

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

APPLICATION FOR BENEFICIAL)	
WATER USE PERMIT NO. 43Q 30104752)	PRELIMINARY DETERMINATION TO
BY SOUTH PRYOR CREEK)	GRANT PERMIT
DEVELOPMENT CENTER LLC)	

On December 17, 2015, South Pryor Creek Development Center LLC. (Applicant) submitted Application for Beneficial Water Use Permit No. 43Q 30104752 to the Billings Water Resources Office of the Department of Natural Resources and Conservation (Department or DNRC) for 65.6 GPM flow rate and 105.8 AF volume. The Department published receipt of the Application on its website. The Application was determined to be correct and complete as of June 6, 2016.

The Department met with the Applicant on November 24, 2014. Bob Cook, Bill Schaules and consultant Mike Meredith (consultant) were present for the Applicant. Mark Elison, Chris Schweigert and Kim Overcast were present for the Department. Department hydrogeologists Russell Levens and Attila Folnagy and consultant Tom Osborne were present by phone. The Applicant requested the Department to produce a draft Depletion Report prior to drilling the well to be sure the depletion would not be attributed to surface water sources closed to new appropriations. The Department agreed and a Depletion Report based on estimated withdrawals was completed on January 13, 2015.

On May 1, 2015, and June 12, 2015, the Applicant requested variances from aquifer testing requirements because there were no appropriate observation wells and because the well was flowing at the surface allowing for a constant head test as opposed to a constant discharge test. The free flowing well did not produce the flow rate desired by the Applicant and the Applicant opted to use a pump in the well and completed an 8.9 hour yield test. An updated variance request dated December 7, 2015, summarized all the requested deviations from aquifer testing requirements based on the history of the well. The December 7, 2015, variance request was

granted on April 18, 2016. An Environmental Assessment for this Application was completed on May 16, 2016.

INFORMATION

The Department considered the following information submitted by the Applicant.

Application as filed

- Application for Beneficial Water Use Permit, Form 600
- Aquifer Testing Addendum
- Reservoir Addendum

Information Received after Application Filed

- E-mail from consultant, to Mark Elison, Department hydrologist, dated April 1, 2016, discussing supplemental water rights and beneficial use.
- E-mail from consultant, to Mark Elison, Department hydrologist, dated May 3, 2016, requesting the addition of residential and shop uses to permit application.
- E-mail from consultant, to Mark Elison, Department hydrologist, dated May 27, 2016, detailing locations and conveyance facilities for domestic and other uses.

Information within the Department's Possession/Knowledge

- Depletion Report by Attila Fohnagy and Russell Levens dated January 13, 2015.
- Depletion Report by Attila Fohnagy and Russell Levens dated March 11, 2016.
- Aquifer Test Report by Attila Fohnagy dated March 10, 2016.
- USGS gage 06214500 Yellowstone River at Billings, MT.

The Department has fully reviewed and considered the evidence submitted in this Application and preliminarily determines the following pursuant to the Montana Water Use Act (Title 85, chapter 2, part 3, MCA). **NOTE:** Department or DNRC means the Department of Natural Resources & Conservation; CFS means cubic feet per second; GPM means gallons per minute; AF means acre-feet; AC means acres; AF/YR means acre-feet per year; AU means animal unit; and POD means point of diversion.

PROPOSED APPROPRIATION

FINDINGS OF FACT

1. The Applicant proposes to divert ground water by means of a 4,494 foot deep well completed in the Madison Group Aquifer, from January 1 to December 31 at 65.6 GPM up to

105.8 AF, from a point in the NENWNW Section 4 T2S R29E, Yellowstone County for stock, domestic and other (shop, office) use from January 1 to December 31. Application is also to add a reservoir for storage. The place of use is given below and includes a feedlot, residences, office, shop and multiple stock tanks on surrounding pasture land generally located along the north boundary of the Crow Indian Reservation approximately 18 miles east southeast of Billings on Highway 87.

