NOTICE AREA

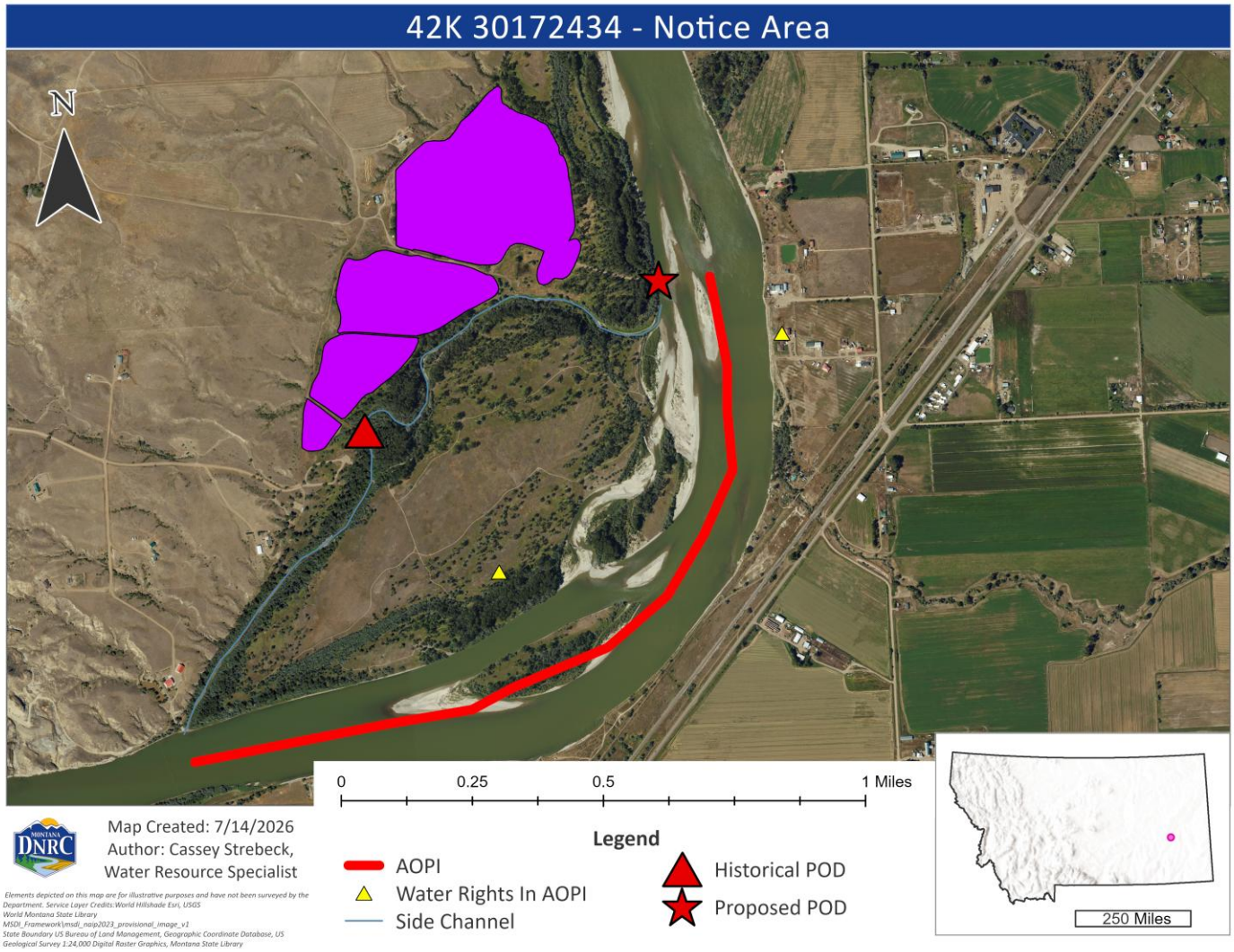
Application No. **42K 30172434** Regional Office # 03

Applicant's Name **Swope Ranch, LLC**

Indian Reservation [ ] Yes [x] No If yes, Reservation

Irrigation District [ ] Yes [x] No If yes, District

Specialist **C. Strebeck** Date **10.15.26**



Water Right Owner	Water Right # (Basin, ID, and Number)
Applicant: Swope Ranch, LLC	**42K 175169-00**
Water Right Owners in Potentially Affected Area	
CARLA BOUCHER; JAMES BOUCHER	**42K 30071035**
MONTANA DEPT OF FISH WILDLIFE & PARKS	**42K 175255-00**
Other	
1BIA BUREAU OF INDIAN AFFAIRS	
1DSL MONTANA BOARD OF LAND COMMISSIONER Trust Lands	
1FWP DEPT OF FISH, WILDLIFE, & PARKS	
1NWE NORTHWESTERN ENERGY	
1PPL PPL MONTANA LLC, Holly Franz	
2FWP DEPT OF FISH, WILDLIFE, & PARKS	
3BLG DEPT OF NATURAL RESOURCES & CONSERVATION	
3NPR NORTHERN PLAINS RESOURCE COUNCIL	
1BOR US DEPT OF INTERIOR Bureau of Reclamation	
1TUL MT TROUT UNLIMITED	
1FWS US FISH & WILDLIFE SERVICE	
1CRP US ARMY Corps of Engineers	
1WDB DEPT OF NATURAL RESOURCES & CONSERVATION	
3CUD CUSTER COUNTY CONSERVATION DISTRICT	
MILES CITY STAR	

*If owner listed twice, only one notice sent

The public notice area is shown on the map as a red line, encompassing the reach of the Yellowstone River from the top of the confluence with the side channel, located in the SWSWSW Sec. 14, T8N, R47E, Custer County, downstream approximately 0.86 river miles just past the confluence of the side channel and the Yellowstone river, to the new POD located in the SWNWSE Sec. 14, T8N, R47E, Custer County.

DNRC Water Resources
Billings Regional Office
1371 Rimtop Dr.
Billings, MT 59105-1978

September 22, 2026

Swope Ranch, LLC
1110 Kinsey Road
Miles City, MT 59301-8740

Subject: Draft Preliminary Determination to Grant in Modified Form Water Right Change Application No. 42K 30172434

Dear Applicant,

The Department of Natural Resources and Conservation (Department or DNRC) has completed a preliminary review of your application. This review consists of an evaluation of the criteria for issuance of a Change Authorization found in §85-2-402, MCA. The Department has preliminarily determined that the criteria can be met only with modifications to the original application, and this application should be granted in modified form. A copy of the Draft Preliminary Determination to Grant in Modified Form is attached.

You have the opportunity to request an extension of time to submit additional information for the Department to consider in the decision, within 15 business days of the date of this letter. If no written request for an extension is received by **October 14, 2026**, the Department will prepare a notice of opportunity to provide public comment per §85-2-307(4), MCA.

Please note that if you are granted an extension of time to submit additional information to the Department, additional information may be considered an amendment to your application, which may reset application timelines pursuant to ARM 36.12.1401.

Please let me know if you have any questions.

Sincerely,

C. Strebeck

Cassey Strebeck
Water Resource Specialist
Billings Regional Office, Montana DNRC
Cassey.Strebeck@mt.gov
406-247-4422

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

* * * * * * *

APPLICATION TO CHANGE WATER RIGHT NO. 42K 30172434 BY SWOPE RANCH LLC	)))	**DRAFT PRELIMINARY DETERMINATION TO GRANT CHANGE IN MODIFIED FORM**

* * * * * * *

On July 10, 2026, Swope Ranch LLC (Applicant) submitted Application to Change Water Right No. 42K 30172434 to change Statement of Claim 42K 175169-00 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 November 24, 2025, in which the Applicant designated that the technical analyses for this application would be completed by the Department. The Applicant returned the completed Preapplication Meeting Form 606-B on March 16, 2026. The Department delivered the Department- completed Technical Analyses on May 7, 2026. The Application was determined to be correct and complete as of July 30, 2026. An Environmental Assessment for this application was completed on September 14, 2026.

INFORMATION

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

Application as filed:

- Application to Change a Water Right, Form 606
- Attachments:
    - Montana Sage Grouse Habitat Conservation Program letter, Project No. 7254, dated January 13, 2026
- Maps:
    - #18 Proposed Use Map #32 Adequate Means of Diversion and Operation
    - Places of Use #2
    - #17 Historical Use Map

- 42K 30172434 – Swope Ranch LLC - Proposed

- Department- completed Technical Analyses Report based on information provided in the Preapplication Meeting Form, dated May 7, 2026

Information within the Department's Possession/Knowledge

- This section should include every document outside of the application file that was used to inform our decision, with full document/report titles and dates
  - USDA aerial photo no. 378-91, dated October 9, 1978
  - USGS aerial photo no. AR1VBLS00010273, dated July 17, 1966
  - Water Resource Survey photo no. MA 21-40, dated August 6, 1944
  - Water Resource Survey photo no. MA 13-186, dated August 6, 1944
  - Custer County Water Resource Survey, dated circa 1948
  - Montana DNRC Water Right Information System (WRIS)
  - Claim files for the water right proposed for change, Claim 42K 175169-00
- 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 406-247-4415 to request copies of the following documents.
  - Montana DNRC Change Manual, February 2025
  - Montana DNRC Permit Manual, February 2025
  - Water Right Claim Examination Rules Amended by the Montana Supreme Court – Effective December 5, 2006

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

For the purposes of this document, Department or DNRC means the Department of Natural Resources & Conservation; AC means acres; AF means acre-feet; AF/YR means acre-feet per year; CFS means cubic feet per second; GPM means gallons per minute; IWR means Irrigation Water Requirements; NIR means net irrigation requirement; NRCS means Natural Resource

Conservation Service; POD means point of diversion; POU means place of use; R means Range; Sec. means Section; T means Township; and USDA means United States of Agriculture.

WATER RIGHTS TO BE CHANGED

FINDINGS OF FACT

1. Applicant seeks to change the point of diversion of Statement of Claim 42K 175169-00 in this Application. Statement of Claim 42K 175169-00 is filed for a 3,000 GPM (6.68 CFS) flow rate and 395.2 AF diverted volume from the Yellowstone River via a pump for the purpose of furrow-flood irrigation of 98.8 acres. The period of diversion and the period of use are April 1 to October 1. The historical point of diversion is located in the SWSWSW Sec. 14, T8N, R47E, Custer County, and water is conveyed to the place of use by means of pipeline. Table 1 shows the elements of the water right proposed for change.

Table 1: Water Right Proposed for Change

Water Right Number	Priority Date	Purpose	Flow Rate	Volume	Acres	Period of Diversion	Period of Use	Point Of Diversion	Place Of Use
42K 175169-00	May 1, 1910	Furrow-Flood Irrigation	6.68 CFS	395.2 AF	98.8	April 1 to October 1	April 1 to October 1	SWSWSW Sec. 14, T8N, R47E, Custer County	83.8 acres in W2 Sec. 14 & 15.0 acres in E2E2SE Sec. 15 T8N, R47E, Custer County

2. There are no supplemental water rights.

3. No previous changes to this water right have been authorized.

CHANGE PROPOSAL

FINDINGS OF FACT

4. The Applicant proposes to change the point of diversion for Statement of Claim 42K 175169-00 from the SWSWSW Sec. 14, T8N, R47E, Custer County, to the SWNWSE Sec. 14, T8N, R47E, Custer County. The Applicant does not propose to make any other changes. The Applicant proposes to use Statement of Claim 42K 175169-00 as shown in Table 2.

Table 2: Summary of Proposed Use of Statement of Claim 42K 175169-00

Water Right Number	Flow Rate	Volume	Purpose	Period Of Use	Place Of Use	Point Of Diversion	Priority Date
42K 175169-00	6.02 CFS	199.5 AF	Furrow-Flood Irrigation	April 1 to October 1	83.8 acres in W2 Sec. 14 & 15 acres in E2E2SE Sec. 15 T8N, R47E, Custer County	SWNWSE Sec. 14, T8N, R47E, Custer County	May 1, 1910

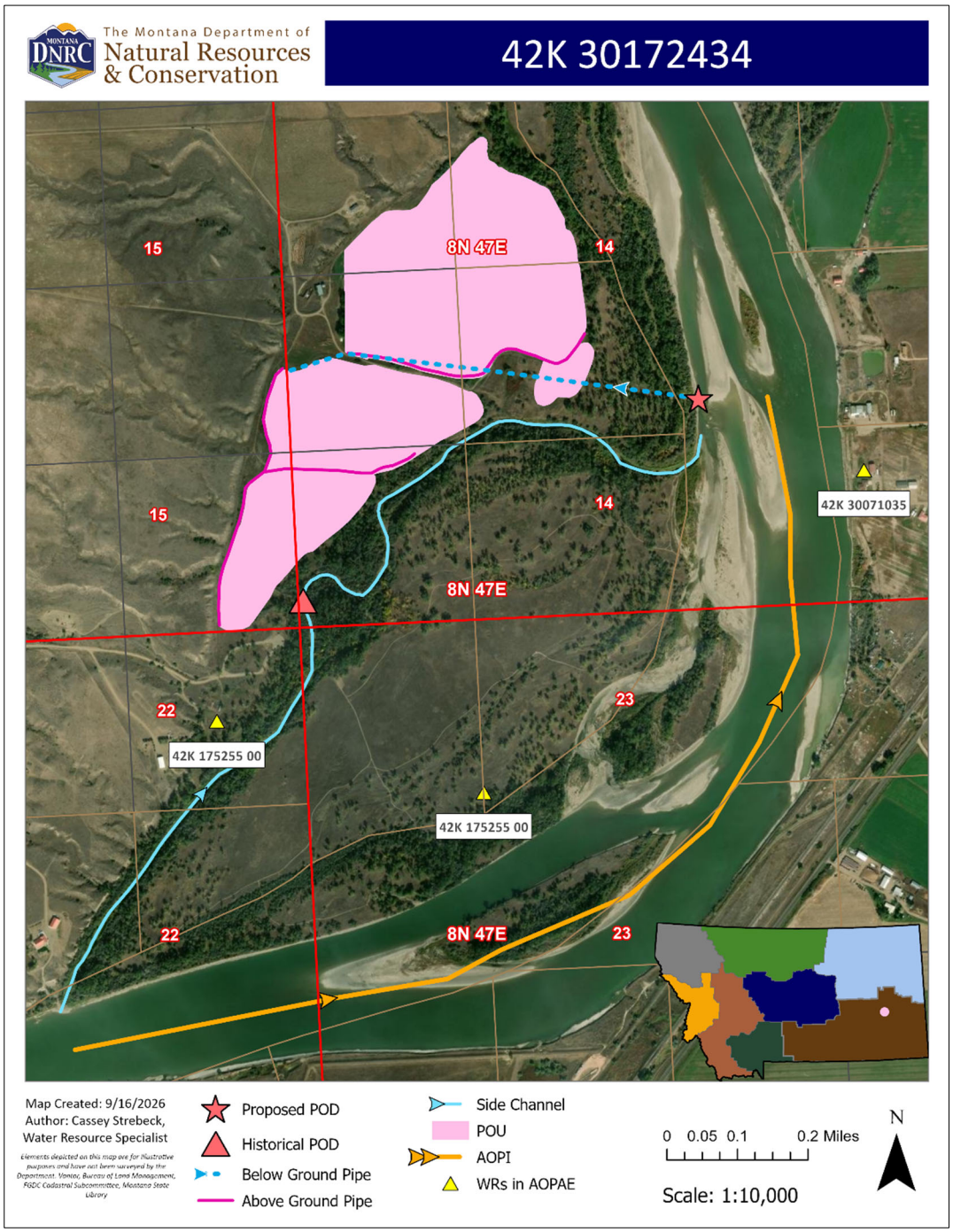


Figure 1. Map of the Applicant's proposed point of diversion on the Yellowstone River, located in the SWNWSE Sec. 14, T8N, R47E, and place of use of 83.8 acres in W2 Sec. 14 and 15.0 acres in E2E2SE Sec. 15, of T8N, R47E, Custer County.

WATER RIGHT CHANGE CRITERIA (§ 85-2-402, MCA)

5. 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), and, if applicable, subject to subsections (1)(c) and (15), 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.

6. 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

7. As of May 08, 2025, basin 42K – Yellowstone River between Tongue and Powder Rivers is undergoing the Second Preliminary Decree. The reexamined version of Statement of Claim 42K 175169-00 shows no changes to the water right, maintaining a flow rate of 6.68 CFS, volume of 395.2 AF, and irrigated acres of 98.8 acres. The historical use of Claim 42K 175169-00 for this application was analyzed based on information available before July 1, 1973 (ARM 36.12.1902(1)(a)).

8. The priority date for Statement of Claim 42K 175169-00 is May 1, 1910. A Notice of Appropriation was filed with the Custer County Clerk on December 7, 1920, stating that Niles Lindeberg of Miles City, Custer County, used such water beginning May 1, 1910. Form No. 76-I R2/80, Statement of Claim for Existing Water Rights: Irrigation, received by the Department on December 7, 1981, claimed the priority date of May 1, 1910. The Department corroborates the priority date in the claim file.

9. Statement of Claim 42K 175169-00 has historically pumped water from the Yellowstone River at 6.68 CFS (3,000 GPM) in the SWSWSW Sec. 14, T8N, R47E, Custer County, from April 1 to October 1, a period of 183 days. Water was conveyed from the pump through a pipeline approximately 647 feet to the first field. From the pipeline, water was moved via a main ditch, a side ditch, and pipelines, with no storage, to furrow-flood irrigate 98.8 acres. Therefore, there are no conveyance losses attributed to Statement of Claim 42K 175169-00, and the ditch was not analyzed for historical conveyance loss. Of the 98.8 irrigated acres, 83.8 acres are in W2 of Sec. 14, T8N, R47E, Custer County, and 15.0 acres are in E2E2SE Sec. 15, T8N, R47E, Custer County. Historical crops consisted of alfalfa, barley, and hay, with 3 cuttings amounting to 15 days of no irrigation in the season. No historical supplemental rights exist at the place of use. This information was provided by the Applicant and corroborated by the Department with historical documents in the file.

10. The 98.8 acres claimed appear irrigated in USDA aerial photo no. 378-191, dated October 9, 1978, with 101.25 irrigated acres identified. USGS aerial photo no. AR1VBLS00010273, dated July 17, 1966, shows 98.0 acres irrigated within the claimed place of use. The Custer County Water Resource Survey, Part 2, published in 1948, shows the Applicant's land irrigated with a pump and private ditches. Water Resource Survey field notes provided by the State of Montana State Engineer's Office, dated May 15, 1947, state that 90 acres were irrigated, with the potential for 8 more acres, using a pump from the Yellowstone River, as shown in photo number MA 13-186. Water Resource Survey photo MA 21-40 dated August 6, 1944, shows 94.0 acres irrigated within the claimed place of use.

11. The Applicants have elected to have the historical diverted and consumed volumes calculated by the Department using the methodology in ARM 36.12.1902(16). The consumed volume for irrigation is based on the net irrigation requirement (NIR) from USDA NRCS Irrigation Water Requirements (IWR) at a representative weather station. The NIR is multiplied by a county-wide management factor (from ARM 36.12.1902(16)) to produce an adjusted NIR representative of actual crop yields in Montana. Crop consumption is determined by multiplying the adjusted NIR by the number of irrigated acres. Crop consumption is then divided by field efficiency, selected by the Applicant based on the irrigation method, to determine the field-applied volume. The Department adds irrecoverable losses (IL) per ARM 36.12.1902(17) based on the type of irrigation system. Irrecoverable losses are 5% of the field-applied volume for flood irrigation or 10% of the field-applied volume for sprinkler irrigation. The irrecoverable losses will be shown in the historical use table for each. Total consumed volume for irrigation equals crop consumption plus irrecoverable losses. The total non-consumed volume is field-applied volume minus the total consumed volume.

12. The historically consumed and field-applied volumes have been calculated with the inputs shown in Table 3, following the methods described in FOF 11 and ARM 36.12.1902(16). The Applicant provided the irrigation method during the preapplication meeting on November 24, 2025, Form 606P-A. The Applicant provided the field slope (3%) and field efficiency (60%) as follow-up information received on January 30, 2026. The field application volume is calculated by dividing the crop consumption by field efficiency.

Table 3: Historical use of Statement of Claim 42K 175169-00

Irrigation Method	Acres	IWR (in)[1]	Mgmt. Factor[2]	Field Efficiency	Crop Consumption (AF)	Field Applied Volume (AF)	IL[3] (AF)	Total Consumed Volume (AF)
Furrow-Flood	98.8	26.68	0.545	0.60	119.7[4]	199.5[4]	10.0[4]	129.7[4]

[1]Miles City IWR Weather Station – Flood Irrigation, Wheeline & Handline Seasonal ET inches
[2]Custer County Historical Use Management Factor (1964-1973)
[3]Irrevocable losses are 5% of the field application volume.
[4]Rounded to the tenths place

13. Per ARM 36.12.1902(10), the historically diverted volume is equal to the sum of the historical field application volume (historically consumed volume divided by on-farm efficiency) and the historical conveyance loss volume. Water was historically pumped from the river into a pipeline that conveyed water directly to the field. Therefore, there are no conveyance losses attributable to Statement of Claim 42K 175169-00, and the historical diverted volume is equal to the historical field-applied volume.

14. The Department finds the following historical use, as shown in Table 4.

Table 4: Summary of historical use findings for Statement of Claim 42K 175169-00

Water Right No.	Priority Date	Purpose (Max Acres)	Place of Use	Point of Diversion	Max Flow Rate	Consumed Volume	Diverted Volume
42K 175169-00	May 1, 1910	Irrigation (98.8)	83.8 acres in W2 Sec. 14 & 15.0 acres in E2E2SE Sec. 15 T8N, R47E, Custer County	SWSWSW Sec. 14, T8N, R47E, Custer County	6.68 CFS	129.7[1] AF	199.5[1] AF

[1]Rounded to the tenths place

ADVERSE EFFECT

FINDINGS OF FACT

15. The Applicant can and will shut down their pump whenever a valid call is made or when their water rights are out of priority.

16. The Applicant proposes to move the historical point of diversion located on a side channel of the Yellowstone River in the SWSWSW Sec. 14, T8N, R47E, Custer County to a point of diversion located on the mainstem of the Yellowstone River in the SWNWSE Sec. 14, T8N, R47E, Custer County, approximately 0.86 river miles downstream. The Applicant does not

propose to make any other changes to the water right. The Applicant proposes to use Statement of Claim 42K 175169-00 as shown in Table 5.

Table 5: Summary of the proposed use of Statement of Claim 42K 175169-00

Water Right No.	Proposed Purpose	Proposed Irrigated Acres	Proposed Place of Use	Proposed Point of Diversion	Proposed Flow Rate	Proposed Consumed Volume	Proposed Diverted Volume
42K 175169-00	Irrigation	98.8	83.8 acres in W2 Sec. 14 & 15 Acres in E2E2SE Sec. 15 T8N, R47E, Custer County	SWNWSE Sec. 14, T8N, R47E, Custer County	6.02 CFS	129.7[1] AF	199.5[1] AF

[1]Rounded to the tenths place

17. As the only change in this application is a change in the point of diversion, the historical consumptive use and the historical diverted volume are equal to their respective proposed values, summarized in Table 6.

Table 6: Volumes associated with historical and proposed use

Purpose	Historically Consumed Volume	Proposed Consumptive Volume	Historically Diverted Volume	Proposed Diverted Volume
Furrow-Flood Irrigation	129.7[1] AF	129.7[1] AF	199.5[1] AF	199.5[1] AF

[1]Rounded to the tenths place

18. Return flows are analyzed when there is a surface water irrigation change in the place of use or purpose. Therefore, return flows were not analyzed for this change application. (ARM 36.12.1303)(3)(a)).

19. The Department has considered an area of potential adverse effect on the Yellowstone River. As the historical point of diversion is located on a side channel, the reach of the area of potential adverse effect was determined to begin at the head of the channel, a point at which the channel broke away from the mainstem in the NWSE Sec. 22, T8N, R47E, Custer County and continue approximately 1.62 river miles downstream on the mainstem to the proposed point of diversion in the SWNWSE Sec. 14, T8N, R47E, Custer County.

20. There are two (2) active water rights within the area of potential adverse effect, shown in Table 7: (1) Provisional Permit 42K 30071035, which was taken at face value; and (2)

Statement of Claim 42K 175255-00, which does not have a defined volume. For the purpose of evaluating adverse effects, the volume was calculated using the Department's standard practice of multiplying the number of acres by the lower range of 60% irrigation efficiency for the climatic region (ARM 36.12.115). Statement of Claim 42K 175255-00 is in climatic area one. The volume was calculated to be 118.25 AF (43 acres x 2.75 AF/AC = 118.25 AF).

Table 7: Water Rights within the Area of Potential Adverse Effect

Water Right No.	Owners Name	Purpose	Period of Diversion	Acres	Flow Rate GPM	Flow Rate CFS	Volume	Priority Date
42K 30071035	Carla Boucher; James Boucher	Lawn And Garden	05/01 to 09/30	0.29	15.0	0.03342	0.73	10/21/2014
42K 175255-00	Montana Dept Of Fish Wildlife & Parks	Irrigation	05/01 to 09/01	43	100.0	0.222801	118.25*	12/31/1922

*Calculated by the Department

21. Statement of Claim 42K 175169-00 (Applicant) is senior to both water rights within the area of potential adverse effect, Provisional Permit 42K 30071035 and Statement of Claim 42K 175255-00. While both water rights are in the area of potential adverse effect, Provisional Permit 42K 30071035 was downstream of the location where the side channel broke away from the mainstem and was not historically subject to call. Statement of Claim 42K 175255-00 has a historical POD on the side channel of the Yellowstone River, upstream of the historical point of diversion, in the NENE Section 22, and a historical transitory point of diversion along the NW Section 23, T8N, R47E, and has historically been subject to call by Claim 42K 175169-00. If this application for change is authorized, the point of diversion for Statement of Claim 42K 175169-00 will be located on the mainstem, downstream of the location where the channel breaks from the mainstem, and downstream of Provisional Permit 42K 30071035. If this application for change is authorized, Claim 42K 175169-00 will be permitted to make call on Provisional Permit 42K 30071035 usage; and permitted to make call on Claim 175255-00 usage.

22. The Applicant does not propose to make changes to the method of irrigation, the acres irrigated, the place of use, the period of diversion, the period of use, or to add storage. Therefore, there is no change in diverted or consumed volumes for Statement of Claim 42K 175169-00.

23. The Department finds that the proposed change may create an adverse effect on existing water rights the Applicant could not previously make a call on.

24. Should this appropriation be authorized, the Department will add the following condition:

IMPORTANT INFORMATION

IN THE EVENT OF INADEQUATE SUPPLY OF WATER FROM THE SOURCE, THE APPROPRIATOR MAY NOT MAKE A CALL ON STATEMENT OF CLAIM 42K 175255-00 OR PROVISIONAL PERMIT 42K 30071035.

BENEFICIAL USE

FINDINGS OF FACT

25. Under this proposed change, the Applicant will continue to irrigate the existing 98.8 acres, located in the W2 Sec. 14 and the E2E2SE Sec. 15, of T8N, R47E, Custer County, at the modified flow rate of 6.02 CFS and the historically diverted volume of 199.5 AF/YR, from April 1 to October 1. Irrigation is a recognized beneficial use under the Montana Water Use Act §85-2-102(5), MCA. The period of diversion and period of use are within Department standards of March 15 to November 15 for climatic area 1.

26. The Applicant's volume is below the Department's standard of 2.75-3.19 AF/AC for 60% efficient irrigation for furrow flood irrigation in climatic area 1, under ARM 36.12.115. The Applicant's volume equates to 2.0 AF/AC (199.5 AF / 98.8 AC = 2.02 AF/AC). The Applicant has historically raised alfalfa and hay with a field-applied volume of 2.0 AF/AC.

27. The Department finds that the modified flow rate of 6.02 CFS and the historically diverted volume of 199.5 AF/YR, during the historical period of diversion and the historical period of use, to furrow-flood irrigate 98.8 acres, is a beneficial use of water.

ADEQUATE DIVERSION

FINDINGS OF FACT

28. The proposed diversion consists of a Riverscreen and Cornell 6YBQ-CC (Close-Coupled) electric pump with a 2,700 GPM (6.02 CFS) capacity, which is less than the historically diverted flow rate of 6.68 CFS. From the pump site, water is piped through a 12-inch 80-pound

underground pipe. This pipe leads to three separate headgates that tie into a 12-inch above-ground gated irrigation pipe that runs along the proposed place of use.

29. The proposed flow rate on the application form is the historical flow rate of 6.68 CFS. The proposed means of diversion has a capacity of 6.02 CFS, which is less than the proposed flow rate. The Department finds that the Applicant has not proven by a preponderance of the evidence that the proposed system can divert the proposed flow rate.

30. The Department finds the proposed means of diversion and conveyance to be adequate to divert the modified flow rate of 6.02 CFS and deliver water to the proposed place of use.

POSSESSORY INTEREST

FINDINGS OF FACT

31. The Applicant owns the property where water is to be put to beneficial use, which demonstrates possessory interest. The Department finds the possessory interest criterion to be met.

CONCLUSIONS OF LAW

HISTORICAL USE AND ADVERSE EFFECT

32. 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]

33. 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]

34. 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 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

[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).

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

35. 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]

36. 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.

Grande County, 53 P.3d 1165, 1170 (Colo. 2002); Wyo. Stat. § 41-3-104 (When an owner of a water right wishes to change a water right … he shall file a petition requesting permission to make such a change …. The change … may be allowed provided that the quantity of water transferred … shall not exceed the amount of water historically diverted under the existing use, nor increase the historic rate of diversion under the existing use, nor increase the historic amount consumptively used under the existing use, nor decrease the historic amount of return flow, nor in any manner injure other existing lawful appropriators.); Basin Elec. Power Co-op. v. State Bd. of Control, 578 P.2d 557, 564 -566 (Wyo,1978) (a water right holder may not effect a change of use transferring more water than he had historically consumptively used; regardless of the lack of injury to other appropriators, the amount of water historically diverted under the existing use, the historic rate of diversion under the existing use, the historic amount consumptively used under the existing use, and the historic amount of return flow must be considered.)

[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).

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

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

38. The Department's rules reflect the above fundamental principles of Montana water law and are designed to itemize the type of 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.

39. 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).

40. Water Resources Surveys were authorized by the 1939 legislature. 1939 Mont. Laws Ch. 185, § 5. Since their completion, Water Resources Surveys have been invaluable evidence in water right disputes and have long been relied on by Montana courts. *In re Adjudication of Existing Rights to Use of All Water in North End Subbasin of Bitterroot River Drainage Area in Ravalli and Missoula Counties*, 295 Mont. 447, 453, 984 P.2d 151, 155 (1999) (Water Resources Survey used as evidence in adjudicating of water rights); *Wareing v. Schreckendgust*, 280 Mont. 196, 213, 930 P.2d 37, 47 (1996) (Water Resources Survey used as evidence in a prescriptive ditch easement case); *Olsen v. McQueary*, 212 Mont. 173, 180, 687 P.2d 712, 716 (1984) (judicial notice taken of Water Resources Survey in water right dispute concerning branches of a creek).

41. 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).

42. 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 elected to proceed under ARM 36.12.1902. (FOF No. 11).

43. 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").

44. Based upon the Applicant's evidence of historic use, the Applicant has proven by a preponderance of the evidence the historic use of Claim 42K 175169-00 to be a diverted volume of 199.5 AF, a historically consumed volume of 129.7 AF, and a flow rate of 6.68 CFS. (FOF Nos. 7-14)

45. 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 Nos. 15-24)

BENEFICIAL USE

46. 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).

47. 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 that irrigation is a beneficial use and that 199.5 AF of diverted volume and 6.02 CFS of water requested

are the amounts needed to sustain the beneficial use. Section 85-2-402(2)(c), MCA (FOF Nos. 25-27).

ADEQUATE MEANS OF DIVERSION

48. 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).

49. Pursuant to § 85-2-402 (2)(b), MCA, Applicant has proven by a preponderance of the evidence that the proposed means of diversion, construction, and operation of the appropriation works are adequate for the proposed beneficial use. (FOF Nos. 28-30)

POSSESSORY INTEREST

50. 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.

51. The Applicant has proven by a preponderance of the evidence that it has a possessory interest, or the written consent of the person with the possessory interest, in the property where the water is to be put to beneficial use. (FOF No. 31).

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. 42K 30172434, for Statement of Claim 42K 175169-00, should be GRANTED IN MODIFIED FORM subject to the following.

The Department determines the Applicant may divert water from the Yellowstone River, by means of a pump, from April 1 to October 1, at the modified flow rate of 6.02 CFS and historically diverted volume of 199.5 AF, from a point in the SWNWSE Sec. 14, T8N, R47E, Custer County, for Irrigation use from April 1 to October 1. The place of use is located in the W2 Sec. 14 and the E2E2SE Sec. 15, T8N, R47E, Custer County. The Applicant may irrigate 98.8 acres.

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

IMPORTANT INFORMATION

IN THE EVENT OF INADEQUATE SUPPLY OF WATER FROM THE SOURCE, THE APPROPRIATOR MAY NOT MAKE A CALL ON STATEMENT OF CLAIM 42K 175255-00 OR PROVISIONAL PERMIT 42K 30071035.

DATED this 23nd day of September 2026

Heidi Christison

Heidi Christison
Billings Regional Manager
Department of natural resources
and conservation
Water Resources Division
1371 Rimtop Drive
Billings, MT, 59105

CERTIFICATE OF SERVICE

This certifies that a true and correct copy of the DRAFT PRELIMINARY DETERMINATION TO GRANT IN MODIFIED FORM was served upon all parties listed below on this 23nd day of September, 2026, by first class United States mail.

Swope Ranch LLC
1110 Kinsey Rd
Miles City, Mt 59301-8740

Cassey Strebeck
Water Resource Specialist
Billings Regional Office, Department of Natural Resources and Conservation
Cassey.Strebeck@mt.gov
406-247-4422

Montana Department of Natural Resources and Conservation
Water Resources Division
Water Rights Bureau

ENVIRONMENTAL ASSESSMENT

For Routine Actions with Limited Environmental Impact

Part I. Proposed Action Description

1. Applicant/Contact name and address: SWOPE RANCH LLC
1110 KINSEY RD
MILES CITY, MT 59301-8740

2. Type of action: Application to Change a Water Right, No. 42K 30172434

3. Water source name: Yellowstone River

4. Location affected by the project: SWNWSE Section 14, Township 8N, Range 47E

5. Narrative summary of the proposed project, purpose, action to be taken, and benefits:

The Applicant proposes to change the historical point of diversion for Statement of Claim 42K 175169-00 to match the Applicant's current use. The historical point of diversion is located on a side channel of the Yellowstone River in the SWSWSW Sec. 14, T8N, R47E, Custer County. The proposed point of diversion is located on the mainstem of the Yellowstone River in the SWNWSE Sec. 14, T8N, R47E, Custer County. Under the proposed change, the Applicant will continue to irrigate 98.8 acres at the modified flow rate of 6.02 CFS and the historically diverted volume up to 199.5 AF/YR.

The proposed point of diversion shows no infrastructure in Google Earth Pro aerial imagery dated August 2013 but does show infrastructure on images dated May 2015 and June 2016.

The DNRC shall issue a change authorization if an applicant proves the criteria in 85-2-402 MCA are met.

6. Agencies consulted during preparation of the Environmental Assessment:
(include agencies with overlapping jurisdiction)Montana Department of Natural Resources and Conservation
Montana Department of Fish, Wildlife and Parks (FWP)
Montana Department of Environmental Quality (DEQ)
Montana Sage Grouse Habitat Conservation Program (SGHCP)
Montana Natural Heritage Program (NHP)
U.S. Fish and Wildlife Service (USFWS)
U.S. Department of Agriculture, National Resource Conservation Service (USDA, NRCS)

7. Attachment: Montana State Library Natural Heritage Program – Swope Environmental Summary, hereafter referred to as Summary

Part II. Environmental Review

1. Environmental Impact Checklist:

PHYSICAL ENVIRONMENT

WATER QUANTITY, QUALITY AND DISTRIBUTION

Water quantity

This project is not changing the existing flow or the existing volume of water diverted or used.

Determination: No Significant Impact

Water quality

This project installation appears to have been completed circa 2015-2016. Any impact during the project installation has likely been settled, given the time of recovery. The impact of runoff from the irrigated lands will depend on the Applicant's usage and treatment of the land. Impact will increase on low-flow and low-volume days in the river. The Applicant should utilize Best Management Practices for their project.

It is the Applicant's responsibility to maintain equipment and limit environmental impact.

Determination: Potential Impact

Groundwater

This project will have no significant impact on the groundwater quality or supply.

Determination: No Significant Impact

DIVERSION WORKS

The means of diversion is a Riverscreen and pump. Water is then conveyed to the fields through a 12-inch underground pipe. The Riverscreen intake of debris and wild life will be minimal.

Aerial imagery suggests this project was started in 2015 and completed in 2016, ten years prior to this Application. The project site may have recovered from the bank disturbance.

Determination: No Significant Impact

UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES

Sage Grouse – This project is partially located within the bounds of Sage Grouse EO-General Habitat, with 15 of the 98.8 acres of the Applicant's irrigated land within the boundary,

in Sec. 15 T8N, R47E. The water right for this project has been in effect since circa 1910, having been filed with the Custer County District Court prior to December 6, 1920, when it was publicly noticed. The Applicant is not required to submit a letter from the Montana Sage Grouse Habitat Conservation Program, as this is an established project area (Governor's Executive Orders 12-2015 and 21-2025). The Applicant may learn more about sage grouse through the Conservation Program.

Determination: No Significant Impact

Endangered and threatened species

This project may have minimal impact on threatened or endangered fish, wildlife, plants, or aquatic species or any "species of special concern," or create a barrier to the migration or movement of fish or wildlife. See Summary, pages 3-11 for species in the area of the project, and their status.

Determination: No Significant Impact

Wetlands

No wetlands were claimed or proposed in this project. This project is located along the Yellowstone River. Wetlands and riparian areas are expected at the project site, upstream, and downstream. See Summary, pages 14-15, which identifies Palustrine-Emergent, Lotic-Scrub-Shrub, and Lotic-Forested wetland and riparian zones at the point of diversion and downgradient of the irrigated lands. These wetlands may be affected by the Applicant's treatment of irrigated lands, which can contribute to runoff. It is recommended that the Applicant maintain a healthy riparian buffer, also known as a streamside management zone (SMZ). Information on SMZs can be found on the DNRC Forestry site.

Determination: Potential Impact

Ponds

No ponds were claimed or proposed in this project or identified in the general area of the project via the Montana Natural Heritage Program (MT NHP).

Determination: No Significant Impact

GEOLOGY - SOIL QUALITY, STABILITY, AND MOISTURE

Soil Quality

The NRCS Web Soil Survey expects that the area around the proposed point of diversion on the Yellowstone River, where the pump will be placed, consists of Glendive fine sandy loam (451A) with 2 to 4 percent slopes, occasionally flooded. *See attached NRCS Web Soil Survey.*

Stability

The Applicant should consider the effects on bank stabilization by limiting the removal of riparian vegetation.

Determination: Potential Impact

As mentioned above in the Diversion Works section, this project appears to have been completed in circa 2015-2016.

VEGETATION COVER, QUANTITY AND QUALITY/NOXIOUS WEEDS

Land Cover

Vegetation cover can be viewed on pgs. 11-12 of the summary. The summary includes a range of vegetation that does not necessarily apply to the project site. The area around the project site, seen in the orange trapezoid, consists primarily of cultivated crops, great plains floodplain, and great plains mixed-grass prairie. As mentioned, loss of riparian is expected due to the pump being moved along the bank of the creek. The Applicant should take precautions to prevent loss of vegetation.

Determination: Potential Impact

Noxious Weeds

This project may result in the establishment or spread of noxious weeds. See Summary pages 18-20 for species found in the area. It will be the responsibility of the landowner to prevent the establishment and spread of noxious weeds and non-native species.

Determination: Potential Impact

AIR QUALITY

No new impact on air quality is expected, as this project proposes a change in the point of diversion. It is the Applicant's responsibility to maintain equipment and limit environmental impact.

Determination: No Significant Impact

HISTORICAL AND ARCHEOLOGICAL SITES

Montana's National Register of Historic Places does not identify any registered historic landmarks, properties, or districts near the project site, at the time of this assessment. If the Applicant were to locate something of historical significance, it is the Applicant's responsibility to notify the appropriate authorities.

Determination: No Known Impact

DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AND ENERGY

No additional impact on other environmental resources is expected due to this project.

Determination: No Significant Impact

HUMAN ENVIRONMENT

LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS
There are no known locally adopted environmental plans or goals

Determination: Not Applicable

ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES –
This project will have no significant impact on recreational and wilderness activities.

Determination: No Significant Impact

HUMAN HEALTH
This project will have no significant impact on human health.

Determination: No Significant Impact

PRIVATE PROPERTY - *Assess whether there are any government regulatory impacts on private property rights.*
*Yes___ No_**X**_ If yes, analyze any alternatives considered that could reduce, minimize, or eliminate the regulation of private property rights*.

Determination: No Impact

OTHER HUMAN ENVIRONMENTAL ISSUES - *For routine actions of limited environmental impact, the following may be addressed in a checklist fashion.*

Impacts on:

(a) *Cultural uniqueness and diversity?* No Significant Impact

(b) *Local and state tax base and tax revenues?* No Significant Impact

(c) *Existing land uses?* No Significant Impact

(d) *Quantity and distribution of employment?* No Significant Impact

(e) *Distribution and density of population and housing?* No Significant Impact

(f) *Demands for government services?* No Significant Impact

(g) *Industrial and commercial activity?* No Significant Impact

(h) *Utilities?* No Significant Impact

(i) *Transportation?* No Significant Impact

(j) *Safety?* No Significant Impact

(k) *Other appropriate social and economic circumstances?* No Significant Impact

2. ***Secondary and cumulative impacts on the physical environment and human population:***

(a) Secondary Impacts: No secondary impacts are identified

(b) Cumulative Impacts: No cumulative impacts are identified

3. ***Describe any mitigation/stipulation measures:*** None at this time.

4. ***Description and analysis of reasonable alternatives to the proposed action, including the no action alternative, if an alternative is reasonably available and prudent to consider:*** The alternative to the proposed project is the no-action alternative. The no-action alternative prevents the property owner from improving the operation of their irrigation system. The no-action alternative does not prevent or mitigate any significant environmental impacts***.***

PART III. Conclusion

1. ***Preferred Alternative:*** The DNRC shall the change authorization if the Applicant proves that the criteria in 85-2-402 MCA are met***.***

2. ***Comments and Responses***: The land owner should maintain vegetation on the bank where the pump is being placed into the creek to maintain bank stability and decrease erosion potential.

3. ***Finding:***
*Yes___ No_**X**__ Based on the significance criteria evaluated in this EA, is an EIS required?*

If an EIS is not required, explain why the EA is the appropriate level of analysis for this proposed action:

No significant environmental impacts were identified; therefore, an EIS is not required

Name of person(s) responsible for preparation of EA:

Name: Cassey Strebeck
Title: Water Resource Specialist
Date: September 14, 2026

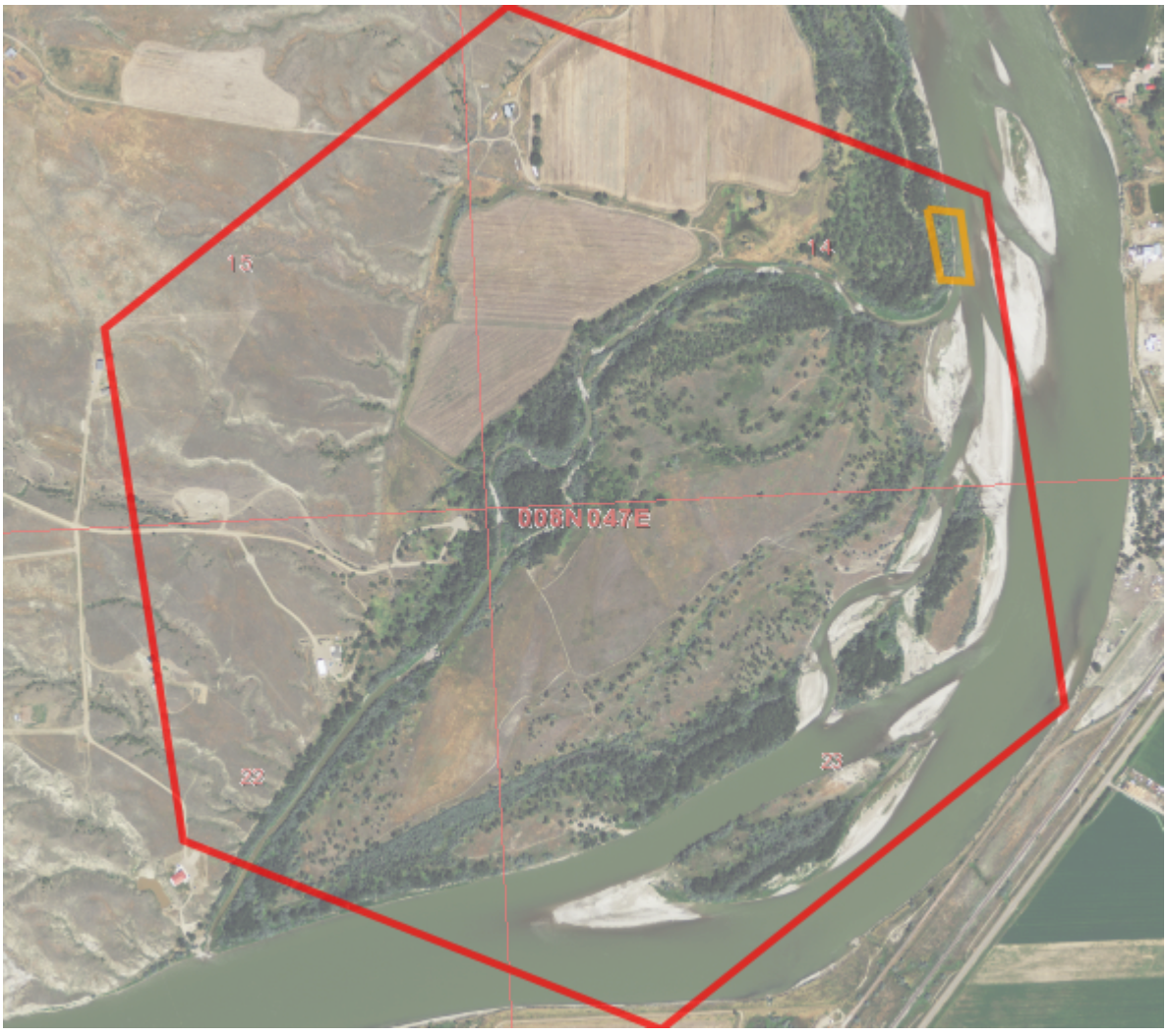
Environmental Summary

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Latitude	Longitude
46.43192	-105.80766
46.44893	-105.83298

Summarized by:
Swope Environmental Summary
(Custom Area of Interest)



Suggested Citation
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for Latitude 46.43192 to 46.44893 and Longitude -105.80766 to -105.83298. Retrieved on 4/16/2026.

