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

* * * * * * * * *

IN THE MATTER OF APPLICATION FOR BENEFICIAL WATER USE PERMIT NO. 41J-30116563 BY TINTINA MONTANA INC.	**)** **)** **)**	**NOTICE OF ERRATA**

* * * * * * * * *

The following error has been found in the PRELIMINARY DETERMINATION TO GRANT PERMIT:

In the Preliminary Determination, on page 35, the paragraph "The places of use for mitigation include portions of the following streams, located in Sections 1, 2, 11, 12, and 13, T12N, R5E; Sections 3-6, 10-13, 18-22, 24-27, and 35, T12N, R6E; and Sections 18, 19, and 30, T12N, R7E: Sheep Creek, Black Butte Creek, and Coon Creek. The places of use for wetland maintenance include Sections 24-25, and 36, T12N, R6E; and Sections 30-31, T12N, R7E."

Should read:

The places of use for mitigation include portions of the following streams, located in Sections 1, 2, 11, 12, and 13, T12N, R5E; Sections 3-6, 10-13, 18-22, 24-27, and 35, T12N, R6E; and Sections 18, 19, and 30, T12N, R7E: Sheep Creek, Black Butte Creek, and Coon Creek. The places of use for wetland maintenance include Sections 24, 25, and 36 in T12N, R6E; and Sections 19, 30 and 31 in T12N, R7E.

Please make these corrections to your copy.

Dated this 1st day of April 2020.

/Original signed by Scott Irvin/

Scott Irvin, Regional Manager
Lewistown Regional Office
Department of Natural Resources
and Conservation

CERTIFICATE OF SERVICE

This certifies that a true and correct copy of the NOTICE OF ERRATA – PRELIMINARY DETERMINATION was served upon all parties listed below on this 1st day of April 2020 by first-class United States mail and/or by electronic mail (e-mail).

JOHN TIETZ
BROWNING, KALECZYC, BERRY & HOVEN, P.C.
PO BOX 1697
HELENA, MT 59624
E-mail: john@bkbh.com

/Original signed by Jamie Price/
Jamie Price, Hearings Assistant
Hearings Unit, (406) 444-6615

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

* * * * * * *

APPLICATION FOR BENEFICIAL WATER USE PERMIT NO. 41J 30116563 BY TINTINA MONTANA INC.	)))	**PRELIMINARY DETERMINATION TO GRANT PERMIT**

* * * * * * *

On September 7, 2018, Tintina Montana, Inc. (Applicant) submitted Application for Beneficial Water Use Permit No. 41J 30116563 to the Lewistown Water Resources Regional Office of the Department of Natural Resources and Conservation (Department or DNRC) to appropriate 7.5 cubic feet per second and 291.9 acre-feet for mitigation and wetland maintenance purposes. 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 March 5, 2019. The Applicant responded with information dated April 22, 2019. The Application was determined to be correct and complete as of January 29, 2020. An Environmental Assessment was completed and posted by the Department on March 13, 2020. In addition, an Environmental Impact Statement for the Applicant's Black Butte Copper Project (Mine) was issued by the Montana Department of Environmental Quality on March 13, 2020.

INFORMATION

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

Application as filed:

- Application for Beneficial Water Use Permit, Form 600 and narrative/attachments
    - Maps of the general service area for mitigation; gaging station locations; reservoir plans, etc.
    - Report – "Baseline Water Resources Monitoring and Hydrogeologic Investigations Report, Tintina Resources, Black Butte Project," Hydrometrics, Inc.

- Addendums: Basin Closure (High Spring Flows); Reservoir/Place of Storage

Information Received after Application Filed

- Applicant's deficiency response received April 22, 2019
- Applicants' February 18, 2020 letter to the Department providing minor comments and clarifications to the Department's technical report for the proposed application
- Department Memorandum – Clarification of Tietz 2/14/2020 Marketing Letter, dated February 20, 2020
- Multiple email communications with Applicant's consultant and/or attorney

Information within the Department's Possession/Knowledge

- Department Technical Report
- U.S. Geological Survey gaging stream records
- Water right records
- Email communications between Lewistown Regional Office staff and the Department's central office staff.
- Department Environmental Assessment, March 13, 2020.
- Black Butte Copper Project Final Environmental Impact Statement, Montana Department of Environmental Quality (DEQ) Environmental Impact Statement, March 13, 2020.
- Notes from pre-application meeting, held on August 28, 2018
- Department Memorandums:
    - Memo dated January 16, 2020 regarding discharge permit and compliance with § 85-2-364, MCA

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, MCA).

CONCURRENT PROCEEDINGS

1. The proposed permit application is part of a bundle of eight water right applications related to the Black Butte Copper Project in Meagher County. The Project is a proposed underground copper mine generally located about 15 miles north of White Sulphur Springs in the Sheep Creek drainage, in Sections 19, 29, 30, 31 and 32, T12N R7E, and Sections 24, 25 and 36 in T12N, R6E. The Preliminary Determinations for all eight applications (two permit applications and six applications to change irrigation water rights) must be read in conjunction with one another to understand the full scope of the proposal. The Preliminary Determination and associated application numbers are 41J 30116563, 41J 30116562, 41J 30116553, 41J 30116554, 41J 30116556, 41J 30116557, 41J 30116558, and 41J 30116559.

PROPOSED APPROPRIATION

FINDINGS OF FACT

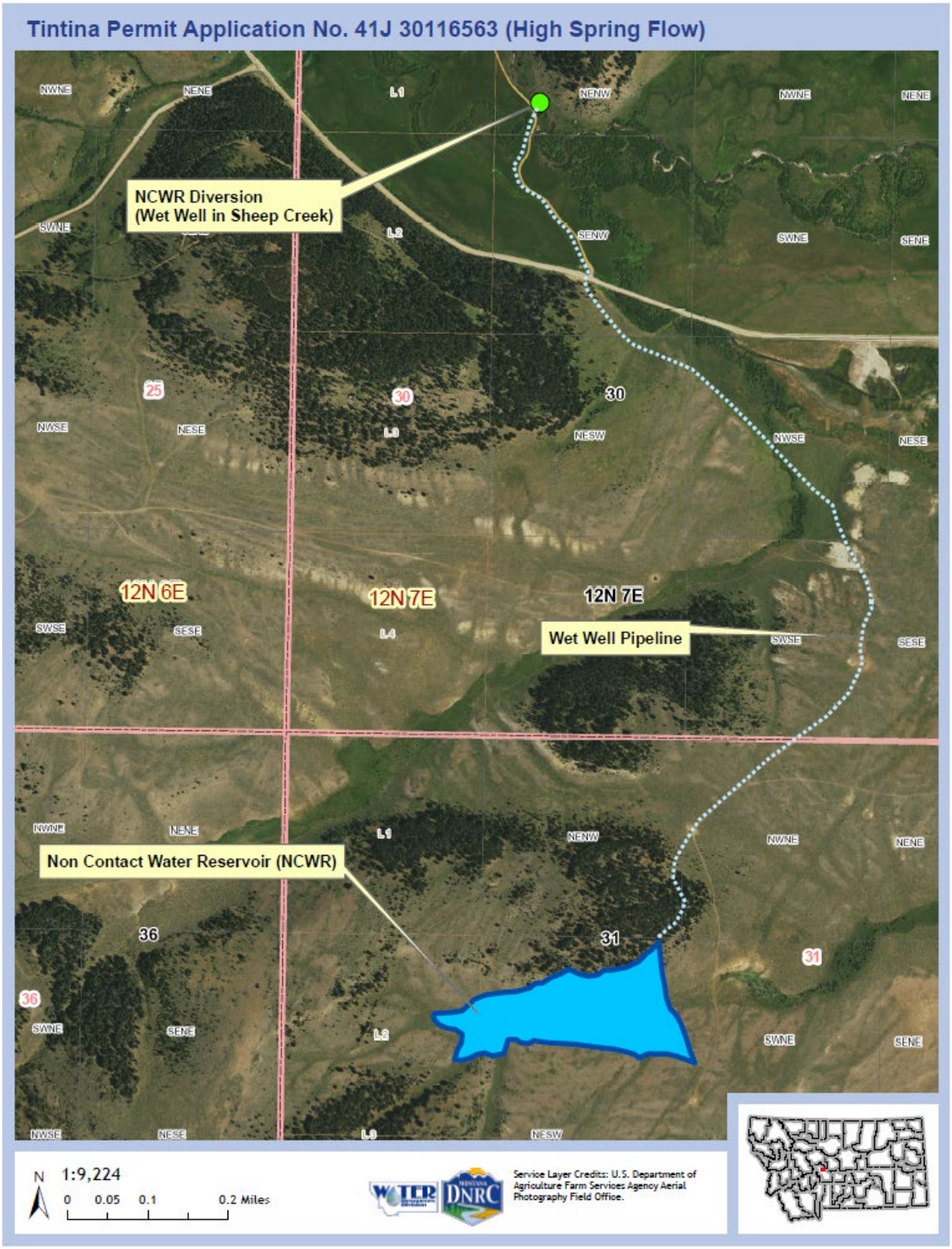
2. The proposed appropriation is to store water during the high spring flow period of May 1 through July 31. Applicant proposes to appropriate water from Sheep Creek to store in an off-stream reservoir and beneficially use the water for mitigation and wetland maintenance purposes. The amount of water proposed for appropriation is 7.5 cubic feet per second (CFS) up to 291.9 acre-feet (AF) annually. The means of diversion consists of a wet well and pipeline extending into Sheep Creek, with a pipeline as the means of conveyance to the off-stream reservoir. The point of diversion is in the SWNENW Section 30, T12N, 7E. The proposed period of appropriation is May 1 through July 31. The period of use for mitigation is January 1 through December 31, and the period of use for wetland maintenance is May 11 through June 11. After water has been stored it may be released from the reservoir during the period of use to mitigate stream and wetland depletions caused by the Black Butte Copper Project's diversion of groundwater (Preliminary Determination No. 41J 30116562).[1] The proposed appropriation

[1] Up to 96 acres of existing wetlands may experience depletions to their source of supply (shallow groundwater) due to the mine's appropriation of groundwater. The Applicant anticipates distributing up to 57.7 AF annually from its off-stream reservoir to off-set depletions to wetlands. The supplemental supply of water will allow the wetlands to be maintained in a state similar to pre-mining conditions.

represents a portion of the volume required to fully mitigate surface water depletions caused by the mine's groundwater pumping, and the remaining portion is proposed under the change applications identified in Finding of Fact No. 1. The design capacity of the reservoir is 291.9 AF and it will be located in the N2 Section 31, T12N, R7E on an Unnamed Tributary of Little Sheep Creek.[2] The reservoir is referred to in this Preliminary Determination as the Non-Contact Water Reservoir (NCWR). Releases from the NCWR will mitigate depletions to Sheep Creek, Black Butte Creek, Coon Creek, and up to 96 acres of area wetlands. Application.