Stock Proposed Place of Use					
Quarter Section	Section	Township	Range	County	Note
SESENW	25	1 S	29 E	Yellowstone	
NWSWSE	26	1 S	29 E	Yellowstone	
S2	33	1 S	29 E	Yellowstone	Feedlot - ~55 Tanks
NWSESE	34	1 S	29 E	Yellowstone	
SENENW	35	1 S	29 E	Yellowstone	
SWSESW	16	1 S	30 E	Big Horn	
NWSWSW	17	1 S	30 E	Big Horn	
NWNESE	20	1 S	30 E	Big Horn	
SESWNW	21	1 S	30 E	Big Horn	
NWNWNW	30	1 S	30 E	Big Horn	
NESWSE	1	2 S	29 E	Yellowstone	
SWNWNW	3	2 S	29 E	Yellowstone	
SWNESE	3	2 S	29 E	Yellowstone	
N2	4	2 S	29 E	Yellowstone	Feedlot - ~55 Tanks
SW	4	2 S	29 E	Yellowstone	7 Tanks
NENENE	10	2 S	29 E	Yellowstone	
NENENE	11	2 S	29 E	Yellowstone	

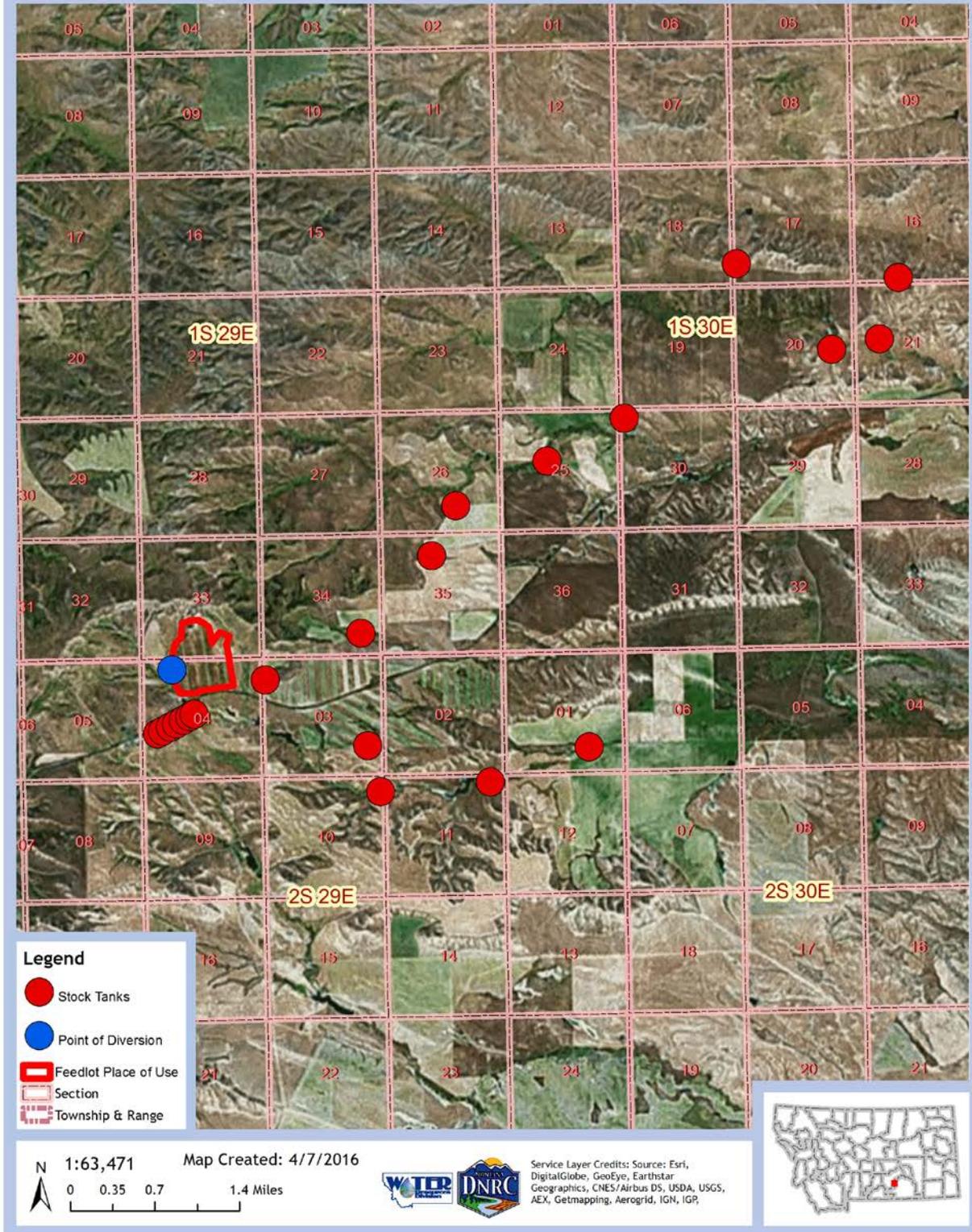
Domestic – Proposed Place of Use					
Quarter Section	Section	Township	Range	County	Note
SWNW	4	2 S	29 E	Yellowstone	
NENW	5	2 S	29 E	Yellowstone	
NESE	5	2 S	29 E	Yellowstone	

Other – Proposed Place of Use					
Quarter Section	Section	Township	Range	County	Note
NESE	5	2 S	29 E	Yellowstone	

The Applicant proposes a storage reservoir (High Reservoir) with a 6.4 AF capacity in the SENESW Section 33 T1S R29E.