The Montana Natural Heritage Program is part of the Montana State Library's Natural Resource Information System. Since 1985, it has served as a neutral and non-regulatory provider of easily accessible information on Montana's species and biological communities to inform all stakeholders in environmental review, permitting, and planning processes. The program is part of the NatureServe network that is composed of over 60 member programs across North America that work to provide current and comprehensive distribution and status information on species and biological communities.

MONTANA STATE LIBRARY NATURAL HERITAGE PROGRAM
NATURESERVE

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Introduction to Environmental Summary Report

Environmental Summary Reports from the Montana Natural Heritage Program (MTNHP) provide information on species and biological communities to inform all stakeholders in environmental review, permitting, and planning processes. For information on environmental permits in Montana, please see permitting overviews by the Montana Department of Environmental Quality, the Montana Department of Natural Resources and Conservation, the Index of Environmental Permits for Montana and our Suggested Contacts for Natural Resource Management Agencies. The report for your area of interest consists of introductory and related materials in this PDF and an Excel workbook with worksheets summarizing information managed in the MTNHP databases for: (1) species occurrences; (2) other observed species without species occurrences; (3) other species potentially present based on their range, presence of associated habitats, or predictive distribution model output if available; (4) structured surveys that follow a protocol capable of detecting one or more species; (5) land cover mapped as ecological systems; (6) wetland and riparian mapping; (7) land management categories; and (8) biological reports associated with plant and animal observations. If your area of interest corresponds to a statewide polygon layer (e.g., watersheds, counties, or public land survey sections) information summaries in your report will exactly match those boundaries. However, if your report is for a custom area, users should be aware that summaries do not correspond to the exact boundaries of the polygon they have specified, but instead are a summary across a layer of hexagons intersected by the polygon they specified as shown on the report cover. Summarizing by these hexagons which are one square mile in area and approximately one kilometer in length on each side allows for consistent and rapid delivery of summaries based on a uniform grid that has been used for planning efforts across North America.

In presenting this information, MTNHP is working towards assisting the user with rapidly assessing the known or potential species and biological communities, land management categories, and biological reports associated with the report area. Users are reminded that this information is likely incomplete and may be inaccurate as surveys to document species are lacking in many areas of the state, species' range polygons often include regions of unsuitable habitat, methods of predicting the presence of species or communities are constantly improving, and information is constantly being added and updated in our databases. **Field verification by professional biologists of the absence or presence of species and biological communities in a report area will always be an important obligation of users of our data. Users are encouraged to only use this environmental summary report as a starting point for more in depth analyses and are encouraged to contact state, federal, and tribal resource management agencies for additional data or management guidelines relevant to your efforts. Please see the Appendix for introductory materials to each section of the report, additional information resources, and a list of relevant agency contacts.**

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A program of the **Montana State Library's Natural Resource Information System**

Legend

Model Icons	Habitat Icons	Range Icons
N Suitable (native range)	C Common	Y Native / Year-round
O Optimal Suitability	O Occasional	S Summer
M Moderate Suitability		W Winter
L Low Suitability		M Migratory
I Suitable (introduced range)		N Non-native
		H Historical

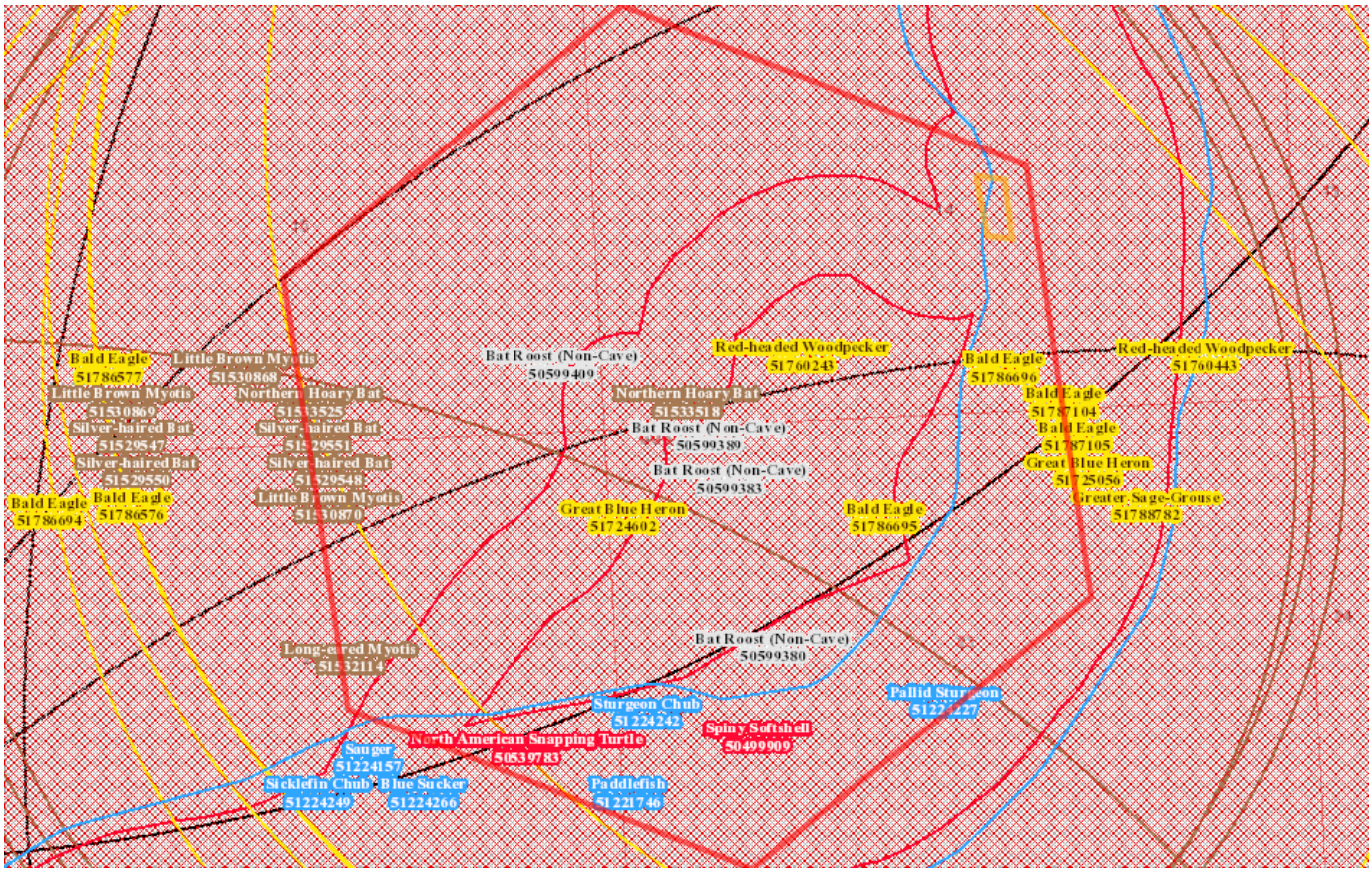
Num Obs
Count of obs with 'good precision' (<=1000m)
+ indicates additional 'poor precision' obs (1001m-10,000m)



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Native Species

Summarized by: **Swope Environmental Summary** *(Custom Area of Interest)*
Filtered by:
Native Species reports are filtered for Species with MT Status = Species of Concern, Special Status, Important Animal Habitat, Potential SOC



Species Occurrences

	USFWS Sec7	# SO	# Obs	Predicted Model	Range
F - Blue Sucker *(Cycleptus elongatus)* **SOC**		1			Y

View in Field Guide **View Predicted Models** **View Range Maps**
Species of Concern - Native Species Global: **G4** State: **S2** FWP SWAP: **SGCN**

Delineation Criteria Stream reaches where the species presence has been confirmed through direct capture or where they are believed to be present based on the professional judgement of a fisheries biologist due to confirmed presence in adjacent areas. In order to reflect the importance of adjacent terrestrial habitats to survival, stream reaches are buffered 100 meters into the terrestrial habitat based on PACFISH/INFISH Riparian Conservation Area standards. (Last Updated: Mar 18, 2024)

Predicted Models: N 100% Suitable (native range) (deductive)

F - Paddlefish *(Polyodon spathula)* **PSOC**		1			Y

View in Field Guide **View Predicted Models** **View Range Maps**
Potential Species of Concern - Native Species Global: **G3G4** State: **S3S4** BLM: **SENSITIVE** FWP SWAP: **SGCN**

Predicted Models: N 100% Suitable (native range) (deductive)

F - Pallid Sturgeon *(Scaphirhynchus albus)* **SOC**	7	1			Y

View in Field Guide **View Predicted Models** **View Range Maps**
Species of Concern - Native Species Global: **G2** State: **S1** USFWS: **LE** BLM: **ENDANGERED** FWP SWAP: **SGCN**

Delineation Criteria Stream reaches where the species presence has been confirmed through direct capture or where they are believed to be present based on the professional judgement of a fisheries biologist due to confirmed presence in adjacent areas. In order to reflect the importance of adjacent terrestrial habitats to survival, stream reaches are buffered 100 meters into the terrestrial habitat based on PACFISH/INFISH Riparian Conservation Area standards. (Last Updated: Mar 18, 2024)

Predicted Models: N 100% Suitable (native range) (deductive)

F - Sauger *(Sander canadensis)* **SOC**		1			Y

View in Field Guide **View Predicted Models** **View Range Maps**
Species of Concern - Native Species Global: **G5** State: **S3** BLM: **SENSITIVE** FWP SWAP: **SGCN**

Delineation Criteria Stream reaches and standing water bodies where the species presence has been confirmed through direct capture or where they are believed to be present based on the professional judgement of a fisheries biologist due to confirmed presence in adjacent areas. In order to reflect the importance of adjacent terrestrial habitats to survival, stream reaches are buffered 100 meters, standing water bodies greater than 1 acre are buffered 50 meters, and standing water bodies less than 1 acre are buffered 30 meters into the terrestrial habitat based on PACFISH/INFISH Riparian Conservation Area standards. (Last Updated: Mar 14, 2024)

Predicted Models: N 100% Suitable (native range) (deductive)

F - Sicklefin Chub *(Macrhybopsis meeki)* SOC 1 Y H

View in Field Guide | View Predicted Models | View Range Maps

Species of Concern - Native Species Global: **G3** State: **S2** FWP SWAP: **SGCN**

Delineation Criteria Stream reaches where the species presence has been confirmed through direct capture or where they are believed to be present based on the professional judgement of a fisheries biologist due to confirmed presence in adjacent areas. In order to reflect the importance of adjacent terrestrial habitats to survival, stream reaches are buffered 100 meters into the terrestrial habitat based on PACFISH/INFISH Riparian Conservation Area standards. (Last Updated: Mar 18, 2024)

Predicted Models: N 100% Suitable (native range) (deductive)

F - Sturgeon Chub *(Macrhybopsis gelida)* SOC 1 Y H

View in Field Guide | View Predicted Models | View Range Maps

Species of Concern - Native Species Global: **G3** State: **S2S3** BLM: **SENSITIVE** FWP SWAP: **SGCN**

Delineation Criteria Stream reaches where the species presence has been confirmed through direct capture or where they are believed to be present based on the professional judgement of a fisheries biologist due to confirmed presence in adjacent areas. In order to reflect the importance of adjacent terrestrial habitats to survival, stream reaches are buffered 100 meters into the terrestrial habitat based on PACFISH/INFISH Riparian Conservation Area standards. (Last Updated: Mar 18, 2024)

Predicted Models: N 100% Suitable (native range) (deductive)

B - Bald Eagle *(Haliaeetus leucocephalus)* SSS 7 21 Y

View in Field Guide | View Predicted Models | View Range Maps

Special Status Species - Native Species Global: **G5** State: **S4** USFWS: **BGEPA; MBTA** USFS: **Sensitive - Known in Forests (LOLO)** BLM: **SENSITIVE** PIF: **2**

Delineation Criteria Confirmed nesting area buffered by a minimum distance of 2,000 meters in order to be conservative about encompassing the breeding territory and area commonly used for renesting. Only nesting observations with a locational uncertainty of 1,000 meters or less will be used to delineate a nesting area. (Last Updated: Mar 19, 2026)

Predicted Models: O 100% Optimal (inductive)

R - North American Snapping Turtle *(Chelydra serpentina)* SOC 1 Y

View in Field Guide | View Predicted Models | View Range Maps

Species of Concern - Native/Non-native Species - (depends on location or taxa) Global: **G4G5** State: **S3** BLM: **SENSITIVE** FWP SWAP: **SGCN**

Delineation Criteria Stream reaches and standing water bodies within the species native range where their presence has been confirmed through direct capture or observation or where they are believed to be present based on the professional judgement of a biologist due to confirmed presence in adjacent areas. Occupied stream reaches are buffered up and downstream and into adjoining streams by 6,000 meters to encompass maximum reported annual travel distance. In order to reflect the importance of adjacent terrestrial habitats to survival, stream reaches and standing water bodies are buffered 100 meters into the terrestrial habitat based on PACFISH/INFISH Riparian Conservation Area standards. (Last Updated: Feb 18, 2026)

Predicted Models: O 100% Optimal (inductive)

R - Spiny Softshell *(Apalone spinifera)* SOC 1 2 Y H

View in Field Guide | View Predicted Models | View Range Maps

Species of Concern - Native Species Global: **G5** State: **S3** BLM: **SENSITIVE** FWP SWAP: **SGCN**

Delineation Criteria Stream reaches and impounded streams within the species' native range where the species naturally occurs and their presence has been confirmed through direct capture or where they are believed to be present based on the professional judgement of a biologist due to confirmed presence in adjacent areas. In order to reflect the importance of adjacent terrestrial habitats to survival, stream reaches are buffered 100 meters and impounded streams 50 meters into the terrestrial habitat based on PACFISH/INFISH Riparian Conservation Area standards. (Last Updated: Jan 30, 2026)

Predicted Models: O 100% Optimal (inductive)

B - Great Blue Heron *(Ardea herodias)* SOC 2 S M

View in Field Guide | View Predicted Models | View Range Maps

Species of Concern - Native Species Global: **G5** State: **S3** USFWS: **MBTA** FWP SWAP: **SGCN**

Delineation Criteria Confirmed nesting area buffered by a minimum distance of 6,500 meters in order to be conservative about encompassing the areas commonly used for foraging near the breeding colony. If the locational uncertainty associated with the observation is greater than 5,000 meters, the observation is not valid for creation of a species occurrence. (Last Updated: Mar 18, 2026)

Predicted Models: O 100% Optimal (inductive)

M - Little Brown Myotis *(Myotis lucifugus)* SOC 3 3 Y

View in Field Guide | View Predicted Models | View Range Maps

Species of Concern - Native Species Global: **G3G4** State: **S2S3** USFS: **Sensitive - Known in Forests (BD, BRT, KOOT)** FWP SWAP: **SGCN**

Delineation Criteria Confirmed area of occupancy based on the documented presence (mistnet captures, definitively identified acoustic recordings, or definitively identified roosting individuals) of adults or juveniles. Point observation location is buffered by a distance of 1,600 meters in order to encompass the greater than 1,500 meters foraging distance reported for the species in New Brunswick, Canada and otherwise buffered by the locational uncertainty associated with the observation up to a maximum distance of 5,000 meters. When cave locations are involved, point observations are mapped in the center of a one-square mile hexagon to protect the exact location of the cave entrance as per the Federal Cave Resource Protection Act and associated regulations (U.S. Code Title 16 Chapter 63, Code of Federal Regulations Title 43 Subtitle A Part 37). The outer edges of the hexagon are then buffered by a distance of 1,600 meters and otherwise by the locational uncertainty associated with the observation up to a maximum distance of 5,000 meters. All of the one-square mile hexagons intersecting this buffered area are presented as the Species Occurrence record. (Last Updated: Sep 24, 2025)

Predicted Models: M 100% Moderate (inductive)

M - Long-eared Myotis *(Myotis evotis)* SOC 1 Y

View in Field Guide | View Predicted Models | View Range Maps

Species of Concern - Native Species Global: **G5** State: **S3** FWP SWAP: **SGCN**

Delineation Criteria Confirmed area of occupancy based on the documented presence (mistnet captures, definitively identified acoustic recordings, and definitively identified roosting individuals) of adults or juveniles. Point observation location is buffered by a minimum distance of 1,000 meters in order to encompass the average distances traveled from capture locations to roosts and between roosts in western Montana, Alberta, and Oregon and otherwise buffered by the locational uncertainty associated with the observation up to a maximum distance of 5,000 meters. When cave locations are involved, point observations are mapped in the center of a one-square mile hexagon to protect the exact location of the cave entrance as per the Federal Cave Resource Protection Act and associated regulations (U.S. Code Title 16 Chapter 63, Code of Federal Regulations Title 43 Subtitle A Part 37). The outer edges of the hexagon are then buffered by a distance of 1,000 meters and otherwise by the locational uncertainty associated with the observation up to a maximum distance of 5,000 meters. All of the one-square mile hexagons intersecting this buffered area are presented as the Species Occurrence record. (Last Updated: Sep 24, 2025)

Predicted Models: M 100% Moderate (inductive)

M - Silver-haired Bat *(Lasionycteris noctivagans)* SOC 4 4 Y

View in Field Guide | View Predicted Models | View Range Maps

Species of Concern - Native Species Global: **G4** State: **S3** FWP SWAP: **SGCN**

Delineation Criteria Confirmed area of occupancy based on the documented presence (mistnet captures, definitively identified acoustic recordings, and definitively identified roosting individuals) of adults or juveniles during the active season. Point observation location is buffered by a minimum distance of 3,500 meters in order to be conservative about encompassing the maximum reported foraging distance and otherwise buffered by the locational uncertainty associated with the observation up to a maximum distance of 5,000 meters. (Last Updated: Sep 24, 2025)

Predicted Models: M 100% Moderate (inductive)

M - Northern Hoary Bat *(Lasiurus cinereus)* **SOC** | 2 | 2 | S | M

View in Field Guide **View Predicted Models** **View Range Maps**

Species of Concern - Native Species Global: **G3G4** State: **S3B** BLM: **SENSITIVE** FWP SWAP: **SGCN**

Delineation Criteria Confirmed area of occupancy based on the documented presence (mistnet captures, definitively identified acoustic recordings, and definitively identified roosting individuals) of adults or juveniles during the active season. Point observation location is buffered by a minimum distance of 3,500 meters in order to be conservative about encompassing the maximum reported foraging distance for the congeneric Lasiurus borealis and otherwise buffered by the locational uncertainty associated with the observation up to a maximum distance of 5,000 meters. (Last Updated: Sep 24, 2025)

Predicted Models: M 100% Moderate (inductive)

B - Greater Sage-Grouse *(Centrocercus urophasianus)* **SOC** | 1 | Y

View in Field Guide **View Predicted Models** **View Range Maps**

USFS: **Sensitive - Known in Forests (BD)**

Species of Concern - Native Species Global: **G3** State: **S2** **Species of Conservation Concern in Forests (CG)** BLM: **SENSITIVE** FWP SWAP: **SGCN** PIF: **1**

Delineation Criteria Confirmed breeding area based on the presence of a nest, chicks, juveniles, or adults on a lek. Point observations are mapped in the center of a one-square mile hexagon to protect the exact locations of leks. The outer edges of this hexagon are then buffered by a distance of 6,400 meters in order to encompass a body of research indicating that females typically nest within this distance of a lek and that lek numbers are negatively impacted by fossil fuel drilling activities within this distance of a lek. If the locational uncertainty associated with the observation is greater than 5,000 meters, the observation is not valid for creation of a species occurrence. All of the one-square mile hexagons intersecting this buffered area are presented as the Species Occurrence record. (Last Updated: Mar 19, 2026)

Predicted Models: L 100% Low (inductive)

B - Red-headed Woodpecker *(Melanerpes erythrocephalus)* **SOC** | 2 | 2 | S | M

View in Field Guide **View Predicted Models** **View Range Maps**

Species of Concern - Native Species Global: **G5** State: **S3B** USFWS: **MBTA; BCC11; BCC17** BLM: **SENSITIVE** FWP SWAP: **SGCN** PIF: **2**

Delineation Criteria Confirmed breeding area based on the presence of a nest, chicks, or territorial adults during the breeding season. Point observation location is buffered by a minimum distance of 165 meters in order to encompass the maximum breeding territory size reported for the species and otherwise is buffered by the locational uncertainty associated with the observation up to a maximum distance of 5,000 meters. (Last Updated: Mar 18, 2026)

Predicted Models: L 100% Low (inductive)

O - Bat Roost (Non-Cave) *(Bat Roost (Non-Cave))* **IAH** | 4 | Not Assessed

View in Field Guide

Important Animal Habitat - Native Species Global: **GNR** State: **SNR**

Delineation Criteria Confirmed area of occupancy based on the documented presence of adults or juveniles of any bat species at non-cave natural roost sites (e.g. rock outcrops, trees), below ground human created roost sites (e.g. mines), and above ground human created roost sites (e.g., bridges, buildings). Point observation locations are buffered by a distance of 4,500 meters in order to encompass the 95% confidence interval for nightly foraging distance reported for Townsend's Big-eared Bat (a resident Montana bat Species of Concern) and otherwise by the locational uncertainty associated with the observation up to a maximum distance of 5,000 meters. (Last Updated: Oct 22, 2019)

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Legend

Model Icons	Habitat Icons	Range Icons	Num Obs
N Suitable (native range)	C Common	Y Native / Year-round	Count of obs with 'good precision' (<=1000m)
O Optimal Suitability	O Occasional	S Summer	+ indicates additional 'poor precision' obs (1001m-10,000m)
M Moderate Suitability		W Winter	
L Low Suitability		M Migratory	
I Suitable (introduced range)		N Non-native	
		H Historical	



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46.43192	-105.80766
46.44893	-105.83298

Native Species

Summarized by: **Swope Environmental Summary** *(Custom Area of Interest)*
Filtered by:
Native Species reports are filtered for Species with MT Status = Species of Concern, Special Status, Important Animal Habitat, Potential SOC

Other Observed Species

	USFWS Sec7	# Obs	Predicted Model	Range
B - Eastern Screech-Owl *(Megascops asio)* **PSOC**		1		Y
B - American White Pelican *(Pelecanus erythrorhynchos)* **SOC**		2		S M
B - Common Poorwill *(Phalaenoptilus nuttallii)* **PSOC**		1		S M
B - Ovenbird *(Seiurus aurocapilla)* **PSOC**		3		S M
B - Black-and-white Warbler *(Mniotilta varia)* **PSOC**		1		S M
B - Brewer's Sparrow *(Spizella breweri)* **SOC**		1		S M
B - Loggerhead Shrike *(Lanius ludovicianus)* **SOC**		1		S M
B - Veery *(Catharus fuscescens)* **SOC**		1		S M
B - Franklin's Gull *(Leucophaeus pipixcan)* **SOC**		2	Not Assessed	M
B - Tennessee Warbler *(Leiothlypis peregrina)* **PSOC**		1	Not Assessed	M

B - Eastern Screech-Owl *(Megascops asio)* **PSOC**

View in Field Guide | View Predicted Models | View Range Maps
Potential Species of Concern - Native Species Global: **G5** State: **S3S4** USFWS: **MBTA** FWP SWAP: **SGCN** PIF: **3**
Predicted Models: O 100% Optimal (inductive)

B - American White Pelican *(Pelecanus erythrorhynchos)* **SOC**

View in Field Guide | View Predicted Models | View Range Maps
Species of Concern - Native Species Global: **G4** State: **S3B** USFWS: **MBTA** FWP SWAP: **SGCN** PIF: **3**
Predicted Models: M 100% Moderate (inductive)

B - Common Poorwill *(Phalaenoptilus nuttallii)* **PSOC**

View in Field Guide | View Predicted Models | View Range Maps
Potential Species of Concern - Native Species Global: **G5** State: **S4B** USFWS: **MBTA** FWP SWAP: **SGIN** PIF: **3**
Predicted Models: M 100% Moderate (inductive)

B - Ovenbird *(Seiurus aurocapilla)* **PSOC**

View in Field Guide | View Predicted Models | View Range Maps
Potential Species of Concern - Native Species Global: **G5** State: **S4B** USFWS: **MBTA** PIF: **3**
Predicted Models: M 100% Moderate (inductive)

B - Black-and-white Warbler *(Mniotilta varia)* **PSOC**

View in Field Guide | View Predicted Models | View Range Maps
Potential Species of Concern - Native Species Global: **G5** State: **S4B** USFWS: **MBTA**
Predicted Models: L 100% Low (inductive)

B - Brewer's Sparrow *(Spizella breweri)* **SOC**

View in Field Guide | View Predicted Models | View Range Maps
Species of Concern - Native Species Global: **G5** State: **S3B** USFWS: **MBTA** BLM: **SENSITIVE** FWP SWAP: **SGCN** PIF: **2**
Predicted Models: L 100% Low (inductive)

B - Loggerhead Shrike *(Lanius ludovicianus)* **SOC**

View in Field Guide | View Predicted Models | View Range Maps
Species of Concern - Native Species Global: **G4** State: **S3B** USFWS: **MBTA** BLM: **SENSITIVE** FWP SWAP: **SGCN** PIF: **2**
Predicted Models: L 100% Low (inductive)

B - Veery *(Catharus fuscescens)* **SOC**

View in Field Guide | View Predicted Models | View Range Maps
Species of Concern - Native Species Global: **G5** State: **S3B** USFWS: **MBTA** BLM: **SENSITIVE** FWP SWAP: **SGCN** PIF: **2**
Predicted Models: L 100% Low (inductive)

B - Franklin's Gull *(Leucophaeus pipixcan)* **SOC**

View in Field Guide | View Range Maps
Species of Concern - Native Species Global: **G5** State: **S3B** USFWS: **MBTA; BCC10; BCC11; BCC17** BLM: **SENSITIVE** FWP SWAP: **SGCN** PIF: **2**

B - Tennessee Warbler *(Leiothlypis peregrina)* **PSOC**

View in Field Guide | View Range Maps
Potential Species of Concern - Native Species Global: **G5** State: **S3S4B** USFWS: **MBTA** FWP SWAP: **SGCN**

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Native Species

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Other Potential Species

	USFWS Sec7	Predicted Model	Range
F - Burbot *(Lota lota)* PSOC			Y
F - Creek Chub *(Semotilus atromaculatus)* PSOC			Y
F - Plains Minnow *(Hybognathus placitus)* PSOC			Y
R - Western Milksnake *(Lampropeltis gentilis)* SOC			Y
I - Bombus pensylvanicus *(American Bumble Bee)* SOC			Y
B - Black-billed Cuckoo *(Coccyzus erythropthalmus)* SOC			S M
B - Least Tern *(Sternula antillarum)* SOC			S M
B - Yellow-billed Cuckoo *(Coccyzus americanus)* SOC			S M
M - Fringed Myotis *(Myotis thysanodes)* SOC			Y
M - Merriam's Shrew *(Sorex merriami)* SOC			Y
M - North American Porcupine *(Erethizon dorsatum)* PSOC			Y
M - Townsend's Big-eared Bat *(Corynorhinus townsendii)* SOC			Y

View in Field Guide **View Predicted Models** **View Range Maps**

F - Burbot *(Lota lota)* PSOC
Potential Species of Concern - Native Species Global: **G5** State: **S4** FWP SWAP: **SGIN**
Predicted Models: N 100% Suitable (native range) (deductive)

F - Creek Chub *(Semotilus atromaculatus)* PSOC
Potential Species of Concern - Native/Non-native Species - (depends on location or taxa) Global: **G5** State: **S4** FWP SWAP: **SGIN**
Predicted Models: N 100% Suitable (native range) (deductive)

F - Plains Minnow *(Hybognathus placitus)* PSOC
Potential Species of Concern - Native Species Global: **G4** State: **S4** FWP SWAP: **SGIN**
Predicted Models: N 100% Suitable (native range) (deductive)

R - Western Milksnake *(Lampropeltis gentilis)* SOC
Species of Concern - Native Species Global: **G5** State: **S2** BLM: **SENSITIVE** FWP SWAP: **SGCN**
Predicted Models: O 100% Optimal (inductive)

I - Bombus pensylvanicus *(American Bumble Bee)* SOC
Species of Concern - Native Species Global: **G3G4** State: **S3** FWP SWAP: **SGCN**
Predicted Models: O 100% Optimal (inductive)

B - Black-billed Cuckoo *(Coccyzus erythropthalmus)* SOC
Species of Concern - Native Species Global: **G5** State: **S3B** USFWS: **MBTA; BCC11; BCC17** BLM: **SENSITIVE** FWP SWAP: **SGCN** PIF: **2**
Predicted Models: O 100% Optimal (inductive)

B - Least Tern *(Sternula antillarum)* SOC
Species of Concern - Native Species Global: **G4** State: **S2B** USFWS: **DM; MBTA** BLM: **SENSITIVE** FWP SWAP: **SGCN** PIF: **1**
Predicted Models: O 100% Optimal (inductive)

B - Yellow-billed Cuckoo *(Coccyzus americanus)* SOC
Species of Concern - Native Species Global: **G5** State: **S3B** USFWS: **PS: LT; MBTA** BLM: **THREATENED** FWP SWAP: **SGCN** PIF: **2**
Predicted Models: O 100% Optimal (inductive)

M - Fringed Myotis *(Myotis thysanodes)* SOC
Species of Concern - Native Species Global: **G4** State: **S3** BLM: **SENSITIVE** FWP SWAP: **SGCN**
Predicted Models: M 100% Moderate (inductive)

M - Merriam's Shrew *(Sorex merriami)* SOC
Species of Concern - Native Species Global: **G4** State: **S3** FWP SWAP: **SGCN**
Predicted Models: M 100% Moderate (inductive)

M - North American Porcupine *(Erethizon dorsatum)* PSOC
Potential Species of Concern - Native Species Global: **G5** State: **S3S4** FWP SWAP: **SGCN**
Predicted Models: M 100% Moderate (inductive)

M - Townsend's Big-eared Bat *(Corynorhinus townsendii)* SOC
Species of Concern - Native Species Global: **G4** State: **S3** USFS: **Sensitive - Known in Forests (LOLO)** BLM: **SENSITIVE** FWP SWAP: **SGCN**
Predicted Models: M 100% Moderate (inductive)

B - Sharp-tailed Grouse *(Tympanuchus phasianellus)* SOC

View in Field Guide View Predicted Models View Range Maps
Species of Concern - Native Species Global: **G5** State: **S3S4** FWP SWAP: **SGCN** PIF: **2**
Predicted Models: M 100% Moderate (inductive)

A - Great Plains Toad *(Anaxyrus cognatus)* SOC

View in Field Guide View Predicted Models View Range Maps
Species of Concern - Native Species Global: **G5** State: **S3** BLM: **SENSITIVE** FWP SWAP: **SGCN**
Predicted Models: M 100% Moderate (inductive)

A - Northern Leopard Frog *(Lithobates pipiens)* SOC

View in Field Guide View Predicted Models View Range Maps
Species of Concern - Native Species Global: **G5** State: **S3S4** USFS: **Sensitive - Suspected in Forests (KOOT, LOLO)** BLM: **SENSITIVE** FWP SWAP: **SGCN**
Predicted Models: M 100% Moderate (inductive)

V - Chenopodium subglabrum *(Smooth Goosefoot)* SOC

View in Field Guide View Predicted Models View Range Maps
Species of Concern - Native Species Global: **G3G4** State: **S2S3** Plant Threat Score: **Unknown** CCVI: **Highly Vulnerable**
Predicted Models: M 100% Moderate (inductive)

V - Cyperus schweinitzii *(Schweinitz's Flatsedge)* SOC

View in Field Guide View Predicted Models View Range Maps
Species of Concern - Native Species Global: **G5** State: **S2** Plant Threat Score: **Low** FWP SWAP: **SGCN**
Predicted Models: M 100% Moderate (inductive)

V - Dalea enneandra *(Nine-anther prairie clover)* SOC

View in Field Guide View Predicted Models View Range Maps
Species of Concern - Native Species Global: **G5** State: **S2S3** Plant Threat Score: **No Known Threats**
Predicted Models: M 100% Moderate (inductive)

V - Psilocarphus brevissimus *(Dwarf woolly-heads)* SOC

View in Field Guide View Predicted Models View Range Maps
Species of Concern - Native Species Global: **G4** State: **S3** Plant Threat Score: **No Known Threats**
Predicted Models: M 100% Moderate (inductive)

M - Eastern Red Bat *(Lasiurus borealis)* SOC

View in Field Guide View Predicted Models View Range Maps
Species of Concern - Native Species Global: **G3G4** State: **S3B** BLM: **SENSITIVE** FWP SWAP: **SGCN**
Predicted Models: M 100% Moderate (inductive)

B - Chimney Swift *(Chaetura pelagica)* PSOC

View in Field Guide View Predicted Models View Range Maps
Potential Species of Concern - Native Species Global: **G4G5** State: **S3S4B** USFWS: **MBTA; BCC11** FWP SWAP: **SGCN** PIF: **3**
Predicted Models: M 100% Moderate (inductive)

B - Plumbeous Vireo *(Vireo plumbeus)* PSOC

View in Field Guide View Predicted Models View Range Maps
Potential Species of Concern - Native Species Global: **G5** State: **S3S4B** USFWS: **MBTA** FWP SWAP: **SGCN** PIF: **3**
Predicted Models: M 100% Moderate (inductive)

I - Danaus plexippus *(Monarch)* SOC

View in Field Guide View Predicted Models View Range Maps
Species of Concern - Native Species Global: **G4** State: **S2S3** USFWS: **P** USFS: **Sensitive - Migratory in Forests (BD, BRT, KOOT)** FWP SWAP: **SGCN**
Predicted Models: M 100% Moderate (inductive)

M - Black-tailed Prairie Dog *(Cynomys ludovicianus)* SOC

View in Field Guide View Predicted Models View Range Maps
Species of Concern - Native Species Global: **G4** State: **S3** BLM: **SENSITIVE** FWP SWAP: **SGCN**
Predicted Models: L 100% Low (inductive)

M - Dwarf Shrew *(Sorex nanus)* PSOC

View in Field Guide View Predicted Models View Range Maps
Potential Species of Concern - Native Species Global: **G4** State: **S2S3** FWP SWAP: **SGIN**
Predicted Models: L 100% Low (inductive)

M - Long-legged Myotis *(Myotis volans)* SOC

View in Field Guide View Predicted Models View Range Maps
Species of Concern - Native Species Global: **G4G5** State: **S3** FWP SWAP: **SGCN**
Predicted Models: L 100% Low (inductive)

M - Prairie Shrew *(Sorex haydeni)* PSOC

View in Field Guide View Predicted Models View Range Maps
Potential Species of Concern - Native Species Global: **G5** State: **S3S4** FWP SWAP: **SGCN**
Predicted Models: L 100% Low (inductive)

R - Greater Short-horned Lizard *(Phrynosoma hernandesi)* SOC

View in Field Guide View Predicted Models View Range Maps
Species of Concern - Native Species Global: **G5** State: **S3** BLM: **SENSITIVE** FWP SWAP: **SGCN**
Predicted Models: L 100% Low (inductive)

R - Western Hog-nosed Snake *(Heterodon nasicus)* SOC

View in Field Guide View Predicted Models View Range Maps
Species of Concern - Native Species Global: **G5T5** State: **S2** BLM: **SENSITIVE** FWP SWAP: **SGCN**
Predicted Models: L 100% Low (inductive)

I - Bombus occidentalis *(Western Bumble Bee)* SOC

View in Field Guide View Predicted Models View Range Maps
Species of Concern - Native Species Global: **G3** State: **S2** USFS: **Sensitive - Known in Forests (BD, BRT, KOOT)** BLM: **SENSITIVE** FWP SWAP: **SGCN**
Predicted Models: L 100% Low (inductive)

I - Bombus suckleyi *(Suckley's Cuckoo Bumble Bee)* SOC

View in Field Guide View Predicted Models View Range Maps
Species of Concern - Native Species Global: **G2G3** State: **S1** USFWS: **P** FWP SWAP: **SGCN**
Predicted Models: L 100% Low (inductive)

V - Astragalus geyeri *(Geyer's Milkvetch)* SOC

View in Field Guide View Predicted Models View Range Maps
Species of Concern - Native Species Global: **G4** State: **S2S3** Plant Threat Score: **No Known Threats** CCVI: **Highly Vulnerable**
Predicted Models: L 100% Low (inductive)

V - Carex crawei *(Crawe's Sedge)* SOC

View in Field Guide View Predicted Models View Range Maps
Species of Concern - Native Species Global: **G5** State: **S2S3** Plant Threat Score: **Low**
Predicted Models: L 100% Low (inductive)

V - Elodea bifoliata *(Long-sheath Waterweed)* SOC

View in Field Guide View Predicted Models View Range Maps
Species of Concern - Native Species Global: **G4G5** State: **S2?** Plant Threat Score: **No Known Threats**
Predicted Models: L 100% Low (inductive)

V - Ipomoea leptophylla *(Bush morning-glory)* SOC

View in Field Guide View Predicted Models View Range Maps
Species of Concern - Native Species Global: **G3G5** State: **S2?** Plant Threat Score: **No Known Threats**
Predicted Models: L 100% Low (inductive)

V - Senecio integerrimus var. scribneri *(Scribner's Ragwort)* SOC

View in Field Guide View Predicted Models View Range Maps
Species of Concern - Native Species Global: **G5T2T3** State: **S2S3** Plant Threat Score: **No Known Threats** CCVI: **Less Vulnerable**
Predicted Models: L 100% Low (inductive)

M - Spotted Bat *(Euderma maculatum)* PSOC

View in Field Guide View Predicted Models View Range Maps
Potential Species of Concern - Native Species Global: **G4** State: **S4** BLM: **SENSITIVE** FWP SWAP: **SGIN**
Predicted Models: L 100% Low (inductive)

B - American Bittern *(Botaurus lentiginosus)* SOC

View in Field Guide View Predicted Models View Range Maps
Species of Concern - Native Species Global: **G5** State: **S3B** USFWS: **MBTA** BLM: **SENSITIVE** FWP SWAP: **SGCN** PIF: **3**
Predicted Models: L 100% Low (inductive)

B - Baird's Sparrow *(Centronyx bairdii)* SOC

View in Field Guide View Predicted Models View Range Maps
Species of Concern - Native Species Global: **G4** State: **S3B** USFWS: **MBTA; BCC11; BCC17** BLM: **SENSITIVE** FWP SWAP: **SGCN** PIF: **1**
Predicted Models: L 100% Low (inductive)

B - Black Tern *(Chlidonias niger)* SOC

View in Field Guide View Predicted Models View Range Maps
Species of Concern - Native Species Global: **G4G5** State: **S3B** USFWS: **MBTA; BCC10; BCC11; BCC17** BLM: **SENSITIVE** FWP SWAP: **SGCN** PIF: **2**
Predicted Models: L 100% Low (inductive)

B - Bobolink *(Dolichonyx oryzivorus)* SOC

View in Field Guide View Predicted Models View Range Maps
Species of Concern - Native Species Global: **G5** State: **S3B** USFWS: **MBTA; BCC10; BCC11; BCC17** FWP SWAP: **SGCN** PIF: **3**
Predicted Models: L 100% Low (inductive)

B - Burrowing Owl *(Athene cunicularia)* SOC

View in Field Guide View Predicted Models View Range Maps
Species of Concern - Native Species Global: **G4** State: **S3B** USFWS: **MBTA; BCC17** BLM: **SENSITIVE** FWP SWAP: **SGCN** PIF: **1**
Predicted Models: L 100% Low (inductive)

B - Cassin's Kingbird *(Tyrannus vociferans)* PSOC

View in Field Guide View Predicted Models View Range Maps
Potential Species of Concern - Native Species Global: **G5** State: **S4B** USFWS: **MBTA**
Predicted Models: L 100% Low (inductive)

B - Dickcissel *(Spiza americana)* PSOC

View in Field Guide View Predicted Models View Range Maps
Potential Species of Concern - Native Species Global: **G5** State: **S4B** USFWS: **MBTA**
Predicted Models: L 100% Low (inductive)

B - Eastern Bluebird *(Sialia sialis)* **PSOC**

View in Field Guide **View Predicted Models** **View Range Maps**
Potential Species of Concern - Native Species Global: **G5** State: **S4B** USFWS: **MBTA**
Predicted Models: L 100% Low (inductive)

B - Long-billed Curlew *(Numenius americanus)* **SOC**

View in Field Guide **View Predicted Models** **View Range Maps**
Species of Concern - Native Species Global: **G4** State: **S3B** USFWS: **MBTA; BCC11** BLM: **SENSITIVE** FWP SWAP: **SGCN** PIF: **2**
Predicted Models: L 100% Low (inductive)

B - Sage Thrasher *(Oreoscoptes montanus)* **SOC**

View in Field Guide **View Predicted Models** **View Range Maps**
Species of Concern - Native Species Global: **G4** State: **S3B** USFWS: **MBTA** BLM: **SENSITIVE** FWP SWAP: **SGCN** PIF: **3**
Predicted Models: L 100% Low (inductive)

B - Whooping Crane *(Grus americana)* **SOC**

View in Field Guide **View Predicted Models** **View Range Maps**
Species of Concern - Native Species Global: **G1** State: **S1M** USFWS: **LE; MBTA** BLM: **ENDANGERED** FWP SWAP: **SGCN**
Predicted Models: L 100% Low (inductive)

B - Sprague's Pipit *(Anthus spragueii)* **SOC** Not Assessed

View in Field Guide **View Range Maps**
Species of Concern - Native Species Global: **G3G4** State: **S3B** USFWS: **MBTA; BCC11; BCC17** BLM: **SENSITIVE** FWP SWAP: **SGCN** PIF: **1**

M - Northern Myotis *(Myotis septentrionalis)* **SOC** Not Assessed

View in Field Guide
Species of Concern - Native Species Global: **G2G3** State: **S1S2** USFWS: **LE** BLM: **ENDANGERED** FWP SWAP: **SGCN**

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Structured Surveys

Summarized by: **Swope Environmental Summary** *(Custom Area of Interest)*

The Montana Natural Heritage Program (MTNHP) records information on the locations where more than 80 different types of well-defined repeatable survey protocols capable of detecting an animal species or suite of animal species have been conducted by state, federal, tribal, university, or private consulting biologists. Examples of structured survey protocols tracked by MTNHP include: visual encounter and dip net surveys for pond breeding amphibians, point counts for birds, call playback surveys for selected bird species, visual surveys of migrating raptors, kick net stream reach surveys for macroinvertebrates, visual encounter cover object surveys for terrestrial mollusks, bat acoustic or mist net surveys, pitfall and/or snap trap surveys for small terrestrial mammals, track or camera trap surveys for large mammals, and trap surveys for turtles. Whenever possible, photographs of survey locations are stored in MTNHP databases.

MTNHP does not typically manage information on structured surveys for plants; surveys for invasive species may be a future exception.

Within the report area you have requested, structured surveys are summarized by the number of each type of structured survey protocol that has been conducted, the number of species detections/observations resulting from these surveys, and the most recent year a survey has been conducted.

