

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

**APPLICATION FOR BENEFICIAL
WATER USE PERMIT NO. 76M-30114584
BY CANYON RIVER PROPERTIES, LLC** } **PRELIMINARY DETERMINATION TO
GRANT PERMIT**

On August 17, 2018 , Canyon River Properties LLC (Applicant) submitted Application for Beneficial Water Use Permit No. 76M-30114584 to the Missoula Water Resources Office of the Department of Natural Resources and Conservation (Department or DNRC) for 1,500 gallons per minute (GPM) and 40.53 acre-feet (AF) for multiple domestic lawn and garden irrigation. The Department published receipt of the Application on its website. The Department sent Applicant a deficiency letter under § 85-2-302, Montana Code Annotated (MCA), dated January 22, 2019. The Applicant responded with information dated April 3, 2019. The Application was determined to be correct and complete as of October 9, 2019. An Environmental Assessment for this Application was completed on February 4, 2020.

INFORMATION

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

Application as filed:

- Application for Beneficial Water Use Permit, Form 600
- Attachments
- Maps: 2015 NAIP Aerial Photo depicting proposed points of diversion
 - 2015 NAIP Aerial Photo depicting preliminary design
 - 2015 NAIP Aerial Photo depicting place of use
- Aquifer Testing Addendum
- Variance from aquifer testing requirements from the Department dated May 18, 2018

Information Received after Application Filed

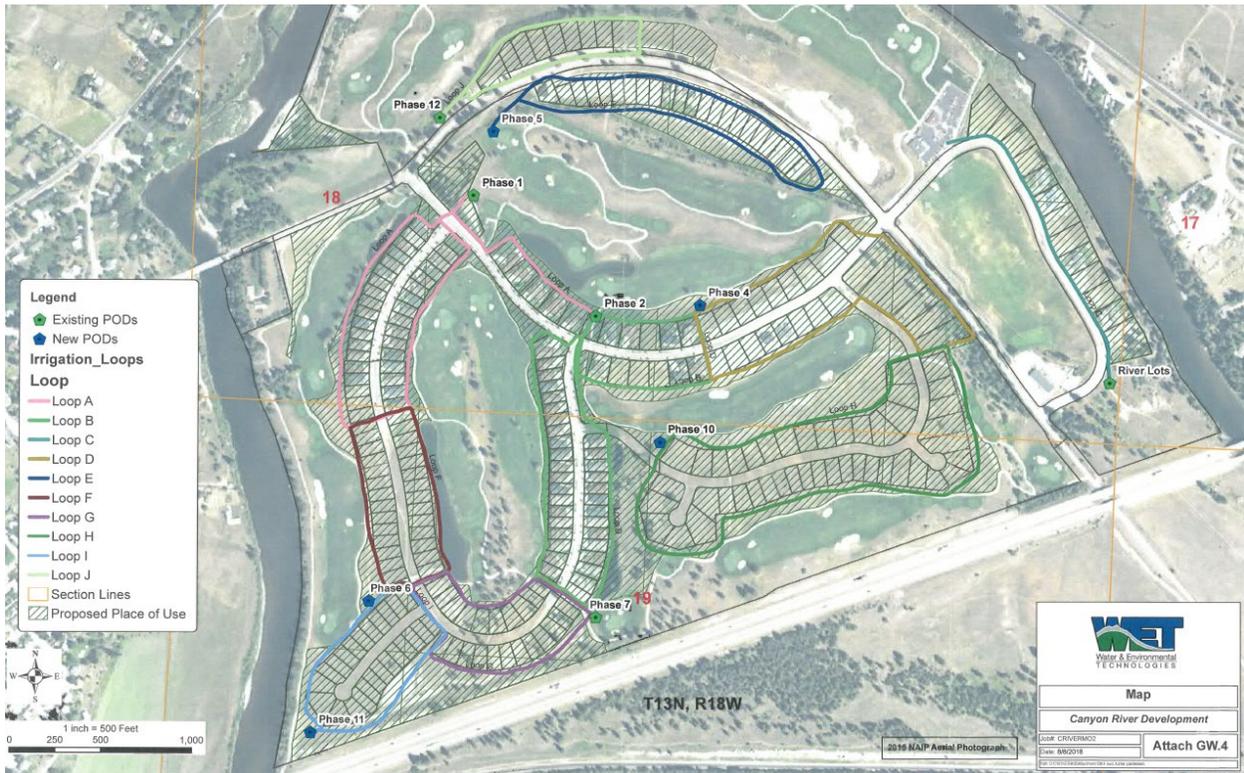
- Email from Canyon River Properties, LLC indicating the Applicant's agreement to mitigation condition necessary for authorization of the proposed project, received January 17, 2020

Information within the Department's Possession/Knowledge

- Environmental Assessment dated February 4, 2020
- Water Right Claim File No. 76M-149703-00
- Application to Change a Water Right No. 76M-30050455
- Department Hydrogeologist Aquifer Test Report Dated November 14, 2019
- Department Hydrogeologist Depletion Report Dated November 15, 2019
Analysis of mean monthly flow estimates using USGS gage data for the Clark Fork above Missoula (Gage #12340500)
- Analysis of senior appropriations on depleted surface sources
- The Department also routinely considers the following information. The following information is not included in the administrative file for this Application but is available upon request. Please contact the Missoula Regional Office at 406-721-4284 to request copies of the following documents:
 - Memorandum dated May 1, 2009, from John E. Tubbs, Administrator, regarding Permitting in the Open Clark Fork and Flathead Basins

The Department has fully reviewed and considered the evidence and argument submitted in this Application and preliminarily determines the following pursuant to the Montana Water Use Act (Title 85, chapter 2, part 3, MCA).