2. Stock use is considered 100% consumptive and domestic/shop/office use is considered 10% consumptive. The consumptive use of the proposed appropriation is 100.8 AF for stock and 0.5 AF for domestic/shop/office for total consumptive use of 101.3 AF.

Location Map - 43Q 30104752



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

GENERAL CONCLUSIONS OF LAW

3. 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 . . .

4. 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.

5. 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.

6. 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).

7. 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.

8. 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

9. Based on a 73.8 hour constant head single well test, Department hydrogeologists modeled aquifer properties using a Jacob and Lohman (1952) solution from the AQTESOLV software package. The model generated a transmissivity of 22 ft²/day and a storativity of 0.003. These properties are used in the analysis of adverse effect and adequacy of diversion. Department hydrogeologists recommend a regional transmissivity of 250 ft²/day for analysis of physical groundwater availability.

10. Using regional aquifer properties and a pumping rate of 65.6 GPM, the 0.01 foot drawdown contour occurs at 23,000 feet from the well. The volume of total aquifer flux each year within the zone of influence as defined by 0.01 foot of drawdown is given by equation 1 and

is 46,000 ft³/day or 385.4 AF/YR. The physical amount of water available (385.4 AF/YR) is greater than the volume the Applicant is requesting (105.8 AF/YR).

$$Q = TWi$$

Eq. 1

where;

$$T = \text{Transmissivity} = 250 \text{ ft}^2/\text{day}$$

$$W = \text{Width of Zone of Influence} = 46,000 \text{ ft}$$

$$i = \text{Groundwater gradient (from potentiometric surface map by Feltis, 1980)} = 0.004 \text{ ft/ft.}$$

CONCLUSIONS OF LAW

11. 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.”

12. 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).

13. 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).

14. The Applicant has proven by a preponderance of the evidence that water is physically available at the proposed point of diversion in the amount Applicant seeks to appropriate. § 85-2-311(1)(a)(i), MCA. (FOF 9 – 10)

Legal Availability

FINDINGS OF FACT

15. Using a constant pumping rate of 65.6 GPM over five years, transmissivity of 22 ft²/day and storativity of 0.003, modeled drawdown in excess of one foot occurs in wells that are 11,800 feet from the proposed well. There are no water rights in the source aquifer within that region.

16. The existing legal demands of groundwater in the zone of influence total 0.0 AF/YR.

17. Information pertaining to physical and legal availability of surface water hydraulically connected and depleted by this groundwater appropriation is contained in FOF 24 – 31.

CONCLUSIONS OF LAW

18. 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).

19. 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.

20. Pursuant to Montana Trout Unlimited v. DNRC, 2006 MT 72, 331 Mont. 483, 133 P.3d 224, the Department recognizes the connectivity between surface water and ground water and the effect of pre-stream capture on surface water. E.g., Wesmont Developers v. DNRC, CDV-2009-

