

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

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<b>APPLICATION TO CHANGE WATER RIGHT ) NO. 76M-30121233 BY MONTANA ) DEPARTMENT OF TRANSPORTATION )</b>	<b>PRELIMINARY DETERMINATION TO GRANT CHANGE</b>
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On January 10, 2019, Montana Department of Transportation (Applicant) submitted Application to Change Water Right No. 76M - 30121233 to change Water Right Claim No. 76M-15970-00 to the Missoula Regional Office of the Department of Natural Resources and Conservation (Department or DNRC). The Department published receipt of the Application on its website. The Department sent Applicant a deficiency letter under §85-2-302, Montana Code Annotated (MCA), dated June 18<sup>th</sup>, 2019. The Applicant responded with information dated September 6<sup>th</sup>, 2019. The Application was determined to be correct and complete as of May 7<sup>th</sup>, 2020. An Environmental Assessment for this Application was completed on September 2, 2020.

**INFORMATION**

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

Application as filed:

- Application to Change Water Right, Form 606
- Attachments
- Maps:     USDA Farm Service Agency map – depicting place of use
  - 1955 Water Resource aerial map
  - 1974 and 1979 aerial map
  - Construction design drawings depicting proposed wetland area's

Information Received after Application Filed

- Change Application Deficiency Response dated September 6 , 2019

Information within the Department's Possession/Knowledge

- Statement of Claim No. 76M-15970-00
- 1960 Missoula County Water Resource Survey
- Technical Report dated May 7, 2020

- The Department also routinely considers the following information. The following information is not included in the administrative file for this Application but is available upon request. Please contact the Missoula Regional Office at 406-721-4284 to request copies of the following documents.

- DNRC Return Flow Policy Memo, dated April 1, 2016
- DNRC Consumptive Use and Irrecoverable Loss Memo, dated April 15, 2013
- DNRC Consumptive Use Methodology Policy Memo, dated March 17, 2010
- DNRC Historic Diverted Volume Standard Methods Memo, dated September 13, 2012
- DNRC Pond and Wetland Evaporation Technical Memo, dated November 8, 2019

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

## **WATER RIGHT TO BE CHANGED**

### **FINDINGS OF FACT**

1. Applicant seeks to change Statement of Claim No. 76M-15970-00 for 1.52 cubic-feet per second (CFS) flow rate and 376.0 acre-feet (AF) diverted volume from Sixmile Creek for the purpose of flood/sprinkler irrigation with a priority date of December 31, 1883. The period of use and period of diversion is April 15 through October 24. The place of use is 34.5 acres in the NW Section 2, T15N, R22W. The points of diversion are located in the NENWSW Section 23, NENWNW Section 26, and NESWNW Section 26, T15N, R22W, Missoula County.
2. The Applicant filed a Verified Motion to Amend Water Right Claim form with the Montana Water Court on January 1, 2019 to amend the place of use and clarify the legal descriptions. The Motion to Amend was adopted March 5, 2019. The place of use was reduced from the claimed 40 acres to 34.5 acres due to the construction of Interstate 90 (circa 1968).
3. The place of use is 20 miles northwest of Missoula near the town of Huson.

Table 1: WATER RIGHT PROPOSED FOR CHANGE

<b>WR Number</b>	<b>Purpose</b>	<b>Flow Rate</b>	<b>Volume</b>	<b>Period of Use</b>	<b>Point of diversion</b>	<b>Place of use</b>	<b>Priority date</b>	<b>Acres</b>
76M-15970-00	Irrigation	1.52 CFS	376.0 AF	4/15 – 10/24	NENWSW Sec 23, NENWNW Sec 26 NESWNW Sec 26, T15N, R22W	NW of Sec 26, T15N, R22W	12/31/1883	34.5

