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

APPLICATION TO CHANGE WATER RIGHT NO. 41G 30148945 BY TJL PROPERTIES LP

PRELIMINARY DETERMINATION TO GRANT CHANGE

On May 21, 2020, Willow Creek Preserve LLC (Applicant) submitted Application to Change Water Right No. 41G 30148945 to change Water Right Claim Nos. 41G 8949-00, 41G 8950-00, 41G 8951-00, 41G 8952-00, and 41G 8953-00 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 November 10, 2020. The Applicant responded with information dated March 2, 2021. The water rights proposed for change and land associated with the place of use were conveyed to TJL Properties, LP from Willow Creek Preserve, LLC on November 24, 2020. DMS Natural Resources, LLC (consultant) has remained as the point of contact for this change application. The Application was determined to be correct and complete as of December 7, 2021. The Department and the Applicant’s consultant met on December 14, 2021, to discuss the December 7, 2021 Technical Report. Based on the meeting discussion, a revised Technical Report was completed on December 20, 2021. An Environmental Assessment for this Application was completed on April 4, 2022.

INFORMATION

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

Application as filed:

- Application to Change Water Right, Form 606-IR
- Historical water use addendum
- Attachments
- Maps:
  - Exhibit A: Map of correct location of well 41G 8939-00
Exhibit B: Map of correct location of spring 41G 8942-00
Exhibit C: Map of correct location of spring 41G 8945-00 and place of use
Property overview map
Water sources overview map
IR.2.E Map of proposed place of use – 2017 aerial imagery

- Shared Ditch Users Notification Letter – copy of letter sent to Buttelman Ranches, Chelsey Petz, Elmoze Ranch LLC, Evelyn and Guy Warren, Gordon Williams, William P. Inskeep Revocable Living Trust, Jack Cooper Ranch Inc, Justin Petz, Alan and Kathryn Potts, Reich Bros, David and Caroline Spencer, and Gary and Leslie Thurmond
- Water Purchase Contract dated April 25th, 2019, between Willow Creek Users' Association and Willow Creek Preserve LLC
- Pump curves for proposed point of diversion

Information Received after Application Filed
- Deficiency Letter Response dated March 2, 2021

Information within the Department’s Possession/Knowledge
- Water Right Files 41G 8949-00, 41G 8950-00, 41G 8951-00, 41G 8952-00, and 41G 8953-00
- Water Resources Survey, Gallatin County, January 1953
- 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.
  - Consumptive Use Methodology Memo, dated March 17, 2010
  - Historic Diverted Volume Memo, dated September 13, 2012
  - Return Flow Memo, dated April 1, 2016
The Department has fully reviewed and considered the evidence and argument submitted in this Application and preliminarily determines the following pursuant to the Montana Water Use Act (Title 85, chapter 2, part 3, part 4, MCA).

**WATER RIGHTS TO BE CHANGED**

**FINDINGS OF FACT**

1. The Applicant proposes to change the point of diversion of Statements of Claim 41G 8949-00, 41G 8950-00, 41G 8951-00, 41G 8952-00, and 41G 8953-00 to add two additional points of diversion for irrigation from Willow Creek, tributary to the Jefferson River in Gallatin County. All five water rights are supplemental and share the same points of diversion at the Buttleman Ditch, Lane-Miller-Cooper Ditch, and Highland Ditch. The specific water right details for the water rights proposed for change are shown in Table 1 below.

Table 1: Water rights proposed for change

<table>
<thead>
<tr>
<th>WR NO.</th>
<th>FLOW RATE</th>
<th>VOLUME¹</th>
<th>PURPOSE</th>
<th>PERIOD OF USE</th>
<th>PLACE OF USE</th>
<th>DECREEd ACRES</th>
<th>POINTS OF DIVERSION</th>
<th>PRIORITY DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>41G 8949-00</td>
<td>2.5 CFS</td>
<td>-</td>
<td>Irrigation</td>
<td>5/1 – 11/1</td>
<td>SE Sec 31, T1N R1E, SW Sec 32, T1N R1E, NENESE Sec 7, T1S R1E (Buttleman Ditch)</td>
<td>716</td>
<td>NENESE Sec 7, T1S R1E (Buttleman Ditch)</td>
<td>12/15/1867</td>
</tr>
<tr>
<td>41G 8950-00</td>
<td>394.94 GPM</td>
<td>-</td>
<td>Irrigation</td>
<td>5/1 – 11/1</td>
<td>SE Sec 32, T1N R1E, SW Sec 32, T1N R1E, SWSESE Sec 7, T1S R1E (Highland Ditch)</td>
<td>716</td>
<td>SWSESE Sec 7, T1S R1E (Highland Ditch)</td>
<td>12/15/1865</td>
</tr>
<tr>
<td>41G 8951-00</td>
<td>1.25 CFS</td>
<td>-</td>
<td>Irrigation</td>
<td>5/1 – 11/1</td>
<td>W2NW Sec 5, T1S R1E, NE Sec 6, T1S R1E, NENESE Sec 7, T1S R1E (Lane-Miller-Cooper Ditch)</td>
<td>716</td>
<td>NENESE Sec 7, T1S R1E (Lane-Miller-Cooper Ditch)</td>
<td>12/15/1868</td>
</tr>
<tr>
<td>41G 8952-00</td>
<td>1.5 CFS</td>
<td>-</td>
<td>Irrigation</td>
<td>5/1 – 11/1</td>
<td>W2NW Sec 5, T1S R1E, NE Sec 6, T1S R1E, NENESE Sec 7, T1S R1E (Lane-Miller-Cooper Ditch)</td>
<td>716</td>
<td>NENESE Sec 7, T1S R1E (Lane-Miller-Cooper Ditch)</td>
<td>12/15/1868</td>
</tr>
<tr>
<td>41G 8953-00</td>
<td>2.0 CFS</td>
<td>-</td>
<td>Irrigation</td>
<td>5/1 – 11/1</td>
<td>NWSW Sec 3, T1S R1E, NESE Sec 6, T1S R1E</td>
<td>716</td>
<td>NESE Sec 6, T1S R1E</td>
<td>12/15/1866</td>
</tr>
</tbody>
</table>

