

- Aerial photograph of Harvey Creek Ranch place of use dated August 12, 1956
- USDA aerial photograph of Harvey Creek Ranch place of use dated August 29, 1979
- General maps of proposed post-change place of use and pump locations (undated)
- Maps of Watson Irrigation System Specifications, dated June 4, 2015
- NRCS Web Soil Service Soil Maps
- Montana Department of Fish, Wildlife, and Parks (FWP) report: *An Assessment of Fish Populations and Riparian Habitat in Tributaries of the Upper Clark Fork Basin: Phase II*, dated March 2009
- Montana FWP & Montana Natural Resource Damage Program joint report: *Prioritization of Tributaries in the Upper Clark Fork Basin for Fishery Enhancement*, dated May 2010
- Harvey Creek daily mean discharge measurements, below & above diversions (2013-2015)
- Construction Drawings for Harvey Creek Fish Screen, dated December 2013

Information Received after Applications Filed

- Response to Department Deficiency Letter from Applicant, received August 27, 2018
- Map of post-change flow monitoring sites
- Map of acres to be permanently retired for proposed pond
- Waiver of 120 Days Statutory Timeline for Preliminary Determination (Form 639), received May 23, 2019
- Report from Barry Dutton amending temporary irrigation volumes, received June 14, 2019
- Verified Motion to Amend Water Right Claim No. 76G 126272-00, signed by the Applicant on December 16, 2019
- Clarification of post-change irrigated acres in the West Bench portion of the place of use, received February 24, 2020
- Revised Salvage Water Reports, received March 11, 2020
- Amendment to instream flow rates, periods of use, and monitoring schedules, received March 13, 2020

Information within the Department's Possession/Knowledge

- 1959 Granite County Water Resources Survey, maps, field notes, and 7/24/1953 aerial photo
- Water Right Claim File Nos. 76G 108706-00, 76G 108708-00, 76G 126271-00, and 76G 126272-00, and related change applications
- Revised DNRC Irrigation Change Application Technical Report, dated May 20, 2020
- Revised DNRC groundwater hydrology return flow report, dated March 20, 2020
- Montana Cadastral parcel and property information

- USGS Stream Gage 12331800 Clark Fork near Drummond data
- Harvey Creek and Clark Fork River surface water rights information
- DNRC Environmental Assessment, dated June 19, 2020

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.

- DNRC Pond and Wetland Evaporation Technical Memo, dated March 14, 2018
- DNRC Return Flow Policy Memo, dated April 1, 2016
- DNRC Change in Irrigation Method Policy Memo, dated December 2, 2015
- DNRC Consumptive Use and Irrecoverable Loss Memo, dated April 15, 2013
- DNRC Historic Diverted Volume Standard Methods Memo, dated September 13, 2012
- DNRC Salvage Water Memo, dated September 2011
- DNRC Consumptive Use Methodology Policy Memo, dated March 17, 2010

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. Statement of Claim No. 76G 126272-00 is proposed to be changed in this application. This claim is based on an October 25th, 1886 Notice of Appropriation made by Andrew Whitesides and Frank Throop and was included in the Temporary Preliminary Decree issued for Basin 76G on May 17, 1985. This claim lists a flow rate of 1.93 cubic feet per second (CFS) and a maximum volume of 433.5 acre-feet (AF) that may be diverted from Harvey Creek, tributary to the Clark Fork River in Granite County, for the purpose of flood irrigation. The period of use for this claim spans April 1 to November 4. Historically, flood irrigation using this right began as early as early May and continued until late August or early September with water diverted from Harvey Creek out of the claimed point of diversion located in the SWSWSE of Section 20, T11N R14W. Water was then conveyed through the West Bench Ditch to irrigate the place of use known as the West Bench for grass hay.
2. The Applicant submitted a Verified Motion to Amend Claim 76G 126272-00 to the Montana Water Court, signed and submitted on December 16, 2019. This motion was submitted to amend and correct the place of use of this claim in order to make it identical to supplemental Claim 76G 126271-00, more accurately reflecting how this water right was historically used. The place of use was amended by the Water Court on March 4, 2020 and its elements are reflected in Table 1:

Table 1. Elements of Claim 76G 126272-00:

Purpose	Flow Rate	Volume	Period of Use	Point of Diversion	Place of Use	Priority Date	Acres
Irrigation	1.93	433.5	4/1 to 11/4	SWSWSE, S. 20, T11N R14W	SENE, S2NENE, NENENE S. 20; NWNWNW S. 21; SWSW S. 16, T11N R14W	5/1/1886	51

3. Statement of Claim Nos. 76G 108706-00, 76G 108708-00, 76G 126271-00, and 76G 133151-00 have places of use that overlap with the places of use listed on the general abstract for the claim proposed for change. These claims along with Claim 76G 126272-00 are part of the larger restoration project compelling this change application and are themselves being changed in separate applications. The Department has determined that while the claim lists overlapping places of use with Claim 76G 126272-00 and the claims listed above, the West Bench Ditch was only able to irrigate the West Bench portion of the place of use listed on this claim and Claim 76G 126271-00, which was not irrigated using the other supplemental claims listed in Table 2 below.

Table 2. Elements of supplemental Claims 76G 126271-00, 76G 108706-00, 76G 108708-00, and 76G 133151-00:

Water Right	Purpose	Flow Rate (CFS)	Volume (AF)	Period of Use	Point of Diversion	Place of Use	Priority Date	Acres
76G 108708-00	Irrigation	8.72	1,955	5/1 to 11/4	SESWNW, S. 29, T11N R14W	S2S2S2 S. 16; N2 S. 21; E2 S. 20; N2 S. 29, T11N R14W	5/1/1886	220
					NENWSE, S. 20, T11N R14W			
					SWNWNW, S. 21, T11N R14W			
					NWNESE, S. 20, T11N R14W			
76G 108706-00	Irrigation	6.25	1,870	5/1 to 11/4	SESWNW, S. 29, T11N R14W	S2S2S2 S. 16; N2 S. 21; E2 S. 20; N2 S. 29, T11N R14W	5/29/1896	220
					NENWSE, S. 20, T11N R14W			
					SWNWNW, S. 21, T11N R14W			
					NWNESE, S. 20, T11N R14W			
76G 126271-00	Irrigation	0.85 CFS	132 AF	4/1 – 11/4	SWSWSE, S. 20, T11N R14W	SENE S. 20, NENE S. 20, NWNWNW S. 21, SWSW S. 16, T11N R14W	5/29/1896	51
76G 133151-00	Irrigation	1.93	433.5	4/1 to 11/4	SESWSW S. 16, T11N R14W	E2NE, S. 20; NWNWNW S. 21; SWSW S. 16, T11N R14W	12/31/1886	51

4. Statement of Claim 76G 108705-00 claims 0.03 CFS out of Harvey Creek for the irrigation of 10 acres in the E2SESE of Section 30, T11N R14W, and is owned by Harvey Creek Ranch, LLC. The decreed point of diversion for this water right is located in the SESESE of Section 30. The Applicant asserts that physical examination and review of aerial photos of the place of use did not find clear evidence of historical use of this claim. For this reason, the Applicant did not

submit an Application to Change a Water Right for this claim, and it will not be considered supplemental for the purposes of this Preliminary Determination as there is no evidence of historical use.

