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Dated this 11th day of April 2017.

/Original signed by David A Vogler/

David A. Vogler, Hearing Examiner
Department of Natural Resources
and Conservation
Water Resources Division
P.O. Box 201601
Helena, Montana 59620-1601
(406) 444-6835

CERTIFICATE OF SERVICE

This certifies that a true and correct copy of the FINAL ORDER was served upon all parties listed below on this 11th day of April 2017 by first class United States mail.

JAMES P BUDD
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Cc:
DNRC, BOZEMAN REGIONAL OFFICE
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BOZEMAN, MT 59715

/Original signed by Jamie Price/
Jamie Price, Hearings Assistant
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**BEFORE THE DEPARTMENT OF
NATURAL RESOURCES AND CONSERVATION
OF THE STATE OF MONTANA**

APPLICATION TO CHANGE WATER)	
RIGHT NO. 41H 30066200 BY JAMES AND)	PRELIMINARY DETERMINATION
SARAH BUDD)	TO DENY CHANGE

On September 19, 2013, James and Sarah Budd (Applicant) submitted Application to Change Water Right No. 41H 30066200 to change Water Right Claim No. 41H 30064427 to the Bozeman Regional Office of the Department of Natural Resources and Conservation (Department or DNRC). The Department published receipt of the Application on its website. The Application was determined to be correct and complete as of February 13, 2014. An Environmental Assessment for this Application was completed on April 30, 2014.

INFORMATION

The Department considered the following information submitted by the Applicant.

Application as filed:

- Form 606

Information Received after Application Filed:

- Affidavits by Applicant’s neighbors attesting to historic water use

Information within the Department’s Possession/Knowledge

- 1953 Gallatin County Water Resources Survey
- Well logs via Montana Bureau of Mines and Geology GWIC database
- Hackett et al., “Geology and Ground-Water Resources of the Gallatin Valley,” US Geological Survey Water-Supply Paper 1482, US Dept. of the Interior, 1960
- Irrigation Change Application Technical Report dated February 13, 2014, by DNRC Civil Engineering Specialist, Troy Benn
- Environmental Assessment dated April 30, 2014

The Department has fully reviewed and considered the Environmental Assessment and evidence and argument submitted with this Application and **preliminarily determines** pursuant to the Montana Water Use Act (Title 85, chapter 2, parts 3 and 4, MCA) as follows.

WATER RIGHTS TO BE CHANGED

FINDINGS OF FACT

1. Applicant seeks to change the point of diversion (POD) of Water Right Claim No. 41H 30064427 from a headgate on Hyalite Creek to a well located on the Applicant’s property. This water right is for 157.08 GPM for flood irrigation on 20 acres with a priority date of December 31, 1922. The periods of use and diversion are May 1 through October 31. The place of use is 20 acres in the S2NENE of Section 33, T2S, R5E, Gallatin County. The point of diversion is the Plumb (aka Section 3) Ditch headgate located on Hyalite Creek in the SENWSW of Section 3, T3S, R5E, Gallatin County. The place of use is 5 miles southwest of Bozeman. The parameters of 41H 30064427 are summarized in Table 1.

Table 1: WATER RIGHT PROPOSED FOR CHANGE

W.R. NO.	FLOW [GPM]	PURPOSE	PERIOD OF USE	PLACE OF USE	POINT OF DIVERSION	PRIORITY DATE
41H 30064427	157.08	Flood Irrigation	5/1 – 10/31	20 acres, S2NENE of Sect. 33, T2S, R5E	SENWSW of Sect. 3, T3S, R5E	12/31/1922

2. 41H 30064427 was split from the original water right (41H 139733 00) in 2013. The original water right was split proportionately (50/50 in flow rate and volume) between Applicant and neighboring landowner who also owned 20 acres of the original 40-acre place of use.

3. Applicant also owns 41H 90850 00, which is a groundwater certificate for domestic use up to 1.63 AF with a place of use overlapping that of the proposed change. However, 41H 90850 00 is not used in conjunction with 41H 30064427 and is not proposed for change.

CHANGE PROPOSAL

FINDINGS OF FACT

4. Applicant would like to change the point of diversion of 41H 30064427 from a headgate on Hyalite Creek to a proposed well located on Applicant's property because the current headgate and associated ditch are located on neighboring properties. Coordination and cooperation with neighbors regarding ditch operation and maintenance has become challenging such that Applicant's control of a diversion (i.e., well) on its own property is desirable. Applicant proposes to complete the well in the alluvial aquifer system which is hydraulically connected to Hyalite Creek, thereby changing the POD within the same source system. Applicant will divert up to the historic flow rate of the water right (157.08 GPM) for flood irrigation on the historic 20 acres within the S2NENE of Section 33, T2S, R5E, Gallatin County. See map below for project description.



§85-2-402, MCA, CRITERIA

GENERAL CONCLUSIONS OF LAW

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).

