

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

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APPLICATION TO CHANGE WATER RIGHT) NO. 43B 30160517 BY 44 BIG SKY FARMS,) LLC)	PRELIMINARY DETERMINATION TO GRANT CHANGE
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On August 28, 2023, 44 Big Sky Farms, LLC (Applicant) submitted Application to Change Water Right No. 43B 30160517 to change Water Right Claim No. 43B 17159-00 to the Billings Regional Office of the Department of Natural Resources and Conservation (Department or DNRC). The Department published receipt of the Application on its website. A preapplication meeting was held between the Department and the Applicant on April 28, 2023. The Department sent the Applicant a deficiency letter under §85-2-302, Montana Code Annotated (MCA), dated January 18, 2024. The Applicant responded with information dated May 7, 2024. The Applicant amended the Application on May 2, 2024, and application processing timelines were reset. The Department sent the Applicant a deficiency letter under §85-2-302, MCA, dated October 30, 2024. The Applicant responded with information dated February 25, 2025, the Application was determined to be correct and complete as of May 22, 2025. An Environmental Assessment for this Application was completed on August 20, 2025.

INFORMATION

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

Application as filed:

- Application to Change an Existing Irrigation Water Right, Form 606 IR
- Attachments:
 - Letter from Montana Sage Grouse Habitat Conservation Program dated June 27, 2023
 - Appendix A: Map created by DMS Natural Resources, LLC titled 43B-1045-R-2021 showing parcel boundaries, historical pipeline, Arneson ditch, historical pump site, Big Timber Creek headgate location, Whitetail Creek headgate location, and historical places of use and acreages for Yellowstone River, Big Timber Creek, and Whitetail Creek water rights
 - Appendix B: Water Resources Survey map for T1N, R14E, Sweet Grass County, and field notes for Elmer Arneson on Big Timber Creek and Whitetail Creek in T1N, R14E,

Sections 10, 11, 14, and 15, Sweet Grass County dated 1950 (prior to the appropriation proposed for change, which has a July 15, 1962, priority date)

- Appendix C: Historical aerial imagery showing parcel boundaries overlaying images from 1948, 1953, 1977, 1979, 1996, 2004, 2017, and 2019
- Appendix D: Affidavit of Marlis A. Arneson dated May 10, 2023, discussing historical water use from Big Timber Creek, Whitetail Creek, Yellowstone River, and replacement of the point of diversion (POD) washed away by flood water in back to back floods in 1996 and 1997, with Exhibit A: map showing property overview with property boundary overlaying 2019 NAIP imagery; Exhibit B: map showing parcel boundaries, historical pipeline, Arneson ditch, historical pump site, Big Timber Creek headgate location, Whitetail Creek headgate location, and historical places of use and acreages for Yellowstone River, Big Timber Creek, and Whitetail Creek overlaying July 16, 1977, United States Geological Survey (USGS) aerial imagery; Exhibit C: map showing parcel boundaries, Arneson ditch, proposed pipelines, gaged pipe irrigation system, Yellowstone River proposed pump site, Big Timber Creek headgate, Whitetail Creek headgate, Secondary pump site in Arneson ditch, places of use for Big Timber Creek, overlapping places of use for Big Timber Creek and Whitetail Creek, and overlapping places of use for Yellowstone River and Big Timber Creek; Affidavit of Eric M. Arneson dated May 17, 2022, discussing historical water use from Big Timber Creek, Whitetail Creek, Yellowstone River, and replacement of POD washed away by flood water in back to back floods in 1996 and 1997, with Exhibits A, B and C as described above
- Appendix E: Copy of Montana Water Court Notice of Filing of Master's Report 43B-1045-R-201 and Master's Report dated May 12, 2023, for Statement of Claim nos. 43B 17157-00, 43B 17158-00, 43B 17159-00, 43B 19920-00, removing issue remarks from Statement of Claim nos. 43B 17157-00, 43B 17159-00, and 43B 19920-00; and stipulating changes to the maximum acres and places of use for Statement of Claim nos. 43B 17157-00, 43B 17158-00, 43B 17159-00, 43B 19920-00; post decree abstracts for Statement of Claim nos. 43B 17157-00, 43B 17158-00, 43B 17159-00, 43B 19920-00; and an Order Adopting Master's Report for case 43B-1045-R-201 dated May 30, 2023
- Appendix F: Claim File Map for Statement of Claim no. 43B 17159-00 showing the claimed place of use (POU) overlaying aerial imagery dated August 7, 1959
- Appendix G: DNRC Claim examination worksheet completed by Thomas Zulke dated April 11, 1984

- Appendix H: copy of (United States Department of Agriculture) USDA Natural Resources Conservation Service (NRCS) file, 338 pages of various data including but not limited to NRCS notes, payment information, soils information, system efficiency estimates, pivot design specifications, maps, pump curves for primary and secondary pumps, diversion design drawings, nutrient management, grazing, soil moisture, electricity costs, Irrigation Water Management plans, fencing receipts, ditch profile survey/drawings, ditch flow capacity estimates, pipeline profile survey/drawings, post-1973 electricity records, and a Big Sky Irrigation invoice for center pivot irrigation system parts
- Appendix I: USDA Soil Conservation Service “Fence and Gate Detail” design drawing and USDA Soil Conservation Service “Bracing Details” design drawing
- Appendix J: Photos of pump site dated January 10, 2022, and labeled Figure 1: pump site located on the Yellowstone River in SESWSW Sec. 11, T1N, R14E, Sweet Grass County; Figure 2: Pipeline and screen system in the Yellowstone River located in the SESWSW Sec. 11, T1N, R14E, Sweet Grass County; Figure 3: Screen that gets put in the river when ready to pump from the Yellowstone River in SESWSW Sec. 11, T1N, R14E, Sweet Grass County
- Appendix K: undated and non-labeled photos of pipeline with tape measure, pump, pump name plate, pump with pipeline, pump curve for Cornell 5 RB, and email from John Gardner of AquaTech explaining what he knows about the 44 Big Sky Farms, LLC diesel pump on the Yellowstone River. The pump is a Cornell 5RB with a 13.5-inch impeller which can pump 2,500 GPM, the existing suction pipe is 12-inch steel, and the existing discharge pipe is 10-inch PVC