3. The Applicant plans on measuring its diversions from Sheep Creek and monitoring source flows with two gaging stations. Application. The monitoring effort is proposed to ensure stream flows are sufficient to meet downstream water right demands before appropriating water. The Department has imposed monitoring and measuring conditions in this Preliminary Determination and set minimum stream flow levels (also referred to as trigger flows in this document) for the protection of existing water rights. The conditions are incorporated below in the Conditions section. A map of the point of diversion and NCWR follows.

[2] Water naturally flowing down the Unnamed Tributary of Little Sheep Creek will be routed around the reservoir and will not be stored.


Tintina Permit Application No. 41J 30116563 (High Spring Flow)
NCWR Diversion
(Wet Well in Sheep Creek)
Wet Well Pipeline
Non Contact Water Reservoir (NCWR)
12N 6E
12N 7E
12N 7E
30
30
25
36
36
31
31
N
1:9,224
0 0.05 0.1 0.2 Miles
Service Layer Credits: U.S. Department of Agriculture Farm Services Agency Aerial Photography Field Office.

BASIN CLOSURE

FINDINGS OF FACT

4. Applicant has filed this application under the high spring flow exception in statute (storage of water during high spring flows). § 85-2-343(2)(d), MCA. The project is located in the Sheep Creek drainage of hydrologic Basin 41J (Smith River Basin). Basin 41J is located within the Upper Missouri River Basin Closure Area.

CONCLUSIONS OF LAW

5. Except in limited circumstances, DNRC cannot grant an application for a permit to appropriate surface water within the upper Missouri River basin until final decrees have been issued in accordance with Title 85, chapter 2, part 2, MCA, for all of the sub-basins of the upper Missouri River basin. § 85-2-343(1), MCA. The upper Missouri River basin consists of the drainage area of the Missouri River and its tributaries above Morony Dam. § 85-2-342(3), MCA. The proposed diversion is located within the Upper Missouri River Basin Closure Area.

6. This application is for storage of water during high spring flows. The application falls under the exceptions for the basin closure. § 85-2-343(2)(d), MCA.

7. In reviewing an application for groundwater in a closed basin, the District Court in Sitz Ranch v. DNRC observed:

> The basin from which applicants wish to pump water is closed to further appropriations by the legislature. The tasks before an applicant to become eligible for an exception are daunting. The legislature set out the criteria discussed above (§85-2-311, MCA) and placed the burden of proof squarely on the applicant. The Supreme Court has instructed that those burdens are exacting. It is inescapable that an applicant to appropriate water in a closed basin must withstand strict scrutiny of each of the legislatively required factors.

Sitz Ranch v. DNRC, DV-10-13390, Fifth Judicial District Court, *Order Affirming DNRC Decision*, (2011) Pg. 7.

A basin closure exception does not relieve the Department of analyzing § 85-2-311, MCA criteria. Qualification under a basin closure exception allows the Department to accept an application for processing. The Applicant must still prove the requisite criteria. E.g., *In the*

Matter of Application for Beneficial Water Use Permit No. 41K-30043385 by Marc E. Lee (DNRC Final Order 2011); *In the Matter of Application for Beneficial Water Use Permit No. 41K-30045713 by Nicholas D. Konen*, (DNRC Final Order 2011).

§ 85-2-311, MCA, BENEFICIAL WATER USE PERMIT CRITERIA

GENERAL CONCLUSIONS OF LAW

8. The Montana Constitution expressly recognizes in relevant part that:

> (1) All existing rights to the use of any waters for any useful or beneficial purpose are hereby recognized and confirmed.
> (2) The use of all water that is now or may hereafter be appropriated for sale, rent, distribution, or other beneficial use . . . shall be held to be a public use.
> (3) All surface, underground, flood, and atmospheric waters within the boundaries of the state are the property of the state for the use of its people and are subject to appropriation for beneficial uses as provided by law.

Mont. Const. Art. IX, §3. While the Montana Constitution recognizes the need to protect senior appropriators, it also recognizes a policy to promote the development and use of the waters of the state by the public. This policy is further expressly recognized in the water policy adopted by the Legislature codified at § 85-2-101, MCA, which states in relevant part:

> (1) Pursuant to Article IX of the Montana constitution, the legislature declares that any use of water is a public use and that the waters within the state are the property of the state for the use of its people and are subject to appropriation for beneficial uses as provided in this chapter. . . .
> (3) It is the policy of this state and a purpose of this chapter to encourage the wise use of the state's water resources by making them available for appropriation consistent with this chapter and to provide for the wise utilization, development, and conservation of the waters of the state for the maximum benefit of its people with the least possible degradation of the natural aquatic ecosystems. In pursuit of this policy, the state encourages the development of facilities that store and conserve waters for beneficial use, for the maximization of the use of those waters in Montana . . .

9. Pursuant to § 85-2-302(1), MCA, except as provided in §§ 85-2-306 and 85-2-369, MCA, a person may not appropriate water or commence construction of diversion, impoundment, withdrawal, or related distribution works except by applying for and receiving a permit from the

Department. See § 85-2-102(1), MCA. An applicant in a beneficial water use permit proceeding must affirmatively prove all of the applicable criteria in § 85-2-311, MCA. Section § 85-2-311(1) states in relevant part:

> … the department shall issue a permit if the applicant proves by a preponderance of evidence that the following criteria are met:
>
> (a) (i) there is water physically available at the proposed point of diversion in the amount that the applicant seeks to appropriate; and
>
> (ii) water can reasonably be considered legally available during the period in which the applicant seeks to appropriate, in the amount requested, based on the records of the department and other evidence provided to the department. Legal availability is determined using an analysis involving the following factors:
>
> (A) identification of physical water availability;
>
> (B) identification of existing legal demands on the source of supply throughout the area of potential impact by the proposed use; and
>
> (C) analysis of the evidence on physical water availability and the existing legal demands, including but not limited to a comparison of the physical water supply at the proposed point of diversion with the existing legal demands on the supply of water.
>
> (b) the water rights of a prior appropriator under an existing water right, a certificate, a permit, or a state water reservation will not be adversely affected. In this subsection (1)(b), adverse effect must be determined based on a consideration of an applicant's plan for the exercise of the permit that demonstrates that the applicant's use of the water will be controlled so the water right of a prior appropriator will be satisfied;
>
> (c) the proposed means of diversion, construction, and operation of the appropriation works are adequate;
>
> (d) the proposed use of water is a beneficial use;
>
> (e) 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 use has 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 under the permit;
>
> (f) the water quality of a prior appropriator will not be adversely affected;
>
> (g) the proposed use will be substantially in accordance with the classification of water set for the source of supply pursuant to 75-5-301(1); and
>
> (h) the ability of a discharge permit holder to satisfy effluent limitations of a permit issued in accordance with Title 75, chapter 5, part 4, will not be adversely affected.
>
> (2) The applicant is required to prove that the criteria in subsections (1)(f) through (1)(h) have been met only if a valid objection is filed. A valid objection must contain substantial credible information establishing to the satisfaction of the department that the criteria in subsection (1)(f), (1)(g), or (1)(h), as applicable, may not be met. For the criteria set forth

> in subsection (1)(g), only the department of environmental quality or a local water quality district established under Title 7, chapter 13, part 45, may file a valid objection.

To meet the preponderance of evidence standard, "the applicant, in addition to other evidence demonstrating that the criteria of subsection (1) have been met, shall submit hydrologic or other evidence, including but not limited to water supply data, field reports, and other information developed by the applicant, the department, the U.S. geological survey, or the U.S. natural resources conservation service and other specific field studies." § 85-2-311(5), MCA (emphasis added). The determination of whether an application has satisfied the § 85-2-311, MCA, criteria is committed to the discretion of the Department. Bostwick Properties, Inc. v. Montana Dept. of Natural Resources and Conservation, 2009 MT 181, ¶ 21. The Department is required grant a permit only if the § 85-2-311, MCA, criteria are proven by the applicant by a preponderance of the evidence. Id. A preponderance of evidence is "more probably than not." Hohenlohe v. DNRC, 2010 MT 203, ¶¶ 33, 35.

10. Pursuant to § 85-2-312, MCA, the Department may condition permits as it deems necessary to meet the statutory criteria:

> (1) (a) The department may issue a permit for less than the amount of water requested, but may not issue a permit for more water than is requested or than can be beneficially used without waste for the purpose stated in the application. The department may require modification of plans and specifications for the appropriation or related diversion or construction. The department may issue a permit subject to terms, conditions, restrictions, and limitations it considers necessary to satisfy the criteria listed in 85-2-311 and subject to subsection (1)(b), and it may issue temporary or seasonal permits. A permit must be issued subject to existing rights and any final determination of those rights made under this chapter.

E.g., Montana Power Co. v. Carey (1984), 211 Mont. 91, 96, 685 P.2d 336, 339 (requirement to grant applications as applied for, would result in, "uncontrolled development of a valuable natural resource" which "contradicts the spirit and purpose underlying the Water Use Act."); see also, *In the Matter of Application for Beneficial Water Use Permit No. 65779-76M by Barbara L. Sowers* (DNRC Final Order 1988)(conditions in stipulations may be included if it further

compliance with statutory criteria); *In the Matter of Application for Beneficial Water Use Permit No. 42M-80600 and Application for Change of Appropriation Water Right No. 42M-036242 by Donald H. Wyrick* (DNRC Final Order 1994); ARM 36.12.207.

