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

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APPLICATION TO CHANGE WATER RIGHT NO. 41H 30129387 BY TOWN OF MANHATTAN	**PRELIMINARY DETERMINATION TO GRANT CHANGE**

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On July 19, 2019, Town of Manhattan (Applicant) submitted Application to Change Water Right No. 41H 30129387 to change Water Right Claim No. 41H 30069634 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 Department sent the Applicant a deficiency letter under §85-2-302, Montana Code Annotated (MCA), dated January 15, 2020. The Applicant responded with information dated March 4, 2020. The Applicant amended the application on September 30, 2022, which reset application timelines. The Department sent the Applicant a deficiency letter under §85-2-302, Montana Code Annotated (MCA), dated March 29, 2023. The Applicant responded with information dated July 10, 2023. The Applicant amended the application on December 20, 2023, which reset application timelines. The Department sent the Applicant a deficiency letter under §85-2-302, Montana Code Annotated (MCA), dated May 31, 2024. The Applicant responded with information dated August 29, 2024. The application was determined to be correct and complete as of November 25, 2024. The application was amended on March 18, 2025, which reset application timelines. The application was determined to be correct and complete as of September 12, 2025.

The Department met with the Applicant numerous times prior to the application being submitted, but no formal preapplication meeting was held. Applicant submitted a concurrent Petition to Modify Permit Authorization No. 41H 30021840, which contains the mitigation plan this application is addressing and which is subject to a separate review and preliminary determination. An Environmental Assessment for this application was completed on January 12, 2026.

INFORMATION

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

Application as filed:

- Application to Change Irrigation Water Right, Form 606

- Attachments
    - Appendix A – water right transfer and split information
    - Appendix B – USGS Streamflow Information
    - Appendix C – Hydrogeological Analysis by WGM Group
    - Appendix D – Historical Use
    - Appendix E – 2018 DNRC memo and Nicklin Report

Information Received after Application Filed

- Deficiency Response dated March 4, 2020
- First Amendment to Form 606 Application to Change an Existing Irrigation Water Right dated September 30, 2022
- Deficiency Response dated July 10, 2023
- Second Amendment to Form 606 Application to Change an Existing Irrigation Water Right dated December 20, 2023
- Deficiency Response dated August 29, 2024
- Department Hydrologist Review of Groundwater Permit Petition to Modify, dated November 18, 2024
- Third Amendment to Form 606 Application to Change an Existing Irrigation Water Right on March 18, 2025

Information within the Department's Possession/Knowledge

- Provisional Permit No. 41H 30021840
- Pending Permit Modification Request for Permit 41H 30021840, submitted concurrently, including all associated file documents
- All Baker Ditch Company associated water right files
- Water Resources Survey, Gallatin County, 1961
- 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 Bozeman Regional Office at 406-586-3136 to request copies of the following documents.
    - "Development of Standardized Methodologies to Determine Historic Diverted Volume" (2012)

- "Technical Memorandum - Assessment of new consumptive use and irrecoverable losses associated with change applications" (2013)
- "Technical Memorandum: Calculating Return Flows" (2019)

The Department has fully reviewed and considered the evidence and argument submitted in this Application and preliminarily determines the following pursuant to the Montana Water Use Act (Title 85, chapter 2, part 3, part 4, MCA).

For the purposes of this document, Department or DNRC means the Department of Natural Resources & Conservation; CFS means cubic feet per second; GPM means gallons per minute; AF means acre-feet; and AF/YR means acre-feet per year. Values presented in this document may differ up to 0.1 due to rounding.

FRONT MATTER

Permit 41H 30021840 was filed on April 28, 2006. Public notice published on July 6, 2006. Objections were received to this new use, based on effects to the Gallatin River. From the Manhattan permit file final order: "On April 11, 2006, the Montana Supreme Court ruled in Montana Trout Unlimited v. Department of Natural Resources and Conservation (2006), 331 Mont. 483, 133 P.3d 224 (Trout Unlimited). This decision applied to DNRC's processing of all future and pending water use permit applications, including this Application, seeking the use of ground water in the upper Missouri River closed basin (basin closed to new appropriations of surface water), and to the use of ground water "immediately or directly connected to surface water," basin closure exception as it existed in 2005. The decision recognizes the effect on surface water of pre-stream capture from ground water appropriations. The objectors and the court ruling led to similar results – the Town of Manhattan needed to mitigate this new well use.

The proposed new development that the permit supplies is on land formerly irrigated by Baker Ditch Company (Baker Ditch) water rights. The Town of Manhattan and Baker Ditch Company did not come to a mutual agreement on the use of Baker Ditch water until after the permit was issued. Since the permit was issued on September 21, 2010, the following water right circumstances have changed:

1. Baker Ditch Company deeded the Town of Manhattan a portion of a water right, resulting in Statement of Claim No. 41H 30069634, with a flow rate of 7.75 CFS, a period of use from April 15 to November 4, and 218.59 acres of irrigation. This

acreage was then removed from all other Baker Ditch water rights through a Water Court action, so this water right represents the only water right for those acres.

2. A formal Share Redemption Agreement specifies that the Town of Manhattan would not use Baker Ditch to convey any mitigation water (Appendix A in application).

As the parties came to an agreement that included a deeded portion of a water right, DNRC will only review the deeded portion of the Baker Ditch water right when reviewing historical use.

During the hearing process, findings were made on the adequacy of Baker Ditch water for mitigation water, related to historical use of the Baker Ditch Water. DNRC did not implement historical use rules allowing for a standardized analysis of historical use of irrigation water based on local averages until January of 2010. The final order for the permit is dated December of 2009, so the mitigation water discussion did not have access to these rules. DNRC standard practices for calculating historical use have changed significantly between the permit receipt in 2006 and today. Today an alfalfa standard is used, while previously pasture grass standards were often used. Today the DNRC requires a very detailed historical use addendum if not using standard rules. The hearings information does not meet the current requirements for historical use addendums using numbers outside of the rule standards. This change application will attempt the balance of following the historical use rules but acknowledging limitations of the water use historically based on information in the water right records (see Historical Use and Adverse Effect section below). DNRC also is acknowledging historical use record discrepancies between a change application (Change Application No. 41H 30013678) submitted by Baker Ditch in 2004 and the contested hearings information for Permit 41H 30021840 (more details below in the historical use section of this document).

Finding an acceptable mitigation plan for the Town of Manhattan has been a challenge, due to lack of conveyance/ditch rights from the West Gallatin River to the Town of Manhattan. Multiple meetings which included many of the objectors were held to work towards finding a mutually agreeable solution.

WATER RIGHTS TO BE CHANGED

FINDINGS OF FACT

1. Applicant seeks to change Water Right Claim No. 41H 30069634, Manhattan's split portion of a Baker Ditch water right (parent water right 41H 119990-00), for 7.75 CFS from the

West Gallatin River for the purpose of irrigation on 218.59 acres with a priority date of October 15, 1912 (details also in Table 1). The period of use and period of diversion are April 15 to November 4. The place of use is 218.59 acres in Section 3, T1N, R3E, Gallatin County. The point of diversion is the Baker Ditch, located in the NWNWSE of Section 19, T1N, R4E, Gallatin County. The general location of the place of use is near the western edge of the Town of Manhattan. This water right was recently part of the 41H Preliminary Decree, and no objections were received.

