

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

APPLICATION TO CHANGE WATER RIGHT) NO. 76M-30114586 BY CANYON RIVER) PROPERTIES LLC)	PRELIMINARY DETERMINATION TO GRANT CHANGE
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On August 17, 2018, Canyon River Properties, LLC (Applicant) submitted Application to Change Water Right No. 76M-30114586 to change Water Right Claim No. 76M-149703-00 to the Missoula Regional Office of the Department of Natural Resources and Conservation (Department or DNRC). The Department published receipt of the Application on its website. The Department sent Applicant a deficiency letter under §85-2-302, Montana Code Annotated (MCA), dated January 22, 2019. The Applicant responded with information dated April 12, 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 to Change Water Right, Form 606
- Attachments
- Maps:
- 2015 NAIP Aerial Photograph illustrating preliminary design schematic
- 2015 NAIP Aerial photograph illustrating proposed use

Information Received after Application Filed

- Response to deficiency letter dated January 22, 2019 and received by the Department on April 12, 2019

Information within the Department's Possession/Knowledge

- Water Right Claim File No. 76M 149703 00
- Application to Change water right no. 76M-30050455
- Department Hydrogeologist Aquifer Test Report Dated November 14, 2019

- Department Hydrogeologist Groundwater Change Report Dated November 16, 2019

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, part 4, MCA).

WATER RIGHT TO BE CHANGED

FINDINGS OF FACT

1. The Applicant seeks to change Statement of Claim No. 76M-149703-00 with a priority date of December 11, 1904 and purpose of irrigation. This water right was decreed a flow rate of 12.5 cubic feet per second (CFS) for irrigation on a maximum of 132.72 acres, with a period of diversion from May 1st through August 31st, on November 29, 1984 by the Montana Water Court in the Temporary Preliminary Decree issued for basin 76M.

2. Change Authorization No. 76M-30050455 was issued August 9, 2012 that changed the point of diversions from diverting water via pumps from the Clark Fork River to adding 5 groundwater wells with a maximum combined flow rate of 500 gallons per minute (GPM) to irrigate 106.7 acres of domestic lawn and garden. The project completion notice for this change authorization is due December 31, 2027. The authorized diverted volume is 144.39 acre-feet (AF) per year during the period of diversion and use of May 1st through August 31st. The place of use is generally located in the S2 of Section 18, and the N2N2 and NESWNW of Section 19, all in T13N, R18W, Missoula County. The points of diversion for each of the five wells are as follows:

Elements of the water right to be changed are presented in the following table:

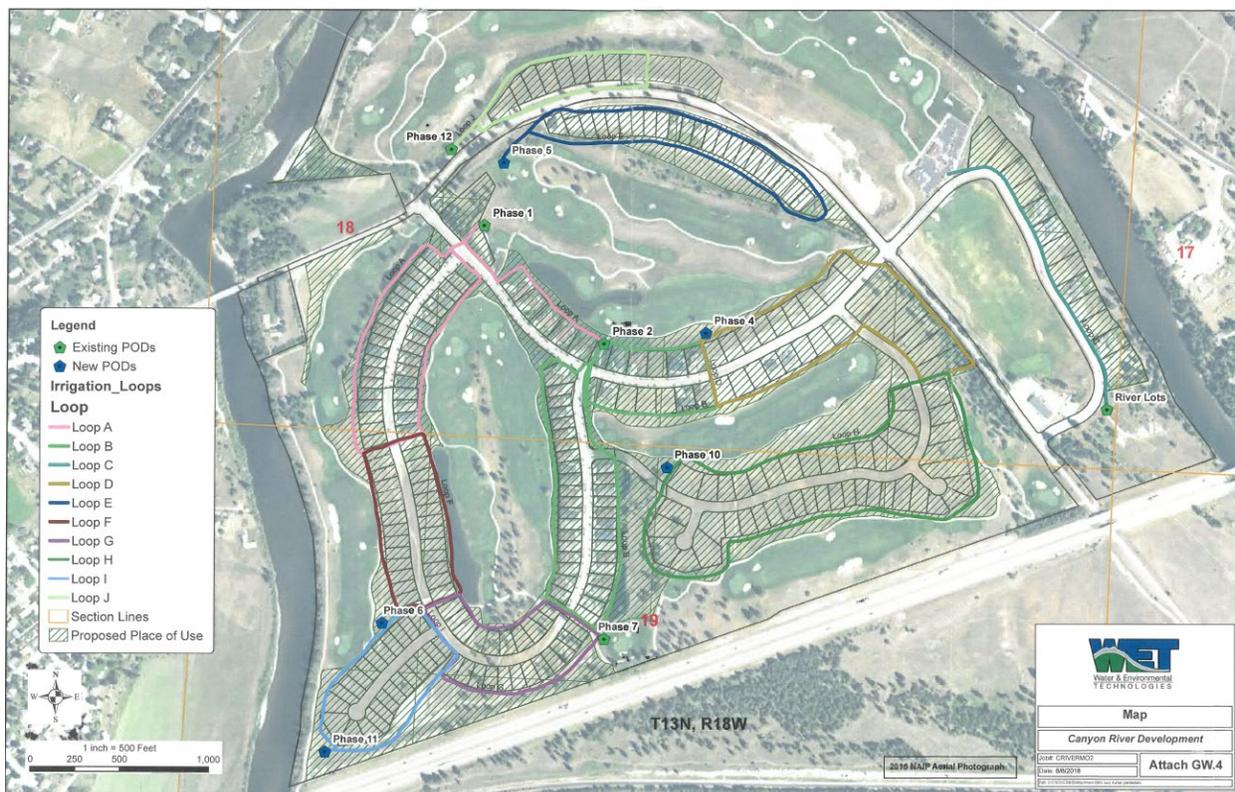
W.R. NO.	FLOW	DIVERTED VOLUME	PURPOSE	PERIOD OF USE	PLACE OF USE	POINTS OF DIVERSION	PRIORITY DATE
76M 149703- 00	500 GPM	144.39 AF	Sprinkler Irrigation	05/01 – 08/31	106.71 acres	SWNESW of Section 18 T13N, R18W, SENENW of Section 19 T13N, R18W SESESE of Section 18 T13N, R18W NWSESW of Section 18 T13N, R18W, SESESW of Section 18 T13N, R18W	12/11/1904