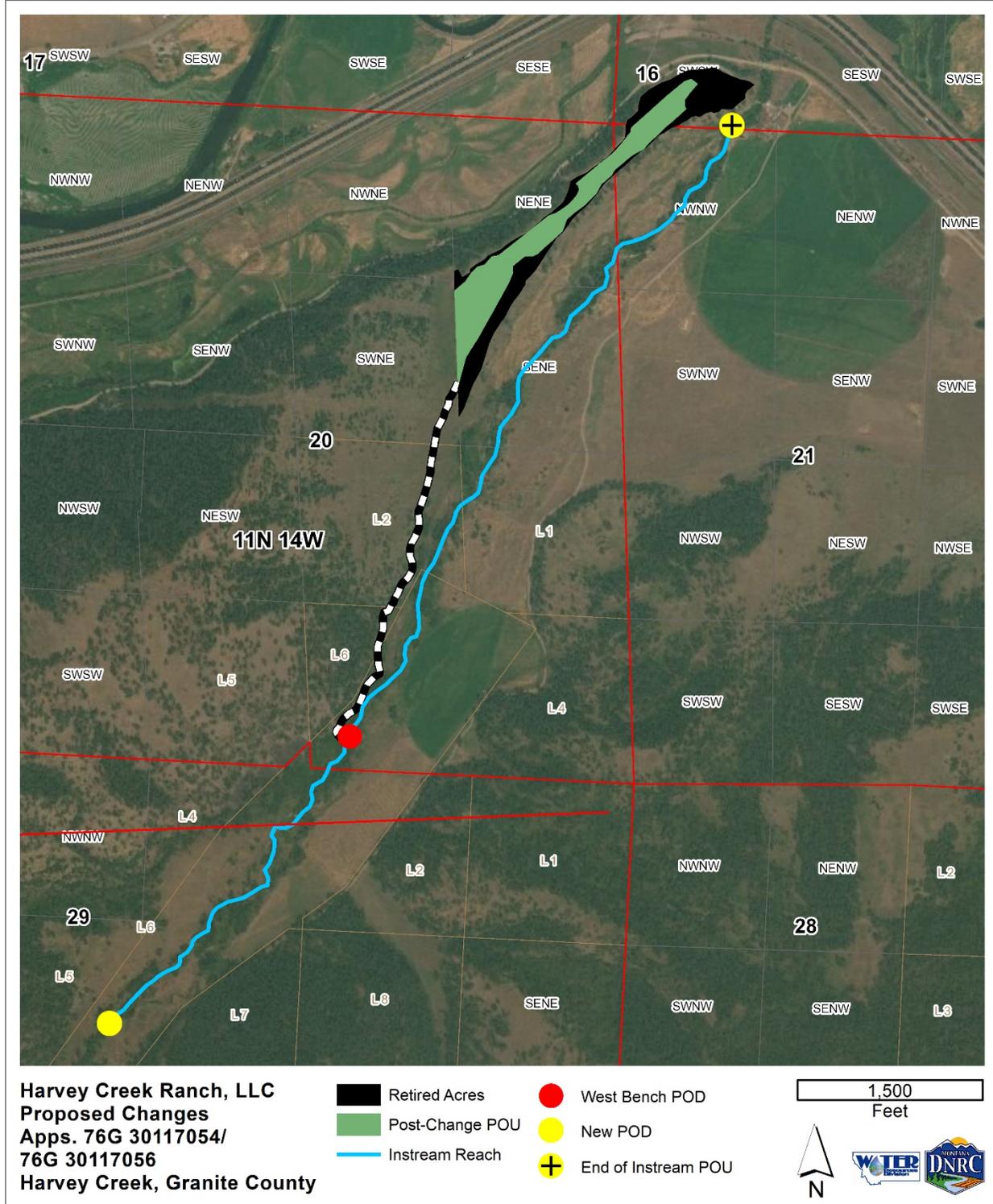
CHANGE PROPOSAL

FINDINGS OF FACT

5. The Applicant proposes to temporarily change the purpose and place of use of Statement of Claim No. 76G 126272-00 from irrigation to instream flow from June 15 to September 7 in Harvey Creek, tributary to the Clark Fork River in Granite County for a period of 20 years. Upon authorization of the temporary change, a portion of the historical place of use will be retired from irrigation, and water will be conveyed to the remaining 12.5-acre temporary irrigation place of use via a pipeline. The Applicant proposes to leave instream the water historically used to irrigate the acres that will be temporarily retired, as well as the water lost during conveyance through the historical ditch system and that is being salvaged as a result of pipeline installation. After June 15 and once streamflows in Harvey Creek fall to a trigger point of 4.98 CFS the Applicant will protect a flow rate of 1.55 CFS instream (3.1 AF/day) up to a volume of 153.8 AF (50.1 days) from the beginning to the end of the proposed instream reach. The instream place of use will extend from the new headgate to a point 0.35 miles above the confluence of Harvey Creek and the Clark Fork River and directly upstream of the point of diversion listed for Claim 76G 133151-00 in the SESWSW of Section 16, T11N R14W. Supplemental Claims 76G 126271-00, 76G 108706-00, and 76G 108708-00 are also being changed in separate temporary and permanent change applications and will be diverted through the same point of diversion and pipeline system as Claim 76G 126272-00. In total, 3.99 CFS will be diverted through the new headgate with these four claims. The maximum flow rate and volume that may be diverted through the headgate during the temporary change with Claims 76G 126272-00 (0.38 CFS up to 12.5 AF), 76G 126271-00 (0.42 CFS up to 25.2 AF), 76G 108706-00 (1.59 CFS up to 196.35 AF), and 76G 108708-00 (1.6 CFS up to 270.95 AF) are 3.99 CFS and 505 AF.