2. Baker Ditch Company owns six irrigation water rights (41H 119985-00, 41H 119986-00, 41H 119987-00, 41H 119988-00, 41H 119989-00, and parent right 41H 119990-00 – all Statements of Claim), but when the water right split was enacted by the Water Court, the 218.59 acres were removed from all six water rights by a Water Court action. No other historical irrigation water rights currently can provide irrigation to this place of use. The Town of Manhattan's water right represents the full irrigation volume for that field acreage. This is all explicitly described in the formal Share Redemption Agreement between the parties that was provided with the application. No private rights have irrigated this property.

3. Baker Ditch Company filed Change Application No. 41H 30013678 on December 30, 2004, to change a portion of the water right package to a fish and wildlife purpose for ponds. This application was denied based on not meeting beneficial use criteria. This record does include some relevant historical use information that will be discussed in the historical use section below.

Table 1: Water Right Proposed for Change

Water Right Number	Flow Rate	Volume	Purpose	Period Of Use	Max Acres	Point Of Diversion	Priority Date
41H 30069634	7.75 CFS	Historical	Irrigation	April 15-November 4	218.59	NWNWSE Section 19, T1N, R4E, Gallatin County	October 15, 1912

CHANGE PROPOSAL

FINDINGS OF FACT

4. The Applicant proposes to retire 68.77 acres of irrigation (Figure 1) to partially change the purpose to mitigation, providing 94.21 AF of consumed volume for mitigation purposes. The mitigation reach will start at the Baker Ditch point of diversion, located at the NWNWSE of Section 19, T1N, R4E, Gallatin County. The end of the mitigation reach will be where the Backlin Ditch flows into the Gallatin River, located at SW of Section 28, T2N, R3E, Gallatin County. This mitigation change to instream mitigation (Figure 2) is connected to the plan to prevent adverse

effect in the permit modification request, where a wastewater disposal modification is the other part of the plan to prevent adverse effect. Wastewater will be infiltrated into a Rapid Infiltration Basin (RIB) during a defined period of historical use of this change mitigation water, changing the wastewater disposal method and making up the water lost to the river with this West Gallatin surface water at the point of discharge at the end of the Backlin Ditch into the Gallatin River. Water will be infiltrated by wastewater disposal similar to aquifer recharge to meet year-round mitigation and address the year-round net depletions, resulting in no new net depletions to the Gallatin River. The Applicant proposes a May 15 to September 30 period of use for the mitigation purpose. The Applicant will continue to irrigate 149.8 acres in the historical place of use following the proposed change. No change in point of diversion or place of storage is proposed.

5. The Applicant will measure all water used for instream mitigation. This mitigation change is mitigating a change in wastewater disposal method at the point the Backlin Ditch flows into the Gallatin River. A measurement of all wastewater diverted into the RIB will occur as a permit condition, for the plan to prevent adverse effect. The RIB water input for the plan to prevent adverse effect will not exceed 2.64 CFS at one time or 94.21 AF in one year. The purpose of the water in this change is mitigation, as the water is remaining instream.

6. The Town of Manhattan currently has Permit 41H 30021840 which is contingent upon this water right providing mitigation for the permitted uses. Concurrent with this change application is a permit modification request to modify the approved mitigation plan and associated permit conditions. This change application is focusing on just the change to instream mitigation water, but plan details will be shared for understanding.

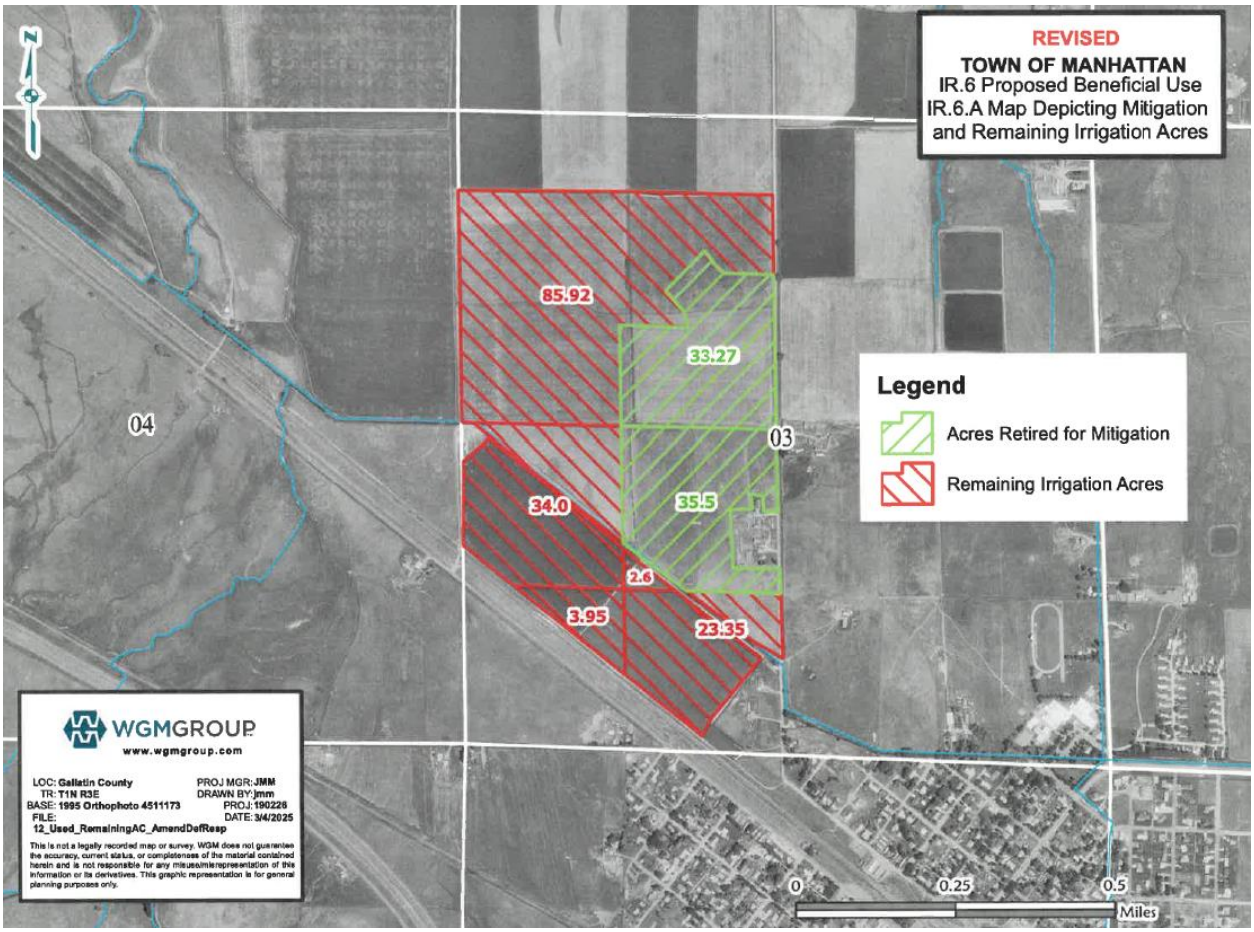

Figure 1. Historical place of use and acres proposed for retirement.