11. The Montana Supreme Court further recognized in Matter of Beneficial Water Use Permit Numbers 66459-76L, Ciotti: 64988-G76L, Starner (1996), 278 Mont. 50, 60-61, 923 P.2d 1073, 1079, 1080, *superseded by legislation on another issue*:

> Nothing in that section [85-2-313], however, relieves an applicant of his burden to meet the statutory requirements of § 85-2-311, MCA, before DNRC may issue that provisional permit. Instead of resolving doubts in favor of appropriation, the Montana Water Use Act requires an applicant to make explicit statutory showings that there are unappropriated waters in the source of supply, that the water rights of a prior appropriator will not be adversely affected, and that the proposed use will not unreasonably interfere with a planned use for which water has been reserved.

See also, Wesmont Developers v. DNRC, CDV-2009-823, First Judicial District Court, *Memorandum and Order* (2011). The Supreme Court likewise explained that:

> .... unambiguous language of the legislature promotes the understanding that the Water Use Act was designed to protect senior water rights holders from encroachment by junior appropriators adversely affecting those senior rights.

Montana Power Co., 211 Mont. at 97-98, 685 P.2d at 340; see also Mont. Const. art. IX §3(1).

12. An appropriation, diversion, impoundment, use, restraint, or attempted appropriation, diversion, impoundment, use, or restraint contrary to the provisions of § 85-2-311, MCA, is invalid. An officer, agent, agency, or employee of the state may not knowingly permit, aid, or assist in any manner an unauthorized appropriation, diversion, impoundment, use, or other restraint. A person or corporation may not, directly or indirectly, personally or through an agent, officer, or employee, attempt to appropriate, divert, impound, use, or otherwise restrain or control waters within the boundaries of this state except in accordance with this § 85-2-311, MCA. § 85-2-311(6), MCA.

Physical Availability

FINDINGS OF FACT

13. The proposed appropriation from Sheep Creek is 7.5 CFS up to 291.9 AF annually, with a period of appropriation of May 1 through July 31. Application.

14. Sheep Creek is a perennial stream originating in the Little Belt Mountains and is tributary to the Smith River. It flows in a meandering channel through a broad alluvial valley upstream of the project site and enters a constricted bedrock canyon just downstream of the project site. Its drainage area includes 194 square miles. The project area is approximately 19 miles above its confluence with the Smith River. Black Butte Copper Project Final Environmental Impact Statement, Montana Department of Environmental Quality (DEQ) Environmental Impact Statement, March 13, 2020.

15. Between the years 1941 and 1972, the U.S. Geological Survey operated a gaging station on Sheep Creek (USGS Gage No. 06077000). The gaging station was located roughly four miles upstream of the proposed point of diversion. The Applicant provided streamflow measurements and a summary of all monthly mean and median of the mean discharge data collected during the period of record. Application File.

16. To analyze the amount of water physically available in Sheep Creek near the proposed point of diversion, Applicant's consultant implemented a stream flow baseline monitoring program between 2011 and 2017. Baseline Water Resources Monitoring and Hydrogeologic Investigations Report, Tintina Resources, Black Butte Project", Hydrometrics, Inc. Concurrent flows were recorded on Sheep Creek at sites referred to as SW1 and USGS-SC1. SW1 is the location on Sheep Creek the Applicant intends on monitoring stream flows throughout mining operations and is located 1.5 miles downstream of the proposed point of diversion. USGS-SC1 is at the location of the former USGS stream gage (four miles upstream). The stream measurement data were collected during each of the months proposed for the period of diversion (including in multiple years) and correlated to project median of the mean monthly flows in Sheep Creek, using both the old USGS station data (1941-1972) and the recently-collected data (2011-2017). Discharge measurements were submitted on Form 649. ARM 36.12.1702. A

Logarithmic transformation was applied to the concurrent flow data and a linear regression equation was used to estimate flows at the SW1 site based on the historical USGS data. This data was then converted to median of the mean monthly flows. Based on the estimations derived from applying the regression equation to concurrent measurement, the calculated mean annual flow at SW1 is 44.9 CFS, and the median of the mean monthly flows and volume are shown in Table 1 below. Department Technical Report.

Table 1 - Median of the Mean Monthly Flows and Volume (Sheep Creek @ SW1)

Month	Physical Availability at SW1 (CFS)	Physical Availability at SW1 (AF)
January	11.5	707.1
February	11.3	650.0
March	10.1	621.0
April	21.9	1303.1
May	129.9	7987.2
June	152.9	9098.2
July	55.9	3437.2
August	28.6	1758.6
September	22.7	1350.7
October	19.5	1199.0
November	15.6	928.3
December	12.7	780.9

17. Department Hydrologist Mike Roberts reviewed the Applicant's monitoring data and method of correlating historic USGS data to stream flows at SW-1 and determined the method and results to be credible. Email communication from Mike Roberts, Department Hydrologist, and Scott Irvin, Regional Manager, dated December 12, 2019.

18. Table 1 shows that median of the mean monthly stream flows are greater than the proposed appropriation of 7.5 CFS during the requested period of diversion (May 1 through July 31).

Stream flows during the period also exceed the requested volume of 291.9 AF. The Department finds surface water to be physically available in the amount Applicant seeks to appropriate (7.5 CFS up to 291.9 AF).

19. In addition to showing that water is physically available in the amount requested for appropriation, stream flows must be physically available based on a threshold level required to meet the high spring flow exception in statute. While no definition of high spring flows exists in statute or administrative rule, the Department has interpreted the exception to mean the standard is met when source flows are commonly in excess of the average annual flow during the period of diversion, or further, when median of the mean monthly stream flows are greater than the mean annual flow. *In The Matter of Application for Beneficial Water Use Permit No. 41O 30049563 by Teton Prairie LLC* (DNRC Final Order (2012); Findings of Fact 7-9; Conclusion of Law 10). In this instance, Table 1 shows that stream flows at SW-1 during the months of May, June, and July exceed the mean annual flow of 44.9 CFS. Therefore, the Department finds the proposed appropriation meets the high spring flow statutory exception. FOF 16-18.

CONCLUSIONS OF LAW

20. Pursuant to § 85-2-311(1)(a)(i), MCA, an applicant must prove by a preponderance of the evidence that "there is water physically available at the proposed point of diversion in the amount that the applicant seeks to appropriate."

21. An applicant must prove that at least in some years there is water physically available at the point of diversion in the amount the applicant seeks to appropriate. *In the Matter of Application for Beneficial Water Use Permit No. 72662s76G by John Fee and Don Carlson* (DNRC Final Order 1990); *In the Matter of Application for Beneficial Water Use Permit No. 85184s76F by Wills Cattle Co. and Ed McLean* (DNRC Final Order 1994).

22. The Applicant has proven that water is physically available at the proposed point of diversion in the amount Applicant seeks to appropriate. § 85-2-311(1)(a)(i), MCA. (FOF's 13-19)

Legal Availability

FINDINGS OF FACT

23. The area of potential impact is Sheep Creek downstream of the proposed point of diversion, the Smith River downstream of its confluence with Sheep Creek, and the Missouri River from the Smith River confluence to Morony Dam near Great Falls. All three sources are included in the Upper Missouri River Basin Closure Area. § 85-2-343, MCA.

Sheep Creek

24. The proposed point of diversion on Sheep Creek is in the SWNENW Section 30, T12N, 7E. Appropriations will occur between May 1 and July 31 at a flow rate of up to 7.5 CFS. The following water rights on Sheep Creek exist below the diversion point. Water right records.

Table 2 - Water rights on Sheep Creek Downstream of the Proposed Point of Diversion

Water Right Number	Flow Rate (CFS)	Volume (AF)
41J 128808 00	.08	8.42
41J 145768 00	.08	13.3
41J 145771 00	.08	13.3
41J 145774 00	7.5	164.1
41J 145775 00	5	387.0
41J 145776 00	12.5	387.0
41J 198909 00	3.75	92.6
41J 198910 00	2.61	94.4
41J 198914 00	12.5	123.1
41J 198915 00	5	202.7
41J 30126668	.08	14.9
41J 30126671	.08	14.9
41J 30126673	.08	14.9
41J 30126677	.08	14.9
41J 30126684	.08	14.9
41J 30126690	.08	14.9
41J 30126691	.08	14.9
41J 22241 00	.08	2.25
41J 30106883	.08	16.85
41J 56463 00	.08	1.7
41J 30125142	.05	2.0
*41J 30023856	27	19,600.7
41J 30017571	35	25,337.1
Totals	**84.93**	**27,114.1**

*Statement of Claim No. 41J 30023856 is a 27 CFS instream Fishery reserved right owned by the USDA Forest Service that runs concurrent with the 35 CFS instream Fishery water reservation (41J 30017571) owned by Montana Fish, Wildlife and Parks. Flows for the two rights are not considered cumulative, and therefore the lesser appropriation was excluded from the final calculation.

25. Table 3 shows a comparison of the physical water supply on Sheep Creek at SW1, based on median of the mean monthly flows (Table 1 – FOF 16) to downstream legal demands (Table 2 – FOF 27). The table reflects the comparison in both flow rate (CFS) and volume (AF). Department Technical Report.

Table 3 - Legal Availability: Sheep Creek Downstream of the Proposed Point of Diversion:

Month	Physical Availability at SW1 (CFS)	Existing Legal Demands (CFS)	Physical – Legal (CFS)	Physical Availability at SW1 (AF)	Existing Legal Demands (AF)	Physical – Legal (AF)
May	129.9	84.9	45.0	7987.2	2535.3	5451.9
June	152.9	84.9	68.0	9098.2	2466.2	6632.0
July	55.9	84.9	-29.0	3437.2	2535.6	901.6

The comparison shows that median of the mean monthly stream flows are greater than legal demands on a volume basis throughout the period of appropriation. On a flow rate basis, stream flows are greater than legal demands in May and June, but not in July.[3] The timing of runoff affects when water is legally available on a flow rate basis during the May through July period, and varies each year.