**CHANGE PROPOSAL**

**FINDINGS OF FACT**

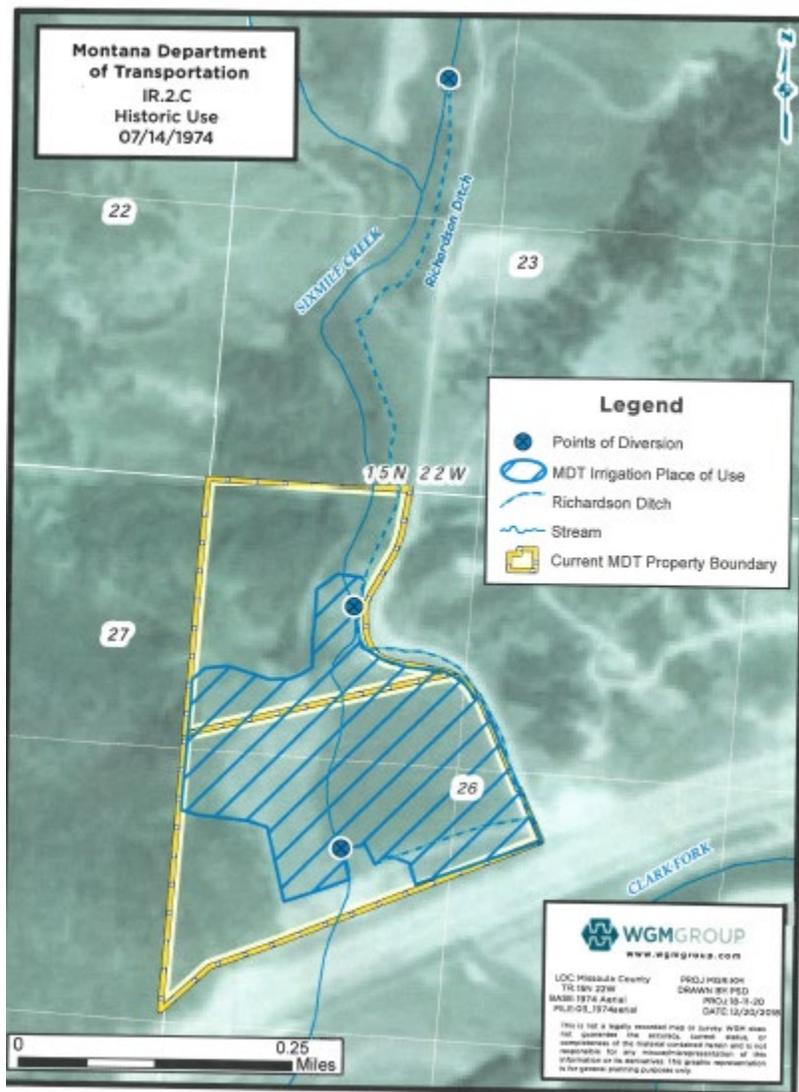
4. The Applicant proposes to change the purpose of Statement of Claim No. 76M-15970-00 from irrigation to wetland for wetland mitigation credits and retire 34.5 acres of historic flood/sprinkler irrigation. The wetlands will consist of two connected wetland areas totaling 6.74 acres. The Applicant proposes to remove the three existing points of diversion and replace them with one new point of diversion consisting of a headgate located in the NWNWNW Section 26, T15N, R22W. The new headgate is located within the Sixmile Creek reach that runs through the Applicant’s property, approximately 0.50 miles downstream from the upper headgate and ditch system. Water will be conveyed from the new point of diversion to the wetlands via a pipeline, and the historic earthen ditches will be eliminated. The two wetland areas consist of shallow reservoirs that are 1.25 (Cell # 1) and 5.49 (Cell # 2) acres. The wetland development will be located in the NWNW Section 26, T15N, R22W, within the historic 34.5-acre place of use for irrigation. The flow rate will remain the same, with a diversionary requirement of 1.52 CFS, and the volume diverted will be reduced to 100 AF annually.