PROPOSED APPROPRIATION



FINDINGS OF FACT

1. The Applicant proposes to divert groundwater from 10 wells at a fluctuating flow rate with a maximum combined flow rate being 3.34 CFS (1,500 GPM) up to 40.5AF for irrigation of 106.7 acres of domestic lawn and garden within the Canyon River Development. The in-house domestic water for the homes is supplied by the City of Missoula municipal water supply system and is not related to the irrigation water rights owned by the Applicant. The proposed period of diversion and period of use is April 1 to October 31 annually.

Flow rate in Gallons per minute

	April	May	June	July	August	September	October
76M-149703	0	500	500	500	500	0	0
76M30114584	1500	1000	1000	1000	1000	1500	1500

Volume in Acre-feet

	April	May	June	July	August	September	October	Total
76M-149703	0	13.68	35.58	51.68	43.51	0	0	144.39
76M30114584	5.7	0	0	0	0	31.6	3.2	40.5

2. During the proposed period of diversion April 1 to April 30 and from September 1 to October 31, the maximum flow rate of 3.3 CFS (1,500 GPM) will be diverted up to an annual

volume of 40.5 AF. During the period of diversion May 1 to August 31 the Applicant proposes to divert a flow rate of 2.2 CFS (1,000 GPM) with the volume of water diverted supplied by Statement of Claim (claim) No. 76M 149703-00 through Application to Change a Water Right No. 76M 30114586. Five of the ten proposed wells are currently diversions listed on claim no. 76M 149703-00 and were added to that claim under Authorization to Change a Water Right 76M 30050455, which was issued by the Department on August 9, 2012.

3. This Beneficial Water Use Permit Application (permit application) is associated with claim no. 76M-149703-00 and Application to Change a Water Right (change application) No. 76M-30114586 because they share the same points of diversion and place of use. Change application 76M 300114586 requests to add five new wells to claim no. 76M 149703-00, bringing the total number of wells to ten. Claim no. 76M 149703-00 will provide 1.11 CFS (500 GPM) during its period of diversion and use, May 1 to August 31, while permit application no. 76M 30114584 proposes to increase the flow rate during the May 1 to August 31 period of use by 1,000 GPM, bringing the total combined flow rate to 1,500 GPM. Increasing maximum pumping rates from the 500 GPM to the combined 1,500 GPM will allow the Applicant to irrigate the domestic lawn and garden in a shorter amount of time during the May 1 to August 31 period, and enable irrigation during the entire standard growing season for climatic area number 3, which is April 1 to October 31.

4. During the period of May 1 to August 31 this permit, if issued, will increase the flow rate diverted from the ten wells from 500 GPM to 1,500 GPM, however there will be no increase in volume diverted during this period other than what is authorized to be diverted with claim no. 76M 149703-00. Claim no. 76M 149703-00 lists a diverted volume of 144.39 AF, which is the amount of diverted volume required to irrigate the entire 106.7-acre place of use between May 1 and August 31. This diverted volume provides 135.08 AF of consumptive use, which is the crop requirement for turf grass in Climatic Area 3 based on IWR software from NRCS.

5. The place of use is generally located in the S2 of Section 18 and the N2 of Section 19, T13N, R18W, Missoula County. The points of diversion, are listed in the table below:

	Qtr Sec	Section	Twp	Rge
1	SESESW	18	13N	18W
2	SENESE	19	13N	18W
3	SESESE	18	13N	18W
4	NWSESW	18	13N	18W
5	SWNESW	18	13N	18W
6	NWSWSE	18	13N	18W
7	SWNESW	18	13N	18W
8	SENESE	19	13N	18W
9	NWNWNE	19	13N	18W
10	NESWNW	19	13N	18W

6. Annual consumption for the proposed months of April, September, and October for the 106.7 irrigated acres is estimated to be 28.4 AF based on the pasture grass net irrigation requirement, modified for turf grass, for April, September, and October of 3.19 inches obtained from the Missoula 2NE weather station in the NRCS Irrigation Water Requirements (IWR) software.

7. The Applicant has agreed to measure the flow rate and volume of water diverted and report these figures to DNRC on an annual basis. The following condition applies:

“THE APPROPRIATOR SHALL INSTALL A DEPARTMENT APPROVED IN-LINE FLOW METER AT A POINT IN THE DELIVERY LINE APPROVED BY THE DEPARTMENT. WATER MUST NOT BE DIVERTED UNTIL THE REQUIRED MEASURING DEVICE IS IN PLACE AND OPERATING. ON A FORM PROVIDED BY THE DEPARTMENT, THE APPROPRIATOR SHALL KEEP A WRITTEN MONTHLY RECORD OF THE FLOW RATE AND VOLUME OF ALL WATER DIVERTED, INCLUDING THE PERIOD OF TIME. RECORDS SHALL BE SUBMITTED BY JANUARY 31 OF EACH YEAR AND UPON REQUEST AT OTHER TIMES DURING THE YEAR UNTIL THE BENEFICIAL WATER USE PERMIT IS PERFECTED AND THE DEPARTMENT RECEIVES A PROJECT COMPLETION NOTICE. FAILURE TO SUBMIT REPORTS MAY BE CAUSE FOR REVOCATION OF A PERMIT OR CHANGE. THE RECORDS MUST BE SENT TO THE MISSOULA WATER RESOURCES REGIONAL OFFICE. THE APPROPRIATOR SHALL MAINTAIN THE MEASURING DEVICE SO IT ALWAYS OPERATES PROPERLY AND MEASURES FLOW RATE AND VOLUME ACCURATELY.”