7. Denial of a change in appropriation in whole or part does not affect the exercise of the underlying right(s). The water right holder can continue to exercise the underlying right, unchanged as it has historically. The Department’s change process only addresses the water right holder’s ability to make a different use of that existing right. E.g., Town of Manhattan v. DNRC, Cause No. DV-09-872C, Montana Eighteenth Judicial District Court, *Order Re Petition for Judicial Review*, (2011) Pg. 8; *In the Matter of Application to Change Appropriation Water Right No.41F-31227 by T-L Irrigation Company* (DNRC Final Order 1991).

8. It is important to recognize that the proposed change is located within the Upper Missouri River Basin Closure, pursuant to which the Department may not grant an application for a ground water appropriation unless they comply with specific hydrologic assessment and mitigation requirements. Mont. Code Ann. §§ 85-2-342, - 343, and - 360 through – 362. The Montana Supreme Court explained: “The Basin Closure Law serves to protect senior water rights holders and surface flows along the Smith River basin. It makes no difference to senior appropriators whether ground water pumping reduces surface flows because of induced infiltration or from the prestream capture of tributary ground water. *The end result is the same: less surface flow in direct contravention of the legislature's intent.*” Montana Trout Unlimited v. DNRC, 2006 MT 72, ¶ 43, 331 Mont. 483, 133 P.3d 224.

Historic Use:

FINDINGS OF FACT

9. Statement of Claim 41H 30064427 is based on the original Statement of Claim (41H 139733 00) for diversion of 314.16 GPM from May 1 through October 31 for flood irrigation on 40 acres. Applicant split its 20-acre portion of the original water right in 2013 to create 41H 30064427, which is now reflected as 157.08 GPM for flood irrigation on 20 acres.

10. Water Resources Survey and USDA aerial photos from 1947 and 1979 indicate irrigation of the Applicant’s 20-acre parcel (see Technical Report page 2, Benn).

11. Historic Use Rules (ARM 36.12.1902) were used to calculate the historic consumptive use on 20 acres as 22.56 AF (see Technical Report page 2 for calculation).

12. Historic Diverted Volume was calculated by adding on-field inefficiencies and conveyance loss to the Historic Consumptive Use volume. On-field water application efficiency was estimated as 60% for flood irrigation on an estimated slope of 1.7% (ARM 36.12.115 for irrigation practice similar to graded border with slope greater than 1.5%). Conveyance loss was calculated based on the ditch carrying the full flow of the original water right (41H 139733 00) and attributing 50% of the loss to the Applicant (other 50% is attributed to Applicant’s neighbor who is owner of the other half of 41H 139733 00). The Applicant’s portion of conveyance loss was calculated as 74.82 AF, with 73.80 AF attributed to ditch seepage, 0.36 AF attributed to

ditch evaporation, and 0.66 AF attributed to non-target vegetation growth along the ditch. Applicant's total historic diverted volume is calculated as 112.42 AF $[(22.56 \text{ AF} / 0.6) + 74.82]$. The consumptive portion of the historic ditch loss is the sum of evaporation and non-target vegetative consumption, or 1.02 AF.

13. Applicant described the ditch dimensions as 18 inches wide by 8 inches deep. Using these dimensions, a Manning's n value of 0.02, and measuring the ditch slope from USGS Topographic Quadrangle maps, the Department Engineer estimates the capacity of the ditch at 5.68 CFS or 2549 GPM (see Technical Report page 3, Benn). The ditch appears adequate to convey the 314.16 GPM historic flow rate of the original, parent water right, 41H 139733 00.

14. The Water Commissioner of the Hyalite and South Cottonwood Creek enforcement project has indicated 41H 30064427 would be out-of-priority by mid-July in some years based on its 1922 priority date (personal communication). Flow demands of surface water rights in the project vicinity between the Middle Creek Ditch (upstream of project) and the Farmer's Canal (downstream of project) total 221 CFS. Hyalite Creek flow is often below 221 CFS in July (Department knowledge). Therefore, this water right is not always full-service.

15. A typical historic diversion schedule for flood irrigation in the Gallatin Valley was to divert until the place of use received the water needed. Diversion was often stopped while a crop was harvested, and restarted to apply subsequent irrigation sets (e.g., in the case of alfalfa with multiple cuttings per season) until the water right was out of priority on the source. Historic diversion of this water right likely followed a similar operation pattern.

16. Table 2 summarizes the findings of historic use.

WR Claim #	Priority Date	Diverted Volume [AF]	Flow Rate [GPM]	Purpose (Total Acres)	Consump. Use [AF]	Place of Use	Point of Diversion
41H 30064427	12/31/1922	112.42	157.08	Irrigation (20)	23.58	S2NENE SEC 3, T2S, R5E	SENWSW SEC 3, T3S, R5E