26. The Department finds that water is legally available on Sheep Creek, during the high spring flow period of May 1 through July 31, on a volume basis. Water is legally available during May and June on a flow rate basis, and at times in July, depending on the timing of runoff. Water is legally available on Sheep Creek during the proposed period anytime that stream flows are

[3] The DFWP instream flow water reservation (35 CFS) is included in the Legal Demands data. As such, the number in red (July comparison of Physical Availability to Legal Demands) is not indicative of a dry stream bed, because water is not diverted from the source. Rather, it reflects the calculated amount that stream flow in the source is less than the DFWP water reservation and is based on a presumption that all water rights are being exercised simultaneously and to their maximum extent.

greater than 84.9 CFS, which is the flow rate necessary to meet existing water right demands downstream of the point of diversion.

Smith River

27. The confluence of Sheep Creek with the Smith River is in the NESENE Section 14, T12N, R4E, Meagher County, generally located at a point known as Camp Baker. From this point downstream, depletions from the proposed Sheep Creek appropriation will also occur to the Smith River. When flows are insufficient to meet legal demands, senior water rights on the Smith River have the right to "call" junior water rights, including the proposed junior permit on Sheep Creek.

28. Table 4 below shows a comparison of the physical water supply to legal demands on the Smith River, based on median of the mean monthly flows for the closest gage downstream of the Sheep Creek confluence (USGS Gage No. 06077200 – Smith River below Eagle Creek near Fort Logan, MT). The Fort Logan gage is about 1.8 miles downstream of the confluence of Sheep Creek, and the analysis accounts for water rights (legal demands) between the gage and the mouth of the Smith River. The table displays a comparison in both flow rate (CFS) and volume (AF). Department Technical Report.

Table 4 - Legal Availability: Smith River Downstream of the Sheep Creek Confluence near Fort Logan:

Month	Physical Availability at USGS Gage # 06077200 (CFS)	Existing Legal Demands (CFS)	Physical – Legal (CFS)	Physical Availability at USGS Gage # 06077200 (AF)	Existing Legal Demands (AF)	Physical – Legal (AF)
May	527.5	240.2	287.3	32434.7	14129.6	18305.1
June	546.8	242.0	304.8	32536.9	13848.7	18688.2
July	159.4	232.0	-72.6	9801.1	13685.2	-3884.1

The data include the instream flow Murphy Right held by the Department of Fish, Wildlife and Parks at the Fort Logan gage. The Murphy Right for DFWP at the gage is 150 CFS in May and June, and 140 CFS in July.

29. Table 4 shows that the physical water supply at the Fort Logan gage exceeds existing legal demands in May and June on both a flow rate and volume basis, but not in July. During July,

calculated legal demands exceed the physical supply by 72.6 CFS and 3,884 AF. The results are conservative because they assume the flow rates of all water rights are constantly appropriated in their maximum claimed amount, and no consideration is given to tributary inflows downstream of the gage. Since spring runoff often extends into July, and stream flows are variable during that month, there are times in July when flows exceed legal demands. Department Technical Report.

30. Table 5 below shows a comparison of the physical water supply to legal demands on the Smith River, based on median of the mean monthly flows, for a gage located farther downstream than Fort Logan (USGS Gage No. 06077500 – Smith River near Eden, MT). The Eden gage is about 25 miles upstream of the confluence of the Smith River with the Missouri River, and accounts for tributary inflows and water right appropriations between it and the gage near Fort Logan. The table makes a comparison in both flow rate (CFS) and volume (AF). Department Technical Report.

Table 5 - Legal Availability on Smith River near Eden

Month	Physical Availability at USGS Gage # 060777500 (CFS)	Existing Legal Demands (CFS)	Physical – Legal (CFS)	Physical Availability at USGS Gage # 06077500 (AF)	Existing Legal Demands (AF)	Physical – Legal (AF)
May	835.4	432.8	402.6	51366.7	25685.4	25681.3
June	813.3	434.2	379.1	48394.7	25702.5	22692.2
July	305.7	184.2	121.5	18796.8	11248.3	7548.5

The data include the instream flow Murphy Right held by the Department of Fish, Wildlife and Parks. The Murphy Right for DFWP ranges between 150-400 CFS during the May through July period.

31. Table 5 shows that the physical water supply at the Eden gage exceeds existing downstream legal demands in May, June, and July on both a flow rate and volume basis.

32. The Department finds that by establishing a minimum stream flow trigger before appropriating water during July at the Fort Logan gage, water can be considered legally available on the Smith River during the proposed period of appropriation. The minimum flow must be the amount necessary to meet legal demands during July between the two gages. Table 4 shows

existing legal demands at the Fort Logan gage to be 232.0 CFS in July, however, that number reflects an accounting of water rights to the mouth of the Smith River. Since the Eden gage is an additional means to monitor real-time stream flows and account for legal demands below it, the Department will calculate a minimum flow level at the Fort Logan gage based on a stream reach analysis. The Department's water right records show that there are 197.8 CFS in legal demands in July between the gages. Therefore, when stream flows in the Smith River at the gage near Fort Logan are at 197.8 CFS or greater, water can be considered legally available in July.

33. Based on the Department's analysis and establishment of a minimum flow level of 197.8 CFS in July at the Fort Logan gage, water is considered legally available on the Smith River from May 1 through July 31. Conditions Section.

Missouri River

34. The confluence of the Smith River with the Missouri River is in the NESE Section 9, T19N, R2E, Cascade County, near the town of Ulm. From this point downstream, depletions from the proposed Sheep Creek appropriation will occur to the Missouri River. Department Technical Report.

35. The Missouri River below the confluence of the Smith River to Morony Dam near Great Falls is located within the Upper Missouri River Basin Closure Area. MCA 85-2-343. The downstream extent of the closure area ends at Morony Dam. Upstream of that point the river is generally over-appropriated, with few exceptions. The Department may not grant an application for a permit within the closure area, except in limited situations. In this instance, the statute provides an exception for an application to store water during high spring flows. The application meets the legal exception by proposing appropriations only during the high spring flow period.

36. In order to ensure water remains legally available to users on the Missouri River, the Applicant proposes to purchase a Water Service Contract (WSC) from the U.S. Bureau of Reclamation (BOR) in the amount of its appropriation. Upon purchase of a WSC the BOR releases water stored in its upstream facility at Canyon Ferry Lake to the affected reach of the Missouri River, in the amount stated in the contract. The annual acquisition of a WSC in the

amount of 291.9 AF is a sufficient mitigation measure to find that water is legally available on the river.

37. Applicant has addressed legal availability of surface water in the Missouri River by providing a mitigation plan which proposes to mitigate depletions in full. This mitigation plan is fully addressed under the Adverse Effect section below. The Department finds that water is legally available on the Missouri River during the proposed period of appropriation of May 1 through July 31, provided a WSC is acquired by the Applicant from BOR in the amount of 291.9 AF annually. Applicant must submit proof of the purchase of a WSC to the Department. Conditions Section.

CONCLUSIONS OF LAW

38. Pursuant to § 85-2-311(1)(a), MCA, an applicant must prove by a preponderance of the evidence that:

> (ii) water can reasonably be considered legally available during the period in which the applicant seeks to appropriate, in the amount requested, based on the records of the department and other evidence provided to the department. Legal availability is determined using an analysis involving the following factors:
> (A) identification of physical water availability;
> (B) identification of existing legal demands on the source of supply throughout the area of potential impact by the proposed use; and
> (C) analysis of the evidence on physical water availability and the existing legal demands, including but not limited to a comparison of the physical water supply at the proposed point of diversion with the existing legal demands on the supply of water.

E.g., ARM 36.12.101 and 36.12.120; Montana Power Co., 211 Mont. 91, 685 P.2d 336 (Permit granted to include only early irrigation season because no water legally available in late irrigation season); *In the Matter of Application for Beneficial Water Use Permit No. 81705-g76F by Hanson* (DNRC Final Order 1992).

39. It is the applicant's burden to present evidence to prove water can be reasonably considered legally available. Sitz Ranch v. DNRC, DV-10-13390, Fifth Judicial District Court, *Order Affirming DNRC Decision*, (2011) Pg. 7 (the legislature set out the criteria (§ 85-2-311, MCA) and placed the burden of proof squarely on the applicant. The Supreme Court has instructed that those burdens are exacting.); see also Matter of Application for Change of Appropriation Water

Rights Nos. 101960-41S and 101967-41S by Royston (1991), 249 Mont. 425, 816 P.2d 1054 (burden of proof on applicant in a change proceeding to prove required criteria); *In the Matter of Application to Change Water Right No. 41H 1223599 by MGRR #1, LLC.*, (DNRC Final Order 2005))(it is the applicant's burden to produce the required evidence.); *In the Matter of Application for Beneficial Water Use Permit No. 41H 30023457 by Utility Solutions, LLC* (DNRC Final Order 2007)(permit denied for failure to prove legal availability); see also ARM 36.12.1705.

40. Based on the Applicant's proposed mitigation and water measurement plans, and conditions imposed in this Preliminary Determination, the Applicant has proven by a preponderance of evidence that surface water can reasonably be considered legal available during the period in which the Applicant seeks to appropriate, in the amount requested. (FOF's 23-37)

Adverse Effect

FINDINGS OF FACT

41. Applicant's consultant, Greg Bryce, Senior Hydrogeologist at Hydrometrics Inc., provided analysis of stream flows and legal demands in Sheep Creek to address the adverse effect criteria. Applicant's plan proposes to cease diversions from Sheep Creek when flows in the source drop below that necessary to meet downstream legal demands, or 84.9 CFS.[4] Automated stream gages in Sheep Creek and Moose Creek will record flows on an hourly basis to ensure the monitoring effort reflects near real-time data. Application; Conditions Section.