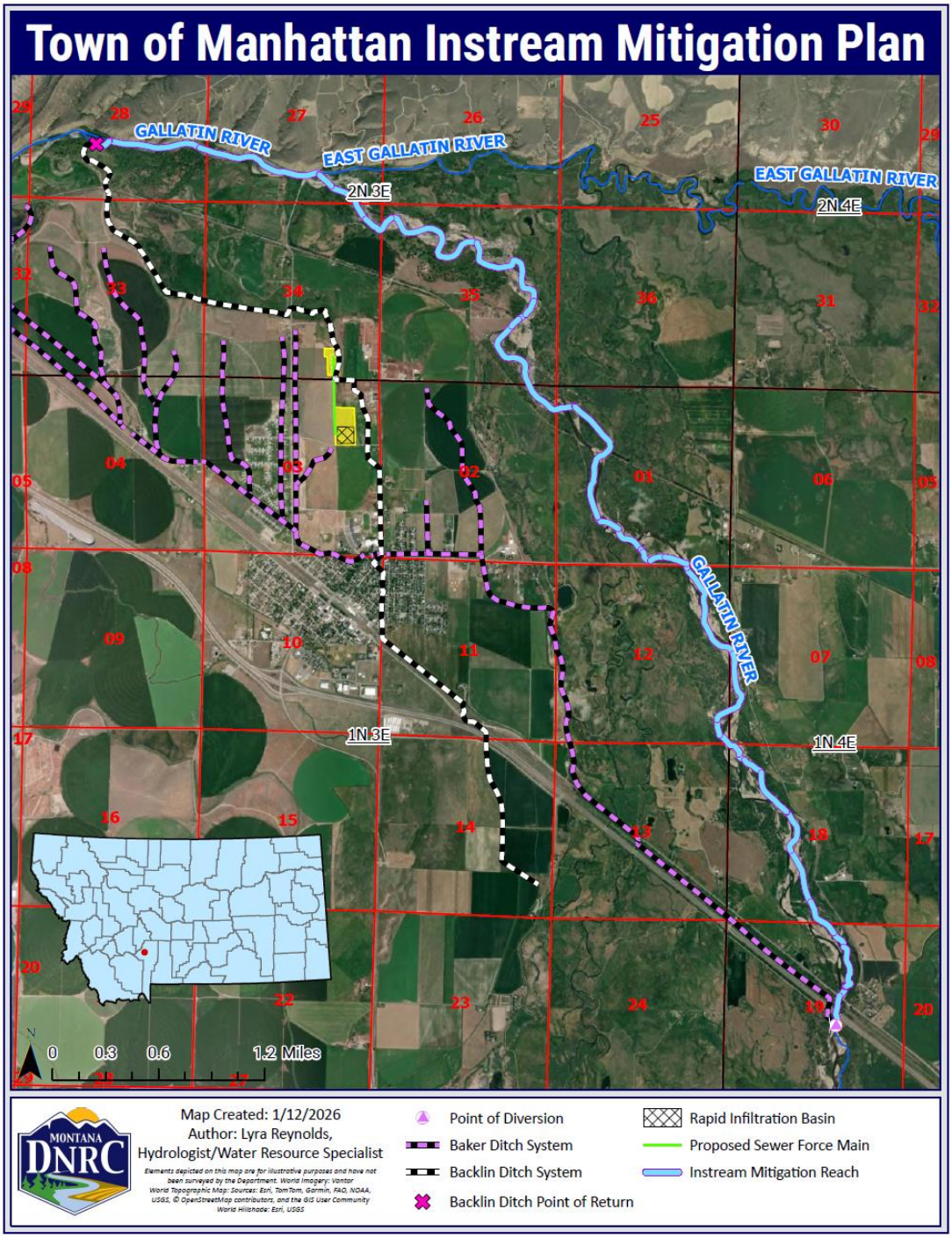

Figure 2. Instream mitigation reach proposed place of use. Note on source names: USGS has the Gallatin River mainstem start in the Gallatin Canyon. DNRC uses the local naming convention,

where the river is called the West Gallatin River until meeting up with the East Gallatin River – after this confluence is the Gallatin River, in DNRC source names.

7. The following mitigation operation plan condition for how the water will be beneficially used instream for the mitigation purpose is to ensure that the historical volume is not exceeded.

IMPORTANT INFORMATION

THE FOLLOWING OPERATION FOR PROTECTION REPRESENTS THE MITIGATION PLAN OF OPERATION FOR THE WATER RIGHT. THE PROTECTED REACH ENCOMPASSES THE STRETCH FROM THE BAKER DITCH HEADGATE ON THE WEST GALLATIN RIVER TO THE WHERE THE BACKLIN DITCH FLOWS INTO THE GALLATIN RIVER. THE APPROPRIATOR MAY PROTECT THE FOLLOWING AMOUNTS, WITH A VOLUME TOTAL OF 94.21 AF.

Time Period	Avg Daily Flow (gpm)	Monthly Volume (ac-ft)
May 15-31	249.05	18.71
Jun 1-30	603.38	45.33
Jul 1-15	137.50	10.33
Aug 15-31	94.37	7.09
Sep 1-24	169.71	12.75
	Total	**94.21**

8. The following conditions will be included on the water right to prevent adverse effect.

IMPORTANT INFORMATION

THIS CHANGE AUTHORIZATION PROVIDES MITIGATION WATER FOR BENEFICIAL USE PERMIT 41H 30021840. IF AT ANY TIME THE MITIGATION COMPONENT OF THIS CHANGE AUTHORIZATION IS NOT MET, WATER USE UNDER BENEFICIAL USE PERMIT 41H 30021840 MUST BE STOPPED. IF MITIGATION CANNOT BE MET, APPLICANTS WILL PROVIDE A REPORT TO DNRC DETAILING THE AMOUNT OF SHORTAGE OF MITIGATION WATER AND HOW THE PERMIT USE WAS STOPPED TO PREVENT ADVERSE EFFECT.

WATER MEASUREMENT INFORMATION

THE APPROPRIATOR SHALL INSTALL A DEPARTMENT APPROVED MEASURING DEVICE AT THE CURRENT ACTIVE POINT OF DIVERSION FOR THESE RIGHTS TO ENSURE THE MITIGATION WATER REMAINS INSTREAM. THIS CHANGE SHALL NOT BE EXERCISED UNTIL THE REQUIRED MEASURING DEVICE IS IN PLACE AND OPERATING. ON A FORM PROVIDED BY THE DEPARTMENT, THE APPROPRIATOR SHALL KEEP A WRITTEN WEEKLY RECORD OF THE VOLUME OF MITIGATION WATER NOT DIVERTED AND LEFT INSTREAM, INCLUDING THE PERIOD OF TIME. RECORDS SHALL BE SUBMITTED BY NOVEMBER 30 OF EACH YEAR AND UPON REQUEST BY THE DEPARTMENT AT OTHER TIMES DURING THE YEAR. FAILURE TO SUBMIT RECORDS MAY BE CAUSE FOR REVOCATION OF A PERMIT OR CHANGE. THE RECORDS MUST BE SENT TO THE WATER RESOURCES BOZEMAN REGIONAL OFFICE. THE APPROPRIATOR SHALL MAINTAIN THE MEASURING DEVICE SO IT ALWAYS OPERATES PROPERLY AND MEASURES THE VOLUME ACCURATELY.

CHANGE CRITERIA

9. 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.

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

HISTORIC USE AND ADVERSE EFFECT

FINDINGS OF FACT - Historic Use

11. The Town of Manhattan is proposing a partial place of use and purpose change to irrigation water right 41H 30069634. The source of water is the West Gallatin River, with a single point of diversion at the Baker Ditch, located in the NWNWSE of Section 19, T1N, R4E, Gallatin County. The Baker Ditch historically conveyed water approximately five miles to an irrigated field of 218.59 acres, representing the place of use of this water right, near Manhattan, Montana, with this deeded ownership to Manhattan representing 310 shares (originally part of the full Baker Ditch project of 1776 acres). The period of diversion and use is April 15 through November 4.