• Maps:

- Four USDA 2021 NAIP aerial images showing the POU for Statement of Claim 43B 17159-00, the boundary of the property owned by 44 Big Sky Farms, LLC, denoted as “Farm 1171”, with boundary lines and acreages for cropland, and rangeland
- Proposed Use map created by DMS Natural Resources, LLC showing parcel boundaries, proposed POD, historical and proposed POU for Statement of Claim No. 43B 17159-00, POU for Statement of Claim Nos. 43B 17157-00 and 43B 17158-00, and proposed pipeline from proposed POD to proposed center pivot irrigation system overlaying 2019 NAIP aerial imagery
- Historical Use map created by DMS Natural Resources, LLC showing parcel boundaries, historical POD, historical POU for Statement of Claim No. 43B 17159-00, Arneson

Ditch, and historical pipeline from historical POD to Arneson Ditch overlaying July 16, 1977, USGS aerial imagery

Information Received after Application Filed

- Application Amendment Form received May 2, 2024, digitally signed by Robert S. McClaren for 44 Big Sky Farms, LLC on May 1, 2024
- First Deficiency Letter Response dated May 7, 2024, not accepted because Application Amendment form reset timelines, and no deficiency letter had been sent on the amended application. However, the response is included in the file for informational purposes under the “Response to 1st Deficiency Letter” flag
- Email from Applicant’s Consultant, Deborah Stephenson, of DMS Natural Resources, LLC to DNRC Hydrologist Christine Schweigert dated September 10, 2024, saying that Sweet Grass Conservation District (SGCD) approved a flow rate amendment to the 44 Big Sky Farms, LLC CD water reservation application with two attachments: 1.) A copy of an April 29, 2024, letter from DMS Natural Resources, LLC to SGCD requesting an amendment to their reserved water application to increase the requested flow rate from 1,500 GPM to 2,360 GPM (5.26 CFS) with Exhibit A: list of parts and specifications from AquaTech and Exhibit B: emails from John Gardner of AquaTech explaining pump and pipeline capacity and ability to increase capacity. 2.) A copy of an April 30, 2024, letter from DMS Natural Resources, LLC to SGCD providing additional information on the proposed discharge pipeline from the pump to the small pivot and the intake suction screen as requested by the SGCD Consultant Mike Sanctuary of Confluence Consulting with a map showing the proposed irrigation system and a brochure for a Clemons Clearwater Suction Screen Self-Cleaning Intake
- Second Deficiency Letter Response dated February 25, 2025
- Letter from DMS Natural Resources, LLC to Christine Schweigert of DNRC dated June 2, 2025, in response to the May 22, 2025, DNRC Technical Report (TR) for Application to Change an Existing Irrigation Water Right No. 43B 30160517 clarifying and correcting two statements in the TR and providing updated proportions of irrigation water provided by each water right under the proposed center pivot irrigation system based on the DNRC calculation of historical and diverted volume provided in the TR

Information within the Department’s Possession/Knowledge

- Deficiency Letter for Application to Change an Existing Irrigation Water Right No. 43B 30160517 dated January 18, 2024

- Corrected Conservation District Public Notice dated February 1, 2024, correcting the place of use for 9.1 acres from the S2NW Sec. 10, T1N, R14E, Sweet Grass County to the S2NW Sec. 11, T1N, R14E, Sweet Grass County
- Amended Conservation District Public Notice dated July 24, 2024, amending the requested flow rate to 2,360 GPM (5.26 CFS)
- Deficiency Letter for Application to Change an Existing Irrigation Water Right No. 43B 30160517 dated October 30, 2024
- DNRC-issued Technical Report dated May 22, 2025
- DNRC Error Memo dated August 20, 2025, accepting and incorporating the corrections to the DNRC Technical Report pointed out by DMS Natural Resources, LLC in their letter dated June 2, 2025
- DNRC Water Right Information System (WRIS)
- Files for Statement of Claim nos. 43B 17159-00, 43B 17158-00, 43B 17157-00, and 43B 19920-00
- USGS Aerial Image GS-VELA 1-27 dated July 16, 1977
- USDA Aerial Image 179-114 dated September 1, 1979
- DNRC Irrigation Calculator
- 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 Billings Regional Office at 406-247-4419 to request copies of the following documents.
 - Department Change Manual
 - Water Right Claim Examination Rules Amended by the Montana Supreme Court

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

For the purposes of this document, “AC” means acres; “AF” means acre-feet; “AF/YR” means acre-feet per year; “CD” means Conservation District; “SGCD” means Sweet Grass County Conservation District; “Department” or “DNRC” means the Montana Department of Natural Resources & Conservation; “TR” means Technical Report; “USDA NRCS” means US Department of Agriculture Natural Resources Conservation Service; “USGS” means US Geological Survey; “CFS” means cubic feet per second; “GPM” means gallons per minute; “POD” means point of diversion; and “POU” means place of use.

WATER RIGHTS TO BE CHANGED

FINDINGS OF FACT

1. The Applicant proposes to change the point of diversion of Statement of Claim No. 43B 17159-00 in this Application. 43B 17159-00 is filed for 12.5 CFS flow rate and the volume put to historical and beneficial use from the Yellowstone River via means of a pump for the purpose of flood irrigation for 345.8 AC. The period of diversion and use is April 1 to November 1. The point of diversion is a pump located in the SWSESW Sec. 10, T1N, R14E, Sweet Grass County, and water is conveyed to the POU by means of a pipeline.

Table 1: Water Right Proposed for Change

Water Right Number	Flow Rate	Volume	Purpose	Period Of Use	Place Of Use	Point Of Diversion	Priority Date
43B 17159-00	12.5 CFS	Amount put to historical beneficial use*	Irrigation	4/1-11/1	See Table 2	SWSESW Sec. 10, T1N, R14E, Sweet Grass County	July 15, 1962

*Claimed volume (3,000 AF) removed per Water Right Claim Examination Rules Amended by the Montana Supreme Court - Rule 15(c).

