

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

**IN THE MATTER OF APPLICATION FOR)
BENEFICIAL WATER USE PERMIT NOS.) FINAL ORDER
41B-30028374 AND 41B-30028375 BY SITZ)
RANCH MANAGEMENT PARTNERSHIP)**

Pursuant to the Montana Water Use Act and the contested case provisions of the Montana Administrative Procedure Act, and after notice required by 85-2-307, MCA, a hearing was held May 27 – 28, 2009, in Dillon, Montana to determine whether beneficial water use permits should be issued to Sitz Ranch Management Partnership, herein after referred to as “Applicant,” for the above applications under the criteria set forth in 85-2-311, MCA.

APPEARANCES

Applicant appeared at the hearing by and through counsel John Bloomquist. Testifying for the Applicant was Gary Andres, PBS&J; Karl Uhlig, PBS&J; Jane Madison, PBS&J; Jim Sitz, Sitz Ranch Management Partnership. Objector Open A Ranch (OOA) appeared at the hearing by and through counsel Hertha Lund. Testifying on behalf of OOA was Willis Weight, University of Montana. Objector U.S. Bureau of Reclamation (BOR) appeared at the hearing by and through counsel Roselyn Rennie. Testifying on behalf of BOR was Jim Forseth, BOR and Scott Guenther, BOR. Objector State Water Projects Bureau (SWP) appeared at the hearing by and through counsel Fred Robinson. Testifying of behalf SWP was Larry Dolan, DNRC and Walt Anderson, SWP.

EXHIBITS

Exhibits offered and accepted at the hearing are as follows:

Applicant’s Exhibit A-20 is an 8 page document entitled “Unsteady Stream Depletion when Pumping from Semiconfined Aquifer” by Bruce Hunt.

Applicant’s Exhibit A-21 is a 3 page document entitled “Sitz Ranch Management Partnership Applications Net Consumption Calculations: May 27 – 28, 2009.”

Objector OOA's Exhibit OOA-1 is a one page document entitled "Figure 1. Wells in Vicinity of Dallaserra Groundwater Application."

Objector OOA's Exhibit OOA-2 is a 6 page document entitled "Unsteady Stream Depletion from Ground Water Pumping" by Bruce Hunt.

Objector OOA's Exhibit OOA-3 is a one page figure of a hydrograph entitled "Current hydrograph for well 108966."

Objector BOR's Exhibit OBR-1 consists of 5 hydrographs of streamflow on the Beaverhead River between March and September for the years 1998, 2002, 2003, 2004, and 2005.

All other exhibits in this matter were prefiled by the parties along with prefiled expert testimony and are considered as part of the record.

FINDINGS OF FACT

General

1. Sitz Ranch Management Partnership filed two Application(s) for Beneficial Water Use Permit(s) which were received by the Department of Natural Resources and Conservation Helena Regional Office on June 19, 2007. These two Applications were assigned numbers 41B-30028374 (Well No. 1) and 41B-30028375 (Well No. 2). (Department Files)
2. Notice of Application Nos. 41B-30028374 and 41B-30028375 were individually published in the *Dillon Tribune*, a newspaper of general circulation, on October 24, 2007. Both notices included information about the proposed appropriation(s) and the procedure for filing objections. Notice was also mailed to persons listed in the Department file on October 19, 2007. (Department Files)
3. Individual Environmental Assessments (EA) were prepared by the Department for both Application Nos. 41B-30028374 and 41B-30028375 and have been reviewed and included in the record of this proceeding. (Department Files)
4. Application No. 41B-30028374 (hereinafter Well No. 1 or IW-1) seeks to appropriate 700 gallons per minute (gpm) of groundwater from Well No. 1 which is located in the SW $\frac{1}{4}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$ Sec. 32, T5S, R8W, Beaverhead County, up to a maximum yearly volume of 289.8 acre-feet. The period of use for this appropriation would be between April 1 and October 15, inclusive, of each year. The water would be used to sprinkler irrigate a

maximum of 105 acres located in the SW¼ Sec. 32, T5S, R8W (75 acres) and in the W½W½SE¼ Sec. 32, T5S, R8W (30 acres). (Department File)

5. Application No. 41B-30028375 (hereinafter Well No. 2 or IW-2) seeks to appropriate 1,500 gallons per minute (gpm) of groundwater from Well No. 2 which is located in the NE¼SE¼SW¼ Sec. 32, T5S, R8W, Beaverhead County, up to a maximum yearly volume of 510.60 acre-feet. The period of use for this appropriation would be between April 1 and October 15, inclusive, of each year. The water would be used to sprinkler irrigate a maximum of 185 acres located in the NW¼ Sec. 32, T5S, R8W (155 acres); in the N½N½SW¼ Sec. 32, T5S, R8W (15 acres); and in the W½W½NE¼ Sec. 32, T5S, R8W (15 acres). (Department File)

Basin Closure & Hydrogeologic Assessment

6. These two Applications fall within the Upper Missouri River Basin Closure Area (85-2-343, MCA) and within the Jefferson River Basin Closure Area (85-2-341, MCA). These two Basin Closure Areas provide, respectively, that “. . . the department may not grant an application for a permit to appropriate water . . . within the upper Missouri River basin until the final decrees have been issued . . .” and “. . .the department may not grant an application for a permit to appropriate water . . . within the Jefferson River basin . . .” There are exceptions to the basin closures and the applicable (and identical) exception appears in both of the closure areas. To wit: “The provisions of [the basin closure] do not apply to: (a) an application for a permit to appropriate ground water if the applicant complies with the provisions of 85-2-360.” (Department File; 85-2-341, MCA; 85-2-343, MCA)