CFS = cubic feet per second  
GPM = gallons per minute  
¹A specific volume has not been decreed. The total volume shall not exceed the amount put to historical and beneficial use.
2. Willow Creek is an active Water Distribution Project with a court-appointed Water Commissioner. The Applicant owns 650 shares (equal to 650 AF) in Willow Creek Water Users Association for water stored in Willow Creek Reservoir, located approximately five miles upstream of the project area. Stored water has historically been used for irrigation later in the season as water available for the direct flow water rights decreases. Portions of the historical place of use are irrigated by both direct flow water rights and storage water. One center pivot sprinkler irrigates a field that contains both the historical place of use and acreage added post-1973, shown in Figure 1. The Applicant stated that any areas outside of the historical place of use for the water rights proposed for change are irrigated by shares in Willow Creek Water Users Association.

3. All five water rights subject of this change application are supplemental and share the same historical points of diversion (POD) and places of use (POU). Statement of Claim Nos. 41G 8944-00 and 41G 8945-00 also overlap a portion of the same POU but have different sources than the water rights proposed for change. The Applicant stated in their Deficiency Letter Response that there is no evidence of historical use of Claims 41G 8944-00 and 41G 8945-00, therefore these water rights were not further analyzed as supplemental water rights for the proposed change in point of diversion.
FIGURE 1: Map of project area showing existing and proposed points of diversion and historical place of use. Additional Irrigated Acres are those irrigated by shares from Willow Creek Reservoir outside of the historical place of use for the water rights proposed for change.
CHANGE PROPOSAL

FINDINGS OF FACT

4. The Applicant proposes to change the point of diversion for Statements of Claim 41G 8949-00, 41G 8950-00, 41G 8951-00, 41G 8952-00, and 41G 8953-00 to add two points of diversion at the Meadow Ditch (existing ditch) and a pump located directly in Willow Creek, a tributary to the Jefferson River. The proposed point of diversion at the Meadow Ditch is located in the SENWNE Section 6, T01S R01E, Gallatin County. The proposed point of diversion at a pump located directly in Willow Creek is located in the NENESE Section 31, T01N R01E, Gallatin County. No change in purpose or place of use is requested. The project is located in Gallatin County, approximately eight miles south of the town of Willow Creek. The Applicant stated that portions of irrigated land outside of the historical place of use will be irrigated using shares of Willow Creek Water Users’ Association for water stored in Willow Creek Reservoir.

5. This change application is subject to the following conditions:

SUPPLEMENTAL RIGHT INFORMATION

THIS CHANGE AUTHORIZATION IS ANALYZING A 574 ACRE PLACE OF USE FOR THE SUBJECT WATER RIGHTS. STATEMENTS OF CLAIM 41G 8944-00 AND 41G 8945-00 HAVE OVERLAPPING PLACES OF USE TO THE WATER RIGHTS AUTHORIZED FOR CHANGE. USE OF THESE WATER RIGHTS FOR IRRIGATION ON THE PLACE OF USE IN COMBINATION WITH THE WATER RIGHTS AUTHORIZED FOR CHANGE WILL BE CAUSE FOR REVOCATION OF THIS CHANGE AUTHORIZATION.
CHANGE CRITERIA

6. 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.

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

**FINDINGS OF FACT - Historical Use**

8. The Applicant proposes to add two points of diversion to Statement of Claim Nos. 41G 8949-00, 41G 8950-00, 41G 8951-00, 41G 8952-00, and 41G 8953-00. The source of water is Willow Creek, tributary to the Jefferson River in Gallatin County, and all water rights proposed for change historically shared the same points of diversion at the Buttleman Ditch, Highland Ditch, and Lane-Miller-Cooper Ditch. The Applicant historically flood irrigated hay and alfalfa crops at the historical place of use with a period of diversion from May 1 to November 11. The cumulative decreed flow rate for all five water rights proposed for change is 8.13 CFS. A breakdown of the individual decreed flow rates is shown in Table 1 above. This amount is supported by the Water Commissioner records and maximum ditch capacities (Application Materials, IR.3.D).

9. All five water rights proposed for change are supplemental and share the same place of use. In addition to the water rights proposed for change, the Applicant has also purchased 650 shares from Willow Creek Water Users’ Association equal to 650 AF of water stored in Willow Creek Reservoir. The Applicant’s storage shares have been used historically to irrigate the same place of use as the supplemental water rights proposed for change. Stored water was typically used later in the season as water available to the Applicant’s direct flow water rights decreased.

10. The claimed place of use listed on Statements of Claim 41G 8949-00, 41G 8950-00, 41G 8951-00, 41G 8952-00, and 41G 8953-00 is 716 acres. The 1953 Gallatin County Water Resources Survey shows irrigation of 572 acres of the historical place of use. A 1972 aerial photo shows irrigation of 574 acres of the historical place of use. The Department finds the total historical use for all five water rights proposed for change is 574 acres.

11. A court-appointed Water Commissioner distributes direct flow water rights and water stored in Willow Creek Reservoir to water users on Willow Creek. The Applicant submitted a Historical Water Use Addendum but elected to use the Department’s standards for determining historical consumptive use per ARM 36.12.1902. Diversion records have been maintained by the Water Commissioner since 1968, but do not distinguish between the diverted volume for stored and direct flow water rights prior to 2002. From 2002 to 2019, the diversion records supplied by the Applicant show daily flow rates delineated by water right decree date and water storage contract number. The Applicant stated in their March 2, 2021, Deficiency Letter Response that modern diversion records are representative of historical diversion practices and can be used to
estimate the proportion of stored and direct flow water rights used throughout the irrigation season historically.