Table 2: Place of use of Statement of Claim 43B 17159-00

ID	Acres	Qtr. Sec	Sec.	Twp	Rge	County
1	112.00	E2	10	1N	14E	Sweet Grass
2	32.1	E2SW	10	1N	14E	Sweet Grass
3	1.3	N2NW	14	1N	14E	Sweet Grass
4	191.3	W2	11	1N	14E	Sweet Grass
5	9.1	N2	15	1N	14E	Sweet Grass
Total	345.8					

2. Statement of Claim 43B 17159-00, from the Yellowstone River, is supplemental to Statement of Claim Nos. 43B 17157-00 and 43B 17158-00 from Big Timber Creek, and also 43B 19920-00 from Whitetail Creek. The Applicant has received authorization from the Sweet Grass Conservation District (SGCD) to use a portion of their water reservation (Water Reservation no. 43B 9948-00, portion of water reservation CD Record no. 43B 30164764) from the Yellowstone River to irrigate acres adjacent to the place of use for Statement of Claim 43B 17159-00 from the Yellowstone River. The SGCD has a pending change application that is being processed concurrently with this application; the pending SGCD change application no. is 43B 30164777 to authorize CD Record 43B 30164764. If the SGCD change is authorized, the CD water right would be supplemental to Statement of Claim nos. 43B 17157-00 and 43B 17158-00 from Big Timber Creek. The SGCD water right will share a point of diversion with Statement of Claim 43B 17159-00 from the Yellowstone River if this change is authorized. Reserved water from the SGCD

and Statement of Claim 43B 17159-00, both from the Yellowstone River, would be diverted by a common pump and pipeline, commingling water to irrigate adjacent acres under a common center pivot irrigation system. The acres outside the existing place of use for Statement of Claim 43B 17159-00 would be irrigated by the SGCD water right. The entire area under the center pivot irrigation system is also covered by Statement of Claim nos. 43B 17157-00 and 43B 17158-00 from Big Timber Creek and can be irrigated using water from Big Timber Creek via a secondary point of diversion in the Arneson Ditch. The place of use from Whitetail Creek under Statement of Claim 43B 19920-00 is supplemental to Statements of Claim 43B 17157-00, 43B 17158-00, and 43B 17159-00 but does not overlap the SGCD authorized place of use under CD Record 43B 30164764. The Applicant does not propose to use water from Whitetail Creek in the center pivot irrigation system.

Table 3. Supplemental Water Rights to 43B 17159-00

WR Number (Purpose)	Flow Rate (CFS)	Source	Period of Use	Point of diversion	Place of use	Priority date	Acres
43B 17157-00 (Irrigation)	13.75	Big Timber Creek	4/1-11/1	NWSWNE Sec. 2, T1N, R14E, Sweet Grass County	E2, E2SW Sec. 10, N2NW Sec. 14, W2 Sec. 11, N2 Sec. 15, T1N, R14E, Sweet Grass County	March 14, 1902	447.5
43B 17158-00 (Irrigation)	13.75	Big Timber Creek	4/1-11/1	NWSWNE Sec. 2, T1N, R14E, Sweet Grass County	E2, E2SW Sec. 10, N2NW Sec. 14, W2 Sec. 11, N2 Sec. 15, T1N, R14E, Sweet Grass County	May 10, 1918	447.5
43B 19920-00 (Irrigation)	2.98	Whitetail Creek	4/1-10/1	SWSNW Sec. 10, T1N, R14E, Sweet Grass County	W2SE, E2SW Sec. 10, NENENW Sec. 15, T1N, R14E, Sweet Grass County	March 18, 1881	52.4

3. No previous change authorizations have been applied for or approved for Statement of Claim 43B 17159-00.

CHANGE PROPOSAL

FINDINGS OF FACT

4. The Applicant proposes to change the POD for Statement of Claim 43B 17159-00. The change will result in a new pump site located in the SESWSW Sec. 11, T1N, R14E, Sweet Grass County; the Applicant will retire use of the historical POD in the SWSESW Sec. 10, T1N, R14E, Sweet Grass County. No change in place of use, purpose, or place of storage is proposed. The Applicant will continue to irrigate the same acres as were historically irrigated. The proposed POD would be shared with SGCD water

reservation CD Record 30164764. The proposed POD will divert 2,360 GPM (5.26 CFS) into a pipeline to a center pivot irrigation system, which will cover 51.6 AC under CD Record 30164764 and approximately 273.4 acres under Statement of Claim 43B 17159-00. The remaining 72.4 acres under Statement of Claim 43B 17159-00 will be flood irrigated as they have been historically. Water from the Yellowstone River will be conveyed to the Arneson Ditch via the same pipeline that will deliver water to the center pivot irrigation system. The Applicant will use secondary diversions in the Arneson Ditch to irrigate the remaining 72.4 flood irrigated acres. After this change, the Applicant will commingle water from the Yellowstone River to irrigate adjacent places of use covered by two water rights. The Applicant will divert 5.26 CFS up to the amount historically diverted for beneficial use. The period of diversion and use is from April 1 to November 1. The Applicant will measure the water use from the Yellowstone River, Big Timber Creek, and Whitetail Creek to ensure they do not exceed the amount of water historically diverted for full-service irrigation of their property. If the change is authorized it will have a measurement condition to ensure no adverse effect through expansion and it will have a condition that if a valid call is made on either the CD Record or Statement of Claim 43B 17159-00, the center pivot irrigation system must not use water from the Yellowstone River in order prevent the use of junior water that is commingled with senior water on acres that are not included in the place of use for each respective water right. The valid call condition will not prevent the Applicant from irrigating with senior water rights using the historical ditches and flood irrigation system or from using water from Big Timber Creek to run the pivots. Figure 1 shows the elements of the proposed change.

5. The Applicant's plan to measure diversions is as follows. At all locations, the Applicant or Water Commissioner will measure flow and volume diverted through weekly measurements or any time diversions are adjusted. The Applicant will report those figures to DNRC annually at the end of the irrigation season. From the Yellowstone River, the Applicant will measure diversions from the Yellowstone River into the pipeline at the proposed POD using a flow meter installed in the pipeline near the diversion in the river. The diverted water from the Yellowstone River into the pipeline will include water diverted for the CD water reservation and Statement of Claim 43B 17159-00.