B-Bald Eagle Nest *(Bald Eagle Nest Survey)*	**Survey Count**: 16	**Obs Count**: 15	**Recent Survey**: 2024
B-Black-billed Cuckoo *(Cuckoo Passive Acoustic Recording)*	**Survey Count**: 3	**Obs Count**:	**Recent Survey**: 2022
B-Cuckoo Playback Survey *(Riparian Playback Surveys for Cuckoos)*	**Survey Count**: 1	**Obs Count**:	**Recent Survey**: 2022
B-Piping Plover/Least Tern VES *(Piping Plover and Least Tern Surveys)*	**Survey Count**: 4	**Obs Count**:	**Recent Survey**: 2012
E-Eurasian Water-milfoil Rake *(Rake tows/pulls for Eurasian Water-milfoil)*	**Survey Count**: 1	**Obs Count**:	**Recent Survey**: 2006
E-Invasive Mussel Plankton Tow *(Plankton tows for veligers of Invasive Mussels)*	**Survey Count**: 1	**Obs Count**:	**Recent Survey**: 2006
E-Kicknet *(Kicknet Collection Survey for Invasive Mussels and Snails)*	**Survey Count**: 1	**Obs Count**:	**Recent Survey**: 2006
E-Noxious Weed, Road-based *(Noxious Weed Road-based Visual Surveys)*	**Survey Count**: 1	**Obs Count**: 2	**Recent Survey**: 2003
E-Visual Aquatic Invasives *(Visual Encounter Surveys for Aquatic Invasives on Shorelines or Underwater)*	**Survey Count**: 13	**Obs Count**: 1	**Recent Survey**: 2012
I-Light Traps *(Light Trapping for Nocturnal Insects)*	**Survey Count**: 3	**Obs Count**: 5	**Recent Survey**: 2025
I-Mosquito Traps *(Montana Mosquito Surveillance Project)*	**Survey Count**: 1	**Obs Count**: 2	**Recent Survey**: 2013
M-Bat Acoustic *(Bat Acoustic Survey)*	**Survey Count**: 6	**Obs Count**: 11	**Recent Survey**: 2015
M-Bat Mistnet *(Bat Mistnet Survey)*	**Survey Count**: 1	**Obs Count**: 3	**Recent Survey**: 2015
P-Algal scraping *(Algal Scraping)*	**Survey Count**: 2	**Obs Count**: 82	**Recent Survey**: 2007

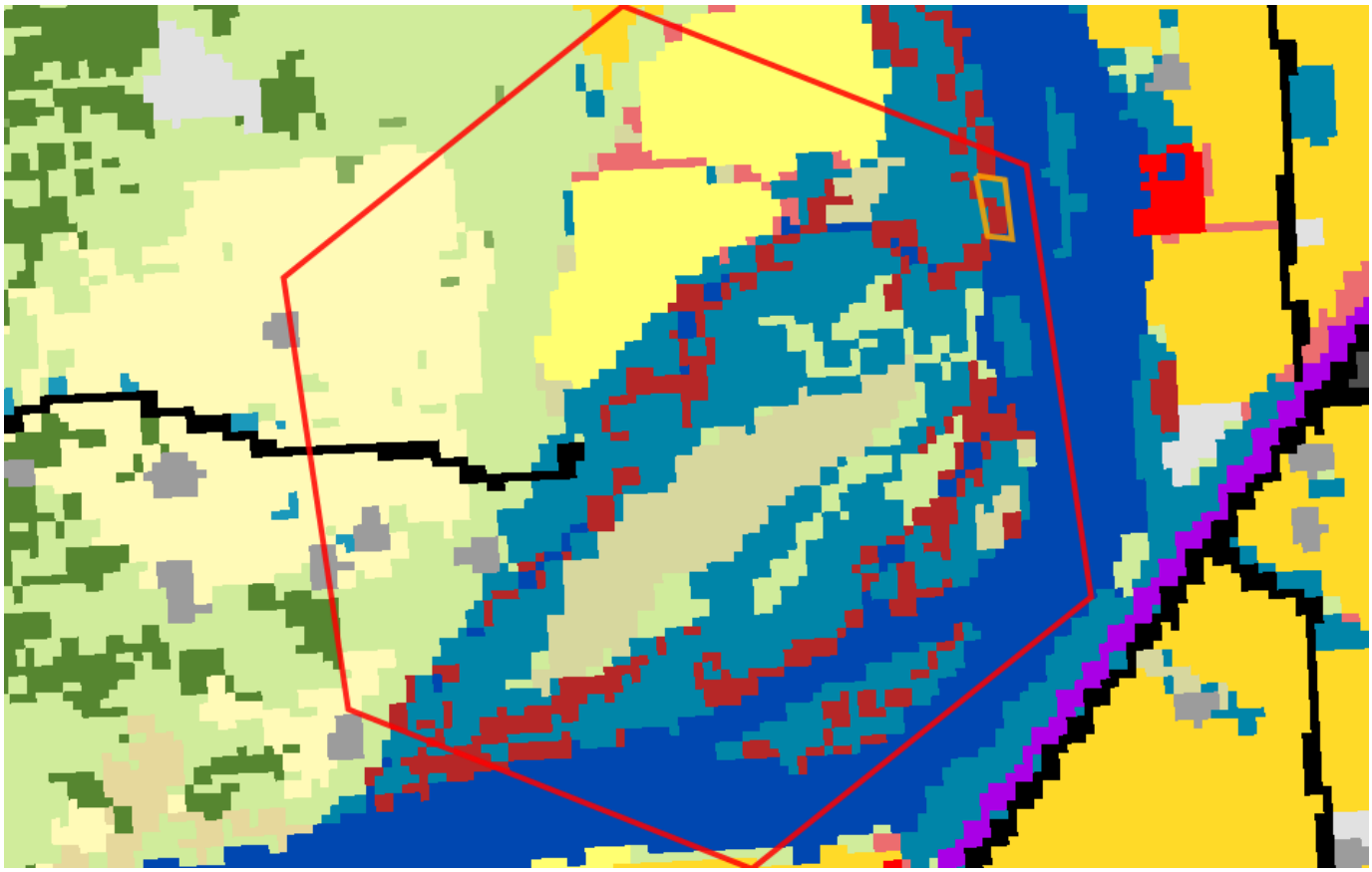
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Land Cover

Summarized by: **Swope Environmental Summary** *(Custom Area of Interest)*





27% (*174 Acres*)

Wetland and Riparian Systems
Floodplain and Riparian

Great Plains Floodplain

This system occurs along the Missouri and Yellowstone Rivers and their larger tributaries, including parts of the Little Missouri, Clark's Fork Yellowstone, Powder, Tongue, Bighorn, Milk, and Musselshell rivers. These are the big perennial rivers of the region, with hydrologic dynamics largely driven by snowmelt and rainfall originating in their headwater watersheds, rather than local precipitation events. In the absence of disturbance, periodic flooding of fluvial and alluvial soils and channel migration will create depressions and backwaters that support a mosaic of wetland and riparian vegetation, whose composition and structure is sustained, altered and redistributed by hydrology. Dominant communities within this system range from floodplain forests to wet meadows to gravel/sand flats, linked by underlying soils and flooding regimes. In the western part of the system's range in Montana, the overstory dominant species is black cottonwood (*Populus balsamifera ssp. trichocarpa*) with narrowleaf cottonwood *(Populus angustifolia)* and eastern cottonwood (*Populus deltoides)* occurring as co-dominants in the riparian/floodplain interface near the mountains. Further east, narrowleaf cottonwood and Plains cottonwood become dominant. In relatively undisturbed stands, willow (*Salix* species), redosier dogwood (*Cornus sericea*) and common chokecherry (*Prunus virginiana*) form a thick, multi-layered shrub understory, with a mixture of cool and warm season graminoid species below.

In Montana, many occurrences are now degraded to the point where the cottonwood overstory is the only remaining natural component. The hydrology of these floodplain systems has been affected by dams, highways, railroads and agricultural ditches, and as a result, they have lost their characteristic wetland /riparian mosaic structure. This has resulted in a highly altered community consisting of relict cottonwood stands with little regeneration. The understory vegetation is dominated by non-native pasture grasses, legumes and other introduced forbs, or by the disclimax western snowberry (*Symphoricarpos occidentalis*) and rose (*Rosa* species) shrub community.



16% (*105 Acres*)

Grassland Systems
Lowland/Prairie Grassland
Great Plains Mixedgrass Prairie

The system covers much of the eastern two-thirds of Montana, occurring continuously for hundreds of square kilometers, interrupted only by wetland/riparian areas or sand prairies. Soils are primarily fine and medium-textured. The growing season averages 115 days, ranging from 100 days on the Canadian border to 130 days on the Wyoming border. Climate is typical of mid-continental regions with long severe winters and hot summers. Grasses typically comprise the greatest canopy cover, and western wheatgrass (*Pascopyrum smithii*) is usually dominant. Other species include thickspike wheatgrass (*Elymus lanceolatus*), green needlegrass (*Nassella viridula*), blue grama (*Bouteloua gracilis*), and needle and thread (*Hesperostipa comata*). Near the Canadian border in north-central Montana, this system grades into rough fescue (*Festuca campestris)* and Idaho fescue (*Festuca idahoensis*) grasslands. Remnants of shortbristle needle and thread *(Hesperostipa curtiseta)* dominated vegetation are found in northernmost Montana and North Dakota, and are associated with productive sites, now mostly converted to farmland. Forb diversity is typically high. In areas of southeastern and central Montana where sagebrush steppe borders the mixed grass prairie, common plant associations include Wyoming big sagebrush-western wheatgrass (*Artemisia tridentata* ssp. *wyomingensis/ Pascopyrum smithii*). Fire and grazing are the primary drivers of this system. Drought can also impact it, in general favoring the shortgrass component at the expense of the mid-height grasses. With intensive grazing, cool season exotics such as Kentucky bluegrass (*Poa pratensis*), smooth brome (*Bromus inermis*), and Japanese brome (*Bromus japonicus*) increase in dominance; both of these rhizomatous species have been shown to markedly decrease species diversity. Previously cultivated acres that have been re-vegetated with non-native plants have been transformed into associations such as Kentucky bluegrass (*Poa pratensis*)/western wheatgrass *(Pascopyrum smithii)* or into pure crested wheatgrass (*Agropyron cristatum)* stands.



15% (*94 Acres*)

Wetland and Riparian Systems
Open Water
Open Water

All areas of open water, generally with less than 25% cover of vegetation or soil



11% (*71 Acres*)

Shrubland, Steppe and Savanna Systems
Sagebrush Steppe
Big Sagebrush Steppe

This widespread ecological system occurs throughout much of central Montana, and north and east onto the western fringe of the Great Plains. In central Montana, where this system occurs on both glaciated and non-glaciated landscapes, it differs slightly, with more summer rain than winter precipitation and more precipitation annually. Throughout its distribution, soils are typically deep and non-saline, often with a microphytic crust. This shrub-steppe is dominated by perennial grasses and forbs with greater than 25% cover. Overall shrub cover is less than 10 percent. In Montana and Wyoming, stands are more mesic, with more biomass of grass, and have less shrub diversity than stands farther to the west, and 50 to 90% of the occurrences are dominated by Wyoming big sagebrush with western wheatgrass (*Pascopyrum smithii*). Japanese brome (*Bromus japonicus*) and cheatgrass (*Bromus tectorum*) are indicators of disturbance, but cheatgrassis typically not as abundant as in the Intermountain West, possibly due to a colder climate. The natural fire regime of this ecological system maintains a patchy distribution of shrubs, preserving the steppe character. Shrubs may increase following heavy grazing and/or with fire suppression. In central and eastern Montana, complexes of prairie dog towns are common in this ecological system.



11% (*67 Acres*)

Human Land Use
Agriculture
Pasture/Hay

These agriculture lands typically have perennial herbaceous cover (e.g. regularly-shaped plantings) used for livestock grazing or the production of hay. There are obvious signs of management such as irrigation and haying that distinguish it from natural grasslands. Identified CRP lands are included in this land cover type.



9% (*55 Acres*)

Grassland Systems
Lowland/Prairie Grassland
Great Plains Sand Prairie

The sand prairies constitute a very unique system within the western Great Plains. The unifying and controlling feature for this system is that coarse-textured soils predominate and the dominant grasses are well-adapted to this condition. In the northwestern portion of the system's range, stand size corresponds to the area of exposed caprock sandstone, and small patches predominate, but larger patches are found embedded in the encompassing Great Plains Mixed Grass Prairie, and usually occupy higher positions in local landscapes where former caprock formations have eroded into more subdued and planar topography. In most of eastern Montana, substrates supporting this system have weathered in place from sandstone caprock. Soils can be relatively thin or deep due to varying amounts of downslope movement of weathered sands. Needle and thread (*Hesperostipa comata*) is the dominant grass species. Other frequent species include little bluestem (*Schizachyrium scoparium*), often occurring with threadleaf sedge (*Carex filifolia*) and dominating both sandy sites and actively eroding sites. Prairie sandreed (*Calamovilfa longifolia*), sand bluestem (*Andropogon hallii*) and big bluestem (*Andropogon gerardii*) are sporadically distributed and found generally on the coarsest-textured sands. Other graminoids include bluebunch wheatgrass (*Pseudoroegneria spicata*), sun sedge (*Carex inops ssp. heliophila*), and purple threeawn (*Aristida purpurea*). Characteristic forbs differ by occurrence, but species of scurf pea (*Psoralidium* species) and Indian breadroot (*Pediomelum*) species are common. Communities of silver sage (*Artemisia cana* ssp. *cana*) or skunkbush sumac (*Rhus trilobata*) can occur within this system. Wind erosion, fire and grazing constitute the other major dynamic processes that can influence this system.



8% (*53 Acres*)

Recently Disturbed or Modified
Introduced Vegetation
Introduced Riparian and Wetland Vegetation

Areas where non-native vegetation dominates lands immediately adjacent to rivers and streams (riparian) or occupies 75% of more of a wetland. Typically this class describes Russian Olive along large rivers east of the Rocky Mountains.

Additional Limited Land Cover

1% (*6 Acres*) Other Roads

1% (*6 Acres*) Introduced Upland Vegetation - Annual and Biennial Forbland

1% (*5 Acres*) Low Intensity Residential

<1% (*3 Acres*) Cultivated Crops

<1% (*0 Acres*) Great Plains Wooded Draw and Ravine

<1% (*0 Acres*) Great Plains Ponderosa Pine Woodland and Savanna

<1% (*0 Acres*) Great Plains Riparian

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Wetland and Riparian

Summarized by: **Swope Environmental Summary** *(Custom Area of Interest)*



Wetland and Riparian Mapping

P - Palustrine

EM - Emergent

A - Temporarily Flooded	6 Acres	
(no modifier)	**6 Acres**	**PEMA**

P - Palustrine, EM - Emergent
Wetlands with erect, rooted herbaceous vegetation present during most of the growing season.

R - Riverine (Rivers)

2 - Lower Perennial

UB - Unconsolidated Bottom

F - Semipermanently Flooded	7 Acres	
(no modifier)	**7 Acres**	**R2UBF**
H - Permanently Flooded	76 Acres	
(no modifier)	**76 Acres**	**R2UBH**

R - Riverine (Rivers), 2 - Lower Perennial, UB - Unconsolidated Bottom
Stream channels where the substrate is at least 25% mud, silt or other fine particles.

US - Unconsolidated Shore

A - Temporarily Flooded	11 Acres	
(no modifier)	**11 Acres**	**R2USA**
C - Seasonally Flooded	11 Acres	
(no modifier)	**11 Acres**	**R2USC**

R - Riverine (Rivers), 2 - Lower Perennial, US - Unconsolidated Shore
Shorelines with less than 75% areal cover of stones, boulders, or bedrock and less than 30% vegetation cover. The area is also irregularly exposed due to seasonal or irregular flooding and subsequent drying.

Rp - Riparian

1 - Lotic

SS - Scrub-Shrub (no modifier)	**40 Acres** **Rp1SS**	**Rp - Riparian, 1 - Lotic, SS - Scrub-Shrub** *This type of riparian area is dominated by woody vegetation that is less than 6 meters (20 feet) tall. Woody vegetation includes tree saplings and trees that are stunted due to environmental conditions.*
FO - Forested (no modifier)	**83 Acres** **Rp1FO**	**Rp - Riparian, 1 - Lotic, FO - Forested** *This riparian class has woody vegetation that is greater than 6 meters (20 feet) tall.*
EM - Emergent (no modifier)	**2 Acres** **Rp1EM**	**Rp - Riparian, 1 - Lotic, EM - Emergent** *Riparian areas that have erect, rooted herbaceous vegetation during most of the growing season.*

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Land Management

Summarized by: **Swope Environmental Summary** *(Custom Area of Interest)*



Land Management Summary

	Ownership	Tribal	Easements	Other Boundaries (possible overlap)
Public Lands	228 Acres (36%)			
State	226 Acres (35%)			
Montana Fish, Wildlife and Parks	226 Acres (35%)			
MTFWP Owned	226 Acres (35%)			
MTFWP State Parks				226 Acres
Pirogue Island State Park				226 Acres
Local	2 Acres (<1%)			
Local Government	2 Acres (<1%)			
Local Government Owned	2 Acres (<1%)			
Private Lands or Unknown Ownership	411 Acres (64%)			

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Biological Reports

Summarized by: **Swope Environmental Summary** *(Custom Area of Interest)*

Within the report area you have requested, citations for all reports and publications associated with plant or animal observations in Montana Natural Heritage Program (MTNHP) databases are listed and, where possible, links to the documents are included.

The MTNHP plans to include reports associated with terrestrial and aquatic communities in the future as allowed for by staff resources. If you know of reports or publications associated with species or biological communities within the report area that are not shown in this report, please let us know: mtnhp@mt.gov

Kurtin, Anna M. 2025. ***Comparing survey methods and investigating habitat use of Black-billed Cuckoos (Coccyzus erythropthalmus) in the northern Great Plains***. M.S. Thesis. University of Montana. Missoula, MT.

Tobalske, Claudine and Linda Vance. 2017.***Predicting the distribution of Russian Olive stands in eastern Montana valley bottoms using NAIP imagery***. Report to the US EPA. Montana Natural Heritage Program. Helena, MT. 40pp.

MONTANA STATE LIBRARY
NATURAL HERITAGE PROGRAM
A program of the **Montana State Library's Natural Resource Information System**

Legend

Model Icons
- N Suitable (native range)
- O Optimal Suitability
- M Moderate Suitability
- L Low Suitability
- I Suitable (introduced range)

Habitat Icons
- C Common
- O Occasional

Range Icons
- N Non-native

Num Obs
Count of obs with 'good precision' (<=1000m)
+ indicates additional 'poor precision' obs (1001m-10,000m)



Latitude	Longitude
46.43192	-105.80766
46.44893	-105.83298

Invasive and Pest Species

Summarized by: **Swope Environmental Summary** *(Custom Area of Interest)*

	# Obs	Predicted Model	Range

Aquatic Invasive Species

V - Myriophyllum spicatum *(Eurasian Water-milfoil)* **N2A/AIS** — N

View in Field Guide | View Predicted Models | View Range Maps
Noxious Weed: Priority 2A - Aquatic Invasive Species - Non-native Species Global: **GNR** State: **SNA**
Predicted Models: M 100% Moderate (inductive)

V - Butomus umbellatus *(Flowering-rush)* **N2A/AIS** — N

View in Field Guide | View Predicted Models | View Range Maps
Noxious Weed: Priority 2A - Aquatic Invasive Species - Non-native Species Global: **G5** State: **SNA**
Predicted Models: L 100% Low (inductive)

F - Common Carp *(Cyprinus carpio)* **AIS** — N

View in Field Guide | View Predicted Models | View Range Maps
Aquatic Invasive Species - Non-native Species Global: **G5** State: **SNA**
Predicted Models: I 100% Suitable (introduced range) (deductive)

V - Nymphaea odorata *(American Water-lily)* **AIS** — N

View in Field Guide | View Predicted Models | View Range Maps
Aquatic Invasive Species - Non-native Species Global: **G5** State: **SNA**
Predicted Models: I 100% Suitable (introduced range) (deductive)

V - Nymphoides peltata *(Yellow Floating Heart)* **AIS** — N

View in Field Guide | View Predicted Models | View Range Maps
Aquatic Invasive Species - Non-native Species Global: **G5** State: **SNA**
Predicted Models: I 100% Suitable (introduced range) (deductive)

Noxious Weeds: Priority 1A

V - Phragmites australis ssp. australis *(European Common Reed)* **N1A** — N

View in Field Guide | View Predicted Models | View Range Maps
Noxious Weed: Priority 1A - Non-native Species Global: **G5T5** State: **SNA**
Predicted Models: M 100% Moderate (inductive)

V - Centaurea solstitialis *(Yellow Starthistle)* **N1A** — N

View in Field Guide | View Predicted Models | View Range Maps
Noxious Weed: Priority 1A - Non-native Species Global: **GNR** State: **SNA**
Predicted Models: L 100% Low (inductive)

V - Isatis tinctoria *(Dyer's Woad)* **N1A** — N

View in Field Guide | View Predicted Models | View Range Maps
Noxious Weed: Priority 1A - Non-native Species Global: **GNR** State: **SNA**
Predicted Models: L 100% Low (inductive)

Noxious Weeds: Priority 1B

V - Lythrum salicaria *(Purple Loosestrife)* **N1B** — N

View in Field Guide | View Predicted Models | View Range Maps
Noxious Weed: Priority 1B - Non-native Species Global: **G5** State: **SNA**
Predicted Models: M 100% Moderate (inductive)

V - Cytisus scoparius *(Scotch Broom)* **N1B** — N

View in Field Guide | View Predicted Models | View Range Maps
Noxious Weed: Priority 1B - Non-native Species Global: **GNR** State: **SNA**
Predicted Models: L 100% Low (inductive)

V - Echium vulgare *(Blueweed)* **N1B** — N

View in Field Guide | View Predicted Models | View Range Maps
Noxious Weed: Priority 1B - Non-native Species Global: **GNR** State: **SNA**
Predicted Models: L 100% Low (inductive)

V - Polygonum x bohemicum *(Bohemian Knotweed)* **N1B** — N

View in Field Guide | View Predicted Models | View Range Maps
Noxious Weed: Priority 1B - Non-native Species Global: **GNA** State: **SNA**
Predicted Models: L 100% Low (inductive)

Noxious Weeds: Priority 2A

V - Rhamnus cathartica *(Common Buckthorn)* **N2A** — 1 — N

View in Field Guide | View Predicted Models | View Range Maps
Noxious Weed: Priority 2A - Non-native Species Global: **GNR** State: **SNA**
Predicted Models: O 100% Optimal (inductive)

V - Myriophyllum spicatum *(Eurasian Water-milfoil)* **N2A/AIS**

View in Field Guide | View Predicted Models | View Range Maps

Noxious Weed: Priority 2A - Aquatic Invasive Species - Non-native Species Global: **GNR** State: **SNA**

Predicted Models: M 100% Moderate (inductive)

V - Butomus umbellatus *(Flowering-rush)* **N2A/AIS**

View in Field Guide | View Predicted Models | View Range Maps

Noxious Weed: Priority 2A - Aquatic Invasive Species - Non-native Species Global: **G5** State: **SNA**

Predicted Models: L 100% Low (inductive)

V - Hieracium praealtum *(Kingdevil Hawkweed)* **N2A**

View in Field Guide | View Predicted Models | View Range Maps

Noxious Weed: Priority 2A - Non-native Species Global: **GNR** State: **SNA**

Predicted Models: L 100% Low (inductive)

V - Lepidium latifolium *(Perennial Pepperweed)* **N2A**

View in Field Guide | View Predicted Models | View Range Maps

Noxious Weed: Priority 2A - Non-native Species Global: **GNR** State: **SNA**

Predicted Models: L 100% Low (inductive)

Noxious Weeds: Priority 2B

V - Tamarix ramosissima *(Salt Cedar)* **N2B** 15

View in Field Guide | View Predicted Models | View Range Maps

Noxious Weed: Priority 2B - Non-native Species Global: **GNR** State: **SNA**

Predicted Models: O 100% Optimal (inductive)

V - Acroptilon repens *(Russian Knapweed)* **N2B**

View in Field Guide | View Predicted Models | View Range Maps

Noxious Weed: Priority 2B - Non-native Species Global: **GNR** State: **SNA**

Predicted Models: M 100% Moderate (inductive)

V - Centaurea diffusa *(Diffuse Knapweed)* **N2B**

View in Field Guide | View Predicted Models | View Range Maps

Noxious Weed: Priority 2B - Non-native Species Global: **GNR** State: **SNA**

Predicted Models: M 100% Moderate (inductive)

V - Centaurea stoebe *(Spotted Knapweed)* **N2B** 12

View in Field Guide | View Predicted Models | View Range Maps

Noxious Weed: Priority 2B - Non-native Species Global: **GNR** State: **SNA**

Predicted Models: M 100% Moderate (inductive)

V - Cirsium arvense *(Canada Thistle)* **N2B** 28

View in Field Guide | View Predicted Models | View Range Maps

Noxious Weed: Priority 2B - Non-native Species Global: **G5** State: **SNA**

Predicted Models: M 100% Moderate (inductive)

V - Convolvulus arvensis *(Field Bindweed)* **N2B** 9

View in Field Guide | View Predicted Models | View Range Maps

Noxious Weed: Priority 2B - Non-native Species Global: **GNR** State: **SNA**

Predicted Models: M 100% Moderate (inductive)

V - Euphorbia virgata *(Leafy Spurge)* **N2B** 16

View in Field Guide | View Predicted Models | View Range Maps

Noxious Weed: Priority 2B - Non-native Species Global: **GNR** State: **SNA**

Predicted Models: M 100% Moderate (inductive)

V - Berteroa incana *(Hoary False-alyssum)* **N2B**

View in Field Guide | View Predicted Models | View Range Maps

Noxious Weed: Priority 2B - Non-native Species Global: **GNR** State: **SNA**

Predicted Models: L 100% Low (inductive)

V - Cynoglossum officinale *(Common Hound's-tongue)* **N2B**

View in Field Guide | View Predicted Models | View Range Maps

Noxious Weed: Priority 2B - Non-native Species Global: **GNR** State: **SNA**

Predicted Models: L 100% Low (inductive)

V - Lepidium draba *(Whitetop)* **N2B**

View in Field Guide | View Predicted Models | View Range Maps

Noxious Weed: Priority 2B - Non-native Species Global: **GNR** State: **SNA**

Predicted Models: L 100% Low (inductive)

V - Linaria dalmatica *(Dalmatian Toadflax)* **N2B**

View in Field Guide | View Predicted Models | View Range Maps

Noxious Weed: Priority 2B - Non-native Species Global: **G5** State: **SNA**

Predicted Models: L 100% Low (inductive)

V - Tanacetum vulgare *(Common Tansy)* **N2B**

View in Field Guide | View Predicted Models | View Range Maps

Noxious Weed: Priority 2B - Non-native Species Global: **GNR** State: **SNA**

Predicted Models: L 100% Low (inductive)

Regulated Weeds: Priority 3

V - Elaeagnus angustifolia *(Russian Olive)* R3 10 N

View in Field Guide View Predicted Models View Range Maps
Regulated Weed: Priority 3 - Non-native Species Global: **GNR** State: **SNA**
Predicted Models: O 100% Optimal (inductive)

V - Bromus tectorum *(Cheatgrass)* R3 N

View in Field Guide View Predicted Models View Range Maps
Regulated Weed: Priority 3 - Non-native Species Global: **GNR** State: **SNA**
Predicted Models: L 100% Low (inductive)

Biocontrol Species

I - Aphthona lacertosa *(Brown-legged Leafy Spurge Flea Beetle)* BIOCNTRL N

View in Field Guide View Predicted Models View Range Maps
Biocontrol Species - Non-native Species Global: **GNR** State: **SNA**
Predicted Models: M 100% Moderate (inductive)

I - Aphthona nigriscutis *(Black Dot Leafy Spurge Flea Beetle)* BIOCNTRL N

View in Field Guide View Predicted Models View Range Maps
Biocontrol Species - Non-native Species Global: **GNR** State: **SNA**
Predicted Models: M 100% Moderate (inductive)

I - Mecinus janthiniformis *(Dalmatian Toadflax Stem-boring Weevil)* BIOCNTRL N

View in Field Guide View Predicted Models View Range Maps
Biocontrol Species - Non-native Species Global: **GNR** State: **SNA**
Predicted Models: M 100% Moderate (inductive)

I - Oberea erythrocephala *(Red-headed Leafy Spurge Stem Borer)* BIOCNTRL N

View in Field Guide View Predicted Models View Range Maps
Biocontrol Species - Non-native Species Global: **GNR** State: **SNA**
Predicted Models: M 100% Moderate (inductive)

Introduction to Montana Natural Heritage Program

PO Box 201800 • 1201 11th Avenue • Helena, MT 59620-1800 • fax 406.444.0266 • phone 406.444.3989 • mtnhp.mt.gov

Introduction

The Montana Natural Heritage Program (MTNHP) is Montana's source for reliable and objective information on Montana's native species and habitats, emphasizing those of conservation concern. MTNHP was created by the Montana legislature in 1983 as part of the Natural Resource Information System (NRIS) at the Montana State Library (MSL). MTNHP is "a program of information acquisition, storage, and retrieval for data relating to the flora, fauna, and biological community types of Montana" (MCA 90-15-102). MTNHP's activities are guided by statute as well as through ongoing interaction with, and feedback from, principal data source agencies such as Montana Fish, Wildlife, and Parks, the Montana Department of Environmental Quality, the Montana Department of Natural Resources and Conservation, the Montana University System, the US Forest Service, and the US Bureau of Land Management. Since the first staff was hired in 1985, the Program has logged a long record of success, and developed into a highly respected, service-oriented program. MTNHP is widely recognized as one of the most advanced and effective of over 60 natural heritage programs that are distributed across North America.

Vision

Our vision is that public agencies, the private sector, the education sector, and the general public will trust and rely upon MTNHP as the source for information and expertise on Montana's species and habitats, especially those of conservation concern. We strive to provide easy access to our information to allow users to save time and money, speed environmental reviews, and make informed decisions.

Core Values

- We endeavor to be a single statewide source of accurate and up-to-date information on Montana's plants, animals, and aquatic and terrestrial biological communities.
- We actively listen to our data users and work responsively to meet their information and training needs.
- We strive to provide neutral, trusted, timely, and equitable service to all of our information users.
- We make every effort to be transparent to our data users in setting work priorities and providing data products.

Confidentiality

All information requests made to the Montana Natural Heritage Program are considered library records and are protected from disclosure by the Montana Library Records Confidentiality Act (MCA 22-1-11).

Information Managed

Information managed at the Montana Natural Heritage Program is botanical, zoological, and ecological information that describes the distribution (e.g., observations, structured surveys, range polygons, predicted habitat suitability models), conservation status (e.g., global and state conservation status ranks, including threats), and other supporting information (e.g., accounts and references) on the biology and ecology of species and biological communities.

Data Use Terms and Conditions

- Montana Natural Heritage Program (MTNHP) products and services are based on biological data and the objective interpretation of those data by professional scientists. MTNHP does not advocate any particular philosophy of natural resource protection, management, development, or public policy.
- MTNHP has no natural resource management or regulatory authority. Products, statements, and services from MTNHP are intended to inform parties as to the state of scientific knowledge about certain natural resources, and to further develop that knowledge. The information is not intended as natural resource management guidelines or prescriptions or a determination of environmental impacts. MTNHP recommends consultation with appropriate state, federal, and tribal resource management agencies and authorities in the area where your project is located.
- Information on the status and spatial distribution of biological resources produced by MTNHP are intended to inform parties of the state-wide status, known occurrence, or the likelihood of the presence of those resources. **These products are not intended to substitute for field-collected data, nor are they intended to be the sole basis for natural resource management decisions.**
- MTNHP does not portray its data as exhaustive or comprehensive inventories of rare species or biological communities. **Field verification of the absence or presence of sensitive species and biological communities will always be an important obligation of users of our data.**
- MTNHP responds equally to all requests for products and services, regardless of the purpose or identity of the requester.
- Because MTNHP constantly updates and revises its databases with new data and information, products will become outdated over time. Interested parties are encouraged to obtain the most current information possible from MTNHP, rather than using older products. We add, review, update, and delete records on a daily basis. Consequently, we strongly advise that you update your MTNHP data sets at a minimum of every four months for most applications of our information.
- MTNHP data require a certain degree of biological expertise for proper analysis, interpretation, and application. Our staff is available to advise you on questions regarding the interpretation or appropriate use of the data that we provide. See Contact Information for MTNHP Staff
- The information provided to you by MTNHP may include sensitive data that if publicly released might jeopardize the welfare of threatened, endangered, or sensitive species or biological communities. This information is intended for distribution or use only within your department, agency, or business. Subcontractors may have access to the data during the course of any given project, but should not be given a copy for their use on subsequent, unrelated work.
- MTNHP data are made freely available. Duplication of hard-copy or digital MTNHP products with the intent to sell is prohibited without written consent by MTNHP. Should you be asked by individuals outside your organization for the type of data that we provide, please refer them to MTNHP.
- MTNHP and appropriate staff members should be appropriately acknowledged as an information source in any third-party product involving MTNHP data, reports, papers, publications, or in maps that incorporate MTNHP graphic elements.
- Sources of our data include museum specimens, published and unpublished scientific literature, field surveys by state and federal agencies and private contractors, and reports from knowledgeable individuals. MTNHP actively solicits and encourages additions, corrections and updates, new observations or collections, and comments on any of the data we provide.
- MTNHP staff and contractors do not enter or cross privately-owned lands without express permission from the landowner. However, the program cannot guarantee that information provided to us by others was obtained under adherence to this policy.

Suggested Contacts for Natural Resource Management Agencies

As required by Montana statute (MCA 90-15), the Montana Natural Heritage Program works with state, federal, tribal, nongovernmental organizations, and private partners to ensure that the latest animal and plant distribution and status information is incorporated into our databases so that it can be used to inform a variety of permitting and planning processes and management decisions. We encourage you to contact state, federal, and tribal resource management agencies in the area where your project is located and review the permitting overviews by the Montana Department of Environmental Quality, the Montana Department of Natural Resources and Conservation and the Index of Environmental Permits for Montana for guidelines relevant to your efforts. In particular, we encourage you to contact the Montana Department of Fish, Wildlife, and Parks for the latest data and management information regarding hunted and high-profile management species and to use the U.S. Fish and Wildlife Service's Information Planning and Consultation (IPAC) website regarding U.S. Endangered Species Act listed Threatened, Endangered, or Candidate species.

For your convenience, we have compiled a list of relevant agency contacts and links below:

Montana Fish, Wildlife, and Parks

Fish Species	Zachary Shattuck zshattuck@mt.gov (406) 444-1231
Aquatic Invasive Species	Tom Woolf thomas.woolf@mt.gov (406) 444-1230
American Bison Black-footed Ferret Black-tailed Prairie Dog Bald Eagle Golden Eagle Common Loon Least Tern Piping Plover Whooping Crane	Kristina Smucker ksmucker@mt.gov (406) 444-5209
Grizzly Bear Greater Sage Grouse Trumpeter Swan Big Game Upland Game Birds Furbearers	Brian Wakeling brian.wakeling@mt.gov (406) 444-3940
Managed Terrestrial Game Data	Adam Messer – MFWP GIS Coordinator amesser@mt.gov (406) 444-0095
Fisheries Data and Nongame Animal Data	Adam Messer – MFWP GIS Coordinator amesser@mt.gov (406) 444-0095
Wildlife and Fisheries Scientific Collector's Permits	https://fwp.mt.gov/buyandapply/commercialwildlifeandscientificpermits/scientific Kristina Smucker for Wildlife ksmucker@mt.gov (406) 444-5209 Dave Schmetterling for Fisheries dschmetterling@mt.gov (406) 542-5514
Fish and Wildlife Recommendations for Subdivision Development	Stevie Burton stevie.burton@mt.gov (406) 594-7354 See https://fwp.mt.gov/conservation/living-with-wildlife/subdivision-recommendations
Regional Contacts  	Region 1 (Kalispell) (406) 752-5501 fwprg12@mt.gov Region 2 (Missoula) (406) 542-5500 fwprg22@mt.gov Region 3 (Bozeman) (406) 577-7900 fwprg3@mt.gov Region 4 (Great Falls) (406) 454-5840 fwprg42@mt.gov Region 5 (Billings) (406) 247-2940 fwprg52@mt.gov Region 6 (Glasgow) (406) 228-3700 fwprg62@mt.gov Region 7 (Miles City) (406) 234-0900 fwprg72@mt.gov

Montana Conservation Districts
Clickable map for contact information across Montana: https://macdnet.org/conservation-district-map/
Montana Association of Conservation Districts Resources Directory: https://macdnet.org/resources

Montana Department of Agriculture
General Contact Information: https://agr.mt.gov/About/Office-Locations/Office-Locations-and-Field-Offices
Noxious Weeds: https://agr.mt.gov/Noxious-Weeds

Montana Department of Environmental Quality
Permitting and Operator Assistance for all Environmental Permits: https://deq.mt.gov/Permitting
Opencut Mining Web Mapping Application for review of opencut mining applications
https://gis.mtdeq.us/portal/apps/webappviewer/index.html?id=7b60084bc4c444a19c9a7a0867e7635a

Montana Department of Natural Resources and Conservation
Montana Sage Grouse Habitat Conservation Program: https://sagegrouse.mt.gov/ (406) 444-6340

Permits and Services: https://dnrc.mt.gov/Permits-Services

Stream Permitting (310, 404, Section 10, SPA 124, floodplain, 318, Navigable Water, and other stream permits)
https://dnrc.mt.gov/licenses-and-permits/stream-permitting/

Montana Floodplains Program https://dnrc.mt.gov/Water-Resources/Floodplains/

Wildfire Resources: https://dnrc.mt.gov/Forestry/Wildfire

Regional Office Contacts: https://dnrc.mt.gov/TrustLand/About/Regional-Offices

Bureau of Land Management

Montana Field Office Contacts:



Billings	(406) 896-5013	Lewistown	(406) 538-1900
Butte	(406) 533-7600	Malta	(406) 654-5100
Dillon	(406) 683-8000	Miles City	(406) 233-2800
Glasgow	(406) 228-3750	Missoula	(406) 329-3914
Havre	(406) 262-2820		

Natural Resources Conservation Service
Montana Home Page https://www.nrcs.usda.gov/state-offices/montana
State Office and Employee Directories
https://www.nrcs.usda.gov/contact/state-office-contacts/montana-employee-directory-state-office

United States Army Corps of Engineers
Montana Regulatory Office for federal permits related to construction in water and wetlands
https://www.nwo.usace.army.mil/Missions/Regulatory-Program/Montana/
Direct Link to Regulatory Request System: https://rrs.usace.army.mil/rrs/home
Email for questions: Montana.Reg@usace.army.mil
Phone for questions: (406) 441-1375

United States Environmental Protection Agency
Environmental information, notices, permitting, and contacts https://www.epa.gov/mt
Gateway to state resource locators https://www.envcap.org/srl/index.php

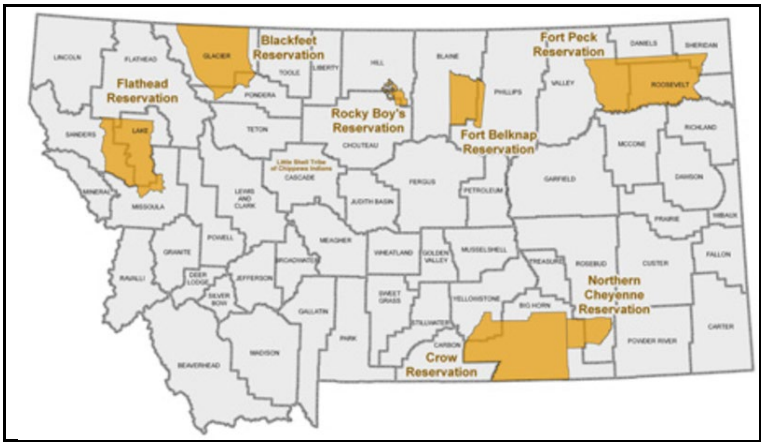
United States Fish and Wildlife Service
Information Planning and Conservation (IPAC) website: https://ipac.ecosphere.fws.gov
Montana Ecological Services Field Office: https://www.fws.gov/office/montana-ecological-services (406) 449-5225
Migratory Bird Joint Ventures: https://www.fws.gov/partner/migratory-bird-joint-ventures

United States Forest Service

Regional Office – Missoula, Montana Contacts

Assistant Regional TES PM	Diane Probasco	diane.probasco@usda.gov	(307) 709-2292
Regional Botanist	Amanda Hendrix	amanda.hendrix@usda.gov	(651) 447-3016
Invasive Species Program Manager	Michelle Cox	michelle.cox2@usda.gov	(406) 329-3669
Regional Hydrologist	Andy Efta	james.efta@usda.gov	(406) 329-3447

Tribal Nations – General Websites



Assiniboine & Gros Ventre Tribes – Fort Belknap Reservation
Assiniboine & Sioux Tribes – Fort Peck Reservation
Blackfeet Tribe - Blackfeet Reservation
Chippewa Creek Tribe - Rocky Boy's Reservation
Crow Tribe – Crow Reservation
Little Shell Chippewa Tribe
Northern Cheyenne Tribe – Northern Cheyenne Reservation
Salish & Kootenai Tribes - Flathead Reservation

Tribal Nations – Specific Contacts

Confederated Salish & Kootenai Tribes (Flathead Reservation)-Division of Wildlife, Recreation, & Conservation

Whisper Camel-Means – Division Manager	Whisper.Means@cskt.org	(406) 675-2700
Kari Kingery – Wildlife Program Manager	Kari.Kingery@cskt.org	(406) 675-2700

Natural Heritage Programs and Conservation Data Centers in Surrounding States and Provinces
Alberta Conservation Information Management System
British Columbia Conservation Data Centre
Idaho Natural Heritage Program
North Dakota Natural Heritage Program
Saskatchewan Conservation Data Centre
South Dakota Natural Heritage Program
Wyoming Natural Diversity Database

Invasive Species Management Contacts and Information
General
Montana Invasive Species Council (MISC)
Central and Eastern Montana Invasive Species Team (CEMIST)
Montana State University Integrated Pest Management Extension

Aquatic Invasive Species

Montana Fish, Wildlife, and Parks Aquatic Invasive Species staff
Montana Department of Natural Resources and Conservation's Aquatic Invasive Species Grant Program
Western Montana Conservation Commission

Noxious Weeds

Montana Weed Control Association Contacts Webpage
Montana Biological Weed Control Coordination Project
Montana Department of Agriculture - Noxious Weeds
Montana Weed Control Association
Montana Fish, Wildlife, and Parks - Noxious Weeds
Integrated Noxious Weed Management after Wildfires
Fire Management and Invasive Plants

Introduction to Native Species

Within the report area you have requested, separate summaries are provided for: (1) Species Occurrences (SO) for plant and animal Species of Concern, Special Status Species (SSS), Important Animal Habitat (IAH) and some Potential Plant Species of Concern; (2) other observed non-Species of Concern filtered or requested as "Additional Species" or Species of Concern without suitable documentation to create Species Occurrence polygons; and (3) other non-documented Species of Concern or additionally filtered or requested that are potentially present based on their range, predicted suitable habitat model output, or presence of associated habitats. Each of these summaries provides the following information when present for a species: (1) the number of Species Occurrences and associated delineation criteria for construction of these polygons that have long been used for considerations of documented Species of Concern in environmental reviews; (2) the number of observations of each species; (3) the geographic range polygons for each species that the report area overlaps; (4) predicted habitat suitability classes that are present if a predicted suitable habitat model has been created; (5) the percent of the report area that is mapped as commonly associated or occasionally associated habitat as listed for each species in the Montana Field Guide; and (6) a variety of conservation status ranks and links to species accounts in the Montana Field Guide. Details on each of these information categories are included under relevant section headers below or are defined on our Species Status Codes page. In presenting this information, the Montana Natural Heritage Program (MTNHP) is working towards assisting the user with rapidly determining what species have been documented and what species are potentially present in the report area. We remind users that this information is likely incomplete as surveys to document native and introduced species are lacking in many areas of the state, the MTNHP's staff and resources are restricted by budgets, and information is constantly being added and updated in our databases. **Thus, field verification by professional biologists of the absence or presence of species and biological communities will always be an important obligation of users of our data.**

If you are aware of observation datasets that the MTNHP is missing, please report them to the Program Botanist apipp@mt.gov or Senior Zoologist dbachen@mt.gov If you have animal or plant observations that you would like to contribute, you can also submit them via Excel spreadsheets, geodatabases, iNaturalist, or a Survey123 form. Various methods of data submission are reviewed in this playlist of videos: https://www.youtube.com/playlist?list=PLRaydtZpHu2qOHPoSPq9cnM9uXGmEXACx

Observations

An observation is a visual, audio, specimen, genetic, or other documentation of a particular species at a location with an assigned spatial precision on a given date. Most observations are submitted in digital format from standardized databases associated with research or monitoring efforts and spreadsheets of incidental observations submitted by professional biologists and amateur naturalists. At a minimum, accepted observation records must contain a credible species identification (i.e. appropriate geographic range, date, and habitat and, if species are difficult to identify, a photograph and/or notes on key identifying features), a date or date range, observer name, locational information (ideally with latitude and longitude in decimal degrees), notes on numbers observed, and species behavior or habitat use (e.g., is the observation likely associated with reproduction). Bird records are also required to have information associated with date-appropriate breeding or overwintering status of the species observed. MTNHP reviews observation records to ensure that they are mapped correctly, occur within date ranges when the species is known to be present or detectable, occur within the known seasonal geographic range of the species, and occur in appropriate habitats. MTNHP also assigns each record a locational uncertainty value in meters to indicate the spatial precision associated with the record's mapped coordinates. Only records with locational uncertainty values of 5,000 meters or less are included in environmental summary reports and number summaries are only provided for records with locational uncertainty values of 1,000 meters or less.

Species Occurrences

The MTNHP evaluates plant and animal observation records for Species of Concern, Potential Species of Concern, and Special Status Species to determine whether they are worthy of inclusion in the Species Occurrence (SO) (also known as an "element occurrence" or EO) layer for use in environmental reviews; observations not worthy of inclusion in this layer include long distance dispersal events, migrants observed away from key migratory stopover habitats, and winter observations. An SO is a polygon depicting what is known about a species occupancy from direct observation with a defined level of locational uncertainty and any inference that can be made about adjacent habitat use from the latest peer-reviewed science. If an observation can be associated with a map feature that can be tracked (e.g., a wetland boundary) then this polygon feature is used to represent the SO. Areas that can be inferred as probable occupied habitat based on direct observation of a species location and what is known about the foraging area or home range size of the species may be incorporated into the SO. Species Occurrences generally belong to one of the following categories:

Botanical Species

A documented location of a specimen collection or observed plant, lichen, or fungi population. In some instances, adjacent, spatially separated clusters are considered subpopulations and are grouped as one occurrence (e.g., the subpopulations occur in ecologically similar habitats, and their spatial proximity likely allows them to interbreed). Tabular information for multiple observations at the same SO location is generally linked to a single polygon.