12. Water right 41H 30069634 is a deeded portion of Baker Ditch irrigation water rights, based off of 310 shares and coming out of a more junior right (Claim 41H 119990-00) that is the common shares (junior water rights) versus preferred shares (senior water rights). No prior changes have been granted, so historical use is focused on pre-July 1, 1973, use and is for just the acreage the deeded portion was used on (218.59 acres total). DNRC will not be analyzing the entirety of the Baker Ditch system in any detail. Baker Ditch Company also did not transfer any ditch rights or conveyance ability with this deeded transfer, as specified in the formal Share Redemption Agreement. DNRC will be focused on field-applied volume only, as no conveyance water is requested or described in detail by the Applicant. The agreement was enacted in the Baker Ditch

water rights through the Water Court, with an order to adopt dated October 16, 2014. At this point of adoption, the Applicant's water right was split out, and the 218.59 acres were removed from ALL of the Baker Ditch water rights. The Applicant's water right includes 100% of the field applied volume, with no supplemental relationship with the other Baker Ditch water rights, as based on the formal Share Redemption Agreement and the Water Court order.

13. The Preliminary Decree for the Gallatin River Basin was issued by the Water Court on October 11, 2018. No objections were filed, and this water right remained unchanged through the decree process. The priority date is October 15, 1912, with a District Court historical decree basis.

14. Baker Ditch Company has a previous change application on record, 41H 30013678, denied based on failure to show beneficial use. Some historical items in that application are summarized below:

a. The application asserts that all water was commingled and not distributed down ditch by priority, rather by availability.

b. Water was found to be generally available until July 1 and then reduced by 33% until the first part of August and then further reduced by 33% for the remainder of the season.

c. Historical use was found to be 2.3 AF/acre based on NRCS Montana Irrigation Guide data.

15. In the hearings for Provisional Permit No. 41H 30021840, the following historical use findings were made with respect to the mitigation plan:

a. Irrigation Water Requirements (IWR) software was used, based on pasture grass in a normal year. 1.43 AF/acre consumed volume was found for a 169-day growing period.

b. 30 days were removed from the growing period, based on at least three weeks of no water in Mid-July through early August of each year.

c. Sprinkler consumption was used.

d. This resulted in 1.12 AF/year of consumed volume.

16. Department standards for historical use have changed significantly since the hearing for Permit 41H 30021840, as the Department has incorporated further research and technical information into standard practices. During the hearing process, findings were made on the adequacy of Baker Ditch water for mitigation water, related to historical use of the Baker Ditch Water. DNRC currently uses an alfalfa standard now, instead of pasture grass. DNRC has moved

from an IWR input and period of use entry to the rules-based numbers that include the IWR use requirements but then use an averaging management factor based on historical data from each county, which includes all priority users. While using the Department rules today might vary the consumed volume from what was found in the hearings process, the hearings process does not meet our current historical use addendum form requirement of information when not using the accepted historical use rules. This water also has some discrepancies in the record on historical use. DNRC finds that using the historical use rules in this application today is the best way to move forward with a change to this portion of the Baker Ditch water. This approach does take into account the water not being available mid-July through mid-August, which was a key takeaway from the objectors and the hearings process.

17. Baker Ditch is part of the West Gallatin water distribution project overseen by a Water Commissioner every year. The ditch has an eight-foot-wide Montana flume as the water measurement device. This device shows the headgate and ditch diversion capacity as 2000 CFS. This diversion had the capacity to historically divert this water right, with a flow rate of 7.75 CFS. The Department finds the maximum historical flow rate of Claim 41H 30069634 is 7.75 CFS.

18. The Gallatin Water Resource Survey (WRS) does show the entire place of use within the Baker Ditch irrigation system and irrigated, with the field notes specifying Baker Ditch shares. The photo used for the WRS mapping, photo L-23-2-128 dated May 6, 1947, does also show the entire place of use as irrigated (flood/sprinkler). For a 1979 data point, photo 30031 179 95L, taken on September 1, 1979, shows the entire place of use as irrigated. The Department finds the maximum historical acres irrigated by Claim 41H 30069634 is 218.59 acres.

19. A general operation for irrigation of the fields was provided by Ron Klompien, an owner and operator of the field historically from 1989-2003, in an affidavit. Crops were rotated seasonally, and included alfalfa, spring wheat, barley, oats, and potatoes. The timing of water to the fields varied highly due to different crop types. While Mr. Klompien's time on the property was 1989-2003, the operation is reasonable to apply to earlier practices, pre-July 1, 1973. Lateral ditches providing flood irrigation to the property are seen in historical photo evidence. Mr. Klompien stated that he was usually shut-off completely in late July and would get some water back in early- to mid-August. Mr. Klompien did have some knowledge of previous owner's operations. He stated that Burt Kamps owned the property from 1968-1980s. North of the canal

was flood irrigated. While some sprinkler use occurred south of the canal with Burt, this area was also flood irrigated at times.

20. With respect to mitigation, the water needs to have a high confidence of availability. While water availability varies year to year, general agreement was reached through the past permit process that at least 100 days of use is typical. The decreed period of use and period of diversion is April 15 through November 4. The Applicant asserts that the entire flow of 7.75 CFS has been diverted when the water right is in priority and systems can be operated, with a start date of April 15 and an end date of November 4. Water shares deeded to the Town of Manhattan represents the field volume used in the past.

21. The Applicant elected for the DNRC to calculate the historical volume for the irrigation use for Claim 41H 30069634 using the DNRC's standard methodology pursuant to ARM 36.12.1902, as the standards account for all priority water use. The water right proposed for change is a Statement of Claim, so the historical use associated with the 218.9-acre place of use was calculated as the acres existed prior to July 1, 1973. The Trident weather station flood/sprinkler irrigation water requirements (IWR) for alfalfa data was used (20.64 inches), along with Gallatin County (Bozeman Exp. Farm) management factor of 73.5%. The historical use of the water right is summarized below and is based on information in the file and local practices.

Crop Consumptive Use

Trident Weather Station Flood/Sprinkler Irrigation Water Requirements (IWR) for alfalfa: 20.64 in

Gallatin County (Bozeman Exp. Farm) 1964-1973 Management Factor: 73.5%

Crop consumptive use = 276.3 acre-feet (AF)

Water Applied to Field

Field efficiency (graded border): 60%

Water applied to field = 276.3 AF / 60% = 460.6 AF

Irrecoverable Losses

5 percent for flood irrigation

Irrecoverable losses = 5% x 460.6 AF = 23 AF

Total Historical Consumptive Use

Total historical consumptive use = crop consumptive use + irrecoverable losses = 299.4 AF

22. The historical diverted volume for the water right proposed for change is equal to the field applied volume, found using the DNRC's standard methodology. The historical diverted volume for Claim 41H 30069634 is 460.6 AF.

23. The Department finds the following historic use.

Table 2. Historical use of Claim 41H 30069634

Source	Acres	Crop Consumption (AF)	Field Applied Volume (AF)	IL (AF)	Total Consumed Volume (AF)	Non-Consumed Volume (AF)	Diverted Volume (AF)
West Gallatin River	218.6	276.3	460.6	23	299.4	161.2	460.6

FINDINGS OF FACT – Adverse Effect

24. The Town of Manhattan is proposing to change the purpose and place of use of a portion of its water right. A portion of the water right will be changed to mitigation purpose with water left instream. The proposed instream place of use is a protected reach from the Baker Ditch headgate on the West Gallatin River to the Backlin Ditch point of discharge into the Gallatin River. No change in the point of diversion is proposed. The Applicant needs 94.21 AF of mitigation water to offset depletions associated with the use of Permit 41H 30021840. The proposed revised plan to prevent adverse effect is detailed in concurrent Petition to Modify Provisional Permit No. 41H 30021840 decision document. The other component of the plan is a change in wastewater disposal method to resemble aquifer recharge (disposal into the RIB) and result in no new net depletions to the Gallatin River. The wastewater was treated as non-consumptive in the permit, so this mitigation water is providing the water at the point in the Gallatin River that the wastewater would have returned.