823, Montana First Judicial District Court, *Memorandum and Order*, (2011) Pgs. 7-8; *In the Matter of Beneficial Water Use Permit Nos. 41H 30012025 and 41H 30013629 by Utility Solutions LLC* (DNRC Final Order 2006)(mitigation of depletion required), *affirmed*, Faust v. DNRC et al., Cause No. CDV-2006-886, Montana First Judicial District (2008); *see also* Robert and Marlene Takle v. DNRC et al., Cause No. DV-92-323, Montana Fourth Judicial District for Ravalli County, *Opinion and Order* (June 23, 1994) (affirming DNRC denial of Applications for Beneficial Water Use Permit Nos. 76691-76H, 72842-76H, 76692-76H and 76070-76H; underground tributary flow cannot be taken to the detriment of other appropriators including surface appropriators and ground water appropriators must prove unappropriated surface water, *citing* Smith v. Duff, 39 Mont. 382, 102 P. 984 (1909), and Perkins v. Kramer, 148 Mont. 355, 423 P.2d 587 (1966)); *In the Matter of Beneficial Water Use Permit No. 80175-s76H by Tintzman* (DNRC Final Order 1993)(prior appropriators on a stream gain right to natural flows of all tributaries in so far as may be necessary to afford the amount of water to which they are entitled, *citing* Loyning v. Rankin (1946), 118 Mont. 235, 165 P.2d 1006; Granite Ditch Co. v. Anderson (1983), 204 Mont. 10, 662 P.2d 1312; Beaverhead Canal Co. v. Dillon Electric Light & Power Co. (1906), 34 Mont. 135, 85 P. 880); *In the Matter of Beneficial Water Use Permit No. 63997-42M by Joseph F. Crisafulli* (DNRC Final Order 1990)(since there is a relationship between surface flows and the ground water source proposed for appropriation, and since diversion by applicant's well appears to influence surface flows, the ranking of the proposed appropriation in priority must be as against all rights to surface water as well as against all groundwater rights in the drainage.) Because the applicant bears the burden of proof as to legal availability, the applicant must prove that the proposed appropriation will not result in prestream capture or induced infiltration and cannot limit its analysis to ground water. § 85-2-311(a)(ii), MCA. Absent such proof, the applicant must analyze the legal availability of surface water in light of the proposed ground water appropriation. *In the Matter of Application for Beneficial Water Use Permit No. 41H 30023457 By Utility Solutions LLC* (DNRC Final Order 2007) (permit denied); *In the Matter of Application for Beneficial Water Use Permit No. 76H-30028713 by Patricia Skergan and Jim Helmer* (DNRC Final Order 2009); Sitz Ranch v. DNRC, DV-10-13390, Fifth Judicial District Court, *Order Affirming DNRC Decision*, (2011) Pg. 5 ; Wesmont Developers v. DNRC, CDV-2009-823, First Judicial District Court, *Memorandum and Order*, (2011) Pgs. 11-12.

21. Applicant has proven by a preponderance of the evidence that water can reasonably be considered legally available during the period in which the applicant seeks to appropriate, in the amount requested, based on the records of the Department and other evidence provided to the Department. § 85-2-311(1)(a)(ii), MCA. (FOF 15 -17)

Adverse Effect

FINDINGS OF FACT

22. The Applicant’s plan to prevent adverse effect is to initiate water conservation measures including reliance on other water rights, reliance on stored water or reduction in the number of animal units at the feedlot. The Applicant can shut down the pump in the well if call is made.

Ground Water Effect

23. There are no other groundwater appropriations in the Madison Group Aquifer in the region where modeled drawdown would exceed one foot.

Surface Water Effect

24. The Yellowstone River downstream of Blue Creek will be depleted by this appropriation. The depletion is modeled as constant year around due to distance from the well and depth to the aquifer. Depletion would be 8.4 AF in all months and vary from a 61.6 to 68.2 GPM.

25. Modeling suggests depletion to the Yellowstone River due to the relatively deep incision of the river into bedrock and the intersection of the river with several fault trends, most notably the Fromberg Fault Zone.

26. Department hydrogeologists reviewed the regional geology of the Madison Formation and the possible hydraulic connection to surrounding surface water. It was determined that the potentially affected surface water for evaluation of depletion is the Yellowstone River downstream of Blue Creek. Blue Creek enters the Yellowstone River in NE Section 20 T1S R26E approximately 6.5 miles upstream from USGS gage 06214500 Yellowstone River at Billings, MT.

27. There are 22 water rights between the gage at Billings and the confluence of the Yellowstone River and Blue Creek.

Surface Water Rights on the Yellowstone River Between the Gage at Billings and the Confluence With Blue Creek (Flow in CFS and Volume in AF)				
WR NUMBER	ALL OWNERS	FLOW RATE (CFS)	MAX ACRES	VOLUME (AF)