CHANGE PROPOSAL

FINDINGS OF FACT

3. The Applicant proposes to change the points of diversion for Statement of Claim 76M-149703-00 by adding five groundwater wells to the existing irrigation system which currently consists of five existing wells. Upon authorization the water right will utilize ten points of diversion to irrigate lawn and garden around multiple home sites and common areas within the Canyon River Subdivision. The combined diverted flow rate from all ten wells will remain 500 gallons per minute (GPM) the authorized diverted volume of 144.39 AF and 106.7-acre place of use will not change. The Applicant is subject to any and all conditions, limitations or restrictions listed in Change Authorization 76M-30050455.

4. Application for Beneficial Water Use Permit No. 76M-30114584 was submitted concurrently with this change application. The Applicant submitted the permit application to increase the flow rate diverted from the 10 wells during the May 1 to August 31 period of diversion with no additional volume diverted during this period other than what was authorized in change application 76M 30050455. The permit application also requests a flow rate increase from 500 GPM to a maximum of 1500 GPM and up to 40.5 AF for the ten wells to cover irrigation requirements during the months of April, September, and October.



CHANGE CRITERIA

5. The Department is authorized to approve a change if the applicant meets its burden to prove the applicable § 85-2-402, MCA, criteria by a preponderance of the evidence. Matter of Royston, 249 Mont. 425, 429, 816 P.2d 1054, 1057 (1991); Hohenlohe v. DNRC, 2010 MT 203, ¶¶ 33, 35, and 75, 357 Mont. 438, 240 P.3d 628 (an applicant’s burden to prove change criteria by a preponderance of evidence is “more probably than not.”); Town of Manhattan v. DNRC, 2012 MT 81, ¶8, 364 Mont. 450, 276 P.3d 920. Under this Preliminary Determination, the relevant change criteria in §85-2-402(2), MCA, are:

(2) Except as provided in subsections (4) through (6), (15), (16), and (18) and, if applicable, subject to subsection (17), the department shall approve a change in appropriation right if the appropriator proves by a preponderance of evidence that the following criteria are met:

(a) The proposed change in appropriation right will not adversely affect the use of the existing water rights of other persons or other perfected or planned uses or developments for which a permit or certificate has been issued or for which a state water reservation has been issued under part 3.

(b) The proposed means of diversion, construction, and operation of the appropriation works are adequate, except for: (i) a change in appropriation right for instream flow pursuant to 85-2-320 or 85-2-436; (ii) a temporary change in

appropriation right for instream flow pursuant to 85-2-408; or (iii) a change in appropriation right pursuant to 85-2-420 for mitigation or marketing for mitigation.

(c) The proposed use of water is a beneficial use.

(d) 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 change involves 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. This subsection (2)(d) does not apply to: (i) a change in appropriation right for instream flow pursuant to 85-2-320 or 85-2-436; (ii) a temporary change in appropriation right for instream flow pursuant to 85-2-408; or (iii) a change in appropriation right pursuant to 85-2-420 for mitigation or marketing for mitigation.

6. The evaluation of a proposed change in appropriation does not adjudicate the underlying right(s). The Department's change process only addresses the water right holder's ability to make a different use of that existing right. *E.g., Hohenlohe*, at ¶¶ 29-31; *Town of Manhattan*, at ¶8; *In the Matter of Application to Change Appropriation Water Right No.41F-31227 by T-L Irrigation Company* (DNRC Final Order 1991).

HISTORIC USE AND ADVERSE EFFECT

FINDINGS OF FACT - Historic Use

7. The historic use for Statement of Claim 76M-149703-00 was established during analysis of previous change authorization 76M-30050455. Through the Department's analysis, the actual historic use was found to be a flow rate of 500 GPM, a diverted volume 240.85 AF, a consumed volume of 144.89 AF and historical irrigation of 132.7 acres.