CONCLUSIONS OF LAW

17. 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 no changes could have been made to those rights after that date without the Department’s approval. §85-2-402(1), MCA; Royston, supra; Town of Manhattan v. DNRC, Cause No. DV-09-872C, Montana Eighteenth Judicial District Court, *Order Re Petition for Judicial Review*, (2011) Pg. 7; cf. General Agriculture Corp. v. Moore (1975), 166 Mont. 510, 534 P.2d 859 (limited exception for perfection). Thus, the focus in a change proceeding is what those rights looked like and how they were exercised prior to July 1, 1973. E.g., Matter of Clark Fork River Drainage Area (1992), 254 Mont. 11, 17, 833 P.2d 1120. An applicant can change only that to which it has a perfected right. E.g., McDonald, supra; Town of Manhattan v. DNRC, Cause No. DV-09-872C, Montana Eighteenth Judicial District Court, *Order Re Petition for Judicial Review*, (2011) Pg. 9 (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, *citing Featherman v. Hennessy*, (1911) 43 Mont. 310, and *Quigley v. McIntosh*, (1940) 110 Mont. 495); see also In re Application for Water Rights in Rio Grande County 53 P.3d 1165, 1170 (Colo. 2002) (while the enlargement of a water right, as measured by historic use, may be injurious to other rights, it also simply does not constitute a permissible “change” of an existing right); Robert E. Beck, 2 Water and Water Rights at § 16.02(b) at p. 271 (issues of waste and historic use, as well as misuse ... properly be considered by the administrative official or water court when acting on a reallocation application,” (citations omitted)); *In the Matter of Application for Change in Appropriation of Water Right No. 139988-40A, 139989-40A, and 50641-40A by Careless Creek Ranch* (DNRC Final Order 1988)(where there is water at new point of diversion, more often than not purpose of change is to pick up that extra water, application must be made for a new water right to cover the extra water; it cannot be appropriated under the guise of a change in the old right).

18. The Department as fact finder in a change proceeding must have the required information to evaluate historic use of a water right to determine whether the change will result in expansion of the original right, or adversely affect water users. The Department cannot determine whether there will be adverse effect to other appropriators from a different use of water until it knows

how the water has been historically used, including the pattern of use. Town of Manhattan v. DNRC, Cause No. DV-09-872C, Montana Eighteenth Judicial District Court, *Order Re Petition for Judicial Review*, (2011) Pg.13 (upholding ARM 36.12.1902, reflecting basic water law principles).

19. The requirement that a water user establish the parameters and pattern of use of a water right through evidence of historic use is a fundamental principle of Montana water law that serves to ensure that a change does not expand a water right (i.e. bootstrap a new use with a senior priority date) or adversely affect other water users. Evidence of historic use serves the important function of protecting other water users who have come to rely upon maintaining surface and ground water conditions for their livelihood. Id. at Pg. 14.

20. 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 (1999), 295 Mont. 447, 453, 984 P.2d 151, 155 (Water Resources Survey used as evidence in adjudicating of water rights); Wareing v. Schreckendgust (1996), 280 Mont. 196, 213, 930 P.2d 37, 47 (Water Resources Survey used as evidence in a prescriptive ditch easement case); Olsen v. McQueary (1984), 212 Mont. 173, 180, 687 P.2d 712, 716 (judicial notice taken of Water Resources Survey in water right dispute concerning branches of a creek).

21. 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 this case Applicant has elected to proceed under ARM 36.12.1902. (FOF No. 11)

22. 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., supra. 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. Trail's End Ranch, L.L.C. v. Colorado Div. of Water Resources 91 P.3d 1058, 1063 (Colo., 2004) (citing Application for Water Rights in Rio Grande County, 53 P.3d at 1168 and Empire Lodge Homeowners' Ass'n v. Moyer, 39 P.3d 1139, 1147 (Colo., 2001)).

23. “Absent quantification of annual volume historically consumed, no protective condition limiting annual volume delivered can be placed on a Change Authorization, and without such a condition, the evidence of record will not sustain a conclusion of no adverse effect to prior . . . appropriators.” *In the Matter of the Application for Change of Appropriation Water Rights Nos. 101960-41S and 101967-41S by Keith and Alice Royston*, COL No. 8 (1989), *affirmed* (1991), 249 Mont. 425, 428, 816 P.2d 1054, 1057; *In the Matter of the Application of Beneficial Water Use Permit Number 41H 30003523 and the Application for Change No. 41H 30000806 by Montana Golf Enterprises, LLC.*, DNRC Proposal for Decision (2003) (proposed decision denied change for lack of evidence of historical use; application subsequently withdrawn); see also Hohenlohe ¶¶ 43, 45; Application for Water Rights in Rio Grande County (2002), *supra*; *In the Matter of Application to Change Water Right No. 41H 1223599 by MGRR #1, LLC.*, *supra*.

24. The Applicant has proven by a preponderance of the evidence the historic use of Water Right Claim No. 41H 30064427 of 112.42 AF in diverted volume and 157.08 GPM in flow rate with a consumptive use of 23.58 AF. (FOF Nos. 9 – 16)

Adverse Effect:

FINDINGS OF FACT

25. Applicant requests a change in POD from the historic headgate on Hyalite Creek to a proposed well located on its property. The well would be located 1.5 miles from the historic POD. The new well will alleviate disputes regarding the operation and maintenance of the ditch which crosses neighbors’ properties. The proposed change will result in non-use of the entire ditch, which is approximately 8,250 feet long. The owner of the other water right (41H 139733

00) which uses the same POD/ditch does not currently, and has no future plans to use the ditch. A pending application is before MT DNRC for the same change as this proposal.