6. The Applicant also proposes to permanently replace the historical point of diversion for irrigation with the new pipeline and headgate located in the SESWNW of Section 29, T11N R14W. The proposed period of use for the irrigation purpose is April 20 to October 10. In the event the temporary change authorization is not renewed, the maximum flow rate and volume that will be diverted into the pipeline with Claim 76G 126272-00 is 0.38 CFS up to the historically diverted volume of 166.3 AF to irrigate the historical 22.8-acre place of use. The components being changed in the temporary and permanent changes are shown in Map 1.

Map 1. Irrigation elements of Claim 76G 126272-00 and supplemental Claim 76G 126271-00 proposed to be changed, including the retired West Bench Ditch, retired acres, temporary irrigation place of use, and instream reach:



CHANGE CRITERIA

7. 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.

8. In addition to the §85-2-402(2), MCA, an applicant for a temporary change authorization for instream flow must comply with the requirements and conditions set forth in §§ 85-2-407 and -408, MCA.

9. 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).

HISTORICAL USE

FINDINGS OF FACT

10. The Applicant provided an affidavit from Dan Ekstrom, who was involved with historical irrigation on the place of use. According to Mr. Ekstrom, irrigation began in early May and

continued until mid-September. The historical period of use for irrigation considered in the Department’s assessment of historical use is May 5 to September 15. The place of use located west of Harvey Creek known as the West Bench was irrigated to grow a mix of grass and alfalfa for haying which could usually occur twice in one season for seven to 10 days, during which irrigation would shut down. Water was diverted to the West Bench using a headgate located in the SWSWSE of Section 20 and conveyed along the West Bench Ditch. The Department considers a 121-day period of use for the Applicant’s place of use in its assessment of historical use, per the information provided in the application materials supporting this duration. While the historically irrigated acreage encompassing one of the Applicant’s places of use known as the West Meadow is partially listed on Claim 76G 126272-00 and supplemental Claim 76G 126271-00, the Department determines they were irrigated using an entirely different ditch system that is instead attributed to Claims 76G 108706-00 and 76G 108708-00, eliminating the supplemental relationship.

11. The Applicant provided four maps depicting different historical place of use extents on historical aerial photos dated 6/29/1948 and 8/12/1956, an aerial photo from 8/29/1979, and a modern aerial photo with an unknown date. The map depicting the historical place of use on the 1948 WRS aerial photo (DFH-15-91) most completely and clearly shows the historical place of use and irrigated acreage and is used in the Department’s historical use assessment. A total of 22.8 acres were found to have been historically irrigated within the West Bench place of use claimed by Claim 76G 126272-00 and supplemental Claim 76G 126271-00.

12. The historically consumed volume associated with irrigation of the West Bench was quantified per the methods outlined in ARM 36.12.1902(16) as elected by the Applicant. The 86.5% historical management factor for Granite County was applied to the Philipsburg Ranger weather station flood evapotranspiration water requirement of 12.9 inches, and respective historical irrecoverable loss and on-farm efficiency percentages of 5% and 25% for flood irrigation were considered (Table 3).

Table 3. Historically consumed volume (HCV) (West Bench):

Historically Irrigated Acres	HCV (Excluding IL)	On-Farm Efficiency	Field Application Volume	Historic Irrecoverable Losses (IL) Flood = 5%	HCV Including IL
22.8 acres	21.2 AF	25%	84.8 AF	4.2 AF	25.4 AF

13. Because both claims list identical points of diversion and places of use and are therefore considered fully supplemental, their individual portions of historical use volumes are proportioned using their claimed flow rates. The flow rates listed on Claim 76G 126272-00 (1.93 CFS) and supplemental Claim 76G 126271-00 (0.85 CFS) respectively account for 69% and 31% of their combined 2.78-CFS flow rate. With these percentages the Department proportionally attributes

31% of the 25.4-AF historically consumed volume, or 7.9 AF, to supplemental Claim 76G 126271-00, and the remaining 17.5 AF to Claim 76G 126272-00.

14. The Applicant submitted flow measurements collected in the West Bench Ditch showing a maximum capacity of 4.78 CFS; however, the sum of the flow rates listed on Claims 76G 126271-00 and 76G 126272-00 (2.78 CFS) is used to calculate historical conveyance losses in the ditch. As with the historically consumed volume and as the only two water rights historically conveyed through the West Bench Ditch, Claims 76G 126271-00 and 76G 126272-00 respectively account for 31% and 69% of the water lost during conveyance through this ditch. From the point of diversion to the location where the ditch arrives at the place of use, the length of the ditch is approximately 3,280 feet. According to the NRCS Web Soil Survey, soils below the flow level of the West Bench Ditch are primarily characterized as comprising well drained/very cobbly clay loam, and site slopes range from 0% to 4%. The volume of water historically lost during conveyance through the West Bench Ditch, as well as the variables used in the Department's calculations, are summarized in Table 4. The total 241-AF volume of water historically diverted through this ditch to irrigate the 22.8-acre historical place of use with both water rights is derived by adding the total conveyance loss volume (156.2 AF) to the total field application volume (84.8 AF), with supplemental Claim 76G 126271-00 and Claim 76G 126272-00 respectively accounting for 74.7 AF and 166.3 AF of total diversions, and 48.4 AF and 107.8 AF of conveyance losses. Table 5 summarizes the claimed flow rates, and the proportional historical volumes attributable to supplemental Claim 76G 126271-00 and Claim 76G 126272-00.