6. From Big Timber Creek, in addition to measuring water from Arneson Ditch into the pivots at the secondary PODs located in the NESWNW of Sec. 11, T1N, R14E, Sweet Grass County, and the NENESW Sec. 10, T1N, R14E, Sweet Grass County, the Applicant will also continue to measure water at the diversion from Big Timber Creek into the Arneson Ditch located in the NWSWNE of Sec. 2, T1N, R14E, Sweet Grass County. When a Water Commissioner is not appointed, the Applicant will take measurements at the Big Timber Creek POD throughout the entire period of diversion and use. The Applicant will measure water diverted at the primary POD by means of an existing flume in the ditch, and

water diverted from Arneson Ditch into the two secondary PODs by flow meters installed in the pipelines at the secondary PODs.

7. From Whitetail Creek, the Applicant will measure the flow and volume of water diverted from Whitetail Creek into the ditch at the POD by means of a flume installed in the ditch. Water diverted at the secondary POD in the NENESW of Sec. 10, T1N, R14E, Sweet Grass County, will capture water diverted from Big Timber Creek as well as water from Whitetail Creek.

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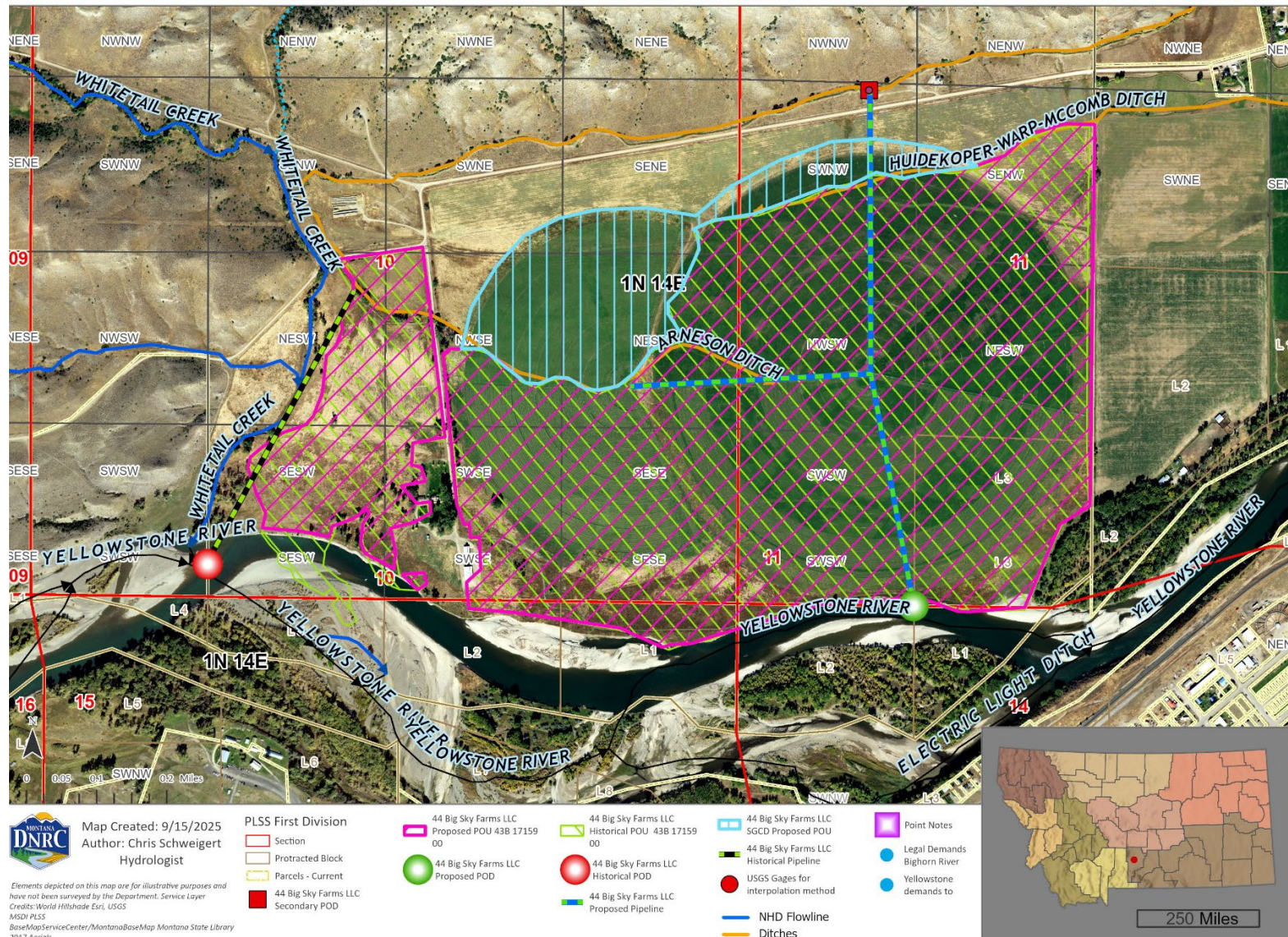


Figure 1. Elements of the historical and proposed project

CHANGE CRITERIA

8. 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 probable 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.

9. 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*, ¶¶ 29-31; *Town of Manhattan*, ¶ 8; *In the Matter of Application to Change Appropriation Water Right No.41F-31227 by T-L Irrigation Company* (DNRC Final Order 1991).

HISTORICAL USE AND ADVERSE EFFECT

FINDINGS OF FACT - Historical Use

10. Statement of Claim 43B 17159-00 diverts water from the Yellowstone River above and including Bridger Creek, Basin 43B, which has been in Temporary decree status with the Montana Water Court since January 16, 1985. This water right has a priority date of July 15, 1962. The Sweet Grass County Water Resources Survey (WRS) from 1950 predates this claim; therefore, the claimed place of use does not appear

in the Sweet Grass County WRS except as shown under the supplemental claims for Big Timber Creek (43B 17157-00 and 43B 17158-00) which have pre-1950 priority dates. The claimed volume was removed from the water right by Water Right Claim Examination Rules Amended by the Montana Supreme Court and replaced by a remark which states “The total volume of this right shall not exceed the amount put to historical beneficial use.” The historical use of this water right is supported by historical aerial imagery and affidavits from the former owner and original claimant, Marlis A. Arneson, and her son, Eric M. Arneson. This water right was altered by the Montana Water Court in Case no. 43B-1045-R-2021 and a Stipulation filed on May 1, 2023. Pursuant to the agreement of the parties involved in the case, the maximum acres were reduced to 345.8 AC, and place of use was changed as shown in Table 2, FOF 1. Mapping of the acres in GIS using aerial imagery from 1977 and 1979 confirms the Water Court finding of 345.8 AC as described in Table 2.