8. Through analysis provided in Change Authorization No. 76M-30050455, the Department authorized a consumptive use of 135.1 AF for the 106.7-acre place of use. The authorized place of use was reduced from the historically irrigated 132.7 acres to 106.7 acres. File

9. The Department finds the following historic use.¹

WR/AUTH #	Source	Priority Date	Diverted Volume	Flow Rate	Total Acres	Consumptive Use
76M-149703-00	Clark Fork River	12/11/1904	240.85 AF	500 GPM	132.72	144.89 AF
76M-30050455	Groundwater	12/11/1904	144.39 AF	500 GPM	106.7	135.08 AF

FINDINGS OF FACT – Adverse Effect

10. The Applicant proposes to change the points of diversion by adding five groundwater wells to Statement of Claim 76M-149703-00. Upon authorization a total of ten wells will be manifold to the irrigation system. The system at project full build-out will have ten loops or zones. The irrigation system is pressurized and designed to run on the flow rate of 500 GPM. There is a water measurement condition on the previous change authorization 76M-30050455 to ensure there is no expansion of flow rate or diverted volume through the change to groundwater wells. This measurement condition will also be required for this proposed change in point of diversion as well. Measurement devices installed at the irrigation system control house located near Well 5, in addition to variable frequency drives on the mainline loop Wells 1, 2, 4, 5, the Well 3 loop, and the five proposed wells, will ensure extraction rates do not exceed the historic rate of withdrawal of 500 GPM and will also allow the Applicant to accurately record the annual total diverted volume, a Department requirement.

11. Through analysis provided in change authorization No. 76M-30050455, the Department finds the historic consumptive use 144.89 AF will not change due to the fact this change authorization is to add five points of diversion with no additional diverted volume or flow rate required. Consumptive use calculated per the previous change application for the 106.7 acres is 135.1 AF. The Department hydrologist (Folnagy) used the Alluvial Water Accounting System (AWAS) software to model monthly net depletions to the Clark Fork River. The consumption was evenly distributed to ten wells versus the five existing wells. This analysis showed that adding the five proposed new wells resulted in a negative (increased depletion) change in monthly stream

¹ A historic use analysis for Change Authorization 76M 30050455 was not done because that change has not yet been perfected, ARM 36.12.1902(1)(a).

depletion in five months as shown in Table 1 below, with the annual depletion amount unchanged. According to USGS records at gauging station No. 12340500, located at the western edge of the place of use, there is sufficient water physically available in the Clark Fork River to meet existing demands in the vicinity of the project location, including months when depletion increases; thus, the change will not adversely affect other Clark Fork River surface water right users in the area: See Groundwater Change Report in File from Department Hydrogeologist Attila Fohnagy dated November 16, 2018.

Table 1: Total consumption and net depletion from existing wells and proposed wells for Canyon River Development change application # 76M 30114586.

Month	New Consumption (AF)	Historic Consumption (AF)	Historic Depletion to Clark Fork (AF)	New Depletion to Clark Fork River (AF)	Difference in Depletion to Clark Fork River (AF)
January	0.00	0.00	1.20	1.20	0.00
February	0.00	0.00	1.02	1.03	-0.01
March	0.00	0.00	0.90	0.91	-0.01
April	0.00	0.00	0.81	0.81	0.00
May	19.19	19.19	14.65	14.73	-0.08
June	30.94	30.94	26.58	26.59	-0.01
July	45.00	45.00	38.35	38.35	0.00
August	39.96	39.96	37.14	37.17	-0.03
September	0.00	0.00	8.20	8.06	0.14
October	0.00	0.00	2.88	2.88	0.00
November	0.00	0.00	1.91	1.91	0.00
December	0.00	0.00	1.46	1.46	0.00
Total	135.10	135.10	135.10	135.10	0.00

12. Modeled drawdown in existing groundwater rights with wells completed in the Hellgate Valley Aquifer is compared to modeled drawdown from pumping the proposed and existing wells versus only the existing wells to determine whether any additional water rights will be impacted. The drawdown in existing groundwater rights with wells is evaluated using the Theis (1935) solution with the following inputs: $T = 55,400 \text{ ft}^2/\text{day}$, S_y of 0.1, and a monthly pumping schedule (Table 2). The monthly pumping schedule is based on the Applicant's Exhibit GW9 A-C in change application # 76M 30114584 but was increased by the Department to correct for

the incorrect diverted volume cited by the Applicant for Statement of Claim no. 76M-149703-00. The five proposed wells and five existing wells were each modeled using 1/10th the pumping schedule in Table 2 and at their respective locations. The predicted maximum aquifer drawdown projected after five years of pumping is 0.55 feet based on the pumping schedule in Table 2. There are no water rights in the source aquifer that are predicted to experience drawdown greater than 1 foot by adding the five proposed wells.

13. **Table 2:** Monthly pumping schedule equivalent to the total volume for the proposed wells and existing wells.

Month	IWR (in) - Missoula 2NE	Diversion (AF)	Diversion (gpm)
January	0.00	0.0	0.0
February	0.00	0.0	0.0
March	0.00	0.0	0.0
April	0.45	0.0	0.0
May	2.32	13.7	150.2
June	3.74	35.7	250.2
July	5.44	51.9	352.2
August	4.83	43.7	312.7
September	2.49	0.0	0.0
October	0.25	0.0	0.0
November	0.00	0.0	0.0
December	0.00	0.0	0.0
Total	19.52	144.9	

14. After five years of pumping at an assumed monthly pumping schedule equivalent to the previously authorized diverted volume of 144.39 AF, the model predicted that drawdown in excess of 1 foot would not occur in any wells.