12. Water Commissioner records from 2002 to 2019 show that an average of 742.7 AF was diverted using direct flow water rights and an average of 256.4 AF was delivered from storage contracts. This results in 74% of the total seasonal irrigation demand met with the Applicant’s direct flow water rights proposed for change.

**Historical consumptive volume**

13. The Applicant elected to determine historical consumptive use using the Departments standards found in ARM 36.12.1902 (14-17). Historical diversion records do not distinguish between stored and direct flow water rights and were not used to directly estimate historical diverted volume. The net Irrigation Water Requirements (IWR) computer program output for alfalfa for the Norris weather station is 20.88 inches. A pre-1973 management factor of 65.2% for historical flood irrigation (from ARM 36.12.1902) results in a historical crop consumptive use on 574 acres of 651.4 AF. An estimated field efficiency of 60% for contour ditch flood irrigation results in a total field applied volume of 1085.7 AF. Irrecoverable losses were assumed to be 5%, or 54.3 AF of the total 1085.7 AF applied volume. The Department finds a total historical consumptive use for flood irrigation of 574 acres is 705.7 AF (651.4 AF crop consumptive use + 54.3 AF irrecoverable losses = 705.7 AF historical consumptive use).

14. As described previously, 74% of the total seasonal irrigation demand for 574 acres was met with the Applicant’s direct flow water rights proposed for change. Therefore, the total historical applied volume and consumptive use attributed to the water rights proposed for change is 803.4 AF and 522.2 AF respectively (74% x 1085.7 AF = 803.4 AF, 74% x 705.7 AF = 522.2 AF).

**Historical diverted volume**

15. The Applicant elected to calculate historical diverted volume using the Department’s standard methodology outlined in ARM 36.12.1902(10). The historical diverted volume is the sum of the volume applied to the field and conveyance loss. Conveyance loss includes evaporation, seepage, and loss to non-target vegetation along the ditch. Conveyance loss was calculated using the Applicant’s explanation of irrigation operations and conveyance structure dimensions.
Historical diverted volume calculations and variables are explained in detail in the December 20, 2021, Technical Report and a summary is given below.

16. The number of days irrigated was determined from an affidavit by the previous owner of the property, Raymond Chan Cooper, provided in the Application Materials. The affidavit states that irrigation typically began in mid-April and lasted until mid-June. Flood irrigation resumed after the first cutting of hay on July 5 and lasted until mid-August. This results in 102 days of irrigation. The affidavit also stated that irrigation occasionally occurred in September, however based on the average number of days in the diversion records provided as Exhibit G in the Application Materials, this appears to not be a typical practice.

17. The Applicant stated that the water rights proposed for change were used proportionally across the three points of diversion to meet the flood irrigation requirement. For purposes of estimating conveyance loss associated with the historical means of diversion, the total flow rate proposed for change (8.13 CFS) was distributed across the three points of diversion based on the proportion of the total acres served by each ditch, shown in Table 2.

Table 2: Proportion of the total historical place of use served by each ditch. The Applicant's total decreed flow rate of 8.13 CFS was distributed across the three points of diversion based on the percent POU served by each ditch. A proration factor based on the Applicant's flow rate compared to the total decreed ditch flow rate was used to identify the proportion of the total conveyance loss attributed to the Applicant's water rights.

<table>
<thead>
<tr>
<th>Ditch name</th>
<th>Acres</th>
<th>Percent POU</th>
<th>Applicant's flow rate (CFS)</th>
<th>Total decreed flow rate (CFS)</th>
<th>Proration factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buttleman Ditch</td>
<td>254</td>
<td>44%</td>
<td>3.59</td>
<td>16.12</td>
<td>0.22</td>
</tr>
<tr>
<td>Highland Ditch</td>
<td>157</td>
<td>27%</td>
<td>2.22</td>
<td>7.25</td>
<td>0.31</td>
</tr>
<tr>
<td>Lane-Miller-Cooper Ditch</td>
<td>164</td>
<td>28%</td>
<td>2.32</td>
<td>2.71</td>
<td>0.85</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>574</td>
<td></td>
<td><strong>8.13</strong></td>
<td><strong>26.09</strong></td>
<td></td>
</tr>
</tbody>
</table>

18. Multiple water rights are conveyed in the Buttleman, Highland, and Lane-Miller-Cooper Ditches in addition to the water rights proposed for change. For ditches with multiple users, the Department's standard is to distribute the conveyance loss proportionally based on the flow rate for each water right. For water rights with multiple points of diversion, the total flow rate was distributed evenly between each point of diversion listed on the water right abstract. A list of water
rights conveyed in the Buttleman Ditch, Highland Ditch, and Lane-Miller-Cooper Ditch is included as Appendix A with the December 20, 2021, Technical Report.

19. The Applicant provided dimensions of the Buttleman, Highland, and Lane-Miller Cooper Ditches in the Application Materials, IR.3.C. The Manning equation was used to estimate ditch hydraulic parameters used in the conveyance loss calculations. The total historical conveyance loss attributed to the water rights proposed for change are summarized in Table 3 below:

<table>
<thead>
<tr>
<th>Ditch name</th>
<th>Seepage loss (AF)</th>
<th>Vegetation loss (AF)</th>
<th>Evaporation (AF)</th>
<th>Total conveyance loss (AF)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buttleman Ditch</td>
<td>33.5</td>
<td>4.8</td>
<td>0.2</td>
<td>38.5</td>
</tr>
<tr>
<td>Highland Ditch</td>
<td>112.2</td>
<td>5.4</td>
<td>1.1</td>
<td>118.7</td>
</tr>
<tr>
<td>Lane-Miller-Cooper Ditch</td>
<td>161.6</td>
<td>4.8</td>
<td>1.6</td>
<td>168.0</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>307.3</strong></td>
<td><strong>14.9</strong></td>
<td><strong>2.9</strong></td>
<td><strong>325.1</strong></td>
</tr>
</tbody>
</table>

20. The total historical diverted volume is the field-applied volume of 1085.7 AF plus the seasonal conveyance loss of 325.1 AF, resulting in a total diverted volume of 1410.8 AF for the direct flow water rights subject of this change application and contract water stored in Willow Creek Reservoir. As stated previously, 74% of the total irrigation demand is attributed to the Applicant’s direct flow water rights. This results in a total historical diverted volume of 1044.0 AF attributed to the water rights proposed for change.