Table 4. Historical Seasonal Conveyance Loss for the West Bench Ditch (76G 126271-00 & 76G 126272-00):

^ASeepage Loss	Ditch Wetted Perimeter (ft)	Ditch Length (ft)	Ditch Loss Rate (ft ³ /ft ² /day)	Days Irrigated	Seepage Loss (AF)
	7.6	3,280	2.2	121	152.3
^BVegetation Loss	% Loss/Mile	Historic Flow Rate (CFS)	Days Irrigated	Ditch Length (mi)	Vegetation Loss (x2) (AF)
	0.0075	2.78	121	0.14	3.1
^CDitch Evaporation	Ditch Width (ft)	Ditch Length (ft)	Period Adjusted Evaporation Factor	Ditch Evaporation (AF)	Seasonal Conveyance Loss (AF) (A+B+C)
	5.8	3,280	1.93	0.8	156.2

Table 5. Claimed flow rates, and proportional historical consumed (HCV), field application (HFAV), conveyance loss (HCL), and diverted (HDV) volumes attributable to Claims 76G 126271-00 & 76G 126272-00:

Water Right	Flow Rate	HCV	HFAV	HCL	Total (HDV)
76G 126271-00	0.85 CFS	7.9 AF	26.3 AF	48.4 AF	74.7 AF
76G 126272-00	1.93 CFS	17.5 AF	58.5 AF	107.8 AF	166.3 AF
<i>Total</i>	<i>2.78 CFS</i>	<i>25.4 AF</i>	<i>84.8 AF</i>	<i>156.2 AF</i>	<i>241 AF</i>

15. Based on the information in FOF Nos. 10-14, the Department finds a historical consumed volume of 17.5 AF and a historical diverted volume of 166.3 AF for Claim 76G 126272-00.

ADVERSE EFFECT

FINDINGS OF FACT – Proposed Use

16. The Applicant proposes to temporarily retire 10.3 acres from irrigation and continue irrigating a maximum of 12.5 sprinkler-irrigated acres in the West Bench, including 2 acres in the NWNW of Section 21, 6.1 acres in the NENE and 2 acres in the SENE of Section 20, as well as 2.4 acres in the SWSW of Section 16. Per the DNRC policy memorandum regarding changes in methods of irrigation (dated December 2, 2015) the Department will compare the historical consumptive use to the amount of water being changed – including any increased consumption from a method change (such as flood to sprinkler) – only for acres being changed. In this case, the Applicant provided geospatial shapefiles of the temporary irrigation place of use which the Department used to determine that all 12.5 acres fall within the historically irrigated footprint and will not undergo further consumptive use analysis as these are not considered changed acres.

17. On April 27, 2020, the Applicant submitted a request to the Department to adjust the proposed irrigation period of diversion and period of use for this claim in response to the information provided in the Revised Technical Report. The requested period spans April 20 to October 10, which matches the NRCS irrigation standard for Climatic Area 4 per ARM 36.12.112(c) and is also within the decreed period of diversion and period of use listed on this water right. The period of use and period of diversion for the irrigation purpose will begin on April 20 and end on October 10.

18. In using the methodology described in ARM 36.12.1902, the Department calculated that the historically consumed and field application volumes for 12.5 acres are 13.9 AF and 46.4 AF, respectively; Claim 76G 126272-00 accounts for 69% of this 13.9-AF consumed volume, or 9.6 AF. On May 15, 2019 the Applicant submitted a report compiled by Barry Dutton (Professional Soil Scientist with Land & Water Consulting) which states that a volume of 12.5 AF is required for the temporary irrigation place of use with Claim 76G 126272-00, and 25.2 AF with supplemental Claim 76G 126271-00 (37.7 AF total). The difference between the 17.5-AF volume historically consumed by this water right and the proposed temporary consumed volume is 7.9 AF.

19. A maximum of 0.38 CFS and 0.42 CFS (0.8 CFS total) will be diverted from Harvey Creek with Claim 76G 126272-00 and supplemental Claim 76G 126271-00, respectively, for irrigation. The historical point of diversion and West Bench Ditch will be permanently retired and the new point of diversion will consist of a headgate located in the SESWNW of Section 29, T11N R14W. Claims 76G 126271-00, 76G 108706-00, and 76G 108708-00 are undergoing similar permanent and temporary changes in separate applications and will be diverted through the same headgate and pipeline system as Claim 76G 126272-00; Claim 76G 126271-00 will be used supplementally with 76G 126272-00 to irrigate the same 12.5-acre place of use, while Claims 76G 108706-00 and 76G 108708-00 will be used supplementally together to irrigate the same 139.5-acre place

of use. Together, these four claims will be used to irrigate a total of 152 acres with a combined flow rate of 3.69 CFS; when the 0.3 CFS flow rate requested to fill a stock and recreation pond proposed in the change applications for Claims 76G 108706-00 and 76G 108708-00 are considered, the total flow rate that will be diverted through the headgate with all four of these claims equals 3.99 CFS. The new headgate and pipeline system will have a maximum capacity of 4 CFS, a flowmeter installed near the beginning of the pipeline, and a screwgate which will ensure the Applicant does not exceed the maximum volume and flow rate of water allowed to be diverted for irrigation with this claim.

20. In the instance the temporary change authorization is not renewed, the maximum acreage that may be irrigated using the new diversion and pipeline system will be limited to 22.8 acres using a diverted flow rate of 0.38 CFS up to the historically diverted volume of 166.3 AF.

21. The instream place of use proposed in the change applications for Claims 76G 126271-00, 76G 108706-00, and 76G 108708-00 is identical to the one proposed for Claim 76G 126272-00. The maximum volume of water available to be left instream with Claim 76G 126272-00 (153.8 AF) is calculated by subtracting the volume proposed to be diverted for irrigation (12.5 AF) from the 166.3-AF historical diverted volume. At the proposed instream flow rate of 1.55 CFS, this volume is exhausted in 50.1 days (3.1 AF/day). Table 6 shows the volumes and flow rates proposed to be temporarily changed for both Claim 76G 126272-00 and supplemental Claim 76G 126271-00.

Table 6. Proposed temporary volumes and flow rates for Claims 76G 126271-00 & 76G 126272-00:

Water Right	Flow Rate (Irrigation)	Flow Rate (Instream)	Irrigation (Diverted)	Instream Flow	Total
76G 126271-00	0.42 CFS	0.43 CFS	25.2 AF	49.5 AF	74.7 AF
76G 126272-00	0.38 CFS	1.55 CFS	12.5 AF	153.8 AF	166.3 AF
<i>Total</i>	<i>0.8 CFS</i>	<i>1.98 CFS</i>	<i>37.7 AF</i>	<i>203.3 AF</i>	241 AF

FINDINGS OF FACT – Return Flows

22. The receiving streams for return flows and approximate locations of return flow accretion were modeled and identified by DNRC Groundwater Hydrologist Attila Foinagy in a report dated March 20, 2020. Receiving streams were determined by proximity to and evidence of hydraulic connection to groundwater which generally do not depend on groundwater flow direction or land slope. The assumption is made that water applied for irrigation that is not consumed by a crop infiltrates to groundwater becoming return flow and does not run off. The amount of water not consumed is the difference between the amount of water consumed and the amount of water applied to a field.