11. There are three water rights that overlap the place of use for all, or portions of the water right proposed for change. The three supplemental rights are Statement of Claim 43B 17157-00 for 447.5 acres (overlaps the entire place of use) irrigated from Big Timber Creek; Statement of Claim 43B 17158-00 for 447.5 acres (overlaps the entire place of use) irrigated from Big Timber Creek; and Statement of Claim 43B 19920-00 for 52.4 acres (overlaps approximately 46 acres of the place of use) irrigated from Whitetail Creek. The three supplemental rights are not proposed for change because they are from different sources, and they are not changing their points of diversion or places of use.

12. The Applicants have provided affidavits from the previous landowners (original claimant and son of the original claimant) stating that each of these sources (Big Timber Creek, Whitetail Creek, and the Yellowstone River) has historically provided the entire volume required for the full-service irrigation of the place of use under the water right proposed for change. The Whitetail Creek right was reduced to 52.4 acres by order of the Montana Water Court in Case no. 43B-1045-R-2021. When sufficient water is available from Big Timber Creek, the Applicant typically uses that source to irrigate the majority of the farm. When Big Timber Creek is not available, the Applicant primarily uses water from the Yellowstone River. There is a wide variation of when 44 Big Sky Farms, LLC changes from Big Timber Creek to Yellowstone River. In some years there is limited or no water available in Big Timber Creek or the Arneson Ditch is in disrepair. The Whitetail Creek water right is only supplemental to the acres west of the Applicant’s driveway in the W2 of Sec. 10, T1N, R14E, Sweet Grass County. Those acres are also covered by the Big Timber Creek water rights.

13. The historical POD was a pump in the SWSESW Sec. 10, T1N, R14E, Sweet Grass County. The scanned documents for the original right show that Elmer Arneson claimed 500 miner’s inches (12.5 CFS) in article 1 of the filed notice of appropriation; however, in article 3, he stated that he used a 6-inch pump

from the river to divert 200 miner's inches (5 CFS). The Applicant has not provided any information on the historical pump. They did provide information to support the capacity of the historical pipeline at 5.35 CFS. The estimated capacity of the pipeline is based on remnants of the historical system. Using the Hazen Williams Equation along with the historical pipe diameter (14-inch), length (2,108 ft.), slope (0.00527), and an industry standard velocity of 5 CFS (to prevent water hammer), the Applicant has demonstrated that the historical pipeline had a capacity of at least 5.35 CFS. Therefore, 5.35 CFS is the maximum historical flow rate. The Applicant provided Hazen Williams Equation was reviewed by DNRC Water Sciences and was determined to be an acceptable estimate of the historical conveyance capacity.

14. The historical period of diversion and period of use are April 1 to November 1, a period of 215 days. This claim was first put to use July 15, 1962. The historical irrigation pattern varies from year to year depending on water supply conditions, availability of labor, the crop planted and grown, price of cattle and hay, as well as other factors. Irrigation from the Yellowstone River typically starts April 1. The ranch would irrigate as long as weather conditions were favorable, typically through October. When growing a crop that was cut for hay or harvested, they would typically stop irrigating for 7 to 10 days to cut and bale, typically two times within the summer. They would then irrigate for pasture growth after the second cutting. (Affidavits, Department File).

15. The supplemental water rights from Big Timber Creek (43B 17157-00 and 43B 17158-00) have the same period of diversion and period of use as the claim proposed for change. The supplemental water right from Whitetail Creek (43B 19920-00) has a period of diversion and period of use from April 1 to October 1. The standard period of diversion and use in Climatic Area 2 is from April 1 to October 31. The Applicants have shown that Statement of Claim 43B 17159-00 has historically provided full-service irrigation; therefore, the historical diverted and consumed volumes are not apportioned between the supplemental rights, but all four rights in combination are only authorized for full-service irrigation.

16. The Applicant opted to use the Department methodology in ARM 36.12.1902 to calculate the historical consumptive use volume (HCU) and historical diverted volume. Based on 345.8 AC, an irrigation water requirement (IWR) for flood, wheeline, and handline irrigation at the Big Timber weather station of 20.6 inches, and a Sweet Grass County 1964-1973 (pre-1973) management factor of 44.7%, the crop consumption for this right is 265.3 AF $((345.8 \text{ AC} * 20.6 \text{ in./ft.} * 0.447) / 12 \text{ in./ft.} = 265.3 \text{ AF})$. Field applied volume is calculated by dividing the historical consumptive use volume by the on-farm efficiency as a percentage. For this application, the Department used 20% on-farm efficiency as an average for flood, sprinkler, and furrow irrigation based on NRCS records provided by the Applicant in Appendix H of their application file, the claimed types of irrigation, and evidence of these types of systems present in the 1977 USGS and 1979 USDA aerial photos. The historical field applied volume (also called diverted volume) is

1,326.7 AF ($265.3 \text{ AF} / 0.2 = 1,326.7 \text{ AF}$). The Department adds 5% of field applied volume to account for irrecoverable losses (IL) in flood irrigation systems. The IL are 66.3 AF ($1,326.7 \text{ AF} \times 0.05 = 66.3 \text{ AF}$). The total HCU, including IL, is 331.7 AF ($265.3 + 66.3 = 331.7 \text{ AF}$). The mathematical inconsistency in the preceding equation is due to rounding ($265.34963 + 331.68463 = 331.68463 (331.7)$).