42. Stream gages will be placed in two locations: 1) at a site on Sheep Creek referred to as SW1, about 1.5 miles below the proposed point of diversion; and 2) at the mouth of Moose Creek, a major tributary to Sheep Creek, about 2,000 feet downstream of SW1. Combined, the two gages will allow Applicant to monitor flows in Sheep Creek to meet legal demands and react to changing stream conditions accordingly. Conditions of water measurement, monitoring, and

[4] Three instream stock water rights exist between the measuring locations and the proposed point of diversion. There is sufficient water in the stream to satisfy these appropriations.

recordation are imposed in this Preliminary Determination to protect water users on Sheep Creek. Application; Conditions Section.

43. For the Smith River, the physical supply of water exceeds legal demands in May and June, and at times in July. To protect existing water users on the Smith River, the Department imposes minimum trigger flow conditions before appropriations in Sheep Creek can occur. Stream flow levels must be at or greater than 207.3 CFS in May, 207.8 CFS in June, and 197.8 CFS in July at USGS Gage No. 06077200 (Smith River below Eagle Creek near Fort Logan) before water may be appropriated under the proposed permit. Conditions Section.

44. For the Missouri River, a Water Service Contract shall be purchased from the BOR in the amount of 291.9 AF to fully mitigate depletions to that source. Application; Conditions Section.

45. Based on the plans of Applicant to monitor stream flows in Sheep Creek and mitigate depletions in the Missouri River, coupled with the Department's minimum flow conditions imposed in this Preliminary Determination, no adverse effects will result from the proposed appropriation to water rights in Sheep Creek, the Smith River, or the Missouri River.

CONCLUSIONS OF LAW

46. Pursuant to § 85-2-311(1)(b), MCA, the Applicant bears the affirmative burden of proving by a preponderance of the evidence that the water rights of a prior appropriator under an existing water right, a certificate, a permit, or a state water reservation will not be adversely affected. Analysis of adverse effect must be determined based on a consideration of an applicant's plan for the exercise of the permit that demonstrates that the applicant's use of the water will be controlled so the water right of a prior appropriator will be satisfied. See Montana Power Co. (1984), 211 Mont. 91, 685 P.2d 336 (purpose of the Water Use Act is to protect senior appropriators from encroachment by junior users); Bostwick Properties, Inc. ¶ 21.

47. An applicant must analyze the full area of potential impact under the § 85-2-311, MCA criteria. *In the Matter of Beneficial Water Use Permit No. 76N-30010429 by Thompson River Lumber Company* (DNRC Final Order 2006). While § 85-2-361, MCA, limits the boundaries expressly required for compliance with the hydrogeologic assessment requirement, an applicant

is required to analyze the full area of potential impact for adverse effect in addition to the requirement of a hydrogeologic assessment. Id. ARM 36.12.120(5).

48. Applicant must prove that no prior appropriator will be adversely affected, not just the objectors. Sitz Ranch v. DNRC, DV-10-13390, Fifth Judicial District Court, *Order Affirming DNRC Decision*, (2011) Pg. 4.

49. In analyzing adverse effect to other appropriators, an applicant may use the water rights claims of potentially affected appropriators as evidence of their "historic beneficial use." See Matter of Application for Change of Appropriation Water Rights Nos. 101960-41S and 101967-41S by Royston (1991), 249 Mont. 425, 816 P.2d 1054.

50. It is the applicant's burden to produce the required evidence. E.g., Sitz Ranch v. DNRC, DV-10-13390, Fifth Judicial District Court, *Order Affirming DNRC Decision*, (2011) Pg. 7 (legislature has placed the burden of proof squarely on the applicant); *In the Matter of Application to Change Water Right No. 41H 1223599 by MGRR #1, LLC.*, (DNRC Final Order 2005). (DNRC Final Order 2005). The Department is required to grant a permit only if the § 85-2-311, MCA, criteria are proven by the applicant by a preponderance of the evidence. Bostwick Properties, Inc. ¶ 21.

51. Section 85-2-311 (1)(b) of the Water Use Act does not contemplate a de minimis level of adverse effect on prior appropriators. Wesmont Developers v. DNRC, CDV-2009-823, First Judicial District Court, *Memorandum and Order*, (2011) Pg. 8.

52. Simply asserting that an acknowledged reduction, however small, would not affect those with a prior right does not constitute the preponderance of the evidence necessary to sustain applicant's burden of proof. Wesmont Developers v. DNRC, CDV-2009-823, First Judicial District Court, *Memorandum and Order*, (2011) Pgs. 11 (Court rejected applicant's argument that net depletion of .15 millimeters in the level of the Bitterroot River could not be adverse effect.); Sitz Ranch v. DNRC, DV-10-13390, Fifth Judicial District Court, *Order Affirming DNRC Decision*, (2011) Pgs. 3-4 (Court rejected applicant's arguments that its net depletion (3 and 9 gpm, respectively to Black Slough and Beaverhead River) was "not an adverse effect

because it's not measurable," and that the depletion "won't change how things are administered on the source.").

After calculating the projected depletion for the irrigation season, the District Court in Sitz Ranch v. DNRC explained:

> Section 85-2-363(3)(d) MCA requires analysis whether net depletion will adversely affect prior appropriators. Many appropriators are those who use surface water. Thus, surface water must be analyzed to determine if there is a net depletion to that resource. Sitz's own evidence demonstrates that about 8 acre feet of water will be consumed each irrigation season. Both Sitz and any other irrigator would claim harm if a third party were allowed to remove 8 acre feet of water each season from the source upon which they rely.

Sitz Ranch v. DNRC, DV-10-13390, Fifth Judicial District Court, *Order Affirming DNRC Decision*, (2011) Pgs. 3-4.

53. The Department can and routinely does, condition a new permit's use on use of that special management, technology or measurement such as augmentation now generally known as mitigation and aquifer recharge. See § 85-2-312; § 85-2-360 et seq., MCA; see, e.g., *In the Matter of Beneficial Water Use Permit No. 107-41I by Diehl Development* (DNRC Final Order 1974) (No adverse effect if permit conditions to allow specific flow past point of diversion.); *In the Matter of Combined Application for Beneficial Water Use Permit No. 76H- 30043133 and Application No. 76H-30043132 to Change Water Right Nos. 76H-121640-00, 76H-131641-00 and 76H-131642-00 by the Town of Stevensville* (DNRC Final Order 2011).

54. No evidence that the resulting reduction in flows in the creek would not aggravate water shortages experienced downstream from area affected by project. *In the Matter of Beneficial Water Use Permit No. 55880-40A by Daniel Debuff* (DNRC Final Order 1987);

55. Adverse effect not required to be measurable but must be calculable. Sitz Ranch v. DNRC, DV-10-13390, Fifth Judicial District Court, *Order Affirming DNRC Decision*, (2011) Pg. 7 (DNRC permit denial affirmed; 3 gpm and 9 gpm depletion to surface water not addressed in legal availability or mitigation plan.); Wesmont Developers v. DNRC, CDV-2009-823, First Judicial District Court, *Memorandum and Order*, (2011) Pg. 12 ("DNRC properly determined

that Wesmont cannot be authorized to divert, either directly or indirectly, 205.09 acre-feet from the Bitterroot River without establishing that the water does not belong to a senior appropriator"; applicant failed to analyze legal availability of surface water where projected depletion from groundwater pumping); *In the Matter of Beneficial Water Use Permit No. 76N-30010429 by Thompson River Lumber Company* (DNRC Final Order 2006); see also Robert and Marlene Tackle v. DNRC *et al.*, Cause No. DV-92-323, Montana Fourth Judicial District for Ravalli County, *Opinion and Order* (June 23, 1994). Artesian pressure is not protectable and a reduction by a junior appropriator is not considered an adverse effect. See *In re Application No. 72948-G76L by Cross*, (DNRC Final Order 1991); see also *In re Application No. 75997-G76L by Carr*, (DNRC Final Order 1991).

56. A plan to prove legal availability and prevent adverse effect can be to use mitigation or augmentation. § 85-2-360, MCA; e.g., *In the Matter of Beneficial Water Use Permit Application Nos. 41H 30012025 and 41H 30013629 by Utility Solutions, LLC*, (DNRC Final Order 2006)(permit conditioned to mitigate/augment depletions to the Gallatin River by use of infiltration galleries in the amount of .55 cfs and 124 AF), *affirmed*, Faust v. DNRC et al., Cause No. CDV-2006-886, Montana First Judicial District (2008); *In the Matter of Beneficial Water Use Permit Application Nos. 41H 30019215 by Utility Solutions, LLC*, (DNRC Final Order 2007)(permit conditioned to mitigate 6 gpm up to 9.73 AF of potential depletion to the Gallatin River), affirmed, Montana River Action Network v. DNRC, Cause No. CDV-2007-602, Montana First Judicial District Court, (2008); Sitz Ranch v. DNRC, DV-10-13390, Fifth Judicial District Court, *Order Affirming DNRC Decision*, (2011) Pg. 7; Wesmont Developers v. DNRC, CDV-2009-823, First Judicial District Court, *Memorandum and Order*, (2011) Pg. 12; *In the Matter of Application for Beneficial Water Use Permit No. 41H 30026244 By Utility Solutions LLC* (DNRC 2008)(permit conditioned on mitigation of 3.2 gpm up to 5.18 AF of depletion to the Gallatin River); *In the Matter of Application for Beneficial Water Use Permit No. 76H-30028713 by Patricia Skergan and Jim Helmer* (HB 831, DNRC Final Order 2009) (permit denied in part for failure to analyze legal availability for surface water for depletion of 1.31 AF to Bitterroot River)§ 85-2-360, MCA. The Department has a history of approving new appropriations where

applicant will mitigate/augment to offset depletions caused by the new appropriation. *In the Matter of Beneficial Water Use Permit Application No. 41I-104667 by Woods and Application to Change Water Right No 41I-G(W) 125497 by Ronald J. Woods*, (DNRC Final Order 2000); *In The Matter of Application To Change Appropriation Water Right 76GJ 110821 by Peterson and MT Department of Transportation*, DNRC Final Order (2001); *In The Matter of Application To Change Appropriation Water Right No. 76G-3235699 by Arco Environmental Remediation LLC*.(DNRC Final Order 2003) (allows water under claim 76G-32356 to be exchanged for water appropriated out of priority by permits at the wet closures and wildlife to offset consumption). *In The Matter of Designation of the Larsen Creek Controlled Groundwater Area as Permanent, Board of Natural Resources Final Order* (1988).