7. These two applications are subject to 85-2-360, MCA, which provides in part that “[a]n application for a ground water appropriation right in a basin closed pursuant to [the various basin closure laws] must be accompanied by a hydrogeologic assessment that has been conducted pursuant to 85-2-361 to predict whether the proposed appropriation right will result in a net depletion of surface water and must be accompanied by a plan as provided in 85-2-362, if necessary.” (85-2-360, MCA)

8. Applicant provided Hydrogeologic Assessments for these two Applications with their original filing as required by 85-2-361, MCA. As a result of deficiencies identified by the Department in a letter dated August 21, 2007, addressing both Applications, the Applicant provided further information up through March 26, 2008. I find that the Hydrogeologic Assessments with their amendments include: the area or estimated area of ground water

that will be affected; the geology in the areas affected; the parameters of the aquifer system within the area affected; the location of surface water rights within the area affected; evidence of water availability; the locations of all wells within the area affected; and an adequate water quality report. The Hydrogeologic Assessments also include an analysis of whether there may be a net depletion of surface water in the area affected. (Department File)

9. Applicant utilized an analytical solution derived by Hunt (2003) for calculating stream depletion for both IW-1 and IW-2. Applicant's analysis predicts streamflow capture due to pumping of IW-1 from Black Slough, tributary to the Beaverhead River, (the nearest surface water source to IW-1, which becomes perennial approximately 1,739 feet from IW-1) after pumping IW-1 at 180 gallons per minute¹ for 100 years to be 1.8 gpm. Likewise, streamflow capture from Black Slough due to pumping of IW-2 (1,353 feet distant) at 317 gallons per minute² for 100 years is predicted to be 3.2 gpm. However, considerable evidence regarding and refuting the Applicant's modeling and assumptions was presented by the Objector's witnesses. In its original filings of the Applications, Applicant relies on a qualitative examination of local well logs in the area to argue that there are confining layers of clay (aquitards) which separate surficial water from the aquifer into which both IW-1 and IW-2 have as their source – concluding "thus, no surface water infiltration is expected to occur due to pumping of the source aquifer." Applicant argues that these aquitards are "locally continuous" and thus the surface water sources are not hydraulically connected to the source aquifer. Objectors do not deny the existence of the aquitards but provide evidence that they are not as continuous as Applicant contends. For example, Objector Open A Ranch's expert opines that the clay layer thins or is truncated by Quaternary Beaverhead River system and that there are fissures and fault lines in the vicinity which would render the aquitards discontinuous or at best leaky. Objector Open A sites as an example the decrease in shallow aquifer water levels (distance from ground surface to aquifer level) of approximately two feet on the west (Sitz) side of the Beaverhead River down gradient from the deep IW-1 and IW-2 compared to increases in aquifer water levels on the east side of the Beaverhead River. Objector BOR cites to prefiled Exhibit USA 19 (Beaverhead River, East Bench Unit Water Budget 2005) which calculated a 29,930 acre-

¹ 180 gpm is the rate required to extract 289.8 af/y (the requested volume) if the well were to pump continuously for 365 days.

² 317 gpm is the rate required to extract 510.6 af/y (the requested volume) if the well were to pump continuously for 365 days.

foot gain in the Beaverhead River between Anderson Lane and Point of Rocks, a reach that is approximately four miles east of IW-1 and IW-2, and indicates a significant ground water connection in that reach.

There is conflicting evidence in the record regarding the appropriateness of using the Hunt methodology and the various input variable used to run the model. However, I find that the Hunt methodology is an accepted analytical model for calculating stream depletion and further find that the streamflow capture after pumping IW-1 at 180 gallons per minute for 100 years to be *at least* 1.8 gpm or approximately 2.9 acre-feet/year and that pumping IW-2 at 317 gallons per minute for 100 years from Black Slough to be *at least* 3.2 gpm or approximately 5.16 acre-feet/year³. (Department File; Testimony of Gary Andres; Testimony of Willis Weight)

10. Applicant provided an analysis of the cumulative effect of pumping both IW-1 and IW-2 simultaneously on both Black Slough and the Beaverhead River using the Hunt (2003) methodology. This analysis predicts a depletion in Black Slough “to begin shortly after pumping, reaching just over 1 gpm at 3.4 years, increasing to 3 gpm at 34 years and increasing to 5.3 gpm at 100 years.” After 100 years that equates to a net annual depletion of approximately 8.5 acre-feet. The analysis of the depletion to the Beaverhead River predicts (at least in one scenario) “after 1 year of pumping at 496.2 gpm [the “average annual rate” for both wells], the Hunt method predicts stream depletion to be 0.5 gpm, 1.3 gpm after 3.4 years, 9.1 gpm after 34 years, and 18.3 gpm after 100 years.” After 100 years that equates to a net annual depletion of approximately 29.5 acre-feet. Applicant uses differing input parameters to show that (not surprisingly) the effects could be less if different assumptions are made. (Exhibit A-18)

Physical Availability

11. Applicant used aquifer test results from the nearby (1,884 feet NW of IW-1) Dallaserra irrigation well conducted in 2003 in support of both Applications. These aquifer test results meet the specified Rules requirements (ARM 36.12.121) as determined by the Department’s hydrogeologist by memorandum dated July 24, 2007. (Department File; Exhibit A-5)