Animal Species

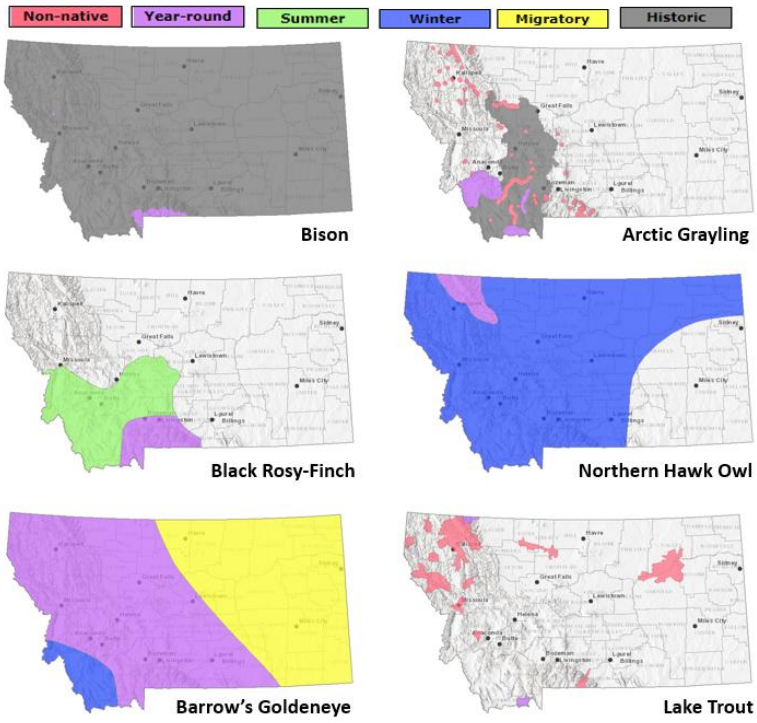
The location of a verified observation or specimen record typically known or assumed to represent a breeding population or a portion of a breeding population. Animal SO's are generally: (1) buffers of terrestrial point observations based on documented species' home range sizes; (2) buffers of stream segments to encompass occupied streams and immediate adjacent riparian habitats; (3) polygonal features encompassing known or likely breeding populations (e.g., a wetland for some amphibians or a forested portion of a mountain range for some wide-ranging carnivores); or (4) combinations of the above. Tabular information for multiple observations at the same SO location is generally linked to a single polygon. Species Occurrence polygons may encompass some unsuitable habitat in some instances in order to avoid heavy data processing associated with clipping out habitats that are readily assessed as unsuitable by the data user (e.g., a point buffer of a terrestrial species may overlap into a portion of a lake that is obviously inappropriate habitat for the species).

Other

Significant biological features not included in the above categories, such as Important Animal Habitats like bird rookeries and bat roosts, and peatlands or other wetland and riparian communities that support diverse plant and animal communities.

Geographic Range Polygons

Range polygons have been created for native vascular plants and vertebrate animal species with sufficient data and are being created for other taxa as staff time is available. Range polygons are refined over time with assistance of additional survey and observation data and predicted habitat suitability models. Range polygons are classified as native year-round, summer, winter, migratory, historical, and non-native year-round (see examples to the left). Range polygons for native species and non-native aquatic species typically bound the extent of known or likely occupied habitats for non-migratory and relatively sedentary species and the regular extent of known or likely occupied habitats for migratory and long-distance dispersing species; polygons may include unsuitable intervening habitats. Unless predicted invasion risk models indicate unsuitable habitat for large portions of Montana, range polygons for non-native vascular plant species are typically mapped as statewide to reflect their possible invasion across Montana; please see relative density maps for reported distributions of these species. For most species, a single polygon can represent the year-round or seasonal range, but breeding ranges of some colonial nesting water birds and some non-native species are represented more patchily when supported by data. Some ranges are mapped more broadly than actual distributions to be visible on statewide maps (e.g., streams with fish are buffered for visibility)



Predicted Suitable Habitat Models

Predicted habitat suitability models have been created for plant and animal Species of Concern and are undergoing development for non-Species of Concern. For species for which models have been completed, the environmental summary report includes simple rule-based associations with streams for aquatic species and seasonal habitats for game species as well as mathematically complex Maximum Entropy models (Phillips et al. 2006, Ecological Modeling 190:231-259) constructed from a variety of statewide biotic and abiotic layers and presence only data for individual species for most terrestrial species. For the Maximum Entropy models, we reclassified 90 x 90-meter continuous model output into suitability classes (unsuitable, low, moderate, and optimal) then aggregated that into the one square mile hexagons used in the environmental summary report; this is the finest spatial scale we suggest using this information in management decisions and survey planning. Full model write ups for individual species that discuss model goals, inputs, outputs, and evaluation in much greater detail are posted on the MTNHP's Predicted Suitable Habitat Models webpage. Evaluations of predictive accuracy and specific limitations are included with the metadata for models of individual species. **Model outputs should not be used in place of on-the-ground surveys for species. Instead model outputs should be used in conjunction with habitat evaluations to determine the need for on-the-ground surveys for species.** We suggest that the percentage of predicted optimal and moderate suitable habitat within the report area be used in conjunction with geographic range polygons and the percentage of commonly associated habitats to generate lists of potential species that may occupy broader landscapes for the purposes of landscape-level planning.

Other Habitat Information for Species

1. The excel spreadsheet accompanying this report contains a field labeled “Habitat” in all the species related worksheets that contains brief text describing the predominant habitat or habitats each species is dependent on. This field can be useful for quickly determining whether a species needs considerations in environmental permitting and planning. For example, if the report area includes a large area of forest and grassland habitat and the project is only affecting a small portion of the grassland habitat without any disturbance to the forest habitat, the Habitat field can be useful for removing the forest dependent species from further consideration.
2. Species accounts in the Montana Field Guide each contain a section on Ecological Communities Associated with this Species that lists and links to accounts for associated natural habitats.
3. Accounts for natural habitats in the Ecological Communities portion of the Montana Field Guide each contain a section on Species Associated with this Community that lists and links to accounts for associated species. This is divided between: (1) Species of Concern Associated with this Community; (2) Diagnostic, Dominant, or Codominant Plant Species for this Community; and (3) Other Native Species Commonly Associated with this Community.

Introduction to Land Cover

Land Use/Land Cover is one of 15 Montana Spatial Data Infrastructure framework layers considered vital for making statewide maps of Montana and understanding its geography. The layer records all Montana natural vegetation, land cover and land use, classified from satellite and aerial imagery, mapped at a scale of 1:100,000, and interpreted with supporting ground-level data. The baseline map is adapted from the Northwest ReGAP (NWGAP) project land cover classification, which used 30m resolution multi-spectral Landsat imagery acquired between 1999 and 2001. Vegetation classes were drawn from the Ecological System Classification developed by NatureServe (Comer et al. 2003). The land cover classes were developed by Anderson et al. (1976). The NWGAP effort encompasses 12 map zones. Montana overlaps seven of these zones. The two NWGAP teams responsible for the initial land cover mapping effort in Montana were Sanborn and NWGAP at the University of Idaho. Both Sanborn and NWGAP employed a similar modeling approach in which Classification and Regression Tree (CART) models were applied to Landsat ETM+ scenes. The Spatial Analysis Lab within the Montana Natural Heritage Program was responsible for developing a seamless Montana land cover map with a consistent statewide legend from these two separate products. Additionally, the Montana land cover layer incorporates several other land cover and land use products (e.g., MSDI Structures and Transportation themes and the Montana Department of Revenue Final Land Unit classification) and reclassifications based on plot-level data and the latest NAIP imagery to improve accuracy and enhance the usability of the theme. Updates are done as partner support and funding allow, or when other MSDI datasets can be incorporated. Recent updates include fire perimeters and agricultural land use (annually), energy developments such as wind, oil and gas installations (2014), roads, structures and other impervious surfaces (various years): and local updates/improvements to specific ecological systems (e.g., central Montana grassland and sagebrush ecosystems). Current and previous versions of the Land Use/Land Cover layer with full metadata are available for download from the Montana State Library's GIS Data List More information on the land cover layer is available at: https://msl.mt.gov/geoinfo/msdi/land_use_land_cover/

Within the report area you have requested, land cover is summarized by acres of Level 1, Level 2, and Level 3 Ecological Systems.

Literature Cited

Anderson, J.R. E.E. Hardy, J.T. Roach, and R.E. Witmer. 1976. A land use and land cover classification system for use with remote sensor data. U.S. Geological Survey Professional Paper 964.

Comer, P., D. Faber-Langendoen, R. Evans, S. Gawler, C. Josse, G. Kittel, S. Menard, M. Pyne, M. Reid, K. Schulz, K. Snow, and J. Teague. 2003. Ecological systems of the United States: A working classification of U.S. terrestrial systems. NatureServe, Arlington, VA.

Introduction to Wetland and Riparian

Within the report area you have requested, wetland and riparian mapping is summarized by acres of each classification present. Summaries are only provided for modern MTNHP wetland and riparian mapping and not for outdated (NWI Legacy) or incomplete (NWI Scalable) mapping efforts; described here. MTNHP has made all three of these datasets and associated metadata available for separate download on the Montana Wetland and Riparian Framework web page.

Wetland and Riparian mapping is one of 15 Montana Spatial Data Infrastructure framework layers considered vital for making statewide maps of Montana and understanding its geography. The wetland and riparian framework layer consists of spatial data representing the extent, type, and approximate location of wetlands, riparian areas, and deep water habitats in Montana.

Wetland and riparian mapping is completed through photointerpretation of 1-m resolution color infrared aerial imagery acquired from 2005 or later. A coding convention using letters and numbers is assigned to each mapped wetland. These letters and numbers describe the broad landscape context of the wetland, its vegetation type, its water regime, and the kind of alterations that may have occurred. Ancillary data layers such as topographic maps, digital elevation models, soils data, and other aerial imagery sources are also used to improve mapping accuracy. Wetland mapping follows the federal Wetland Mapping Standard and classifies wetlands according to the Cowardin classification system of the National Wetlands Inventory (NWI) (Cowardin et al. 1979, FGDC Wetlands Subcommittee 2013). Federal, State, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands differently than the NWI. Similar coding, based on U.S. Fish and Wildlife Service conventions, is applied to riparian areas (U.S. Fish and Wildlife Service 2009). These are mapped areas where vegetation composition and growth is influenced by nearby water bodies, but where soils, plant communities, and hydrology do not display true wetland characteristics. **These data are intended for use at a scale of 1:12,000 or smaller. Mapped wetland and riparian areas do not represent precise boundaries and digital wetland data cannot substitute for an on-site determination of jurisdictional wetlands.**

See detailed overviews, with examples, of both wetland and riparian classification systems and associated codes as a storymap and companion guide

Literature Cited

Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of wetlands and deepwater habitats of the United States. U.S. Fish and Wildlife Service, FWS/OBS-79/31. Washington, D.C. 103pp.

Federal Geographic Data Committee. 2013. Classification of wetlands and deepwater habitats of the United States. FGDC-STD-004-2013. Second Edition. Wetlands Subcommittee, Federal Geographic Data Committee and U.S. Fish and Wildlife Service, Washington, D.C.

U.S. Fish and Wildlife Services. 2009. A system for mapping riparian areas in the western United States. Division of Habitat and Resource Conservation, Branch of Resource and Mapping Support, Arlington, Virginia.

Introduction to Land Management

Within the report area you have requested, land management information is summarized by acres of federal, state, and local government lands, tribal reservation boundaries, private conservation lands, and federal, state, local, and private conservation easements. Acreage for "Owned", "Tribal", or "Easement" categories represents non-overlapping areas that may be totaled. However, "Other Boundaries" represents managed areas such as National Forest boundaries containing private inholdings and other mixed ownership which may cause boundaries to overlap (e.g. a wilderness area within a forest). Therefore, acreages may not total in a straight-forward manner.

Because information on land stewardship is critical to effective land management, the Montana Natural Heritage Program (MTNHP) began compiling ownership and management data in 1997. The goal of the Montana Land Management Database is to manage a single, statewide digital data set that incorporates information from both public and private entities. The database assembles information on public lands, private conservation lands, and conservation easements held by state and federal agencies and land trusts and is updated on a regular basis. Since 2011, the Information Management group in the Montana State Library's Digital Library Division has led the Montana Land Management Database in partnership with the MTNHP.

Public and private conservation land polygons are attributed with the name of the entity that owns it. The data are derived from the statewide Montana Cadastral Parcel layer Conservation easement data shows land parcels on which a public agency or qualified land trust has placed a conservation easement in cooperation with the landowner. The dataset contains no information about ownership or status of the mineral estate. For questions about the dataset or to report errors, please contact the Montana Natural Heritage Program at (406) 444-5363 or mtnhp@mt.gov. You can download various components of the Land Management Database and view associated metadata at the Montana State Library's GIS Data List at the following links:

Public Lands
Conservation Easements
Private Conservation Lands
Managed Areas

Map features in the Montana Land Management Database or summaries provided in this report are not intended as a legal depiction of public or private surface land ownership boundaries and should not be used in place of a survey conducted by a licensed land surveyor. Similarly, map features do not imply public access to any lands. The Montana Natural Heritage Program makes no representations or warranties whatsoever with respect to the accuracy or completeness of this data and assumes no responsibility for the suitability of the data for a particular purpose. The Montana Natural Heritage Program will not be liable for any damages incurred as a result of errors displayed here. Consumers of this information should review or consult the primary data and information sources to ascertain the viability of the information for their purposes.

Introduction to Invasive and Pest Species

Within the report area you have requested, separate summaries are provided for: Aquatic Invasive Species, Noxious Weeds, Agricultural Pests, Forest Pests, and Biocontrol species that have been documented or potentially occur there based on the predicted suitability of habitat. Definitions for each of these invasive and pest species categories can be found on our Species Status Codes page.

Each of these summaries provides the following information when present for a species: (1) the number of observations of each species; (2) the geographic range polygons for each species, if developed, that the report area overlaps; (3) predicted relative habitat suitability classes that are present if a predicted suitable habitat model has been created; (4) the percent of the report area that is mapped as commonly associated or occasionally associated habitat as listed for each species in the Montana Field Guide; and (5) links to species accounts in the Montana Field Guide. Details on each of these information categories are included under relevant section headers under the Introduction to Native Species above or are defined on our Species Status Codes page. In presenting this information, the Montana Natural Heritage Program (MTNHP) is working towards assisting the user with rapidly determining what invasive and pest species have been documented and what species are potentially present in the report area. We remind users that this information is likely incomplete as surveys to document introduced species are lacking in many areas of the state, information on introduced species has only been tracked relatively recently, the MTNHP's staff and resources are limited, and information is constantly being added and updated in our databases. **Thus, field verification by professional biologists of the absence or presence of species will always be an important obligation of users of our data.**

If you are aware of observation or survey datasets for invasive or pest species that the MTNHP is missing, please report them to the Program Coordinator bmaxell@mt.gov Program Botanist apipp@mt.gov or Senior Zoologist dbachen@mt.gov If you have animal or plant observations that you would like to contribute, you can also submit them via Excel spreadsheets, geodatabases, iNaturalist, or a Survey123 form. Various methods of data submission are reviewed in this playlist of videos:
https://www.youtube.com/playlist?list=PLRaydtZpHu2qOHPoSPq9cnM9uXGmEXACx

Additional Information Resources

- Effects of Recreation on Rocky Mountain Wildlife
- FEMA Flood Insurance Study Data
- Fire Effects Information System (species reviews, fire regimes, fire studies)
- Gilly – tool for simplifying stream, wetland, and floodplain permitting applications
- Identification Resources for Montana Species and Citizen Science
- Laws, Treaties, Regulations, and Agreements on Animals and Plants
- Migratory Bird Joint Ventures and Associated Resources
  - Intermountain West Joint Venture
  - Northern Great Plains Joint Venture
  - Prairie Pothole Joint Venture
- MTNHP Staff Contact Information
- MTNHP Species of Concern Report - Animals and Plants
- MTNHP Species Status Codes - Explanation
- MTNHP Predicted Suitable Habitat Models (for select Animals and Plants)
- MTNHP Request Information page
- Montana Cadastral
- Montana Climate Office
- Montana Code Annotated
- Montana Field Guide
- Montana Fisheries Information System
- Montana Fish, Wildlife, and Parks Subdivision Recommendations
- Montana Forestry Best Management Practices
- Montana GIS Data Layers
- Montana GIS Data Bundler
- Montana Guide to Streamside Management Zone Law and Rules
- Montana Ground Water Information Center
- Montana Index of Environmental Permits, 21st Edition (2018)
- Montana Environmental Policy Act (MEPA)
- Montana Environmental Policy Act Analysis Resource List
- Montana Sage Grouse Project Submittal Site
- Montana Native Plant Conservation Strategy
- Montana Spatial Data Infrastructure Layers
- Montana State Historic Preservation Office Review and Compliance
- Montana Statewide Fisheries Management Plan 2023-2026
- Montana Stream Permitting: a guide for conservation district supervisors and others
- Montana Water Information System
- Montana Web Map Services
- Montana's 2025 State Wildlife Action Plan
- Montana's Statewide Comprehensive Outdoor Recreation Plan (SCORP)
- National Environmental Policy Act
- Penalties for Misuse of Fish and Wildlife Location Data (MCA 87-6-222)
- Rangeland Analysis Platform
- U.S. Fish and Wildlife Service Information for Planning and Consultation (Section 7 Consultation)
- Uses of Information from the Montana Natural Heritage Program
- Web Soil Survey Tool
- Wildfire Risk to Communities
- Xerces Society for Invertebrate Conservation Resources

Soil Map—Custer County Area, Montana
(Swope - Soil Map)



Map Scale: 1:237 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 3 7 14 21

Feet
0 10 20 40 60

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 13N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Custer County Area, Montana
Survey Area Data: Version 25, Aug 27, 2025

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Apr 10, 2021—Jun 17, 2021

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
451A	Glendive fine sandy loam, 0 to 2 percent slopes, occasionally flooded	0.2	100.0%
Totals for Area of Interest		**0.2**	**100.0%**

DNRC Water Resources
Billings Regional Office
1371 Rimtop Dr.
Billings, MT 59105-1978

July 30, 2026

Swope Ranch, LLC
1110 Kinsey Road
Miles City, MT 59301-8740

Subject: Correct and Complete Application for Change No. 42K 30172434

Dear Applicant,

The Department of Natural Resources and Conservation (Department) has determined that your application is correct and complete pursuant to ARM 36.12.1601. Please remember that correct and complete **does not mean that your application will be granted.** The purpose of this letter is to indicate that the Department has enough information to analyze your water right application.

The Department will issue a Draft Preliminary Determination within 60 days of the date of this letter per §85-2-307(2)(b), MCA.

Following issuance of the Draft Preliminary Determination, you (Applicant) will have 15 business days to request an extension of time to submit additional information, if desired pursuant to §85-2-307(3)(a), MCA.

If no extension of time is requested and the Draft Preliminary Determination decision is to grant your application or grant your application in modified form, the Department will prepare a notice of opportunity to provide public comment, per §85-2-307(4)(a), MCA.

If no extension of time is requested and the Draft Preliminary Determination decision is to deny your application, the Department will adopt the Draft Preliminary Determination as the final determination per §85-2-307(3)(d)(ii), MCA.

If you have any questions or concerns about the application process, please contact me.

Sincerely,

C. Strebeck

Cassey Strebeck
Water Resource Specialist
Billings Regional Office, Montana DNRC
Cassey.Strebeck@mt.gov
406-247-4422

APPLICATION TO CHANGE A WATER RIGHT

§ 85-2-302, MCA

Form No. 606 *(Revised 10/2025)*

For Department Use Only

RECEIVED

JUL 10 2026

DNRC - WRD - BILLINGS

Application # 30172434 Basin 42K

Priority Date 07/10/26 Time 0800 AM/PM

Rec'd By CS2

Fee Rec'd $ 1000.00 Check # 11032

Deposit Receipt # BLS2700572

Payor Swope Ranch LLC

Refund $ _____ Date _____

FILING FEE

$2500/$1500 – Without/with filing fee reduction.

$400 – ***(The following types do not qualify for a filing fee reduction)***

- **Replacement well greater than 200 feet from original**
- **Replacement reservoir on the same source**

INFORMATION

An application will be eligible for a filing fee reduction and expedited timelines if the applicant completes a preapplication meeting with the Department (ARM 36.12.1302(1)), which includes submitting any follow-up information identified by the Department (ARM 36.12.1302(3)(c)) and receiving either Department-completed technical analyses or Department review of applicant-submitted technical analyses (ARM 36.12.1302(4) and (5)). An application for the proposed project also must be submitted within 180 days of delivery of Department technical analyses or scientific credibility review and no element on the submitted application can be changed from the completed preapplication meeting form (ARM 36.12.1302(6)). If application is eligible for a filing fee reduction, $500 paid for Form 606P-B will be credited toward filing fees shown above.

Applicant Information: ***Add more as necessary.***

Applicant Name Swope Ranch LLC

Mailing Address 1110 Kinsey Rd City Miles City State MT Zip 59301

Phone Numbers: Home 406-853-5027 Work 406-951-0030 Cell _____

Email Address jacob_102@hotmail.com

Applicant Name _____

Mailing Address _____ City _____ State _____ Zip _____

Phone Numbers: Home _____ Work _____ Cell _____

Email Address _____

Applicant Name _____

Mailing Address _____ City _____ State _____ Zip _____

Phone Numbers: Home _____ Work _____ Cell _____

Email Address _____

Contact/Representative Information: ***Add more as necessary.***

Contact/Representative is: ☑ Applicant ☐ Consultant ☐ Attorney ☐ Other

Contact/Representative Name _____

Mailing Address _____ City _____ State _____ Zip _____

Phone Numbers: Home _____ Work _____ Cell _____

Email Address _____

NOTE: *If a contact person is identified as an attorney, all communication will be sent only to the attorney unless the attorney provides written instruction to the contrary (ARM 36.12.122(2)). If a contact person is identified as a consultant, employee, or lessee, the individual filing the water right form or objection form will receive all correspondence and a copy may be sent to the contact person (ARM 36.12.122(3)).*

Answer every question and applicable follow-up questions. Use the checkboxes to denote yes ("Y"), no ("N"), or not applicable ("NA"). Questions that require items to be submitted to the Department have a submitted ("S") checkbox, which is marked when the required item is attached to the Application. Label all submitted items with the question number for which they were submitted. Narrative responses that are larger than the space provided can be answered in an attachment. If an attachment is used, specify "see attachment" on this form, and label the attachment with the question number. Constrain narrative responses to the specific question as is asked on the form; do not respond to multiple questions in one narrative. Responses in the form of a table may be entered into the table provided on this form or in an attachment. If an attachment is used, the table must have the exact headings found on this form, and "see attachment" must be entered as a response to the relevant question. Clearly label all units in tables and narrative responses.

PREAPPLICATION AND TECHNICAL ANALYSES INFORMATION

1. ☑ **Y** ☐ **N** Do you elect for Department technical analyses to be used for criteria assessment?

2. ☑ **Y** ☐ **N** Did you have a preapplication meeting AND complete a Change Preapplication Meeting Form Part A and Part B (Form 606P-A and 606P-B)?

IF QUESTION 2 IS NO, answer 2.a and 2.b:

2.a. ☐ **S** Submit the Technical Analyses Addendum (Form 606-TAA).

2.b. ☐ **S** ☐ **NA** Submit the technical analyses, if you elected in question 1 for Applicant technical analyses to be used for criteria assessment. Select "NA" if you elected for Departmental technical analyses.

IF QUESTION 2 IS YES, answer 2.c, 2.d, and 2.e:

2.c. ☐ **Y** ☑ **N** Has any element of the project described in this application changed from the mandatory elements of the project described in the completed Form 606P? **If yes,**

2.c.i. Please explain.

_____

_____

_____

_____

_____

_____

2.c.ii. ☐ **S** Submit the Technical Analyses Addendum (Form 606-TAA).

2.d. ☑ **Y** ☐ **N** Are the technical analyses to be used for criteria assessment exactly the same as those completed during the preapplication process? **If no:**

2.d.i. Please explain.

_____

_____

_____

_____

_____

2.d.ii. ☐ **S** Submit the Technical Analyses Addendum (Form 606-TAA).

2.e. ☑ **Y** ☐ **N** Did you elect in question 1 for Department technical analyses to be used for criteria assessment? **If no:**

2.e.i. ☐ **S** Submit the technical analyses.

APPLICATION ADDENDA AND REVIEW

3. ☐ S ☑ NA If the proposed change involves one or more places of storage, submit a Change Storage Addendum (Form 606-SA). This does not include reservoirs, pits, pit-dams, or ponds with a capacity less than 0.1 AF; water tanks; or cisterns (ARM 36.12.113(6)).

4. ☐ S ☑ NA If the project involves an appropriation that is greater than 5.5 CFS and 4,000 acre-feet, submit a Reasonable Use Addendum (Form 606-B).

5. ☐ S ☑ NA If the project involves out-of-state water use, submit an Out-of-State Use Addendum (Form 600/606-OSA).

6. ☐ S ☑ NA If the proposed purposes include marketing or selling water, submit a Water Marketing Purpose Addendum (Form 600/606-WMA). This doesn't include marketing for mitigation/aquifer recharge.

7. ☐ S ☑ NA If the proposed purpose includes instream flow, submit a Change to Instream Flow Addendum (Form 606-IFA).

8. ☐ S ☑ NA If the proposed purposes include mitigation, aquifer recharge, or marketing for mitigation/ aquifer recharge, submit a Mitigation Purpose Addendum (Form 606/606-MIT).

9. ☑ S ☐ NA If the project is in designated sage grouse habitat, submit a review letter from the Montana Sage Grouse Habitat Conservation Program.

10. ☐ S ☑ NA If you propose to add a point of diversion or place of use on State of Montana Trust Land, submit documentation of consent from DRNC Trust Lands Management Division. If you propose to add a place of use on Trust Land with all points of diversion on private land, then, at a minimum, that component of the change authorization will be temporary for the duration of the lease term (§ 85-2-441, MCA).

11. ☐ Y ☑ NA You must provide a written notice of the application to each owner of an appropriation right sharing a point of diversion or means of conveyance (e.g., canal, ditch, flume, pipeline, or constructed waterway) pursuant to § 85-2-302(4)(c), MCA. Submit a copy of this notice and the recipient list.

APPLICATION DETAILS

12. How many change applications will be needed for this project? Refer to ARM 36.12.1305 for more information. 1

13. Fill out the table below for the water rights proposed for change.

Water Right No.	Current Authorized Flow Rate			Flow Rate Needed for Project			Means of Diversion
	Flow	*GPM*	*CFS*	*Flow*	*GPM*	*CFS*	
42K 175169-00	6.68	☐	☑	6.68	☐	☑	Pump
		☐	☐		☐	☐	
		☐	☐		☐	☐	
		☐	☐		☐	☐	
		☐	☐		☐	☐	

14. Is the source surface water or groundwater? Surface Water

15. What is the source name? Yellowstone River

16. Identify the water right elements proposed for change, with a checkmark, for each water right proposed for change.

Water Right No.	42K 175169-00				
Point of Diversion	☑	☐	☐	☐	☐
Place of Use	☐	☐	☐	☐	☐
Purpose of Use	☐	☐	☐	☐	☐
Place of Storage	☐	☐	☐	☐	☐

17. ☑ **S** Submit a historical use map created on an aerial photograph or topographic map that shows the following: section corners, township and range, scale bar, north arrow, all historical points of diversion (POD) labeled with a unique POD ID ("H" followed by a number), all historical places of use (POU), all historical conveyance structures, all historical places of storage, and historical place of use for all overlapping water rights. More than one map may be submitted, if necessary, to clearly convey all required information.

18. ☑ **S** Submit a proposed use map created on an aerial photograph or topographic map that shows section corners, township and range, scale bar, north arrow, and the following elements: points of diversion labeled with a unique POD ID ("P" followed by a number), places of use, conveyance structures, places of storage, and place of use for all overlapping water rights. Include all elements that will be on the water rights after the proposed change, regardless of whether the element will be modified by the change. The map should fully depict the water rights, as proposed, after the change. More than one map may be submitted, if necessary, to clearly convey all required information.

19. ☑ **Y** ☐ **N** Does the proposed change involve a change in point of diversion?

IF YES,

19.a. Describe the location for all *new* and *unchanged* points of diversion to the nearest 10 acres. Label POD ID with the same POD ID number assigned for the proposed use map (question 18).

POD ID	¼	¼	¼	Sec.	Twp.	Rge.	County	Lot	Block	Tract	Subdivision	Gov. Lot	New or Unchanged
P1	SW	NW	SE	14	8N	47E	Custer					6	New

19.b. ☐ **NA** Describe the location of all historical PODs you propose to *retire*. Label POD ID with the same POD ID assigned for the historical use map (question 17). If none are proposed for retirement, select "NA" checkbox.

POD ID	¼	¼	¼	Sec.	Twp.	Rge.	County	Lot	Block	Tract	Subdivision	Gov. Lot
H1	SW	SW	SW	14	8N	47E	Custer					

19.c. What is the means of diversion for all *new* PODs? Means of diversion for surface water includes headgate, pump, dam, and others. Means of diversion for groundwater includes well, developed spring, pit pond, and others.

Pump

20. ☐ **Y** ☑ **N** Does the proposed change involve a change in place of use?

IF YES,

20.a. What are the geocodes of the proposed place of use?

20.b. Describe the legal land description of the proposed place of use, and if the water rights being changed will have an irrigation or lawn and garden purpose, list the number of irrigated acres.

Acres	Gov't Lot	¼	¼	¼	Sec.	Twp.	Rge.	County
	Total							

21. ☐ **Y** ☑ **N** Does the proposed change involve a change in place of use or purpose?

IF YES,

21.a. ☐ **Y** ☐ **N** Do other water rights supplement or overlap the proposed place of use?

IF YES,

21.a.i. How will the water rights be operated to serve the proposed purposes?

_____

_____

_____

_____

21.a.ii. For each supplemental or overlapping water right, please list the average period of diversion and use (MM/DD-MM/DD), flow rate (GPM or CFS), and the volume of water (AF) contributed.

Water Right No.	**Avg. Period of Diversion**	**Avg. Period of Use**	**Flow Rate**			**Volume Contributed**
	MM/DD-MM/DD	*MM/DD-MM/DD*	*Flow*	*GPM*	*CFS*	*AF*
				☐	☐	
				☐	☐	
				☐	☐	
				☐	☐	

22. ☐ **Y** ☑ **N** Are you filing on behalf of another entity? If yes, describe.

_____

_____

23. ☑ **Y** ☐ **N** Do you own the entire historical place of use for all water rights proposed for change?

IF QUESTION 23 IS NO,

23.a. ☐ **Y** ☐ **N** Was the water historically used for sale, rental, distribution, municipal use, or any other context in which water is being supplied to another and it is clear that the ultimate user would not accept the supply without consenting to the use of water on the user's place of use?

IF QUESTION 23.a IS NO,

23.a.i. ☐ **Y** ☐ **N** List the water rights for which you do not own the entire historical place of use.

_____

23.a.ii. ☐ **Y** ☐ **N** Are the water rights listed in question 23.a.i severed from the historical place of use?

IF QUESTION 23.a.ii IS YES,

23.a.ii.1. ☐ **Y** ☐ **N** Do you own the entirety of the severed water rights proposed for change? If yes, skip to question 24. If no, answer question 23.a.iii.

IF QUESTION 23.a.ii OR 23.a.ii.1 IS NO,

23.a.iii. ☐ **Y** ☐ **N** ☐ **NA** Are all owners of the historical place of use or, if applicable, owners of the severed water rights, willing to sign the application?

IF QUESTION 23.a.iii IS NO,

23.a.iii.1. ☐ **S** Submit a Form 641 or 642 to split the water rights being changed for which all owners will not sign.

ADVERSE EFFECT

24. Explain how you can control your diversion in response to a call being made.

Diversion can cease

25. Describe any plans you have for ensuring existing water rights will be satisfied during times of water shortage.

Pump can be running until water at diversion runs out. Diversion will then cease until adequate water supply has returned.

26. ☐ **Y** ☑ **N** Are you aware of any calls that have been made on the source of supply or, if groundwater, on nearby surface water sources?

26.a. If yes, explain.

27. Describe how the proposed change will or will not affect your ability to make call.

POD moved downstream. May be diversions in between historical and proposed POD. Appropriators in between may be subject to call but they were not subject to call historically.

28. ☐ **Y** ☑ **N** Does a water commissioner distribute water or oversee water distribution on your proposed source, or if groundwater, on nearby surface water sources?

28.a. If yes, list the sources.

29. When was the last time each water right proposed for change was appropriated and used beneficially?
April - October 2025

IF THERE HAS BEEN A PERIOD OF NONUSE,

29.a. Why was the water right not used?

29.b. Why will a resumption of use not adversely affect other water users?

29.c. ☐ **Y** ☐ **N** Is the period of nonuse greater than 10 years for any of the water rights proposed for change? If yes, list which water rights.

29.d. ☐ **Y** ☐ **N** Have new water rights been authorized to use the source during the period of nonuse for any of the water rights proposed for change? If yes, explain.

30. ☐ **Y** ☑ **N** Do you propose to add one or more points of diversion or use new or existing conveyance infrastructure that will be shared with one or more existing water rights?

30.a. If yes, describe how the capacity of the shared points of diversion and/or conveyance infrastructure is sufficient for all water rights and how the proposed project will not adversely affect these water rights.

31. ☐ **NA** Answer questions 31.a to 31.b for point of diversion changes. If you do not propose a point of diversion change, mark "NA" instead.

31.a. Are the proposed points of diversion upstream or downstream of the historical points of diversion?

Downstream

31.b. ☑ **Y** ☐ **N** Are there intervening water users between the historical and proposed points of diversion?

31.b.i. If yes, list the water rights.

42K 175255 00, 42K 30071035

ADEQUATE MEANS OF DIVERSION AND OPERATION

32. ☑ **S** Submit a diagram of how you will operate your system from all proposed points of diversion to all proposed places of use.

33. Describe specific information about the capacity of all proposed diversionary structures. This may include, where applicable: pump curves and total dynamic head calculations, headgate design specifications, and dike or dam height and length.

See question 34.

34. Describe the size, materials, capacity, and configuration of infrastructure to convey water from all proposed points of diversion to all proposed places of use.

A 2700 GPM electric pump pumps water into 12" 80lb underground pipe. This leads to three different above ground headgates that tie into 12" above ground gated irrigation pipe that runs along all proposed places of use.

35. ☐ **Y** ☑ **N** Does the proposed conveyance require easements?

35.a. If yes, explain.

36. Describe your plan of operations, including specific information about how water is delivered within the place of use. This may include, where applicable, the range of flow rates needed for a pivot.

See question 34.

37. ☑ **Y** ☐ **N** ☐ **NA** If you propose to add one or more points of diversion, do you own the land where all proposed points of diversion are located? If you do not propose to add one or more points of diversion, mark "NA" instead.

37.a. ☐ **S** If no, submit documentation to show you have the right to use all points of diversion located on each property you do not own. This may include, but is not limited to, a well agreement, an easement, or permission of the party that owns the property where the proposed point(s) of diversion are located.

38. ☐ **Y** ☑ **N** Will your system be designed to discharge water from the project?

38.a. If yes, explain the wastewater disposal method.

38.b. ☐ **Y** ☐ **N** ☐ **NA** Have the necessary permits been obtained to comply with §§ 75-5-410 and/or 85-2-364, MCA?

39. ☐ **Y** ☑ **N** Is the means of diversion for any proposed point of diversion a well?

IF YES,

39.a. ☐ **Y** ☐ **N** Have all wells been drilled?

39.b. For all wells that have been drilled, what is the name of the well driller and, if available, what is their license number?

39.c. ☐ **Y** ☐ **N** ☐ **NA** For all wells yet to be drilled, will a licensed well driller construct the wells? If no wells are yet to be drilled, mark "NA" instead.

39.d. ☐ **S** ☐ **NA** Submit any well logs not yet submitted to the Department, such as for wells drilled after submittal of Form 606P. If all well logs have been submitted to the Department, mark "NA."

BENEFICIAL USE

40. ☑ **Y** ☐ **N** Does the Department have a standard period of diversion, period of use, flow rate, and/or volume for any of the purposes for which water is used? Department standards can be found in the DNRC Water Calculation Guide, ARM 36.12.112, ARM 36.12.115, and ARM 36.12.1902.

40.a. If yes, list the purposes for which the Department has a standard and note whether the water use falls within or outside the standard.

Irrigation, volume is outside standard (volume is 4 AF/AC). volume may be necessary for sandy soils.

40.b. For any of the purposes with no Department standard or with proposed beneficial use that falls outside of Department standards, explain how the use is reasonable for that purpose.

41. ☐ **Y** ☑ **N** Will your proposed project be subject to Montana Department of Environmental Quality (DEQ) requirements for a public water supply (PWS) system or Certificate of Subdivision Approval (COSA)?

42. ☐ **Y** ☑ **N** Are you proposing to use surface water for in-house domestic use?

42.a. ☐ **Y** ☐ **N** If yes, does a COSA exist for the proposed place of use?

42.a.i. ☐ **S** If yes, submit the COSA.

POSSESSORY INTEREST

43. ☐ **Y** ☑ **N** Do you meet one of the exceptions to possessory interest requirements, pursuant to ARM 36.12.1802 and § 85-2-402(2)(d), MCA? Exceptions include cases 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, and applications for the purposes of instream flow, mitigation, and marketing for mitigation.

43.a. If yes, explain.

_____

_____

_____

44. ☑ **Y** ☐ **N** ☐ **NA** Do you own all proposed places of use? Mark "NA" if you meet one of the exceptions to the possessory interest requirement.

44.a. ☐ **S** If no, explain and submit documentation that shows you either have possessory interest or written permission of the parties with possessory interest of the proposed place of use.

_____

_____

_____

PROPOSED COMPLETION PERIOD

45. How many years will be needed to complete this project and to submit to the DNRC a Project Completion Notice (Form 618)? Project is complete.

46. Describe why this amount of time is needed to complete this project.

_____

_____

_____

_____

AFFIDAVIT & CERTIFICATION

Read carefully before you sign and review with legal counsel if you have any questions. All owners (or trustees) must sign the form. ***If the owner is a business or trust, include the title of the representative(s) signing the form (i.e., president, trustee, managing partner, etc.) and provide documentation that establishes the authority of the representative to sign the application.*

I affirm the information provided for this application is to the best of my knowledge true and correct. If a preapplication meeting form was submitted, I am aware that my application for this project will not qualify for a discounted filing fee and expedited timelines if upon submittal of the application to the Department, I changed any element of the proposed application from the preapplication meeting form and follow-up materials (ARM 36.12.1302(6)(a)).

I affirm I have 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, unless this application meets an exception to the possessory interest requirements in ARM 36.12.1802(1)(b).

I understand that making a false statement under oath or affirmation in this application and official proceedings throughout the examination of my application may subject me to prosecution under § 45-7-202, MCA, a misdemeanor punishable by a jail term not to exceed 6 months or a fine not to exceed $500, or both. I have read this Affidavit and understand the terms and conditions.

I declare under penalty of perjury and under the laws of the state of Montana that the foregoing is true and correct.

Printed Name MICHAEL SWOPE – SWOPE RANCH LLC

Applicant Signature Swope Ranch LLC / Michael C Swope mem/Mgr. Date: 5/22/26

Printed Name NANCY SWOPE

Applicant Signature Nancy Swope Date: 5/22/26

Printed Name Michael C Swope

Applicant Signature Michael C. Swope Date: 5/22/26

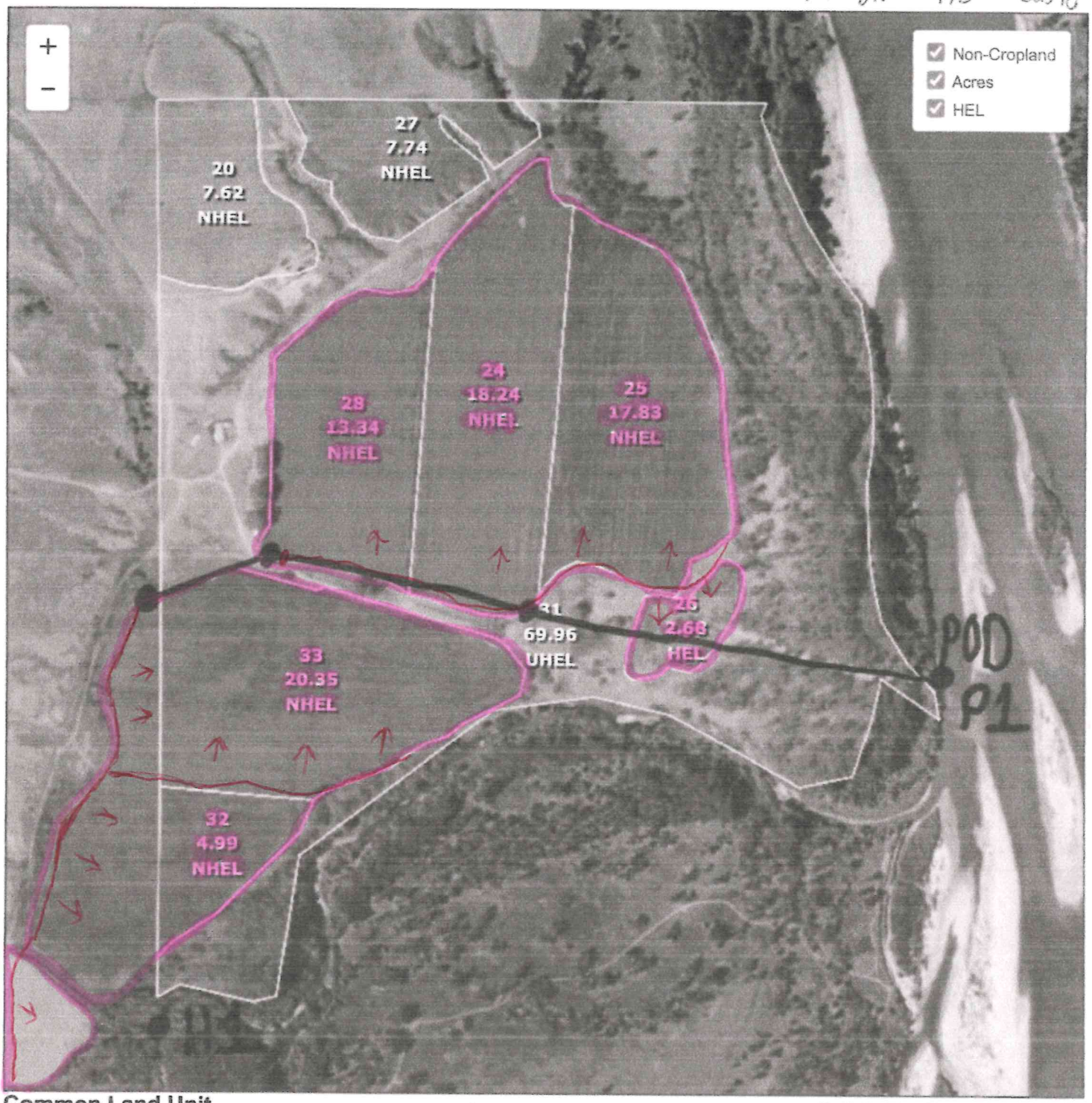
Jacob Swope

6/22/26

#18 Proposed Use Map #32 Adequate Means of Diversion and Operation

Custer County, Montana Pipeline and places of use

Sec	Twp	Rge	County
14	8N	47E	Custer



Common Land Unit
Cropland Non-cropland CRP

Questions #8, #9, #37

2025 Crop Year

Farm **4368**
Tract **16189**

12" 80lb underground pipe

Black line =

Wetland Determination Identifiers
- Restricted Use
- Limited Restrictions
- Exempt from Conservation Compliance Provisions

Pink outline = Places of use

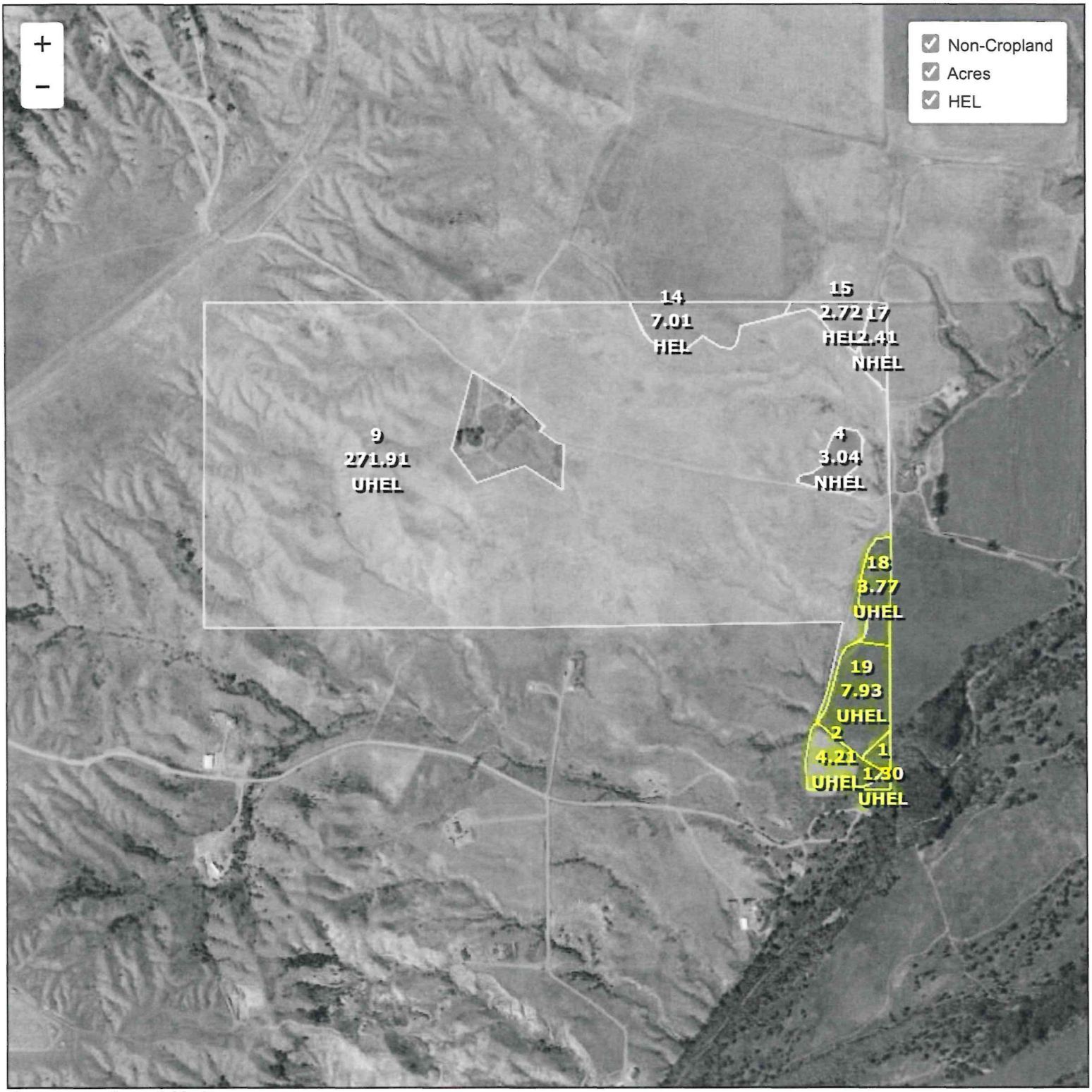
Red line = 12" Gated Pipe above ground

N W E S

Tract 22 of 24

United States Department of Agriculture (USDA) Farm Service Agency (FSA) maps are for FSA Program administration only. This map does not represent a legal survey or reflect actual ownership; rather it depicts the information provided directly from the producer and/or National Agricultural Imagery Program (NAIP) imagery. The producer accepts the data 'as is' and assumes all risks associated with its use. USDA-FSA assumes no responsibility for actual or consequential damage incurred as a result of any user's reliance on this data outside FSA Programs. Wetland identifiers do not represent the size, shape, or specific determination of the area. Refer to your original determination (CPA-026 and attached maps) for exact boundaries and determinations or contact USDA Natural Resources Conservation Service (NRCS).

