depletion to surface water not addressed in legal availability or mitigation plan.); Wesmont Developers v. DNRC, CDV-2009-823, First Judicial District Court, *Memorandum and Order*, (2011) Pg. 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 depletion from groundwater pumping); *In the Matter of Beneficial Water Use Permit No. 76N-30010429 by Thompson River Lumber Company* (DNRC Final Order 2006); see also Robert and Marlene Tackle v. DNRC et al., Cause No. DV-92-323, Montana Fourth Judicial District for Ravalli County, *Opinion and Order* (June 23, 1994). Artesian pressure is not protectable and a reduction by a junior appropriator is not considered an adverse effect. See *In re Application No. 72948-G76L by Cross*, (DNRC Final Order 1991); see also *In re Application No. 75997-G76L by Carr*, (DNRC Final Order 1991).

58. A plan to prove legal availability and prevent adverse effect can be to use mitigation or augmentation. § 85-2-360, MCA; e.g., *In the Matter of Beneficial Water Use Permit Application Nos. 41H 30012025 and 41H 30013629 by Utility Solutions, LLC*, (DNRC Final Order 2006)(permit conditioned to mitigate/augment depletions to the Gallatin River by use of infiltration galleries in the amount of .55 cfs and 124 AF), *affirmed*, Faust v. DNRC et al., Cause No. CDV-2006-886, Montana First Judicial District (2008); *In the Matter of Beneficial Water Use Permit Application Nos. 41H 30019215 by Utility Solutions, LLC*, (DNRC Final Order 2007)(permit conditioned to mitigate 6 gpm up to 9.73 AF of potential depletion to the Gallatin River), *affirmed*, Montana River Action Network v. DNRC, Cause No. CDV-2007-602, Montana First Judicial District Court, (2008); Sitz Ranch v. DNRC, DV-10-13390, Fifth Judicial District Court, *Order Affirming DNRC Decision*, (2011) Pg. 7; Wesmont Developers v. DNRC, CDV-2009-823, First Judicial District Court, *Memorandum and Order*, (2011) Pg. 12; *In the Matter of Application for Beneficial Water Use Permit No. 41H 30026244 By Utility Solutions LLC*

(DNRC 2008)(permit conditioned on mitigation of 3.2 gpm up to 5.18 AF of depletion to the Gallatin River); *In the Matter of Application for Beneficial Water Use Permit No. 76H-30028713 by Patricia Skergan and Jim Helmer* (HB 831, DNRC Final Order 2009) (permit denied in part for failure to analyze legal availability for surface water for depletion of 1.31 AF to Bitterroot River)§ 85-2-360, MCA. The Department has a history of approving new appropriations where applicant will mitigate/augment to offset depletions caused by the new appropriation. *In the Matter of Beneficial Water Use Permit Application No. 41I-104667 by Woods and Application to Change Water Right No 41I-G(W) 125497 by Ronald J. Woods*, (DNRC Final Order 2000); *In The Matter of Application To Change Appropriation Water Right 76GJ 110821 by Peterson and MT Department of Transportation*, DNRC Final Order (2001); *In The Matter of Application To Change Appropriation Water Right No. 76G-3235699 by Arco Environmental Remediation LLC*.(DNRC Final Order 2003) (allows water under claim 76G-32356 to be exchanged for water appropriated out of priority by permits at the wet closures and wildlife to offset consumption). *In The Matter of Designation of the Larsen Creek Controlled Groundwater Area as Permanent, Board of Natural Resources Final Order* (1988).

Montana case law also provides a history of mitigation, including mitigation by new or untried methods. See Thompson v. Harvey (1974),154 Mont. 133, 519 P.2d 963; Perkins v. Kramer (1966), 148 Mont. 355, 423 P.2d 587. Augmentation/ mitigation is also recognized in other prior appropriation states for various purposes. E.g. C.R.S.A. § 37-92-302 (Colorado); A.R.S. § 45-561 (Arizona); RCWA 90.46.100 (Washington); ID ST § 42-1763B and § 42-4201A (Idaho). 59. The Applicant has proven by a preponderance of the evidence that groundwater rights of prior appropriators under an existing water right, a certificate, a permit, or a state water reservation will not be adversely affected. (FOF 39). However, Applicant has not proven by a preponderance of the evidence that surface water rights on Elk Creek, or other water rights reliant on the discharge of water from the Southern Springs, will not be adversely affected§ 85-2-311(1)(b), MCA. (FOF's 38-48).

ADEQUATE DIVERSION

FINDINGS OF FACT

60. Applicant proposes to divert groundwater from a shallow, unconfined gravel and sand aquifer system, by means of four wells (well depths are 54.5 feet, 55 feet, 65 feet, and 70 feet) and a groundwater pit (the pit is 39 feet deep and taps the shallow groundwater aquifer). The proposed pit capacity is 19.5 AF. The wells will discharge groundwater into the pit, and the combined, stored water will be pumped via a 12-inch pipeline to a 173.1-acre center pivot. The combined flow rate of all wells and any contribution of groundwater upwelling in the pit is 2.43 CFS and the proposed volume is 216.4 AF. The secondary pumping system supplying the center pivot will divert water at a rate of 2.38 CFS. The file contains two schematics showing the general design and location of the wells, pit, and irrigation system, including manifold structure, pipe sizes and lengths, and pivot length. The pumping and pivot systems will be designed by an irrigation dealer. File.