43Q 2484 00	WESTERN SUGAR COOPERATIVE	40	0.00	9786.00
43Q 94420 00	TALen MONTANA LLC	76.87	0.00	52500.00
43Q 94422 00	TALen MONTANA LLC	128.14	0.00	87500.00
43Q 106337 00	GREY EAGLE DITCH CO	39.39	1040.00	4264.00
43Q 172252 00	LOCKWOOD IRRIGATION DIST	56.81	2100.00	8610.00
43Q 17345 00	COULSON WATER USERS ASSN	26.26	693.20	2842.12
43Q 188855 00	DEBRA M BONOGOFKY; THOMAS F BONOGOFKY	1.36	36.00	147.60
43Q 29274 00	JAMES L HENSON; MARY M HENSON	0.89	2.00	8.20
43Q 31110 00	BRIARWOOD, THE	1.87	82.00	336.20
43Q 94421 00	TALen MONTANA LLC	0.16	11.25	46.13
43Q 27190 00	BRIARWOOD, THE	3.56	0.00	1000.00
43Q 200996 00	LOCKWOOD AREA/YELLOWSTONE COUNTY WATER & SEW	0.77	0.00	564.64
43Q 200997 00	LOCKWOOD AREA/YELLOWSTONE COUNTY WATER & SEW	0.49	0.00	354.81
43Q 200998 00	LOCKWOOD AREA/YELLOWSTONE COUNTY WATER & SEW	1.11	0.00	806.63
43Q 200999 00	LOCKWOOD AREA/YELLOWSTONE COUNTY WATER & SEW	0.77	0.00	564.64
43Q 208214 00	BILLINGS, CITY OF	164.3	0.00	68388.80
43Q 208215 00	BILLINGS, CITY OF	1.93	0.00	234.00
43Q 30010066	BILLINGS, CITY OF	3.47	0.00	336.00
43Q 30010067	BILLINGS, CITY OF	2.3	0.00	1476.20
43Q 54172 00	LOCKWOOD AREA/YELLOWSTONE COUNTY WATER & SEW	4.23	0.00	1153.40
43Q 57973 00	CEDAR PARK WATER DISTRICT	0.44	0.00	128.00
43Q 30031212	STEVE KUHLMANN	0.04	0.00	5.12
	TOTAL W/O FWP RESERVATION	555.16	3964.45	241052.49

43Q 30017769	MONTANA DEPT FISH WIDLIFE PARKS	18716.00	0.00	3611538.00
TOTAL		19271.16		3852590.49

28. The table below shows median of mean monthly flow rates and volumes using USGS gage 06214500 and the water rights between the gage and the confluence of the Yellowstone River and Blue Creek. The monthly flow rates and volumes differ from the totals of water rights listed above because the periods of diversion vary. Tables of monthly flow rates and volumes are in the file. The water rights were added to the median of the mean flow rate and volume at the gage to quantify physical availability of surface water. The Montana Fish Wildlife and Parks instream reservation at Billings is not added because it is never diverted from the source.

Physical Availability - Flow Rate (CFS)

Month	Median of Monthly Mean at Gage 06214500	Water Rights Between Gage and Blue Creek Confluence	Physical Availability at Blue Creek Confluence
January	2455	428.38	2883.38
February	2512	428.38	2940.38
March	2886	454.68	3340.68
April	3932	475.77	4407.77
May	12865	515.16	13380.16
June	23470	515.16	23985.16
July	12590	515.16	13105.16
August	4633	515.16	5148.16
September	3747	553.80	4300.80
October	3877	553.80	4430.80
November	3508	428.42	3936.42
December	2757	428.38	3185.38

Physical Availability – Volume (AF)

Month	Median of Monthly Mean at Gage	Water Rights Between Gage and Blue Creek Confluence	Physical Availability at Blue Creek Confluence
January	150687.90	19691.85	170379.75
February	139265.28	17786.19	157051.47

March	177142.68	20070.34	197213.02
April	233560.80	19332.04	252892.84
May	789653.70	20695.47	810349.17
June	1394118.00	20027.88	1414145.88
July	772774.20	20695.47	793469.67
August	284373.54	20682.91	305056.45
September	222571.80	21381.29	243953.09
October	237970.26	21940.25	259910.15
November	208375.20	19056.94	227432.14
December	169224.66	19691.85	188916.51

29. The table below compares the physical availability and legal demands on the Yellowstone River downstream of the confluence with Blue Creek to USGS gage 06214500 Yellowstone River at Billings, MT where the Montana Department of Fish Wildlife and Parks (FWP) has an instream reservation. The monthly flow rates and volumes differ from the totals of water rights listed above because the periods of diversion vary and the flow rate and volume of the FWP instream reservation varies by month. Tables of monthly flow rates and volumes are in the file.