8. The Applicant has agreed to the following mitigation condition:

USE OF WATER UNDER THIS PERMIT IS CONDITIONED UPON MITIGATION TO OFFSET THE 28.4 ACRE-FEET PER YEAR IMPACT TO THE CLARK FORK RIVER. DIVERSION UNDER THIS PERMIT MAY NOT COMMENCE UNTIL THE MITIGATION PLAN AS SPECIFICALLY DESCRIBED IN THIS DECISION IS IMPLEMENTED. DIVERSION UNDER THIS PERMIT MUST STOP IF MITIGATION AS HEREIN REQUIRED IN SOURCE, AMOUNT OR LOCATION CEASES. DIVERSION UNDER THIS PERMIT MUST STOP IF ANY PART OF THE REQUIRED MITIGATION CEASES. NOTHING IN THIS PERMIT CONSTITUTES AUTHORIZATION FOR A CHANGE IN APPROPRIATION RIGHT.

Associated Rights:

STATEMENT OF CLAIM 76M 149703-00 AND PROVISIONAL PERMIT 76M 30114584 ARE ASSOCIATED BECAUSE THEY SHARE THE SAME POINTS OF DIVERSION AND PLACE OF USE. STATEMENT OF CLAIM 76M 149703-00 PROVIDES 500 GPM UP TO A TOTAL DIVERTED VOLUME OF 144.39 AF FROM MAY 1 TO AUGUST 31. PROVISIONAL PERMIT 76M 30114584 PROVIDES A FLOW RATE OF 1500 GPM UP TO A TOTAL DIVERTED VOLUME OF 40.5 AF DURING THE MONTHS OF APRIL, SEPTEMBER AND OCTOBER. PROVISIONAL PERMIT 76M 30114584 PROVIDES ADDITIONAL FLOW RATE OF 1000 GPM AND NO DIVERTED VOLUME FROM MAY 1 TO AUGUST 31.

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

GENERAL CONCLUSIONS OF LAW

9. 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 . . .

10. 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.

11. 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.

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

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

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

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

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

13. 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.

14. 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

15. A Department Hydrogeologist reviewed the aquifer test report and Aquifer Testing Requirement Form and presented his review to the Missoula Regional Office in an Aquifer Test Report dated November 14, 2018 and Depletion Report dated November 15, 2018.

16. Applicant requested and received a variance from the 72-hour aquifer testing requirement (ARM 36.12.121). The variance was granted for this Application because the aquifer properties were determined in a previous aquifer test performed for the Applicant's Beneficial Water Use Permit 76M-30010344 in the same aquifer and location and were reviewed and approved by DNRC Water Management Bureau Hydrogeologists.

17. For short term physical availability, the Applicant performed an 8-hour drawdown and yield test. Three of the 10 wells were pumped at 265 GPM to 270 GPM with maximum drawdowns between 3.2-feet to 16.7-feet. The modeling completed by the Department Hydrogeologist shows there is sufficient water available in the water column above the perforations of each of the existing wells. The predicted maximum drawdown during the fifth year is 0.3 feet based on the pumping schedule in Table 5 of the Aquifer Test Report. There are zero water rights in the source aquifer that are predicted to experience drawdown greater than 1-foot.

18. Physical groundwater availability was calculated by Department Hydrogeologist Attila Fohnagy in a November 14, 2018 report to the Missoula Regional Office titled "Aquifer Test Report". The zone of influence was calculated using the Theis (1935) solution with values of 55,400 ft²/day and 0.1 for transmissivity and storativity, respectively, and a constant pumping rate of 100.8 GPM for a 91-day additional period of diversion required to produce requested annual volume of 40.5 AF. The zone of influence 0.01-foot drawdown contour is at a distance of

800 feet from the pumping well. The calculation of groundwater flux through the delineated zone of influence is 598,320 ft³/day or 5,013 AF/year. The Applicant is requesting 40.5 AF/YR.

19. The 10 wells are located between 150 feet and 2,100 feet from the Clark Fork River which is interpreted to be the potentially affected surface water. Net depletion to the Clark Fork River is the calculated volume, rate, timing, and location of reductions to the surface water flow resulting from the proposed groundwater appropriation of 1,500 GPM up to 40.5 AF, with the annual volume of depletion equaling the proposed consumptive use. Consumptive use for the proposed months of April, September, and October for the 106.7 irrigated acres is estimated to be 28.4 AF based on the pasture grass net irrigation requirement, modified for turf grass, for April, September, and October of 3.19 inches obtained from the Missoula 2NE weather station in IWR. Per a memo from then DNRC Administrator John Tubbs dated May 1, 2009, when net depletions to surface water sources in basin 76M is calculated to be greater than 35 GPM and 10 acre-feet per year, the Thompson River Lumber Company hearing decision is considered in evaluating issuance criteria.