5. The change authorization will be subject to the following condition.

**Water Measurement Records Required:**

THE APPROPRIATOR SHALL INSTALL A DEPARTMENT APPROVED CUTTHROAT FLUME INSTALLED IN THE OUTFALL FROM THE PIPELINE INTO WETLAND CELL #1. WATER

MUST NOT BE DIVERTED UNTIL THE REQUIRED MEASURING DEVICE IS IN PLACE AND OPERATING. ON A FORM PROVIDED BY THE DEPARTMENT, THE APPROPRIATOR SHALL KEEP A WRITTEN MONTHLY RECORD OF THE FLOW RATE AND VOLUME OF ALL WATER DIVERTED, INCLUDING THE PERIOD OF TIME. RECORDS SHALL BE SUBMITTED BY JANUARY 31 OF EACH YEAR AND UPON REQUEST AT OTHER TIMES DURING THE YEAR UNTIL THE APPLICATION TO CHANGE A WATER RIGHT IS PERFECTED AND THE DEPARTMENT RECEIVES A PROJECT COMPLETION NOTICE. FAILURE TO SUBMIT REPORTS MAY BE CAUSE FOR REVOCATION OF A PERMIT OR CHANGE. THE RECORDS MUST BE SENT TO THE MISSOULA WATER RESOURCES REGIONAL OFFICE. THE APPROPRIATOR SHALL MAINTAIN THE MEASURING DEVICE SO IT ALWAYS OPERATES PROPERLY AND MEASURES FLOW RATE AND VOLUME ACCURATELY.





## 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).

## **HISTORIC USE AND ADVERSE EFFECT**

### **FINDINGS OF FACT - Historic Use**

8. The Applicant provided aerial photographs from 1974 and 1979 depicting the entire 34.5-acre place of use irrigated. The Applicant provided an affidavit from Ed Richardson, dated December 17, 2018 to support historic irrigation of the property. The Richardson family owned the property from 1947 until 2013 when the property was sold to the Montana Department of Transportation. In his affidavit, Mr. Richardson states water was historically

diverted from Sixmile Creek through a 30-inch slidegate into a main ditch that was used to irrigate two fields located on either side of Sixmile Creek. The main ditch was historically flumed across Sixmile Creek to serve the western field on the other side of the creek from the main ditch. Soon after Interstate 90 was completed (circa 1968), the Richardson family installed a 20-hp pump that rendered this flume unnecessary, as water was pumped directly out of Sixmile Creek, allowing for irrigation of the western side of Sixmile Creek. This pump was also used in conjunction with the main ditch on the east side of the creek to irrigate the field on the eastern side of the creek. The third point of diversion listed on the claim was another headgate on Sixmile Creek that historically irrigated portions of the eastern field, but the headgate washed out and was never repaired because the pump site also rendered its use unnecessary. The main ditch remained in use to flood irrigate pasture and hay fields on the east side of the creek in conjunction with hand-line sprinklers supplied by the pump site. The pump site was the sole source of irrigation water for the western field.

9. The 1960 Missoula County Water Resource Survey aerial photo indicates approximately 40 acres bring irrigated. The Applicant filed a Verified Motion to Amend Water Right Claim form with the Montana Water Court on January 9, 2019 to amend the place of use from the claimed 40 acres to 34.5 acres, which was the acreage irrigated after Interstate 90 was constructed. The Motion to Amend was adopted by the Montana Water Court on March 5, 2019 and the historic irrigated acres were reduced to 34.5.

10. The period of use is April 15 to October 24. The Affidavit from Mr. Richardson states the typical diversion schedule was to continuously irrigate the fields from April through October with a 7 to 10 day pause for cutting, curing and bailing the day. The Applicant calculated 11 acres adjacent to the ditch were flood irrigated and 23.5 acres were sprinkler irrigated.

11. The claimed flow rate for the claimed 40-acre place of use was 7.5 CFS. During claim examination by DNRC, the 7.5 CFS was reduced to the standard 17 GPM per acre for a historical use right, and a flow rate of 1.52 CFS was decreed by the Montana Water Court. The Applicant submitted ditch measurements that show the ditch is capable of conveying 1.52 CFS and submitted pump specifications indicating the pump has a capacity of 345 GPM (0.77 CFS).