23. The Alluvial Water Accounting System (AWAS, 2003) model was used to model historical return flows with one recharge well. Inputs to AWAS include specific yield, transmissivity, distance to the affected source, and a distance to a no-flow boundary input to simulate the extent of the

aquifer. In this case, 26.8 AF of historical return flows associated with irrigation of the 10.3 acres that will be temporarily retired were determined to have begun accreting in Harvey Creek at the upstream extent of the historical place of use (in the SWSENE of Section 20, T11N, R14W).

24. In following standard guidelines, the Department will evaluate and review return flow conditions to determine whether historically diverted but unconsumed water is left in the source of supply under a limited adverse effect analysis absent a valid objection. For purposes of this Preliminary Determination, a limited return flow analysis was performed for Harvey Creek, with the analysis being a determination for whether they entered back into Harvey Creek prior to or at the location of the next appropriator (see Department Policy Memorandum on Return Flows, dated April 1, 2016). This policy directs that no further return flow analysis will be undertaken in the source of supply by the Department unless a valid objection is received, provided there will be no enlargement of the amounts of water historically diverted or consumed. In this instance, the Department has determined that there will be no enlargement of Claim 76G 126272-00 as a result of the proposed changes since historically irrigated acres are being retired, the new instream appropriation is non-consumptive, and a lower flow rate of water is being diverted. The maximum volume of water that will be appropriated instream in Harvey Creek from the new point of diversion to the end of the instream reach is 153.8 AF.

25. There are no water rights with diversions located within the proposed instream place of use in Harvey Creek that are not owned by the Applicant; all of the Harvey Creek irrigation water rights owned by the Applicant (except Claims 76G 108705-00 and 76G 133151-00) are being changed as part of the larger restoration project associated with this change. Claims 76G 133151-00 and 76G 133226-00 are located immediately below the terminal end of the instream reach. The Department finds that these water rights will not be adversely affected by this change because they are not located within the proposed reach for instream flow and are therefore not subject to call, and the historically diverted and non-consumed water will still be available at their points of diversion. The elements for Claim 76G 133151-00 are shown in Table 2; the elements for Claim 76G 133226-00 are summarized in Table 7 below:

Table 7. Elements of Claim 76G 133226-00:

Water Right	Owner	Source	Priority Date	Purpose	Flow Rate	Volume
76G 133226-00	Fred Weaver Trust; Joan Weaver Trust	Harvey Creek	5/1/1932	Irrigation	3.75 CFS	278 AF

26. In cooperation with representatives from Trout Unlimited, two staff gages and a rating table will be maintained at either end of the proposed instream reach. When irrigation commences, diversions into and adjustments made to the headgate will be recorded by a flowmeter located in the pipeline to ensure the maximum irrigation volume is not exceeded; the capacity of the pipeline is limited to 4 CFS and ensures that the maximum flow rate changed to the new point of diversion for Claims 76G 126271-00, 76G 126272-00, 76G 108706-00, and 76G 108708-00 will not be

exceeded. Streamflows below the point of diversion will be estimated by subtracting the flow rate diverted for irrigation from stream discharge as measured at a staff gage located directly above the headgate. Beginning June 15, the Applicant will monitor streamflows and record measurements collected at the staff gage and pipeline flow meter on a minimum weekly basis. As calculated streamflows in the creek below the headgate approach 4.98 CFS, the Applicant will arrange monthly discharge measurements to confirm the instream flow rate and maintain the rating curve. The Applicant will record the totalizer volume at the beginning of the season and at the end of the season to determine the total volume diverted for that season. The maximum flow rate and volume that may be diverted through the headgate during the term of the temporary change authorization with Claims 76G 126271-00 (0.42 CFS and 25.2 AF), 76G 126272-00 (0.38 CFS and 12.5 AF), 76G 108706-00 (1.59 CFS and 196.35 AF), and 76G 108708-00 (1.6 CFS and 270.95 AF) are 3.99 CFS and 505 AF (see Change Authorization Nos. 76G 30117054 and 76G 30113302 which respectively detail the changes for Claims 76G 126271-00, and 76G 108706-00 & 76G 108708-00).

27. The protected reach of Harvey Creek identified by the Applicant begins at the new point of diversion in the SESWNW of Section 29, T11N R14W and extends downstream to a point 0.35 miles above the confluence of Harvey Creek and the Clark Fork River and directly upstream of the point of diversion listed for Claim 76G 133151-00 in the SESWSW of Section 16, T11N R14W. Diversionary measurements will be collected at the new point of diversion, and instream flow measurements will be collected immediately below the new headgate. The evidence establishes that return flows begin accreting in Harvey Creek at the upstream extent of the historical place of use in the SWSENE of Section 20 and gradually increase to the total relative amounts in Harvey Creek at the downstream extent of the historical place of use in the SESWSW of Section 16, downstream of the end of the proposed instream reach. There are no intervening diversionary water rights between the new point of diversion and the end of the proposed instream place of use. The Applicant established that 1.55 CFS, up to 153.8 AF can be protected instream throughout the entire instream reach without adversely affecting other water users.

28. The Department may approve a change in appropriation right if the appropriator proves by a preponderance of evidence that the proposed change will not adversely affect the use of existing perfected water rights pursuant to §85-2-402(2)(a), MCA. In addition, the Applicant must demonstrate that “the temporary change authorization for water to maintain and enhance instream flow to benefit the fishery resource, as measured at a specific point, will not adversely affect the water rights of other persons.” §85-2-408(3)(a), MCA. If any water right holder believes they will be adversely affected by a change in timing and the amount of return flows resulting from this proposal, they may file an objection to the proposed project pursuant to §§85-2-307(3), and -308, MCA. Based on its analysis and guidance provided by policy, the Department preliminarily finds

that the changes to return flows resulting from the proposed change will not cause an adverse effect to other water users.

29. The Department finds there will be no adverse effects from the proposed temporary change under the terms and conditions set out in this Preliminary Determination.