20. Physical availability on the Clark Fork River was assessed at USGS gage No. 12340500 located on the Clark Fork River above Missoula. This gage is appropriate for analysis because it is located adjacent to the Canyon River development. Below in Table 1 are the median of the mean monthly flow rates and volumes used to quantify physical availability of surface water at the location of depletion:

Table 1: Clark Fork River above Missoula USGS Gage # 12340500 (1929-2018)

	January	February	March	April	May	June
Flow (CFS)	1217	1392	1796	3378.5	7270	7752
Volume (AF)	74,699.5	77,172.5	110,238.5	200,682.9	446,232.6	460,468.8

	July	August	September	October	November	December
Flow (CFS)	2805	1437	1362	1473	1500	1334
Volume (AF)	172,170.9	88,203.1	80,902.8	90,412.7	89,100.0	81,880.9

21. The Department finds the Applicant’s aquifer testing and analysis are adequate and establish water is physically available and will remain above the well pumps after one year of pumping the requested 3.34 CFS (1,500 GPM) up to 40.5 AF.

CONCLUSIONS OF LAW

22. 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.”

23. 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).

24. The Applicant has proven that water is physically available at the proposed point of diversion in the amount Applicant seeks to appropriate. § 85-2-311(1)(a)(i), MCA. (FOF Nos. 15-21)

Legal Availability:

FINDINGS OF FACT

25. Groundwater modeling predicted the 0.01-foot zone of influence to occur 800 feet from the proposed wells. Within the calculated zone of influence, there are a total of 10 groundwater rights listing a total annual appropriation of 654.5 AF. Subtracting legal demands from the calculated groundwater flux shows a remainder of 4,358.5 AF of groundwater legally available for the proposed appropriation of 3.34 CFS (1500 GPM) up to 40.5 AF (5,013 AF – 654.5 AF = 4,358.5 AF).

26. The proposed extraction wells are located approximately between 150 feet and 2,100 feet South of the Clark Fork River in the County of Missoula. The groundwater appropriated by the Applicant is hydraulically connected to the Clark Fork River. Depletion from pumping in the Missoula Valley Aquifer primarily occurs through propagation of drawdown through the unconfined aquifer to the Clark Fork River. Depletion to the Clark Fork River will essentially occur simultaneously with pumping as a result of the close proximity of the wells to the river and no evidence of a continuous confining layer. Depletion is expected to occur concurrently with consumption.

27. Depletions resulting from the proposed appropriation are expected to range between a monthly low of 1.3 GPM and 0.20 AF, and a monthly high of 124.6 GPM and 16.5 AF per month throughout the year. Total depletion is expected to be 28.4 AF annually. The highest rate

of depletions to the Clark Fork River will occur during the months of April, September, and October. For monthly consumption and net depletions see table below from Depletion Report dated November 15, 2018.

Total consumption and net depletion for application # 76LJ 30114584

Month	Consumption (AF)	Depletion (AF)	Depletion (gpm)
January	0.0	0.4	2.7
February	0.0	0.3	2.4
March	0.0	0.2	1.8
April	4.0	3.1	23.7
May	0.0	0.7	5.4
June	0.0	0.3	2.2
July	0.0	0.2	1.6
August	0.0	0.2	1.3
September	22.2	16.5	124.6
October	2.2	4.8	34.9
November	0.0	1.1	8.3
December	0.0	0.5	3.9
Total	28.4	28.4	

28. To show that water is physically and legally available in the locally affected reach of the Clark Fork River in excess of modeled depletions, the Department conducted a legal availability analysis of the Clark Fork River from USGS gaging station no. 12340500 “Clark Fork above Missoula” downstream to the confluence with the Bitterroot River. This reach of the Clark Fork River fully encompasses the location where depletions will manifest in the Clark Fork River from the proposed groundwater pumping. The legal availability analysis uses the median of the mean monthly flows taken from USGS gaging station 12340500 to determine flow rate and volume physically available, and DNRC water right records for water rights with diversions on the Clark Fork River through the locally depleted reach. The following Tables 2 and 3 list the flow rate and volume physically available at the Clark Fork River Gage and legal demands on the river between the gage and the confluence of the Clark Fork River and Bitterroot River. The remaining flow rate and volume is what the Department finds to be legally available:

Table 2: Clark Fork River Legal Availability (CFS) – From USGS Gage to Confluence of Bitterroot and Clark Fork Rivers

USGS #12340500: Clark Fork River above Missoula (1929-2018)			
<u>Month</u>	<u>Physical Availability (CFS)</u>	<u>Existing Legal Demands (CFS)</u>	<u>Physical minus Legal (CFS)</u>
January	1217	93.6	1123.4
February	1392	93.6	1298.4
March	1796	754.9	1041.1
April	3378.5	754.9	2623.6
May	7270	754.9	6515.1
June	7752	754.9	6997.1
July	2805	754.9	2050.1
August	1437	754.9	682.1
September	1362	754.9	607.1
October	1473	754.9	718.1
November	1500	754.9	745.1
December	1334	93.6	1240.4