12. To estimate the volume of water historically consumed by irrigating the 34.5-acre place of use, the Applicant deferred to the Department’s consumptive use administrative rules for flood/sprinkler irrigation (36.12.1902(16), ARM). The historic place of use for irrigation is located in Missoula County, Climatic Area 6. Maximum evapotranspiration based on data from the Missoula WSO AP weather station is 19.45 inches, to which a 69.5% management factor was applied for Missoula County arriving at a crop consumptive use of 1.13 AF/acre ( $19.45\text{in} * .695 \div 12\text{in} = 1.13$ ). For the 34.5 acres historically irrigated the consumptive use calculated by the Department equals 38.99 AF. The Department will apply 5% irrecoverable losses associated to field application for a flood irrigation system and 10% irrecoverable losses associated to field application for sprinkler irrigation system. The Applicant historically flood irrigated 11 acres and sprinkler irrigated 23.5 acre, with irrecoverable losses of 2.5 and 3.8 AF respectively. Estimates for the total consumptive use on the 34.5-acre place of use is 45.29 AF annually (based on on-farm efficiency of 70% for sprinkler and 25% for flood) ( $30.3 + 14.9 = 45.2$  AF). See table below for historic consumptive volume of water right 76M-15970-00.

**Table #2** - Historic consumptive volume for water right 76M-15970-00

<b>Historic Consumptive Volume (HCV) Flood Sprinkler</b>	Missoula County Flood/Sprinkler ET (Inches)	Missoula County 1964-1973 Management Factor (Percent)	Historic Acres	HCV AF (minus IL)	On-farm Efficiency	Field Application(HAP) AF	Historic Irrecoverable Losses (IL) Flood 5%: Sprinkler 10%	<b>HCV AF (Including IL)</b>
<i>Sprinkler</i>	19.45	69.5%	23.5	26.5	70%	37.8	3.8	<b>30.3</b>
<i>Flood</i>	19.45	69.5%	11	12.4	25%	49.57	2.5	<b>14.9</b>

\* HCV – Historic consumptive volume

\* HAP-Historic applied volume

13. The Department calculated the historic diverted volume based on the 178-day irrigation schedule stated by the Applicant and a Department memo used for purposes of estimating diverted volume (Development of Standardized Methodologies to Determine Historic Diverted Volume, Sept. 2012). Standard estimated on-farm efficiency utilized in calculations is 70% for sprinkler irrigation systems and 25% for flood irrigation. Seepage, vegetative and evaporative losses associated with the conveyance system were calculated using ditch dimensions supplied by the Applicant. Total conveyance loss is estimated to be 45.1 AF, based on Applicant’s diverted flow rate of 1.52 CFS and calculated losses. See

Table #3 below. Estimated historic diverted volume is calculated to be 132.5 AF (37.8 AF + 94.7 AF = 132.5 AF).

**Table #3** – Historic diverted volume for water right 76M-15970-00

Historic Diverted Volume (HDV)	HCV AF (minus IL)	On-farm Efficiency	Seasonal Conveyance Loss Volume (seepage loss + vegetation loss + ditch evaporation)	Total HDV AF	
<i>sprinkler</i>	26.5	70%		<b>37.8</b>	
<i>Flood</i>	12.4	25%	45.1	<b>94.7</b>	
<i>Seepage Loss:</i>	Ditch Wetted Perimeter (Feet)	Ditch Length (Feet)	Ditch Loss Rate (ft3/ft2/day)	Days Irrigated	Seepage Loss (/43560)
	4.85	3500	0.6	178	41.6
<i>Vegetation Loss:</i>	% loss/mile	Est. Flow Rate (CFS)=	Days Irrigated	ditch length (miles)	Vegetation Loss (*2)
	0.008	1.52	178	0.7	2.9
<i>Ditch Evaporation:</i>	Ditch Width (Feet)	Ditch Length (Feet)	Annual Evaporation (Potts)	Period Adjusted Evaporation	Ditch Evaporation (/43560)
	3	3500	3.05	2.59	0.6