BENEFICIAL USE/FISHERY RESOURCE

FINDINGS OF FACT

30. The Applicant proposes to permanently change the point of diversion of Claim 76G 126272-00 and retire the earthen ditch used to irrigate the historical place of use. The new point of diversion located in the SESWNW of Section 29, T11N R14W will consist of one new headgate and pipeline conveyance system. The new headgate marks the beginning of the proposed instream place of use which ends 0.35 miles upstream of the confluence of Harvey Creek and the Clark Fork River. The place of use historically irrigated with this claim and supplemental Claim 76G 126271-00 will be reduced from 22.8 acres to 12.5 acres during the term of the temporary change. On June 14, 2019, the Applicant submitted a report by Soil Scientist Barry Dutton (Land & Water Consulting) on irrigation requirements which corroborate a diverted volume requirement of 37.7 AF for the temporary irrigation place of use, or 25.2 AF for supplemental Claim 76G 126271-00 and 12.5 AF for Claim 76G 126272-00. The maximum flow rates that will be diverted through the headgate using supplemental Claim 76G 126271-00 and Claim 76G 126272-00 are 0.42 CFS and 0.38 CFS, respectively.

31. The Applicant proposes to temporarily add the purpose of instream flow to Claim 76G 126272-00 to enhance streamflows for the benefit of the resident trout fishery in Harvey Creek. According to the Montana Department of Fish, Wildlife, and Parks (FWP), Harvey Creek is a chronically dewatered stream, and several habitat impairments to streamflow and riparian habitat as well as fish entrainment in irrigation ditches are affecting species of special concern in the creek. In a published study prioritizing tributaries in the Upper Clark Fork River Basin for fishery enhancement, FWP and the Natural Resource Damages Program found Harvey Creek to be a high-value native trout fishery, and previous FWP studies have identified a target flow of 3 CFS for the creek to maintain suitable habitat.

32. The Applicant proposes to change 1.55 CFS (up to a maximum volume of 153.8 AF) for a period of 50.1 days for the purpose of improving the Harvey Creek fishery between June 15 and September 7 and once streamflows drop to a trigger flow rate of 4.98 CFS. Through retirement of the West Bench Ditch and 10.3 irrigated acres, the maximum potential volume available to change to instream flow is 153.8 AF. The Applicant has identified 4.98 CFS as a collective trigger flow rate that after June 15 and no later than September 7 will mark when the instream appropriation for Claims 76G 126271-00 (0.43 CFS), 76G 126272-00 (1.55 CFS), 76G 108706-00 (1.26 CFS),

and 76G 108708-00 (1.74 CFS) may collectively commence. The instream place of use extends from the changed point of diversion at the new headgate to the point in Harvey Creek just upstream of the point of diversion listed on Claim 76G 133151-00 (roughly 0.35 miles above the confluence of Harvey Creek and the Clark Fork River).

33. Per §85-2-102(5)(d), MCA, the use of a water right through a temporary change or lease to enhance instream flows to benefit a fishery resource in accordance with §85-2-408, MCA, is considered a beneficial use of water. The Department finds the proposed instream appropriation of 153.8 AF and the proposed irrigation of 12.5 acres with 12.5 AF at maximum respective flow rates of 1.55 CFS and 0.38 CFS to be beneficial uses of water.

ADEQUATE DIVERSION

FINDINGS OF FACT

34. The Applicant proposes to continue irrigating 12.5 acres within the historical place of use with 0.8 CFS using Claims 76G 126271-00 (0.42 CFS) and 76G 126272-00 (0.38 CFS) with four quick-connect Nelson 100 sprinklers with a design capacity of 360 GPM (0.8 CFS). The West Bench Ditch will be permanently retired, and irrigation water will be diverted into a 12-inch pipeline through a new headgate located in the SESWNW of Section 29, T11N R14W, Granite County. Both the new headgate and pipeline system were constructed and installed prior to submission of this application. The headgate is 4 feet wide and 2 feet high, and the surrounding streambank has been reinforced with riprap. The new diversion system also includes a 16-gauge stainless steel punch plate fish screen and 10-inch fish bypass pipe.

35. The new headgate will have a maximum flow capacity of 4 CFS, as well as a flowmeter installed near the beginning of the pipeline and a screwgate that will ensure the Applicant does not exceed the maximum flow rate of water allowed to be diverted. Along with the 0.8 CFS that will be diverted through the headgate with Claims 76G 126271-00 and 76G 126272-00, an additional 3.19 CFS will be diverted from Harvey Creek using Claims 76G 108706-00 and 76G 108708-00, including 2.89 CFS (up to 465.8 AF) and 0.3 CFS (up to 1.5 AF), respectively, for irrigation and into a ditch to fill a recreation and stock pond. The maximum flow rate that will be authorized for diversion into the new headgate and pipeline with Claim 76G 126272-00 is 0.38 CFS. In the instance the temporary change authorization is terminated or not renewed, the maximum acreage that may be irrigated using the new pipeline system will be limited to 22.8 acres using a diverted flow rate of 0.38 CFS up to the historically diverted volume of 166.3 AF.

36. Based on irrigation system specifications and other information provided in the application materials, the Department finds the proposed irrigation system and infrastructure are adequate to accommodate the proposed permanent point of diversion change per §85-2-402(b), MCA.

37. The proposed temporary change of Claim 76G 126272-00 is to maintain and enhance streamflows to benefit the resident trout fishery of Harvey Creek and does not require a means of diversion or conveyance. Per §85-2-402(2)(b)(ii), MCA, a temporary change in appropriation right for instream flow pursuant to §85-2-408, MCA, is an exception to the adequacy of diversion criteria.

POSSESSORY INTEREST

FINDINGS OF FACT

38. The Applicant signed the affidavit on the application form affirming the Applicant has possessory interest in the property where the water is to be put to beneficial use. (Dept. file)

39. Pursuant to §85-2-402(2)(d)(ii), MCA, the Applicant is not required to prove that they have 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 because this application involves a temporary change in appropriation right for instream flow per §85-2-408, MCA.