26. The historic consumptive use was calculated as 23.58 AF (see above, and Technical Report page 2), where 22.56 AF was attributed to crop consumption and 1.02 AF was attributed to consumptive ditch loss.

27. A signed affidavit by Dean Hatten (Applicant's neighbor) attests to the ditch on his property (i.e., Applicant's ditch) being used to convey water within the past ten years, as of the 2012 date of the affidavit. 1995 aerial photographs show use. Along with the Applicant's application form stating use of the water within the past five years, data suggests that non-use issues are not a concern.

28. Applicant proposes to continue using water consistent with historic use (flood irrigation of 20 acres). The crop consumptive use will continue to be 22.56 AF. Consumptive ditch loss (1.02 AF) will be eliminated by changing the POD to a well. Therefore, the volume of water consumed from the source system will decrease by 1.02 AF as a result of this change. The historic diverted volume is 112.42 AF, of which 74.82 AF was associated with ditch loss. Applicant will no longer need to divert 74.82 AF to account for conveyance loss because the new POD will be a well located on Applicant's property.

29. The project is located on the Bozeman Alluvial Fan, which is a Quaternary sand and gravel aquifer on the order of 50- to 100-feet thick near the proposed well location (as confirmed by well logs). Analysis of static water levels in wells and topographic elevations of the different surface water sources indicate a proposed well of 50-foot depth, Hyalite and Aajker creeks, and the West Gallatin Canal, are hydraulically connected within the Bozeman Fan aquifer system. Hyalite and Aajker creeks are located approximately 2660 feet west and east, respectively, from the proposed well location (see Figure 1). The West Gallatin Canal is approximately 1350 feet northwest of the proposed well and is believed to be a boundary between the proposed well and Aajker Creek; therefore, Aajker Creek is not considered to be a depleted reach. Consequently, the following evaluation of depletion assumes that Hyalite Creek is the only depleted reach.

30. Under the proposed change, water will be pumped from the aquifer instead of being directly diverted from the surface water source, which will change the timing and location of effects. Groundwater pumping is assumed to affect only Hyalite Creek in order to evaluate a worst-case change in timing of effects to that source. Effects were calculated assuming full-service irrigation, although in many years the water right is likely out of priority by early July (i.e., consumption amounts are likely overestimated). Table 3 summarizes the monthly consumption amount from Hyalite Creek.

Table 3: Monthly Depletion Volumes (AF) and Flow Rates (GPM) for Hyalite Creek after 100 Years of Pumping

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	TOTAL
Hyalite Creek Depletion Volumes [AF]	2.18	2.09	1.98	1.89	1.78	1.67	1.56	1.52	1.65	1.92	2.10	2.22	22.56
Hyalite Creek Depletion Flow Rate [GPM]	15.98	15.30	14.46	13.58	12.72	11.91	11.41	11.83	13.26	14.99	16.10	16.35	--

Stream modeling indicates the proposed well could change timing of effects to Hyalite Creek throughout the year ranging from 11.41 to 16.35 GPM. These stream depletions from July through April were not experienced historically when the surface water diversion was used.

31. Table 4 summarizes the effects on Hyalite Creek in the historic condition versus the proposed condition.

Table 4: Comparison of Monthly Effects (AF) Caused by the Historic and New Conditions (Hyalite Creek) [italicized text indicates an increase in streamflows from the historic condition]

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
Historic Reduction to Hyalite Creek [AF]	0	0	0	0	1.89	25.88	40.40	34.06	10.19	0	0	0
Reduction to Hyalite Creek for New Use [AF]	2.18	2.09	1.98	1.89	1.78	1.67	1.56	1.52	1.65	1.92	2.10	2.22
New Use minus Historic Use [AF]	2.18	2.09	1.98	1.89	<i>-0.11</i>	<i>-24.21</i>	<i>-38.84</i>	<i>-32.54</i>	<i>-8.54</i>	1.92	2.10	2.22

While groundwater pumping will cause effects in Hyalite Creek from October to April which were not experienced in the historic condition, the proposed change in POD will leave a surplus of up to 104.24 AF (sum of italicized-text figures in Table 4) between May and September in Hyalite Creek, during years in which the water right is not curtailed by the Hyalite Creek Enforcement Project. Hyalite Creek will experience an increase of 89.86 AF during the historic period of diversion by eliminating diversion of conveyance water in the ditch. The increased water during the irrigation season would benefit water users on Hyalite Creek.

32. Effects from the stream model should be compared with Department knowledge of the operation of this hydrologic system to determine the potential for adverse effect. Modeling indicates the only potential for adverse effect to existing water right users would occur in low-water years when depletions would continue to accrue after July when the well would be shut off in priority within the Enforcement Project. Reductions in the source during these low-water years from July through October range from 11.41 to 14.99 GPM. Hyalite Creek is over-appropriated

during the latter half of the irrigation season (July through September). Flow demands of surface water rights in the project vicinity between the Middle Creek Ditch (upstream of project) and the Farmer's Canal (downstream of project) total 221 CFS. Hyalite Creek flow is often below 221 CFS in July (Department knowledge). The applicant's plan to cease diversion from the well is not adequate to mitigate the late season stream depletions caused by all prior pumping include pumping during previous years and earlier in the current year. Under the proposed plan, stream depletion will occur after ceasing well pumping; therefore, water will continue to be depleted from Hyalite Creek even though the diversion has been shut down. This depletion will occur both in later irrigation season when water is clearly short in the depleted source but also during non-irrigation months when water was normally not removed from the stream in any fashion. Therefore, the proposed change will cause an adverse effect to water right owners on Hyalite Creek.