Montana case law also provides a history of mitigation, including mitigation by new or untried methods. See Thompson v. Harvey (1974),154 Mont. 133, 519 P.2d 963; Perkins v. Kramer (1966), 148 Mont. 355, 423 P.2d 587. Augmentation/ mitigation is also recognized in other pri*or appro*priation states for various purposes. E.g. C.R.S.A. § 37-92-302 (Colorado); A.R.S. § 45-561 (Arizona); RCWA 90.46.100 (Washington); ID ST § 42-1763B and § 42-4201A (Idaho).

The requirement for mitigation in closed basins has been codified in § 85-2-360, *et seq.*, MCA. Section 85-2-360(5), MCA provides in relevant part:

> A determination of whether or not there is an adverse effect on a prior appropriator as the result of a new appropriation right is a determination that must be made by the d*epartment based on the amount*, location, and duration of the amount of net depletion that causes the adverse effect relative to the historic beneficial use of the appropriation right that may be adversely affected.
>
> (Emphasis added.)

57. Based on the mitigation plan and conditions imposed in this Preliminary Determination, the Applicant has proven by a preponderance of the evidence that the water rights of a prior appropriator under an existing water right, a certificate, a permit, or a state water reservation will not be adversely affected. § 85-2-311(1)(b), MCA. (FOF's 41-45).

Adequate Diversion

FINDINGS OF FACT

58. The means of diversion is a wet well set adjacent to Sheep Creek, with a 22-inch pipeline extending into the source. The diversion is located in the SWNENW Section 30, T12N, 7E. Water will be diverted into the wet well and then conveyed to a 291.9 AF capacity off-stream storage reservoir (NCWR). The NCWR is in the N2 Section 31, T12N, R7E. The wet well consists of an 8-foot diameter concrete pipe and is connected to the NCWR via 7,150 feet of 20-inch HDPE pipe. Water will be diverted from the wet well by a variable frequency drive, 4-stage 425 horse-power vertical turbine pump at a rate up to 7.5 CFS, and diversions will be measured. Application; Department Technical Report.

59. When discharging water back into Sheep Creek to mitigate surface water depletions from Applicant's groundwater appropriation, the same 20-inch HDPE pipe that diverts water to the NCWR will be used. Delivery from the NCWR to Coon Creek, Black Butte Creek and area wetlands will occur via a floating 15-horse power vertical turbine pump with a smaller diameter pipeline. Application; Department Technical Report.

60. The Department finds the proposed means of diversion, construction, and operation of the appropriation works are adequate for the proposed beneficial use.

CONCLUSIONS OF LAW

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

62. The adequate means of diversion statutory test merely codifies and encapsulates the case law notion of appropriation to the effect that the means of diversion must be reasonably effective, i.e., must not result in a waste of the resource. *In the Matter of Application for Beneficial Water Use Permit No. 33983s41Q by Hoyt* (DNRC Final Order 1981); § 85-2-312(1)(a), MCA.

63. Whether party presently has easement not relevant to determination of adequate means of diversion. *In the Matter of Application to Change a Water Right No. G129039-76D by Keim/Krueger* (DNRC Final Order 1989).

64. Applicant has proven by a preponderance of the evidence that the proposed means of diversion, construction, and operation of the appropriation works are adequate for the proposed beneficial use. § 85-2-311(1)(c), MCA (FOF's 58-60).

Beneficial Use

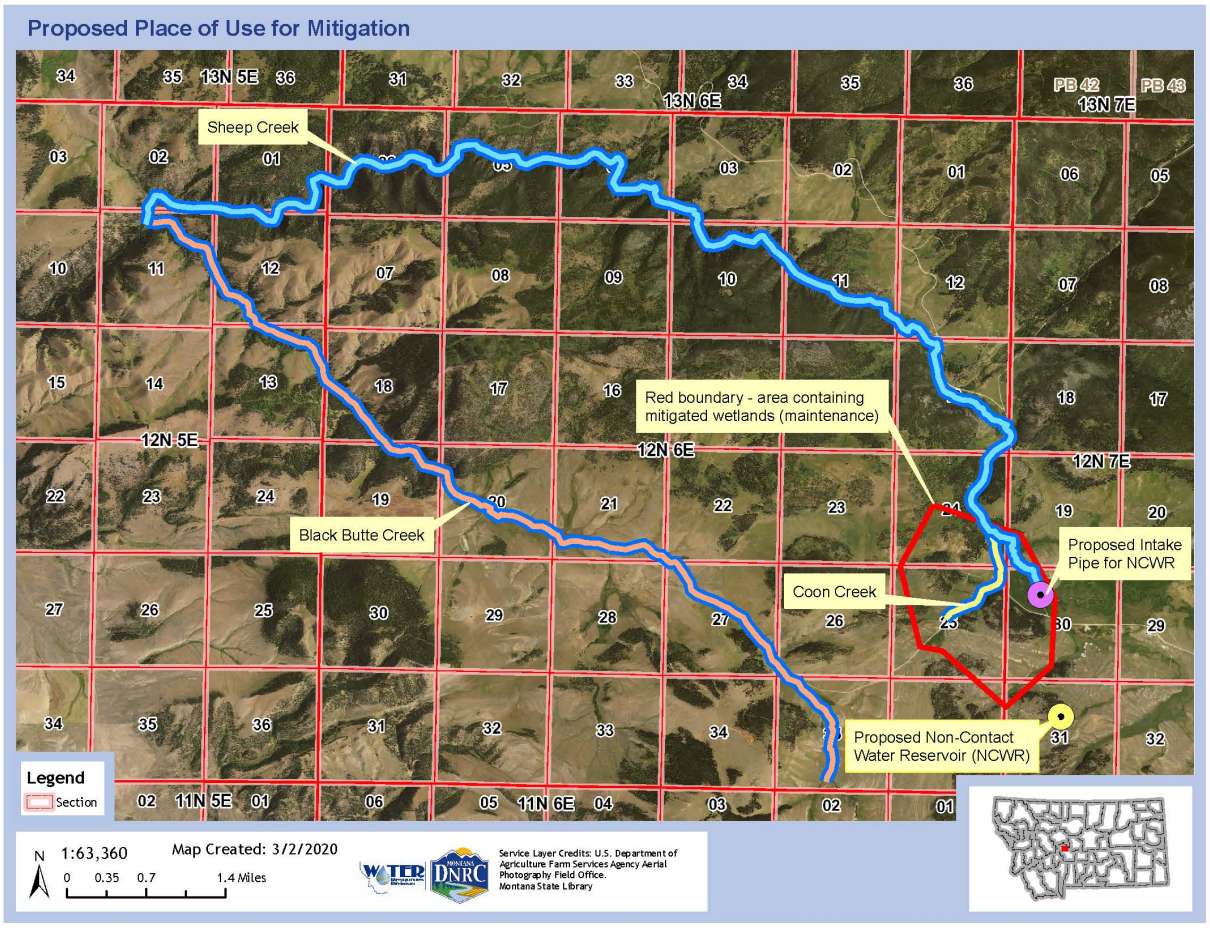
FINDINGS OF FACT

65. The proposed beneficial uses are mitigation and wetland (wetland maintenance) in the amount of 7.5 CFS up to 291.9 AF annually. The volume of water associated with this appropriation represents a portion of the total volume required to mitigate surface water depletions caused by groundwater pumping from the mine, and all of the water anticipated for maintenance of wetlands (up to 57.7 AF for wetland maintenance). The remaining portion necessary to mitigate depletions to area streams is proposed in six water right change application processes running concurrent to this permit process. Preliminary Determination Nos. 41J 30116562, 41J 30116553, 41J 30116554, 41J 30116556, 41J 30116557, 41J 30116558, and 41J 30116559. Water will be diverted to the NCWR during high spring flows, then released back into the Sheep Creek drainage to mitigate depletions throughout the year. The period of diversion is May 1 through July 31; the period of use for mitigation is January 1 through December 31; and the period of use for wetland maintenance is May 11 through June 11. Application.

66. The Applicant is proposing two different purposes under its plan. First, releases from the NCWR will occur to Sheep Creek, Coon Creek and Black Butte Creek to mitigate surface water depletions. This purpose is for offsetting adverse effects to existing, downstream water rights. The replacement water will afford downstream water users the opportunity to appropriate the same amount of water as they historically have. Second, releases will occur, if or when necessary, to maintain wetlands in the Sheep Creek, Coon Creek and Brush Creek drainages. Applicant's consultant projects that up to 96 acres of area wetlands are hydraulically connected to the source aquifer(s) intercepted by the mine. These wetlands are projected to be depleted by up to 57.7 AF. Effects to wetlands are not expected to occur immediately but are likely to occur

later in the mine's operation. The replacement water will allow the wetlands to remain viable and in a similar state to pre-mine conditions. Application File.

A map of the places of use for mitigation and wetlands maintenance follows.



67. The Applicant's explanation of beneficial use and plan for monitoring wetland mitigation is described in a November 20, 2019 email from Greg Bryce (consultant) to Scott Irvin, Regional Manager of the Department's Lewistown Regional Office. In the email, Bryce explains the permitting process Tintina was required to undertake with the U.S. Army Corps of Engineers (USACE).

"*Permanent monitoring plots will be established to evaluate wetland vegetation in the Project area reference monitoring sites. Wetland vegetation will be monitored twice per year (early summer and early fall) to document wetland vegetation both seasonally and throughout the mine life. Wetland vegetation measurements will be conducted to address Environmental Protection Agency (USEPA) Methods for Evaluating Wetland Condition (2002) and USACE regulatory guidance for wetland monitoring. Wetland monitoring sites will be established at least 1 year before dewatering occurs to provide baseline data.*

Should water depletion be recorded in monitoring piezometers and subsequent changes in wetland vegetation occur, Tintina will provide additional water to mitigate water loss……"

Email Communication from Greg Bryce, Hydrometrics, Inc.