³ 1.8 gpm x 60 minutes x 24 hours x 365 days = 946,080 gallons/325,851 gallons/af = 2.9 af
3.2 gpm x 60 minutes x 24 hours x 365 days = 1,681,920 gallons/325,851 gallons/af = 5.16 af

12. IW-1 is drilled to a depth of 300 feet and was completed in rocks and clay from 87 – 220 feet below ground surface (bgs) and volcanic bedrock from 220 – 300 feet bgs. The well is screened between 87 to 300 feet bgs. There is 68.64 feet of available drawdown above the pump intakes. Observation wells for the IW-1 pump test include IW-2, a stock well (SW) a 160 foot deep stock well screened between 110 and 145 feet bgs, and a domestic well (DW) an unscreened 60 foot well. (Department File)

13. IW-1 was pumped for a total of 8 hours 34 minutes at an average rate of 708.2 gpm which resulted in a drawdown in IW-1 of 10.28 feet. Applicant then graphically extended the predicted drawdown out for 93.7 days (the number of days pumping constantly at 700 gpm to attain the requested volume of 289.8 acre-feet) based on the aquifer properties derived under the Moench solution for a double-porosity aquifer (1984) as follows:

Transmissivity (T) = 78,107 ft²/day

Hydraulic Conductivity (K) = 363.7 ft/day

Storativity (S) = 8.29E-03

Specific Storage (S_s) = 3.89E-05

The result of extending the predicted drawdown under this scenario predicts an approximate 11 foot drawdown after 93.7 continuous days of pumping. This leaves approximately 31 feet of available drawdown in the well above the pump intakes. (Department Files; Testimony of Jane Madison; Testimony of Gary Andres)

14. IW-2 is drilled to a depth of 200 feet and was completed in fractured volcanic between 105 and 187 feet bgs. The well is screened between 105 and 187 feet bgs. There is 90.65 feet of available drawdown above the pump intakes. Observation wells for the IW-2 pump test include IW-1, SW, and DW. (Department File)

15. IW-2 was pumped for a total of 8 hours 25 minutes at an average rate of 1503.5 gpm which resulted in a drawdown in IW-2 of 3.91 feet. Applicant then graphically extended the predicted drawdown out for 77.02 days (the number of days pumping constantly at 1500 gpm to attain the requested volume of 510.6 acre-feet) based on the aquifer properties derived under the Moench solution for a double-porosity aquifer (1984) as follows:

Transmissivity (T) = 83,303.5 ft²/day

Hydraulic Conductivity (K) = 416.52 ft/day

Specific Storage (S_s) = 8.66E-04

No value was provided for Storativity

The result of extending the predicted drawdown under this scenario predicts an approximate 6 foot drawdown after 77.02 continuous days of pumping. This leaves

approximately 49.65 feet of available drawdown in the well above the pump intakes.

(Department Files; Testimony of Jane Madison; Testimony of Gary Andres)

16. The Applicant calculated the zone of influence (ZOI) created by pumping IW-1 for 93.7 days at a constant rate of 700 gpm using the aquifer parameters discussed above. The calculated ZOI is the horizontal extent of the cone of depression created due to pumping the ground water well calculated to the 0.01 foot contour and results in an area with a radius of 7,181 feet around IW-1. Applicant then calculated the aquifer flux in the ZOI using the transmissivity, width of the aquifer and the hydraulic gradient (derived from the groundwater contour maps). The result is an aquifer flux of 56,397.67 acre-feet/year. (Department File)

17. The Applicant calculated the ZOI created by pumping IW-2 for 77.02 days at a constant rate of 1500 gpm using the aquifer parameters and ground water contour maps as described above. The ZOI created from pumping IW-2 is an area with a radius of 14,391 feet and results in an aquifer flux of 120,542.57 acre-feet/year. (Department File)

18. I find that IW-1 is capable of consistently producing the requested 700 gpm and that IW-2 is capable of consistently producing the requested 1500 gpm. The water for these proposed appropriations is physically available.

Legal Availability

19. As discussed above, Applicant has calculated an aquifer flux for IW-1 and IW-2 at 56,397 acre-feet/year and 120,542.57 acre-feet/year, respectively. Applicant is requesting an annual appropriation of 289.8 acre-feet/year from IW-1 and 510.6 acre-feet/year from IW-2. (Department File)

20. The Applicant used the DNRC water right records to estimate existing legal demands on ground water within the ZOI. For IW-1 Applicant found a total of three ground water rights and one ground water right application in IW-1's ZOI. Summing these water rights and application results in a total legal demand within the IW-1's ZOI of approximately 1,209.21 acre-feet/year. For IW-2 Applicant found a total of 30 ground water rights and one ground water application in IW-2's ZOI. Summing these water rights and application results in a total legal demand within IW-2's ZOI of approximately 1,657 acre-feet/year. (Department File)

21. Adding IW-1's requested appropriation of 289.8 acre-feet/year to the existing legal demand in IW-1's ZOI and subtracting that sum from the calculated aquifer flux results in

54,897.99 acre-feet/year of ground water remaining available ($56,397 - (1,209.21 + 289.8) = 54,897.99$). Adding IW-2's requested appropriation of 510.6 acre-feet/year to the existing legal demand in IW-2's ZOI and subtracting that sum from the calculated aquifer flux results in 118,347.97 acre-feet/year of ground water remaining available ($120,542.57 - (510.6 + 1,657) = 118,347.97$). (Department File)