Table 4. Historical consumptive use volume (HCU) and field application volume for the historical place of use

Sweet Grass County IWR Flood Irrigation Wheeline & Handline Seasonal ET	Management Factor Percentage 1964-1973 (Pre-July 1, 1973, HCU)	Historically Irrigated Acres	HCU (Excluding IL)	On-Farm Efficiency (percentage)	Field Applied Volume (HCU/% Efficiency)	Historical IL: Flood, 5%	HCU (Including IL)
20.6 in.	44.7%	345.8 AC	265.3 AF	20%	1,326.7 AF	66.3 AF	331.7 AF

17. There are no historical or proposed conveyance losses because water was historically delivered to the place of use by a pipeline from the pump to the place of use and will be conveyed by a pipeline from the new pump site to the place of use. The historical diverted volume (field applied volume) and proposed diverted volume are equal because there is no change in place of use.

18. The Department finds the following historical use, as shown in Table 5.

Table 5. Summary of historical use findings for Statement of Claim 43B 17159-00

WR #	Priority Date	Diverted Volume	Flow Rate	Purpose (Total Acres)	Consumptive Use	Place of Use	Point of Diversion
43B 17159-00	July 15, 1962	1,326.7 AF	5.35 CFS	Irrigation (345.8 AC)	331.7	See Table 6	SWSESW Sec. 10, T1N, R14E, Sweet Grass County

Table 6: Place of use of Statement of Claim 43B 17159-00

ID	Acres	Qtr. Sec	Sec.	Twp	Rge	County
1	112.00	E2	10	1N	14E	Sweet Grass
2	32.1	E2SW	10	1N	14E	Sweet Grass
3	1.3	N2NW	14	1N	14E	Sweet Grass
4	191.3	W2	11	1N	14E	Sweet Grass
5	9.1	N2	15	1N	14E	Sweet Grass
Total	345.8					

ADVERSE EFFECT

FINDINGS OF FACT

19. The Applicant proposes to change the POD for Statement of Claim 43B 17159-00. The historical POD was washed away by flood events in 1996 and 1997. The proposed pump site was installed in 2001 by a previous owner after the floods. The Applicant is requesting this change to bring their existing POD

into compliance. The Applicant has installed a center pivot irrigation system within the footprint of the historical place of use. No changes to the historical place of use are proposed.

20. The proposed flow rate is based on the capacity of the pump and the irrigation system. The existing pipeline will be replaced if the change is authorized in order to increase the capacity of the pipeline from 1,500 GPM to 2,360 GPM (5.26 CFS). The increased pipeline capacity will allow the Applicant to run two center pivots simultaneously.

21. The Department does not consider a change in method of irrigation when calculating the proposed consumption and field applied volumes on acreage that was historically irrigated by a given water right. The Applicant proposes to use a new pump and pipeline system which will not have any new conveyance losses. Because the proposed use lies entirely within the footprint of the historically irrigated acreage and there will be no new losses, the Department finds that the historical and proposed consumptive use are equal, and that the historical and proposed diverted volumes are equal.

22. The Applicant proposes to move their diversion approximately one mile downstream. There are three water rights between the historical and proposed PODs: Statement of Claim 43B 30132359, Statement of Claim 43B 194349-00, and Statement of Claim 43B 194350-00. Statement of Claim 43B 30132359 is for livestock drinking directly from the Yellowstone River and is owned by the Applicant. Statement of Claim 43B 194349-00 is for instream flow from November 1 to April 15 and Statement of Claim 43B 194350-00 is for instream flow from April 16 to October 31. The instream flow rights are not diverted. The change in point of diversion will not change the amount or timing of diversions; therefore, it will not adversely affect the instream flow rights or the livestock direct from source water right. The proposed change in POD will not allow the Applicant to be able to make call on a water right it historically could not make call on.

23. There will be no increase in diverted flow rate or volume. There will be no change in timing of diversion or use. The Department does not model return flows if there is no change in place of use.

24. The Department does not analyze return flows when there is no change in place of use or purpose. Because there is no proposed change in place of use or purpose and therefore no change in the location of return flows, return flows were not analyzed.

25. The Applicant must measure their diversion and use from the Yellowstone River to prevent adverse effect through expansion. The following remark will be added to the water right:

1. THE APPROPRIATOR SHALL INSTALL A DEPARTMENT-APPROVED MEASURING DEVICE AT POINT APPROVED BY THE DEPARTMENT. 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 RECORD OF THE VOLUME OF ALL WATER DIVERTED, INCLUDING THE PERIOD OF TIME. RECORDS SHALL BE SUBMITTED BY NOVEMBER 30 OF EACH YEAR AND UPON REQUEST AT OTHER TIMES DURING THE YEAR. FAILURE TO SUBMIT RECORDS MAY BE CAUSE FOR REVOCATION OF A PERMIT OR CHANGE. THE RECORDS MUST BE SENT TO THE WATER RESOURCES REGIONAL OFFICE. THE APPROPRIATOR SHALL MAINTAIN THE MEASURING DEVICE SO IT ALWAYS OPERATES PROPERLY AND MEASURES THE VOLUME ACCURATELY.

26. The Applicant's is not proposing to change the place of use of their existing Statement of Claim 43B 17159-00 to include the acres authorized by SGCD, and they have not requested use of the SGCD Water Reservation on the entire area under the center pivot irrigation system. These circumstances make the use of the Yellowstone River water under the center pivot irrigation system dependent on both rights being available. If a valid call is made on either the SGCD Water Reservation, CD Record 43B 30164764, or Statement of Claim 43B 17159-00, the Applicant will be required to cease use of Yellowstone River water under the center pivot irrigation system to prevent the use of either water right outside of its respective place of use. If the change is authorized, the following condition will be added to the change authorization in order to prevent adverse effect:

2. IN THE EVENT A VALID CALL IS MADE FOR EITHER CD RECORD 43B 30164764 OR STATEMENT OF CLAIM 43B 17159-00 TO CEASE DIVERSION, THE APPROPRIATOR MUST CEASE THE USE OF YELLOWSTONE RIVER WATER IN THE CENTER PIVOT IRRIGATION SYSTEM.