25. No expansion in use is occurring with this change. The historical consumptive use is equal to the proposed consumptive use. The portion of the consumptive use being changed will be left in the West Gallatin/Gallatin River to mitigate surface water depletions caused by the use in Provisional Permit No. 41H 30021840. Historical consumptive use was found to be 299.4 AF, and new consumptive use will remain 299.4 AF, with 94.2 AF for the mitigation purpose and 205.2 AF remaining in the irrigation purpose.

26. The Applicant proposes the period of use for the mitigation purpose to be May 15 to September 30. No change is proposed to the irrigation period of use, which will remain April 15 to November 4.

27. To ensure that no expansion in use is occurring, the following condition will be included, which is a 100-day plan per the main requirement of objectors from the permit hearing:

IMPORTANT INFORMATION

THE FOLLOWING OPERATION FOR PROTECTION REPRESENTS THE MITIGATION PLAN OF OPERATION FOR THE WATER RIGHT. THE PROTECTED REACH ENCOMPASSES THE STRETCH FROM THE BAKER DITCH HEADGATE ON THE WEST GALLATIN RIVER TO THE WHERE THE BACKLIN DITCH FLOWS INTO THE GALLATIN RIVER. THE APPROPRIATOR MAY PROTECT THE FOLLOWING AMOUNTS, WITH A VOLUME TOTAL OF 94.21 AF.

Time Period	Avg Daily Flow (gpm)	Monthly Volume (ac-ft)
May 15-31	249.05	18.71
Jun 1-30	603.38	45.33
Jul 1-15	137.50	10.33
Aug 15-31	94.37	7.09
Sep 1-24	169.71	12.75
	Total	**94.21**

28. The Montana Flume at the Baker Ditch headgate will be used to show that the mitigation water is no longer being diverted into the Baker Ditch but rather being left instream. This will be a condition with this change – a weekly report of diverted/non-diverted water at the Baker Ditch headgate. A shortage condition will also be added, to ensure that appropriate permit adjustments are made if a mitigation shortage should occur.

IMPORTANT INFORMATION

THIS CHANGE AUTHORIZATION PROVIDES MITIGATION WATER FOR BENEFICIAL USE PERMIT 41H 30021840. IF AT ANY TIME THE MITIGATION COMPONENT OF THIS CHANGE AUTHORIZATION IS NOT MET, WATER USE UNDER BENEFICIAL USE PERMIT 41H 30021840 MUST BE STOPPED. IF MITIGATION CANNOT BE MET, APPLICANTS WILL

PROVIDE A REPORT TO DNRC DETAILING THE AMOUNT OF SHORTAGE OF MITIGATION WATER AND HOW THE PERMIT USE WAS STOPPED TO PREVENT ADVERSE EFFECT.

WATER MEASUREMENT INFORMATION

THE APPROPRIATOR SHALL INSTALL A DEPARTMENT APPROVED MEASURING DEVICE AT THE CURRENT ACTIVE POINT OF DIVERSION FOR THESE RIGHTS TO ENSURE THE MITIGATION WATER REMAINS INSTREAM. THIS CHANGE SHALL NOT BE EXERCISED UNTIL THE REQUIRED MEASURING DEVICE IS IN PLACE AND OPERATING. ON A FORM PROVIDED BY THE DEPARTMENT, THE APPROPRIATOR SHALL KEEP A WRITTEN WEEKLY RECORD OF THE VOLUME OF MITIGATION WATER NOT DIVERTED AND LEFT INSTREAM, INCLUDING THE PERIOD OF TIME. RECORDS SHALL BE SUBMITTED BY NOVEMBER 30 OF EACH YEAR AND UPON REQUEST BY THE DEPARTMENT AT OTHER TIMES DURING THE YEAR. FAILURE TO SUBMIT RECORDS MAY BE CAUSE FOR REVOCATION OF A PERMIT OR CHANGE. THE RECORDS MUST BE SENT TO THE WATER RESOURCES BOZEMAN REGIONAL OFFICE. THE APPROPRIATOR SHALL MAINTAIN THE MEASURING DEVICE SO IT ALWAYS OPERATES PROPERLY AND MEASURES THE VOLUME ACCURATELY.

29. Baker Ditch users will see minimal change to the overall operation of the Baker Ditch system and irrigation water use. Total allowed flow rate is going from 50 CFS to 47.56 CFS at the headgate, as 2.44 CFS is the proportional flow changing to instream mitigation purpose. See the technical report for this amended application for a list of all Baker Ditch water rights considered for adverse effect.

30. The West Gallatin River is the receiving surface stream for historical return flows. The Department's Surface Water Change Report for this application identified the start point of return flow accrual along the southern boundary of the SENWSW of Section 1, T1N, R3E, Gallatin County. Historical return flows would have gradually accrued to the full historical non-consumed field applied volume throughout the reach of the West Gallatin River below this point. The change in place of use will result in less return flow, but the Applicant will be leaving that return flow instream at the historical point of diversion on the West Gallatin. This project meets the requirements listed in the DNRC's Change Manual, which enables evaluating return flows on an annual basis rather than a monthly basis. Return flows associated with the remaining 149.8 historical acres will enter back to the same location as historically. The non-consumed volume

associated with the 68.8 acres that will be retired will be left instream in the historical source upstream of the next downstream appropriator in the annual volume amount of 50.8 AF. The amount of water left instream exceeds the non-consumed volume of water associated with the retired acres. As such, historically diverted volume for downstream users would be available during the historical period of diversion below the point of diversion and where return flows historically returned to the source. An analysis of timing of historical return flows was not conducted. No adverse effect will occur for other appropriators, senior or junior. See the technical report for this amended application for a list of all field area water rights considered for adverse effect. See Appendix A for water rights considered for adverse effect with a diversion between the Baker Ditch headgate and the Backlin Ditch return.

31. Four irrigation diversions (Wright Ditch, Gibson Ditch, Amerimont Pump Site, and Section 12 West Side Ditch) are on the river system between the Baker Ditch headgate and the Backlin Ditch return. The senior water rights will see no effect and will be able to divert as they have historically. The West Gallatin River has had a longtime Water Commissioner, so water rights are actively distributed by priority. No change in call patterns will occur. The Applicant will work with a Water Commissioner as needed to ensure that junior users are not taking any protected mitigation flow in the protected reach. After the interstate intersection with West Gallatin River, the river system is generally thought to be a gaining stretch due to an uplift fault, and not much conflict has been seen in the stretch past the Baker Ditch headgate to the Backlin Ditch return. See Appendix A for a list of all water rights with a diversion in this reach.

32. The Department finds no adverse effect will occur with this partial change to remove 68.77 acres of irrigation for 94.21 AF of consumed water for an instream mitigation use for water right 41H 30069634.

BENEFICIAL USE

FINDINGS OF FACT

33. Applicant proposes to change a portion of the irrigation water to a mitigation purpose. Mitigation is recognized as a beneficial use in Montana, as defined in statute, §85-2-102(4), MCA. This mitigation water will mitigate net depletions to the Gallatin River by Provisional Permit No. 41H 30021840, which provides municipal water to the Town of Manhattan.