15. The plan of operation is to divert water at a rate of 500 GPM at variable watering lengths and times throughout the period of use; however, the Applicant will be able to modify both the rate and duration of diversion through computerized controls, including ceasing irrigation entirely, in order to accommodate senior water rights holders if a call is made.

BENEFICIAL USE

FINDINGS OF FACT

16. Applicant proposes to permanently change the points of diversion for Statement of Claim No. 76M-149703-00 for 500 GPM up to 144.39 AF. The flow rate and maximum diverted volume will not change and are within Irrigation Water Requirement ranges for the stated purpose of lawn and garden throughout the period of use, May 1st through August 31st.

17. This Application is associated with permit application no. 76M-30114584 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.

18. During the period of May 1 to August 31 the flow rate diverted from the ten wells will not increase nor will there be an 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.

19. The Department finds that irrigation of lawn and garden is a beneficial use under § 85.2.102(4)(a), MCA. The combined flow rate of 500 GPM and diverted volume of 144.39 AF are reasonable for the intended beneficial use.

ADEQUATE DIVERSION

FINDINGS OF FACT

20. The proposed means of diversion are ten wells with pumps manifold 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. This 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 proposed five new wells, two are drilled but not connected to the system yet, and the remaining three will be constructed similar to the existing wells.

21. 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 continue to operate at the authorized 500 GPM flow rate provided by Statement of Claim 76H-149703-00. This Change Application is associated with pending permit application, 76M-30114584, which proposes to increase the flow rate and volume of the existing system. The permit would allow pumping to 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 will irrigate domestic lawn and garden on 106.7 acres. 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.

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

22. The distribution system currently consists of five systems or zones, and at full build out, with the five additional wells, 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.

23. The proposed five wells will be constructed similar to the five existing wells and will be phased into the existing irrigation system as the subdivision is built out.

POSSESSORY INTEREST

FINDINGS OF FACT

24. The Application was submitted by Canyon River Properties, LLC, which is responsible for operating the water supply system and providing irrigation water to both individual lots and common areas. 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.

CONCLUSIONS OF LAW

HISTORIC USE AND ADVERSE EFFECT

25. Montana's change statute codifies the fundamental principles of the Prior Appropriation Doctrine. Sections 85-2-401 and -402(1)(a), MCA, authorize changes to existing water rights, permits, and water reservations subject to the fundamental tenet of Montana water law that one may change only that to which he or she has the right based upon beneficial use. A change to an existing water right may not expand the consumptive use of the underlying right or remove the well-established limit of the appropriator's right to water actually taken and beneficially used. An increase in consumptive use constitutes a new appropriation and is subject to the new water use permit requirements of the MWUA. McDonald v. State, 220 Mont. 519, 530, 722 P.2d 598, 605 (1986)(beneficial use constitutes the basis, measure, and limit of a water right); Featherman v.

Hennessy, 43 Mont. 310, 316-17, 115 P. 983, 986 (1911)(increased consumption associated with expanded use of underlying right amounted to new appropriation rather than change in use); Quigley v. McIntosh, 110 Mont. 495, 103 P.2d 1067, 1072-74 (1940)(appropriator may not expand a water right through the guise of a change – expanded use constitutes a new use with a new priority date junior to intervening water uses); Allen v. Petrick, 69 Mont. 373, 222 P. 451(1924)(“quantity of water which may be claimed lawfully under a prior appropriation is limited to that quantity within the amount claimed which the appropriator has needed, and which within a reasonable time he has actually and economically applied to a beneficial use. . . . it may be said that the principle of beneficial use is the one of paramount importance . . . The appropriator does not own the water. He has a right of ownership in its use only”); Town of Manhattan, at ¶ 10 (an appropriator’s right only attaches to the amount of water actually taken and beneficially applied); Town of Manhattan v. DNRC, Cause No. DV-09-872C, Montana Eighteenth Judicial District Court, *Order Re Petition for Judicial Review*, Pg. 9 (2011)(the rule that one may change only that to which it has a right is a fundamental tenet of Montana water law and imperative to MWUA change provisions); In the Matter of Application to Change a Water Right No. 411 30002512 by Brewer Land Co, LLC, DNRC Proposal For Decision and Final Order (2004).²

26. Sections 85-2-401(1) and -402(2)(a), MCA, codify the prior appropriation principles that Montana appropriators have a vested right to maintain surface and ground water conditions substantially as they existed at the time of their appropriation; subsequent appropriators may insist that prior appropriators confine their use to what was actually appropriated or necessary for their originally intended purpose of use; and, an appropriator may not change or alter its use in a manner that adversely affects another water user. Spokane Ranch & Water Co. v. Beatty, 37 Mont. 342, 96 P. 727, 731 (1908); Quigley, 110 Mont. at 505-11, 103 P.2d at 1072-74; Matter of Royston, 249 Mont. at 429, 816 P.2d at 1057; Hohenlohe, at ¶¶43-45.³

² DNRC decisions are available at:

http://www.dnrc.mt.gov/wrd/water_rts/hearing_info/hearing_orders/hearingorders.asp