SALVAGE WATER

FINDINGS OF FACT

40. The historical ditch listed on Claim 76G 126272-00 will be permanently retired and replaced by a new pipeline. The Applicant submitted a report which documents the method by which the volume of water being saved due to pipeline installation was calculated pursuant to ARM 36.12.2001(2). The Applicant's method for quantifying salvaged water reflected DNRC's September 12, 2012 policy memorandum regarding standardized historic diverted volume methodology which provides a guideline for calculating ditch seepage loss and ditch evaporation. The ditch length considered by the Applicant includes the portion of the West Bench Ditch that runs within the boundaries of the historical place of use and thus differs from the ditch length extent that ends when it arrives at the field. The total volume of salvaged water calculated by the Applicant is 167.9 AF for Claim 76G 126272-00 and 75.4 AF for supplemental Claim 76G 126271-00; however, these volumes exceed the total volumes lost during conveyance due to ditch seepage loss and ditch evaporation calculated by the Department (47.5 AF for supplemental Claim 76G 126271-00 and 105.6 AF for Claim 76G 126272-00).

41. The Applicant is proposing to leave instream the water lost during conveyance through the historical ditch system that will be salvaged due to the implementation of a water saving method, as well as the volume of water historically applied to historically irrigated acres that will be retired after this temporary change (153.8 AF maximum). The instream place of use for this change consists of the reach of Harvey Creek extending from the new headgate down to a point located 0.35 miles upstream of the confluence of the creek and the Clark Fork River.

42. The Department finds the Applicant's salvage classification of the volume of water lost during conveyance through unlined ditches that will be permanently retired and replaced by a pipeline to be consistent with the definition of "salvage water" provided by ARM 36.12.2001(1), and the change from multi-ditch to pipeline infrastructure to be consistent with the definition of a "water saving method" provided by ARM 36.12.101(87)(a) and §85-2-102(21), MCA. The Department finds a total salvaged water volume of 105.6 AF for Claim 76G 126272-00.

CONCLUSIONS OF LAW

HISTORIC USE AND ADVERSE EFFECT

43. 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. 41I 30002512 by Brewer

Land Co, LLC, DNRC Proposal For Decision and Final Order (2004).¹

44. 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 ¶¶43-45.²

45. 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.³ 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

¹ DNRC decisions are available at:

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

² 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).

³A 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

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).

46. 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 tenet 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 ¶44

47. 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.

48. 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).

49. 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. ARM. 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. ARM 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. ARM 36.12.1901 and 1903.

50. 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.

51. 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).

52. 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).

53. 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. ARM. 36.12.1902 (16). In the alternative an applicant may present its own evidence of historic beneficial use. In this case Applicant has elected to proceed under ARM. 36.12.1902. (FOF Nos. 10-15).

54. 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 elected to proceed under Admin. R.M. 36.12.1902. (FOF Nos. 10-15)

55. The extent to which water may be temporarily protected instream below the historic point of diversion evaluates return flows and that amount of water historically consumed to the protected reach in correlation to the risk of adverse effect to other water users on the source. Hohenlohe, 55, 70.

56. 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. 76G 126272-00 of respective diverted (and consumed) volumes and flow rates of 166.3 AF (17.5 AF) and 1.93 CFS. (FOF Nos. 10-15)

57. The Applicant established that 1.55 CFS and up to 153.8 AF can be protected instream throughout the entire protected reach without adversely affecting other water users. Hohenlohe, 55 and 70. (FOF Nos. 26-28)

58. 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. 16-29)

BENEFICIAL USE

59. 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. ARM 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);

60. Where the proposed beneficial use is instream flow to enhance the fishery resource, an applicant must prove that that amount of water proposed for change is needed to maintain or enhance instream flows to benefit the fishery resource. § 85-2-408(3)(b), MCA.

61. Applicant proposes to use water for instream flow and irrigation which are recognized beneficial uses. §85-2-102(5), MCA. Applicant has proven by a preponderance of the evidence that the proposed irrigation of 12.5 acres is a beneficial use and that 12.5 AF and 0.38 CFS of diverted volume and flow rate, respectively, the instream appropriation of a maximum flow rate and volume of 1.55 CFS and 153.8 AF are the amounts needed to sustain the beneficial uses. §85-2-402(2)(c), MCA (FOF Nos. 30-33)

62. Applicant has proven that the amount of water to be changed to instream flow is needed to maintain and enhance the fishery resource and sustain the beneficial use. § 85-2-408(3)(b), MCA. (FOF Nos. 31-32)

PROTECTED REACH/MEASUREMENT PLAN

63. For a change in appropriation right to maintain or enhance instream flow to benefit the fishery resource, an applicant must “(a) include specific information on the length and location of the stream reach in which the streamflow is to be maintained or enhanced; and . . .(b) provide a detailed streamflow measuring plan that describes the point where and the manner in which the streamflow must be measured.” § 85-2-408(1), MCA.

64. The Department concludes the length and location of the stream reach in which instream flows will be maintained and enhanced along with the measurement plan satisfy the requirements of 85-2-408(1), MCA. (FOF Nos. 26-28)

ADEQUATE MEANS OF DIVERSION

65. 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).

66. Pursuant to §85-2-402(2)(b), MCA, the Applicant is not required to prove that the proposed means of diversion, construction, and operation of the appropriation works are adequate for the instream flow portion of the proposed change because this application involves a temporary change in appropriation right for instream flow pursuant to 85-2-408.

67. 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. 34-37)

POSSESSORY INTEREST

68. The Applicant has proven by a preponderance of the evidence that it has a possessory interest, or the written consent of the person with the possessory interest, in the property where the water is to be put to beneficial use. (FOF Nos. 38-39)

SALVAGE WATER

69. An applicant can propose to change the point of diversion, the place of use, the purpose of use, or the place of storage and include “salvage” as a basis for the change. §85-2-102(6), MCA. “Salvage”, as it is defined, means “to make water available for beneficial use from an existing valid appropriation through application of water-saving methods.” §85-2-102 (23), MCA. The change provisions in §85-2-402, MCA, require in relevant part, “[i]f the change in appropriation right involves salvaged water, the proposed water-saving methods will salvage at least the amount of water asserted by the applicant.” §85-2-402(2)(e), MCA. ARM. 36.12.2001, provides:

- (1) Salvage water, defined at 85-2-102 (16), MCA includes seepage, wastewater, or deep percolation water and may be used by the appropriator, moved to other lands, leased, or sold after implementing a water saving method and proving lack of adverse effect to other water rights.
- (2) In addition to the rules for change applications, a salvage water application must include a report documenting the volume of water that is being saved by the proposed water saving method.
- (3) For the purpose of implementing 85-2-419, MCA, the destruction of phreatophytes is not a water saving method. For example, one cannot deforest the cottonwoods or other trees or brush on a source to obtain salvage water.
- (4) Salvaged water includes water lost to deep percolation when the applicant provides geohydrologic evidence that deep percolation occurs.