33. Hyalite Creek does often go dry in a losing stretch downstream of the Applicant's proposed use. Due to this portion of the stream going dry, this was determined to be the boundary for the adverse effect analysis, as a connection is lost to downstream waters.

34. Return flows will not change as a result of moving the POD from Hyalite Creek to a well. Applicant proposes to maintain the historic flood irrigation practices. An average pumping schedule based on monthly crop demands was used to estimate the radius of one-foot drawdown as 600 feet (see Technical Report, pages 3 and 4). Three groundwater rights exist within this distance from the proposed well (41H 30029292, 41H 81834 00, and 41H 30381 00). The well logs for these water rights suggest the static water level is approximately 7.5 feet below the ground surface. Given the well depths of these rights (40, 43, and 72 feet) and the shallow depth to groundwater, these water right owners will continue their ability to exercise their water rights as a projected drawdown of one foot is not expected to interfere with their appropriations.

35. A change cannot change the timing of net depletions to a surface water source, unless the change in timing is when water is legally available on the source. This change proposal would result in a net depletion timing change on Hyalite Creek. Hyalite Creek does not have legally available water. Due to this adverse effect in this change proposal, the Department finds the Applicant has not shown the adverse effect criteria to be met.

CONCLUSIONS OF LAW

36. The Applicant bears the affirmative burden of proving that 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. §85-2-402(2)(a), MCA. Royston, *supra*. It is the applicant's burden to produce the required evidence. *In the Matter of Application to Change Water Right No. 41H 1223599 by MGRR #1, LLC.*, (DNRC Final Order 2005).

37. Prior to the enactment of the Water Use Act in 1973, the law was the same in that an adverse effect to another appropriator was not allowed. Holmstrom Land Co., Inc., v. Newlan Creek Water District (1979), 185 Mont. 409, 605 P.2d 1060, *rehearing denied*, (1980), 185 Mont. 409, 605 P.2d 1060, *following Lokowich v. Helena* (1913), 46 Mont. 575, 129 P. 1063; Thompson v. Harvey (1974), 164 Mont. 133, 519 P.2d 963 (plaintiff could not change his diversion to a point upstream of the defendants because of the injury resulting to the defendants); McIntosh v. Graveley (1972), 159 Mont. 72, 495 P.2d 186 (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 (1909), 38 Mont. 302, 100 P. 222 (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); Gassert v. Noyes (1896), 18 Mont. 216, 44 P. 959 (after the defendant used his water right for placer mining purposes the water was turned into a gulch, where the plaintiff appropriated it for irrigation purposes; the defendant then changed the place of use of his water right, resulting in the water no longer being returned to the gulch - such change in use was unlawful because it deprived the plaintiff of his subsequent right).

38. The cornerstone of an evaluation of adverse effect to other appropriators is the determination of historic use of water. One cannot determine whether there is adverse effect to another appropriator until one knows what the historic water right is to be changed. It is a fundamental part of Montana and western water law that the extent of a water right is determined by reference to the historic beneficial use of the water right. McDonald; Town of Manhattan v.

DNRC, Cause No. DV-09-872C, Montana Eighteenth Judicial District Court, *Order Re Petition for Judicial Review*, (2011) Pg.13; *City of Bozeman* (DNRC), supra; Application for Water Rights in Rio Grande County, 53 P.3d 1165, 1170 (Colo. 2002). The Montana Supreme Court has explained:

An appropriator historically has been entitled to the greatest quantity of water he can put to use. Sayre v. Johnson, 33 Mont. 15, 18, 81 P. 389, 390 (1905). The requirement that the use be both beneficial and reasonable, however, proscribes this tenet. In re Adjudication of Existing Rights to the Use of All Water, 2002 MT 216, ¶ 56, 311 Mont. 327, 55 P.3d 396; see also § 85-2-311(1)(d), MCA. 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. Spokane Ranch & Water Co. v. Beatty, 37 Mont. 342, 351, 96 P. 727, 731 (1908)....

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...

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 ¶¶ 43-45.

The Colorado Supreme Court has repeatedly addressed this same issue of historic use and adverse effect. E.g., Application for Water Rights in Rio Grande County, 53 P.3d 1165, 1170 (Colo. 2002); Santa Fe Trail Ranches Property Owners Ass'n v. Simpson, 990 P.2d 46, 55 -57 (Colo.,1999); Orr v. Arapahoe Water and Sanitation Dist., 753 P.2d 1217, 1223 (Colo.1988). The Colorado Supreme Court has consistently explained:

“A classic form of injury involves diminution of the available water supply that a water rights holder would otherwise enjoy at the time and place and in the amount of demand for beneficial use under the holder's decreed water right operating in priority.” Citations omitted) . . .