22. Applicant did not address whether surface water was legally available despite acknowledging that there is a potential net depletion of surface water as a result of both Applications, individually or combined, other than stating that the depletion is "unmeasurable" or "so far removed" from surface water diversions. Applicant contends that irrigation season flows in the Beaverhead River at Twin Bridges range from a high of 450 cfs to a low of near 250 cfs and that "[i]f all existing water users are utilizing their water rights upstream of Twin Bridges and flows are greater than the FWP reservation of 200 cfs then data shows that water is legally available" (emphasis provided). The Applicant assumes that all existing appropriators are exercising their rights at the time that streamflows at Twin Bridges exceed 200 cfs – such may not be the case and there is no evidence in the file of administration or calls for water by senior appropriators on the Beaverhead River. (Department File; Testimony of Karl Uhlig)

Adverse Effect

23. Applicant provided an estimate of the potential drawdown in the wells of the three water rights and water right application within IW-1's ZOI. The greatest potential drawdown was in Applicant's own well SW and was estimated to be 0.21 feet when IW-1 was pumped for 93.7 days at a constant rate of 700 gpm. The nearest well not owned by the Applicant, the Dallaserra well at 1,884 feet distant from IW-1, was expected to be drawn down by 0.15 feet under the same pumping scenario. The Dallaserra well is 160 feet deep with a static water level 35 feet bgs leaving a water column of 125 feet.

A similar scenario was provided for IW-2, assuming IW-2 was pumped for 77.02 days at 1500 gpm, and the results were similar also. The greatest potential drawdown was in Applicant's own well SW showing a drawdown of 0.78 feet. The Dallaserra well showed a potential drawdown of 0.52 feet, the greatest drawdown of any well not owned by the Applicant.

Drawdown interference in this range does not prevent senior ground water users from reasonably exercising their water right. I find that drawdown in the ranges calculated

by Applicant does not constitute adverse effect to ground water appropriators. (Department File; Testimony of Gary Andres)

24. Applicant acknowledges that IW-1 has the potential to deplete surface water from Black Slough in the amount of 1.8 gpm (approximately 2.9 acre-feet/year) and that IW-2 has the potential to deplete surface water from Black Slough in the amount of 3.2 gpm (5.16 acre-feet/year). In addition, Applicant has predicted a depletion to the Beaverhead River from the cumulative pumping of both IW-1 and IW-2 of 0.5 gpm after one year up to 18.3 gpm after 100 years (29.5 acre-feet/year). Applicant has not provided any information as how to offset that surface water depletion through mitigation/augmentation. Applicant contends that there would not be adverse effect because the depletion is “not detectable” or that it is “so minuscule that [there is] no adverse effect.” (Department File; Exhibit a-18; Testimony of Karl Uhlig)

Adequacy of Appropriation Works

25. IW-1 has a 30 horsepower pump set at a depth of 60 feet bgs and is rated for a capacity of 700 gpm. Field application of water from the well will be through a buried main line to a center pivot and a combination of wheel lines and hand lines. IW-2 has a 100 horsepower pump set at a depth of 70 feet bgs and is rated for a capacity of 1500 gpm. Field application from the well will be through a buried main line to one center pivot. (Department Files)

Beneficial Use

26. Applicant’s proposed uses of water from both IW-1 and IW-2 for irrigation are recognized beneficial uses of water. 85-2-102(4)(a), MCA. The proposed appropriations are within climatic area III, which under Department Rule ARM 36.12.115 the standard for irrigation is 2.08 – 2.41 acre-feet/acre under sprinkler irrigation at 70% efficiency.

27. Water from IW-1 is proposed to be used to irrigate 105 acres. Applicant utilized the NRCS irrigation crop requirements calculation and determined that the 105 acres would require 2.76 acre-feet/acre or 289.8 acre-feet per year for full service irrigation at 70% field efficiency. Applicant notes in their calculation that this requirement is for the plant requirements only and does not include inefficiencies in the conveyance system. Applicant also states that “[t]he proposed appropriation will be used in part to supplement the Applicant’s irrigation of lands that are currently partially irrigated by water from the Westside

Canal.” No further explanation of supplemental acreage or supplemental use of water was provided. (Department File; Testimony of Karl Uhlig)

28. Water from IW-2 is proposed to be used to irrigate 185 acres. Again, Applicant utilized the NRCS irrigation crop requirements calculate and determined that 2.76 acre-feet/acre is required to meet the crop requirements at 70% field efficiency and does not include inefficiencies in the conveyance system. Applicant reiterates “[t]he proposed appropriation will be used in part to supplement the Applicant’s irrigation of lands at least partially irrigated by water from the Westside Canal.” No further explanation of supplemental acreage or supplemental use of water was provided. (Department File; Testimony of Karl Uhlig)

Possessory Interest

29. Applicant provided a print out from the Montana Cadastral Mapping Project for both the lands proposed to be irrigated by wells IW-1 and IW-2 which show the Applicant is the owner of the property. In addition Applicant signed both Applications affirming that he has a possessory interest in the property where the water is to be put to beneficial use. (Department File)

Water Quality

30. Objector Open A filed a water quality objection with their objections to the Applications. The water quality objection was identical for each Application. Objector Open A contends that reducing the amount of water available to the Beaverhead River would result in increasing concentrations of pollutants and associated TMDL standards. It is also alleged that addition of chemicals or fertilizer into the irrigation water “will result in back-flushing these substances into the ground water” due to operator error or equipment failure. In addition, Open A states that the Applicant has “not adequately demonstrated the proposed well’s aquifer is connected to a stream not on the Montana DEQ’s 303d list of impaired streams.” Objector Open A alleges that a decrease in ground water inflows would make local streams hotter in the summer and colder in the winter thus impacting their stock water rights and recreational opportunities.