34. The Applicant is removing 68.77 acres of irrigation to change to mitigation. The Applicant will continue to irrigate 149.82 acres; irrigation purpose has been a beneficial use. The volume

associated with the remaining irrigated acres was found using the same methodology as the historical volume (FOFs 11-23). The volume associated with continued irrigation use is seen in Table 3 below.

Table 3. Remaining irrigation proposed use (68.5% of total acres)

Acres	IWR (in)	Management Factor	Field Efficiency	Crop Consumption (AF)	Applied Volume (AF)	IL (AF)	Total Consumed Volume (AF)	Non-Consumed Volume (AF)
149.8	20.64	73.50%	60%	189.4	315.6	15.8	205.2	110.4

35. The Applicant proposes to change 94.21 AF, equal to the historical consumed volume associated with the 68.77 retired acres, to mitigation purpose. The remaining historical field-applied volume associated with the retired acres, equal to 50.8 AF of non-consumed volume, will be left instream and no longer used. The 94.21 AF of consumed volume will be left instream as mitigation water to offset net depletions to surface water resulting from Permit 41H 30021840. The proposed operation plan for the mitigation water is seen in Table 4 below.

Table 4. Proposed operation for instream mitigation use (and also a condition to ensure distribution ability and no expansion).

Time Period	Average Daily Flow (GPM)	Monthly Volume (AF)
May 15-31	249.1	18.71
June 1-30	603.4	45.33
July 1-15	137.5	10.33
August 15-31	94.4	7.09
September 1-24	169.7	12.75
TOTAL		**94.21**

36. This is a two-part mitigation plan, with the other component located in the permit plan to prevent adverse effect (Figure 3) and using a change in wastewater disposal of Provisional Permit No. 41H 30021840 as aquifer recharge. The non-consumptive wastewater will be consumed through a disposal method that mimics aquifer recharge and this change in consumption is mitigated with the instream consumed mitigation water at the point the Backlin Ditch returns to the Gallatin River, leaving the river with no new net depletions. Due to the proposed pumping by Permit 41H 30021840, the net depletions to the Gallatin River will be year-round. Proposed instream mitigation water under Claim 41H 30069634 is only seasonal, and the Applicant does not have ditch rights to get any water from the West Gallatin River to the Town of Manhattan and

an aquifer recharge basin. The Town of Manhattan will dispose of wastewater using a method like aquifer recharge and this change in wastewater disposal is mitigated by the mitigation water at the point in the river where wastewater was historically discharged (see Figure 3). A Rapid Infiltration Basin (RIB) will be used as an aquifer recharge area for wastewater – exchanging the amount that would have flowed into the Gallatin River with the consumptive volume of water left instream. Only the wastewater generated from this permit has non-consumptive restrictions, and the RIB will only be used during the historical period of use of the mitigation water for this portion of that wastewater. The RIB water delivery schedule will mimic the above operation plan for the instream mitigation water.

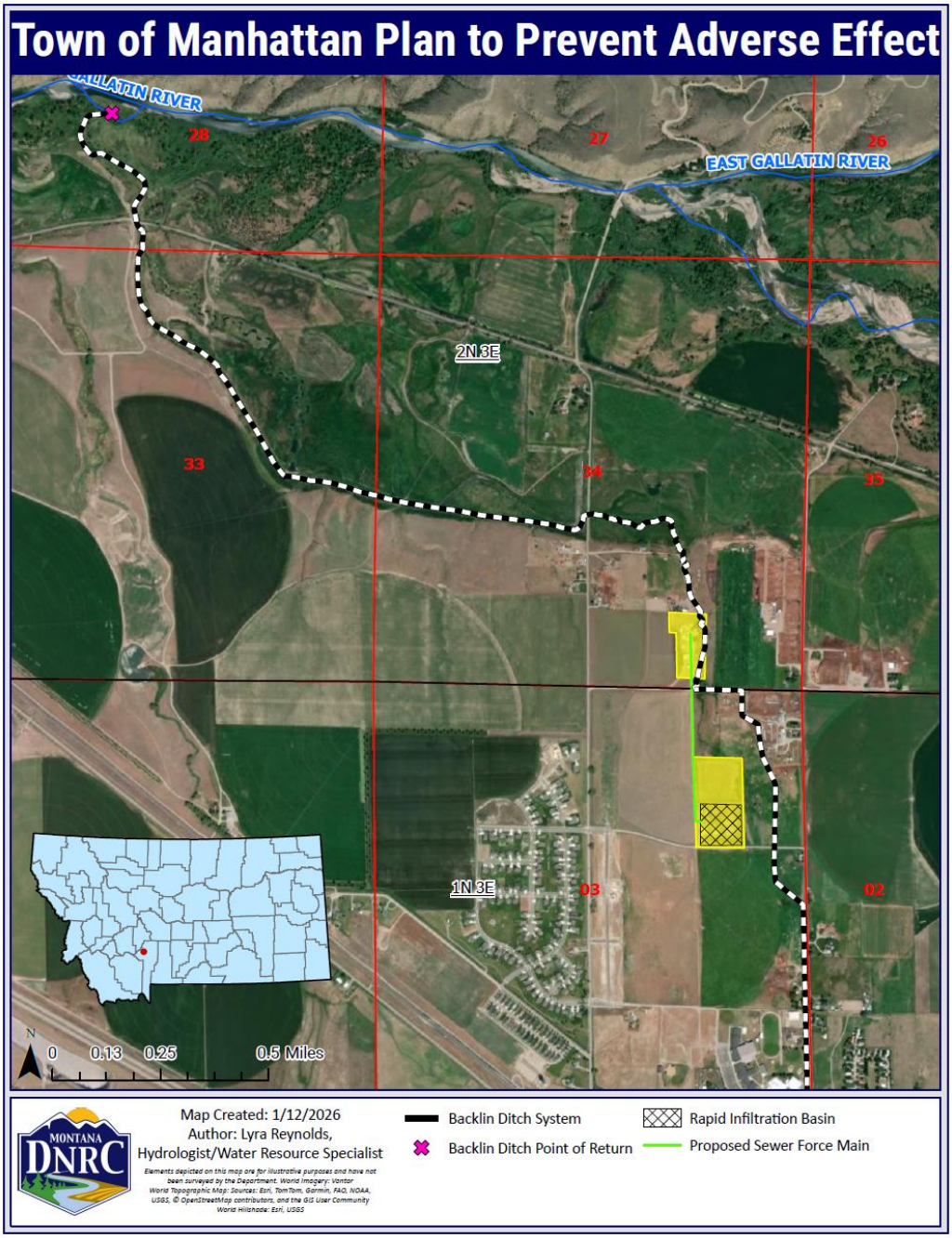

Figure 3. Permit operated plan to prevent adverse effect changing the wastewater disposal method and mitigating that change at a point at the Gallatin River where the wastewater historically would have discharged non-consumed to the river.

37. The mitigation is based on the following use in Provision Permit No. 41H 30021840.

Table 5. Permit revised diverted (Div) and consumed (Cons) volumes of use. Purposes making up the municipal use are domestic (DM), commercial (CM) and lawn and garden irrigation (IR).