14. There are no supplemental rights used to irrigate the place of use.

15. The Department finds the following historic use for Statement of Claim 76M-15970-00

WR Claim #	Priority Date	Period of Use	Diverted Volume	Flow Rate	Purpose (Total Acres)	Consump. Use	Place of Use	Point of Diversion
76M-15970	12/31/1883	4/15 - 10/24	132.5 AF	1.52 CFS	Irrigation 34.5 acres	45.2 AF	NW of Sec 26, T15N, R22W	NENWSW Sec 23, NENWNW Sec 26, NESWNW Sec 26, T15N, R22W

**FINDINGS OF FACT – Adverse Effect**

16. Historically water was diverted from Sixmile Creek at a flow rate of 1.52 CFS, with a diverted volume of 132.5 AF and consumed volume of 45.2 AF to irrigate 34.5 acres. In this proposal the flow rate will remain the same as what was diverted historically, and the diverted and consumed volumes will be reduced.

17. The Applicant will utilize the volume of water authorized in this change to fill the wetland cells and account for annual evaporation from the open surface water portions and evapotranspiration of wetland vegetation. The capacity of wetland cell #1 is 6,750 cubic feet or 0.15 AF and the capacity of wetland cell #2 is 113,535 cubic feet or 2.61 AF for a total capacity of 2.76 AF.

18. The historic consumptive use for irrigation is 45.2 AF. The Applicant will no longer irrigate the 34.5-acre place of use freeing up the historically consumed volume for the wetland purpose. The proposed consumptive use in the wetland development is 16.6 AF, which is 28.6 AF less than what was historically used in crop irrigation. The proposed consumptive use for the wetland development was calculated using the department technical memo Pond and Wetland Evaporation/Evapotranspiration (ET) guidance dated November 8, 2019. The net wetland ET was calculated to be 12.56 AF, open surface evaporation was calculated to be 1.25 AF, and capacity of wetland cells equals 2.76 AF, for a total of 16.6 AF ( $12.56 + 1.25 + 2.76 = 16.6$ )

19. The Applicant calculated the proposed diverted volume for the period of diversion from April 15 to October 24 using the consumptive use calculated for the wetlands of 16.6 AF plus the flow through volume needed for wetland maintenance of 83.4 AF, for a total diversionary requirement of 100 AF ( $16.6 + 83.4 = 100$ ). A typical diversion schedule submitted by the Applicant indicates 1.52 CFS would initially be used to fill the wetland cells, then the flow rate would be adjusted down to a rate that would keep the wetland cells at full pool and allow for a flow through component for water quality during the remaining period of diversion.

20. According to department policy, under the changed conditions return flows will only be reviewed under a limited adverse effect analysis absent a valid objection. For purposes of the Preliminary Determination, return flows will be analyzed to determine if they enter back into the source prior to or at the location of the next appropriator, or the historically-diverted water that is left instream is available during the period of diversion either below the point of

diversion or where return flows returned to the source. Department Policy Memorandum on Return Flows, April 1, 2016. In this instance, historically diverted but not consumed water will be left in Sixmile Creek below the historic point of diversion during the irrigation season, ensuring downstream water users have similar or greater opportunity to appropriate water than they historically did. The policy directs no further detailed analysis will be undertaken by the Department prior to receiving a valid objection, provided there will be no enlargement of the amounts of water historically diverted or consumed.

21. The department hydrologist, Attila Fohnagy, analyzed return flows and determined they enter back into Sixmile Creek, the source, prior to and before the location of the next downstream appropriator. Under historic practices return flows equaled 42.2 AF annually. Return flow amounts were estimated by subtracting the historically consumed volume of 45.2 AF from the historically applied volume of 87.4 AF. F.O.F. #12

22. Under the proposed new wetland use, approximately 83.4 AF of the 100 AF diverted into the wetland cells will be returned to Sixmile Creek. The proposed diverted volume of 100 AF was subtracted from the proposed consumptive use of 16.6 AF to estimate the total amount of water returning to the creek from the wetlands.