31. No testimony or evidence was produced at the hearing (other than general references to water quality in various studies around the Beaverhead River in their prefiled exhibits) by Objector Open A. (Department File; Hearing Record)

32. Applicant provided in their Application materials evidence that the ground water pumped from their wells is of similar quality of that of other wells in the general area.
(Department File)

CONCLUSIONS OF LAW

1. The Department has jurisdiction to issue a provisional permit for the beneficial use of water if the applicant proves the criteria in 85-2-311 MCA by a preponderance of the evidence.
(85-2-311(1) MCA)

2. A permit shall be issued if there is water physically available at the proposed point of diversion in the amount that the applicant seeks to appropriate; water can reasonably be considered legally available during the period in which the applicant seeks to appropriate, and in the amount requested, based on an 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; the water rights of a prior appropriator under an existing water right, a certificate, a permit, or a state reservation will not be adversely affected 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; the proposed means of diversion, construction, and operation of the appropriation works are adequate; the proposed use of water is a beneficial use; 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; and, if raised in a valid objection, the water quality of a prior appropriator will not be adversely affected, the proposed use will be substantially in accordance with the classification of water, and the ability of a discharge permit holder to satisfy effluent limitations of a permit will not be adversely affected. 85-2-311 (1) (a) through (h), MCA.

3. Applicant has proven that IW-1 can pump at least the 700 gpm flow requested and the volume of 289.8 acre feet annually without exceeding the available drawdown in the well. Cf. *In the Matter of Application for Beneficial Water Use Permit No. 12826-gLJ by Ridgewood* (DNRC Final Order 1988) (cannot grant permit for amount requested as failure to conduct test at rate requested by applicant (75 gpm) but only at 35 gpm). Applicant has proven that water is physically available at the proposed point of diversion for well IW-1 in the amount

Applicant seeks to appropriate, and at the flow rate requested. 85-2-311(1)(a)(i) MCA. (Findings of Fact 4, 11, 12, 13, 18)

4. Applicant has proven that IW-2 can pump at least the 1500 gpm flow requested and the volume of 510.8 acre feet annually without exceeding the available drawdown in the well. Cf. *In the Matter of Application for Beneficial Water Use Permit No. 12826-gLJ by Ridgewood* (DNRC Final Order 1988) (cannot grant permit for amount requested as failure to conduct test at rate requested by applicant (75 gpm) but only at 35 gpm). Applicant has proven that water is physically available at the proposed point of diversion for well IW-2 in the amount Applicant seeks to appropriate, and at the flow rate requested. 85-2-311(1)(a)(i) MCA. (Findings of Fact 5, 11, 14, 15, 18)

5. 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., Admin. R. Mont. 36.12.101 and 36.12.120; *Montana Power Co. v. Carey* (1984), 211 Mont. 91, 685 P.2d 336 (permit granted to include only early season irrigation season because no water legally available in late irrigation season).

6. Pursuant to Montana Trout Unlimited v. DNRC, 2006 MT 72, 331 Mont. 483, 133 P.3d 224, the Department recognizes the connectivity between surface water and ground water and the effect of pre-stream capture on surface water. E.g., In the Matter of Beneficial Water Use Permit Nos. 41H 30012025 and 41H 30013629 By Utility Solutions LLC (DNRC Final Order 2006)(mitigation of depletion required), affirmed, Faust v. DNRC et al., Cause No. CDV-2006-886, Montana First Judicial District (2008); see also Robert and Marlene Tackle 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

appropriator 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 in order to limit its analysis to ground water. 85-2-311(a)(ii) MCA. Absent such proof, the applicant must analyze the legal availability of surface water in light of the proposed ground water appropriation. *In the Matter of Application for Beneficial Water Use Permit No. 41H 30023457 By Utility Solutions LLC* (DNRC Final Order 2007) (permit denied); *In the Matter of Application for Beneficial Water Use Permit No. 76H-30028713 by Patricia Skergan and Jim Helmer* (DNRC Final Order 2009). For the Applications under consideration here, Applicant admits projected depletions of surface water in the Black Slough and the Beaverhead River.

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. *In the Matter of Beneficial Water Use Permit Nos. 41H 30012025 And 41H 30013629 By Utility Solutions LLC* (DNRC Final Order 2006) (permits granted where projected depletion of 167.91 acre-feet per year mitigated in upper Missouri River closed basin), *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 where projected depletion of 6 gpm and 9.73 acre-feet per year mitigated in upper Missouri River closed basin), *affirmed*, Montana River Action Network et al. v. DNRC et al., Cause No. CDV-2007-602, Montana First Judicial District (2008); *In the Matter of Application for Beneficial Water Use Permit No. 41H 30023457 By Utility Solutions LLC* (DNRC Final Order

2007) (permit denied); *In the Matter of Application for Beneficial Water Use Permit No. 41H 30026244 By Utility Solutions LLC* (DNRC Final Order 2008) (permit granted where projected depletion of 5.18 acre-feet per year mitigated in upper Missouri River closed basin); *In the Matter of Application for Beneficial Water Use Permit No. 76H-30028713 by Patricia Skergan and Jim Helmer* (DNRC Final Order 2009).