Table 3: Clark Fork River Legal Availability (CFS) – From USGS Gage to Confluence of Bitterroot and Clark Fork Rivers

USGS #12340500: Clark Fork River above Missoula (1929-2018)			
<u>Month</u>	<u>Physical Availability (AF)</u>	<u>Existing Legal Demands (AF)</u>	<u>Physical minus Legal (AF)</u>
January	74,699.5	5,745	68,954.5
February	77,172.5	5,189	71,983.5
March	110,238.5	46,334	63,904.5
April	200,682.9	44,840	155,842.9
May	446,232.6	46,334	399,898.6
June	460,468.8	44,840	415,628.8
July	172,170.9	46,334	125,836.9
August	88,203.1	46,334	41,869.1
September	80,902.8	44,840	36,062.8
October	90,412.7	46,334	44,078.7
November	89,100.0	44,840	44,260.0
December	81,880.9	5,745	76,135.9

CONCLUSIONS OF LAW

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

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

(A) identification of physical water availability;

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

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

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).

30. 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.

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

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

33. 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.

34. Based on the Applicant’s proposed mitigation/aquifer recharge plan, I find that the Applicant has proven by a preponderance of the evidence that surface water can reasonably be considered legally available during the period in which the applicant seeks to appropriate, in the amount requested. (FOF Nos. 25-27)

35. 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 Nos. 25-28)

Adverse Effect

FINDINGS OF FACT

36. The Applicant provided a plan for utilization of water permitted under this Application, demonstrating that water use can be controlled to ensure that water rights of prior appropriators can be satisfied in the event of a call. The irrigation system is equipped with a main system shut-off valve and a flow totalizer is available at each well to ensure monthly flow rates are recorded. If necessary, the diversion for the residential irrigation can be reduced or shut off at times of water shortage.

37. The Department calculated groundwater flux through a zone of influence (ZOI) corresponding to the 0.01-foot drawdown contour. Ten water rights were found to be within the ZOI, which are listed in the Aquifer Test Report, with a combined annual demand of 654.5 AF; aquifer flux was calculated to be 5,013 AF. The 1-foot drawdown contour extends up to 800 feet from the proposed extraction wells; there are no water rights within this distance to the proposed well. (FOF No.15)

38. Tables 2 and 3 in Finding of Fact No. 26 show that water is legally available in every month of the year in amounts exceeding the total calculated stream depletion of 28.4 AF through

the local reach of the Clark Fork River. The calculated net depletion of 28.4 AF in this reach will not result in adverse effect to surface water users in the Clark Fork River. The Clark Fork River through the Missoula Valley downstream to Noxon Reservoir is a source of water where calls for water due to shortages are not known to occur.

39. Downstream hydropower water rights owned by Avista Corporation at Noxon Dam were addressed in a memorandum by Division Administrator John E. Tubbs on May 1, 2009. This memorandum regarding water right permitting in the lower Clark Fork basin states that for groundwater sources located in Basin 76M, “when net depletion to surface water sources is calculated to be greater than 35 GPM or greater than 10-acre feet per year, the Department must consider TRLC [Thompson River Lumber Company] as precedent”. The calculated net depletion to the Clark Fork River from the proposed groundwater appropriation is 28.4 AF

40. With regard to senior hydropower water rights, the Clark Fork River was assessed at USGS gage No. 12391400 located on the Clark Fork River below Noxon Rapids Dam near Noxon. Avista Corporation’s legal demands for hydropower were subtracted from the median monthly flow of the gage to show adverse effect on the source.

USGS #12391400: Clark Fork River bl Noxon Rapids Dam (1960-2014)

	Flow (CFS)	AVISTA Water Right	
January	13,905	50,000	-36,095
February	12,890	50,000	-37,110
March	14,785	50,000	-35,215
April	21,160	50,000	-28,840
May	38,030	50,000	-11,970
June	47,320	50,000	-2,680
July	22,280	50,000	-27,720
August	10,720	50,000	-39,280
September	10,166	50,000	-39,834
October	11,240	50,000	-38,760
November	12,605	50,000	-37,395
December	13,335	50,000	-36,665

40. The Clark Fork River at the Noxon Dam near the Idaho/Montana border is an area of potential impact, due to the findings of fact in the Final Order for the Thompson River Lumber

Company permit application no. 76N 30010429. The memo by Division Administrator John E. Tubbs dated May 1, 2009 titled Permitting in the Open Clark Fork and Flathead Basins Follow Up to June 9, 2008, Memorandum, also confirms that mitigation of surface water depletions is an acceptable method of preventing adverse effect associated with the new use. To address adverse effect, the Applicant proposes to mitigate the 28.4 AF net depletion to the Clark Fork River by purchasing or leasing mitigation water from the Grass Valley French Ditch Company's authorized water available under marketing for mitigation authorization or another locally available marketing for mitigation water right. There are two sources of authorized marketing for mitigation water available in the greater Missoula area that have already been shown to provide effective mitigation water to Noxon Dam. The marketing for mitigation water was previously authorized through Application to Change a Water Right numbers 76M-30052086 and 76F-30110085.