... it is inherent in the notion of a “change” of water right that the property right itself can only be changed and not enlarged. (citation omitted). The appropriator of native water may not enlarge an appropriation without establishing all of the elements of an independent appropriation, which will necessarily have a later priority date (citation omitted) ...

... diversions are implicitly limited in quantity by historic use at the original decreed point of diversion...

... we have explained this limitation by noting that “over an extended period of time a pattern of historic diversions and use under the decreed right at its place of use will mature and become the measure of the water right for change purposes.” (citation omitted). The right to change a point of diversion is therefore limited in quantity by the historic use at the original point of diversion. (citations omitted) “Thus, a senior appropriator cannot enlarge the historical use of a water right by changing the point of diversion and then diverting from the new location the full amount of water decreed to the original point of diversion, even though the historical use at the original point of diversion might have been less than the decreed rate of diversion.”

Application for Water Rights in Rio Grande County, 53 P.3d at 1169-1170.

39. Consumptive use of water may not increase when an existing water right is changed. E.g., Town of Manhattan v. DNRC, Cause No. DV-09-872C, Montana Eighteenth Judicial District Court, *Order Re Petition for Judicial Review*, (2011) Pg.9; *In the Matter of Application to Change a Water Right No. 40M 30005660 by Harry Taylor II And Jacqueline R. Taylor*, (DNRC Final Order 2005); *In the Matter of Application to Change a Water Right No. 41I 30002512 by Brewer Land Co, LLC*, DNRC Proposal For Decision adopted Final Order (2003). Applicant must provide evidence of historical amount consumed and the amount to be consumed under the proposed change. *In the Matter of the Application of Beneficial Water Use Permit Number 41H 30003523 and the Application for Change No. 41H 30000806 by Montana Golf Enterprises, LLC.*, (DNRC Proposal for Decision 2003); *In the Matter of Application to Change a Water Right No. 43B 30002710 by USA (Dept. Of Agriculture – Forest Service)* (DNRC Final Order 2005); *In The Matter of Application No. 76H-30009407 to Change Water Right Nos. 76H-108772 and 76H-1-8773 by North Corporation* (DNRC Final Order 2008).

40. It is well settled in Montana and western water law, that once water leaves the control of the appropriator whether through seepage, percolating, surface, or waste waters,” and reaches a water course, it is subject to appropriation. E.g., Rock Creek Ditch & Flume Co. v. Miller (1933), 93 Mont. 248, 17 P.2d 1074, 1077; Newton v. Weiler (1930), 87 Mont. 164, 286 P. 133; Popham v. Holloron (1929), 84 Mont. 442, 275 P. 1099, 1102; Galiger v. McNulty (1927) 80 Mont. 339, 260 P. 401; Head v. Hale (1909), 38 Mont. 302, 100 P. 222; Alder Gulch Con. Min. Co. v. King (1886), 6 Mont. 31, 9 P. 581; Doney, *Montana Water Law Handbook* (1981) [hereinafter Doney] p.22 (if return flows not part of original appropriation then it is available for appropriation by others); see also Hidden Hollow Ranch v. Fields, 2004 MT 153, 321 Mont. 505, 92 P.3d 1185. An intent to capture and reuse return flows must be manifested at the time of the appropriation. E.g., Rock Creek Ditch and Flume, 17 P.2d at 1080; Albert Stone, *Montana Water Law* (1994) p. 84. This is consistent with the cornerstone of the prior appropriation doctrine that beneficial use is the basis, the measure and limit of a water right. E.g., McDonald v. State (1986), 220 Mont. 519, 722 P.2d 598; Toohey v. Campbell (1900), 24 Mont. 13, 60 P. 396. Return flows are not part of a water right and an appropriator is not entitled to return flows in a change in appropriation. Generally, return flow is water that is not consumed or is lost to the system. see also, Doney, p. 21.

The Montana Supreme Court also 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; see discussion in Hohenlohe, supra.

41. The analysis of return flow is a critical component of a change in appropriation and specifically whether a change will cause adverse effect to another appropriator. A change can affect return flow patterns and timing, affecting other water users. E.g., Hohenlohe, supra; *In the Matter of Application to Change Appropriation Water Right No.41F-31227 by T-L Irrigation*

Company (DNRC Final Order 1991). An applicant for a change in appropriation must analyze return flows (amount, location, and timing) to prove that the proposed change does not adversely affect other appropriators who may rely on those return flows as part of their water supply to exercise their water rights. E.g., Royston, supra. The level of analysis of return flow will vary depending on the nature of the change application. Hohenlohe ¶¶ 45-46, 55-56.