7. Applicant has proven that *ground* water can reasonably be considered legally available for the proposed appropriation from IW-1. The lowering of the static water level in the area and nearby wells is of such a degree that prior *ground* water appropriators would reasonably be able to exercise their water rights. 85-2-401 (1) MCA. (Findings of Fact 4, 6, 7, 8, 9, 10, 19, 20, 21)

8. Applicant has proven that *ground* water can reasonably be considered legally available for the proposed appropriation from IW-2. The lowering of the static water level in area and nearby wells is of such a degree that prior *ground* water appropriators would reasonably be able to exercise their water rights. 85-2-401 (1) MCA. (Findings of Fact 4, 6, 7, 8, 9, 10, 19, 20, 21)

9. Applicant has not proven that *surface* water can reasonably be considered legally available for the proposed appropriation from IW-1 or IW-2. Applicant admits that there will be a potential net stream depletion to Black Slough due to pumping of IW-1 in the amount of at least 1.8 gpm or approximately 2.9 acre-feet/year and 3.2 gpm or approximately 5.16 acre-feet/year due to IW-2, and a cumulative depletion from the Beaverhead River due to pumping both IW-1 and IW-2 to begin shortly after pumping and reaching between up to 18.3 gpm after 100 years (29.5 acre-feet/year). No plan to offset this admitted depletion through mitigation/augmentation or aquifer recharge as required by 85-2-360 – 363 was provided. Such a plan should have been submitted with application as required under those statutes.

Applicant appears to be making a *de minimis* argument without any analysis of surface water legal availability. The Department has no *de minimis* exception for legal availability or adverse effect. The Department has required mitigation for calculated depletion in closed basins. E.g., *In the Matter of Beneficial Water Use Permit Nos. 41H 30012025 And 41H 30013629 By Utility Solutions LLC, supra*, (permits granted where projected depletion of **167.91 acre-feet** per year mitigated in upper Missouri River closed basin); *In the Matter of Application for Beneficial Water Use Permit 41H 30019215 by Utility Solutions LLC, supra*, (permit granted where projected depletion of **6 gpm and 9.73 acre-feet per year** mitigated in upper Missouri River closed basin); *In the Matter of Application for Beneficial Water Use Permit No. 41H 30026244 By Utility Solutions LLC, supra*, permit granted where projected depletion of **5.18 acre-feet per year** mitigated in upper Missouri River closed basin); *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, projected depletion **1.5 acre-feet per year** in Bitterroot River closed basin).

Applicant's admitted prestream capture of perhaps 29.5 acre-feet captures water that would otherwise be available for a surface water appropriation under the terms of the Missouri River and Jefferson River basin closures. 85-2-343 and 85-2-341, MCA (2005). Applicant seeks to do by a ground water appropriation (take surface water) what it cannot do under the basin closures. Applicant must either offset the depletion or analyze legal availability to show that the calculated amount of depletion of surface water is legally available during the period of appropriation. Applicant simply argues that it is too small to be considered.

Given that Applicant has not given any indication, nor discussed, what a proposed mitigation would look like, this Hearing Examiner cannot conditionally grant this permit as proffered by Applicant. It is the Applicant's burden to come forward with proof at the time the Application is made. The Department cannot approve a permit on the basis of some unidentified proposal that it has no opportunity to evaluate as to whether it successfully allows the Applicant to prove the criteria. Applicant has not proven that water which would otherwise be available for existing surface water appropriations can reasonably be considered legally available during the period in which the Applicant seeks to appropriate in the amount requested. (Findings of Fact 4, 6, 7, 8, 9, 10, 22)

10. 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. E.g., In the Matter of Application for Beneficial Water Use Permit No. 25170-g41B by East Bench Grain & Machinery, Inc., DNRC Proposal for Decision, Final Order (1983) (the evidence must support a finding of no adverse effect, and it is applicant's burden to provide it. If he does not, the permit cannot issue). As the Montana Supreme Court 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.

The Court has 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 (1984), 211 Mont. 91, 97-98, 685 P.2d 336, 340; see also Confederated Salish and Kootenai Tribes v. Clinch, 2007 MT 63, ¶ 141, 336 Mont. 302, ¶ 141, 158 P.3d 377, ¶ 141 (burden of proof on applicant to prove criteria in change application [similar burden in permit application], speculation of adverse effect should not be resolved in applicant's favor); Mont. Const. art. IX §3(1).

Pursuant to Mont. Code Ann. 85-2-311(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. Applicant has modeled the depletion of the proposed appropriation to surface water and predicts a potential depletion up to perhaps 18.3 gpm (29.52 acre-feet, cumulatively). See Montana Trout Unlimited (TU), et al. v. DNRC, et al. 2006 MT 72, 331 Mont. 483, 133 P.3d 224 (recognizing effect of prestream capture on surface water). It is the applicant's burden to produce the required evidence, and not doing so constitutes a failure of proof. *In the Matter of Application to Change Water Right No. 41H 1223599 by MGRR #1, LLC.*, Proposal for Decision, adopted by DNRC Final Order (2005); *East Bench, supra*. The proposed appropriation is within the Upper Missouri River and Jefferson River basin closures, Montana Code Ann. 85-2-344, MCA (2005). The Department cannot assume an impact to a source is so inconsequential and negligible that it can be disregarded in a closed basin. Any depletion of water in a 'closed' basin or any other basin from a new appropriation must be addressed so as to not cause adverse affect to a senior water right holder. E.g., In the Matter of Application for Beneficial Water Use Permit No. 41H-30021840 by the Town of Manhattan, Proposal for Decision, adopted Final Order (December 2008); Application for Beneficial Water Use Permit No. 41H 30025398 by Bostwick Properties Inc., DNRC Statement of Opinion (2008), appeal pending Bostwick Properties Inc. v. DNRC, Case No. DA-08-0248, Supreme Court of Montana.(citing, Alley (2007, Ground Water)); see also In The Matter Of Application For Beneficial Water Use Permit No. 41H 30023457 By Utility Solutions, LLC., DNRC Final Order (December 2007)(permit denied); In the Matter of Beneficial Water Use Permit Nos. 41H 30012025 And 41H 30013629 By Utility

Solutions LLC, supra; In the Matter of Application for Beneficial Water Use Permit 41H 30019215 by Utility Solutions LLC, supra; Statement of Opinion with Conditions accepted by Applicant (2008)(required mitigation for depletion), Application No.41F-30013630 by Treeline Springs, LLC; In the Matter of Application for Beneficial Water Use Permit No. 41H 30026244 By Utility Solutions LLC, supra. See also discussion under Legal Availability, supra.