	Volume in AC-FT						
	DM/CM Div	IR Div	Total Diverted	DM/CM Cons	IR Cons	Evap Cons	Total Consumed
PC PH 1 & 2 & CV Residential Lots (227)	73.71	72.31	146.02	3.30	72.31		75.61
PC PH 3 & 4 Residential Lots (122)	42.70		42.70	2.49			2.49
CV Commercial Lots (15)	8.40	12.60	21.00	0.42	12.60		13.02
RIB Evaportation						3.09	3.09
Totals	**124.81**	**84.91**	**209.72**	**6.21**	**84.91**	**3.09**	**94.21**

38. The Department finds 2.44 CFS up to 94.21 AF beneficial use for mitigation and 5.31 CFS for up to 149.8 acres and up to 315.6 AF of remaining irrigation use a beneficial use of water.

ADEQUATE DIVERSION

FINDINGS OF FACT

39. Partial Change to Mitigation Portion: A portion of this application is for instream mitigation, so adequate diversion does not apply to the partial change portion.

40. Remaining Irrigation Portion: The portion remaining in irrigation will reflect a point of diversion as the Baker Ditch, which is in use and fully operational with a Water Commissioner ensuring the adequate operation and measurement of this diversion most years.

POSSESSORY INTEREST

FINDINGS OF FACT

41. Partial Change to Mitigation Portion: A portion of this application is for instream mitigation, so possessory interest does not apply.

42. Remaining Irrigation Portion: The portion remaining in irrigation is owned by a municipality in which water is supplied to another. It is clear that the ultimate user will not accept the supply without consenting to the use of water. The Applicant has possessory interest in the property where the water is to be put to beneficial use or has the written consent of the person having the possessory interest.

CONCLUSIONS OF LAW

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

[1] DNRC decisions are available at:
http://www.dnrc.mt.gov/wrd/water_rts/hearing_info/hearing_orders/hearingorders.asp

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

[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).

[3] A 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).[4]

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 tenant of Montana water law that once water leaves the control of the original appropriator, the original appropriator has no right to its use and the water is subject to appropriation by others. E.g., Hohenlohe, at ¶44; Rock Creek

[4] Other western states likewise rely upon the doctrine of historic use as a critical component in evaluating changes in appropriation rights for expansion and adverse effect: Pueblo West Metropolitan District v. Southeastern Colorado Water Conservancy District, 717 P.2d 955, 959 (Colo. 1986)("[O]nce an appropriator exercises his or her privilege to change a water right … the appropriator runs a real risk of requantification of the water right based on actual historical consumptive use. In such a change proceeding a junior water right … which had been strictly administered throughout its existence would, in all probability, be reduced to a lesser quantity because of the relatively limited actual historic use of the right."); Santa Fe Trail Ranches Property Owners Ass'n v. Simpson, 990 P.2d 46, 55 -57 (Colo.,1999); Farmers Reservoir and Irr. Co. v. City of Golden, 44 P.3d 241, 245 (Colo. 2002)("We [Colorado Supreme Court] have stated time and again that the need for security and predictability in the prior appropriation system dictates that holders of vested water rights are entitled to the continuation of stream conditions as they existed at the time they first made their appropriation); Application for Water Rights in Rio Grande County, 53 P.3d 1165, 1170 (Colo. 2002); Wyo. Stat. § 41-3-104 (When an owner of a water right wishes to change a water right … he shall file a petition requesting permission to make such a change …. The change … may be allowed provided that the quantity of water transferred … shall not exceed the amount of water historically diverted under the existing use, nor increase the historic rate of diversion under the existing use, nor increase the historic amount consumptively used under the existing use, nor decrease the historic amount of return flow, nor in any manner injure other existing lawful appropriators.); Basin Elec. Power Co-op. v. State Bd. of Control, 578 P.2d 557, 564 -566 (Wyo,1978) (a water right holder may not effect a change of use transferring more water than he had historically consumptively used; regardless of the lack of injury to other appropriators, the amount of water historically diverted under the existing use, the historic rate of diversion under the existing use, the historic amount consumptively used under the existing use, and the historic amount of return flow must be considered.)

Ditch & Flume Co. v. Miller, 93 Mont. 248, 17 P.2d 1074, 1077 (1933); Newton v. Weiler, 87 Mont. 164, 286 P. 133(1930); Popham v. Holloron, 84 Mont. 442, 275 P. 1099, 1102 (1929); Galiger v. McNulty, 80 Mont. 339, 260 P. 401 (1927); Head v. Hale, 38 Mont. 302, 100 P. 222 (1909); Spokane Ranch & Water Co., 37 Mont. at 351-52, 96 P. at 731; Hidden Hollow Ranch v. Fields, 2004 MT 153, 321 Mont. 505, 92 P.3d 1185; In the Matter of Application for Change Authorization No. G (W)028708-411 by Hedrich/Straugh/Ringer, DNRC Final Order (Dec. 13, 1991); In the Matter of Application for Change Authorization No. G(W)008323-G76l By Starkel/Koester, DNRC Final Order (Apr. 1, 1992); In the Matter of Application to Change a Water Right No. 41I 30002512 by Brewer Land Co, LLC, DNRC Proposal For Decision and Final Order (2004); Admin. R.M. 36.12.101(56)(Return flow - that part of a diverted flow which is not consumed by the appropriator and returns underground to its original source or another source of water - is not part of a water right and is subject to appropriation by subsequent water users).[5]

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. Noted Montana Water Law scholar Al Stone explained that the water right holder who seeks to change a water right is unlikely to receive the full amount claimed or historically used at the original place of use due to reliance upon return flows by other water users. Montana Water Law, Albert W. Stone, Pgs. 112-17 (State Bar of Montana 1994).

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

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

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. Admin.R.M. 36.12.1901 through 1903. These rules forth specific evidence and analysis required to establish the parameters of historic use of the water right being changed. Admin.R.M. 36.12.1901 and 1902. The rules also outline the analysis required to establish a lack of adverse effect based upon a comparison of historic use of the water rights being changed to the proposed use under the changed conditions along with evaluation of the potential impacts of the change on other water users caused by changes in the amount, timing, or location of historic diversions and return flows. Admin.R.M. 36.12.1901 and 1903.

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. In McDonald v. State, the Montana Supreme Court explained:

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

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

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. 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/has not elected to proceed under Admin. R.M. 36.12.1902. (FOF No.X).

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

55. 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. 41H of 460.6 AF diverted volume and 7.75 CFS flow rate with a consumptive use of 299.4 AF. (FOFs 11-23)

56. Based upon the Applicant's comparative analysis of historic water use and planned use 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. (FOFs 24-32)

BENEFICIAL USE

57. A change applicant must prove by a preponderance of the evidence the proposed use is a beneficial use. §§85-2-102(4) and -402(2)(c), MCA. Beneficial use is and has always been the hallmark of a valid Montana water right: "[T]he amount actually needed for beneficial use within the appropriation will be the basis, measure, and the limit of all water rights in Montana . . ." McDonald, 220 Mont. at 532, 722 P.2d at 606. The analysis of the beneficial use criterion is the same for change authorizations under §85-2-402, MCA, and new beneficial permits under §85-2-311, MCA. Admin.R.M. 36.12.1801. The amount of water that may be authorized for change is limited to the amount of water necessary to sustain the beneficial use. E.g., Bitterroot River Protective Association v. Siebel*, Order on Petition for Judicial Review*, Cause No. BDV-2002-519, Montana First Judicial District Court (2003) (*affirmed on other grounds*, 2005 MT 60, 326 Mont. 241, 108 P.3d 518); Worden v. Alexander, 108 Mont. 208, 90 P.2d 160 (1939); Allen v. Petrick,

69 Mont. 373, 222 P. 451(1924); Sitz Ranch v. DNRC, DV-10-13390, Montana Fifth Judicial District Court, *Order Affirming DNRC Decision*, Pg. 3 (2011)(citing BRPA v. Siebel, 2005 MT 60, and rejecting applicant's argument that it be allowed to appropriate 800 acre-feet when a typical year would require 200-300 acre-feet); Toohey v. Campbell, 24 Mont. 13, 60 P. 396 (1900)("The policy of the law is to prevent a person from acquiring exclusive control of a stream, or any part thereof, not for present and actual beneficial use, but for mere future speculative profit or advantage, without regard to existing or contemplated beneficial uses. He is restricted in the amount that he can appropriate to the quantity needed for such beneficial purposes."); §85-2-312(1)(a), MCA (DNRC is statutorily prohibited from issuing a permit for more water than can be beneficially used).