USDA **Custer County, Montana** Places of Use #2 Sec 15 Twp 8N Rge 47E County Custer



Common Land Unit
Cropland Non-cropland CRP

2025 Crop Year

Yellow Outline = Places of Use

Wetland Determination Identifiers
- Restricted Use
- Limited Restrictions
- Exempt from Conservation Compliance Provisions

Farm **4368**
Tract **16186**

N W E S

Tract 21 of 24

United States Department of Agriculture (USDA) Farm Service Agency (FSA) maps are for FSA Program administration only. This map does not represent a legal survey or reflect actual ownership; rather it depicts the information provided directly from the producer and/or National Agricultural Imagery Program (NAIP) imagery. The producer accepts the data 'as is' and assumes all risks associated with its use. USDA-FSA assumes no responsibility for actual or consequential damage incurred as a result of any user's reliance on this data outside FSA Programs. Wetland identifiers do not represent the size, shape, or specific determination of the area. Refer to your original determination (CPA-026 and attached maps) for exact boundaries and determinations or contact USDA Natural Resources Conservation Service (NRCS).

#11 Historical Use Map

8N 47E 15

8N 47E 14

N



H1

Black Line = Ditch

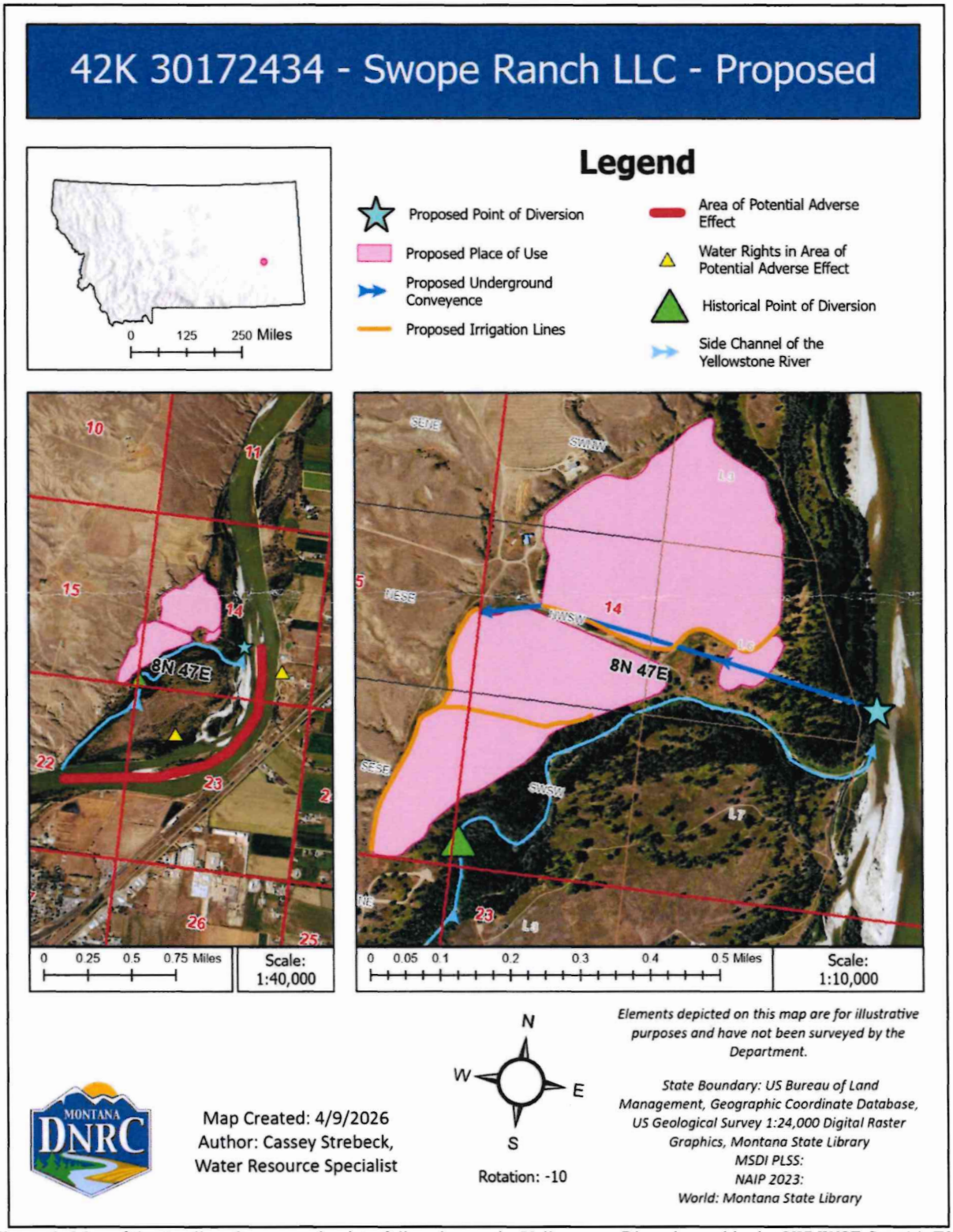


Figure 1: Map of the Applicant's proposed point of diversion on the Yellowstone River, located in the SWNWSE Sec. 14, T8N, R47E, and place of use of 83.80 acres in W2 Sec. 14 and 15 acres in E2E2SE Sec. 15 T8N R47E, Custer County.

MONTANA SAGE GROUSE
HABITAT CONSERVATION PROGRAM

GREG GIANFORTE, GOVERNOR
STATE OF MONTANA
1539 ELEVENTH AVENUE
PHONE: (406) 444-0554
FAX: (406) 444-6721
PO BOX 201601
HELENA, MONTANA 59620-1601

Project No. 7254
Governor's Executive Orders 12-2015 and 21-2015
Swope Ranch Irrigation

Jacob Swope
1110 Kinsey Road
Miles City, MT 59301

January 13, 2026

Dear Mr. Swope,

The Montana Sage Grouse Habitat Conservation Program received a request for consultation and review of your project or proposed activity on December 13, 2025. Based on the information provided, this Project is located within General Habitat for sage grouse.

Executive Orders 12-2015 and 21-2015 set forth Montana's Sage Grouse Conservation Strategy. Montana's goal is to maintain viable sage grouse populations and conserve habitat so that Montana maintains flexibility to manage our own lands, our wildlife, and our economy and ensure that a listing under the federal Endangered Species Act is not warranted in the future.

The Program has completed its review, including:

Project Description:

Project Type: Agriculture – Water
Project Disturbance: 13.33 Acres Existing Irrigation Field; Two Irrigation Pump Sites Totaling 0.004 Acres
Construction Timeframe: December 13, 2025 to December 14, 2025; Temporary (<1 Year)
Operations Timeframe: December 15, 2025; Permanent (>25 Years)

Project Location:

Legal: Township 8 North, Range 47 East, Sections 14, 15
County: Custer
Ownership: Fish, Wildlife, and Parks, Private

Project Description and Executive Orders 12-2015 and 21-2015 Consistency:

The Swope Ranch Irrigation Project proposes to install a new irrigation pump in General Habitat for sage grouse.

The Swope Ranch proposes to remove an irrigation pump and install a new pump approximately 1.23 miles northeast of Billings, Montana in Custer County. See Figure 1 (Swope Ranch Irrigation Project and Lek Location Map). No Project activities will occur within designated sage grouse habitat. There are irrigated lands associated with this Project inside of General Habitat for sage grouse and they will remain the existing size.

To implement the Project, the old pump will be removed from its current location along the Yellowstone River. The new pump will then be installed at a closer location to the existing irrigated fields along the Yellowstone River. No reclamation is planned for this Project.

Based on the information you provided, your project is not within two miles of an active sage grouse lek in General Habitat. See Figure 1 (Swope Ranch Irrigation Project and Lek Location Map).

Discussion:

Exempt activities are identified in Executive Order 12-2015 (EO) as described in Attachment F. The activity described for the Swope Ranch Irrigation Project (irrigation without conversion of sagebrush) is exempt from stipulations per Executive Order 12-2015. Your proposed Project may need to obtain additional permits or authorizations from other Montana state agencies or possibly federal agencies. They are very likely to request a copy of this consultation letter, so please retain it for your records.

Program Recommendations:

The following stipulations are taken from Montana Executive Order 12-2015. These stipulations are designed to maintain existing levels of suitable sage grouse habitat by managing uses and activities in sage grouse habitat to ensure the maintenance of sage grouse abundance and distribution in Montana. Development should be designed and managed to maintain populations and sage grouse habitats.

- Weed management is required within General Habitat for sage grouse. Reclamation of disturbed areas must include control of noxious weeds and invasive plant species, including cheatgrass (*Bromus tectorum*) and Japanese brome (*Bromus japonicas*).

Your activities are consistent with the Montana Sage Grouse Conservation Strategy. Your proposed project or activity may need to obtain additional permits or authorization from other Montana state agencies or possibly federal agencies. They are very likely to request a copy of this consultation letter, so please retain it for your records.

If the location or boundaries of your proposed project or activity change in the future, or if new activities are proposed within one of the designated sage grouse habitat areas, please visit https://sagegrouse.mt.gov/ and submit the new information.

Thanks for your interest in sage grouse and your commitment to taking the steps necessary to ensure Montana's Sage Grouse Conservation Strategy is successful.

Sincerely,

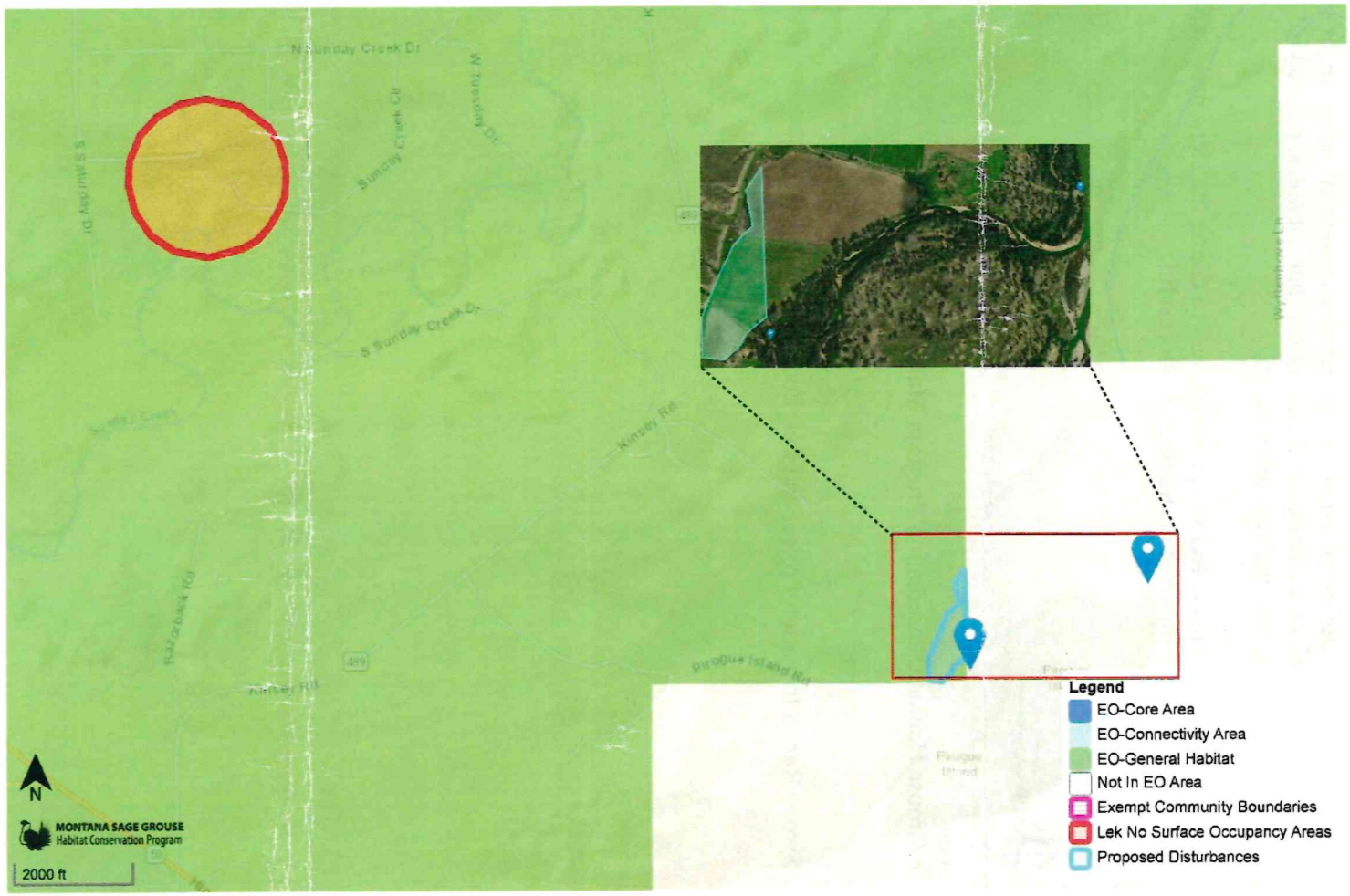
Therese Hartman
Montana Sage Grouse Habitat Conservation Program Manager

Enclosures:

1. Figure 1. Swope Ranch Irrigation Project and Lek Location Map

Hosted by the Montana Department of Natural Resources and Conservation
Director's Office: (406) 444-2074

7254_Swope Ranch Irrigation Project and Lek Location



DNRC Water Resources
Billings Regional Office
1371 Rimtop Dr.
Billings, MT 59105-1978

May 7, 2026

Swope Ranch, LLC
1110 Kinsey Road
Miles City, MT, 59301-8740

Subject: Complete Technical Analyses for Change Preapplication No. 42K 30172434

Dear Applicant,

As designated on the submitted Preapplication Meeting Form per §85-2-302(3)(b), MCA, the Department of Natural Resources and Conservation (DNRC or Department) has completed the technical analyses for Change Preapplication No. 42K 30172434 based on the information provided in your Preapplication Meeting Form accepted by the Department on March 23, 2026. The technical analyses can be found in the attached report.

This Technical Analyses Report **IS**: A collection of facts that the DNRC has gathered, including content provided in the Preapplication Meeting Form materials. The Department will use these data to analyze the criteria in §85-2-402, MCA if you submit an application for the project described in the completed Preapplication Meeting Form.

This Technical Analyses Report **IS NOT**: An analysis or discussion of whether the Preapplication Meeting Form as filed meets the criteria (§85-2-402, MCA).

You have 180 days to submit the Water Right Change Application Form 606 considering the information provided in the technical analyses and Preapplication Meeting Form. If the Application Form is not submitted to the Billings Regional Office by November 3, 2026, a new preapplication meeting will be required to process the Application with expedited timelines (ARM 36.12.1302(6)(b)). If any details described in the submitted Application are changed from that of the submitted Preapplication Meeting Form, the discounted filing fee and expedited timelines will not apply (ARM 36.12.1302(6)(a)). Please note that the technical analyses will expire one year from the date of this letter (ARM 36.12.1302(8)).

Please let me know if you have any questions.

Sincerely,

C. Strebeck

Cassey Strebeck
Water Resource Specialist
Billings Regional Office, Montana DNRC
Cassey.Strebeck@mt.gov
406-247-4422

Surface Water Change Technical Analyses Report

Department of Natural Resources and Conservation (DNRC/ Department)
Water Resources Division

Cassey Strebeck, Water Resource Specialist, Billings Regional Office

Applicant	Swope Ranch LLC
Application No.	42K 30172434
Proposed Point of Diversion	SWNWSE Section 14, Township 8N, Range 47E

Overview

This report analyzes data submitted by the Applicant in support of the above-mentioned water right change application. This report provides technical analyses as required under the Administrative Rules of Montana (ARM) 36.12.1303 in support of the water rights criteria assessment as required in § 85-2-402, Montana Code Annotated (MCA). This report was completed by regional office staff.

This Surface Water Change Technical Analyses Report contains the following sections:

Surface Water Change Technical Analyses Report 1
Overview 1
1.0 Application Details 2
2.0 Historical Use Technical Analysis 4
2.1 Historical Field Consumed and Applied Volumes 4
2.2 Historical Conveyance Losses 5
2.3 Historical Diverted Volume 5
2.4 Summary of Historical Use 6
3.0 Analysis of Impacted Surface Water Sources 6
3.1 Summary of Proposed Use 6
3.2 Area of Potential Adverse Effect 8
Review 8
References 8

1.0 Application Details

The Applicant proposes to change the point of diversion for Statement of Claim 42K 175169-00. No other changes to this water right are proposed. The historical point of diversion is located on a side channel of the Yellowstone River in the SWSWSW (Sec.) 14, Township (T) 8N, Range (R) 47E, Custer County. The proposed point of diversion is located on the mainstem of the Yellowstone River in the SWNWSE Sec. 14, T8N, R47E, Custer County. The existing place of use will remain as 83.80 acres in the W2 Sec. 14 and 15 acres in the E2E2SE Sec. 15, T8N, R47E, Custer County. The water right proposed for change is in Table 1.

Table 1: Statement of Claim 42K 175169-00, Use Prior to July 1, 1973 (Historical)

Water Right Number	Flow Rate	Volume	Purpose	Acres	Period Of Use	Place of Use	Point of Diversion	Priority Date
42K 175169-00	6.68 CFS	395.20 AF	Irrigation	98.8	Apr. 1 to Oct. 1	83.80 acres in W2 Sec. 14 & 15 acres in E2E2SE Sec. 15 T8N, R47E, Custer County	SWSWSW Sec. 14, T8N, R47E, Custer County	May 1, 1910

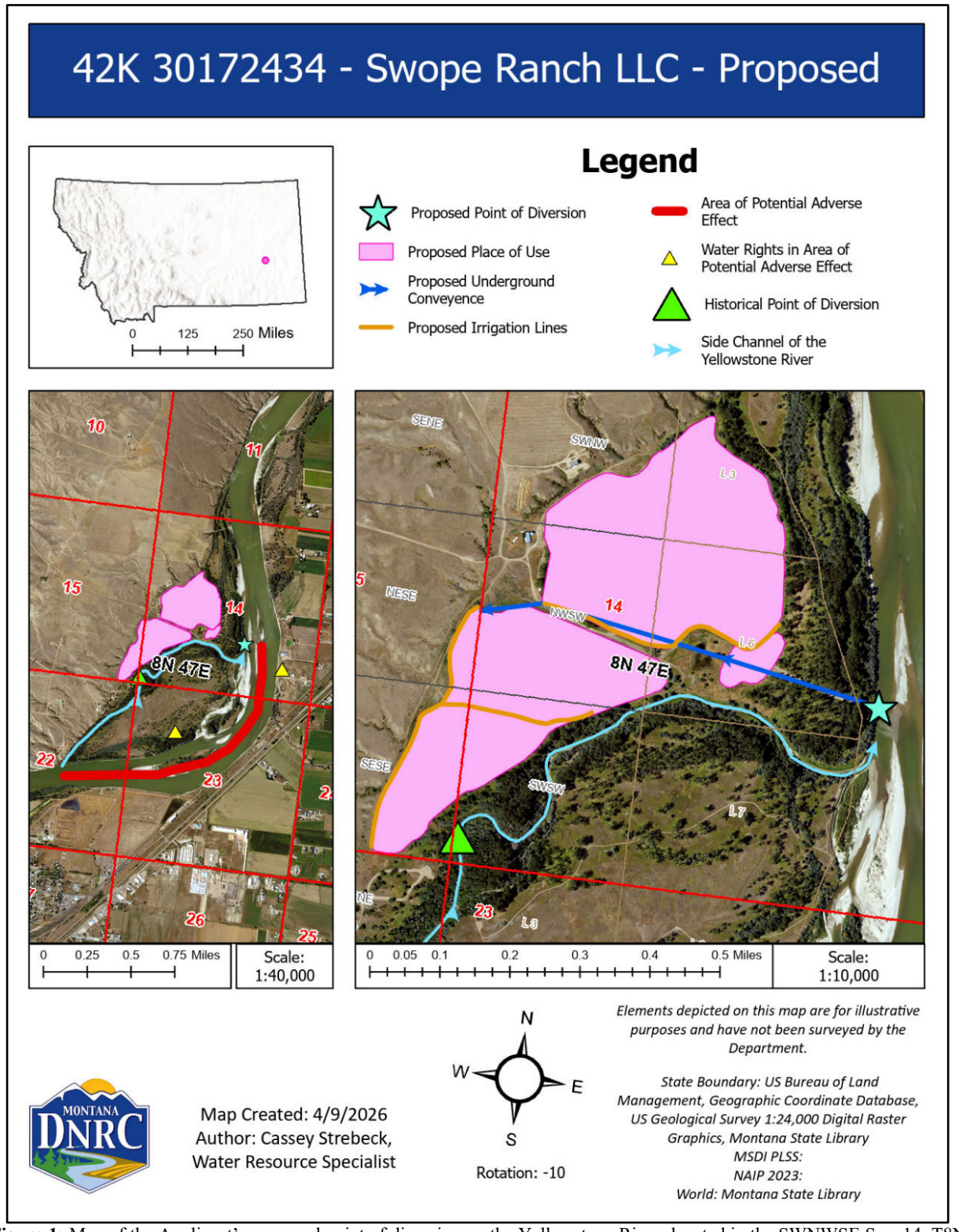


Figure 1: Map of the Applicant's proposed point of diversion on the Yellowstone River, located in the SWNWSE Sec. 14, T8N, R47E, and place of use of 83.80 acres in W2 Sec. 14 and 15 acres in E2E2SE Sec. 15 T8N R47E, Custer County.

2.0 Historical Use Technical Analysis

2.1 Historical Field Consumed and Applied Volumes

The consumed volume for irrigation is based on the net irrigation requirement (NIR) from USDA Natural Resources Conservation Service Irrigation Water Requirements (IWR) at a representative weather station. The NIR is multiplied by a county-wide management factor (from ARM 36.12.1902) to produce an adjusted NIR representative of actual crop yields in Montana. Crop consumption is determined by multiplying the adjusted NIR by the number of acres of irrigation. Crop consumption is then divided by the field efficiency identified from the irrigation method and ARM 36.12.115 to determine the field applied volume. Irrecoverable losses (IL) are 5% of the field applied volume for flood irrigation. The total consumed volume for irrigation is the crop consumption plus irrecoverable losses. The total non-consumed volume is the field applied volume minus the irrigation total consumed volume.

USDA aerial photo 378-191 dated October 9, 1978, shows 101.25 acres irrigated within the claimed place of use for Statement of Claim 42K 175169-00.

USGS aerial photo, AR1VBLS00010273, dated July 17, 1966, shows 98.0 acres irrigated within the claimed place of use for Statement of Claim 42K 175169-00.

The Custer County Water Resource Survey, Part 2, published in 1948, shows the Applicant's land irrigated with a pump and private ditches. Water Resource Survey field notes provided by the State of Montana State Engineer's Office, dated May 15, 1947, state that John Roberts, the owner at the time, irrigated 90 acres with a potential of 8 more acres, using a pump from a slough on the Yellowstone River, represented by photo number MA 13-186. Water Resource Survey photo MA 21-40 dated August 6, 1944, shows 94.0 acres irrigated within the claimed place of use for Statement of Claim 42K 175169-00.

Verified acreage found is shown in Table 2.

Table 2: Aerial Imagery Analysis of Statement of Claim 42K 175169-00

Source	Year	Acres	Image ID
USDA	10/09/1978	101.25	378-191
USGS	07/17/1966	98.0	AR1VBLS00010273
WRS	08/06/1944	94.0	MA 21-40

Statement of Claim 42K 175169-00, with the priority date of May 1, 1910, currently owned by Swope Ranch, LLC, has historically furrow-flood irrigated 98.80 acres: 15.00 acres in E2E2SE Sec. 15, T8N, R47E, Custer County, and 83.80 acres in W2 of Sec. 14, T8N, R47E, Custer County. Water was pumped from the Yellowstone River in the SWSWSW Sec. 14, T8N, R47E, Custer County, and conveyed through a pipeline to the first field. There are no conveyance losses associated with the conveyance system from the point of diversion to the first irrigated field; therefore, no conveyance losses will be calculated by the Department. From the pipeline, water was moved via a main ditch, a side ditch, and pipelines to furrow-flood irrigate, with no storage. Historical crops consisted of alfalfa, barley, and hay, with 3 cuttings amounting to 15 days of no irrigation in the season. There are no historical supplemental rights on the place of use. As of May 2, 2025, there have been no changes to Statement of Claim 42K 175169-00 due to the second Preliminary Decree process for basin 42K; therefore, this application will be analyzed based on information available before July 1, 1973 (ARM 36.12.1902 (1)(a)).

The historical consumed and field-applied volumes have been calculated using the inputs shown in Table 3, following the methods described at the top of Section 2.1 above and in ARM 36.12.1902.

Table 3: Historical use of Statement of Claim 42K 175169-00

Irrigation Method	Acres	IWR (in)[1]	Mgmt. Factor[2]	Field Efficiency	Crop Consumption (AF)	Field Applied Volume (AF)	IL[3] (AF)	Total Consumed Volume (AF)
Furrow-Flood	98.8	26.68	0.545	0.60	119.7[4]	199.5[4]	10.0[4]	129.7[4]

[1]Miles City IWR Weather Station
[2]Custer County Historical Use Management Factor (1964-1973)
[3]Irrevocable losses are 5% of the field application volume
[4]Rounded to the tenths place after calculations

2.2 Historical Conveyance Losses

There are no historical conveyance losses considered for the historical use of Statement of Claim 42K 175169-00, because water has historically (and currently) been diverted by pump and conveyed through a closed pipeline to the fields' distribution system.

2.3 Historical Diverted Volume

Per ARM 36.12.1902(10), the historically diverted volume is equal to the sum of the historical field application volume and the historical conveyance loss volume. Because there are no conveyance losses attributable to Statement of Claim 42K 175169-00, the historical diverted

volume is equal to the historical field applied volume. Table 4 below summarizes the historical field applied and conveyance loss volumes.

Table 4: Historical Diverted Volume of Statement of Claim 42K 175169-00

Water Right No.	Field Application Volume (AF)	Conveyance Loss Volume (AF)	Historical Diverted Volume (AF)
42K 175169-00	199.5[1]	0	199.5[1]

[1]Rounded to the tenths place after calculations

2.4 Summary of Historical Use

The Department will consider the following values in Table 5 when evaluating the historical use of Statement of Claim 42K 175169-00 for the adverse effect criterion:

Table 5: Summary of historical use of Statement of Claim 42K 175169-00

Water Right No.	Historical Purpose	Max Historical Acres	Historical Place of Use	Historical Point of Diversion	Max Historical Flow Rate	Historically Consumed Volume	Historically Diverted Volume
42K 175169-00	Irrigation	98.8	83.8 acres in W2 Sec. 14 & 15 acres in E2E2SE Sec. 15 T8N, R47E, Custer County	SWSWSW Sec. 14, T8N, R47E, Custer County	6.68 CFS	129.7[1] AF	199.5[1] AF

[1]Rounded to the tenths place after calculations

3.0 Analysis of Impacted Surface Water Sources

3.1 Summary of Proposed Use

The Applicant proposes to change the point of diversion for Statement of Claim 42K 175169-00 by moving the historical point of diversion from a side channel of the Yellowstone River in the SWSWSW Sec. 14, T8N, R47E, Custer County, downstream, approximately 0.86 river miles, to pump directly from the mainstem of the Yellowstone River in the SWNWSE Sec. 14, T8N, R47E, Custer County. The Applicant does not propose to make any additional changes. There are no supplemental rights on the place of use. The proposed place of use consists of 83.80 acres in W2 Sec. 14 & 15 acres in E2E2SE Sec. 15, T8N, R47E, Custer County. The Applicant proposes to use Statement of Claim 42K 175169-00 as shown in Table 6:

Table 6: Summary of the proposed use of Statement of Claim 42K 175169-00

Water Right No.	Proposed Purpose	Proposed Irrigated Acres	Proposed Place of Use	Proposed Point of Diversion	Proposed Flow Rate	Proposed Consumed Volume	Proposed Diverted Volume
42K 175169-00	Irrigation	98.8	83.3 acres in W2 Sec. 14 & 15 acres in E2E2SE Sec. 15 T8N, R47E, Custer County	SWSWSW Sec. 14, T8N, R47E, Custer County	6.68 CFS	129.7[1] AF	199.5[1] AF

[1]Rounded to the tenths place after calculations

Following the procedures outlined in the Historical Use section 2.1 above, the proposed consumed and diverted but non-consumed volumes have been calculated using the inputs shown in Table 7, following the methods described above and in ARM 36.12.1902.

Table 7: Proposed irrigation within the historical place of use of Statement of Claim 42K 175169-00

Irrigation Method	Acres	IWR (in)[1]	Mgmt. Factor[2]	Field Efficiency	Crop Consumption (AF)	Field Applied Volume (AF)	IL (AF)	Total Consumptive Volume (AF)	Non-Consumptive Volume (AF)
Furrow-Flood	98.8	26.68	0.545	0.60	119.7[3]	199.5[3]	10.0[3]	129.7[3]	69.8[3]

[1]Miles City IWR Weather Station
[2]Custer County Historical Use Management Factor (1964-1973)
[3]Rounded to the tenths place after calculations

The volumes associated with the proposed diverted and consumed use are summarized below in Table 8.

Table 8: Volumes associated with historical and proposed use

Purpose	Historically Consumed Volume	Proposed Consumptive Volume	Historically Diverted Volume	Proposed Diverted Volume
Furrow-Flood Irrigation	129.7[1] AF	129.7[1] AF	199.5[1] AF	199.5[1] AF

[1]Rounded to the tenths place after calculations

3.2 Area of Potential Adverse Effect

The Department has considered a potentially affected reach on the source of supply. This reach was determined by accounting for the location of the proposed and historical points of diversion. This reach extends from the head of the side channel, a point at which the channel broke away from the mainstem, located in the NWSE Sec. 22, T8N, R47E, Custer County, moving downstream, approximately 1.62 river miles, bypassing the historical point of diversion in the SWSWSW Sec. 14, T8N, R47E, Custer County, to the proposed point of diversion in the SWNWSE Sec. 14, T8N, R47E, Custer County.

There are two water rights within this reach, as illustrated in Table 9. Provisional Permit 42K 30071035, with the priority date October 21, 2014, has a volume and flow rate for lawn and garden irrigation. Statement of Claim 42K 175255-00, with the priority date of December 31, 1922, currently owned by the State of Montana Department of Fish, Wildlife & Parks, had a flow rate but no claimed volume. The volume was calculated using the Department standard practice of multiplying the number of acres by the lower range of 60% for the climatic region (ARM 36.12.115). Statement of Claim 42K 175255-00 is in climatic area one and was calculated to be 132.0 AF (43 acres x 3.07 AF/AC = 132.01 AF).

Table 9: Water Rights within the Area of Potential Adverse Effect

Water Right No.	Owners Name	Purpose	Period of Diversion	Acres	Flow Rate (GPM)	Flow Rate (CFS)	Volume (AF)	Priority Date
42K 30071035	CARLA BOUCHER; JAMES BOUCHER	LAWN AND GARDEN IRRIGATION	05/01 to 09/30	0.29	15	0.03342	0.73	10/21/2014
42K 175255-00	MONTANA DEPT OF FISH WILDLIFE & PARKS	CROP IRRIGATION	05/01 to 09/01	43	100	0.222801	132.0*	12/31/1922

*Calculated by the Department

Review

This document has been reviewed by the Department on May 7, 2026

References

DNRC Change Manual, February 2025
DNRC Permit Manual, February 2025

DNRC Water Resources
Billings Regional Office
1371 Rimtop Dr.
Billings, MT 59105-1978

March 23, 2026

Swope Ranch, LLC
1110 Kinsey Road
Miles City, MT, 59301-8740

Subject: Complete Preapplication Form for Change Application No. 42K 30172434

Dear Applicant,

The Billings Regional Office of the Department of Natural Resources and Conservation (DNRC or Department) received your Preapplication Meeting Form and preapplication meeting fee on March 16, 2026, and the Department deemed the submitted Preapplication Meeting Form to be successfully completed per ARM 36.12.1302 on March 23, 2026.

As designated on the submitted Preapplication Meeting Form per § 85-2-302(3)(b), MCA, the Department will produce the technical analyses based on the parameters included in the Preapplication Meeting Form (ARM 36.12.1302(4)) within 45 days of March 23, 2026.

Please let me know if you have any questions.

Sincerely,

C. Strebeck

Cassey Strebeck
Water Resource Specialist
Billings Regional Office, Montana DNRC
Cassey.Strebeck@mt.gov
406-247-4422

PREAPPLICATION MEETING FORM: PART B
CHANGE

§ 85-2-302(3)(b), MCA
Form No. 606P-B *(Revised 02/2025)*

For Department Use Only

Application # 30172434 Basin 42K
Form Received March 16, 2026
Fee Rec'd $ 500.00 Check # 10974
Deposit Receipt # BLS 26166866
Payor Swope Ranch LLC
Form Returned _____
Refund $ _____ Date _____

PREAPPLICATION MEETING FEE
$ 500

FILING FEE REDUCTION & EXPEDITED TIMELINE
An application will be eligible for a filing fee reduction and expedited timelines if the Applicant completes a preapplication meeting with the Department (ARM 36.12.1302(1)), which includes submitting any follow-up information identified by the Department (ARM 36.12.1302(3)(c)) and receiving either Department-completed technical analyses or Department review of Applicant-submitted technical analyses (ARM 36.12.1302(4) and (5)). An application for the proposed project also must be submitted within 180 days of delivery of Department technical analyses or scientific credibility review and no element on the submitted application can be changed from the completed preapplication meeting form (ARM 36.12.1302(6)).

The Applicant is responsible for providing a "Follow-up Responses" document for all follow-up identified in Preapplication Meeting Form Part A (Form 606P-A). The Applicant may not alter Form 606P-A. If a response has changed to a question answered at the preapplication meeting, the Applicant can provide a new response in a separate document entitled "Amended Responses" with the question number labeled.

The following guidelines are applicable to both the "Follow-up Responses" and "Amended Responses" documents. Clearly label all question numbers. Answer questions in the same format as Form 606P-A. For responses in the form of checkboxes, write "Y", "N", or "S". Constrain narrative responses to the specific question as is asked on the form; do not respond to multiple questions in one narrative. Label units in narrative responses and tables. Tables must have the exact headings found on the form. Questions that require items to be submitted to the Department may be marked "S" when the required item is included with the document.

1. ☑ Y ☐ N Are you submitting this form in response to a determination by the Department that a previously submitted Form 606P-B was inadequately completed?

   If yes,

   a. Date form was returned ("Form Returned" date found in "For Department Use Only" box on the previously submitted Form 606P-B): March 3, 2026

   b. If a "Follow-up Responses" or "Amended Responses" document is required by questions 2 or 3, submit complete updated documents with responses that stand-alone. The Department will only use the most recently submitted "Follow-up Responses" and "Amended Responses" documents for departmental technical analyses or scientific credibility review; the Department will not use multiple versions of a document.

2. ☑ Y ☐ N Were any questions identified as requiring follow-up on Form 606P-A?

   If yes,

   a. ☑ S Submit "Follow-up Responses" document for all questions requiring follow-up.

3. ☐ **Y** ☑ **N** Are you submitting amended responses to any questions from Form 606P-A?

If yes,

a. ☐ **S** Submit "Amended Responses" document and record in the table below each question number with an amended response. The amended response will entirely replace the previous response; the amended response cannot build off the previous response.

Question No.	Question No.	Question No.	Question No.

FOLLOW-UP AND AMENDED RESPONSES AFFIDAVIT & CERTIFICATION

"I attest that this preapplication meeting form (Form 606P-A and Form 606P-B), follow-up, and amended responses accurately portray the proposed project. I am aware that my application for this project will not qualify for a discounted filing fee and expedited timelines if, upon submittal of the application to the department, I change any element of the proposed application from the preapplication meeting form, amended responses, or follow-up materials (ARM 36.12.1302(6)(a))."

Swope Ranch LLC
Member

Applicant Signature — Date: 3/9/2026

Applicant Signature — Date

"We confirm that the preapplication form (Form 606P-A and Form 606P-B), amended responses, and follow-up information are adequate for the Department to proceed with technical analyses in ARM 36.12.1303. Or, if the Applicant has elected to complete technical analyses, we confirm they have submitted each required element of technical analysis based on the proposed project and the Department is able to proceed with the scientific credibility review (ARM 36.12.1303(8))."

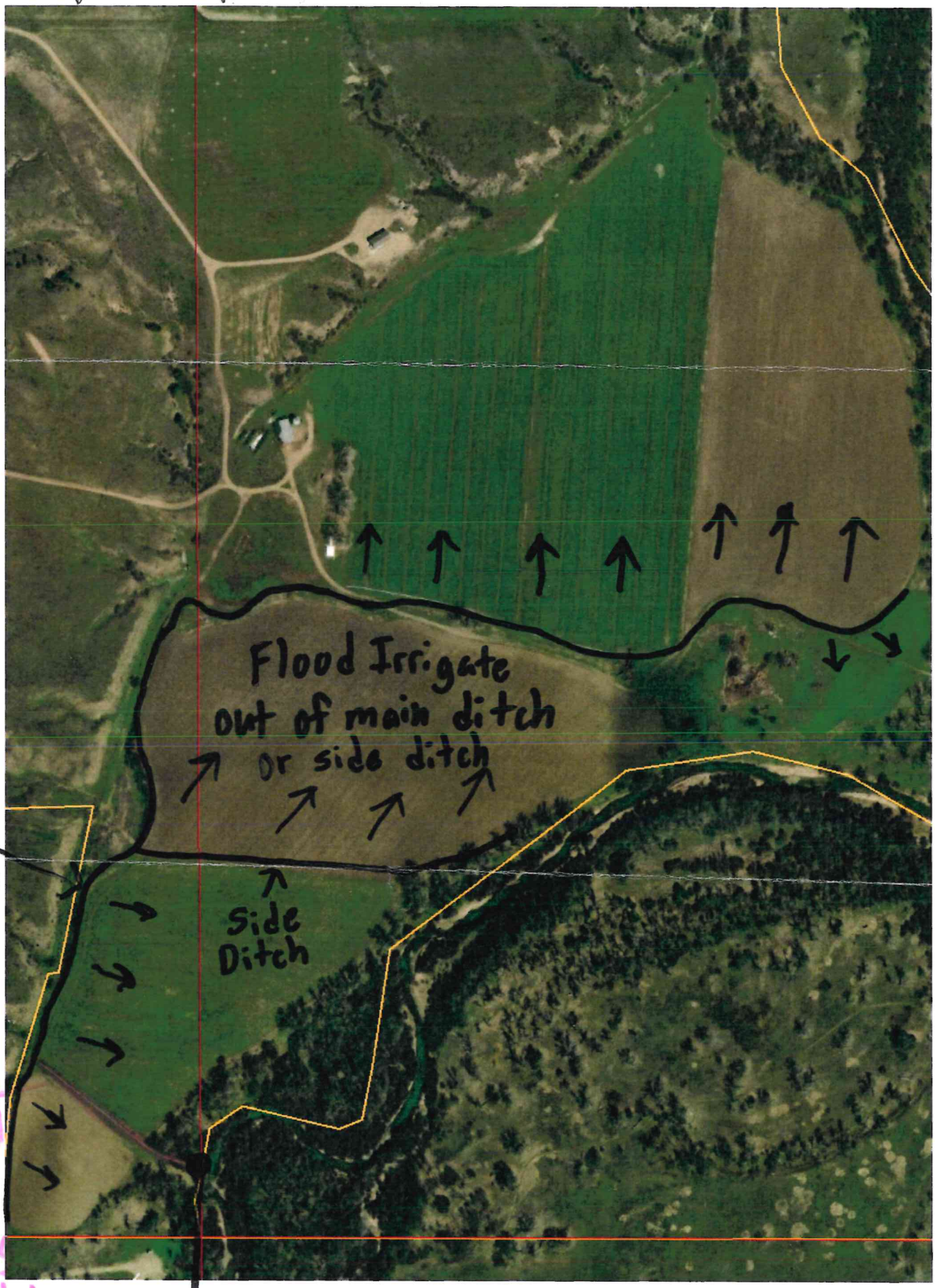
Department Signature — Date

Department Signature — Date

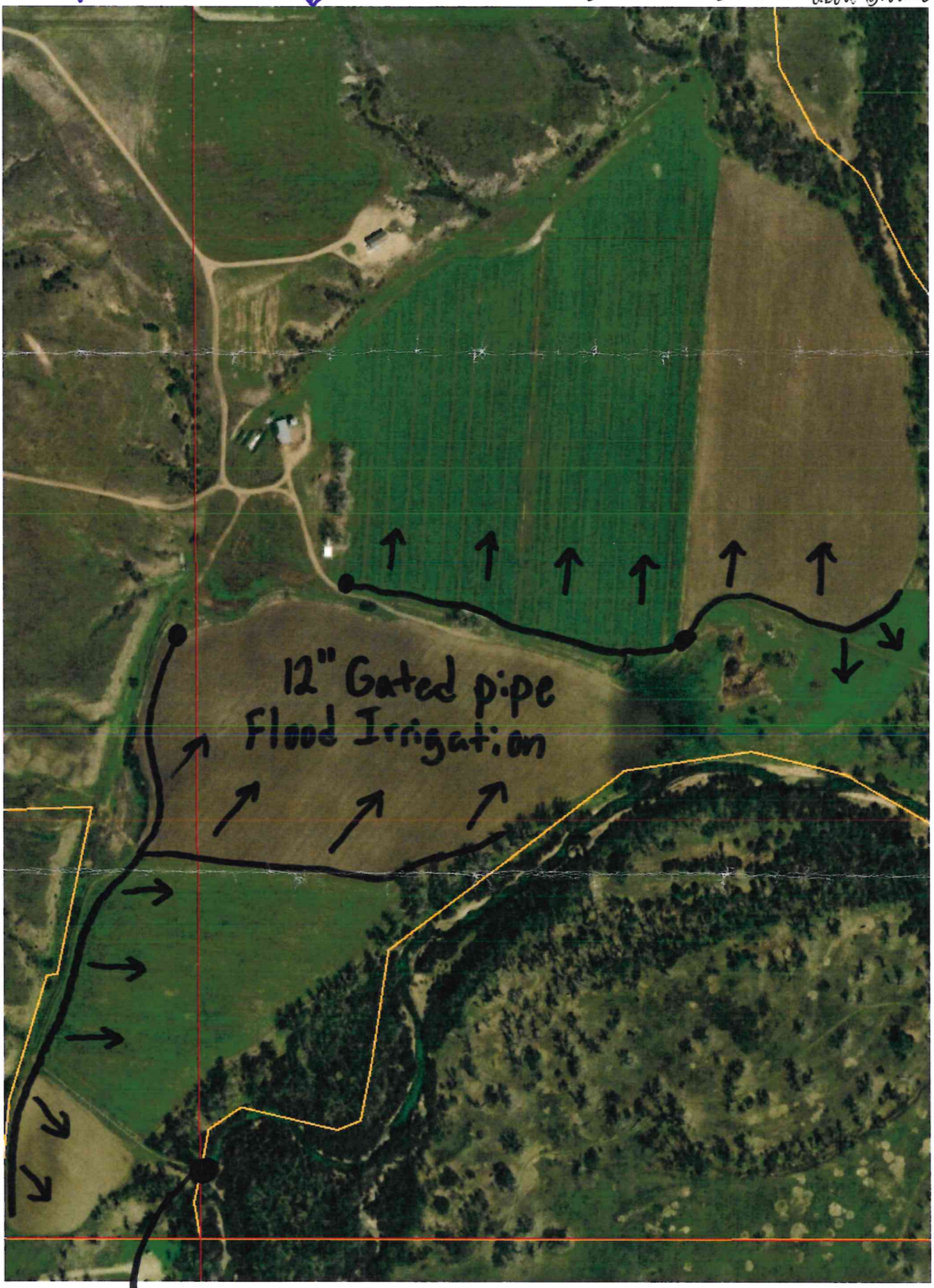
Historical Use Map

8N 47E 15

8N 47E 14



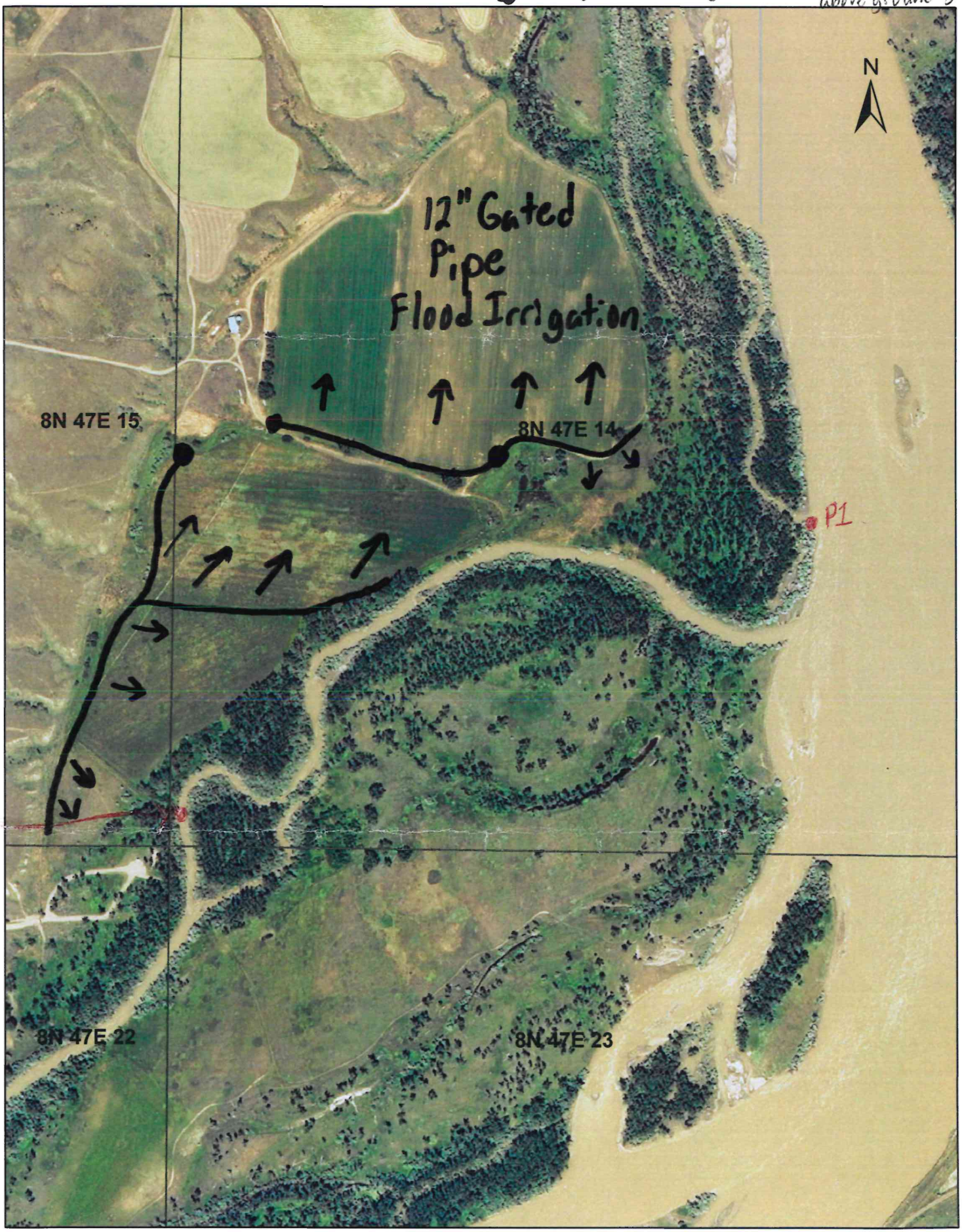
N



Gated Pipe Map #1 Proposed Use Map

Question #8, #9, #37

●=Headgate connecting underground pipeline to above ground gated pip

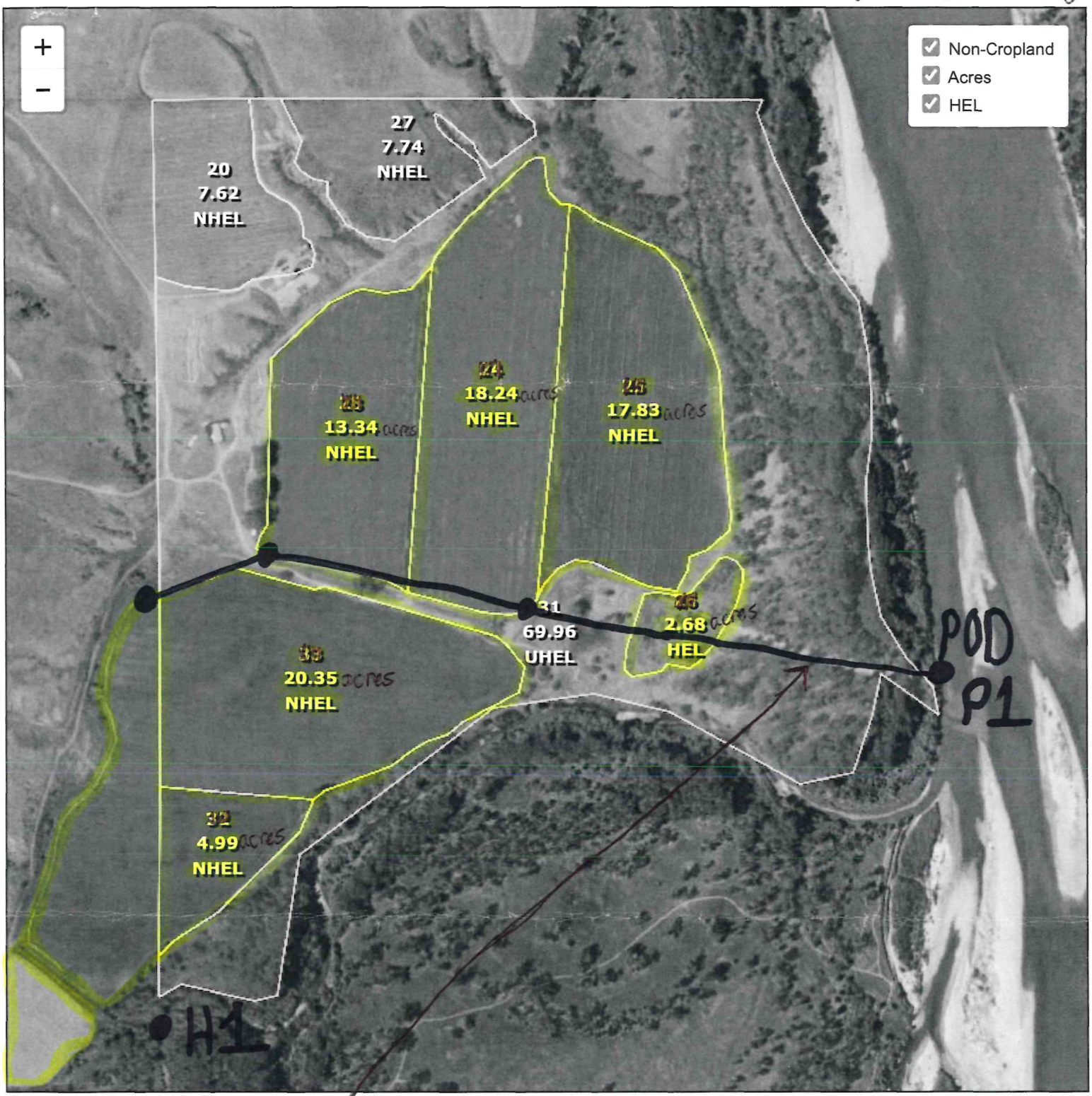


Gated Pipe Map #2

1 inch = 600 feet

USDA **Custer County, Montana** Pipeline and places of use

Sec	Twp	Rge	County
14	8N	47E	Custer



Common Land Unit
Cropland Non-cropland CRP

Questions #8, #9, #37

2025 Crop Year

Wetland Determination Identifiers
- Restricted Use
- Limited Restrictions
- Exempt from Conservation Compliance Provisions

Farm **4368**
Tract **16189**

12" 80lb underground pipe
Acres are highlighted in yellow

Proposed Use Map with underground pipeline coming from P1.