In addition, §85-2-360(5), MCA requires:

...A determination of whether or not there is an adverse effect on a prior appropriator as the result of a new appropriation right is a determination that must be made by the department based on the amount, location, and duration of the amount of net depletion that causes the adverse effect relative to the historic beneficial use of the appropriation right that may be adversely affected.

See also 85-2-362 MCA (mitigation/aquifer recharge plan for adverse effect caused by depletion). Applicant provided no analysis of surface water appropriations from which the Department could conclude that there was no adverse effect. Again, it is the difference between performing the analysis and concluding no adverse effect and no analysis and asserting that the amount of admitted depletion doesn't matter. The analysis must be done before any conclusion that a criterion is met can be reached.

11. Applicant has proven that the water rights of prior *ground* water appropriators under existing water rights, certificates, permits, or state reservations will not be adversely affect due to the proposed appropriations associated with IW-1 and IW-2.. "Priority of appropriation does not include the right to prevent changes by later appropriators . . . such as . . . the lowering of a water table, artesian pressure, or water level, if the prior appropriator can reasonably exercise the water right under the changed conditions." 85-2-401(1) MCA. While there will be some drawdown in prior ground water appropriators' wells as a result of these two proposed appropriations, such drawdown will not interfere with the reasonable exercise of their rights. 85-2-311(1)(b) MCA. (Finding of Fact 23)

12. Applicant has not proven by a preponderance of the evidence that the water rights of prior surface water appropriators under existing water rights, certificates, permits or state reservations will not be adversely affected within the Upper Missouri River and Jefferson River Closures as a result of pumping the proposed appropriations from IW-1 and IW-2. Where an applicant is required to undertake the permitting process, 85-2-311 MCA does not tolerate a *de minimis* level of adverse effect. The statute requires the applicant to show, 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.” The statute does not allow some adverse effect. See, e.g. *In the Matter of Application for Beneficial Water Use Permit No. 43C-30007297 by Dee Deaterly* (DNRC Final Order 2007), *affirmed*, *Dee Deaterly v. DNRC, et. al.*, *Order Nunc Pro Tunc*, Cause No. CDV 2007-186 Montana First Judicial District Court (2008); *In The Matter Of Application For Beneficial Water Use Permit No. 41H 30023457 By Utility Solutions, LLC.*, *supra*; *In the Matter of Beneficial Water Use Permit Nos. 41H 30012025 And 41H 30013629 By Utility Solutions LLC, supra*; *In the Matter of Application for Beneficial Water Use Permit 41H 30019215 by Utility Solutions LLC; supra*; *Application No.41F-30013630 by Treeline Springs, LLC, supra*; see also *In the Matter of Beneficial Water Use Permit Application No. 76N-30010429 by Thompson River Lumber Company*, DNRC Proposal for Decision adopted in Final Order (2006)(calculable depletion is adverse effect); see also *Confederated Salish and Kootenai Tribes v. Clinch*, ¶ 141; *Piute Reservoir & Irr. Co. v. West Panguitch Irr. & Reservoir Co.* 13 Utah 2d 6, 367 P.2d 855 (If ‘de minimus’ reduction of the waters available to the lower water users were allowed under such conditions over and over again, the damage to the lower users would be unbearable).

In the instant matter Applicant has predicted depletions to the Black Slough and the Beaverhead River. Applicant supplied no evidence, analysis, or plan which shows there would be no adverse effect to surface water users other than asserting that such a minimal depletion would be immeasurable and because of that the existing surface water users would still be able to reasonably exercise their water rights. There is simply no evidence of how any depletion in the closed Upper Missouri River and Jefferson River would not affect senior users. Further, it is Applicant’s burden to come forward with a specific plan and a combined Application at the time the Application is made. The Department cannot approve a permit on the basis of some unidentified proposal that it has no opportunity to evaluate as to whether it successfully allows the Applicant to prove the criteria. Applicant has failed to clear the evidentiary hurdle to prove no adverse effect to existing surface water appropriators. Applicant has not proven that the rights of prior surface water appropriators under an existing water right, a certificate, a permit, or a state water reservation will not be adversely affected. (Findings of Fact 4, 5, 6, 7, 8, 9, 10, 24) 13. Applicant has proven that the proposed means of diversion, construction, and operation of the appropriation works are adequate. (Finding of Fact 25)