41. The Applicant has agreed to the mitigation conditioned as follows:

USE OF WATER UNDER THIS PERMIT IS CONDITIONED UPON THE REQUIREMENT OF THE PERMITTEE TO PROVIDE MITIGATION WATER TO OFFSET THE 28.4 ACRE-FEET OF DEPLETION TO THE CLARK FORK RIVER. DIVERSION UNDER THIS PERMIT MAY NOT COMMENCE UNTIL THE PERMITTEE PROVIDES THE DEPARTMENT EVIDENCE OF A CONTRACT FOR MITIGATION WATER AND SAID EVIDENCE OF CONTRACT MUST BE PROVIDED TO THE DEPARTMENT ANNUALLY PRIOR TO COMMENCEMENT OF DIVERSION ON APRIL 1. DIVERSION UNDER THIS PERMIT MUST CEASE IF A CONTRACT FOR MITIGATION WATER AS HEREIN REQUIRED IS NOT OBTAINED.

42. There will be no adverse effect preventing Avista Corporation from effectively carrying out hydroelectric power generation at Noxon Rapids Powerhouse as the dam provides storage with which to retain the mitigation water until it is needed for power generation. Any alteration in timing of these deliveries will not result in adverse effects to hydropower water rights on the Clark Fork River so long as the entire net depletion from groundwater pumping is replaced through mitigation.

CONCLUSIONS OF LAW

43. 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.

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

45. 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.

46. 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.

47. 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.

48. 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.

49. The Department can and routinely does, condition a new permit’s use on use of that special management, technology or measurement such as augmentation now generally known as mitigation and aquifer recharge. See § 85-2-312; § 85-2-360 et seq., MCA; see, e.g., In the

Matter of Beneficial Water Use Permit No. 107-411 by Diehl Development (DNRC Final Order 1974) (No adverse effect if permit conditions to allow specific flow past point of diversion.); *In the Matter of Combined Application for Beneficial Water Use Permit No. 76H- 30043133 and Application No. 76H-30043132 to Change Water Right Nos. 76H-121640-00, 76H-131641-00 and 76H-131642-00 by the Town of Stevensville* (DNRC Final Order 2011).

50. Adverse effect not required to be measurable but must be calculable. Sitz Ranch v. DNRC, DV-10-13390, Fifth Judicial District Court, *Order Affirming DNRC Decision*, (2011) Pg. 7 (DNRC permit denial affirmed; 3 gpm and 9 gpm depletion to surface water not addressed in legal availability or mitigation plan.); Wesmont Developers v. DNRC, CDV-2009-823, First Judicial District Court, *Memorandum and Order*, (2011) Pg. 12 (“DNRC properly determined that Wesmont cannot be authorized to divert, either directly or indirectly, 205.09 acre-feet from the Bitterroot River without establishing that the water does not belong to a senior appropriator”); applicant failed to analyze legal availability of surface water where projected depletion from groundwater pumping); *In the Matter of Beneficial Water Use Permit No. 76N-30010429 by Thompson River Lumber Company* (DNRC Final Order 2006); see also Robert and Marlene Tackle v. DNRC et al., Cause No. DV-92-323, Montana Fourth Judicial District for Ravalli County, *Opinion and Order* (June 23, 1994). Artesian pressure is not protectable and a reduction by a junior appropriator is not considered an adverse effect. See *In re Application No. 72948-G76L by Cross*, (DNRC Final Order 1991); see also *In re Application No. 75997-G76L by Carr*, (DNRC Final Order 1991).

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

First Judicial District Court, *Memorandum and Order*, (2011) Pg. 12; *In the Matter of Application for Beneficial Water Use Permit No. 41H 30026244 By Utility Solutions LLC* (DNRC 2008)(permit conditioned on mitigation of 3.2 gpm up to 5.18 AF of depletion to the Gallatin River); *In the Matter of Application for Beneficial Water Use Permit No. 76H-30028713 by Patricia Skergan and Jim Helmer* (HB 831, DNRC Final Order 2009) (permit denied in part for failure to analyze legal availability for surface water for depletion of 1.31 AF to Bitterroot River)§ 85-2-360, MCA. The Department has a history of approving new appropriations where applicant will mitigate/augment to offset depletions caused by the new appropriation. *In the Matter of Beneficial Water Use Permit Application No. 41I-104667 by Woods and Application to Change Water Right No 41I-G(W) 125497 by Ronald J. Woods*, (DNRC Final Order 2000); *In The Matter of Application To Change Appropriation Water Right 76GJ 110821 by Peterson and MT Department of Transportation*, DNRC Final Order (2001); *In The Matter of Application To Change Appropriation Water Right No. 76G-3235699 by Arco Environmental Remediation LLC*.(DNRC Final Order 2003) (allows water under claim 76G-32356 to be exchanged for water appropriated out of priority by permits at the wet closures and wildlife to offset consumption). *In The Matter of Designation of the Larsen Creek Controlled Groundwater Area as Permanent*, *Board of Natural Resources Final Order* (1988).

Montana case law also provides a history of mitigation, including mitigation by new or untried methods. See Thompson v. Harvey (1974),154 Mont. 133, 519 P.2d 963; Perkins v. Kramer (1966), 148 Mont. 355, 423 P.2d 587. Augmentation/ mitigation is also recognized in other prior appropriation states for various purposes. E.g. C.R.S.A. § 37-92-302 (Colorado); A.R.S. § 45-561 (Arizona); RCWA 90.46.100 (Washington); ID ST § 42-1763B and § 42-4201A (Idaho).