N W E S

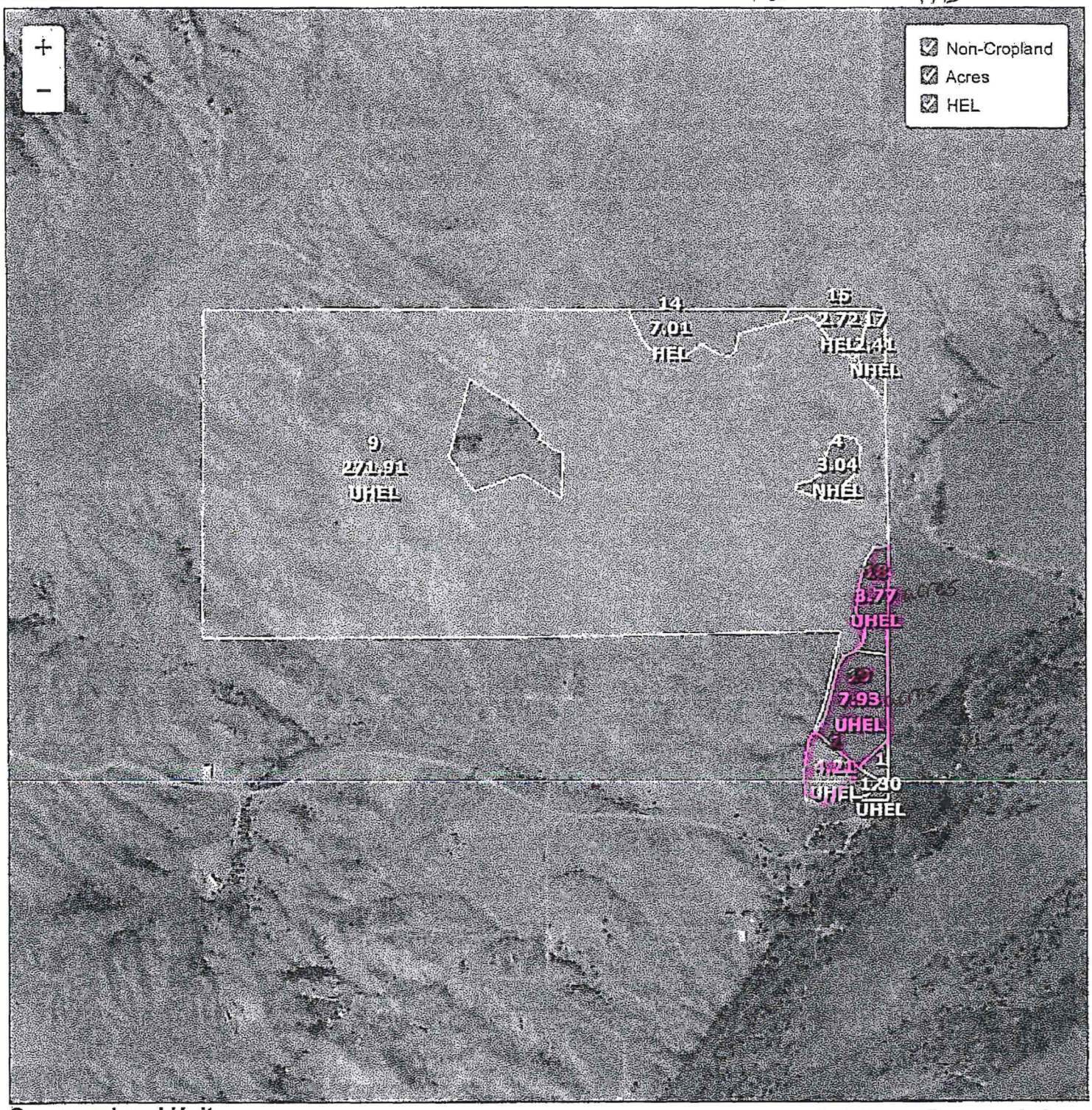
Tract 22 of 24

United States Department of Agriculture (USDA) Farm Service Agency (FSA) maps are for FSA Program administration only. This map does not represent a legal survey or reflect actual ownership; rathe it depicts the information provided directly from the producer and/or National Agricultural Imagery Program (NAIP) imagery. The producer accepts the data 'as is' and assumes all risks associated with its use. USDA-FSA assumes no responsibility for actual or consequential damage incurred as a result of any user's reliance on this data outside FSA Programs. Wetland identifiers do not represent the size, shape, or specific determination of the area. Refer to your original determination (CPA-026 and attached maps) for exact boundaries and determinations or contact USDA Natural Resources Conservation Service (NRCS).

(See Gated Pipe Maps #1 and #2 to see method of irrigation)

USDA **Custer County, Montana** Places of Use #2

Sec	Twp	Rge	County
15	8N	47E	Custer



Common Land Unit

Cropland Non-cropland CRP

2025 Crop Year

Farm **4368**
Tract **16186**

Acres are highlighted in Pink
(3.77, 7.43, 4.21 acres)

Wetland Determination Identifiers

- Restricted Use
- Limited Restrictions
- Exempt from Conservation Compliance Provisions

N W E S

Tract 21 of 24

United States Department of Agriculture (USDA) Farm Service Agency (FSA) maps are for FSA Program administration only. This map does not represent a legal survey or reflect actual ownership; rather it depicts the information provided directly from the producer and/or National Agricultural Imagery Program (NAIP) imagery. The producer accepts the data 'as is' and assumes all risks associated with its use. USDA-FSA assumes no responsibility for actual or consequential damage incurred as a result of any user's reliance on this data outside FSA Programs. Wetland identifiers do not represent the size, shape, or specific determination of the area. Refer to your original determination (CPA-025 and attached maps) for exact boundaries and determinations or contact USDA Natural Resources Conservation Service (NRCS).


6YBQ-CC
203550 10.56 13
TC12403
GPM 2700 FT Head 59


Riverscreen Inc.

DNRC Water Resources
Billings Regional Office
1371 Rimtop Dr.
Billings, MT 59105-1978

March 3, 2026

SWOPE RANCH LLC
1110 KINSEY RD
MILES CITY, MT 59301-8740

Subject: Incomplete Preapplication Form for Change Application No. 42K 30172434

Dear Applicant,

The Department received your Preapplication Meeting information on February 24, 2026. The Department deemed the submitted Preapplication Meeting information to be incomplete and/or unacceptable because it lacks and/or changed the following information:

❑ **Please submit a new Preapplication Meeting Form.** Your most recent submission did not include a Form 606P-B. On the included Form 600P-B: for question 1, mark Y, for yes; for 1a: write in the date of March 3, 2026, for the date this Form 606P-B submission was returned to you.

❑ **8 and 37. Submit a HISTORICAL USE MAP** created on an aerial photograph or topographic map that shows the following: section corners, township and range, scale bar, north arrow, all proposed points of diversion labeled with a unique POD ID ("P" followed by a number), all proposed places of use, all proposed conveyance structures, all proposed places of storage, and proposed place of use for all overlapping water rights. More than one map may be submitted if necessary to clearly convey all required information.

Map Titled: Gated Pipe Map #1, Questions 8, 9, and 37

(1) It is unclear if this map is for Historical Use or Proposed Use. I understand that H1 represents the Historical Point of Diversion and its pump, but please label the map: Historical Use.
(2) It is unclear how water was conveyed from the Historical Point of Diversion to the Historical Place of Use. I understand that H1 represents the Historical Point of Diversion and its pump, but please show all of the conveyance system. It appears that there is a western pipeline and a northern pipeline. How does water move from the POD to the first section, and then to the second? Please draw the entire conveyance and label it accordingly. Are these pipelines or ditches? Etc.
(3) It is unclear how each section is being irrigated. Please section the place of use and label how it has historically been irrigated. Which areas are flooded, which are furrows, etc.?

Map Titled: Gated Pipe Map #2, Questions 8, 9, and 37

Same comments as Gated Pipe Map #1

Note: You may submit one map for Historical Use to answer questions 8 and 37. If there is no overlapping acreage, then you may make a note on the map, noting that there is no overlapping acreage, for clarity.

❑ **9. Submit a PROPOSED USE MAP** created on an aerial photograph or topographic map that shows the following: section corners, township and range, scale bar, north arrow, all proposed points of diversion labeled with a unique POD ID ("P" followed by a number), all proposed places of use, all proposed conveyance structures, all proposed places of storage, and proposed place of use for all overlapping water rights. More than one map may be submitted, if necessary to clearly convey all required information.

Map Titled: Pipeline and places of use, Questions 8, 9, and 37

(1) It is unclear if this map represents your Historical Use or Proposed Use. I understand that the P1 represents your Proposed Point of Diversion, but please label the map: Proposed Use.
(2) It appears that you will be using a pipeline to convey the water. Please label accordingly.
(3) It is unclear how you will irrigate the land in your proposed project. Please outline the areas for each method of irrigation. Such as flooded, furrow, pivot, etc. Please show the full conveyance of how water will reach each section.
(4) This map has numbering that suggests acreage. It is unclear what these numbers represent in relation to your proposed project. Please label acreage appropriately, specifically to the irrigation type and location. If these numbers on the map are of importance, please identify what that purpose is and label them accordingly.

The 180-day deadline from the original preapplication meeting is **May 23, 2026.** You have 81 remaining days to successfully complete the Preapplication Meeting Form. If you do not submit the successfully completed Preapplication Meeting Form to the Billings Regional Office by May 23, 2026, you will need to request a new preapplication meeting.

If your proposal is to change the place of us, this may constitute a substantial change to the proposed project since it was discussed at the preapplication meeting. If so, you will need to request another preapplication meeting so the Department can identify any additional information necessary for completion of the technical analyses (ARM 1302(3)(c)), should you wish to continue with the preapplication process. To schedule a new Preapplication Meeting with the Billings Regional Office, submit a written Preapplication Meeting request per ARM 36.12.1302(2).

Please let us know if you would like us to transfer your $500 payment to another preapplication meeting, or whether you would prefer a refund. Please let me know if you have any questions.

Best,

C. Strebeck

Cassey Strebeck, Water Resource Specialist
Water Resources Division, DNRC
Billings Regional Office
1371 Rimtop Dr, Billings, MT 59105
Cassey.Strebeck@mt.gov
406-247-4422

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FOLLOW-UP

The table below will identify all questions marked for follow-up. Applicant follow-up will be submitted with the completed Preapplication Meeting Form: Part B (Form 606P-B). Applicant will provide all responses to questions marked for follow-up on a separate document entitled "Follow-up Responses." At the preapplication meeting, the Department may offer to provide the Applicant with information pertinent to identified follow-up. In this case, record in the notes column what information the Department will provide and the date by which the Department will email this information to the Applicant. This information will supplement but not replace Applicant follow-up. It is the responsibility of the Applicant to provide all follow-up, including questions supplemented by Department information, in the "Follow-up Responses" document.

The "Follow-up Responses" document must conform to the following standards. Label all responses with the question number. Answer questions in the same format as the form. For responses in the form of checkboxes, write "Y", "N", "S". Constrain narrative responses to the specific question as is asked on the form; do not respond to multiple questions in one narrative. Label units in narrative responses and tables. Tables must have the exact headings found on the form. Questions that require items to be submitted to the Department may be marked "S" when the required item is attached to the Preapplication Meeting Form. Label all submitted items with the question number for which they were submitted.

***The Applicant may not alter the Preapplication Meeting Form: Part A (Form 606P-A) signed at the Preapplication Meeting**. Instead, the Applicant must use the Amended Responses procedure defined in Form 606P-B. Do not include additional information for questions that were not marked for follow-up on this table; instead include any additional information pursuant to the process for amending responses defined in Form 606P-B.*

QUESTION #	NOTES
8 & 37	Historical use map, meeting all criteria (can be same map as Q9 with proposed POD included) — need
9	Proposed use map, meeting all criteria (can be same map as Q8 with historical POD included) — need.
48	Did diversion regularly cease due to inadequate supply or call for pre-73 use. Consider answering 48a if necessary. — met
50.a.ii.2	Slope of fields pre-73 — met
50.a.ii.4	Percent efficiency, depends on slope of field (50.a.ii.2) pre-73 - ARM 36.12.115(2)(e) — met

WORK COPY CS2

3.2.26

МОВК СОБУ

МОВК СОБУ

PREAPPLICATION MEETING FORM: PART B
PERMIT

§ 85-2-302, MCA

Form No. 600P-B *(Revised 02/2025)*

For Department Use Only

Application # 30172434 Basin 42K
Form Received Jan 30, 2024
Fee Rec'd $ 500.00 Check # 10974
Deposit Receipt # BLS26146846
Payor Swope Ranch LLC
Form Returned Feb 6, 2024
Refund $ _____ Date _____

PREAPPLICATION MEETING FEE

$ 500

FILING FEE REDUCTION & EXPEDITED TIMELINE

An application will be eligible for a filing fee reduction and expedited timelines if the Applicant completes a preapplication meeting with the Department (ARM 36.12.1302(1)), which includes submitting any follow-up information identified by the Department (ARM 36.12.1302(3)(c)) and receiving either Department-completed technical analyses or Department review of Applicant-submitted technical analyses (ARM 36.12.1302(4) and (5)). An application for the proposed project also must be submitted within 180 days of delivery of Department technical analyses or scientific credibility review and no element on the submitted application can be changed from the completed preapplication meeting form (ARM 36.12.1302(6)).

The Applicant is responsible for providing a "Follow-up Responses" document for all follow-up identified in Preapplication Meeting Form Part A (Form 600P-A). The Applicant may not alter Form 600P-A. If a response has changed to a question answered at the preapplication meeting, the Applicant can provide a new response in a separate document entitled "Amended Responses" with the question number labeled.

The following guidelines are applicable to both the "Follow-up Responses" and "Amended Responses" documents. Clearly label all question numbers. Answer questions in the same format as Form 600P-A. For responses in the form of checkboxes, write "Y", "N", or "S". Constrain narrative responses to the specific question as is asked on the form; do not respond to multiple questions in one narrative. Label units in narrative responses and tables. Tables must have the exact headings found on the form. Questions that require items to be submitted to the Department may be marked "S" when the required item is included with the document.

1. ☐ Y ■ N Are you submitting this form in response to a determination by the Department that a previously submitted Form 600P-B was inadequately completed?

   If yes,

   a. Date form was returned ("Form Returned" date found in "For Department Use Only" box on the previously submitted Form 600P-B): _____

   b. If a "Follow-up Responses" or "Amended Responses" document is required by questions 2 or 3, submit complete updated documents with responses that stand-alone. The Department will only use the most recently submitted "Follow-up Responses" and "Amended Responses" documents for departmental technical analyses or scientific credibility review; the Department will not use multiple versions of a document.

2. ■ Y ☐ N Were any questions identified as requiring follow-up on Form 600P-A?

   If yes,

   a. ■ S Submit "Follow-up Responses" document for all questions requiring follow-up.

3. ☐ **Y** ■ **N** Are you submitting amended responses to any questions from Form 600P-A?

If yes,

a. ☐ **S** Submit "Amended Responses" document and record in the table below each question number with an amended response. The amended response will entirely replace the previous response; the amended response cannot build off the previous response.

Question No.	Question No.	Question No.	Question No.

FOLLOW-UP AND AMENDED RESPONSES AFFIDAVIT & CERTIFICATION

"I attest that this preapplication meeting form (Form 600P-A and Form 600P-B), follow-up, and amended responses accurately portray the proposed project. I am aware that my application for this project will not qualify for a discounted filing fee and expedited timelines if, upon submittal of the application to the department, I change any element of the proposed application from the preapplication meeting form, amended responses, or follow-up materials (ARM 36.12.1302(6)(a))."

Swope Ranch LLC
Member

Applicant Signature — Date: 12/13/2025

Applicant Signature — Date

"We confirm that the preapplication form (Form 600P-A and Form 600P-B), amended responses, and follow-up information are adequate for the Department to proceed with technical analyses in ARM 36.12.1303. Or, if the Applicant has elected to complete technical analyses, we confirm they have submitted each required element of technical analysis based on the proposed project and the Department is able to proceed with the scientific credibility review (ARM 36.12.1303(8))."

Department Signature — Date

Department Signature — Date

Swope Ranch Follow Up Responses

48. - Y

48a. - Due to drought and a changing river system the historical diversion regularly ceased.

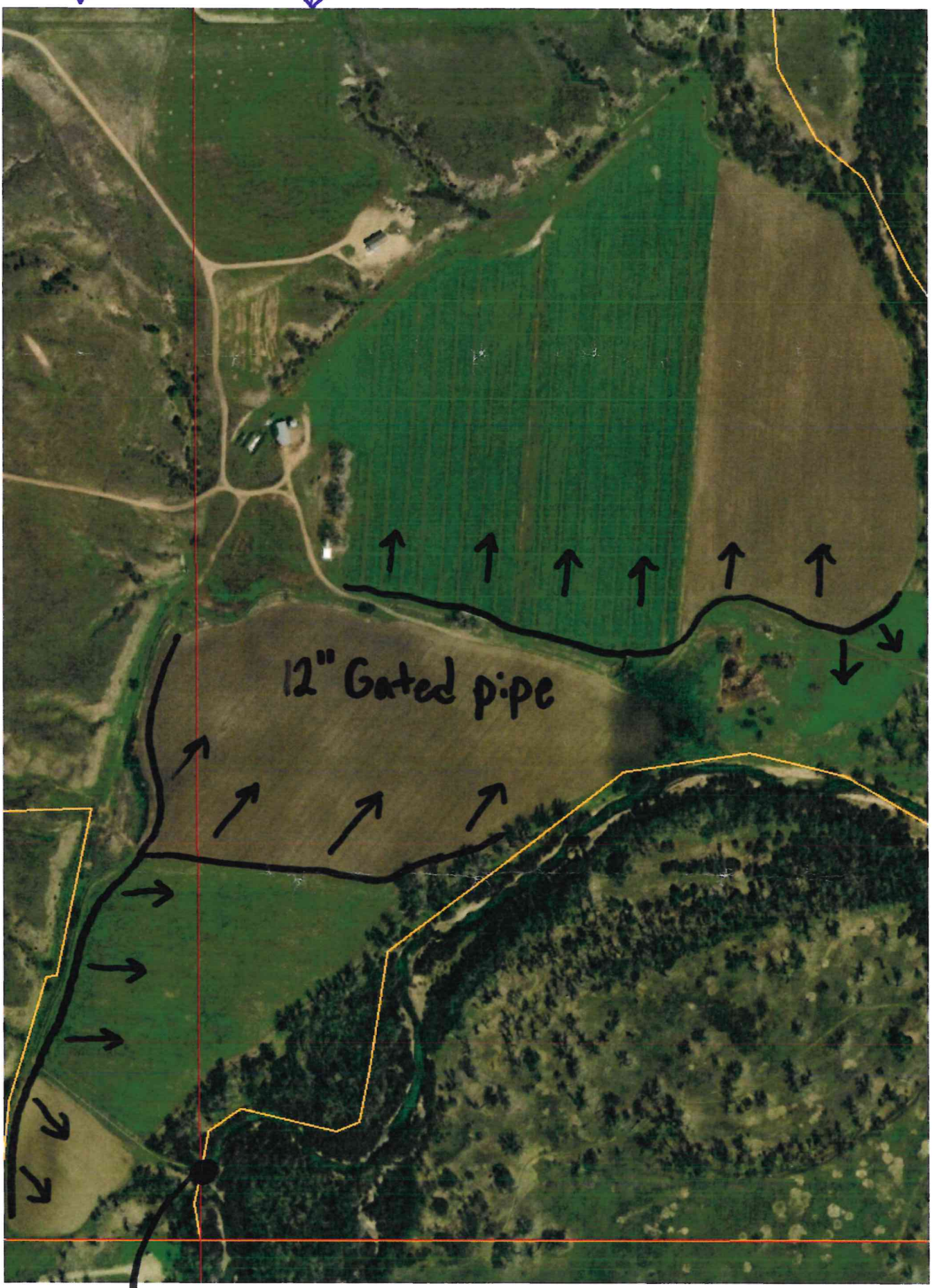
50.a.ii.2 - 3%

50.a.ii.4 - 60%

8N 47E 15

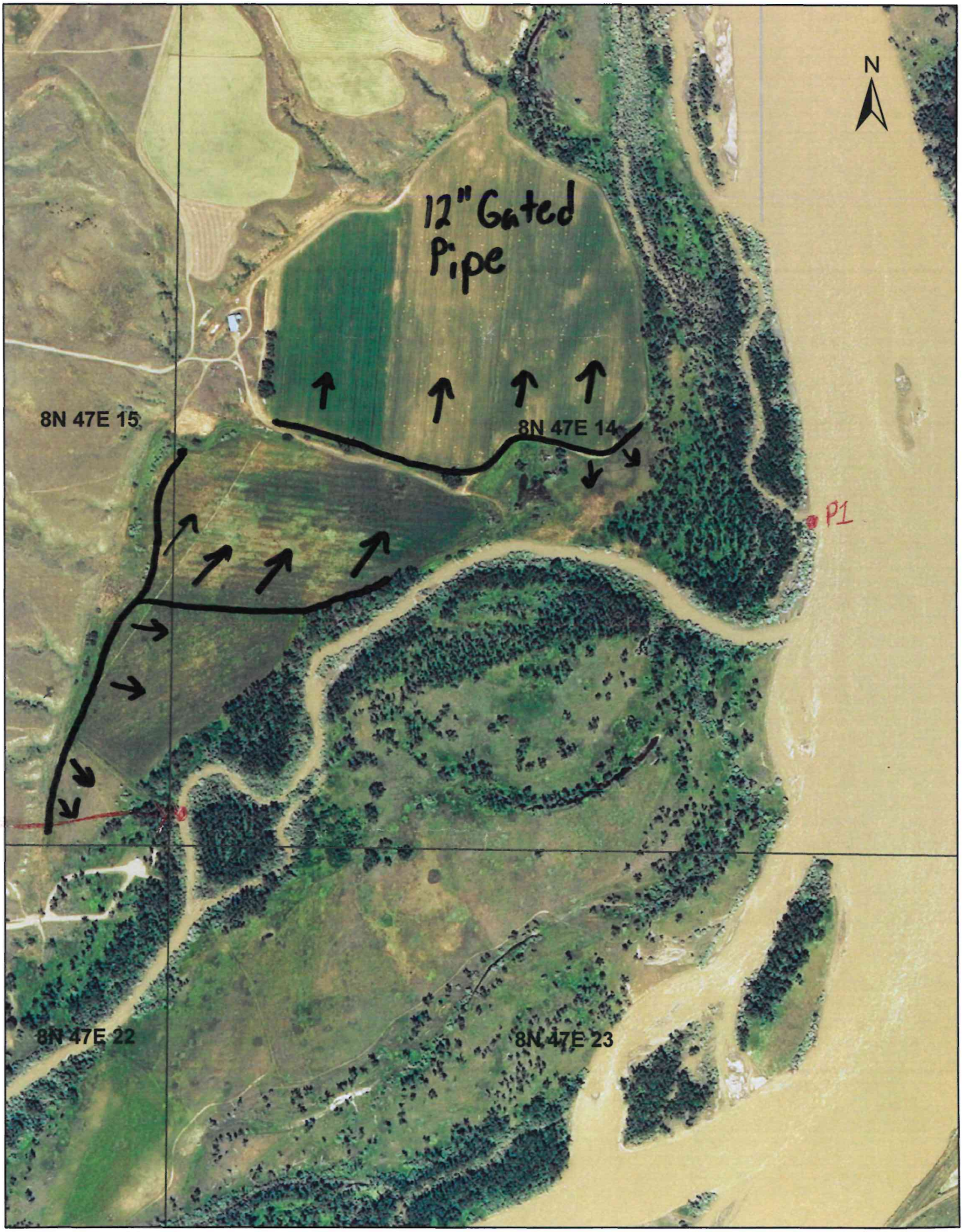
8N 47E 14

Question #8, #9, #37



Gated Pipe Map #1

Question #8, #9, #37

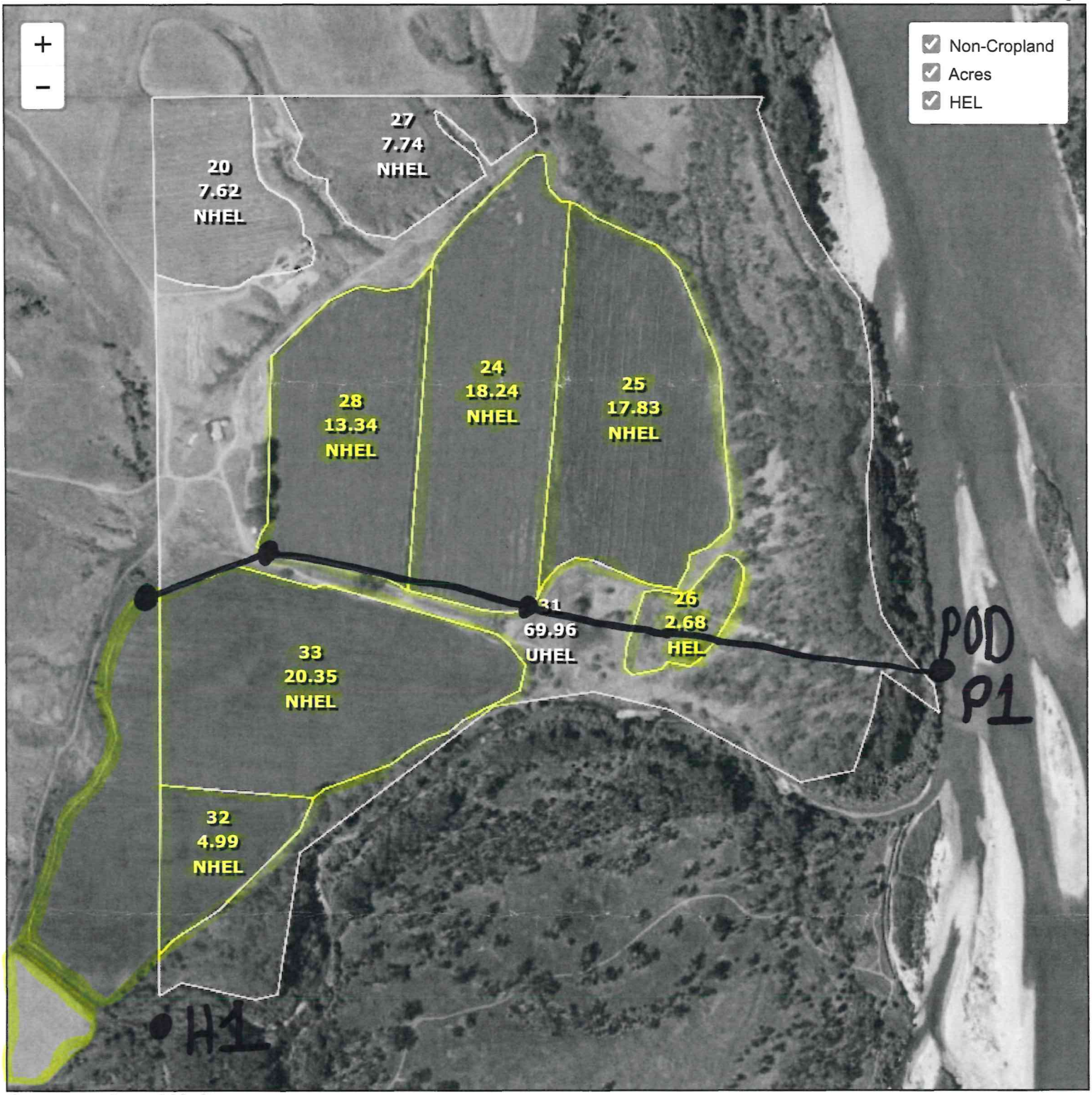


Gated Pipe Map #2

1 inch = 600 feet

USDA **Custer County, Montana** Pipeline and places of use

Sec	Twp	Rge	County
14	8N	47E	Custer



Common Land Unit
Cropland Non-cropland CRP

Questions #8, #9, #37

12" 80lb underground pipe

2025 Crop Year

Farm **4368**
Tract **16189**

Wetland Determination Identifiers
- Restricted Use
- Limited Restrictions
- Exempt from Conservation Compliance Provisions

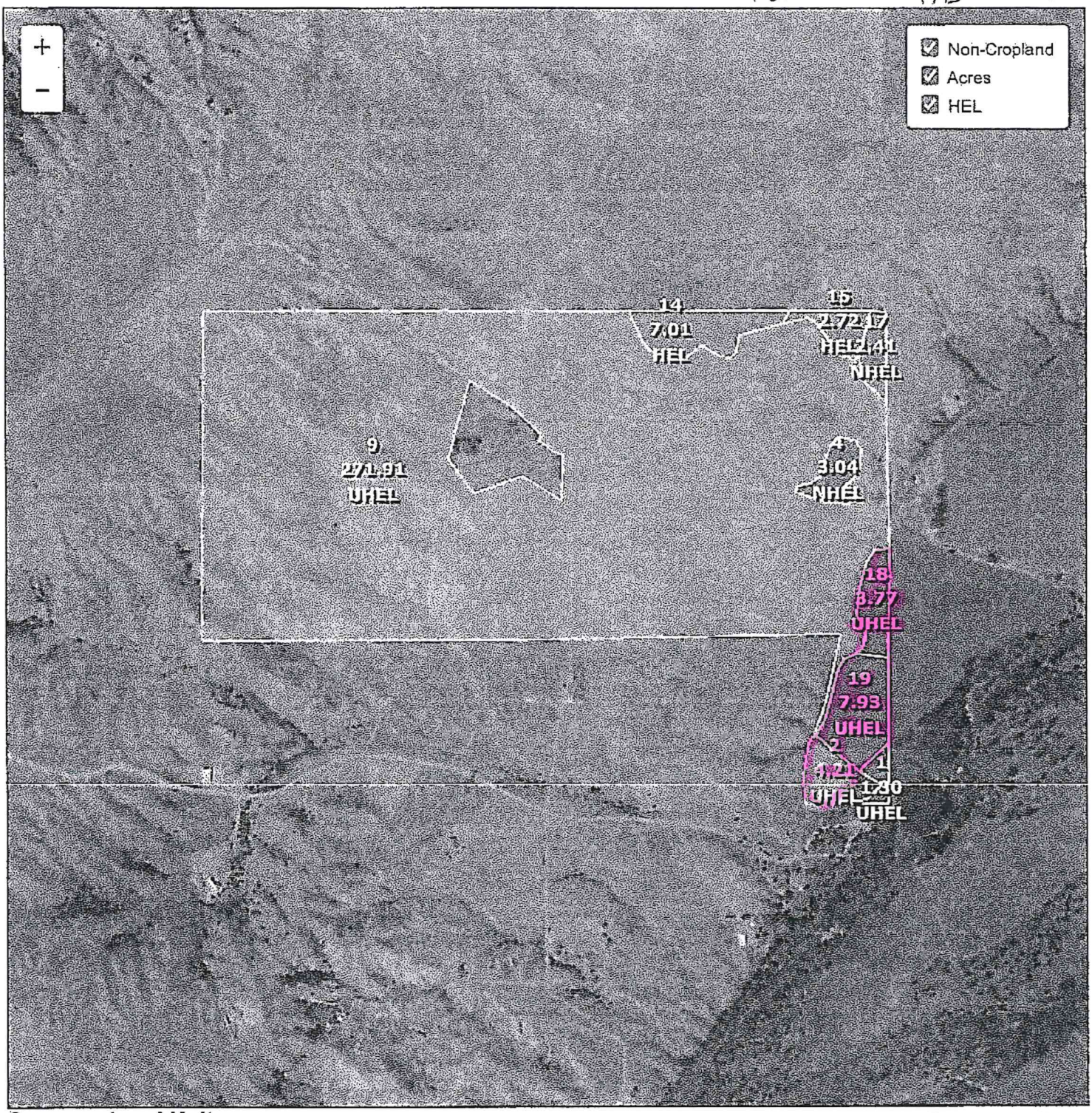
N W E S

Tract 22 of 24

United States Department of Agriculture (USDA) Farm Service Agency (FSA) maps are for FSA Program administration only. This map does not represent a legal survey or reflect actual ownership; rather it depicts the information provided directly from the producer and/or National Agricultural Imagery Program (NAIP) imagery. The producer accepts the data 'as is' and assumes all risks associated with its use. USDA-FSA assumes no responsibility for actual or consequential damage incurred as a result of any user's reliance on this data outside FSA Programs. Wetland identifiers do not represent the size, shape, or specific determination of the area. Refer to your original determination (CPA-026 and attached maps) for exact boundaries and determinations or contact USDA Natural Resources Conservation Service (NRCS).

USDA **Custer County, Montana** Places of Use #2

Sec	Twp	Rge	County
15	8N	47E	Custer



Common Land Unit

Cropland Non-cropland CRP

2025 Crop Year

Farm **4368**
Tract **16186**

Wetland Determination Identifiers

- Restricted Use
- Limited Restrictions
- Exempt from Conservation Compliance Provisions

N
W E
S

Tract 21 of 24

United States Department of Agriculture (USDA) Farm Service Agency (FSA) maps are for FSA Program administration only. This map does not represent a legal survey or reflect actual ownership; rather it depicts the information provided directly from the producer and/or National Agricultural Imagery Program (NAIP) imagery. The producer accepts the data 'as is' and assumes all risks associated with its use. USDA-FSA assumes no responsibility for actual or consequential damage incurred as a result of any user's reliance on this data outside FSA Programs. Wetland identifiers do not represent the size, shape, or specific determination of the area. Refer to your original determination (CPA-025 and attached maps) for exact boundaries and determinations or contact USDA Natural Resources Conservation Service (NRCS).


6YBQ-CC
203550 10.56 13
TC12403
GPM 2700 FT Head 59


RiverScreen Inc.

DNRC Water Resources
Billings Regional Office
1371 Rimtop Dr.
Billings, MT 59105-1978

February 6, 2026

SWOPE RANCH LLC
1110 KINSEY RD
MILES CITY, MT 59301-8740

Subject: Incomplete Preapplication Form for Change Application No. 42K 30172434

Dear Applicant,

The Department received your Preapplication Meeting Form and preapplication fee on January 30, 2026. The Department deemed the submitted Preapplication Meeting Form to be incomplete and/or unacceptable because it lacks and/or changed the following information:

❑ **7. Identify the water right elements proposed for change, with a checkmark, for each water right proposed for change.**

On Form 606P-A, only the point of diversion was marked as proposed for change. The maps attached to Form 606P-B, submitted January 30, 2026, as "*Pipeline and places of use Question #8, #9, #37*" and "*Question #8, #9, and #37*" do not show the same irrigated acres, suggesting that the place of use is also proposed for change.

Map "*Pipeline and places of use Question #8, #9, #37*" does not show acres in the E2E2SE Section 15 T8N, R47E, Custer County as irrigated, and does show 2.68 acres in Government Lot 6 (W2) Section 14 T8N, R47E, Custer County as irrigated, while map "*Question #8, #9, and #37*" shows the opposite. This discrepancy makes it unclear whether these acres either were not historically irrigated or are not proposed for future irrigation. Because both maps appear to answer both question 8 and 9, it is unclear whether a change in the place of use is proposed or whether historically those acres were not irrigated. If any change is proposed other than the point of diversion, amended responses may be necessary or the project may have changed substantially from what was discussed at the preapplication meeting and a new meeting may be required.

❑ **8. Submit a proposed use map created on an aerial photograph or topographic map that shows the following: section corners, township and range, scale bar, north arrow, all proposed points of diversion labeled with a unique POD ID ("P" followed by a number), all proposed places of use, all proposed conveyance structures, all proposed places of storage, and proposed place of use for all overlapping water rights. More than one map may be submitted, if necessary to clearly convey all required information.**

The maps attached to Form 606P-B, submitted January 30, 2026, as "*Pipeline and places of use Question #8, #9, #37*" and "*Question #8, #9, and #37*" do not show the same irrigated acres.

Map "*Pipeline and places of use Question #8, #9, #37*" does not show acres in the E2E2SE Section 15 T8N, R47E, Custer County as irrigated, and does show 2.68 acres in Government Lot

6 (W2) Section 14 T8N, R47E, Custer County as irrigated, while map "*Question #8, #9, and #37*" shows the opposite. This discrepancy makes it unclear whether these acres either were not historically irrigated or are not proposed for future irrigation. Because both maps appear to answer both questions 8 and 9, it is unclear which map represents the historically irrigated acres. Please provide a map which clearly shows the historical use of this water right as described in the question.

❑ **9. Submit a proposed use map created on an aerial photograph or topographic map that shows the following: section corners, township and range, scale bar, north arrow, all proposed points of diversion labeled with a unique POD ID ("P" followed by a number), all proposed places of use, all proposed conveyance structures, all proposed places of storage, and proposed place of use for all overlapping water rights. More than one map may be submitted, if necessary to clearly convey all required information.**

The maps attached to Form 606P-B, submitted January 30, 2026, as "*Pipeline and places of use Question #8, #9, #37*" and "*Question #8, #9, and #37*" do not show the same irrigated acres.

Map "*Pipeline and places of use Question #8, #9, #37*" does not show acres in the E2E2SE Section 15 T8N, R47E, Custer County as irrigated, and does show 2.68 acres in Government Lot 6 (W2) Section 14 T8N, R47E, Custer County as irrigated, while map "*Question #8, #9, and #37*" shows the opposite. This discrepancy makes it unclear whether these acres either were not historically irrigated or are not proposed for future irrigation. Because both maps appear to answer both questions 8 and 9, it is unclear which map represents the proposed irrigated acres. Please provide a map which clearly shows the proposed use of this water right as described in the question.

❑ **37. The historical use map submitted for question 8 must clearly identify the entire place of use for each overlapping water right that intersects the historical place of use. Does your historical use map meet this requirement?**

The maps attached to Form 606P-B, submitted January 30, 2026, as "*Pipeline and places of use Question #8, #9, #37*" and "*Question #8, #9, and #37*" do not show the same irrigated acres.

Map "*Pipeline and places of use Question #8, #9, #37*" does not show acres in the E2E2SE Section 15 T8N, R47E, Custer County as irrigated, and does show 2.68 acres in Government Lot 6 (W2) Section 14 T8N, R47E, Custer County as irrigated, while map "*Question #8, #9, and #37*" shows the opposite. This discrepancy makes it unclear whether these acres either were not historically irrigated or are not proposed for future irrigation. Because both maps appear to answer both question 8 and 9, it is unclear which map represents the historically irrigated acres. Please provide a map which clearly shows the historical use of this water right, including any overlapping water rights, as described in the question.

❑ **39(a)(i). Does the legal land description from the abstract encompass the actual location of the historical place of use?**

This question was marked "Yes" but the acres shown on the provided maps do not total the acres listed on the water right. If the historically irrigated acres do not correspond to the water right

abstract, please provide an amended response to this question and any other as appropriate.

The 180-day deadline from the original preapplication meeting is May 23, 2026. You have 107 remaining days to successfully complete the Preapplication Meeting Form. If you do not submit the successfully completed Preapplication Meeting Form to the Billings Regional Office by May 23, 2026, you will need to request a new preapplication meeting.

If your proposal is to change the place of us, this may constitute a substantial change to the proposed project since it was discussed at the preapplication meeting. If so, you will need to request another preapplication meeting so the Department can identify any additional information necessary for completion of the technical analyses (ARM 1302(3)(c)), should you wish to continue with the preapplication process. To schedule a new Preapplication Meeting with the Billings Regional Office, submit a written Preapplication Meeting request per ARM 36.12.1302(2).