21. The proportion of the total diverted and consumed volumes attributed to each water right varies according to flow rate and the number of days each water right was in priority throughout the irrigation season. Generally, as water availability decreases later in the irrigation season, junior water rights are curtailed, and a higher proportion of the irrigation demand is met by senior direct flow water rights or storage contracts. The Applicant stated in the March 2, 2021, Deficiency Letter Response that the diversion records supplied in Exhibit G for years 2002 through 2019 are representative of historical diversion practices (historical diversion records did not distinguish between diverted flow rate by water right number or storage contract). Therefore, modern diversion records were used to estimate the proportion of the total diverted and consumed volumes that were met by each individual water right historically.
22. Diversion records from 2002 to 2019 included in the Application Materials list a cumulative flow rate for each water right used throughout the irrigation season. The cumulative flow rate is a function of both the decreed flow rate and priority date. Both the rate of water diverted (flow rate) and number of days the water right was in priority and available for use (priority date) influence the total volume delivered to and consumed on the field annually by the respective water right (cumulative flow rate). The cumulative flow rate was used to calculate a proportion of the total volume that was diverted with each water right proposed for change. The following table lists the Department’s findings regarding the proportion of the total historically diverted volume attributed to each water right.

<table>
<thead>
<tr>
<th>Water Right No.</th>
<th>Priority date</th>
<th>Decreed flow rate (CFS)</th>
<th>Average number of days diverted</th>
<th>Average cumulative flow rate (MI)</th>
<th>Proportion of total diverted volume (AF)</th>
</tr>
</thead>
<tbody>
<tr>
<td>41G 8949-00</td>
<td>12/15/1867</td>
<td>2.5</td>
<td>24.2</td>
<td>3782.4</td>
<td>0.23</td>
</tr>
<tr>
<td>41G 8950-00</td>
<td>12/15/1865</td>
<td>0.88</td>
<td>92.6</td>
<td>3937.8</td>
<td>0.26</td>
</tr>
<tr>
<td>41G 8951-00</td>
<td>12/15/1868</td>
<td>1.25</td>
<td>19.2</td>
<td>3760.3</td>
<td>0.22¹</td>
</tr>
<tr>
<td>41G 8952-00</td>
<td>12/15/1868</td>
<td>1.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>41G 8953-00</td>
<td>12/15/1866</td>
<td>2</td>
<td>70</td>
<td>4503.2</td>
<td>0.29</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>8.13</strong></td>
<td><strong>15983.7</strong></td>
<td><strong>1.0</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

¹Historical diversion records do not distinguish between water rights with the same priority date, therefore diverted volume was distributed evenly between both water rights.
The proportions shown in Table 4 were used to distribute the total historical diverted volume of 1044.0 AF and total historical consumptive volume of 522.2 AF among all five water rights proposed for change. The Department finds the following historical use:

### Table 5: Historical use

<table>
<thead>
<tr>
<th>WR No.</th>
<th>Priority Date</th>
<th>Purpose</th>
<th>Flow Rate (CFS)</th>
<th>Diverted Volume (AF)</th>
<th>Cons. Volume (AF)</th>
<th>Place of Use¹</th>
<th>Point of Diversion¹</th>
<th>Acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>41G 8949-00</td>
<td>12/15/1867</td>
<td>Irrigation</td>
<td>2.5</td>
<td>240.1</td>
<td>120.1</td>
<td>SE Sec 31, T1N R1E</td>
<td>NENESE Sec 7, T1S R1E</td>
<td>574</td>
</tr>
<tr>
<td>41G 8950-00</td>
<td>12/15/1865</td>
<td></td>
<td>0.88</td>
<td>271.4</td>
<td>135.8</td>
<td>SE Sec 32, T1N R1E</td>
<td>SWSESE Sec 7, T1S R1E</td>
<td></td>
</tr>
<tr>
<td>41G 8951-00</td>
<td>12/15/1868</td>
<td></td>
<td>1.25</td>
<td>114.8</td>
<td>57.4</td>
<td>SW Sec 32, T1N R1E</td>
<td>NENESE Sec 7, T1S R1E</td>
<td></td>
</tr>
<tr>
<td>41G 8952-00</td>
<td>12/15/1868</td>
<td></td>
<td>1.5</td>
<td>114.8</td>
<td>57.4</td>
<td>W2NW Sec 5, T1S R1E</td>
<td>NENESE Sec 7, T1S R1E</td>
<td></td>
</tr>
<tr>
<td>41G 8953-00</td>
<td>12/15/1866</td>
<td></td>
<td>2</td>
<td>302.8</td>
<td>151.4</td>
<td>W2NW Sec 5, T1S R1E</td>
<td>NESE Sec 6, T1S R1E</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td></td>
<td>8.13</td>
<td>1044.0</td>
<td>522.2</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

AF = acre-feet  
CFS = cubic feet per second  
¹All in Gallatin County

**FINDINGS OF FACT** – Adverse Effect

23. The Applicant proposes to add two additional points of diversion to Statements of Claim 41G 8949-00, 41G 8950-00, 41G 8951-00, 41G 8952-00, and 41G 8953-00 at the Meadow Ditch headgate and a pump located directly in Willow Creek. The Applicant will continue to divert water at a maximum cumulative flow rate of 8.13 CFS. No change in purpose or place of use is proposed.