³ See also Holmstrom Land Co., Inc., v. Newlan Creek Water District, 185 Mont. 409, 605 P.2d 1060 (1979); Lokowich v. Helena, 46 Mont. 575, 129 P. 1063(1913); Thompson v. Harvey, 164 Mont. 133, 519 P.2d 963 (1974)(plaintiff could not change his diversion to a point upstream of the defendants because of the injury resulting to the defendants); McIntosh v. Graveley, 159 Mont. 72, 495 P.2d 186 (1972)(appropriator was entitled to move his point of diversion downstream, so long as he installed measuring devices to ensure that he took no more than would have been available at his original point of diversion); Head v. Hale, 38 Mont. 302, 100 P. 222 (1909)(successors of the appropriator of water appropriated for placer mining purposes cannot so change its use as to deprive lower appropriators of their rights, already acquired, in the use of it for irrigating purposes); and, Gassert v. Noyes, 18 Mont. 216, 44 P. 959(1896)(change in place of use was unlawful where reduced the amount of water in the source of supply available which was subject to plaintiff’s subsequent right).

27. The cornerstone of evaluating potential adverse effect to other appropriators is the determination of the “historic use” of the water right being changed. Town of Manhattan, at ¶10 (recognizing that the Department’s obligation to ensure that change will not adversely affect other water rights requires analysis of the actual historic amount, pattern, and means of water use). A change applicant must prove the extent and pattern of use for the underlying right proposed for change through evidence of the historic diverted amount, consumed amount, place of use, pattern of use, and return flow because a statement of claim, permit, or decree may not include the beneficial use information necessary to evaluate the amount of water available for change or potential for adverse effect.⁴ A comparative analysis of the historic use of the water right to the proposed change in use is necessary to prove the change will not result in expansion of the original right, or adversely affect water users who are entitled to rely upon maintenance of conditions on the source of supply for their water rights. Quigley, 103 P.2d at 1072-75 (it is necessary to ascertain historic use of a decreed water right to determine whether a change in use expands the underlying right to the detriment of other water user because a decree only provides a limited description of the right); Royston, 249 Mont. at 431-32, 816 P.2d at 1059-60 (record could not sustain a conclusion of no adverse effect because the applicant failed to provide the Department with evidence of the historic diverted volume, consumption, and return flow); Hohenlohe, at ¶44-45; Town of Manhattan v. DNRC, Cause No. DV-09-872C, Montana Eighteenth Judicial District Court, *Order Re Petition for Judicial Review*, Pgs. 11-12 (proof of historic use is required even when the right has been decreed because the decreed flow rate or volume establishes the maximum appropriation that may be diverted, and may exceed the historical pattern of use, amount diverted or amount consumed through actual use); Matter of Application For Beneficial Water Use Permit By City of Bozeman, *Memorandum*, Pgs. 8-22 (Adopted by DNRC *Final Order* January 9,1985)(evidence of historic use must be compared to the proposed change in use to give effect to the implied limitations read into every decreed right that an appropriator has no right to expand his appropriation or change his use to the detriment of juniors).⁵

⁴A claim only constitutes *prima facie* evidence for the purposes of the adjudication under § 85-2-221, MCA. The claim does not constitute *prima facie* evidence of historical use in a change proceeding under §85-2-402, MCA. For example, most water rights decreed for irrigation are not decreed with a volume and provide limited evidence of actual historic beneficial use. §85-2-234, MCA

⁵ Other western states likewise rely upon the doctrine of historic use as a critical component in evaluating changes in appropriation rights for expansion and adverse effect: Pueblo West Metropolitan District v. Southeastern Colorado Water Conservancy District, 717 P.2d 955, 959 (Colo. 1986)(“[O]nce an appropriator exercises his or her privilege to change a water right ... the appropriator runs a real risk of requantification of the water right based on

28. An applicant must also analyze the extent to which a proposed change may alter historic return flows for purposes of establishing that the proposed change will not result in adverse effect. The requisite return flow analysis reflects the fundamental tenant of Montana water law that once water leaves the control of the original appropriator, the original appropriator has no right to its use and the water is subject to appropriation by others. E.g., Hohenlohe, at ¶144; Rock Creek Ditch & Flume Co. v. Miller, 93 Mont. 248, 17 P.2d 1074, 1077 (1933); Newton v. Weiler, 87 Mont. 164, 286 P. 133(1930); Popham v. Holloron, 84 Mont. 442, 275 P. 1099, 1102 (1929); Galiger v. McNulty, 80 Mont. 339, 260 P. 401 (1927); Head v. Hale, 38 Mont. 302, 100 P. 222 (1909); Spokane Ranch & Water Co., 37 Mont. at 351-52, 96 P. at 731; Hidden Hollow Ranch v. Fields, 2004 MT 153, 321 Mont. 505, 92 P.3d 1185; In the Matter of Application for Change Authorization No. G (W)028708-411 by Hedrich/Straugh/Ringer, DNRC Final Order (Dec. 13, 1991); In the Matter of Application for Change Authorization No. G(W)008323-G76l By Starkel/Koester, DNRC Final Order (Apr. 1, 1992); In the Matter of Application to Change a Water Right No. 411 30002512 by Brewer Land Co, LLC, DNRC Proposal For Decision and Final Order (2004); Admin. R.M. 36.12.101(56)(Return flow - that part of a diverted flow which is not consumed by the appropriator and returns underground to its original source or another source of water - is not part of a water right and is subject to appropriation by subsequent water users).⁶