Comparison of Physical Availability and Legal Demands - Flow Rate (CFS)

Month	Physical Availability at POD	Existing Legal Demands downstream of Blue Creek Confluence	Physical minus Legal
January	2883.38	2911.38	-28.00
February	2940.38	2912.38	28.00
March	3340.68	3337.68	3.00
April	4407.77	4055.77	352.00
May	13380.16	12715.16	665.00
June	23985.16	19231.16	4754.00
July	13105.16	10789.16	2316.00
August	5148.16	4015.16	1133.00
September	4300.80	3660.80	640.00

October	4430.80	4126.80	304.00
November	3936.42	3906.42	30.00
December	3185.38	3209.38	-24.00

Comparison of Physical Availability and Legal Demand - Volume (AF)

Month	Physical Availability at POD	Existing Legal Demands downstream of Blue Creek Confluence	Physical minus Legal
January	170379.75	172379.85	-2000.10
February	157051.47	155726.19	1325.28
March	197213.02	197348.34	-135.32
April	252892.84	232380.04	20512.80
May	810349.17	490004.47	320344.70
June	1414145.88	1113149.88	300996.00
July	793469.67	391087.47	402382.20
August	305056.45	235887.91	69168.54
September	243953.09	206259.29	37693.80
October	259910.51	241634.25	18276.26
November	227432.14	226032.94	1399.20
December	188916.51	190699.85	-1783.34

30. The legal demands recorded in the Department database exceed the physically available flow rate in January and December and volume in January, March, and December. Talen Montana LLC holds water rights 43Q 94420-00 and 43Q94422-00 which are included in the legal demands for the Yellowstone River. The rights are for industrial use at the Corette coal fired generating facility between Blue Creek and the USGS gage. That industrial facility has been dismantled and removed and those water rights can no longer be used without reconstructing the power plant. However, the rights could be sold or changed. Any change to the water right cannot create an adverse effect to an existing junior or senior water right. The two water rights are for a combination of 205.01 CFS and between 10740 AF in February and 11890 AF in months with 31 days. When those two water rights are not included in the legal demands, the physically available water exceeds the legal demands by a minimum of 177.01 CFS and

9889.9 AF in January. The proposed well will deplete the Yellowstone River by a maximum of 68.2 GPM (0.146 CFS) and 8.4 AF/Month.

31. The water physically available minus the current legal demands on the Yellowstone River is greater in all months than the modeled depletion.

CONCLUSIONS OF LAW

32. 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.

33. An applicant must analyze the full area of potential impact under the § 85-2-311, MCA criteria. *In the Matter of Beneficial Water Use Permit No. 76N-30010429 by Thompson River Lumber Company* (DNRC Final Order 2006). While § 85-2-361, MCA, limits the boundaries expressly required for compliance with the hydrogeologic assessment requirement, an applicant is required to analyze the full area of potential impact for adverse effect in addition to the requirement of a hydrogeologic assessment. Id. ARM 36.12.120(8).

34. Where a proposed ground water appropriation depletes surface water, applicant must prove legal availability of amount of depletion of surface water throughout the period of diversion either through a mitigation /aquifer recharge plan to offset depletions or by analysis of the legal demands on, and availability of, water in the surface water source. Robert and Marlene Takle v. DNRC et al., Cause No. DV-92-323, Montana Fourth Judicial District for Ravalli County, *Opinion and Order* (June 23, 1994); *In the Matter of Beneficial Water Use Permit Nos. 41H 30012025 and 41H 30013629 by Utility Solutions LLC* (DNRC Final Order 2006)(permits granted), *affirmed*, Faust v. DNRC et al., Cause No. CDV-2006-886, Montana First Judicial District (2008); *In the Matter of Application for Beneficial Water Use Permit 41H 30019215 by Utility Solutions LLC* (DNRC Final Order 2007)(permit granted), *affirmed*, Montana River Action Network et al. v. DNRC et al., Cause No. CDV-2007-602, Montana First Judicial District (2008); *In the Matter of Application for Beneficial Water Use Permit No. 41H 30023457 by*