24. No change in place of use is proposed and the proposed consumptive volume is equal to the historical consumptive volume of 522.2 AF. The Applicant stated in their March 2, 2021, Deficiency Letter Response that any irrigation occurring outside of the historically irrigated area would be supplied by the Applicant’s Water Purchase Contracts for water stored in Willow Creek Reservoir. Irrigation will continue to occur as it has historically, beginning with the direct flow water rights proposed for change. As water availability decreases, the Applicant intends to supplement the direct flow rights with stored water later in the irrigation season.
25. No change in place of use or purpose is proposed, therefore a specific volume returning to hydraulically connected surface waters was not determined. The proposed change in point of diversion will not change the timing or location of water returning to Willow Creek.

26. One other water right (Statement of Claim 41G 9270-00) is conveyed in the Meadow Ditch, owned by Alan D. Potts and Kathryn J. Potts with a flow rate of 336.6 GPM, or 0.75 CFS (Application Materials, IR.5.D).

27. Conveyance loss for the Meadow Ditch was calculated to evaluate a change in diverted volume from the addition of the two points of diversion. No conveyance loss is associated with the proposed pump located directly in Willow Creek as water will be conveyed via a pipeline to a sprinkler system. For purposes of estimating conveyance loss in the Meadow Ditch under the proposed use, the total ditch flow rate is the Applicant’s maximum pump capacity at the secondary point of diversion in the Meadow Ditch, equal to 600 GPM or 1.34 CFS (Application Materials, IR.5.D), plus the 0.75-CFS flow rate listed on Claim 41G 9270-00, for a total of 2.09 CFS. The proportion of conveyance losses attributed to the Applicant is 0.64 (1.34 CFS/2.09 CFS = 0.64).

28. Conveyance loss calculations for the two proposed additional points of diversion are described in detail in the December 20, 2021, Technical Report. No conveyance losses are associated with the proposed pump located in Willow Creek as water will be conveyed in a pipeline to a sprinkler system. The proposed point of diversion at the Meadow Ditch will result in 16.0 AF conveyance loss attributed to the Applicant’s water rights proposed for change (Table 6).

29. Based on the conveyance loss calculations and the secondary point of diversion pump capacity, the Applicant will need to divert a total of 1.42 CFS at the proposed Meadow Ditch point of diversion to provide the necessary carriage water. Carriage water with a flow rate of 0.08 CFS was calculated by converting the conveyance loss volume of 16 AF to a flow rate based on 102 days diverted annually. The total flow rate at the proposed Willow Creek pump is 1.0 CFS. The cumulative flow rate at the two proposed points of diversion is 2.42 CFS.
Table 6: Proposed POD flow rates and conveyance losses. An additional flow rate of 0.08 CFS will be needed for carriage water from the Meadow Ditch headgate to the Applicant’s secondary pump site.

<table>
<thead>
<tr>
<th>POD Name</th>
<th>Max pump capacity (GPM)</th>
<th>Max pump capacity (CFS)</th>
<th>Conveyance loss (AF)</th>
<th>Conveyance loss converted to flow rate (CFS)</th>
<th>Total flow rate at POD (CFS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meadow Ditch</td>
<td>600</td>
<td>1.34</td>
<td>16.0</td>
<td>0.08</td>
<td>1.42</td>
</tr>
<tr>
<td>Willow Creek Pump</td>
<td>450</td>
<td>1.00</td>
<td>0.0</td>
<td>NA1</td>
<td>1.00</td>
</tr>
</tbody>
</table>

CFS = cubic feet per second  
AF = acre-feet  
1No conveyance losses are associated with the proposed pump and pipeline in Willow Creek.

30. The cumulative flow rate for the water rights proposed for change is 8.13 CFS. Therefore, for the Applicant to fully utilize all water rights proposed for change, a portion of the total flow rate will continue to be diverted at the historical points of diversion (Buttleman Ditch, Highland Ditch, Lane-Miller-Cooper Ditch). A comparison of the historical conveyance losses and new conveyance losses is shown in Table 7. This comparison assumes that the maximum flow rate (based on pump capacities) will be diverted at the proposed points of diversion and a corresponding reduction in the diverted flow rates at the Buttleman Ditch and Lane-Miller-Cooper Ditch will occur. The Highland Ditch serves a portion of the place of use not served by the proposed points of diversion, therefore the new flow rate at the Highland Ditch POD is equal to the historical flow rate.

31. Conveyance loss calculations under the proposed change are described in detail in the December 20, 2021, Technical Report and summarized below. No change in place of use is proposed, therefore no change in method of irrigation was analyzed and the new field applied volume is equal to the historical applied volume. As a result, the proposed diverted volume is less than the historical diverted volume.
Table 7: Summary of historical and new conveyance losses.

<table>
<thead>
<tr>
<th>Ditch Name</th>
<th>Historical flow rate (CFS)</th>
<th>Reduction in flow rate by new use (CFS)</th>
<th>New flow rate (CFS)</th>
<th>Historical conveyance loss volume (AF)</th>
<th>New conveyance loss volume (AF)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buttleman Ditch</td>
<td>3.59</td>
<td>1.21</td>
<td>2.38</td>
<td>38.42</td>
<td>27.28</td>
</tr>
<tr>
<td>Highland Ditch</td>
<td>2.22</td>
<td>0.00</td>
<td>2.22</td>
<td>118.71</td>
<td>118.71</td>
</tr>
<tr>
<td>Lane-Miller-Cooper Ditch</td>
<td>2.32</td>
<td>1.21</td>
<td>1.11</td>
<td>167.96</td>
<td>143.07</td>
</tr>
<tr>
<td>Meadow Ditch</td>
<td>NA</td>
<td>NA</td>
<td>1.42</td>
<td>NA</td>
<td>15.96</td>
</tr>
<tr>
<td>Willow Creek Pump</td>
<td>NA</td>
<td>NA</td>
<td>1.00</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>8.13</strong></td>
<td><strong>2.42</strong></td>
<td><strong>8.13</strong></td>
<td><strong>325.1</strong></td>
<td><strong>305.0</strong></td>
</tr>
</tbody>
</table>

CFS = cubic feet per second  AF = acre-feet

1The reduction in diverted flow rate at the Buttleman and Lane-Miller-Cooper Ditches is equal to the proposed pump capacities, plus conveyance loss at the Meadow Ditch. The Highland Ditch serves a portion of the POU not served by the proposed points of diversion; therefore, the new flow rate is equal to the historical flow rate in order to irrigate the same place of use that occurred historically.