23. Return flows will be eliminated from the historic irrigation place of use, however the volume of water returning to Sixmile Creek from the wetland project will increase due to the reduction of diverted volume required from the project and the decrease in consumptive use. The Department finds that alteration of the pattern and timing of return flows will not adversely affect other water users.

24. In order to monitor and measure water use, the Applicant will install and use a cutthroat flume in a location at the end of the pipeline and before the first wetland cell. This location will allow the appropriator to measure flow rate diverted and to estimate annual diverted volume. This location is suitable to measure diverted flow rate since there will be no conveyance losses in the pipeline prior to water entering the wetland. After water is conveyed through both wetland cells it will be discharged directly back into Sixmile Creek via a naturalized drainage swale. The Applicant has agreed to measure the flow rate and volume of water diverted and report these figures to DNRC on an annual basis.

25. There is one other Sixmile Creek water user with a diversion located downstream of the proposed project. This water user's right is junior in priority to the subject water right being changed. All water from the wetland project will be discharged upstream of this water user's diversion and there will be no adverse effect resulting from the conversion of irrigation to wetlands. The proposed project will reduce consumptive use and diversionary requirements, which should result in more water availability to this downstream junior user.

### **BENEFICIAL USE**

#### **FINDINGS OF FACT**

26. The proposed beneficial use is wetland mitigation credit. More specifically, the Montana Department of Transportation is proposing to convert existing flood/sprinkler irrigated land into a wetland complex to provide MDT credit to offset wetland related impacts associated with road construction. Section 404 of the Clean Water Act requires that the hydrology for a wetland mitigation site be protected in perpetuity to ensure the hydrology for the site will never be developed for other uses that do not benefit the wetland. MDT is seeking a change in water rights to achieve the goal of protecting the wetland in perpetuity.

27. The wetland project was designed by MDT engineers who have expertise in designing and operating wetland mitigation projects throughout the State of Montana. The capacity of wetland cell #1 is 6,750 cubic feet or 0.15 AF and the capacity of wetland cell #2 is 113,535 cubic feet or 2.61 AF for a total capacity of 2.76 AF. The surface area of wetland cells are 1.25 (Cell # 1) and 5.49 (Cell # 2) acres, for a total of 6.7 acres. The proposed wetland design and water requirements were reviewed by Ethan Mace, Hydrologist for the DNRC Compact Implementation Team, who agreed that the water use calculations were done correctly and that the amount of water requested is a beneficial use.

28. The Department finds that wetland creation for mitigation credit is a beneficial use, and that a flow rate of 1.52 CFS, diverted volume of 100.0 AF, and a consumed volume of 16.6 AF are reasonable for the proposed wetland development.

## **ADEQUATE DIVERSION**

### **FINDINGS OF FACT**

29. This wetland project will use one newly installed headgate from Sixmile Creek. The three historical headgates will be retired and rendered inoperable. The Applicant provided construction drawings for a new 12-inch Waterman C-10 screwgate and 12-inch HDPE pipeline that will include a cutthroat flume in the outfall that leads into wetland cell #1. Water from wetland #1 will overflow into wetland cell #2 and overflows from wetland cell #2 will return directly to Sixmile Creek via a naturalized drainage swale. The wetlands will be maintained at a full pool condition during the period of diversion of April 15 through October 24.