Utility Solutions LLC (DNRC Final Order 2007) (permit denied for failure to analyze legal availability outside of irrigation season (where mitigation applied)); *In the Matter of Application for Beneficial Water Use Permit No. 41H 30026244 by Utility Solutions LLC* (DNRC Final Order 2008); *In the Matter of Application for Beneficial Water Use Permit No. 76H-30028713 by Patricia Skergan and Jim Helmer* (DNRC Final Order 2009)(permit denied in part for failure to analyze legal availability for surface water depletion); *Sitz Ranch v. DNRC*, DV-10-13390, Fifth Judicial District Court, *Order Affirming DNRC Decision*, (2011) Pg. 5 (Court affirmed denial of permit in part for failure to prove legal availability of stream depletion to slough and Beaverhead River); *Wesmont Developers v. DNRC*, CDV-2009-823, First Judicial District Court, *Memorandum and Order*, (2011) Pgs. 11-12 (“DNRC properly determined that Wesmont cannot be authorized to divert, either directly or indirectly, 205.09 acre-feet from the Bitterroot River without establishing that the water does not belong to a senior appropriator”; applicant failed to analyze legal availability of surface water where projected surface water depletion from groundwater pumping); *In the Matter of Application for Beneficial Water Use Permit No. 76D-30045578 by GBCI Other Real Estate, LLC* (DNRC Final Order 2011) (in an open basin, applicant for a new water right can show legal availability by using a mitigation/aquifer recharge plan or by showing that any depletion to surface water by groundwater pumping will not take water already appropriated; development next to Lake Koocanusa will not take previously appropriated water). Applicant may use water right claims of potentially affected appropriators as a substitute for “historic beneficial use” in analyzing legal availability of surface water under § 85-2-360(5), MCA. *Royston, supra*.

35. 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.

36. 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.

37. 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.

38. 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.

39. 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.

40. The Applicant has proven by a preponderance of the evidence that the water rights of a prior appropriator under an existing water right, a certificate, a permit, or a state water reservation will not be adversely affected. § 85-2-311(1)(b) , MCA. (FOF 22 - 31)

Adequate Diversion

FINDINGS OF FACT

41. Drawdown in the well was modeled by Department hydrogeologist, Attila Folnagy, by summing the modeled aquifer drawdown at the end of the period of diversion and the drawdown at the time required to produce July's daily volume. Maximum drawdown is 1546 feet. With a static water level of 0 feet below ground surface, there would be 2655 feet of available water column above the top of the open hole at the bottom of the well.

42. Water will be diverted from the proposed well using a Franklin Electric 6 inch submersible pump, a Grundfos 150S400-23 multi-stage submersible pump or similar pump. Either pump is capable of pumping 65.6 GPM given approximately 1050 feet of dynamic head.

43. Water from the well would be conveyed by a 4 inch PVC pipeline to the High Reservoir, a new 16 foot deep, 0.8 AC surface storage reservoir with 6.4 AF capacity. Alternatively, if the High Reservoir is full and stock, domestic and other water needs are met, a manifold near the well allows water from the well to be conveyed by a 6 inch PVC pipeline to an existing reservoir claimed under water right 43Q 183801-00. From the 43Q 183801-00 reservoir a mobile Godwin

HL 100M or similar pump would convey water back through the 6 inch and 4 inch pipelines to the High Reservoir when needed.

44. Water is gravity fed from the High Reservoir through a network of buried PVC piping to stock water tanks in the feedlot and surrounding rangeland. Each tank is automatically controlled by float valves and each tank is equipped with a discharge valve.

45. Piping for the domestic system, the shop and office is in place. The Applicant does not have as-built specifications for that system but believes it is 2-inch buried pipe.

46. Applicant will install an in-line totalizing flow meter to monitor water use.

47. The feedlot is managed under a concentrated animal feeding operation permit (CAFO).

48. The well, pumps, reservoirs and pipelines are in place and the water distribution system has been in operation using different water sources.

CONCLUSIONS OF LAW

49. Pursuant to § 85-2-311(1)(c), MCA, an Applicant must demonstrate that the proposed means of diversion, construction, and operation of the appropriation works are adequate.

50. The adequate means of diversion statutory test merely codifies and encapsulates the case law notion of appropriation to the effect that the means of diversion must be reasonably effective, i.e., must not result in a waste of the resource. *In the Matter of Application for Beneficial Water Use Permit No. 33983s41Q by Hoyt* (DNRC Final Order 1981); § 85-2-312(1)(a), MCA.

51. 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).

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

53. Adequate diversions can include the requirement to bypass flows to senior appropriators. E.g., *In the Matter of Application for Beneficial Water Use Permit No. 61293-40C by Goffena* (DNRC Final Order 1989)(design did not include ability to pass flows, permit denied).

54. 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 41 - 48).

Beneficial Use

FINDINGS OF FACT

55. The Applicant proposes to use water for stock, domestic and other (shop, office) uses. Stock watering and domestic are recognized beneficial uses under the Montana Water Use Act. Having water at the office and in the shop is beneficial to the Applicant.

56. There are four residences, a shop and office that would be supplied by the well. Department standards are 1 AF per residence. The Applicant estimated combined water use at the shop and office at 1 AF.