32. Willow Creek is an active Water Distribution Project with a court-appointed Water Commissioner. Measuring devices are currently installed on the existing points of diversion at the Buttleman Ditch, Highland Ditch, and Lane-Miller-Cooper Ditch. The Applicant stated that a 24-inch Parshall flume is installed on the proposed point of diversion at the Meadow Ditch. The Applicant also plans to install a flow meter on the proposed pump located directly in Willow Creek (Application Materials, IR.5.C).

33. The Applicant seeks to add two points of diversion to the water rights proposed for change in order to provide flexibility in the irrigation system and reduce conveyance loss (Application Materials, IR.1.F). The Applicant stated that all points of diversion have a Water Commissioner approved measuring device in place capable of measuring the requested flow rate and volume. A Water Commissioner is appointed most years on Willow Creek; including every year between 2002 and 2019 with the exception of 2007, according to diversion records included with the Application Materials.

34. The court-appointed Water Commissioner will help ensure that no increase in diverted volume or flow rate will occur with the proposed change.
35. The Applicant stated that the change in points of diversion to two downstream locations will allow water to remain in Willow Creek for a longer period and reduce conveyance loss to the place of use (Application Materials, IR.4.B).

36. Two water rights (41G 8944-00 and 41G 8945-00) are supplemental on the historical place of use but have different sources of water than the water rights proposed for change. Statement of Claim 41G 8944-00 is for irrigation of 141 acres from waste and seepage from an unnamed tributary of Willow Creek. Statement of Claim 41G 8945-00 is for irrigation of 141 acres from a spring and for incidental stock use. The Applicant stated in their March 2, 2021, Deficiency Letter Response that they are unaware of any historical or current use of these water rights. Therefore, these water rights were not considered in the historical use analysis of this change application and cannot be used to irrigate the same place of use as the water rights proposed for change.

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

The following conditions are incorporated into the analysis of this Decision Document:

**SUPPLEMENTAL RIGHT INFORMATION**

THIS CHANGE AUTHORIZATION IS ANALYZING A 574 ACRE PLACE OF USE FOR THE SUBJECT WATER RIGHTS. STATEMENTS OF CLAIM 41G 8944-00 AND 41G 8945-00 HAVE OVERLAPPING PLACES OF USE TO THE WATER RIGHTS AUTHORIZED FOR CHANGE. USE OF THESE WATER RIGHTS FOR IRRIGATION ON THE PLACE OF USE IN COMBINATION WITH THE WATER RIGHTS AUTHORIZED FOR CHANGE WILL BE CAUSE FOR REVOCATION OF THIS CHANGE AUTHORIZATION.
BENEFICIAL USE

FINDINGS OF FACT

38. The Applicant proposes to use water for irrigation of 574 acres, which is a recognized beneficial use in the state of Montana (Application Materials, IR.6.A).

39. The water rights proposed for change have been used to meet 74% of the total seasonal irrigation demand on 574 acres, with the remaining volume met with the Applicant's shares for water stored in Willow Creek reservoir. The Applicant proposes to use 1044.0 AF diverted volume and a maximum flow rate of 8.13 CFS for the direct flow water rights proposed for change. This amount is supported by the Department’s standards found in ARM 36.12.1902 for determining historical consumptive and diverted volume for irrigation on 574 acres.

40. The Department finds the proposed appropriation to be a beneficial use of water.

ADEQUATE DIVERSION

FINDINGS OF FACT

41. The proposed point of diversion at the Meadow Ditch will use an existing ditch and headgate to convey water approximately 2,000 feet to a secondary pump site. The Department finds that the maximum capacity of the Meadow Ditch is 14.9 CFS, based on ditch dimensions provided by the Applicant (December 20, 2021, Technical Report). This capacity is sufficient for conveying the Applicant's water rights, in addition to the decreed flow rate of 0.75 CFS for Statement of Claim 41G 9270-00.

42. The secondary point of diversion in the Meadow Ditch will consist of a 20 HP pump with a maximum capacity of 600 GPM (Application Materials, IR.5.D).

43. An additional proposed point of diversion at a pump located directly in Willow Creek will consist of a 30 HP pump with a maximum capacity of 450 GPM (Application Materials, IR.5.D).

44. The historical points of diversion will continue to operate in conjunction with the proposed points of diversion in order to use the water rights proposed for change in full (Application Materials, IR.4.B). According to historical diversion records provided by the Applicant, the maximum requested flow rates have been diverted at the historical points of diversion. Each diversion point will have a Water Commissioner-approved measuring device in place, and
seasonal water use will be measured and recorded by a court-appointed Water Commissioner during years when the Willow Creek Water Distribution Project is active.

45. In order to fully utilize all water rights proposed for change, a portion of the total flow rate (8.13 CFS) will continue to be diverted at the historical points of diversion. Table 8 below specifies the maximum authorized flow rate at all five points of diversion when used in combination. The total flow rate proposed for change was distributed among all five points of diversion based on the proportion of the place of use served by each point of diversion (December 20, 2021, Technical Report). The Department finds this diversion adequate for the proposed beneficial use.

Table 8: Distribution of total flow rate among all five points of diversion.