## **POSSESSORY INTEREST**

### **FINDINGS OF FACT**

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

## **CONCLUSIONS OF LAW**

### **HISTORIC USE AND ADVERSE EFFECT**

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

519, 530, 722 P.2d 598, 605 (1986)(beneficial use constitutes the basis, measure, and limit of a water right); Featherman v. Hennessy, 43 Mont. 310, 316-17, 115 P. 983, 986 (1911)(increased consumption associated with expanded use of underlying right amounted to new appropriation rather than change in use); Quigley v. McIntosh, 110 Mont. 495, 103 P.2d 1067, 1072-74 (1940)(appropriator may not expand a water right through the guise of a change – expanded use constitutes a new use with a new priority date junior to intervening water uses); Allen v. Petrick, 69 Mont. 373, 222 P. 451(1924)(“quantity of water which may be claimed lawfully under a prior appropriation is limited to that quantity within the amount claimed which the appropriator has needed, and which within a reasonable time he has actually and economically applied to a beneficial use. . . . it may be said that the principle of beneficial use is the one of paramount importance . . . The appropriator does not own the water. He has a right of ownership in its use only”); Town of Manhattan, at ¶ 10 (an appropriator’s right only attaches to the amount of water actually taken and beneficially applied); Town of Manhattan v. DNRC, Cause No. DV-09-872C, Montana Eighteenth Judicial District Court, *Order Re Petition for Judicial Review*, Pg. 9 (2011)(the rule that one may change only that to which it has a right is a fundamental tenet of Montana water law and imperative to MWUA change provisions); In the Matter of Application to Change a Water Right No. 411 30002512 by Brewer Land Co, LLC, DNRC Proposal For Decision and Final Order (2004).<sup>1</sup>

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

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<sup>1</sup> DNRC decisions are available at:  
[http://www.dnrc.mt.gov/wrd/water\\_rts/hearing\\_info/hearing\\_orders/hearingorders.asp](http://www.dnrc.mt.gov/wrd/water_rts/hearing_info/hearing_orders/hearingorders.asp)

Hohenlohe, at ¶¶43-45.<sup>2</sup>

33. 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.<sup>3</sup> A comparative analysis of the historic use of the water right to the proposed change in use is necessary to prove the change will not result in expansion of the original right, or adversely affect water users who are entitled to rely upon maintenance of conditions on the source of supply for their water rights. Quigley, 103 P.2d at 1072-75 (it is necessary to ascertain historic use of a decreed water right to determine whether a change in use expands the underlying right to the detriment of other water user because a decree only provides a limited description of the right); Royston, 249 Mont. at 431-32, 816 P.2d at 1059-60 (record could not sustain a conclusion of no adverse effect because the applicant failed to provide the Department with evidence of the historic diverted volume, consumption, and return flow); Hohenlohe, at ¶¶44-45; Town of Manhattan v. DNRC, Cause No. DV-09-872C, Montana Eighteenth Judicial District Court, *Order Re Petition for Judicial Review*, Pgs. 11-12 (proof of historic use is required even when the right has been decreed because the decreed flow rate or volume establishes the maximum appropriation that may be diverted, and may exceed the historical pattern of use, amount diverted or amount

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<sup>2</sup> 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).

<sup>3</sup>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

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).<sup>4</sup>

34. 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 Matter of Application for Change Authorization No. G(W)008323-G76I By Starkel/Koester, DNRC Final Order (Apr. 1, 1992); In the Matter of

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<sup>4</sup> 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.)

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).<sup>5</sup>

35. 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).

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

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

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<sup>5</sup> 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).

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).

37. 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.

38. 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).

38. 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).

39. 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).

40. The Department has adopted a rule providing for the calculation of historic consumptive use where the applicant proves by a preponderance of the evidence that the acreage was historically irrigated. Admin. R. M. 36.12.1902 (16). In the alternative an applicant may present its own evidence of historic beneficial use. In this case Applicant has elected to proceed under Admin. R.M. 36.12.1902. (FOF No.12).

41. Based upon the Applicant's evidence of historic use, the Applicant has proven by a preponderance of the evidence the historic use of Water Right Claim No. 76M-15970-00 of 132.5 AF diverted volume and 1.52 CFS flow rate with a consumptive use of 45.2 AF. (FOF Nos. 8—15)

42. 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. (FOF Nos. 16—25)

### BENEFICIAL USE

43. 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); Toohy 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).

44. Applicant proposes to use water for wetlands which is a recognized beneficial use. §85-2-102(4), MCA. Applicant has proven by a preponderance of the evidence wetland is a

beneficial use and that 100 AF of diverted volume and 1.52 CFS flow rate of water requested is the amount needed to sustain the beneficial use. §85-2-402(2)(c), MCA (FOF Nos. 26-28)

### ADEQUATE MEANS OF DIVERSION

45. 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. 6<sup>th</sup> 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).