57. The feedlot water requirements vary by season. Between October and March, there are up to 15,000 AU on site. At 15 gallons per day per AU, 15,000 AU requires 157 GPM and 126.4 AF over the six month period. Between April and September, there are 5,000 AU on site requiring 52 GPM and 41.9 AF.

58. In addition, 0.5 GPM is required at each tank during low temperatures to prevent freezing. For 80 tanks this requires 40.0 GPM and, assuming 120 days of low temperature, 21.2 AF. The High Reservoir will consume 9.43 AF (one fill at 6.4 AF and evaporation of 3.03 AF).

59. The maximum needed flow rate for stock is 197 GPM during high occupancy low temperature periods and the annual volume needed is 198.93 AF including stock, ice control and evaporation.

60. The proposed well can provide 65.6 GPM up to 105.8 AF/YR. This is less than the flow and volume needed at the feedlot, residences, shop and office but is beneficial to the Applicant.

CONCLUSIONS OF LAW

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

62. 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).

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

64. Applicant proposes to use water for stock, domestic and other uses. Stock watering and domestic are recognized beneficial uses. § 85-2-102(4), MCA. Applicant has proven by a preponderance of the evidence that stock, domestic and other uses are beneficial uses and that 65.6 GPM flow rate and 105.8 AF of diverted volume of water requested is the amount needed to sustain the beneficial use. § 85-2-311(1)(d), MCA, (FOF 55 - 60)

Possessory Interest

FINDINGS OF FACT

65. Joseph L. Goggins, holding power of attorney for the South Pryor Creek Development Center LLC, signed the affidavit on the application form 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

66. 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.

67. 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.

68. 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 65)

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. 43Q 30104752 should be **GRANTED**.

The Department determines the applicant may divert water from groundwater, by means of a 4,494 foot deep well, from January 1 to December 31 at 65.6 GPM up to 105.8 AF, from a point in the NENWNW Section 4 T2S R29E, Yellowstone County for stock, domestic and other (Shop and Office) use from January 1 to December 31.

Stock Proposed Place of Use					
Quarter Section	Section	Township	Range	County	Note

SESENW	25	1 S	29 E	Yellowstone	
NWSWSE	26	1 S	29 E	Yellowstone	
S2	33	1 S	29 E	Yellowstone	Feedlot - ~55 Tanks
NWSESE	34	1 S	29 E	Yellowstone	
SENENW	35	1 S	29 E	Yellowstone	
SWSESW	16	1 S	30 E	Big Horn	
NWSWSW	17	1 S	30 E	Big Horn	
NWNESE	20	1 S	30 E	Big Horn	
SESWNW	21	1 S	30 E	Big Horn	
NWNWNW	30	1 S	30 E	Big Horn	
NESWSE	1	2 S	29 E	Yellowstone	
SWNWNW	3	2 S	29 E	Yellowstone	
SWNESE	3	2 S	29 E	Yellowstone	
N2	4	2 S	29 E	Yellowstone	Feedlot - ~55 Tanks
SW	4	2 S	29 E	Yellowstone	7 Tanks
NENENE	10	2 S	29 E	Yellowstone	
NENENE	11	2 S	29 E	Yellowstone	

Domestic – Proposed Place of Use					
Quarter Section	Section	Township	Range	County	Note
SWNW	4	2 S	29 E	Yellowstone	
NENW	5	2 S	29 E	Yellowstone	
NESE	5	2 S	29 E	Yellowstone	

Other – Proposed Place of Use					
Quarter Section	Section	Township	Range	County	Note
NESE	5	2 S	29 E	Yellowstone	

Applicant may store water in a reservoir with a 6.4 AF capacity in SENESW Section 33 T1S R29E Yellowstone County.

NOTICE

This Department will provide public notice of this Application and the Department’s Preliminary Determination to Grant pursuant to §§ 85-2-307, MCA. The Department will set a deadline for objections to this Application pursuant to §§ 85-2-307, and -308, MCA. If this Application receives no valid objection or all valid objections are unconditionally withdrawn, the Department will grant this Application as herein approved. If this Application receives a valid objection, the application and objection will proceed to a contested case proceeding pursuant to

Title 2 Chapter 4 Part 6, MCA, and § 85-2-309, MCA. If valid objections to an application are received and withdrawn with stipulated conditions and the department preliminarily determined to grant the permit or change in appropriation right, the department will grant the permit or change subject to conditions necessary to satisfy applicable criteria.

DATED this 31st day of August 2016.

/Original signed by Kimberly Overcast/
Kimberly Overcast, Manager
Billings Regional Office
Department of Natural Resources and Conservation