actual historical consumptive use. In such a change proceeding a junior water right ... which had been strictly administered throughout its existence would, in all probability, be reduced to a lesser quantity because of the relatively limited actual historic use of the right.”); Santa Fe Trail Ranches Property Owners Ass'n v. Simpson, 990 P.2d 46, 55 -57 (Colo.,1999); Farmers Reservoir and Irr. Co. v. City of Golden, 44 P.3d 241, 245 (Colo. 2002)(“We [Colorado Supreme Court] have stated time and again that the need for security and predictability in the prior appropriation system dictates that holders of vested water rights are entitled to the continuation of stream conditions as they existed at the time they first made their appropriation); Application for Water Rights in Rio Grande County, 53 P.3d 1165, 1170 (Colo. 2002); Wyo. Stat. § 41-3-104 (When an owner of a water right wishes to change a water right ... he shall file a petition requesting permission to make such a change The change ... may be allowed provided that the quantity of water transferred ... shall not exceed the amount of water historically diverted under the existing use, nor increase the historic rate of diversion under the existing use, nor increase the historic amount consumptively used under the existing use, nor decrease the historic amount of return flow, nor in any manner injure other existing lawful appropriators.); Basin Elec. Power Co-op. v. State Bd. of Control, 578 P.2d 557, 564 -566 (Wyo,1978) (a water right holder may not effect a change of use transferring more water than he had historically consumptively used; regardless of the lack of injury to other appropriators, the amount of water historically diverted under the existing use, the historic rate of diversion under the existing use, the historic amount consumptively used under the existing use, and the historic amount of return flow must be considered.)

⁶ The Montana Supreme Court recently recognized the fundamental nature of return flows to Montana’s water sources in addressing whether the Mitchell Slough was a perennial flowing stream, given the large amount of irrigation return flow which feeds the stream. The Court acknowledged that the Mitchell’s flows are fed by irrigation return flows available for appropriation. Bitterroot River Protective Ass'n, Inc. v. Bitterroot Conservation Dist. 2008 MT 377, ¶¶ 22, 31, 43, 346 Mont. 508, ¶¶ 22, 31,43, 198 P.3d 219, ¶¶ 22, 31,43(citing Hidden Hollow Ranch v. Fields, 2004 MT 153, 321 Mont. 505, 92 P.3d 1185).

29. Although the level of analysis may vary, analysis of the extent to which a proposed change may alter the amount, location, or timing return flows is critical in order to prove that the proposed change will not adversely affect other appropriators who rely on those return flows as part of the source of supply for their water rights. Royston, 249 Mont. at 431, 816 P.2d at 1059-60; Hohenlohe, at ¶¶ 45-6 and 55-6; Spokane Ranch & Water Co., 37 Mont. at 351-52, 96 P. at 731. Noted Montana Water Law scholar Al Stone explained that the water right holder who seeks to change a water right is unlikely to receive the full amount claimed or historically used at the original place of use due to reliance upon return flows by other water users. Montana Water Law, Albert W. Stone, Pgs. 112-17 (State Bar of Montana 1994).

30. In Royston, the Montana Supreme Court confirmed that an applicant is required to prove lack of adverse effect through comparison of the proposed change to the historic use, historic consumption, and historic return flows of the original right. 249 Mont. at 431, 816 P.2d at 1059-60. More recently, the Montana Supreme Court explained the relationship between the fundamental principles of historic beneficial use, return flow, and the rights of subsequent appropriators as they relate to the adverse effect analysis in a change proceeding in the following manner:

The question of adverse effect under §§ 85-2-402(2) and -408(3), MCA, implicates return flows. A change in the amount of return flow, or to the hydrogeologic pattern of return flow, has the potential to affect adversely downstream water rights. There consequently exists an inextricable link between the “amount historically consumed” and the water that re-enters the stream as return flow. . . .

An appropriator historically has been entitled to the greatest quantity of water he can put to use. The requirement that the use be both beneficial and reasonable, however, proscribes this tenet. This limitation springs from a fundamental tenet of western water law—that an appropriator has a right only to that amount of water historically put to beneficial use—developed in concert with the rationale that each subsequent appropriator “is entitled to have the water flow in the same manner as when he located,” and the appropriator may insist that prior appropriators do not affect adversely his rights.

This fundamental rule of Montana water law has dictated the Department’s determinations in numerous prior change proceedings. The Department claims that historic consumptive use, as quantified in part by return flow analysis, represents a key element of proving historic beneficial use.

We do not dispute this interrelationship between historic consumptive use, return flow, and the amount of water to which an appropriator is entitled as limited by his past beneficial use.

Hohenlohe, at ¶¶ 42-45 (internal citations omitted).

31. The Department's rules reflect the above fundamental principles of Montana water law and are designed to itemize the type evidence and analysis required for an applicant to meet its burden of proof. Admin.R.M. 36.12.1901 through 1903. These rules forth specific evidence and analysis required to establish the parameters of historic use of the water right being changed. Admin.R.M. 36.12.1901 and 1902. The rules also outline the analysis required to establish a lack of adverse effect based upon a comparison of historic use of the water rights being changed to the proposed use under the changed conditions along with evaluation of the potential impacts of the change on other water users caused by changes in the amount, timing, or location of historic diversions and return flows. Admin.R.M. 36.12.1901 and 1903.