42. As a practical matter, the new depletions from the proposed change in this case present many of the same issues that a new appropriation presents – the proposed change will result in new depletions to an over appropriated surface water source in a basin that has been legislatively closed to new appropriations in order to protect existing water users from encroachment and adverse effect to their water rights. Although the Basin Closure does not expressly apply to change applications the Department must accord to the principles espoused in Trout Unlimited when evaluating a proposed change that will result in new surface water depletions for adverse effect. It makes no difference to other appropriators whether a new reduction in surface flow is the result of a new permit or a change to an existing water right. The end result is the same: less water and potential adverse effect to water rights on the source.

43. Although the proposed change will not increase historic consumptive use or alter return flows, it will result in surface water depletions to Hyalite Creek on a year round basis which did not occur under the historic operation of Water Right No. 41H 30064427. FOF Nos. 29 – 33. These depletions will occur during a period of time when Hyalite Creek is over appropriated and water is not available for new appropriations. FOF Nos. 32 – 33. The depletions caused by the proposed change may adversely affect other water users who are entitled to have water flow in the same manner as when they began their appropriation. The applicant has not proposed an adequate plan to prevent adverse effect caused by the new depletions to other water users.

44. The Applicant has not 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. 25 – 35)

Beneficial Use

FINDINGS OF FACT

45. Applicant requests a change in point of diversion and proposes to use water for irrigation consistent with the historic use of the Statement of Claim (41H 30064427).

46. Applicant proposes to use 37.60 acre-feet of diverted volume at 157.08 GPM to flood irrigate 20 acres. These amounts are supported by the Department's application of historic consumptive use rules (ARM 36.12.1902) and on-farm efficiencies provided by the Montana Irrigation Guide. No change is being made to the beneficial use and the 37.60 acre-feet at 157.08 GPM are still needed for the 20 acres of irrigation.

CONCLUSIONS OF LAW

47. Under the change statute, §85-2-402(2)(c), MCA, an Applicant must prove by a preponderance of the evidence the proposed use is a beneficial use. An appropriator may appropriate water only for a beneficial use. §§85-2-301 and 311(1)(d), MCA.

48. 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. The amount of water under a water right is limited to the amount of water necessary to sustain the beneficial use. E.g., Bitterroot River Protective Association v. Siebel, *Order on Petition for Judicial Review*, Cause No. BDV-2002-519, Montana First Judicial District Court (2003), *affirmed on other grounds*, 2005 MT 60, 326 Mont. 241, 108 P.3d 518; Worden v. Alexander (1939), 108 Mont. 208, 90 P.2d 160; Allen v. Petrick (1924), 69 Mont. 373, 222 P. 451; Sitz Ranch v. DNRC, DV-10-13390, Montana Fifth Judicial District Court, *Order Affirming DNRC Decision*, (2011) Pg. 3 (citing BRPA v. Siebel, 2005 MT 60, and rejecting applicant's argument that it be allowed to appropriate 800 acre-feet when a typical year would require 200-300 acre-feet); *In the Matter of Application for Beneficial Water Use Permit No. 76H-84577 by Thomas and Janine Stellick*, DNRC Final Order (1995)(permit denied because no evidence in the record that the amount of water needed for fish and wildlife; absence of evidence of waste does not meet the standard of proof); *In the Matter of Application No. 40A-108497 by Alex Matheson*, DNRC Proposal for Decision adopted by Final Order (2000) (application denied as to fishery and recreation use for lack of proof); *In the Matter of Application for Beneficial Water Use Permit No. 76LJ-115-831*

by Benjamin and Laura Weidling, (DNRC Final Order 2003), *aff'd on other grounds*, In the Matter of Application for Beneficial Water Use Permit No. 76LJ-115-83100 by Benjamin and Laura Weidling and No. 76LJ-1158300 by Ramona S. and William N. Nessly, Order on Motion for Petition for Judicial Review, Cause No. BDV-2003-100, Montana First Judicial District (2004) (fish and wildlife use denied for lack of proof); *In The Matter of Application For Beneficial Water Use Permit 76LJ 30008762 by Vinnie J & Susan N Nardi*, DNRC Proposal for Decision adopted by Final Order (2006); Statement of Opinion, *In the Matter of Beneficial Water Use Permit No. 41H-30013678 by Baker Ditch Company* (June 11, 2008)(change authorization denied - no credible evidence provided on which a determination can be made of whether the quantity of water requested is adequate or necessary to sustain the fishery use, or that the size or depth of the ponds is adequate for a fishery); *In the Matter of Application for Beneficial Water Use Permit No. 43C 30007297 by Dee Deaterly*, (DNRC Final Order 2007), *aff'd on other grounds*, Deaterly v. DNRC et al., Cause No. BDV-2007-186, Montana First Judicial District, *Nunc Pro Tunc Order on Petition for Judicial Review* (2008) (permit denied in part because of failure to support quantity of water needed for pond); see also §85-2-312(1) (a), MCA.