61. The four groundwater wells were constructed by a licensed well driller with the State of Montana, according to the laws, rules and standards of the Board of Water Well Contractors. Well log reports were supplied with the application. File.

62. The Department finds the proposed means of diversion, construction, and operation of the appropriation works to be adequate.

CONCLUSIONS OF LAW

63. 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.

64. 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.

65. Water wells must be constructed according to the laws, rules, and standards of the Board of Water Well Contractors to prevent contamination of the aquifer. *In the Matter of Application for Beneficial Water Use Permit No. 41I-105511 by Flying J Inc.* (DNRC Final Order 1999).

66. 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's 60-62).

BENEFICIAL USE

FINDINGS OF FACT

67. The proposed amount of water to be used is a flow rate of 2.43 CFS up to 216.4 AF (the volume estimate includes evaporation from the storage reservoir). The purpose of use is irrigation on 173.1 acres, and the period of use is April 20 through October 10. A 19.5 AF reservoir is included in the project.

68. The flow rate is based on the capacity of the wells, which will discharge water into the reservoir for storage purposes. Water will be pumped via a secondary diversion system from the reservoir at a flow rate of 2.38 CFS, which is the recommended design rate by the irrigation equipment dealer. The per-acre flow rate amounts to 6.2 gallons per minute per acre, which is within a common range of design for center pivot irrigation in Montana. The proposed volume of 216.4 AF constitutes slightly deficit irrigation (1.25 AF per acre, as opposed to full service irrigation of 1.36 AF per acre).

69. The Department finds a flow rate of 2.43 CFS and volume of 216.4 AF to be a beneficial use of water.

CONCLUSIONS OF LAW

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

71. 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).

72. Applicant proposes to use water for irrigation which is a recognized beneficial use. § 85-2-102(4), MCA. Applicant has proven by a preponderance of the evidence irrigation is a beneficial use and that 216.4 AF of diverted volume and a flow rate of 2.42 CFS is the amount needed to sustain the beneficial use. § 85-2-311(1)(d), MCA, (FOF's 67-69)

POSSESSORY INTEREST

FINDINGS OF FACT

73. 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

74. 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.

75. 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.

76. 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 73)

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 30105384 should be **DENIED**. The specific statutory criteria upon which the denial is based are Legal Availability and Adverse Effect. More specifically, Applicants have not proven surface water is legally available from the Southern Springs discharge point and downgradient in the Elk Creek drainage, nor have they proven adverse effects would not result to water users in that drainage.

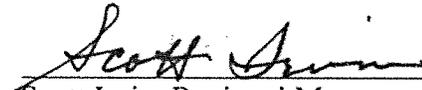
NOTICE

The Department has determined your application should be denied based upon findings specified in the above Final Preliminary Determination Decision. Pursuant to § 85-2-310, Mont. Code Ann. (MCA), if the Department proposes to deny an application for a permit or a change in appropriation right under § 85-2-307, MCA, unless the applicant withdraws the application, the Department shall hold a hearing pursuant to § 2-4-604, MCA, after serving notice of the hearing by first-class mail upon the applicant for the applicant to show cause by a preponderance of the evidence as to why the permit or change in appropriation right should not be denied.

Your Application has been forwarded to the DNRC Hearings Unit to schedule a hearing to show cause why the Application should not be denied. A hearing date will be set within 45 days of the date of this letter and a notice of hearing and appointment of Hearing Examiner will be forwarded to you. You may contact the Department to cancel the hearing if you do not wish to proceed with a hearing. If you do not proceed to hearing and complete the hearing process, the Department's Preliminary Determination Decision will become a Final Decision.

To exhaust your administrative remedies under the Montana Administrative Procedure Act (Title 2, Chapter 4, MCA) on a denial of an application, you must proceed to the show cause hearing, complete the hearing process and receive a final order from the Department. Only a person who has exhausted his or her administrative remedies available within the agency and is aggrieved by a final order of the Department is entitled to judicial review under Montana Administrative Procedure Act (§2-4-702, MCA).

DATED this 14th day of August 2018.



Scott Irvin, Regional Manager
Lewistown Regional Office
Department of Natural Resources and Conservation

CERTIFICATE OF SERVICE

This certifies that a true and correct copy of the PRELIMINARY DETERMINATION TO DENY was served upon all parties listed below on this 14th day of August 2018, by first class United States mail.

JOHN BLOOMQUIST
BLOOMQUIST LAW FIRM, PC
3355 COLTON DRIVE, SUITE A
HELENA, MT 59602

Melissa Adams
NAME

08/14/2018
DATE