32. Applicant seeks to change existing water rights represented by its Water Right Claims. The "existing water rights" in this case are those as they existed prior to July 1, 1973, because with limited exception, no changes could have been made to those rights after that date without the Department's approval. Analysis of adverse effect in a change to an "existing water right" requires evaluation of what the water right looked like and how it was exercised prior to July 1, 1973. In McDonald v. State, the Montana Supreme Court explained:

The foregoing cases and many others serve to illustrate that what is preserved to owners of appropriated or decreed water rights by the provision of the 1972 Constitution is what the law has always contemplated in this state as the extent of a water right: such amount of water as, by pattern of use and means of use, the owners or their predecessors put to beneficial use. . . . the Water Use Act contemplates that all water rights, regardless of prior statements or claims as to amount, must nevertheless, to be recognized, pass the test of historical, unabandoned beneficial use. . . . To that extent only the 1972 constitutional recognition of water rights is effective and will be sustained.

220 Mont. at 529, 722 P.2d at 604; see also Matter of Clark Fork River Drainage Area, 254 Mont. 11, 17, 833 P.2d 1120 (1992).

33. Water Resources Surveys were authorized by the 1939 legislature. 1939 Mont. Laws Ch. 185, § 5. Since their completion, Water Resources Surveys have been invaluable evidence in water right disputes and have long been relied on by Montana courts. In re Adjudication of Existing Rights to Use of All Water in North End Subbasin of Bitterroot River Drainage Area in Ravalli and Missoula Counties, 295 Mont. 447, 453, 984 P.2d 151, 155 (1999)(Water Resources Survey used as evidence in adjudicating of water rights); Wareing v. Schreckendgust, 280 Mont. 196, 213, 930 P.2d 37, 47 (1996)(Water Resources Survey used as evidence in a prescriptive

ditch easement case); Olsen v. McQueary, 212 Mont. 173, 180, 687 P.2d 712, 716 (1984) (judicial notice taken of Water Resources Survey in water right dispute concerning branches of a creek).

34. While evidence may be provided that a particular parcel was irrigated, the actual amount of water historically diverted and consumed is critical. E.g., In the Matter of Application to Change Water Right No. 41H 1223599 by MGRR #1, LLC., DNRC Proposal for Decision adopted by Final Order (2005). The Department cannot assume that a parcel received the full duty of water or that it received sufficient water to constitute full service irrigation for optimum plant growth. Even when it seems clear that no other rights could be affected solely by a particular change in the location of diversion, it is essential that the change also not enlarge an existing right. See MacDonald, 220 Mont. at 529, 722 P.2d at 604; Featherman, 43 Mont. at 316-17, 115 P. at 986; Trail's End Ranch, L.L.C. v. Colorado Div. of Water Resources 91 P.3d 1058, 1063 (Colo., 2004).

35. The Department has adopted a rule providing for the calculation of historic consumptive use where the applicant proves by a preponderance of the evidence that the acreage was historically irrigated. Admin. R. M. 36.12.1902 (16). In the alternative an applicant may present its own evidence of historic beneficial use. In this case Applicant has not elected to proceed under Admin. R.M. 36.12.1902. (FOF No.8).

36. If an applicant seeks more than the historic consumptive use as calculated by Admin.R.M .36.12.1902 (16), the applicant bears the burden of proof to demonstrate the amount of historic consumptive use by a preponderance of the evidence. The actual historic use of water could be less than the optimum utilization represented by the calculated duty of water in any particular case. E.g., Application for Water Rights in Rio Grande County 53 P.3d 1165 (Colo., 2002) (historical use must be quantified to ensure no enlargement); In the Matter of Application to Change Water Right No. 41H 1223599 by MGRR #1, LLC., supra; Orr v. Arapahoe Water and Sanitation Dist. 753 P.2d 1217, 1223 -1224 (Colo., 1988)(historical use of a water right could very well be less than the duty of water); Weibert v. Rothe Bros., Inc., 200 Colo. 310, 317, 618 P.2d 1367, 1371 - 1372 (Colo. 1980) (historical use could be less than the optimum utilization "duty of water").

37. Based upon the Applicant's evidence of historic use, the Applicant has proven by a preponderance of the evidence the historic use of Water Right Claim No. 76M-149703-00 of 240.85 AF diverted volume and 500 GPM flow rate with a consumptive use of 144.89 acre-feet.