27. Because the Applicant is proposing to reduce their flow rate, they are not changing their place of use, there will be no increase in diverted or consumed volume, there will be no change in timing of use, they will not have greater access to water, they will not be moving a senior water right downstream, they will be required to measure their diverted volume, and they will be required to cease use of Yellowstone River water under their center pivot if a valid call is made on either of their Yellowstone River rights, the Department finds that the proposed change will not create an adverse effect.

BENEFICIAL USE

FINDINGS OF FACT

28. The Applicant proposes to use 5.26 CFS up to 1,326.7 AF of diverted volume for the irrigation of 345.8 AC. All 345.8 AC are supplemental to Statement of Claim 43B 17157-00 and 43B 17158-00, and 52.4 AC are supplemental to Statement of Claim 43B 19920-00. Irrigation is recognized as a beneficial use under the Montana Water Use Act §85-2-102, MCA.

29. The Yellowstone River water will be used to supplement Big Timber Creek Claims 43B 17157-00 and 43B 17158-00 and Whitetail Creek Claim 43B 19920-00. The Applicant stated that Big Timber Creek and Whitetail Creek waters are not always available. The Yellowstone River is a more reliable source of supply. The Applicant proposes to use the Yellowstone River water when Big Timber Creek and Whitetail Creek are not available. The Department finds the 1,326.7 AF volume and 5.26 CFS flow rate are reasonably needed in order to support the beneficial use.

ADEQUATE DIVERSION

FINDINGS OF FACT

30. The Applicant proposes to divert water from the Yellowstone River by means of a diesel-powered Cornell 5RB pump with a 13.5-inch impeller capable of diverting 5.26 CFS in the SESWSW Sec. 11, T1N, R14E, Sweet Grass County. The pump is connected to a 16-inch pipeline that will convey the water approximately 1,800 ft. to one full circle center pivot and one $\frac{3}{4}$ circle pivot located in the S2NE and N2SE Sec. 10, and the S2NW Sec. 11, T1N, R14E, Sweet Grass County. The pipeline from the Yellowstone River to the pivots extends another 1,800 ft. from the center of the full circle pivot to the Arneson Ditch at a point in the NESWNW Sec. 11, T1N, R14E, Sweet Grass County. Acres outside of the center pivots are flood irrigated from the Arneson Ditch as they were historically. The irrigation system was designed by AquaTech, an irrigation system design and equipment supplier.

31. The capacity of the pump is supported by a pump curve; the capacity of pipeline was determined by the irrigation system designer, AquaTech.

32. The Department finds that the diversion and conveyance infrastructure is adequate for the proposed change in POD of Statement of Claim 43B 17159-00.

POSSESSORY INTEREST

FINDINGS OF FACT

33. The Applicant signed the affidavit on the application form affirming the Applicant has possessory interest, or the written consent of the person with the possessory interest, in the property where the water is to be put to beneficial use. (Department File)

CONCLUSIONS OF LAW

HISTORICAL USE AND ADVERSE EFFECT

34. 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*, ¶ 10 (an appropriator's right only attaches to the amount of water actually taken and beneficially applied).¹

35. 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; *Hohenlohe*, ¶¶ 43-45.²

36. 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*, ¶10 (recognizing that the Department's obligation to ensure that change will not adversely affect other water rights requires analysis

¹ DNRC decisions are available at: <https://dnrc.mt.gov/Directors-Office/HearingOrders>

² See also *Holmstrom Land Co., Inc., v. Newlan Creek Water District*, 185 Mont. 409, 605 P.2d 1060 (1979); *Lokowich v. Helena*, 46 Mont. 575, 129 P. 1063 (1913); *Thompson v. Harvey*, 164 Mont. 133, 519 P.2d 963 (1974) (plaintiff could not change his diversion to a point upstream of the defendants because of the injury resulting to the defendants); *McIntosh v. Graveley*, 159 Mont. 72, 495 P.2d 186 (1972) (appropriator was entitled to move his point of diversion downstream, so long as he installed measuring devices to ensure that he took no more than would have been available at his original point of diversion); *Head v. Hale*, 38 Mont. 302, 100 P. 222 (1909) (successors of the appropriator of water appropriated for placer mining purposes cannot so change its use as to deprive lower appropriators of their rights, already acquired, in the use of it for irrigating purposes); and, *Gassert v. Noyes*, 18 Mont. 216, 44 P. 959 (1896) (change in place of use was unlawful where reduced the amount of water in the source of supply available which was subject to plaintiff's subsequent right).

of the actual historic amount, pattern, and means of water use). A change Applicant must prove the extent and pattern of use for the underlying right proposed for change through evidence of the historic diverted amount, consumed amount, place of use, pattern of use, and return flow because a statement of claim, permit, or decree may not include the beneficial use information necessary to evaluate the amount of water available for change or potential for adverse effect.³ A comparative analysis of the historic use of the water right to the proposed change in use is necessary to prove the change will not result in expansion of the original right, or adversely affect water users who are entitled to rely upon maintenance of conditions on the source of supply for their water rights. *Quigley*, 103 P.2d at 1072-75 (it is necessary to ascertain historic use of a decreed water right to determine whether a change in use expands the underlying right to the detriment of other water user because a decree only provides a limited description of the right); *Royston*, 249 Mont. at 431-32, 816 P.2d at 1059-60 (record could not sustain a conclusion of no adverse effect because the Applicant failed to provide the Department with evidence of the historic diverted volume, consumption, and return flow); *Hohenlohe*, ¶ 44-45; *Town of Manhattan v. DNRC*, Cause No. DV-09-872C, Montana Eighteenth Judicial District Court, *Order Re Petition for Judicial Review*, Pgs. 11-12 (proof of historic use is required even when the right has been decreed because the decreed flow rate or volume establishes the maximum appropriation that may be diverted, and may exceed the historical pattern of use, amount diverted or amount consumed through actual use); *Matter of Application For Beneficial Water Use Permit By City of Bozeman*, *Memorandum*, Pgs. 8-22 (Adopted by DNRC *Final Order* January 9, 1985)(evidence of historic use must be compared to the proposed change in use to give effect to the implied limitations read into every decreed right that an appropriator has no right to expand his appropriation or change his use to the detriment of juniors).⁴

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

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

37. 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*, ¶ 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; ARM 36.12.101(56) (Return flow - that part of a diverted flow which is not consumed by the appropriator and returns underground to its original source or another source of water - is not part of a water right and is subject to appropriation by subsequent water users).⁵

38. 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 ¶¶ 45-46 and 55-6; *Spokane Ranch & Water Co.*, 37 Mont. at 351-52, 96 P. at 731.