<table>
<thead>
<tr>
<th>Diversion Name</th>
<th>Type</th>
<th>Location</th>
<th>Maximum flow rate (CFS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buttleman Ditch</td>
<td>Existing</td>
<td>NENESE SEC 7, T01S R01E, GALLATIN COUNTY</td>
<td>2.38</td>
</tr>
<tr>
<td>Highland Ditch</td>
<td>Existing</td>
<td>SWSESE SEC 7, T01S R01E, GALLATIN COUNTY</td>
<td>2.22</td>
</tr>
<tr>
<td>Lane-Miller-Cooper Ditch</td>
<td>Existing</td>
<td>NENESE SEC 7, T01S R01E, GALLATIN COUNTY</td>
<td>1.11</td>
</tr>
<tr>
<td>Meadow Ditch</td>
<td>New/proposed</td>
<td>SENWNE SEC 6, T01S R01E, GALLATIN COUNTY</td>
<td>1.42</td>
</tr>
<tr>
<td>Willow Creek Pump</td>
<td>New/proposed</td>
<td>NENESE SEC 31, T01N R01E, GALLATIN COUNTY</td>
<td>1.0</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td></td>
<td><strong>8.13</strong></td>
</tr>
</tbody>
</table>

POSSESSORY INTEREST

FINDINGS OF FACT

46. The applicant signed the affidavit on the application form affirming the applicant has 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 (Application Materials, Section 9 Affidavit and Certification).

CONCLUSIONS OF LAW

HISTORICAL USE AND ADVERSE EFFECT

47. 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

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

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1 DNRC decisions are available at:
Royston, 249 Mont. at 429, 816 P.2d at 1057; Hohenlohe, at ¶¶43-45.  

49. 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. A comparative analysis of the historic use of the water right to the proposed change in use is necessary to prove the change will not result in expansion of the original right, or adversely affect water users who are entitled to rely upon maintenance of conditions on the source of supply for their water rights. Quigley, 103 P.2d at 1072-75 (it is necessary to ascertain historic use of a decreed water right to determine whether a change in use expands the underlying right to the detriment of other water user because a decree only provides a limited description of the right); Royston, 249 Mont. at 431-32, 816 P.2d at 1059-60 (record could not sustain a conclusion of no adverse effect because the applicant failed to provide the Department with evidence of the historic diverted volume, consumption, and return flow); Hohenlohe, at ¶44-45; Town of Manhattan v. DNRC, Cause No. DV-09-872C, Montana Eighteenth Judicial District Court, Order Re Petition for Judicial Review, Pgs. 11-12 (proof of historic use is required even when the right has been decreed because the decreed flow rate or volume establishes the maximum appropriation that may be diverted, and may exceed the

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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, Gassett v. Noyes, 18 Mont. 216, 44 P. 959(1896)(change in place of use was unlawful where reduced the amount of water in the source of supply available which was subject to plaintiff’s subsequent right).

3A claim only constitutes prima facie evidence for the purposes of the adjudication under § 85-2-221, MCA. The claim does not constitute prima facie evidence of historical use in a change proceeding under §85-2-402, MCA. For example, most water rights decreed for irrigation are not decreed with a volume and provide limited evidence of actual historic beneficial use. §85-2-234, MCA
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

50. 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 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

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.)
Matter of Application for Change Authorization No. G(W)008323-G761 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

51. 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).

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

The question of adverse effect under §§ 85-2-402(2) and -408(3), MCA, implicates return flows. A change in the amount of return flow, or to the hydrogeologic pattern of return flow, has the potential to affect adversely downstream water rights. There consequently exists an inextricable link between the “amount historically consumed” and the water that re-enters the stream as return flow. . . . An appropriator historically has been entitled to the greatest quantity of water he can put to use. The requirement that the use be both beneficial and reasonable, however, proscribes this tenet. This limitation springs from a fundamental tenet of western water law—that an appropriator has a right only to that amount of water

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).
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).

53. 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.

54. 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.
Preliminary Determination to Grant Application to Change Water Right No. 41G 30148945.


56. 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).

57. The Department has adopted a rule providing for the calculation of historical consumptive use where the applicant proves by a preponderance of the evidence that the acreage was historically irrigated. Admin. R. M. 36.12.1902 (16). In the alternative an applicant may present its own evidence of historic beneficial use. In this case Applicant has elected to proceed under Admin. R.M. 36.12.1902. (FOF No. 13).

58. 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”).

59. Based upon the Applicant's evidence of historical use, the Applicant has proven by a preponderance of the evidence the historical use of Water Right Claim Nos. 41G 8949-00, 41G 8950-00, 41G 8951-00, 41G 8952-00, and 41G 8953-00 of 1044.0 AF diverted volume and 8.13 CFS flow rate with a consumptive use of 522.2 AF. Table 9 lists the flow rate, diverted volume and consumed volume for each water right proposed for change (FOF Nos. 8-22)

Table 9: Historical volume and flow rate for water rights proposed for change.

<table>
<thead>
<tr>
<th>Water Right No.</th>
<th>Flow rate (CFS)</th>
<th>Historical diverted volume (AF)</th>
<th>Historical consumptive volume (AF)</th>
</tr>
</thead>
<tbody>
<tr>
<td>41G 8949-00</td>
<td>2.5</td>
<td>240.1</td>
<td>120.1</td>
</tr>
<tr>
<td>41G 8950-00</td>
<td>0.8</td>
<td>271.4</td>
<td>135.8</td>
</tr>
<tr>
<td>41G 8951-00</td>
<td>1.25</td>
<td>114.8</td>
<td>57.4</td>
</tr>
<tr>
<td>41G 8952-00</td>
<td>1.5</td>
<td>114.8</td>
<td>57.4</td>
</tr>
<tr>
<td>41G 8953-00</td>
<td>2.0</td>
<td>302.8</td>
<td>151.4</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>1044.0</strong></td>
<td><strong>522.2</strong></td>
<td></td>
</tr>
</tbody>
</table>

60. Based upon the Applicant's comparative analysis of historical water use and return flows to water use and return flows under the proposed change, the Applicant has proven that the proposed change in appropriation right will not adversely affect the use of the existing water rights of other persons or other perfected or planned uses or developments for which a permit or certificate has been issued or for which a state water reservation has been issued. §85-2-402(2)(b), MCA. (FOF Nos. 23-37)

BENEFICIAL USE

61. A change applicant must prove by a preponderance of the evidence the proposed use is a beneficial use. §§85-2-102(5) 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).