49. Applicant proposes to use water for irrigation which is a recognized beneficial use. §85-2-102(4), MCA. Applicant has proven by a preponderance of the evidence irrigation is a beneficial use and that 37.60 acre-feet of diverted volume and 157.08 GPM is the amount needed to sustain the beneficial use. §85-2-402(2)(c), MCA (FOF Nos. 45 – 46)

Adequate Diversion

FINDINGS OF FACT

50. Applicant proposes to divert groundwater from a well and maintain the historic practice of flood irrigation. Applicant also proposes to install a flow-limiter to restrict the groundwater diversion to the historic flow rate (157.08 GPM). The Department estimated potential drawdowns by using the Theis equation and aquifer properties from nearby studies of the Bozeman Fan aquifer. Based on a pumping schedule of 157.08 GPM for 162 days, the projected drawdown is 30 feet. Analysis of the driller's log for the domestic-use well on the property suggests the unconfined gravel aquifer contains at least 47 feet of available drawdown. The

proposed well will be constructed by a licensed well driller in conformance to the rules of the DNRC Board of Water Well Contractors.

CONCLUSIONS OF LAW

51. 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.

52. The adequate means of diversion statutory test merely codifies and encapsulates the common law notion of appropriation to the effect that the means of diversion must be reasonably effective, i.e., must not result in a waste of the resource. *In the Matter of Application for Beneficial Water Use Permit No. 33983s41Q by Hoyt* (DNRC Final Order 1981); §85-2-312(1) (a), MCA; see also, *In the Matter of Application to Change a Water Right No. G129039-76D by Keim/Krueger* (DNRC Final Order 1989)(whether party presently has easement not relevant to determination of adequate means of diversion); *In the Matter of Application for Beneficial Water Use Permit No. 69141-76G by Silver Eagle Mining* (DNRC Final Order 1989) (collection of snowmelt and rain in lined ponds considered adequate means of diversion); *In the Matter for Application to Change a Water Right No. 101960-41S by Royston* (DNRC Final Order 1989)(irrigation system is designed for flow rates of 750 gpm, and maximum usage allowed during non-high water periods, is 144-247 gpm, and the evidence does not show that the system can be operated at the lower flow rates; diversion not adequate), *affirmed*, Matter of Application for Change of Appropriation Water Rights Nos. 101960-41S and 101967-41S by Royston (1991), 249 Mont. 425, 816 P.2d 1054; *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); *In the Matter of Application for Beneficial Water Use Permit No. 43B-30002710 by USDA* (DNRC Final Order 2005) (specific ditch segments would be adequate after completion of maintenance and rehabilitation work).

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

53. Applicant has proven by a preponderance of the evidence that the proposed means of diversion, construction, and operation of the appropriation works are adequate for the proposed beneficial use. §85-2-402 (2)(b), MCA. (FOF No. 50).

Possessory Interest

FINDINGS OF FACT

54. Applicant signed the application form affirming possessory interest in the property where the water is to be put to beneficial use.

CONCLUSIONS OF LAW

55. 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 Rule 36.12.1802, ARM.

56. The Applicant has proven by a preponderance of the evidence that it has a possessory interest in the property where the water is to be put to beneficial use. §85-2-402(2)(d), MCA. (FOF No. 54)

Salvage Water

This Application does not involve salvage water.

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. 41H 30066200 should be DENIED subject to the following.

Applicant did not adequately prove lack of adverse effect to existing water users. The change proposal results in a different timing of net depletion on Hyalite Creek, for which no water is legally available at the time of the new net depletions.

NOTICE OF OPPORTUNITY FOR SHOW CAUSE HEARING

The Department has determined your application should be denied based upon findings specified in the above Preliminary Determination Decision. Pursuant to § 85-2-310, Mont. Code Ann. (MCA), if the Department proposes to deny an application for a permit or a change in appropriation right under § [85-2-307](#), MCA, unless the applicant withdraws the application, the Department shall hold a hearing pursuant to § [2-4-604](#), MCA, after serving notice of the hearing by first-class mail upon the applicant for the applicant to show cause by a preponderance of the evidence as to why the permit or change in appropriation right should not be denied.

Your Application has been forwarded to the DNRC Hearings Unit to schedule a hearing to show cause why the Application should not be denied. A hearing date will be set within 45 days of the date of this letter and a notice of hearing and appointment of Hearing Examiner will be forwarded to you. You may contact the Department to cancel the hearing if you do not wish to proceed with a hearing. **If you do not proceed to hearing and complete the hearing process, the Department's Preliminary Determination Decision will become a Final Decision.**

To exhaust your administrative remedies under the Montana Administrative Procedure Act (Title 2, Chapter 4, MCA) on a denial of an application, you must proceed to the show cause hearing, complete the hearing process and receive a final order from the Department. Only a person who has exhausted his or her administrative remedies available within the agency and is

aggrieved by a final order of the Department is entitled to judicial review under Montana Administrative Procedure Act (§2-4-702, MCA).

DATED this 2nd day of February 2017.

/Original signed by Kerri Strasheim/
Kerri Strasheim, Regional Manager
Bozeman Regional Office
Department of Natural Resources and Conservation

CERTIFICATE OF SERVICE

This certifies that a true and correct copy of the PRELIMINARY DETERMINATION TO DENY was served upon all parties listed below on this 2nd day of February 2017, by first class United States mail.

JAMES AND SARAH BUDD
8255 COTTONWOOD RD
BOZEMAN, MT 59718

Regional Office, (406) 586-3136