58. Applicant proposes to use water for mitigation which is a recognized beneficial use. §85-2-102(4), MCA. Applicant has proven by a preponderance of the evidence mitigation is a beneficial use and that 94.21 AF of diverted and consumed volume and up to 2.44 CFS flow rate of water requested is the amount needed to sustain the proposed beneficial use. For this partial change, the amount remaining in irrigation is also a beneficial use of water (5.31 CFS up to 315.6 AF). §85-2-402(2)(c), MCA (FOFs 33-38)

ADEQUATE MEANS OF DIVERSION

59. Partial Change to Mitigation Portion: 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 because this application involves a change in appropriation right pursuant to § 85-2-420 MCA for mitigation or marketing for mitigation. (FOF 39)

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

61. 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).

62. 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 40).

POSSESSORY INTEREST

63. 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 ARM 36.12.1802.

64. Partial Change to Mitigation Portion: Pursuant to §85-2-402(2)(d), MCA, the applicant is not required to prove 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 because this application involves a change in appropriation right pursuant to § 85-2-420 MCA for mitigation or marketing for mitigation. (FOF 41)

65. Remaining in Irrigation Portion: 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. Section 85-2-311(1)(e), MCA. (FOF 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 No. 41H 30129387 should be granted subject to the following.

The Applicant is authorized to change the place of use and the purpose of use of Statement of Claim No. 41H 30069634.

1) Partial change to mitigation: The Applicant is authorized to use Claim 41H 30069634 for the newly authorized purpose of mitigation use with a maximum flow rate of 2.44 CFS. The authorized point of diversion remains at Baker Ditch, located in the NWNWSE of Section 19, T1N, R4E, Gallatin County. The new mitigation authorized place of use is instream from the Baker Ditch diversion; NWNWSE of Section 19, T1N, R4E, Gallatin County; to the Backlin Ditch point of return; SW of Section 28, T2N, R3E, Gallatin County. The mitigation purpose volume is limited to a consumed volume of 94.21 AF. The Applicant will no longer use but rather leave 50.8 AF of diverted but not consumed volume left instream to offset changes in return flows, and this volume will be taken out of the water right. The period of diversion and use will be May 15 to September 30.
2) Remaining in irrigation: 149.82 acres will remain in irrigation, after 68.77 acres were removed for the purpose change, with a flow rate of 5.31 CFS. The remaining irrigation volume is 315.6 AF of field applied volume and 205.2 AF of consumed volume. The period of use and diversion will remain the same, April 15-November 4. The place of use remaining in irrigation is as follows:

Acres	Purpose	Qtr Sec	Sec	Twp	Rge	County
85.92	Irrigation	NW	3	1N	3E	GALLATIN
2.60	Irrigation	NESW	3	1N	3E	GALLATIN
34.00	Irrigation	NWSW	3	1N	3E	GALLATIN
23.35	Irrigation	SESW	3	1N	3E	GALLATIN
3.95	Irrigation	SWSW	3	1N	3E	GALLATIN
Remaining Total: **149.82**						

Note: An extra hundredth acre represented in the SESW of Section 3 will be moved to the NW of Section 3.

The Applicant is authorized to divert at a maximum flow rate of 7.75 CFS up to a total diverted volume of 409.8 AF for mitigation and irrigation purposes under Claim 41H 30069634.

The authorization is subject to the following conditions:

IMPORTANT INFORMATION

THE FOLLOWING OPERATION FOR PROTECTION REPRESENTS THE MITIGATION PLAN OF OPERATION FOR THE WATER RIGHT. THE PROTECTED REACH ENCOMPASSES THE STRETCH FROM THE BAKER DITCH HEADGATE ON THE WEST GALLATIN RIVER TO THE WHERE THE BACKLIN DITCH FLOWS INTO THE GALLATIN RIVER. THE APPROPRIATOR MAY PROTECT THE FOLLOWING AMOUNTS, WITH A VOLUME TOTAL OF 94.21 AF.

Time Period	Avg Daily Flow (gpm)	Monthly Volume (ac-ft)
May 15-31	249.05	18.71
Jun 1-30	603.38	45.33
Jul 1-15	137.50	10.33
Aug 15-31	94.37	7.09
Sep 1-24	169.71	12.75
	Total	**94.21**

IMPORTANT INFORMATION

THIS CHANGE AUTHORIZATION PROVIDES MITIGATION WATER FOR BENEFICIAL USE PERMIT 41H 30021840. IF AT ANY TIME THE MITIGATION COMPONENT OF THIS CHANGE AUTHORIZATION IS NOT MET, WATER USE UNDER BENEFICIAL USE PERMIT 41H 30021840 MUST BE STOPPED. IF MITIGATION CANNOT BE MET, APPLICANTS WILL PROVIDE A REPORT TO DNRC DETAILING THE AMOUNT OF SHORTAGE OF MITIGATION WATER AND HOW THE PERMIT USE WAS STOPPED TO PREVENT ADVERSE EFFECT.

WATER MEASUREMENT INFORMATION

THE APPROPRIATOR SHALL INSTALL A DEPARTMENT APPROVED MEASURING DEVICE AT THE CURRENT ACTIVE POINT OF DIVERSION FOR THESE RIGHTS TO ENSURE THE MITIGATION WATER REMAINS INSTREAM. THIS CHANGE SHALL NOT BE EXERCISED UNTIL THE REQUIRED MEASURING DEVICE IS IN PLACE AND OPERATING. ON A FORM PROVIDED BY THE DEPARTMENT, THE APPROPRIATOR SHALL KEEP A WRITTEN WEEKLY RECORD OF THE VOLUME OF MITIGATION WATER NOT DIVERTED AND LEFT INSTREAM, INCLUDING THE PERIOD OF TIME. RECORDS SHALL BE SUBMITTED BY NOVEMBER 30 OF EACH YEAR AND UPON REQUEST BY THE DEPARTMENT AT OTHER TIMES DURING THE YEAR. FAILURE TO SUBMIT RECORDS MAY BE CAUSE FOR REVOCATION OF A PERMIT OR CHANGE. THE RECORDS MUST BE SENT TO THE WATER RESOURCES BOZEMAN REGIONAL OFFICE. THE APPROPRIATOR SHALL MAINTAIN THE MEASURING DEVICE SO IT ALWAYS OPERATES PROPERLY AND MEASURES THE VOLUME ACCURATELY.

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 _____ day of _____ 20__.

/Original signed by Kerri Strasheim/

Kerri Strasheim, 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 GRANT was served upon all parties listed below on this ____ day of _____ 20__, by first class United States mail.

TOWN OF MANHATTAN
C/O JANE MERSEN
PO BOX 96
MANHATTAN, MT 59741-0096

_____

Regional Office, (406) 586-3136