62. The Applicant proposes to use water for irrigation which is a recognized beneficial use. §85-2-102(5), MCA. The Applicant has proven by a preponderance of the evidence that irrigation is a beneficial use and that 1044.0 acre-feet of diverted volume, 522.2 acre-feet consumed volume, and 8.13 cubic feet per second flow rate of water requested is the amount needed to sustain the beneficial use and is within the standards set by DNRC Rule. §85-2-402(2)(c), MCA (FOF Nos. 38-40)

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

64. Pursuant to §85-2-402 (2)(b), MCA, the Applicant has proven by a preponderance of the evidence that the proposed means of diversion, construction, and operation of the appropriation works are adequate for the proposed beneficial use. (FOF Nos. 41-45)

**POSSESSORY INTEREST**

65. Pursuant to §85-2-402(2)(d), MCA, the Applicant must prove by a preponderance of the evidence that it has a possessory interest, or the written consent of the person with the possessory interest, in the property where the water is to be put to beneficial use. See also Admin.R.M. 36.12.1802

66. The Applicant has proven by a preponderance of the evidence that it has a possessory interest, or the written consent of the person with the possessory interest, in the property where the water is to be put to beneficial use. (FOF No. 46)
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. 41G 30148945 should be **GRANTED** subject to the following.

The Applicant is authorized to change the point of diversion for Statements of Claim 41G 8949-00, 41G 8950-00, 41G 8951-00, 41G 8952-00, and 41G 8953-00 to add a point of diversion at the Meadow Ditch and a point of diversion at a pump located directly in Willow Creek. The additional point of diversion at the Meadow Ditch will be located in the SENWNE Section 6, T01S R01E, Gallatin County and the pump in Willow Creek will be located in the NENESE Section 31, T1N R1E, Gallatin County. The existing points of diversion will remain the same and are located in the NENESE Section 7 (Lane-Miller-Cooper Ditch and Buttleman Ditch) and SWSESE Section 7 (Highland Ditch), T01S R01E, Gallatin County. No change in purpose or place of use is authorized and will remain in the SE Section 31, SE and SW Section 32, T01N R01E; W2NW Section 5, NE Section 6, NWSW Section 5, and NESE Section 6, T01S R01E, Gallatin County. The continued irrigation of the 574-acre historical place of use is authorized with a total flow rate of 8.13 cubic feet per second, 1044.0 acre-feet diverted volume, and 522.2 acre-feet consumed volume. Each water right is limited to the historical flow rate, diverted volume and consumed volume shown in the table below.

<table>
<thead>
<tr>
<th>WR No.</th>
<th>Priority Date</th>
<th>Purpose</th>
<th>Flow Rate (CFS)</th>
<th>Diverted Volume (AF)</th>
<th>Cons. Volume (AF)</th>
<th>Place of Use</th>
<th>Point of Diversion</th>
<th>Acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>41G 8949-00</td>
<td>12/15/1867</td>
<td></td>
<td>2.5</td>
<td>240.1</td>
<td>120.1</td>
<td>SE Sec 31, T1N R1E</td>
<td>NENESE Sec 7, T1S R1E (Buttleman Ditch)</td>
<td></td>
</tr>
<tr>
<td>41G 8950-00</td>
<td>12/15/1865</td>
<td></td>
<td>0.88</td>
<td>271.4</td>
<td>135.8</td>
<td>SE Sec 32, T1N R1E</td>
<td>SWSESE Sec 7, T1S R1E (Highland Ditch)</td>
<td></td>
</tr>
<tr>
<td>41G 8951-00</td>
<td>12/15/1868</td>
<td>Irrigation</td>
<td>1.25</td>
<td>114.8</td>
<td>57.4</td>
<td>W2NW Sec 5, T1S R1E</td>
<td>NENESE Sec 7, T1S R1E (Lane-Miller-Cooper Ditch)</td>
<td>574</td>
</tr>
<tr>
<td>41G 8952-00</td>
<td>12/15/1868</td>
<td></td>
<td>1.5</td>
<td>114.8</td>
<td>57.4</td>
<td>NE Sec 6, T1S R1E</td>
<td>SENWNE Sec 6, T1S R1E (Meadow Ditch)</td>
<td></td>
</tr>
<tr>
<td>41G 8953-00</td>
<td>12/15/1866</td>
<td></td>
<td>2.0</td>
<td>302.8</td>
<td>151.4</td>
<td>NWSW Sec 5, T1S R1E</td>
<td>NENESE Sec 31, T1N R1E (Willow Creek pump)</td>
<td></td>
</tr>
</tbody>
</table>

**TOTAL** 8.13 1044.0 522.2

CFS = cubic feet per second  
AF = acre-feet
The Application will be subject to the following conditions, limitations, or restrictions:

SUPPLEMENTAL RIGHT INFORMATION

THIS CHANGE AUTHORIZATION IS ANALYZING A 574 ACRE PLACE OF USE FOR THE SUBJECT WATER RIGHTS. STATEMENTS OF CLAIM 41G 8944-00 AND 41G 8945-00 HAVE OVERLAPPING PLACES OF USE TO THE WATER RIGHTS AUTHORIZED FOR CHANGE. USE OF THESE WATER RIGHTS FOR IRRIGATION ON THE PLACE OF USE IN COMBINATION WITH THE WATER RIGHTS AUTHORIZED FOR CHANGE WILL BE CAUSE FOR REVOCATION OF THIS CHANGE AUTHORIZATION.
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 5th day of April 2022.

/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 5th day of April 2022, by first class United States mail.

TJL PROPERTIES, LP
%THOMAS J. LOUDERBACK
2415 SAN RAMON VALLEY BLVD, STE 4380
SAN RAMON, CA 94583

DMS NATURAL RESOURCES, LLC (CONSULTANT)
602 S. FERGUSON AVE, SUITE 2
BOZEMAN, MT 59718 <VIA EMAIL: STEPHENSON@DMSNATURALRESOURCES.COM>

________________________________________
Jack Landers
Regional Office, (406) 556-4500