70. Applicant proposes to retire and replace the historical ditch system with a new pipeline and has proven by a preponderance of the evidence that the proposed conversion will salvage a total of 105.6 with Claim 76G 126272-00 §85-2-402, MCA (FOF Nos. 40-42)

PRELIMINARY DETERMINATION

Subject to the terms and analysis in this Preliminary Determination Order, the Department preliminarily determines that this Application to Change Water Right Nos. 76G 30117056 and 76G 30130822 should be granted subject to the following. The Department authorizes a temporary change allowing the Applicant to divert 0.38 CFS up to 12.5 AF for the irrigation of 12.5 acres as well as the instream appropriation of 1.55 CFS up to 153.8 AF (including 105.6 AF of salvaged water) for a period of 20 years. The diversionary flow rate for irrigation with this claim will not exceed 0.38 CFS. The period of diversion and period of use for irrigation is April 20 to October 10. The period of use for instream flow is June 15 to September 7, and the instream flow place of use in Harvey Creek extends from the new headgate to a point in the SESWSW of Section 16, T11N R14W, directly upstream of the point of diversion listed on Claim 76G 133151-00 and approximately 0.35 miles above the confluence of Harvey Creek and the Clark Fork River. Beginning June 15 and once streamflows as measured at the new headgate reach a trigger flow of 4.98 CFS, the Applicant will appropriate 1.55 CFS and a maximum of 153.8 AF instream with Claim 76G 126272-00 for the benefit of the fishery resource in Harvey Creek. In aggregate, the total volume of water that may be used for irrigation and instream flow purposes with this claim during the term of this temporary change is 166.3 AF.

The Applicant will also permanently change the point of diversion and purpose of Claim 76G 126272-00 to a new headgate located in the SESWNW of Section 29, T11N R14W. In the event the temporary change authorization is not renewed or is terminated a maximum of 0.38 CFS up to 166.3 AF will be diverted using this claim for irrigation of 22.8 acres. The historical ditch listed on Claim 76G 126272-00 will be permanently retired after authorization of this change.

This application will be subject to the following conditions:

MEASUREMENT CONDITION (Permanent Change)

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 NOVEMBER 30 OF EACH YEAR AND UPON REQUEST AT OTHER TIMES DURING THE YEAR UNTIL THE CHANGE AUTHORIZATION IS PERFECTED AND THE DEPARTMENT RECEIVES A PROJECT COMPLETION NOTICE. IN THE EVENT THAT AUTHORIZED FLOW RATES AND/OR VOLUMES HAVE BEEN EXCEEDED DURING PERFECTION OF THE CHANGE AUTHORIZATION OR THE APPROPRIATOR FAILS TO SUBMIT ANNUAL REPORTS, THE DEPARTMENT MAY CONTINUE TO REQUIRE ANNUAL SUBMISSIONS OF MONTHLY FLOW RATE AND VOLUME RECORDS. FAILURE TO SUBMIT REPORTS MAY BE CAUSE FOR REVOCATION OF A CHANGE AUTHORIZATION. RECORDS MUST BE SENT TO THE WATER RESOURCES REGIONAL OFFICE. THE APPROPRIATOR SHALL MAINTAIN

THE MEASURING DEVICE SO THAT IT ALWAYS OPERATES PROPERLY AND MEASURES FLOW RATE AND VOLUME ACCURATELY.

MEASUREMENT CONDITION (Temporary Change)

BETWEEN JUNE 15 AND SEPTEMBER 7, THE APPROPRIATOR WILL LEAVE 1.55 CFS INSTREAM WITH CLAIM 76G 126272-00 TO AUGMENT STREAMFLOWS FOR THE BENEFIT OF THE FISHERY RESOURCE IN HARVEY CREEK. BEGINNING JUNE 15 AND ONCE STREAMFLOWS IN HARVEY CREEK DROP TO A TRIGGER FLOW OF 4.98 CFS, THE MAXIMUM FLOW RATE THAT MAY BE COLLECTIVELY APPROPRIATED INSTREAM WITH CLAIMS 76G 108706-00 (1.26 CFS), 76G 108708-00 (1.74 CFS), 76G 126271-00 (0.43 CFS), AND 76G 126272-00 (1.55 CFS) IS 4.98 CFS. STREAMFLOW MEASUREMENTS WILL BE COLLECTED BY THE APPROPRIATOR ON A MINIMUM WEEKLY BASIS AT A STAFF GAGE LOCATED IMMEDIATELY BELOW THE HEADGATE IN THE SESWNW OF SECTION 29, T11N R14W. THE MAXIMUM VOLUME THAT MAY BE APPROPRIATED INSTREAM IS 153.8 AF. AS STREAMFLOWS APPROACH 4.98 CFS THE APPROPRIATOR WILL ARRANGE MONTHLY DISCHARGE MEASUREMENTS TO CONFIRM THE INSTREAM FLOW RATE AND MAINTAIN A RATING CURVE. THE APPROPRIATOR SHALL KEEP A WRITTEN RECORD OF THE FLOW RATE AND VOLUME OF ALL WATER APPROPRIATED INSTREAM. RECORDS SHALL BE SUBMITTED BY NOVEMBER 30 OF EACH YEAR TO THE MISSOULA REGIONAL WATER RESOURCES OFFICE UNTIL THE TEMPORARY CHANGE AUTHORIZATION IS PERFECTED AND THE DEPARTMENT RECEIVES A PROJECT COMPLETION NOTICE.

IMPORTANT INFORMATION (Permanent Change)

BASED ON HISTORIC USE ANALYSIS FOR THIS RIGHT, THE APPROPRIATOR MAY IRRIGATE A MAXIMUM OF 22.8 ACRES IN THE INSTANCE TEMPORARY CHANGE AUTHORIZATION 76G 30117056 IS NOT RENEWED.

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 8th day of July 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 8th day of July 2020, by first class United States mail.

HARVEY CREEK RANCH LLC
360 HAMILTON AVE ST 100
WHITE PLAINS, NEW YORK 10601

MORGAN CASE
MONTANA TROUT UNLIMITED
P.O. BOX 412
HELENA, MONTANA 59624

Danika Holmes, (406) 542-5881