The requirement for mitigation in closed basins has been codified in § 85-2-360, *et seq.*, MCA. Section 85-2-360(5), MCA provides in relevant part:

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.

(Emphasis added.)

51. In this case Applicant proposes to mitigate its full consumptive use under the proposed appropriation. This mitigation provides mitigation of full depletion of surface waters by the proposed appropriation in amount, location, and duration of the depletion. Because Applicant proposes to mitigate the full amount of its consumptive use, there is no adverse effect from depletion of surface waters to the historic beneficial use of surface water rights. *E.g., In the Matter of Application for Beneficial Water Use Permit No. 41H 30026244 By Utility Solutions LLC* (DNRC Final Order 2008).

52. The Applicant has proven by a preponderance of the evidence that the water rights of a prior appropriator under an existing water right, a certificate, a permit, or a state water reservation will not be adversely affected. § 85-2-311(1)(b) , MCA. (FOF Nos. 36-42)

Adequate Diversion

FINDINGS OF FACT

53. The proposed means of diversion are ten wells with pumps interconnected to a pressure-controlled irrigation system to irrigate 106.7 acres of domestic lawn and garden. Five of these wells are existing and are authorized diversions on claim no. 76M 149703-00 per Change Authorization No. 76M-30050455. A second pending change application, 76M-30114586, proposes to add five new wells to claim no. 76M 149703-00 for a total of ten wells. The five existing wells are drilled to depths ranging between 130-feet to 155-feet. Of the remaining five proposed wells, two are drilled but not connected to the system yet, and the remaining three will be constructed similar to the existing wells.

54. The Applicant submitted pump specifications and each pump includes a variable frequency drive that controls the pump to maintain a constant pressure. The size of pump for each well depends on the power available at the site. Well sites with single-phase power will utilize 10 horsepower pumps capable of producing approximately 120 GPM, while the three-phase power sites will utilize 15 horsepower pumps capable of producing approximately 200 GPM. The current system is operating at the authorized 500 GPM and once the additional five wells are on-line the system will operate at the permitted maximum 1500 GPM.

55. The distribution system currently consists of five systems or zones, and at full build out the 106.7-acre place of use will be irrigated using ten zones. Phased installation will occur as new areas of residential development come on-line. The system is a pressure demand system, whereby well pumps are activated by a pressure drop in the system. Each of the sprinkler system

zones is connected electronically to the main irrigation system control house located near Well 5; the control house is insulated, heated and contains the electronics responsible for system control. Variable watering lengths and times will be programmed into the main control system; watering intervals and volumes extracted will be recorded by flow metering system for monthly reporting requirements to be submitted to the DNRC on an annual basis.

56. The Applicant plans to limit pumping time to 6 to 8 hours per irrigation cycle which is more efficient than the current pumping times of 12.5 hours utilizing the 500 GPM available from claim no. 76M 149703 00, however, the Applicant will be able to modify both the rate and duration of diversion through computerized controls to ensure the volume of 144.39 AF for claim 76M 149703-00 is not exceeded during the May 1 to August 31 period and the permitted volume of 40.5 AF is not exceeded during the April 1 to April 30 and September 1 to October 31 periods. The computerized controls will also allow Applicant to accommodate senior water right holders in the event a call is made. The diverted volume will not exceed 40.5 AF for the months of April, September, and October. (FOF No.4)

CONCLUSIONS OF LAW

57. 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.

58. 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.

59. 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).

60. 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).

61. 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 53-56).

Beneficial Use

FINDINGS OF FACT

62. The Applicant proposes to divert groundwater from ten wells at a fluctuating flow rate with a maximum flow rate being 3.34 CFS (1,500 GPM) up to 40.5AF for irrigation of 106.7 acres of domestic lawn and garden. The proposed period of diversion and period of use is April 1 to October 31 annually. During the proposed period of diversion April 1 to April 30 and from September 1 to October 31, the maximum flow rate of 3.34 CFS (1,500 GPM) will be diverted up to a volume of 40.5 AF annually. During the period of diversion May 1 to August 31 the permitted flow rate is limited to 2.23 CFS (1,000 GPM) with no additional volume.

63. The Applicant used IWR to arrive at diverted volume requirements of 40.5 AF for the 106.7 acres of domestic lawn and garden irrigation during the months April, September, and October. Annual consumption for the proposed months of April, September, and October for the 106.7 irrigated acres is estimated to be 28.4 AF based on the pasture grass net irrigation requirement, modified for turf grass, for April, September, and October of 3.19 inches per acre obtained from the Missoula 2NE weather station in NRCS Irrigation Water Requirements (IWR) software.

Volume in Acre-feet

	April	May	June	July	August	September	October	Total
76M-149703	0	13.68	35.58	51.68	43.51	0	0	144.39
76M30114584	5.7	0	0	0	0	31.6	3.2	40.5

64. The requested flow rate was calculated on the overall system requirements for pumping during peak irrigation month of July wherein 6.1 hours of pumping will be required at 1,500 GPM to satisfy irrigation requirements.