Applicant states that its permit from USACE (Permit NOW-2013-01385-MTH) is predicated on the requirement that Applicant monitor wetlands to determine impacts from groundwater depletions and provide supplemental water or other measures to prevent effects. The volume of water associated with seasonal wetlands was based on USACE standards and saturation of the major root zone for 12.5% of the growing season. The application materials indicate that the maximum growing season for the project area is 152 days, and 12.5% of that period equates to 19 days of saturation. The wetland volume was calculated by multiplying the anticipated flow rate of 17 gallons per minute per acre on 96 acres for 24 hours, 2 times per week, for a volume of 57.7 AF. Since differing plants break dormancy at different times, Applicant plans to apply the 57.7 AF over a period of 31 days between May 11 and June 11, if necessary. Application.

68. The other type of beneficial use for mitigation includes offsetting depletions in Sheep Creek, Coon Creek and Black Butte Creek for purposes of mitigating potential adverse effects to water rights in those drainages. The amount of water necessary to offset all stream depletions is commensurate with the consumptive volume under Applicant's proposed groundwater appropriation (41J 30116562), or 340.3 AF annually. The combination of six existing water

rights and this proposed permit will supply 340.3 AF, however, this permit will only supply a portion of the total volume needed to offset stream depletions. Table 6 shows predicted depletions by the month and amount to each stream based on modeling by the Applicant's consultant. Application File; Department Depletion Report.

Table 6 – Net Depletion to Source Resulting from Groundwater Appropriations (41J 30116562)

Month	Consumption (AF)	Depletion- Sheep Creek Between Little Sheep Creek and Black Butte Creek (AF)	Depletion- Coon Creek (AF)	Depletion- Black Butte Creek (AF)	Net Depletion- Sheep Creek downstream of Black Butte Creek (AF)
January	27.6	11.9	9.6	6.2	27.7
February	25.0	10.7	8.7	5.6	25.0
March	27.6	11.9	9.6	6.2	27.7
April	27.9	12.8	9.3	6.0	28.1
May	29.0	14.0	9.6	6.2	29.8
June	28.5	13.8	9.3	6.0	29.1
July	30.9	15.0	9.6	6.2	30.8
August	31.0	14.6	9.6	6.2	30.4
September	29.1	13.2	9.3	6.0	28.5
October	29.4	12.8	9.6	6.2	28.6
November	26.8	11.5	9.3	6.0	26.8
December	27.6	11.9	9.6	6.2	27.7
Total	340.3	154.1	113.1	73.1	340.3

69. The Applicant's consultant modeled depletions to area sources and predicted that Coon Creek will be depleted by an average annual flow rate of 70 gallons per minute (GPM), Black Butte Creek will be depleted at an average rate of 45 GPM, and Sheep Creek, between Little Sheep Creek and Black Butte Creek, will be depleted at an average rate of about 96 GPM. Collectively, the average depletion experienced in Sheep Creek downstream of Black Butte

Creek is 211 GPM, or 340.3 AF per year (211 GPM X 1440 min/day X 365 ÷ 3235,851 gal/AF = 340.3 AF). Table 6 reflects the calculated volume of depletions as modeled by the consultant. Application; Applicant's Deficiency Response dated April 19, 2019.

70. Applicant will mitigate the full depletion to Coon Creek as modeled, in flow rate and volume. Applicant proposes to mitigate Black Butte Creek in the amount of 45 GPM and 39.8 AF, during the period April 20 through October 10, in order to restore natural flow conditions during the irrigation season. There is only one irrigation water right to satisfy in that source during that period, and the rest are instream stock water rights. Outside of the irrigation season the only existing water rights in Black Butte Creek are instream stock rights, and Applicant's research shows there is sufficient water in the stream to satisfy those rights without offsetting 45 GPM in depletions. As proof of stream flows Applicant collected flow data from three sites in Black Butte Creek as part of a baseline water resource monitoring program, from 2011-present. Applicant's data show the mean annual flow in the perennial stream at the three sites is 1.5 CFS, 1.7 CFS and 2.4 CFS. The Department's records reflect stock water appropriations during the October through April period in the amount of 0.39 CFS up to 19.3 AF. Therefore, Applicant's measurements show that stream flows exceed the amount necessary to fulfill stock water rights, and during the non-irrigation season the Applicant will not be mitigating depletions in Black Butte Creek. Instead, it will supply additional water (an additional 45 gallons per minute) to Sheep Creek to ensure the drainage realizes the full mitigation plan. The Department finds that Applicant's mitigation plans for Black Butte Creek and Coon Creek are adequate and are beneficial uses of water. Water right records; Applicant's Deficiency Response dated April 19, 2019.

71. Applicant's groundwater appropriation from the mine will deplete surface water in Sheep Creek, between Little Sheep Creek and Black Butte Creek, in a constant amount of 96 GPM. Downstream of the confluence of Black Butte Creek, depletions will accumulate from Black Butte Creek, Coon Creek, and upgradient depletions in Sheep Creek, for a total average depletion rate of 211 GPM (45 GPM + 70 GPM + 96 GPM = 211 GPM), or 340.3 AF. Applicant's plan is to release stored water from its NCWR into the upper reaches of Black Butte

Creek and Coon Creek, and in the reach of Sheep Creek between the Little Sheep Creek and Black Butte Creek confluences. The plan will offset depletions in all three sources, in the affected reaches and in the amount necessary to mitigate any adverse effects experienced by existing water users. Water users in these sources, and ultimately in Sheep Creek below Black Butte Creek, will be able to beneficially use water as they historically have. The Applicant's plan for mitigation in Sheep Creek is adequate and a beneficial use of water. Application; Applicant's Deficiency Response dated April 19, 2019.

72. At a diversionary flow rate of 7.5 CFS, the total volume, or 291.9 AF, can be appropriated in 20 days. Diversions in this amount are necessary to respond promptly to the high spring flow period of runoff. The proposed volume coincides with the capacity of Applicant's off-stream storage reservoir, which provides a supplemental source of water to mitigate the 340.3 AF of consumed depletions associated with mine operations and 57.7 AF of water for wetland maintenance purposes. While the volume for each purpose is set out in this Preliminary Determination, the Applicant has flexibility in using the total volume (291.9 AF) for whichever purpose is required to fulfill its beneficial use. For example, if no water for wetland maintenance is required in a given year the Applicant may choose to use all 291.9 AF to offset stream depletions.

73. Applicant plans to measure all appropriations from Sheep Creek, and releases from the NCWR to the depleted reaches of streams and wetlands, as part of its water management plan. The Department imposes water measuring conditions in this Preliminary Determination in order show how much water is appropriated and put to beneficial use. Conditions Section.

74. The Department finds that the proposed appropriation of 7.5 CFS up to 291.9 AF is a beneficial use of water. The amount requested in this high spring flow application is part of a bundle of 7 mitigation applications the Applicant will use to fully mitigate effects from its groundwater appropriation and should be considered in combination to understand the full amount necessary to sustain the beneficial use. Preliminary Determination Nos. 41J 30116562, 41J 30116563, 41J 30116553, 41J 30116554, 41J 30116556, 41J 30116557, 41J 30116558, and 41J 30116559.

CONCLUSIONS OF LAW

75. Under § 85-2-311(1)(d), MCA, an Applicant must prove by a preponderance of the evidence the proposed use is a beneficial use.

76. An appropriator may appropriate water only for a beneficial use. See also, § 85-2-301 MCA. It is a fundamental premise of Montana water law that beneficial use is the basis, measure, and limit of the use. E.g., McDonald, supra; Toohey v. Campbell (1900), 24 Mont. 13, 60 P. 396. The amount of water under a water right is limited to the amount of water necessary to sustain the beneficial use. E.g., Bitterroot River Protective Association v. Siebel, *Order on Petition for Judicial Review*, Cause No. BDV-2002-519, Montana First Judicial District Court, Lewis and Clark County (2003), *affirmed on other grounds*, 2005 MT 60, 326 Mont. 241, 108 P.3d 518; *In The Matter Of Application For Beneficial Water Use Permit No. 43C 30007297 by Dee Deaterly* (DNRC Final Order), *affirmed other grounds*, Dee Deaterly v. DNRC *et al*, Cause No. 2007-186, Montana First Judicial District, *Order Nunc Pro Tunc on Petition for Judicial Review* (2009); Worden v. Alexander (1939), 108 Mont. 208, 90 P.2d 160; Allen v. Petrick (1924), 69 Mont. 373, 222 P. 451; *In the Matter of Application for Beneficial Water Use Permit No. 41S-105823 by French* (DNRC Final Order 2000).

Amount of water to be diverted must be shown precisely. Sitz Ranch v. DNRC, DV-10-13390, Fifth Judicial District Court, *Order Affirming DNRC Decision*, (2011) Pg. 3 (citing BRPA v. Siebel, 2005 MT 60, and rejecting applicant's argument that it be allowed to appropriate 800 acre-feet when a typical year would require 200-300 acre-feet).

77. It is the applicant's burden to produce the required evidence. Sitz Ranch v. DNRC, DV-10-13390, Fifth Judicial District Court, *Order Affirming DNRC Decision*, (2011) Pg. 7; *In the Matter of Application to Change Water Right No. 41H 1223599 by MGRR #1, LLC.*, (DNRC Final Order 2005); see also Royston; Ciotti.

78. Applicant proposes to use water for mitigation which is a recognized beneficial use. § 85-2-102(4), MCA. Applicant has proven by a preponderance of the evidence mitigation is a beneficial use and that a flow rate of 7.5 CFS and volume of 291.9 AF is the amount needed to sustain the beneficial use. § 85-2-311(1)(d), MCA, (FOF's 65-74)

Possessory Interest

FINDINGS OF FACT

79. The applicant signed and had the affidavit on the application form notarized 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.

CONCLUSIONS OF LAW

80. Pursuant to § 85-2-311(1)(e), MCA, an 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, or if the proposed use has 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 under the permit.