46. Pursuant to §85-2-402 (2)(b), MCA, applicant has proven by a preponderance of the evidence that the proposed means of diversion, construction, and operation of the appropriation works are adequate for the proposed beneficial use. (FOF Nos. 29)

### POSSESSORY INTEREST

47. 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

48. The Applicant has proven by a preponderance of the evidence that it has a possessory interest in the property where the water is to be put to beneficial use. (FOF Nos. 30)

## **PRELIMINARY DETERMINATION**

Subject to the terms and analysis in this Preliminary Determination Order, the Department preliminarily determines that this Application to Change Water Right No. 76M-30121233 should be granted subject to the following.

The Applicant is authorized to change the purpose from irrigation to wetland and change the place of use for Statement of Claim No. 76M-15970-00 by retiring 34.5 historically irrigated acres. The wetland place of use consists of two constructed wetland areas containing a surface area of 6.74 acres located in SENWNW and the NW of Section 26, T15N, R22W, Missoula County. The Applicant is also authorized to change the point of diversion to a newly constructed point of diversion on Sixmile Creek consisting of a 12-inch Waterman C-10 screwgate leading to a 12-inch pipeline. The new point of diversion will be located in the NWNWNW Section 26, T15N, R22W. The existing points of diversion listed on Statement of Claim No. 76M-15970-00 will no longer be used. The change authorization is limited to a 1.52 CFS flow rate up to 100 AF of diverted volume during the period of diversion and use of April 15 to October 24 annually.

The change authorization will be subject to the following condition.

### **Water Measurement Records Required:**

THE APPROPRIATOR SHALL INSTALL A DEPARTMENT APPROVED CUTTHROAT FLUME INSTALLED IN THE OUTFALL FROM THE PIPELINE INTO WETLAND CELL #1. WATER MUST NOT BE DIVERTED UNTIL THE REQUIRED MEASURING DEVICE IS IN PLACE AND OPERATING. ON A FORM PROVIDED BY THE DEPARTMENT, THE APPROPRIATOR SHALL KEEP A WRITTEN MONTHLY RECORD OF THE FLOW RATE AND VOLUME OF ALL WATER DIVERTED, INCLUDING THE PERIOD OF TIME. RECORDS SHALL BE SUBMITTED BY JANUARY 31 OF EACH YEAR AND UPON REQUEST AT OTHER TIMES DURING THE YEAR UNTIL THE APPLICATION TO CHANGE A WATER RIGHT IS PERFECTED AND THE DEPARTMENT RECEIVES A PROJECT COMPLETION NOTICE. FAILURE TO SUBMIT REPORTS MAY BE CAUSE FOR REVOCATION OF A PERMIT OR CHANGE. THE RECORDS MUST BE SENT TO THE MISSOULA WATER RESOURCES REGIONAL OFFICE. THE APPROPRIATOR SHALL MAINTAIN THE MEASURING DEVICE SO IT ALWAYS OPERATES PROPERLY AND MEASURES FLOW RATE AND VOLUME ACCURATELY.

## **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 3<sup>rd</sup> day of September 2020.

/Original signed by Jim Nave/  
Jim Nave, Regional Manager  
Missoula Regional Office  
Department of Natural Resources  
and Conservation

**CERTIFICATE OF SERVICE**

This certifies that a true and correct copy of the PRELIMINARY DETERMINATION TO GRANT was served upon all parties listed below on this 3<sup>rd</sup> day of September 2020, by first class United States mail.

MONTANA DEPARTMENT OF TRANSPORTATION  
P O BOX 201001  
HELENA, MT 59620  
ATTN: SHAWN BRYANT, AQUATIC MITIGATION ENGINEER

WGM GROUP, INC  
1111 EAST BROADWAY  
MISSOULA, MT 59802  
ATTN: KYLE MACE

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MISSOULA Regional Office, (406) 721-4284