Please let us know if you would like us to transfer your $500 payment to another preapplication meeting, or whether you would prefer a refund.

Please let me know if you have any questions.

Best,

Veronica Corbett | Water Resource Specialist
Water Resources Division, DNRC
Billings Regional Office
1371 Rimtop Dr, Billings, MT 59105
DESK: 406-247-44131| EMAIL: veronica.corbett@mt.gov

PREAPPLICATION MEETING FORM: PART B
PERMIT

§ 85-2-302, MCA

Form No. 600P-B *(Revised 02/2025)*

For Department Use Only

Application # 30172434 Basin 42K

Form Received Jan 30, 2024

Fee Rec'd $ 500.00 Check # 10974

Deposit Receipt # BLS26146846

Payor Swope Ranch LLC

Form Returned Feb 6, 2024

Refund $ _____ Date _____

PREAPPLICATION MEETING FEE

$ 500

FILING FEE REDUCTION & EXPEDITED TIMELINE

An application will be eligible for a filing fee reduction and expedited timelines if the Applicant completes a preapplication meeting with the Department (ARM 36.12.1302(1)), which includes submitting any follow-up information identified by the Department (ARM 36.12.1302(3)(c)) and receiving either Department-completed technical analyses or Department review of Applicant-submitted technical analyses (ARM 36.12.1302(4) and (5)). An application for the proposed project also must be submitted within 180 days of delivery of Department technical analyses or scientific credibility review and no element on the submitted application can be changed from the completed preapplication meeting form (ARM 36.12.1302(6)).

The Applicant is responsible for providing a "Follow-up Responses" document for all follow-up identified in Preapplication Meeting Form Part A (Form 600P-A). The Applicant may not alter Form 600P-A. If a response has changed to a question answered at the preapplication meeting, the Applicant can provide a new response in a separate document entitled "Amended Responses" with the question number labeled.

The following guidelines are applicable to both the "Follow-up Responses" and "Amended Responses" documents. Clearly label all question numbers. Answer questions in the same format as Form 600P-A. For responses in the form of checkboxes, write "Y", "N", or "S". Constrain narrative responses to the specific question as is asked on the form; do not respond to multiple questions in one narrative. Label units in narrative responses and tables. Tables must have the exact headings found on the form. Questions that require items to be submitted to the Department may be marked "S" when the required item is included with the document.

1. ☐ Y ■ N Are you submitting this form in response to a determination by the Department that a previously submitted Form 600P-B was inadequately completed?

   If yes,

   a. Date form was returned ("Form Returned" date found in "For Department Use Only" box on the previously submitted Form 600P-B): _____

   b. If a "Follow-up Responses" or "Amended Responses" document is required by questions 2 or 3, submit complete updated documents with responses that stand-alone. The Department will only use the most recently submitted "Follow-up Responses" and "Amended Responses" documents for departmental technical analyses or scientific credibility review; the Department will not use multiple versions of a document.

2. ■ Y ☐ N Were any questions identified as requiring follow-up on Form 600P-A?

   If yes,

   a. ■ S Submit "Follow-up Responses" document for all questions requiring follow-up.

3. ☐ **Y** ■ **N** Are you submitting amended responses to any questions from Form 600P-A?

If yes,

a. ☐ **S** Submit "Amended Responses" document and record in the table below each question number with an amended response. The amended response will entirely replace the previous response; the amended response cannot build off the previous response.

Question No.	Question No.	Question No.	Question No.

FOLLOW-UP AND AMENDED RESPONSES AFFIDAVIT & CERTIFICATION

"I attest that this preapplication meeting form (Form 600P-A and Form 600P-B), follow-up, and amended responses accurately portray the proposed project. I am aware that my application for this project will not qualify for a discounted filing fee and expedited timelines if, upon submittal of the application to the department, I change any element of the proposed application from the preapplication meeting form, amended responses, or follow-up materials (ARM 36.12.1302(6)(a))."

Scope Ranch LLC
Member

Applicant Signature — Date: 12/13/2025

Applicant Signature — Date

"We confirm that the preapplication form (Form 600P-A and Form 600P-B), amended responses, and follow-up information are adequate for the Department to proceed with technical analyses in ARM 36.12.1303. Or, if the Applicant has elected to complete technical analyses, we confirm they have submitted each required element of technical analysis based on the proposed project and the Department is able to proceed with the scientific credibility review (ARM 36.12.1303(8))."

Department Signature — Date

Department Signature — Date

Swope Ranch Follow Up Responses

48. - Y

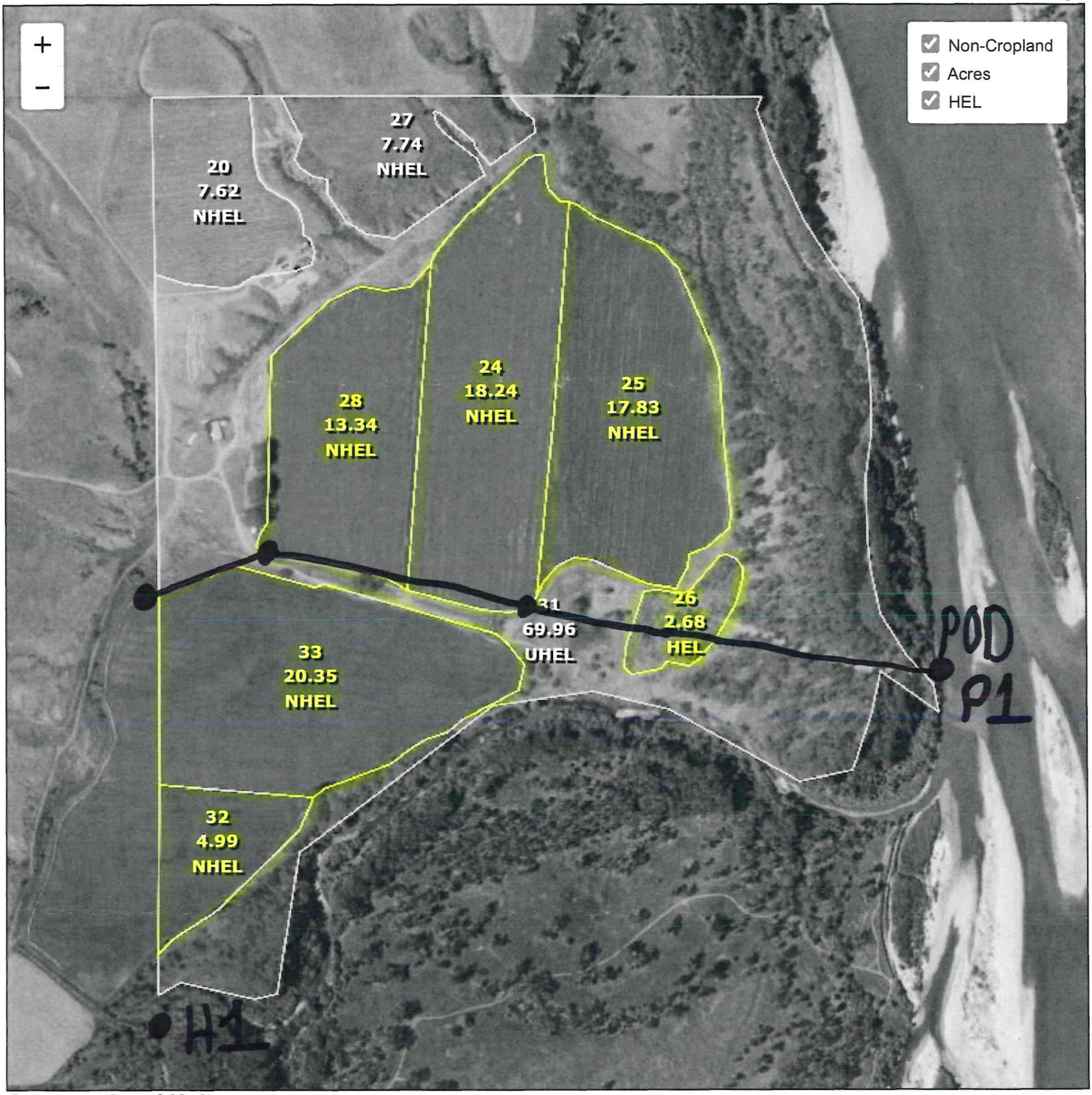
48a. - Due to drought and a changing river system the historical diversion regularly ceased.

50.a.ii.2 - 3%

50.a.ii.4 - 60%

USDA **Custer County, Montana** Pipeline and places of use

Sec	Twp	Rge	County
14	8N	47E	Custer



Common Land Unit

Cropland Non-cropland CRP

Questions #8, #9, #37

12" 80lb underground pipe

2025 Crop Year

Farm **4368**
Tract **16189**

Wetland Determination Identifiers

- Restricted Use
- Limited Restrictions
- Exempt from Conservation Compliance Provisions

N W E S

Tract 22 of 24

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Question #8, #9, and #37



1 inch = 600 feet


6YBQ-CC
203550 10.56 13
TC12403
GPM 2700 FT Head 59


RiverScreen Inc.

MONTANA SAGE GROUSE
HABITAT CONSERVATION PROGRAM

GREG GIANFORTE, GOVERNOR

STATE OF MONTANA

1539 ELEVENTH AVENUE

PHONE: (406) 444-0554
FAX: (406) 444-6721

PO BOX 201601
HELENA, MONTANA 59620-1601

Project No. 7254
Governor's Executive Orders 12-2015 and 21-2015
Swope Ranch Irrigation

Jacob Swope
1110 Kinsey Road
Miles City, MT 59301

January 13, 2026

Dear Mr. Swope,

The Montana Sage Grouse Habitat Conservation Program received a request for consultation and review of your project or proposed activity on December 13, 2025. Based on the information provided, this Project is located within General Habitat for sage grouse.

Executive Orders 12-2015 and 21-2015 set forth Montana's Sage Grouse Conservation Strategy. Montana's goal is to maintain viable sage grouse populations and conserve habitat so that Montana maintains flexibility to manage our own lands, our wildlife, and our economy and ensure that a listing under the federal Endangered Species Act is not warranted in the future.

The Program has completed its review, including:

Project Description:

Project Type: Agriculture – Water
Project Disturbance: 13.33 Acres Existing Irrigation Field; Two Irrigation Pump Sites Totaling 0.004 Acres
Construction Timeframe: December 13, 2025 to December 14, 2025; Temporary (<1 Year)
Operations Timeframe: December 15, 2025; Permanent (>25 Years)

Project Location:

Legal: Township 8 North, Range 47 East, Sections 14, 15
County: Custer
Ownership: Fish, Wildlife, and Parks, Private

If the location or boundaries of your proposed project or activity change in the future, or if new activities are proposed within one of the designated sage grouse habitat areas, please visit https://sagegrouse.mt.gov/ and submit the new information.

Thanks for your interest in sage grouse and your commitment to taking the steps necessary to ensure Montana's Sage Grouse Conservation Strategy is successful.

Sincerely,

Therese Hartman
Montana Sage Grouse Habitat Conservation Program Manager

Enclosures:

1. Figure 1. Swope Ranch Irrigation Project and Lek Location Map

Docusign Envelope ID: 388C4E21-5E5D-42AB-8699-B0B5A96EACBD

PREAPPLICATION MEETING FORM: PART A

CHANGE

§ 85-2-302(3)(b)

Form No. 606P-A *(Revised 10/2025)*

For Department Use Only

Application # 30172434 Basin 42K

Meeting Date 11/24/2025 Time 10:00A

Variance Request Deadline April 11, 2026

Completed Form Deadline May 23, 2026

PREAPPLICATION MEETING FEE

$ 500

FILING FEE REDUCTION & EXPEDITED TIMELINE

An application will be eligible for a filing fee reduction and expedited timelines if the applicant completes a preapplication meeting with the Department (ARM 36.12.1302(1)), which includes submitting any follow-up information identified by the Department (ARM 36.12.1302(3)(c)) and receiving either Department-completed technical analyses or Department review of applicant-submitted technical analyses (ARM 36.12.1302(4) and (5)). An application for the proposed project also must be submitted within 180 days of delivery of Department technical analyses or scientific credibility review and no element on the submitted application can be changed from the completed preapplication meeting form (ARM 36.12.1302(6)).

The Department will fill out Form 606P-A and will identify items for follow-up during the preapplication meeting. The Department and Applicant will sign the Preapplication Meeting Affidavit and Certification within 10 business days. Within 180 days of the preapplication meeting, the Applicant will complete Preapplication Meeting Form Part B (Form 606P-B), including identified follow-up, any amended responses, and the Follow-up and Amended Responses Affidavit & Certification.

Applicant Information: *Add more as necessary.*

Applicant Name Swope Ranch LLC

Mailing Address 1110 Kinsey Road City Miles City State MT Zip 59301

Phone Numbers: Home 406-853-5027 Work 406-951-0030 Cell _____

Email Address jacob_102@hotmail.com

Applicant Name _____

Mailing Address _____ City _____ State _____ Zip _____

Phone Numbers: Home _____ Work _____ Cell _____

Email Address _____

Contact/Representative Information: *Add more as necessary.*

Contact/Representative is: ☑ Applicant ☐ Consultant ☐ Attorney ☐ Other (describe) _____

Contact/Representative Name _____

Mailing Address _____ City _____ State _____ Zip _____

Phone Numbers: Home _____ Work _____ Cell _____

Email Address _____

NOTE: *If a contact person is identified as an attorney, all communication will be sent only to the attorney unless the attorney provides written instruction to the contrary. If a contact person is identified as a consultant, employee, or lessee, the individual filing the water right form or objection form will receive all correspondence and a copy may be sent to the contact person. (ARM 36.12.122)*

Meeting Attendees: *Add more as necessary.*

Name	Organization	Position
Chris Schweigert	DNRC	Hydrologist
Veronica Corbett	DNRC	Water Resource Specialist
Nancy Swope	Applicant	
Jacob Swope	Applicant	
Kathy Olsen	DNRC	Regional Operations Manager

Docusign Envelope ID: 388C4E21-5E5D-42AB-8699-B0B5A96EACBD

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Docusign Envelope ID: 388C4E21-5E5D-42AB-8699-B0B5A96EACBD

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Application Details

The following questions are mandatory and must be filled out before the Preapplication Meeting Form is determined to be complete. Narrative responses that are larger than the space provided can be answered in an attachment. If an attachment is used, mark the see attachment ("A") checkbox on this form and label the attachment with the question number. Constrain narrative responses to the specific question as is asked on the form; do not respond to multiple questions in one narrative. Responses in the form of a table may be entered into the table provided on this form or in an attachment. If an attachment is used, the table must have the exact headings found on this form, and the see attachment ("A") checkbox must be marked. Label units in narrative responses and tables. Questions that require Applicant to submit items to the Department have a submitted ("S") checkbox, which is marked when the required item is attached to the Preapplication Meeting Form. Label all submitted items with the question number for which they were submitted. For all questions where follow-up is necessary, mark the "F" checkbox in the "Follow-Up" column and write the question number on the "Follow-Up Page".

S = Submitted. *Use when required item is included with form.*
A = See attachment. *Use when additional space is needed to answer a question.*
F = Follow-up. *Use when follow-up is necessary.*

Questions, Narrative Responses, and Tables	Check-boxes	Follow-Up
1. Do you elect to have DNRC conduct technical analyses?	☑ Y ☐ N	☐ F
2. How many change applications will be needed for this project? Please refer to ARM 36.12.1305 for more information. 1		☐ F
3. Which water right(s) are proposed for change?	☐ A	☐ F

Water Right No.	Current Authorized Flow Rate			Flow Rate Needed for Project			Means of Diversion
	Flow	*GPM*	*CFS*	*Flow*	*GPM*	*CFS*	
42K 175169-00	6.68	☐	☑	6.68	☐	☑	Pump
		☐	☐		☐	☐	
		☐	☐		☐	☐	
		☐	☐		☐	☐	
		☐	☐		☐	☐	

4. Is the proposed change on a non-filed water project?	☐ Y ☑ N	☐ F
a. If yes, please submit a Non-Filed Water Project Addendum (Form 606/634-NFWPA). The project must meet the requirements of the addendum. The addendum is required before the Preapplication Meeting Form is completed.	☐ S	☐ F

5. Is the source surface water or groundwater? Surface Water		
6. What is the source name? Yellowstone River		
7. Identify the water right elements proposed for change, with a checkmark, for each water right proposed for change.	☐ A	☐ F

Water Right #	42K 175169-00					
Point of diversion	☑	☐	☐	☐	☐	☐
Place of use	☐	☐	☐	☐	☐	☐
Purpose of use	☐	☐	☐	☐	☐	☐
Place of storage	☐	☐	☐	☐	☐	☐

8. Submit a historical use map created on an aerial photograph or topographic map that shows the following: section corners, township and range, scale bar, north arrow, all historical points of diversion (POD) labeled with a unique POD ID ("H" followed by a number), all historical places of use (POU), all historical conveyance structures, all historical places of storage, and historical place of use for all overlapping water rights. More than one map may be submitted, if necessary to clearly convey all required information.	☐ S	☑ F
9. Submit a proposed use map created on an aerial photograph or topographic map that shows the following: section corners, township and range, scale bar, north arrow, all proposed points of diversion labeled with a unique POD ID ("P" followed by a number), all proposed places of use, all proposed conveyance structures, all proposed places of storage, and proposed place of use for all overlapping water rights. More than one map may be submitted, if necessary to clearly convey all required information.	☐ S	☑ F
10. Does the change involve a change in point of diversion?	☑ Y ☐ N	☐ F
a. If yes, describe the location for all *new* and *unchanged* points of diversion to the nearest 10 acres. Label POD ID with the POD ID assigned for the proposed use map (question 9).	☐ A	☐ F

POD ID	¼	¼	¼	Sec	Twp	Rge	County	Lot	Block	Tract	Subdivision	Gov. Lot	New or Unchanged
P1	SW	NW	SE	14	8N	47E	Custer					6	New

11. Describe the location of all historical PODs you propose to *retire*. Label POD ID with the POD ID assigned for the historical use map (question 8). If none are proposed for retirement, write "N/A" here: _____	☐ A	☐ F

POD ID	¼	¼	¼	Sec.	Twp.	Rge	County	Lot	Block	Tract	Subdivision	Gov. Lot
H1	SW	SW	SW	14	8N	47E	Custer					

12. What is the means of diversion for all *new* PODs? Means of diversion for surface water includes headgate, pump, dam, and others. Means of diversion for groundwater includes well, developed spring, pit pond, and others. Pump		☐ F

13. Does the change involve a change in place of use?	☐ Y ☑ N	☐ F
a. If yes,		
i. What are the geocodes of the proposed place of use?	☐ A	☐ F

ii. Describe the legal land description of the proposed place of use and, if the water rights being changed will have an irrigation or lawn and garden purpose, list the number of irrigated acres.	☐ A	☐ F

Acres	Gov't Lot	¼	¼	¼	Sec	Twp	Rge	County
	Total							

iii. Do other water rights supplement or overlap the historical and/or proposed place of use?	☐ Y ☐ N	☐ F
1. If yes,		
a. How were the water rights operated to serve the historical purposes and how will they be operated to serve the proposed purposes? _____ _____ _____ _____	☐ A	☐ F
b. For each supplemental or overlapping water right, please list whether they contribute water for historical use, proposed use, or both; the average period of contribution (MM/DD-MM/DD); flow rate contributed (GPM or CFS); and, if known, the volume of water contributed (AF) contributed (otherwise write "unknown").	☐ A	☐ F

Water Right No.	**Contributions to Use**			**Average Period of Contribution**	**Flow Rate Contributed**			**Volume Contributed**
	Hist.	*Prop.*	*Both*	*MM/DD-MM/DD*	*Flow*	*GPM*	*CFS*	*AF*
	☐	☐	☐			☐	☐	
	☐	☐	☐			☐	☐	
	☐	☐	☐			☐	☐	

14. Does the proposed change include a change in purpose of use? If yes, answer questions 101 to 108 for change in purpose of use and question 13.a.iii for supplemental or overlapping water rights.	☐ Y ☑ N	☐ F
15. Are conveyance ditches used for historical or proposed uses? If yes, answer ditch-specific questions 109 to 115.	☐ Y ☑ N	☐ F
16. Do you propose to add or modify one or more places of storage? This does not include reservoirs, pits, pit-dams, or ponds with a capacity less than 0.1 AF; water tanks; or cisterns (ARM 36.12.113(6)). If yes, answer mandatory questions 116 to 123. Additionally, you may choose to answer non-mandatory questions 175 to 179. A Change Storage Addendum (Form 606-SA) will be required at application submittal.	☐ Y ☑ N	☐ F
17. Is the proposed use temporary? If yes, answer questions 94 to 100 for temporary changes.	☐ Y ☑ N	☐ F
18. Are you filing on behalf of another entity? If yes, describe. _____ _____	☐ Y ☑ N	☐ F

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19. Do you own the entire historical place of use for all water rights proposed for change?	☑ Y ☐ N	☐ F
a. If no, was the water historically used for sale, rental, distribution, municipal use, or any other context in which water is being supplied to another and it is clear that the ultimate user would not accept the supply without consenting to the use of water on the user's place of use?	☐ Y ☐ N	☑ F
i. If no,		
1. List the water rights for which you do not own the entire historical place of use. _____	☐ A	☐ F
2. Are the water rights listed in question 19.a.i.1 severed from the historical POU?	☐ Y ☐ N	☐ F
a. If yes, do you own the entirety of the severed water rights proposed for change?	☐ Y ☐ N	☐ F
i. If yes, skip to question 20. If no, answer question 19.a.i.3.		
b. If no, answer question 19.a.i.3.		
3. Are all owners of the historical place of use or, if applicable, owners of the severed water rights, willing to sign the application?	☐ Y ☐ N	☐ F
a. If no,		
i. A Form 641 or 642 to split the water rights being changed must be received and processed by the Department prior to application submittal.		
ii. Describe how the water rights will be split, and which part of the split water rights will be proposed for change. _____ _____ _____	☐ A	☐ F
20. Are you proposing to add a point of diversion or place of use on State of Montana Trust Land?	☐ Y ☑ N	☐ F
a. If yes,		
i. Documentation of consent from the DNRC Trust Lands Management Division will be required at application submittal.		
ii. Do you propose to add a place of use on Trust Land with all points of diversion on private land? If yes, the change authorization will be temporary for the duration of the lease term (§85-2-441, MCA); answer temporary change project-specific questions 94 to 100.	☐ Y ☐ N	☐ F

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21. Will your system be designed to discharge water from the project?	☐ Y ☑ N	☐ F
a. If yes, explain the wastewater disposal method. A discharge permit may be required to comply with §§ 75-5-410 and 85-2-364, MCA. _____ _____ _____	☐ A	☐ F
22. Is the application to change the purpose of use or place of use of an appropriation of 4,000 or more acre-feet (AF) of water a year and 5.5 or more cubic feet per second (CFS)? If yes, you must submit a Reasonable Use Addendum (Form 606-B) with the application. The reasonable use criteria are found in §85-2-402(4-5), MCA.	☐ Y ☑ N	☐ F
23. Will you be transporting water for use outside of Montana? If yes, you will need to submit an Out-of-State Use Addendum (Form 600/606-OSA) with the application. The out-of-state use criteria are outlined in §85-2-402(6), MCA.	☐ Y ☑ N	☐ F
24. Is the project located in designated sage grouse habitat? If yes, a review letter from the Montana Sage Grouse Habitat Conservation Program will be required at application submittal.	☑ Y ☐ N	☐ F
25. Does the application include a mitigation, aquifer recharge, or marketing for mitigation/aquifer recharge purpose? If yes, answer mandatory questions 124 to 129. Additionally, you may choose to answer non-mandatory questions 185 to 190. A Mitigation Addendum (Form 600/606-MIT) will be required with application submittal.	☐ Y ☑ N	☐ F
26. Does the application include the water marketing purpose? This does not include marketing for mitigation/aquifer recharge. If yes, answer the following question. Additionally, you may choose to answer non-mandatory questions 191 to 195. A Water Marketing Purpose Addendum (Form 600/606-WMA) will be required with application submittal.	☐ Y ☑ N	☐ F
a. For what purposes will the marketed water be used? _____ _____ _____	☐ A	☐ F
27. Does the proposed purpose include instream flow? If yes, answer mandatory questions for instream flow changes 130 to 136. Additionally, you may choose to answer non-mandatory questions 180 to 184. A Change to Instream Flow Addendum (Form 606-IFA) will be required with application submittal.	☐ Y ☑ N	☐ F
28. Will the proposed use include water made available through creation of a “water saving method” (i.e., salvage water) as defined in ARM 36.12.101? If yes, answer questions 137 to 141 for Salvage Water.	☐ Y ☑ N	☐ F

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Historical Use

The following questions are mandatory and must be filled out for both Surface Water and Groundwater Applications before the Preapplication Meeting Form is determined to be complete.

Questions, Narrative Responses, and Tables	Check-boxes	Follow-Up
29. What is the water right type for each water right proposed for change? Answer question 30 for each Statement of Claim, question 31 for each Provisional Permit, and question 32 for water right that is not a Statement of Claim or Provisional Permit. Statement of Claim _____	☐ A	☐ F
30. In the table below, write the water right number for each Statement of Claim proposed for change in the "Statement of Claim Number" column. If there is one or more previous change authorizations, write the application numbers for the change authorizations in the "Previous Change Authorization Number" column. If there are no previous change authorizations, write "none" in the "Previous Change Authorization Number" column and "N/A" in all the remaining columns. Write the date of the Project Completion Notice for each previous change authorization in the "Project Completion Notice Date" column and if no Project Completion Notice has been submitted, write "none" instead. In the "Previous Historical Use Analysis Quality" column, describe the quality of the previous historical use analysis.	☐ A	☐ F

Statement of Claim Number	Previous Change Authorization Number	Project Completion Notice Date	Previous Historical Use Analysis Quality
42K 175169-00	none	N/A	N/A

31. In the table below, write the water right number for each Provisional Permit proposed for change in the "Provisional Permit Number" column. In the "Project Completion Notice Date" column, write the date of the Project Completion Notice and if no Project Completion Notice has been submitted, write "none" instead. Write the application number for each previous change authorization in the "Previous Change Authorization Number" column. If there are no previous change authorizations, write "none" in the "Previous Change Authorization Number" column and "N/A" in all the remaining columns. Write the date of the Project Completion Notice for each previous change authorization in the "Previous Change Project Completion Notice" column and if no Project Completion Notice has been submitted, write "none" instead. In the "Previous Change Historical Use Analysis Quality" column, describe the quality of the previous historical use analysis.

☐ A ☐ F

Provisional Permit Number	Project Completion Notice Date	Previous Change Authorization Number	Previous Change Project Completion Notice Date	Previous Historical Use Analysis Quality

32. In the table below, write the water right number for each water right proposed for change that is not a Statement of Claim or Provisional Permit, the type of water right, and the completion date. If a Groundwater Certificate, the completion date will be the date of filing. If an exempt or non-filed water right, the completion date will be July 1, 1973. If there are one or more previous change authorizations, write the application number for each change authorization in the "Previous Change Authorization Number" column. If there are no previous change authorizations, write "none" in the "Previous Change Authorization Number" column and "N/A" in all the remaining columns. Write the date of the Project Completion Notice for each previous change authorization in the "Previous Change Project Completion Notice Date" column and if the previous change authorization does not have a Project Completion Notice, write "none" instead. In the "Previous Historical Use Analysis Quality" column, describe the quality of the previous historical use analysis.

☐ A ☐ F

Water Right Number	Water Right Type	Completion Date	Previous Change Authorization Number	Previous Change Project Completion Notice Date	Previous Historical Use Analysis Quality

33. Are there previous Montana Water Court approved stipulations, Water Master reports, or prior Montana Water Court or Department decisions related to the water right(s) being changed?	☐ Y ☑ N	☐ F
a. If yes, explain. _____ _____ _____ _____ _____ _____	☐ A	☐ F
34. Fill in the table below based on ARM 36.12.1902(1) and the information provided in questions 29 to 33. In column "Water Right Number", list all water rights proposed for change. Select one of the three historical use analysis options and fill in the required information associated with that option. Select "Full Historical Use Analysis N/A" only if an unperfected Provisional Permit will be used to serve as historical use in lieu of analysis. If the "Existing Historical Use Analysis" or "Full Historical Use Analysis N/A" option is selected, skip to question 57 because this section is complete.	☐ A	☐ F

Water Right No. Proposed for Change	**Historical Use Analysis Options**
42K 175169-00	☑ New Historical Use Analysis. Date for which historical use will be analyzed: 6/30/1973
	☐ Existing Historical Use Analysis. Change authorization number with existing Historical Use Analysis: _____
	☐ Full Historical Use Analysis N/A. Water right number serving as historical use in lieu of analysis: _____

	☐ New Historical Use Analysis. Date for which historical use will be analyzed: _____
	☐ Existing Historical Use Analysis. Change authorization number with existing Historical Use Analysis: _____
	☐ Full Historical Use Analysis N/A. Water right number serving as historical use in lieu of analysis: _____
	☐ New Historical Use Analysis. Date for which historical use will be analyzed: _____
	☐ Existing Historical Use Analysis. Change authorization number with existing Historical Use Analysis: _____
	☐ Full Historical Use Analysis N/A. Water right number serving as historical use in lieu of analysis: _____

35. Do you have knowledge of historical use?	☐ Y ☑ N	☐ F
a. If yes,		
i. Is this firsthand knowledge?	☐ Y ☐ N	☐ F
ii. Who has this knowledge and what was their role? _____	☐ A	☐ F
b. If no, where will the historical use data be derived? Family members will ask neighbors who are original filers/owners _____	☐ A	☐ F

*Fill out the remaining Historical Use questions (questions 37 to 56) **one time for each** water right proposed for change. Use the "Additional Water Right Historical Use (606P)" sheet for each additional water right. You may answer **one time for all** water rights proposed for change that have the same purposes, place of use, supplemental water rights, points of diversion, period of use, conveyance, diverted volume parameters, and consumptive volume parameters.*

36. What is the water right number for which questions 37 to 56 will be answered? 42K 175169-00		☐ F

Historical Use: Place of Use

37. The historical use map submitted for question 8 must clearly identify the entire place of use for each overlapping water right that intersects the historical place of use. Does your historical use map meet this requirement?	☐ Y ☐ N	☑ F
38. Are you proposing to change all water rights associated with the historical place of use?	☑ Y ☐ N	☐ F
a. If no, identify the water rights associated with the historical place of use that are not included in this application. Provide the priority date for each water right and explain why all overlapping water rights are not included in the application. Include water received via contract from a company, district, or water users' association.	☐ A	☐ F

Water Right No.	Priority Date	Reason Not Included in Change

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39. Answer the section of this question relevant to the historical purpose. If there is more than one purpose, then answer all relevant parts of this question.		
a. All purposes		
i. Does the legal land description from the abstract encompass the actual location of the historical place of use?	☑ Y ☐ N	☐ F
1. If no, explain the discrepancy and submit historical aerial photographs and/or other data sources to corroborate the location of these historical places of use, and, if a Statement of Claim, submit documentation of a written request submitted to the Water Court for amendment of the Claim. _____ _____	☐ S	☐ F
b. Irrigation		
i. Is the water right being changed a Statement of Claim?	☑ Y ☐ N	☐ F
1. If yes, does the Water Resources Survey corroborate the acres irrigated listed on the abstract?	☑ Y ☐ N	☐ F
a. If no, submit evidence that can corroborate the historical place of use, including the number of irrigated acres. This includes, but is not limited to, aerial photographs, irrigation journals, or logs.	☐ S	☐ F
2. If no, submit one or more aerial photographs that can corroborate the historical place of use, including the number of irrigated acres.	☐ S	☐ F
c. Lawn and garden		
i. Submit aerial photographs that can corroborate the historical place of use, including the number of irrigated acres.	☐ S	☐ F
d. Stock		
i. Submit aerial photographs, grazing records, or other records to corroborate the historical place of use.	☐ S	☐ F
ii. Did the stock drink direct from source or direct from ditch?	☐ Y ☐ N	☐ F
1. If no, submit data sources that make clear the location of the stock watering infrastructure.	☐ S	☐ F
e. Multiple domestic, domestic, municipal, mining, commercial, and other purposes		
i. Submit aerial photographs, deeds, other recorded documents or records, affidavits, or other published documents, such as magazine articles, to corroborate the historical place of use.	☐ S	☐ F

Historical Use: Point of Diversion

Continue to answer questions for water right(s) identified in question 36. Applications corroborating historical flow rate with the Historical Use Addendum (Form 606-HUA) may be eligible to skip question 42; see the Form 606-HUA for more information.

40. For all historical points of diversion, identify the means, location (¼ ¼ ¼ section), and if they are proposed for change. Label using the same POD ID letter as for the Historical Use Map (question 8).	☐ A	☐ F

POD ID	Means	Location (¼ ¼ ¼ Section)	Proposed for Change?
H1	Pump	SWSWSW S14 T8N R47E	☑ Y ☐ N
			☐ Y ☐ N
			☐ Y ☐ N
			☐ Y ☐ N

41. Do the legal land descriptions from the abstract encompass the actual locations of all historical points of diversion?	☑ Y ☐ N	☐ F
a. If no, explain the discrepancy and submit historical aerial photographs and/or other data sources to corroborate the location of these historical points of diversion, and, if a Statement of Claim, submit documentation of a written request submitted to the Water Court for amendment of the Claim. _____ _____	☐ S	☐ F
42. Answer questions below related to the diversion means for each of the historical points of diversion.		
a. Headgate		
i. For each headgate, provide dimensions in feet (FT), slope of the channel at the headgate (%), material of the headgate, estimated historical capacity in gallons per minute (GPM) or cubic feet per second (CFS) and the method used to estimate historical capacity. Label using the same POD ID letter as for the Historical Use Map (question 8).	☐ A	☐ F

POD ID	Dimensions	Slope	Material	Estimated Capacity			Method
	FT	*%*		*Cap.*	*GPM*	*CFS*	
					☐	☐	
					☐	☐	
					☐	☐	
					☐	☐	
					☐	☐	

b. Pump, dike, dam, or other surface water point of diversion		
i. For each pump, dike, dam, or other surface water point of diversion, provide an estimate of the historical capacity (GPM or CFS) and the method used to estimate the historical capacity. Label using the same POD ID letter as for the Historical Use Map (question 8).	☐ A	☐ F

POD ID	Estimated Capacity			Method
	Cap.	*GPM*	*CFS*	
H1	6.68	☐	☑	Claimant contact questionnaire in file (Berkley Electric Propeller pump, 25HP)
		☐	☐	
		☐	☐	
		☐	☐	
		☐	☐	

c. Well, pit, or other groundwater point of diversion		
i. For each well, pit, or other groundwater point of diversion, provide an estimate of the historical capacity (GPM or CFS) and the method used to estimate the historical capacity. Label using the same POD ID letter as for the Historical Use Map (question 8).	☐ A	☐ F

POD ID	Estimated Capacity			Method
	Cap.	*GPM*	*CFS*	
		☐	☐	
		☐	☐	
		☐	☐	
		☐	☐	
		☐	☐	

43. Do other water rights share any of the points of diversion?	☐ Y ☑ N	☐ F
a. If yes, list the water rights, their flow rates (GPM or CFS), and the nature of the relationship. Label using the same POD ID letter as for the Historical Use Map (question 8).	☐ A	☐ F

POD ID	Water Right No.	Flow Rate			Relationship
		Flow	*GPM*	*CFS*	
			☐	☐	
			☐	☐	
			☐	☐	
			☐	☐	
			☐	☐	

Historical Use: Period of Diversion

(Continue to answer questions for water right(s) identified in question 36.)

44. Are the period of diversion and the period of use the same?	☑ Y ☐ N	☐ F
a. If no,		
i. Why are they different? _____ _____	☐ A	☐ F
ii. Is there a place of storage?	☐ Y ☐ N	☐ F
45. When was water diverted for the purposes of the water rights being changed?	☐ A	☐ F

Start Date (Month (MM)/Day (DD))	End Date (MM/DD)
04/01	10/1

46. Does the Department have a standard, found in ARM 36.12.112, for the period of diversion for all purposes for which water is used?	☑ Y ☐ N	☐ F
a. If yes, does the period of diversion for all purposes fall within Department standards?	☑ Y ☐ N	☐ F
b. If no, or if any period of diversion falls outside Department standards, explain how the period of diversion is reasonable for the purpose.	☐ A	☐ F

Historical Use: Historical Diverted Volume

Continue to answer questions for water right(s) identified in question 36. Applications corroborating historical diverted volume with the Historical Use Addendum (Form 606-HUA) may be eligible to skip question parts of question 47; see the Form 606-HUA for more information.

47. Answer all relevant sections of this question based on whether the historical purpose was irrigation, non-irrigation, or both.		
a. Irrigation		
i. Do you want ARM 36.12.1902(10) to be used to calculate historical diverted volume?	☑ Y ☐ N	☐ F
1. If no, submit a Historical Water Use Addendum (Form 606-HUA). Form 606-HUA must be submitted to the Department before the Preapplication Meeting Form is completed.	☐ S	☐ F
ii. What were the crop(s) grown? Alfalfa, barley, grass/hay		☐ F
1. For hay, how many cuttings were there per season and how many days did cuttings last? Did irrigation cease throughout the place of use for cuttings? For other crops, explain whether irrigation regularly ceased within the irrigation season. For all crops, explain whether diversions ceased during times irrigation did not occur. 3 cuttings, about 15 days off per season	☐ A	☐ F

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b. Non-irrigation		
i. Explain your historical diversion schedule, with sufficient detail to estimate the volume of water historically diverted. This may include, but is not limited to, days per year water was historically diverted or the number of diversions per year and the duration of each diversion.	☐ A	☐ F
ii. Explain water diverted but not consumed by the non-irrigation purpose(s). This includes, but is not limited to, wastewater discharge and conveyance loss. Ditch-Specific Questions (questions 110 to 111) will gather information necessary for estimating losses from conveyance ditches.	☐ A	☐ F
iii. Did historical diversions serve more than one non-irrigation purpose?	☐ Y ☐ N	☐ F
1. If yes, how much of the diversions served each non-irrigation purpose and how did you determine this?	☐ A	☐ F
48. Did diversions ever regularly cease within the period of use due to insufficient water in source or calls based on priority date?	☐ Y ☐ N	☑ F
a. If yes, please explain.	☐ A	☐ F

Historical Use: Historical Consumed Volume

Continue to answer questions for water right(s) identified in question 36. Applications corroborating historical consumptive volume with the Historical Use Addendum (Form 606-HUA) may be eligible to skip parts of question 50; see the Form 606-HUA for more information.

49. What are the historical purposes? Mark each purpose and answer the applicable questions below. ☑ Irrigation. Answer question 50. ☐ Lawn and garden. Answer question 51. ☐ Stock. Answer question 52. ☐ Domestic and multiple domestic. Answer question 53. ☐ Municipal. Answer question 54. ☐ Other. Answer question 55.		

50. Irrigation		
a. Will you use Department standards for historical consumptive use as defined in ARM 36.12.1902?	☑ Y ☐ N	☐ F
i. If no,		
1. What method will you use to determine historical consumptive use? _____ _____	☐ A	☐ F
2. Submit a Historical Water Use Addendum (Form 606-HUA) to the Department. Form 606-HUA must be submitted to the Department before the Preapplication Meeting Form is completed.	☐ S	☐ F
ii. If yes,		
1. What is the historical irrigation method type and subtype? Irrigation method types include flood and sprinkler. Flood irrigation subtypes include level border, graded border, furrow, contour ditch, or wild flood. Sprinkler subtypes include wheel line and center pivot. Flood, furrow	☐ A	☐ F
2. What was the slope (%) of the historical place of use? _____		☑ F

3. Are there any factors beyond irrigation method type/subtype and place of use slope that may influence percent efficiency of irrigation?	☐ Y ☑ N	☐ F
a. If yes, submit evidence to support the modified percent efficiency of irrigation in the Historical Water Use Addendum (Form 606-HUA). These factors may include infrastructure age, soil characteristics, or field improvements. Form 606-HUA must be submitted to the Department before the Preapplication Meeting Form is completed.	☐ S	☐ F
4. Based on answers to the above questions, what is the percent efficiency of irrigation?		☑ F
5. What is the County Management Factor? 54.5%		☐ F
6. What is evapotranspiration (ET) based on the irrigation method and county? 26.68in		☐ F
7. What percent of applied water are irrecoverable losses per ARM 36.12.1902(17)? 5%		☐ F

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51. Lawn and garden		
a. Will you use a Department standard for historical consumptive use volume for lawn and garden? Department standards include 2.5 acre-feet per acre, or a calculated volume based on Irrigation Water Requirements for turf grass.	☐ Y ☐ N	☐ F
i. If yes, which standard? _____		☐ F
ii. If no, please provide an estimate of historical water use based on expert analysis and methods used to determine this estimate. _____ _____	☐ A	☐ F

52. Stock		
a. Which volume standard for animal units applies to historical use and why? The standards are either 15 gallons per animal unit per day for new appropriations or 30 gallons per animal unit per day for claims. _____	☐ A	☐ F
b. How many animal units were historically served? _____		☐ F
c. Did these animal units rely entirely on the water right(s) proposed for change for their full water demand?	☐ Y ☐ N	☐ F
i. If no, explain. _____ _____	☐ A	☐ F

53. Domestic and multiple domestic		
a. How many households were served? _____		☐ F
b. Will the Department standard of 1 acre-foot per household be used? The same standard shall be applied to historical and proposed uses.	☐ Y ☐ N	☐ F
i. If no, what standard will be used? _____		☐ F
c. Did the historical use include wastewater disposal and treatment?	☐ Y ☐ N	☐ F
i. If yes, which of the following best describes the wastewater disposal and treatment system? Individual drain fields, central treatment facility with minimal consumption, or evaporation basin or land application? _____	☐ A	☐ F

54. Municipal		
a. What is the volume of water (AF) historically consumed for municipal purposes? _____		☐ F
b. Submit evidence to support historical municipal use. The data sources may include records that tie water use to the U.S Census, estimates of historical system capacity and estimates of leakage.	☐ S	☐ F

55. Other		
a. Specify the other purposes. _____		☐ F
b. What is the volume of water (AF) historically consumed for other purposes? _____		☐ F
c. Submit evidence to support the volume of water historically consumed.	☐ S	☐ F

Historical Use: Historical Places of Storage

(Continue to answer questions for water right(s) identified in question 36.)

56. Did the historical use include one or more places of storage? This does not include reservoirs, pits, pit-dams, or ponds with a capacity less than 0.1 AF; water tanks; or cisterns (ARM 36.12.113(6)).	☐ Y ☑ N	☐ F
a. If yes, for each historical place of storage please provide the surface area in acres (AC), capacity (AF), annual net evaporation (FT/YR), and number of times per year the place of storage was filled.	☐ A	☐ F

ID	Surface Area (AC)	Capacity (AF)	Annual Net Evaporation (FT/YR)	# of Annual Fillings

Surface Water

☑ **Applicable**, move on to question 57. ☐ **Not Applicable**, skip to question 66.

The following questions are mandatory for changes to surface water rights and must be filled out before the Preapplication Meeting Form is determined to be complete.

Return Flow Analysis

Questions, Narrative Responses, and Tables	Check-boxes	Follow-Up
57. Do the purposes of the water rights proposed for change include irrigation?	☑ Y ☐ N	☐ F
a. If yes, does the proposed change include a change in place of use *and/or* a change in purpose? If you propose to retire acres in the historical place of use and/or add new acres outside the historical place of use, this constitutes a change in place of use.	☐ Y ☑ N	☐ F
i. If yes, a return flow analysis is required. Move on to answer question 58.		
ii. If no, this section is complete, and you may skip to question 94.		
58. Does the proposed change include a change in purpose?	☐ Y ☐ N	☐ F
a. If yes, consumptive use information is collected in the Change in Purpose section (questions 101 to 108), skip to question 59.		
b. If no, go to question 59.		
59. Does the proposed change include a change in place of use? If yes, move on to question 60. If no, skip to question 63.	☐ Y ☐ N	☐ F

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60. Submit a map showing the new, unchanged historical, and retired historical places of use. Create map on an aerial photograph or topographic map that shows the following: section corners, township and range, scale bar, and north arrow. If you have shapefiles associated with this map, in addition to submitting an image of the map, please submit electronic copies of the shapefiles to the Department.	☐ S	☐ F
61. How many acres, if any, will be retired from the historical place of use? _____		☐ F
62. Are irrigated acres proposed that are outside the historical place of use?	☐ Y ☐ N	☐ F
a. If yes,		
i. How many acres? _____		☐ F
ii. What is the proposed irrigation method type (e.g., flood or sprinkler) and subtype (e.g., level border, graded border, furrow, contour ditch, wild flood, center pivot, or wheel line) for the new acres? _____		☐ F
iii. What is the slope (%) of the new place of use? _____		☐ F
iv. Based on 62.a.ii to 62.a.iii, what is the percent efficiency of irrigation for the new acres? _____		☐ F
v. What is the County Management Factor for the new acres? _____		☐ F
vi. What is the ET based on the irrigation method and county for the new acres? _____		☐ F
vii. What percent of applied water are irrecoverable losses for new acres? _____		☐ F
63. Do you have information for the Department to consider about the source and location where return flows historically accrued?	☐ Y ☐ N	☐ F
a. If yes, submit this information to the Department.	☐ S	☐ F

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Extended Return Flow Analysis

64. Based on the preliminary data provided by the Department at this preapplication meeting, to what surface water sources do return flows accrue before and after the proposed change? **Return flow data provided by the Department at the preapplication meeting is preliminary and is subject to change during technical analyses. If the source or location of return flow data changes during technical analyses, then the analysis of impacts to identified surface water rights will reflect the technical analyses; this will not constitute a change of any element to the proposed application pursuant to ARM 36.12.1302(6)(a).* _____ _____	☐ A	☐ F
65. If an extended return flow analysis is necessary to analyze impacts to identified surface water rights for the purpose of evaluating adverse effect, do you elect to answer non-mandatory questions 149 to 154 to provide information required for this extended analysis?	☐ Y ☐ N	☐ F
a. If yes, go to question 149. This information will be used if an extended return flow analysis is necessary to analyze impacts to identified surface water rights for the purpose of evaluating adverse effect.		
b. If no, did you elect in question 1 for the Department to conduct technical analyses?	☐ Y ☐ N	☐ F
i. If yes, do you elect for the Department to use publicly available water quantity data for the extended return flow analysis? If the extended return flow analysis is needed and sufficient publicly available water quantity data are not available, then the Department will not be able to conduct the extended analysis. You will still have to prove a lack of adverse effect from the proposed change.	☐ Y ☐ N	☐ F
ii. If no, you may still include the extended return flow analysis with your technical analyses. The Department will include the extended analysis in its scientific credibility review of your technical analyses. You will still need to prove a lack of adverse effect from the proposed change.		