81. Pursuant to ARM 36.12.1802:

> (1) An applicant or a representative shall sign the application affidavit to affirm the following:
> (a) the statements on the application and all information submitted with the application are true and correct and
> (b) except in cases of an instream flow application, or where the application is for sale, rental, distribution, or is a municipal use, or in any other context in which water is being supplied to another and it is clear that the ultimate user will not accept the supply without consenting to the use of water on the user's place of use, the applicant has possessory interest in the property where the water is to be put to beneficial use or has the written consent of the person having the possessory interest.
> (2) If a representative of the applicant signs the application form affidavit, the representative shall state the relationship of the representative to the applicant on the form, such as president of the corporation, and provide documentation that establishes the authority of the representative to sign the application, such as a copy of a power of attorney.
> (3) The department may require a copy of the written consent of the person having the possessory interest.

82. 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. § 85-2-311(1)(e), MCA. (FOF 79)

PRELIMINARY DETERMINATION

Subject to the terms, analysis, and conditions in this Order, the Department preliminarily determines that this Application for Beneficial Water Use Permit No. 41J 30116563 should be GRANTED.

The Appropriator is authorized to divert water from Sheep Creek, by means of a wet well and pipeline, from May 1 through July 31 at a flow rate of 7.5 CFS up to 291.9 AF. The point of diversion shall be in the SWNENW Section 30, T12N, 7E, and water may be stored in an off-stream reservoir (291.9 AF in capacity) in the N2 Section 31, T12N, R7E, Meagher County. The purposes of beneficial use are mitigation and wetland maintenance. The period of use for mitigation is January 1 through December 31, and the period of use for wetland maintenance is May 11 through July 11. The purposes include mitigation to replace surface water depletions associated with Groundwater Application for Beneficial Use Permit No. 41J 30116562 to Sheep Creek, Coon Creek, and Black Butte Creek, and augmenting up to 96 acres of wetlands with a supplemental source of water.

The places of use for mitigation include portions of the following streams, located in Sections 1, 2, 11, 12, and 13, T12N, R5E; Sections 3-6, 10-13, 18-22, 24-27, and 35, T12N, R6E; and Sections 18, 19, and 30, T12N, R7E: Sheep Creek, Black Butte Creek, and Coon Creek. The places of use for wetland maintenance include Sections 24-25, and 36, T12N, R6E; and Sections 30-31, T12N, R7E.

The application will be subject to the following conditions, limitations or restrictions.

CONDITIONS

1. WATER MONITORING AND MINIMUM FLOW REQUIRED:

   THE APPROPRIATOR MUST ADHERE TO MINIMUM STREAM FLOW CONDITIONS ON SHEEP CREEK AND THE SMITH RIVER PRIOR TO APPROPRIATING WATER. ALTHOUGH THE FOLLOWING CONDITIONS SPECIFY MINIMUM FLOW LEVELS ON BOTH SOURCES, IT IS THE APPROPRIATOR'S RESPONSIBILITY TO CEASE DIVERSIONS WHEN A VALID CALL IS MADE BY SENIOR WATER USERS ON EITHER SOURCE.

   A. THE APPROPRIATOR SHALL NOT DIVERT WATER UNLESS THE CUMULATIVE FLOW AT ITS STREAM GAGES IN SHEEP CREEK AND MOOSE CREEK ARE 84.9 CFS OR GREATER. THE STREAM GAGE IN SHEEP CREEK SHALL BE LOCATED IN THE NWSWSW SECTION 18, T12N, R7E; AND THE STREAM GAGE IN MOOSE CREEK SHALL BE LOCATED IN THE S2SWNE SECTION 13, T12N, R6E. STREAM FLOWS AT THE REFERENCED GAGES MUST BE CHECKED DAILY TO ENSURE CONDITIONS ARE APPROPRIATE FOR DIVERSIONS.

   B. THE APPROPRIATOR SHALL NOT DIVERT WATER UNLESS FLOW IN THE SMITH RIVER AT U.S. GEOLOGICAL SURVEY GAGE NO. 06077200 (SMITH RIVER BELOW EAGLE CREEK NEAR FORT LOGAN, MT) IS AT LEAST 207.3 CFS IN MAY, 207.8 CFS IN JUNE, AND 197.8 CFS IN JULY.

2. WATER MEASUREMENT REQUIRED
   A. THE APPROPRIATOR SHALL INSTALL A DEPARTMENT-APPROVED WATER USE MEASURING DEVICE IN THE CONVEYANCE LINE BETWEEN THE POINT OF DIVERSION AND STORAGE RESERVOIR. WATER MUST NOT BE DIVERTED UNTIL THE REQUIRED MEASURING DEVICE IS IN PLACE AND OPERATING. THE APPROPRIATOR SHALL KEEP A WRITTEN MONTHLY RECORD OF THE FLOW RATE AND VOLUME OF ALL WATER DIVERTED, INCLUDING THE PERIOD OF TIME.

   B. THE APPROPRIATOR SHALL INSTALL DEPARTMENT-APPROVED WATER USE MEASURING DEVICES IN ALL DISCHARGE LINES BETWEEN THE STORAGE RESERVOIR AND THE POINTS OF MITIGATION IN SHEEP CREEK, BLACK BUTTE CREEK, AND COON CREEK. WATER MUST NOT BE DIVERTED UNTIL THE REQUIRED MEASURING DEVICES ARE IN PLACE AND OPERATING. THE APPROPRIATOR SHALL KEEP A WRITTEN MONTHLY RECORD OF THE FLOW RATE AND VOLUME OF ALL WATER

DISCHARGED FROM THE RESERVOIR FOR MITIGATION PURPOSES, INCLUDING THE PERIOD OF TIME.

3. MITIGATION PLAN – SHEEP CREEK DRAINAGE
THIS PERMIT AND GROUNDWATER PERMIT NO. 41J 30116562 ARE ASSOCIATED. GROUNDWATER PERMIT NO. 41J 30116562 INCLUDES AN APPROPRIATION OF WATER FROM THE MINE WORKINGS FOR PURPOSES OF INDUSTRIAL USE. THE GROUNDWATER APPROPRIATION WILL DEPLETE SURFACE WATER IN SHEEP CREEK, BLACK BUTTE CREEK, AND COON CREEK, AND THIS PERMIT WILL PARTIALLY MITIGATE THOSE DEPLETIONS. THE ADMINISTRATION OF WATER UNDER THE TWO PERMITS, AND OTHER WATER RIGHTS MARKETED TO THE APPROPRIATOR, MUST BE COORDINATED TO PROPERLY EXECUTE THE MITIGATION PLAN. MITIGATION WATER MUST BE RELEASED INTO COON CREEK AND BLACK BUTTE CREEK AT A POINT UPSTREAM OF ALL EXISTING WATER RIGHTS IN THE DEPLETED REACHES, AND IN THE FOLLOWING DISCHARGE LOCATION IN SHEEP CREEK: SWNENW SECTION 30, T12N, 7E.

ACCOUNTING OF THE VOLUME OF ALL WATER DISCHARGED FROM THE NON-CONTACT RESERVOIR SHALL BE RECORDED, INCLUDING THE PERIOD OF TIME. FAILURE TO EXECUTE THE MITIGATION PLAN AS OUTLINED IN THIS PRELIMINARY DETERMINATION, OR FAILURE TO SUBMIT RECORDS, SHALL BE CAUSE FOR REVOCATION OF THE PERMIT.

RECORDS SHALL BE SUBMITTED BY DECEMBER 31 OF EACH YEAR AND UPON REQUEST AT OTHER TIMES DURING THE YEAR. FAILURE TO SUBMIT RECORDS MAY BE CAUSE FOR REVOCATION OF THE PERMIT. THE RECORDS MUST BE SENT TO THE WATER RESOURCES REGIONAL OFFICE LISTED BELOW. THE APPROPRIATOR SHALL MAINTAIN THE MEASURING DEVICE SO IT ALWAYS OPERATES PROPERLY AND MEASURES FLOW RATE ACCURATELY. SUBMIT RECORDS TO:

LEWISTOWN WATER RESOURCES OFFICE
613 NE MAIN ST, SUITE E
LEWISTOWN, MT
PHONE: 406-538-7459

4. MITIGATION PLAN – MISSOURI RIVER
PRIOR TO COMMENCING DIVERSIONS UNDER THIS PERMIT, THE APPROPRIATOR SHALL MAKE PROVISION TO MITIGATE ADVERSE EFFECTS AND PROVIDE FOR LEGAL WATER AVAILABILITY ON THE MISSOURI RIVER BY REPLACING THE FULL DIVERTED VOLUME THROUGH THE PURCHASE

OF A U.S. BUREAU OF RECLAMATION (BOR) WATER SERVICE CONTRACT FROM CANYON FERRY RESERVOIR. THE VOLUME OF WATER STATED ON THE CONTRACT MUST BE 291.9 ACRE-FEET PER YEAR. ACTUAL DELIVERIES OF WATER UNDER SUCH CONTRACT MUST OCCUR EVERY YEAR THAT THE APPROPRIATOR DIVERTS WATER UNDER THIS PERMIT. APPROPRIATOR SHALL SUBMIT TO THE LEWISTOWN REGIONAL OFFICE PROOF OF THE WATER SERVICE CONTRACT WITH BOR. DIVERSION UNDER THIS PERMIT MUST CEASE IF ANY PART OF THE REQUIRED MITIGATION CEASES.

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 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, the application and objection will proceed to a contested case proceeding pursuant to Title 2 Chapter 4 Part 6, MCA, and § 85-2-309, MCA. If valid objections to an application are received and withdrawn with stipulated conditions and the department preliminarily determined to grant the permit or change in appropriation right, the department will grant the permit or change subject to conditions necessary to satisfy applicable criteria.

DATED this 13th day of March 2020.

/Original signed by Scott Irvin/
Scott Irvin, Regional Manager
Lewistown 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 13th day of March 2020, by first class United States mail.

JOHN TIETZ
BROWNING, KALECZYC, BERRY & HOVEN, P.C.
PO BOX 1697
HELENA, MT 59624

_____ _____

NAME DATE