65. The volume requested, 40.5 AF, is limited to the diverted volume required to adequately irrigate 106.7 acres of domestic lawn and garden during the months of April, September and October. During the period between May 1 and August 31, the required diverted volume for irrigation of 106.7 acres of domestic lawn and garden irrigation is supplied by claim no. 76M

149703-00. This claim lists a volume of 144.39 acre-feet, which is the diverted volume required to provide 135.08 AF of consumptive use during this time frame.

CONCLUSIONS OF LAW

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

67. 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).

68. Applicant proposes to use water for domestic lawn and garden irrigation which is a recognized beneficial use. § 85-2-102(4), MCA. Applicant has proven by a preponderance of the evidence domestic lawn and garden is a beneficial use and that 40.5 AF of diverted volume and 3.3 CFS (1500 GPM) of water requested is the amount needed to sustain the beneficial use. § 85-2-311(1)(d), MCA, (FOF Nos. 62-65)

Possessory Interest

FINDINGS OF FACT

68. This Application is for sale, rental, distribution, or is a municipal use application in which water is supplied to another. It is clear that the ultimate user will not accept the supply without consenting to the use of water. 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.

CONCLUSIONS OF LAW

69. 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.

70. 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.

71. 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 No. 68)

PRELIMINARY DETERMINATION

Subject to the terms, analysis, and conditions in this Order, the Department preliminarily determines that this Application for Beneficial Water Use Permit No. 76M-30114584 should be GRANTED.

The Department determines the applicant may divert from the groundwater aquifer, by means of a pump from 10 wells drilled to depths of 130 feet to 155 feet respectively. The pumping will occur from April 1 to October 31. The maximum flow rate of 3.3 CFS (1500 GPM) can be pumped during April 1 to April 30, September 1 to October 31 annually. The flow rate is restricted to 1000 GPM from May 1 through August 31. The 40.5 AF of diverted volume is during the months of April 1 to April 30, September 1 to October 31. The Applicant may irrigate domestic lawn and garden on 106.7 acres. The place of use is generally located in the S2 of Section 18 and the N2 of Section 19, T13N, R18W, Missoula County. The points of diversion, are listed in the table below:

	<i>Qtr Sec</i>	<i>Section</i>	<i>Twp</i>	<i>Rge</i>
1	SESESW	18	13N	18W
2	SEENW	19	13N	18W
3	SESESE	18	13N	18W
4	NWSESW	18	13N	18W
5	SWNESW	18	13N	18W
6	NWSWSE	18	13N	18W
7	SWNESW	18	13N	18W
8	SENWNW	19	13N	18W
9	NWNWNE	19	13N	18W
10	NESWNW	19	13N	18W

The area that will be depleted is located along the Clark Fork River. Water to mitigate the affected reach will be purchased or leased from the Grass Valley French Ditch Company’s available under marketing for mitigation authorization or another locally available marketing for mitigation water right. There are two sources of pre-approved marketing for mitigation water available in the greater Missoula area that have already been shown to provide effective mitigation water to Noxon Dam. The marketing for mitigation water was previously authorized through Application to Change a Water Right numbers 76M-30052086 and 76F-30110085.

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

1.) **Mitigation Condition**

Use of water under this permit is conditioned upon the requirement of the permittee to provide mitigation water to offset the 28.4 acre-feet of depletion to the Clark Fork River. Diversion under this permit may not commence until the permittee provides the department evidence of a contract for mitigation water and said evidence of contract must be provided to the department annually prior to commencement of diversion on April 1. Diversion under this permit must cease if a contract for mitigation water as herein required is not obtained.

2) **Water Measurement Records Required:**

The appropriator shall install a department approved in-line flow meter at a point in the delivery line approved by the department. Water must not be diverted until the required measuring device is in place and operating. On a form provided by the department, the appropriator shall keep a written monthly record of the flow rate and volume of all water diverted, including the period of time. Records shall be submitted by January 31 of each year and upon request at other times during the year until the beneficial water use permit is perfected and the department receives a project completion notice. Failure to submit reports may be cause for revocation of a permit or change. The records must be sent to the Missoula Water Resources Regional Office. The appropriator shall maintain the measuring device, so it always operates properly and measures flow rate and volume accurately.

3) **Associated Rights:**

Statement of Claim 76M 149703-00 and Provisional Permit 76M 30114584 are associated because they share the same points of diversion and place of use. Statement of Claim 76M 149703-00 provides 500 GPM up to a total diverted volume of 144.39 AF from May 1 to August 31. Provisional Permit 76M 30114584 provides a flow rate of 1500 GPM up to a total diverted volume of 40.5 AF during the months of April, September and October. Provisional Permit 76M 30114584 provides additional flow rate of 1000 GPM and no diverted volume from May 1 to August 31.

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 4 day of February 2020.

/Original signed by Jim Nave/
Jim Nave, Regional Manager
Missoula Regional Office
Department of Natural Resources and Conservation

CERTIFICATE OF SERVICE

This certifies that a true and correct copy of the PRELIMINARY DETERMINATION TO GRANT was served upon all parties listed below on this 4th day of February 2020, by first class United States mail.

CANYON RIVER PROPERTIES, LLC
268 BANDMANN TRAIL
MISSOULA, MT 59801

WATER & ENVIRONMENTAL TECHNOLOGIES
ATTN: JON CARSTENSEN
480 E. PARK, STE 200
BUTTE, MT 59701

NAME

DATE