39. 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. . . .

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.)

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

An appropriator historically has been entitled to the greatest quantity of water he can put to use. The requirement that the use be both beneficial and reasonable, however, proscribes this tenet. This limitation springs from a fundamental tenet of western water law—that an appropriator has a right only to that amount of water historically put to beneficial use—developed in concert with the rationale that each subsequent appropriator “is entitled to have the water flow in the same manner as when he located,” and the appropriator may insist that prior appropriators do not affect adversely his rights.

This fundamental rule of Montana water law has dictated the Department’s determinations in numerous prior change proceedings. The Department claims that historic consumptive use, as quantified in part by return flow analysis, represents a key element of proving historic beneficial use.

We do not dispute this interrelationship between historic consumptive use, return flow, and the amount of water to which an appropriator is entitled as limited by his past beneficial use.

Hohenlohe, at ¶¶ 42-45 (internal citations omitted).

40. 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. ARM 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. ARM 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. ARM 36.12.1901 and 1903.

41. 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).

42. 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. Schreckengust*, 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).

43. 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).

44. The Department has adopted a rule providing for the calculation of historic consumptive use where the Applicant proves by a preponderance of the evidence that the acreage was historically irrigated. ARM 36.12.1902(16). In the alternative, an Applicant may present its own evidence of historic beneficial use. In this case Applicant has/has not elected to proceed under ARM 36.12.1902. (FOF 16).

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

46. Based upon the Applicant's evidence of historic use, the Applicant has proven by a preponderance of the evidence the historic use of Statement of Claim 43B 17159-00 to be a diverted volume of 1,326.7, a historically consumed volume of 331.7, and a flow rate of 5.35 CFS. (FOF 10-17)

47. Based upon the Applicant's comparative analysis of historic water use and return flows to water use and return flows under the proposed change, the Applicant has proven that the proposed change in appropriation right will not adversely affect the use of the existing water rights of other persons or other perfected or planned uses or developments for which a permit or certificate has been issued or for which a state water reservation has been issued. Section 85-2-402(2)(a), MCA. (FOF 18-26)

BENEFICIAL USE

48. A change Applicant must prove by a preponderance of the evidence the proposed use is a beneficial use. Sections 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. ARM 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 (Mont. 1st Jud. Dist. Ct.) (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,, *Order Affirming DNRC Decision*, Pg. 3 (Mont. 5th Jud. Dist. Ct.) (2011) (citing *BRPA v. Siebel*, 2005 MT 60, and rejecting Applicant's argument that it be allowed to appropriate 800 acre-feet when a typical year would require 200-300 acre-feet); *Toohey v. Campbell*, 24 Mont. 13, 60 P. 396 (1900) ("The policy of the law is to prevent a person from acquiring exclusive control of a stream, or any part thereof, not for present and actual beneficial use, but for mere future speculative profit or advantage, without regard to existing or contemplated beneficial uses. He is restricted in the amount that he can appropriate to the quantity needed for such beneficial purposes."); § 85-2-312(1)(a), MCA (DNRC is statutorily prohibited from issuing a permit for more water than can be beneficially used).

49. Applicant proposes to use water for irrigation which is a recognized beneficial use. Section 85-2-102(5), MCA. Applicant has proven by a preponderance of the evidence irrigation is a beneficial use and that 1,326.7 acre-feet of diverted volume and 5.26 flow rate of water requested is the amount needed to sustain the beneficial use. Section 85-2-402(2)(c), MCA (FOF 27-28).

ADEQUATE MEANS OF DIVERSION

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

51. 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 29-31)

POSSESSORY INTEREST

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

53. The Applicant has proven by a preponderance of the evidence that it has a possessory interest, or the written consent of the person with the possessory interest, in the property where the water is to be put to beneficial use. (FOF 32).

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. 43B 30160517 should be GRANTED subject to the following.

The Department determines the Applicant may change Statement of Claim 43B 17159-00 by changing the point of diversion to the SESWSW Sec. 11, T1N, R14E, Sweet Grass County, to irrigate 345.8 AC. The period of diversion and period of use will be from April 1 to November 1 each year. The place of use will be 112 AC in the E2 and 32.1 AC in the E2SW Sec. 10, 1.3 AC in the N2NW Sec. 14, 191.3 AC in the W2 Sec. 11, and 9.1 AC in the N2 Sec. 15, all in T1N, R14E, Sweet Grass County. If the application is granted, it will be subject to the following conditions:

1. THE APPROPRIATOR SHALL INSTALL A DEPARTMENT APPROVED MEASURING DEVICE AT POINT APPROVED BY THE DEPARTMENT. 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 RECORD OF THE VOLUME OF ALL WATER DIVERTED, INCLUDING THE PERIOD OF TIME. RECORDS SHALL BE SUBMITTED BY NOVEMBER 30 OF EACH YEAR AND UPON REQUEST AT OTHER TIMES DURING THE YEAR. FAILURE TO SUBMIT RECORDS MAY BE CAUSE FOR REVOCATION OF A PERMIT OR CHANGE. THE RECORDS MUST BE SENT TO THE WATER RESOURCES REGIONAL OFFICE. THE APPROPRIATOR SHALL MAINTAIN THE MEASURING DEVICE SO IT ALWAYS OPERATES PROPERLY AND MEASURES THE VOLUME ACCURATELY.

2. IN THE EVENT A VALID CALL IS MADE FOR EITHER CD RECORD 43B 30164764 OR STATEMENT OF CLAIM 43B 17159-00 TO CEASE DIVERSION, THE APPROPRIATOR MUST CEASE THE USE OF YELLOWSTONE RIVER WATER IN THE CENTER PIVOT IRRIGATION SYSTEM.

NOTICE

The 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 16th day of September 2025.

_____/Original signed by Kathy Olsen/
Kathy Olsen, Acting Manager
Billings Regional Office
Montana 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 16th day of September 2025, by first class United States mail.

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