14. Applicant has not proven that the proposed use of water from IW-1 and IW-2 is a beneficial use. 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. 65689-76LJ by Roger and Donna Worth* (DNRC Final Order 1990)(applicant not sure of what he would do with irrigation, held to be no bona fide intent to appropriate); *In the Matter of Application for Beneficial Water Use Permit No. 77304-s40C by Dave and Patricia Roberts* (DNRC Final Order 1992)(proposed volume exceeds the maximum that could be used without waste under the proposal as stated by applicants which includes supplemental water from canal company. Evidence in the record is insufficient to determine the amount that would be beneficially used); *In the Matter of Application for Beneficial Water Use Permit No. 76H-84577 by Thomas and Janine Stellick*, (DNRC Final Order 1995)(permit denied because no evidence in the record that the amount of water needed for fish and wildlife; absence of evidence of waste does not meet the standard of proof); *In the Matter of Application No. 40A-108497 by Alex Matheson*, DNRC Proposal for Decision adopted by Final Order (2000) (application denied as to fishery and recreation use for lack of proof); *In the Matter of Application for Beneficial Water Use Permit No. 41S-105823 by French* (DNRC Final Order 2000)(evidence must be presented to show the amount of water is necessary for beneficial use); *In the Matter of Application for Beneficial Water Use Permit No. 76LJ-115-831 by Benjamin and Laura Weidling*, DNRC Final Order (2003), *aff'd on other grounds*, In the Matter of Application for Beneficial Water Use Permit No. 76LJ-115-83100 by Benjamin and Laura Weidling and No. 76LJ-1158300 by Ramona S. and William N. Nessly, *Order on Motion for Petition for Judicial Review*, Cause No. BDV-2003-100, Montana First Judicial District (2004) (fish and wildlife use denied for lack of proof); *In the Matter of Application for Beneficial Water Use Permit Nos. 40J-111302 and 40M-111303 by the U.S. Department of the Interior, Bureau of Land management* (DNRC Final Order 2000); *In The Matter Of Application For Beneficial Water Use Permit 76LJ 30008762 By Vinnie J & Susan N Nardi*, (DNRC Proposal for Decision adopted by Final Order 2006); Statement of Opinion, *In the Matter of Beneficial Water Use Permit No. 41H-30013678 by Baker Ditch Company* (June 11, 2008)(change authorization denied - no credible evidence provided on which a determination can be made of whether the quantity of water requested is adequate or necessary to sustain the fishery use, or that the size or depth of the ponds is adequate for a fishery); see also §85-2-312(1)(a), MCA. Waste is

defined to include the “application of water to anything but a beneficial use.” §85-2-102(23), MCA.

While this Hearing Examiner recognizes that the use of this water will be for irrigation (a recognized beneficial use), and that the amounts requested (289.8 acre-feet to sprinkler irrigate 105 acres under IW-1 and 510.6 acre-feet to sprinkler irrigate 185 acres under IW-2) are reasonable for full service irrigation, the concern lies in the statement made by the Applicant under both Applications that “[t]he proposed appropriation will be used in part to supplement the Applicant’s irrigation of lands that are currently partially irrigated from the Westside Canal.” This Hearing Examiner cannot find in the record any explanation of why “full service” irrigation using the ground water from IW-1 and IW-2 needs to be combined with existing partial irrigation on the same acres. The Department cannot issue a permit for more water than is needed for the beneficial use. 85-2-312, MCA (Department 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.); e.g. *In the Matter of the Application for Beneficial Water Use Permit No. 45541-s43C by William R. Morse*, Final Order (1983) (permit granted for less than requested as applicant already had water appurtenant to land, and that plus the requested amount excessive). While it certainly would have been possible for this Hearing Examiner to reduce the volumes requested in order to prevent waste, Applicant did not provide any evidence or testimony of the amount of water already appurtenant to the lands to be proposed to be irrigated under IW-1 and IW-2, thus making such a calculation impossible. Findings of Fact 26, 27, 28)

15. Applicant has proven that it has a possessory interest in the property proposed to be irrigated under IW-1 and IW-2. (Finding of Fact 29)

16. This Hearing Examiner will not address the water quality objection for the reasons set forth in Findings of Fact 30, 31, 32

WHEREFORE, based upon the foregoing Findings of Fact and Conclusions of Law, the Hearing Examiner makes the following:

ORDER

Applications for Beneficial Water Use Permit Nos. 41B-30028374 and 41B-30028375 by Sitz Ranch Management Partnership are **DENIED**.

NOTICE

A person who has exhausted all administrative remedies available within the agency and who is aggrieved by a final decision is entitled to judicial review under the Montana Administrative Procedure Act (Title 2, Chapter 4, Mont. Code Ann.). A petition for judicial review under this chapter must be filed in the appropriated district court within 30 days after service of the final order. (2-4-702, MCA)

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 14th day of December, 2009.

/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 14th day of December 2009 by first class United States mail.

PATTI L ROWLAND – ATTORNEY
SARAH E RUPP - ATTORNEY
DONEY CROWLEY BLOOMQUIST & UDA PC
PO BOX 1418
DILLON, MT 59725

JOHN E BLOOMQUIST – ATTORNEY
DONEY CROWLEY BLOOMQUIST & UDA PC
PO BOX 1185
HELENA MT 59624-1185

FRED ROBINSON - ATTORNEY
STATE WATER PROJECTS BUREAU
PO BOX 201601
HELENA, MT 59620-1601

ROSELYN RENNIE -ATTORNEY
OFFICE OF THE SOLICITOR
ROCKY MOUNTAIN REGION
PO BOX 31394
BILLINGS, MT 59107-1394

HERTHA LUND- ATTORNEY
WITTICH LAW FIRM PC
602 FERGUSON AVE SUITE 5
BOZEMAN, MT 59718-6483

Cc:
DNRC, HELENA REGIONAL OFFICE
PO BOX 201601
HELENA MT 59620-1601

/Original signed by Jamie Price/
Jamie Price, Hearings Assistant
Hearings Unit, (406) 444-6615