38. Based upon the Applicant's evidence of historic use⁷, the Applicant has proven by a preponderance of the evidence the authorized use of Change Authorization No. 76M-30050455 of 144.39 AF diverted volume and 500 GPM flow rate with a consumptive use of 135.08 acre-feet. (FOF Nos. 7—9)

39. Based upon the Applicant's comparative analysis of historic water use and return flows to water use and return flows under the proposed change, the Applicant has proven that the proposed change in appropriation right will not adversely affect the use of the existing water rights of other persons or other perfected or planned uses or developments for which a permit or certificate has been issued or for which a state water reservation has been issued. §85-2-402(2)(b), MCA. (FOF Nos. 10—15)

BENEFICIAL USE

40. A change applicant must prove by a preponderance of the evidence the proposed use is a beneficial use. §§85-2-102(4) and -402(2)(c), MCA. Beneficial use is and has always been the hallmark of a valid Montana water right: "[T]he amount actually needed for beneficial use within the appropriation will be the basis, measure, and the limit of all water rights in Montana . . ." McDonald, 220 Mont. at 532, 722 P.2d at 606. The analysis of the beneficial use criterion is the same for change authorizations under §85-2-402, MCA, and new beneficial permits under §85-2-311, MCA. Admin.R.M. 36.12.1801. The amount of water that may be authorized for change 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 (2003) (*affirmed on other grounds*, 2005 MT 60, 326 Mont. 241, 108 P.3d 518); Worden v. Alexander, 108 Mont. 208, 90 P.2d 160 (1939); Allen v. Petrick, 69 Mont. 373, 222 P. 451(1924); Sitz Ranch v. DNRC, DV-10-13390, Montana Fifth Judicial District Court, *Order Affirming DNRC Decision*, Pg. 3 (2011)(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); Toohey v. Campbell, 24 Mont. 13, 60 P. 396 (1900)("The policy of the law is to prevent a person from acquiring exclusive control of a stream, or any part

⁷ A historic use analysis for Change Authorization 76M 30050455 was not done because that change has not yet been perfected, ARM 36.12.1902(1)(a).

thereof, not for present and actual beneficial use, but for mere future speculative profit or advantage, without regard to existing or contemplated beneficial uses. He is restricted in the amount that he can appropriate to the quantity needed for such beneficial purposes.”); §85-2-312(1)(a), MCA (DNRC is statutorily prohibited from issuing a permit for more water than can be beneficially used).

41. Applicant proposes to use water for domestic lawn and garden which is a recognized beneficial use. §85-2-102(4), MCA. Applicant has proven by a preponderance of the evidence lawn and garden irrigation of 106.7 acres is a beneficial use and that 144.39 acre-feet of diverted volume, 135.08 acre-feet of consumptive use with a combined flow rate of 500 GPM is the amount needed to sustain the beneficial use (FOF Nos. 16—19)

ADEQUATE MEANS OF DIVERSION

42. Pursuant to §85-2-402 (2)(b), MCA, the Applicant must prove by a preponderance of the evidence that the proposed means of diversion, construction, and operation of the appropriation works are adequate. This codifies the prior appropriation principle that the means of diversion must be reasonably effective for the contemplated use and may not result in a waste of the resource. Crowley v. 6th Judicial District Court, 108 Mont. 89, 88 P.2d 23 (1939); In the Matter of Application for Beneficial Water Use Permit No. 41C-11339900 by Three Creeks Ranch of Wyoming LLC (DNRC Final Order 2002)(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).

43. Pursuant to §85-2-402 (2)(b), MCA, 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. (FOF Nos. 20—23)

POSSESSORY INTEREST

44. Pursuant to §85-2-402(2)(d), MCA, the 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. See also Admin.R.M. 36.12.1802

45. 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. (FOF Nos. 24)

PRELIMINARY DETERMINATION

Subject to the terms and analysis in this Preliminary Determination Order, the Department preliminarily determines that this Application to Change Water Right No. 76M-30114586 should be **GRANTED** subject to the following.

Applicant may permanently change the points of diversion for Statement of Claim No. 76M-149703-00 from five groundwater wells to a total of ten wells located in Section 18 and 19, T13N, R18W, Missoula County. The existing and proposed points of diversion are listed in the table below:

Well #	Qtr Sec	Section	Twp	Rge
2	SESESW	18	13N	18W
7	SENENW	19	13N	18W
3	SESESE	18	13N	18W
1	NWSESW	18	13N	18W
5	SWNESW	18	13N	18W
4	NWSWSE	18	13N	18W
12	SWNESW	18	13N	18W
6	SENWNW	19	13N	18W
10	NWNWNE	19	13N	18W
11	NESWNW	19	13N	18W

Applicant may pump 500 GPM up to 144.39 AF of diverted volume from May 1st through August 31st. The 106.7-acres of multi-domestic lawn and garden irrigation is located within Sections 17, 18, and 19, T13N, R18W, Missoula County. The Applicant is subject to any and all conditions, limitations or restrictions listed in Change Authorization 76M-30050455.

The change authorization will be subject to the following condition.

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 APPLICATION TO CHANGE A WATER RIGHT 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.

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 a valid objection, it will proceed to a contested case proceeding pursuant to Title 2 Chapter 4 Part 6, MCA, and §85-2-309, 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(s) and the valid objection(s) are conditionally withdrawn, the Department will consider the proposed condition(s) and grant the Application with such conditions as the Department decides necessary to satisfy the applicable criteria. E.g., §§85-2-310, -312, MCA.

DATED this 4th day of February 2020.

/Original signed by Jim Nave/
Jim Nave, 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 5th day of February 2020, by first class United States mail.

CANYON RIVER PROPERTIES, LLC
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MISSOULA, MT 59801

WATER & ENVIRONMENTAL TECHNOLOGIES
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