GROUNDWATER

☐ **Applicable**, move on to question 66. ☐ **Not Applicable**, skip to question 94.

The following questions are mandatory for changes to groundwater rights and must be filled out before the Preapplication Meeting Form is determined to be complete.

Groundwater Analysis for Changes

Questions, Narrative Responses, and Tables	Check-boxes	Follow-Up
66. Does the proposed change include a change in point of diversion?	☐ Y ☐ N	☐ F
a. If no, this section is complete; skip to question 77.		
b. If yes, a groundwater analysis for changes is required; answer questions specific to the groundwater diversion type.		
i. What is the groundwater diversion type? _____		☐ F

Well/Pumping Pit	Answer questions 67 to 72	**Developed Spring**	Answer question 73	**Pond**	Answer questions 74 to 76

Groundwater Analysis: Well/Pumping Pit

☐ Applicable ☐ Not Applicable

67. Per ARM 36.12.121 a 24- or 72-hour aquifer test is required; do you propose not to conduct the test? An 8-hour test will be required, if no aquifer test is completed.	☐ Y ☐ N	☐ F
a. If yes, explain. The Department will let you know if the request is reasonable and identify additional data needs. _____ _____ _____ _____ _____	☐ A	☐ F

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68. Submit Aquifer Test Data Form (Form 633) for each *new* well/pumping pit that will be constructed prior to technical analyses or *existing* well/pumping pit that is added by the change. If an aquifer test was already conducted for an *existing* well/pumping pit, and you would like to use that instead of conducting a new aquifer test, describe this in question 67.a. If a variance is requested, Form 633 must be submitted on or before the Variance Request Deadline. If no variance is requested, Form 633 is due by the time the preapplication meeting form is complete but may be submitted earlier. However, if the Department determines a variance is needed and the Variance Request Deadline has passed, to submit the Form 653 you must reschedule the preapplication meeting or submit the application without expedited fees and timelines (ARM 36.12.1302(6)).	☐ S	☐ F
69. Submit the Aquifer Testing Addendum (Form 600/606-ATA) and associated materials (e.g., well logs). If you request a variance, Form 600/606-ATA must be submitted on or before the Variance Request Deadline. If no variance is requested, Form 600/606-ATA is due by the time the preapplication meeting form is complete but may be submitted earlier. However, if the Department determines a variance is needed and the Variance Request Deadline has passed, to submit the Form 653 you must reschedule the preapplication meeting or submit the application without expedited fees and timelines (ARM 36.12.1302(6)).	☐ S	☐ F
70. Are you requesting a variance from ARM 36.12.121? If you are unsure if a variance request will be needed, mark follow-up and answer this question once Form 600/606-ATA and Form 633 are complete. A variance must be requested by the Variance Request Deadline.	☐ Y ☐ N	☐ F
a. If yes, submit Form 653, Form 600/606-ATA, and Form 633 together on or before the Variance Request Deadline.	☐ S	☐ F
b. If no, you may choose to submit Form 600/606-ATA and Form 633 before the Variance Request Deadline, and the Department will review these two forms. If the Department determines a variance is needed after the Variance Request Deadline, to submit the Form 653 you must reschedule the preapplication meeting or submit the application without expedited fees and timelines (ARM 36.12.1302(6)).		
71. Have all the wells/pumping pits been constructed?	☐ Y ☐ N	☐ F
a. If no,		
i. Submit a list of the POD IDs for all wells/pumping pits and mark whether they have or have not been constructed.	☐ S	☐ F
ii. When will the proposed wells/pumping pits be constructed? _____		☐ F

iii. Is the requested volume for each proposed well/pumping pit known?	☐ Y ☐ N	☐ F
1. If yes, list the flow rate and volume requested for each proposed well/pumping pit. Label with POD ID. _____ _____	☐ A	☐ F
2. If no, what is the total requested volume (AF) and the number of proposed PODs? _____		☐ F
72. What is the flow rate (GPM or CFS), volume (AF), and period of diversion (MM/DD-MM/DD) required at each new well/pumping pit ("*new*") or existing well/pumping pit that is added by the change ("*existing*")? If the well/pumping pit is not yet constructed, use the estimated volume based on question 71.a.iii.2. What is the well/pumping pit depth (FT), if available, or estimated well/pumping pit depth (FT)? Label using the same POD ID number as the Proposed Use Map (question 9) and, if available, GWIC ID. List whether the POD is *new* or an *existing* well added by the change.	☐ A	☐ F

POD ID	**GWIC ID** *(if available)*	**Flow Rate** *Flow*	*GPM*	*CFS*	**Volume** *AF*	**Period of Diversion** *MM/DD-MM/DD*	**Depth** *FT*	**Measured or Estimated**	**New or Existing**
			☐	☐					
			☐	☐					
			☐	☐					
			☐	☐					
			☐	☐					

Groundwater Analysis: Developed Spring

☐ Applicable ☐ Not Applicable

73. Have you measured each *new* developed spring or *existing* developed spring that will be added by the change?	☐ Y ☐ N	☐ F
a. If yes, submit the measurements to the Department and answer the following questions:	☐ S	☐ F
i. Do you have flow rate (GPM or CFS) and volume measurements?	☐ Y ☐ N	☐ F
ii. With what method were measurements collected? _____ _____	☐ A	☐ F

iii. What is the interval of measurements? _____		☐ F
iv. Is the interval of measurements sufficient to comply with the Department standard of monthly flow measurements taken at regular intervals or at department-approved intervals during the proposed period of diversion?	☐ Y ☐ N	☐ F
b. If no, or if measurements do not comply with the Department standard, answer the following questions. The Department cannot deem the preapplication meeting form adequately completed until the Department receives measurements that meet the Department standard.		
i. When do you plan to measure? _____	☐ A	☐ F
ii. With what method and at what interval will measurements be collected? _____ _____	☐ A	☐ F

Groundwater Analysis: Pond

☐ Applicable ☐ Not Applicable

74. Submit Form 653 to apply for a variance from ARM 36.12.121 for the Aquifer Test on or before the Variance Request Deadline.	☐ S	☐ F
75. Submit bathymetry data, survey, or engineering plans for each *new* pond added or *existing* pond added or modified by the proposed change. Label using the same POD ID number as the Proposed Use Map (question 9). List whether the pond is *new* or an *existing* pond.	☐ S	☐ F
76. Are any of the *new* ponds, or *existing* ponds added or modified by the proposed change the pond, fed or drained by surface water in addition to groundwater?	☐ Y ☐ N	☐ F
a. If yes,		
i. Explain. _____ _____ _____	☐ A	☐ F
ii. Submit measurements of the connected surface water source. These may include inflow and outflow measurements.	☐ S	☐ F

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Surface Water Depletion Analysis for Changes

77. Does the proposed change include any of the following scenarios that necessitate a surface water depletion analysis pursuant to ARM 36.12.1303(5)(c)? • Change in point of diversion • Change in place of use, purpose of use, or place of storage that result in a change in consumptive use or pumping schedule.	☐ Y ☐ N	☐ F
a. If no, this section is complete; skip to question 85.		
b. If yes, a surface water depletion analysis is required; answer questions specific to the groundwater diversion type.		
i. What is the groundwater diversion type? _____		☐ F

Well/Pumping Pit	Answer questions 78 to 79	**Developed Spring**	Answer question 80	**Pond**	Answer questions 81 to 82

Surface Water Depletion Analysis: Well/Pumping Pit

☐ Applicable ☐ Not Applicable

78. Provide the following information for each well/pumping pit on the current version of the water rights proposed for change that will either remain on the water rights after the change ("*unchanged*") or will be retired ("*retired*"): flow rate (GPM or CFS), volume (AF), period of diversion required (MM/DD-MM/DD), well/pumping pit depth (FT) (if available, otherwise or estimated well/pumping pit depth (FT)), and whether it is *unchanged* or *retired*. Please use the same POD ID as the Historical Use Map (question 8) and, if available, provide the GWIC ID number.	☐ A	☐ F

POD ID	**GWIC ID** *(if available)*	**Flow Rate** *Flow Rate*	*GPM*	*CFS*	**Volume** *AF*	**Period of Diversion** *MM/DD-MM/DD*	**Depth** *FT*	**Measured or Estimated**	**Unchanged or Retired**
			☐	☐					
			☐	☐					
			☐	☐					
			☐	☐					
			☐	☐					

79. Provide the pumping schedule for each well/pumping pit (*new*, *existing*, *unchanged*, or *retired*) for both *before* and *after* the proposed change. Use the same POD ID as the project maps. For *new* and *existing* wells/pumping pits, use the Proposed Use Map (question 9). For *unchanged* and *retired* wells/pumping pits use the Historical Use Map (question 8). Attach any additional pumping schedules using *"Additional Pumping Schedule (606P)" sheet*. For *retired* wells/pumping pits, mark "N/A" checkbox for after the change and for *new* wells/pumping pits, mark "N/A" checkbox for before the change. Mark the checkbox "Diverted volume/# of Days" if it is a year-round use and the pump schedule is an allocation of diverted volume by the number of days in the month. Mark the checkbox "80% dry year IWR" if it is an irrigation/lawn and garden use and the pump schedule is the 80% dry year net irrigation requirement (IWR, NRCS 2003).	☐ A	☐ F

(Before) POD ID				**(After) POD ID**			
☐ Diverted volume/# of Days ☐ 80% dry year IWR ☐ N/A				☐ Diverted volume/# of Days ☐ 80% dry year IWR ☐ N/A			
Month	**Volume (AF)**	**Month**	**Volume (AF)**	**Month**	**Voume (AF)**	**Month**	**Volume (AF)**
January		July		January		July	
February		August		February		August	
March		September		March		September	
April		October		April		October	
May		November		May		November	
June		December		June		December	

Surface Water Depletion Analysis: Developed Spring

☐ Applicable ☐ Not Applicable

80. Is the type of groundwater diversion for your proposed project a developed spring? If yes, skip to question 85 because no surface water depletion analysis will be necessary.	☐ Y ☐ N	☐ F

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Surface Water Depletion Analysis: Pond

☐ Applicable ☐ Not Applicable

81. Are there any ponds on the current version of the water rights proposed for change that will remain on the water rights unchanged ("*unchanged*") or will be retired ("*retired*")? If yes,	☐ Y ☐ N	☐ F
a. Did you skip questions 74 to 76 because there is no change in POD? If yes,	☐ Y ☐ N	☐ F
i. Submit Form 653 to apply for a variance from ARM 36.12.121 for the Aquifer Test on or before the Variance Request Deadline.	☐ S	☐ F
b. Submit bathymetry data, survey, or engineering plans for each *unchanged* pond or *retired* pond. Label the submittal with the POD ID and whether the pond is *unchanged* or *retired*.	☐ S	☐ F
c. Are any of the *unchanged* or *retired* ponds fed or drained by surface water, in addition to groundwater?	☐ Y ☐ N	☐ F
i. If yes,		
1. Explain. _____ _____ _____	☐ A	☐ F
2. Submit measurements of the connected surface water source. These may include inflow and outflow measurements.	☐ S	☐ F

82. Provide the schedule of diversions for out-of-pond use for each pond (*new*, *existing*, *unchanged*, or *retired*) for both *before* and *after* the proposed change. Use the same POD ID as the project maps. For *new* and *existing* ponds, use the Proposed Use Map (question 9). For *unchanged* and *retired* ponds use the Historical Use Map (question 8). Attach any additional diversion schedules using the same format as the table below. For *retired* ponds, mark "N/A" checkbox for after the change and for *new* ponds, mark "N/A" checkbox for before the change. Mark the checkbox "Diverted volume/# of Days" if it is a year-round use and the diversion schedule is an allocation of diverted volume by the number of days in the month. Mark the checkbox "80% dry year IWR" if it is an irrigation or lawn and garden use and the diversion schedule is the 80% dry year net irrigation requirement (IWR, NRCS 2003).

☐ A ☐ F

(Before) POD ID				**(After) POD ID**			
☐ Diverted volume/# of Days ☐ 80% dry year IWR ☐ N/A				☐ Diverted volume/# of Days ☐ 80% dry year IWR ☐ N/A			
Month	**Diversions for Out-of-Pond Use Volume (AF)**	**Month**	**Diversions for Out-of-Pond Use Volume (AF)**	**Month**	**Diversions for Out-of-Pond Use Volume (AF)**	**Month**	**Diversions for Out-of-Pond Use Volume (AF)**
January		July		January		July	
February		August		February		August	
March		September		March		September	
April		October		April		October	
May		November		May		November	
June		December		June		December	

Extended Surface Water Depletion Analysis

83. Based on the preliminary net depletion data provided by the Department at this preapplication meeting, what are the hydraulically connected surface water sources before and after the proposed change? **Net depletion data provided by the Department at the preapplication meeting are preliminary and are subject to change during the technical analyses. If the source or location of net depletion data changes during the technical analyses, then the extended surface water depletion analysis will reflect the technical analyses; this will not constitute a change of any element to the proposed application pursuant to ARM 36.12.1302(6)(a).*

_____

_____

_____

☐ A ☐ F

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84. If an extended surface water depletion analysis is necessary to analyze impacts to identified surface water rights for the purpose of evaluating adverse effect, do you elect to answer non-mandatory questions 157 to 161 to provide information required for this extended surface water depletion analysis?	☐ Y ☐ N	☐ F
a. If yes, go to question 156. This information will be used if an extended surface water depletion analysis is necessary to analyze impacts to identified surface water rights for the purpose of evaluating adverse effect.		
b. If no, did you elect in question 1 for the Department to conduct technical analyses?	☐ Y ☐ N	☐ F
i. If yes, do you elect for the Department to use publicly available water quantity data for the extended surface water depletion analysis? If this extended surface water depletion analysis is needed and sufficient publicly available water quantity data are not available, then the Department will not be able to conduct the extended surface water depletion analysis. You will still need to prove a lack of adverse effect from the proposed change.	☐ Y ☐ N	☐ F
ii. If no, you may still include the extended surface water depletion analysis with your technical analyses. The Department will include the extended analysis in its scientific credibility review of your technical analyses. You will still need to prove a lack of adverse effect from the proposed change.		

Return Flow Analysis

85. Do the purposes of the water rights proposed for change include irrigation?	☐ Y ☐ N	☐ F
a. If yes, does the proposed change include a change in place of use *and/or* a change in purpose? If you propose to retire acres in the historical place of use and/or add new acres outside the historical place of use, this constitutes a change in place of use.	☐ Y ☐ N	☐ F
i. If yes, a return flow analysis is required. Move on to answer question 86.		
ii. If no, this section is complete, and you may skip to question 94.		
86. Does the proposed change include a change in purpose?	☐ Y ☐ N	☐ F
a. If yes, consumptive use information is collected in the Change in Purpose section (questions 101 to 108), skip to question 87.		
b. If no, skip to question 87.		
87. Does the proposed change include a change in place of use? If yes, move on to question 88. If no, skip to question 91.	☐ Y ☐ N	☐ F

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88. Submit a map showing the new, unchanged historical, and retired historical places of use. Create map on an aerial photograph or topographic map that shows the following: section corners, township and range, scale bar, and north arrow. If you have shapefiles associated with this map, in addition to submitting an image of the map, please submit electronic copies of the shapefiles to the Department.	☐ S	☐ F
89. How many acres, if any, will be retired from the historical place of use? _____		☐ F
90. Are irrigated acres proposed that are outside the historical place of use?	☐ Y ☐ N	☐ F
a. If yes,		
i. How many acres? _____		☐ F
ii. What is the proposed irrigation method type (e.g., flood or sprinkler) and subtype (e.g., level border, graded border, furrow, contour ditch, wild flood, center pivot, or wheel line) for the new acres? _____	☐ A	☐ F
iii. What is the slope (%) of the new place of use? _____		☐ F
iv. Based on question 90.a.ii to 90.a.iii, what is the percent efficiency of irrigation for the new acres? _____		☐ F
v. What is the County Management Factor for the new acres? _____		☐ F
vi. What is the ET based on the irrigation method and county for the new acres? _____		☐ F
vii. What percent of applied water are irrecoverable losses for new acres? _____		☐ F
91. Do you have information for the Department to consider about the source and location where return flows historically accrued?	☐ Y ☐ N	☐ F
a. If yes, submit this information to the Department.	☐ S	☐ F

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Extended Return Flow Analysis

92. Based on the preliminary data provided by the Department at this preapplication meeting, to what surface water sources do return flows accrue before and after the proposed change? **Return flow data provided by the Department at the preapplication meeting are preliminary and are subject to change during technical analyses. If the source or location of return flow data changes during technical analyses, then the analysis of impacts to identified surface water rights will reflect the technical analyses; this will not constitute a change of any element to the proposed application pursuant to ARM 36.12.1302(6)(a).* _____ _____	☐ A	☐ F
93. If an extended return flow analysis is necessary to analyze impacts to identified surface water rights for the purpose of evaluating adverse effect, do you elect to answer non-mandatory questions 149 to 155 to provide information required for this extended analysis?	☐ Y ☐ N	☐ F
a. If yes, go to question 149. This information will be used if an extended return flow analysis is necessary to analyze impacts to identified surface water rights for the purpose of evaluating adverse effect.		
b. If no, did you elect in question 1 for the Department to conduct technical analyses?	☐ Y ☐ N	☐ F
i. If yes, do you elect for the Department to use publicly available water quantity data for the extended return flow analysis? If the extended return flow analysis is needed and sufficient publicly available water quantity data are not available, then the Department will not be able to conduct the extended analysis. You will still have to prove a lack of adverse effect from the proposed change.	☐ Y ☐ N	☐ F
ii. If no, you may still include the extended return flow analysis with your technical analyses. The Department will include the extended analysis in its scientific credibility review of your technical analyses. You will still need to prove a lack of adverse effect from the proposed change.		

Mandatory Project-Specific Questions

The following questions are mandatory when applicable and must be filled out before the Preapplication Meeting Form is determined to be complete.

Temporary Change

Questions, Narrative Responses, and Tables	Check-boxes	Follow-Up
94. Does the proposal include a temporary change? *This includes proposing to add a place of use on State of Montana Trust Land, with all points of diversion on private land, because the change authorization will be temporary for the duration of the lease term.* If yes, answer the questions in this section (questions 95 to 100). If no, this section is complete; skip to question 100.	☐ Y ☑ N	☐ F
95. What elements of the water rights are being temporarily changed? _____		☐ F
96. For what purpose will the water rights be temporarily used? _____		☐ F
97. For how many years will the water rights be temporarily changed? _____		☐ F
98. Will the temporary change be intermittent over the years?	☐ Y ☐ N	☐ F
a. If yes, explain. _____	☐ A	☐ F
99. Is the quantity of water subject to the temporary change being made available from the development of a new water conservation or storage project?	☐ Y ☐ N	☐ F
a. If yes, explain the water conservation or storage project. _____ _____ _____	☐ A	☐ F
100. If you are answering Project-Specific Questions as they are referenced in Application Details, return to question 17 if you are proposing to add a place of use on State of Montana Trust Land and question 20.a.ii if you are proposing a temporary change that does not involve State of Montana Trust Land. If you are answering in consecutive order, go to question 101.		

Change in Purpose

101. Does the project involve a change in purpose? If yes, answer the questions in this section (questions 102 to 108). If no, this section is complete; skip to question 108.	☐ Y ☑ N	☐ F
102. Identify the new and unchanged purposes, flow rate (GPM or CFS), volume (AF), period of diversion, and period of use (MM/DD-MM/DD) for each purpose.	☐ A	☐ F

Purpose	**New or Unchanged?**	**Period of Diversion** *(MM/DD-MM/DD)*	**Period of Use** *(MM/DD-MM/DD)*	**Flow Rate** *Flow Rate*	*GPM*	*CFS*	**Volume** *(AF)*
					☐	☐	
					☐	☐	
					☐	☐	
					☐	☐	
					☐	☐	
			Total		☐	☐	

103. Answer the questions specific to each new and unchanged purpose identified in question 102.							
Lawn and garden	Question 104	**Stock**	Question 105	**Domestic and multiple domestic**	Question 106	**Other purpose**	Question 107

104. Lawn and garden		
a. Will consumptive use be based on the standard of 2.5 acre-feet per acre or a calculated volume based on Irrigation Water Requirements for turf grass?	☐ Y ☐ N	☐ F
i. If yes, which standard? _____		☐ F
ii. If no, describe how consumptive use will be estimated. This must be based on expert analysis. _____ _____	☐ A	☐ F
105. Stock		
a. How many animal units will be served? _____		☐ F

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106. Domestic and multiple domestic		
a. Households & bedrooms per household served? _____		☐ F
b. Will the Department volume standard be used to determine consumptive use?	☐ Y ☐ N	☐ F
i. If no, what volume standard will be used? _____	☐ A	☐ F
c. Will the proposed use include wastewater disposal and treatment?	☐ Y ☐ N	☐ F
i. If yes, which of the following best describes the wastewater disposal and treatment system? Individual drain fields, central treatment facility with minimal consumption, or evaporation basin or land application? _____		☐ F
107. Other purpose		
a. What is the other purpose (e.g., municipal, commercial)? _____		☐ F
b. What is the percentage of consumption for the proposed use? Please explain. _____ _____ _____	☐ A	☐ F
108. If you are answering Project Specific Questions as they are referenced in Application Details, return to question 14 and if you are answering in consecutive order, go to question 109.		

Ditch-Specific Questions

Applications corroborating historical diverted volume with the Historical Use Addendum (Form 606-HUA) may be eligible to skip one or more questions in this section; see the Form 606-HUA for more information.

109. Does the historical use of water include at least one conveyance ditch? If yes, answer questions 110 to 111. If no, skip to question 112.	☐ Y ☑ N	☐ F
110. Submit a Historical Use Ditch Map that shows every ditch conveying water for the historical use of all water rights proposed for change. Label the ditch names, PODs, the POUs, and the ditch measurement locations (requested in question 111.d). The map should be created on a historical image or topographic map with the following: section corners, township and range, scale bar, and north arrow.	☐ S	☐ F

111. Answer question 111.a to 111.h one time for each historical conveyance ditch. If there is more than one historical conveyance ditch, use an "Additional Historical Ditch (606P)" sheet for each additional ditch.		
a. What is the ditch name? _____		☐ F
b. List the water rights proposed for change that were conveyed by the ditch. _____ _____		☐ F
c. What is the distance water was historically carried by the conveyance ditch? Only include segments between the POD and start of the POU; do not include segments within the POU. _____	☐ A	☐ F
d. Provide at least one set of ditch measurements, which include width (FT), depth (FT), and slope (%). Discuss ditch characteristics with DNRC to determine the minimum number of ditch measurements. Include the location of each measurement, labeled with the 2-digit measurement ID number, used on the map submitted for question 110.	☐ S	☐ F

ID #	Width (FT)	Depth (FT)	Slope (%)	Date of Measurement

e. What is a reasonable Manning's n value? List the factors used for estimation. If you do not know this value, please work through estimation with the Department. _____ _____	☐ A	☐ F
f. What type of soils compose the historical conveyance ditch? For lined ditches, write "lined" instead. _____ _____	☐ A	☐ F

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g. Are other water rights conveyed by the historical conveyance ditch?	☐ Y ☐ N	☐ F
i. If yes,		
1. List the water right numbers and their flow rates. _____ _____ _____	☐ A	☐ F
2. What is the sum of the flow rates, including the water rights proposed for change? _____	☐ A	☐ F
3. Submit a map with your best estimate of the historical POUs for the other water rights conveyed by the historical conveyance ditch. Include only POUs between the historical POD and your historical POU. If you do not know this information, the Department can help you create the map. The map should be created on an aerial photograph or topographic map and show the following: section corners, township and range, scale bar, and north arrow.	☐ S	☐ F
h. Were any water rights proposed for change part of one historical water right that was split?	☐ Y ☐ N	☐ F
i. If yes, were all split water rights split in such a way to ensure each post-split water right could stand alone and not be reliant on the others for carriage water?	☐ Y ☐ N	☐ F
1. If no, do any of the water rights proposed for change have a carriage water requirement?	☐ Y ☐ N	☐ F
a. If yes,		
i. List the water rights with a carriage water requirement _____		☐ F
ii. Update your Historical Use Ditch Map (question 110) to label the ditch segments where a carriage water requirement exists for a water right proposed for change. Also, use your best estimate to label the POUs for all water rights included in the carriage water requirement. If you do not know this information, the Department can help you update the map.	☐ S	☐ F
112. Does the proposed use include at least one existing or new conveyance ditch? If yes, answer questions 113 to 114. If no, or if you answered these questions earlier in the preapplication meeting, this section is complete; skip to question 115.	☐ Y ☑ N	☐ F

113. Submit a Proposed Use Ditch Map that shows every ditch conveying the water rights proposed for change, including any unchanged portions. Label all unchanged and proposed PODs, all unchanged and proposed POUs, and additional ditch measurement locations (requested in question 114.e). The map should be created on an aerial photograph or topographic map with the following: section corners, township and range, scale bar, and north arrow.	☐ S	☐ F
114. Answer the questions 114.a to 114.i one time for each proposed use conveyance ditch. Use an "Additional Proposed Use Ditch (606P)" sheet for each additional ditch.		
a. What is the ditch name? _____		☐ F
b. Is this ditch a historical conveyance ditch detailed in questions 110 to 111?	☐ Y ☐ N	☐ F
i. If yes, have any of the following details changed, to the best of your knowledge, from historical conditions: ditch length, distance water conveyed, ditch lining, or water rights conveyed by the ditch?	☐ Y ☐ N	☐ F
1. If yes, answer questions 114.c to 114.i using current data.		
2. If no, do not answer questions 114.c to 114.i for this ditch because the information remains unchanged. Move on to the next proposed use conveyance ditch, or if none remain, skip to question 115.		
c. List the water rights proposed for change that are going to be conveyed by the ditch. _____		☐ F
d. What is the distance water will be carried by the conveyance ditch? Only include segments between the POD and start of the POU; do not include segments within the POU. _____ _____	☐ A	☐ F
e. Provide at least one set of ditch measurements, which include width (FT), depth (FT), and slope (%). Discuss ditch characteristics with DNRC to determine the minimum number of ditch measurements. Include the location of each measurement, labeled with the 2-digit measurement ID number, used on the map submitted for question 113.	☐ S	☐ F

ID #	Width (FT)	Depth (FT)	Slope (%)	Date of Measurement

f. What is a reasonable Manning's n value? List the factors used for estimation. If you do not know this value, please work through estimation with the Department. _____ _____	☐ A	☐ F
g. What type of soils compose the proposed conveyance ditch? For lined ditches, write "lined" instead. _____ _____	☐ A	☐ F
h. Are other water rights conveyed by the proposed conveyance ditch?	☐ Y ☐ N	☐ F
i. If yes,		
1. List the water right numbers and their flow rates. _____ _____ _____	☐ A	☐ F
2. What is the sum of the flow rates, including the water rights proposed for change? _____	☐ A	☐ F
3. Submit a map with your best estimate of the location of current POUs for the other water rights conveyed by the proposed conveyance ditch. Include only POUs between the POD and your proposed POU. If you do not know this information, the Department can help you create the map. The map should be created on an aerial photograph or topographic map and show the following: section corners, township and range, scale bar, and north arrow.	☐ S	☐ F
i. Were any water right(s) proposed for change identified as having a carriage water requirement in question 111.h.i.1.a.i?	☐ Y ☐ N	☐ F
i. If yes, update your Proposed Use Ditch Map (question 113) to label the ditch segments where a carriage water requirement exists for a water right proposed for change. Also, use your best estimate to label the POUs for all water rights included in the carriage water requirement. If you do not know this information, the Department can help you update the map.	☐ S	☐ F
115. If you are answering Project Specific Questions as they are referenced in Application Details, return to question 15 and if you are answering in consecutive order, go to question 116.		

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Change in Place of Storage

116. Does the project involve a change in place of storage? If yes, answer the questions in this section (questions 117 to 122) for each individual place of storage. Use an "Additional Place of Storage (606P)" sheet for additional places of storage. If no, this section is complete; skip to question 123.	☐ Y ☑ N	☐ F
117. Is this application to add a new place of storage or change an existing place of storage? _____		☐ F
a. If application is to change an existing place of storage, list the water rights that include the place of storage and a short description of the proposed change. _____ _____	☐ A	☐ F
118. Is the place of storage located on-stream?	☐ Y ☐ N	☐ F
a. If no, describe any losses related to conveyance that are not detailed in "Ditch-Specific Questions." _____ _____ _____	☐ A	
119. What is the proposed capacity of the place of storage? Use bathymetry data, survey, or engineering plans for capacity. Submit the data source used with this form. In lieu of these data sources, use the following equation: *Surface Acres x Maximum Depth (ft) x 0.5 = Capacity (AF)* _____	☐ S	☐ F
120. What is the proposed surface area of the place of storage? _____	☐ A	☐ F
121. What is the annual net evaporation of water from the place of storage based on the Department's gridded net evaporation layer? If you propose a different method, attach an explanation and justification of the method. _____	☐ A	☐ F
122. Will the place of storage be lined?	☐ Y ☐ N	☐ F
123. If you are answering Project-Specific Questions as they are referenced in Application Details, return to question 16 and if you are answering in consecutive order, go to question 109.		

Mitigation, Aquifer Recharge, and Marketing for Mitigation/Aquifer Recharge

124. Does your application include one of the following purposes? If no, this section is complete; skip to question 129.	☐ Y ☑ N	☐ F
a. Mitigation water. If yes, answer question 125 and 126.	☐ Y ☐ N	☐ F
b. Aquifer recharge water. If yes, answer question 125 and 127.	☐ Y ☐ N	☐ F
c. Marketing for mitigation/aquifer recharge. If yes, answer question 128.	☐ Y ☐ N	☐ F
125. Mitigation Water and Aquifer Recharge Water		
a. Identify the water right(s) for which the mitigation/aquifer recharge water will be used. _____	☐ A	☐ F
b. Identify the application or preapplication number where these water rights were identified as needing mitigation or aquifer recharge to meet the adverse effect criterion. _____	☐ A	☐ F
c. What is the timing, flow rate, and volume of net depletions identified as needing mitigation or aquifer recharge to meet the adverse effect criterion?	☐ A	☐ F

Month	**Days**	**Flow Rate**			**Volume**	**Month**	**Days**	**Flow Rate**			**Volume**
		Flow	*GPM*	*CFS*	*AF*			*Flow*	*GPM*	*CFS*	*AF*
January			☐	☐		July			☐	☐	
February			☐	☐		August			☐	☐	
March			☐	☐		September			☐	☐	
April			☐	☐		October			☐	☐	
May			☐	☐		November			☐	☐	
June			☐	☐		December			☐	☐	

d. Will other water contribute to the need for mitigation or aquifer recharge water? This may include water rights with a mitigation or aquifer recharge purpose, marketing for mitigation contracts, or mitigation water secured via other types of contracts.	☐ Y ☐ N	☐ F
i. If yes, describe the origin of this water and in the table below, list how much it will contribute. _____	☐ A	☐ F

Month	**Days**	**Flow Rate**			**Volume**	**Month**	**Days**	**Flow Rate**			**Volume**
		Flow	*GPM*	*CFS*	*AF*			*Flow*	*GPM*	*CFS*	*AF*
January			☐	☐		July			☐	☐	
February			☐	☐		August			☐	☐	
March			☐	☐		September			☐	☐	
April			☐	☐		October			☐	☐	
May			☐	☐		November			☐	☐	
June			☐	☐		December			☐	☐	

126. Mitigation Water		
a. What is legal land description (¼ ¼ ¼ section of start and end) and length (ft) of the mitigation reach? _____	☐ A	☐ F
b. By what means will mitigation water be made available? You must submit a copy of all relevant discharge permits at application submittal (§85-2-364, MCA). _____ _____ _____	☐ A	☐ F
127. Aquifer Recharge Water		
a. What is the legal land description (¼ ¼ ¼ section) of the start of net depletions for which the aquifer recharge water will be used? _____	☐ A	☐ F

	b. What is the volume of net depletions that will be offset by the aquifer recharge water? *The volume of aquifer recharge water injected may not equal the volume of net depletions.* _____	☐ A	☐ F
	c. Describe the method of aquifer recharge. Include, if available, a preliminary design. You must submit a copy of all relevant discharge permits at application submittal (§85-2-364, MCA). _____ _____ _____ _____	☐ A	☐ F
	d. Describe any constraints on the aquifer recharge schedule, such as priority date limitations. _____ _____	☐ A	☐ F
	e. What is the proposed area or location of aquifer recharge? *The location is subject to refinement during technical analyses; this will not constitute a change of any element to the proposed application pursuant to ARM 36.12.1302(6)(a).* _____ _____ _____	☐ A	☐ F
128.	Marketing for Mitigation/Aquifer Recharge		
	a. What is the proposed location of the reach where water is to be marketed (¼ ¼ ¼ section of the start and the end of the reach)? _____	☐ A	☐ F
	b. Is this marketing for mitigation	☐ Y ☐ N	☐ F
	i. If yes, by what means will water be made available? _____ _____ _____ _____	☐ A	☐ F

c. Is this marketing for aquifer recharge?	☐ Y ☐ N	☐ F
i. If yes,		
1. Describe the method of aquifer recharge. Include, if available, a preliminary design. You must submit a copy of all relevant discharge permits at application submittal (§85-2-364, MCA). _____ _____ _____ _____	☐ A	☐ F
2. What is the volume of water that will be used for aquifer recharge? _____	☐ A	☐ F
3. Describe any constraints on the aquifer recharge schedule, such as priority date limitations. _____ _____	☐ A	☐ F
4. What is the proposed area or location of aquifer recharge? *The location is subject to refinement during technical analyses; this will not constitute a change of any element to the proposed application pursuant to ARM 36.12.1302(6)(a).* _____ _____ _____	☐ A	☐ F
d. Describe your ability to measure and operate all existing diversions to adjust flow rate as water is sold or leased. _____ _____ _____ _____	☐ A	☐ F

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e. How will you cease diversions for the existing beneficial use as water is sold or leased? _____ _____ _____	☐ A	☐ F
129. If you are answering Project-Specific Questions as they are referenced in Application Details, return to question 25 and if you are answering in consecutive order, go to question 130.		

Instream Flow

130. Does the project involve an instream flow change? If yes, answer the questions in this section (questions 131 to 136). If no, this section is complete; skip to question 136.	☐ Y ☑ N	☐ F
131. What is the source name where streamflow will be maintained or enhanced? _____		☐ F
132. What is the location (¼ ¼ ¼ section of start and end of reach) and length (FT) of the protected reach? _____	☐ A	☐ F
133. Describe the way the streamflow is to be maintained or enhanced. _____ _____	☐ A	☐ F
134. Do you propose to retire all water use associated with the historical purposes throughout the entire period of use? This includes conveyance loss associated with historical ditches.	☐ Y ☐ N	☐ F
a. If no, describe the proposed change to existing purposes, including flow rate, volume, and, if applicable, acres. _____ _____ _____ _____	☐ A	☐ F
135. Do historical and proposed return flows accrete to the source of supply? The Department provides an initial estimate of the source(s) that historical and proposed returns flows accrete to at the preapplication meeting.	☐ Y ☐ N	☐ F

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136. If you are answering Project Specific Questions as they are referenced in Application Details, return to question 27 and if you are answering in consecutive order, go to question 137.		

Salvage Water

137. Does this project involve salvage water? Salvage water does not include destroying phreatophytes, removing vegetation, converting to a less consumptive crop, or converting to a partial irrigation schedule. If yes, answer the questions in this section (questions 138 to 141). If no, this section is complete; skip to question 141.	☐ Y ☑ N	☐ F
138. What water saving method was implemented? This may include lining an unlined ditch or canal, converting unlined ditch or canal to pipeline, converting high profile or high-pressure sprinklers to low pressure, and others. _____ _____	☐ A	☐ F
139. How much water was salvaged from implementation of the water saving method? Include flow rate (GPM or CFS) and volume (AF). _____		☐ F
140. How did you determine the amount of water salvaged? _____ _____ _____ _____	☐ A	☐ F
141. If you are answering Project Specific Questions as they are referenced in Application Details, return to question 28 and if you are answering in consecutive order, go to question 142.		

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Non-Mandatory Questions for Criteria Analysis

The following questions are not mandatory. They should be discussed in the Preapplication Meeting, but do not need to be filled out before the Preapplication Meeting Form is determined to be complete.

Adverse Effect

Questions, Narrative Responses, and Tables	Check-boxes
142. Describe your plan to ensure that existing water rights will be satisfied during times of water shortage. Diversion can cease	☐ A
143. Explain how you can control your diversion in response to call being made. Pump can be shut off if valid call is made	☐ A
144. Are you aware of any calls that have been made on any source of supply or depleted surface water source?	☐ Y ☑ N
a. If yes, explain.	☐ A
145. Does a water commissioner distribute water or oversee water distribution on your proposed source or depleted surface water source?	☐ Y ☑ N
a. If yes, list the sources and explain.	☐ A
146. Describe how the change will or will not affect your ability to make call. POD moved downstream. May be diversions in between historical and proposed POD. Appropriators in between may be subject to call that they were not subject to call historically.	☐ A

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147. When was the last time each water right proposed for change was appropriated and used beneficially? If there has been a period of nonuse, answer questions 147.a to 147.d. April-October 2025	
a. Why was the water right not used?	☐ A
b. Why will a resumption of use not adversely affect other water users?	☐ A
c. Is the period of nonuse greater than 10 years for any of the water rights proposed for change? If yes, list which water rights.	☐ Y ☐ N
d. Have water rights been authorized to use the source during the period of nonuse for any of the water rights proposed for change? If yes, explain.	☐ Y ☐ N
148. Is this a point of diversion change?	☑ Y ☐ N
a. If yes,	
i. Are the proposed points of diversion upstream or downstream of the historical points of diversion? Downstream	
ii. Are there intervening water users between the historical and proposed points of diversion?	☑ Y ☐ N
1. If yes, list the water rights. 42K 175255 00, 42K 30071035, potentially more	☐ A

iii. Will any new points of diversion or conveyance infrastructure be shared with one or more existing water rights?	☐ Y ☑ N
1. If yes, describe how capacity of the new shared point of diversion and/or conveyance infrastructure is sufficient for all water rights. _____ _____ _____	☐ A

Adverse Effect: Evaluation of Impacts to Identified Surface Water Rights for Return Flow Analysis

149. Respond to questions in this section if you elected in questions 65 or 93 to answer optional questions 150 to 154. Answer one time for each surface water source receiving return flows. Use "Additional Return Flow Source (606P)" sheet if there is more than one source. If you did not elect to answer these questions or answered these questions earlier in the preapplication meeting, this section is complete; skip to question 155.	
150. What is the surface water source for which you are answering questions 151 to 154? _____	
151. Are stream gage data available?	☐ Y ☐ N
a. If yes, answer question 152.	
b. If no, answer question 153.	
152. Stream gage data are available	
a. Is one stream gage located above, and one stream gage located below the location where return flows accrue?	☐ Y ☐ N
i. If no, is only one stream gage located near the location where return flows accrue?	☐ Y ☐ N
1. If yes, is the stream gage upstream or downstream? _____	
b. List the gage name(s). Write "N/A" for Gage 2 if one gage available. Gage 1: _____ Gage 2: _____	

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c. What is the distance between the gage(s) and the location where return flows accrue? Write "N/A" for Gage 2 if one gage available. Gage 1: _____ Gage 2: _____	
d. Is there a limiting or controlling factor on the source between the stream gage(s) and the location where return flows accrue? This includes dams that control the flow and streams with large gaining and/or losing reaches.	☐ Y ☐ N
i. If yes, explain. _____ _____	☐ A
e. How long is the period of record? Write "N/A" for Gage 2 if one gage is available. Gage 1: _____ Gage 2: _____	
f. Who operates and maintains the gage(s)? Write "N/A" for Gage 2 if one gage is available. Gage 1: _____ Gage 2: _____	
g. Is each available stream gage operated and maintained by USGS or DNRC?	☐ Y ☐ N
i. If yes, skip to question 152.h.	
ii. If no, answer the following questions for each gage not operated and maintained by USGS or DNRC.	
1. How frequently are stage data recorded? Write "N/A" for Gage 2 if only one gage is not operated or maintained by USGS. Gage 1: _____ Gage 2: _____	
2. If data gaps were to occur, are they identified and left unfilled or estimated using interpolation, ice correction, or indirect discharge measurements methods?	☐ Y ☐ N
a. Gage 1.	☐ Y ☐ N
b. Gage 2. Write "N/A" on the line instead of answering yes or no, if only one gage is not operated or maintained by USGS or DNRC. _____	☐ Y ☐ N

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3. Was the rating curve established and maintained throughout the duration of the period of record using measurements taken near the reference gage and stage recorder according to USGS protocols?	☐ Y ☐ N
a. Gage 1.	☐ Y ☐ N
b. Gage 2. Write "N/A" on the line instead of answering yes or no, if only one gage is not operated or maintained by USGS or DNRC. _____	☐ Y ☐ N
4. Were there requirements for maintaining a permanent gage datum and meeting specified accuracy limits?	☐ Y ☐ N
a. Gage 1.	☐ Y ☐ N
b. Gage 2. Write "N/A" on the line instead of answering yes or no, if only one gage is not operated or maintained by USGS or DNRC. _____	☐ Y ☐ N
h. Do the data for one or more available stream gages meet the Department's standard to be sufficient to calculate the median of the mean monthly flow rate and volume during the months when return flows accrue?	☐ Y ☐ N
i. If yes, record how many meet the standard, then skip to question 155 because this section is complete. _____	
ii. If no, answer question 153.	
153. If no gage data are available or if available gage data do not meet the Department's standard to be sufficient to calculate the median of the mean monthly flow rate and volume during the months when return flows accrue, is the source otherwise measured?	☐ Y ☐ N
a. If no, measurements may be necessary. The Department cannot deem the preapplication meeting form adequately completed until the Department receives gage data and/or measurements that meet the Department's measurement standards or, in combination with an approved request to deviate from the Department's standards, are sufficient to complete any necessary technical analyses or scientific credibility reviews and to evaluate the applicable criteria. Skip to question 154.	
b. If yes,	
i. Submit measurements to the Department.	☐ S
ii. Who collected the measurements? _____	☐ A

iii. With what method were the data collected?	☐ A
iv. What is the period of record?	
v. What is the frequency of measurement?	
vi. Are there gaps in the data?	☐ Y ☐ N
1. If yes, what is the nature of the gaps and how are gaps handled to ensure data quality?	☐ A
vii. Is there a process for maintaining the data and meeting specified accuracy limits?	☐ Y ☐ N
1. If yes, explain.	
viii. Do available measurement data meet the Department's standard to be sufficient to calculate the median of the mean monthly flow rate and volume during the months when return flows accrue?	☐ Y ☐ N
1. If yes, this section is complete. Skip to question 155.	
2. If no, answer question 154.	
154. Do the available measurement data, gage and/or otherwise measured, meet the Department's standard of including a minimum of high, moderate, and low flows to be sufficient to use for calibration of a Department-accepted estimation technique?	☐ Y ☐ N
a. If yes,	
i. Describe how the measurements are representative of high, moderate, and low flows.	☐ A

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ii. Describe the estimation technique. _____ _____ _____ _____ _____	☐ A
b. If no, but a Department-accepted estimation technique will be appropriate for the source receiving return flows:	
i. Will measurements be collected prior to submission of a completed Form 606P-B that meet the Department's standard of including a minimum of high, moderate, and low flows to be sufficient to use for calibration of a Department-accepted estimation technique?	☐ Y ☐ N
1. If yes,	
a. With what method will the data be collected? _____ _____	☐ A
b. What will be the interval of measurement? _____	
c. Describe the proposed estimation technique. _____ _____ _____ _____	☐A
2. If no, do you plan on requesting to deviate from the Department's standard of including a minimum of high, moderate, and low flows to be sufficient to use for calibration of a Department-accepted estimation technique? Neither the Department's technical analyses nor scientific credibility review of your technical analyses can commence until the Department receives measurements that meet Department measurement standards, or in combination with an approved request for variance from these standards, are sufficient to complete any necessary technical analyses or scientific credibility reviews and to evaluate the applicable criteria.	☐ Y ☐ N

c. If no, because no Department-accepted estimation technique will be appropriate for the source receiving return flows:	
i. Describe why no Department-accepted estimation technique is appropriate for the source characteristics. _____ _____ _____	☐ A
ii. Do the available measurement data, gage and/or otherwise measured, meet the Department's standard for monthly measurements throughout the months when return flows accrue?	☐ Y ☐ N
1. If no, will measurements be collected prior to submission of a completed Form 606P that meet the Department's standard of monthly measurements throughout the months when return flows accrue?	☐ Y ☐ N
a. If yes, with what method will the data be collected? _____ _____	☐ A
b. If no, do you plan on requesting a variance to deviate from the Department's standard for monthly measurements throughout the months when return flows accrue? The Department's technical analyses or scientific credibility review of your technical analyses cannot commence until the Department receives measurements that meet Department measurement standards, or in combination with a request for a variance from these standards are sufficient to complete any necessary technical analyses or scientific credibility reviews and to evaluate the applicable criteria.	☐ Y ☐ N
155. If you went straight to this section when referenced, go back to question 65 for surface water changes and question 93 for groundwater changes. If you waited to answer in consecutive order and have completed all prior sections, move to question 156.	

Adverse Effect: Evaluation of Impacts to Identified Water Rights for Surface Water Depletion Analysis

156. Respond to questions in this section if you elected in question 84 to answer optional questions 157 to 161. Answer one time for each hydraulically connected source. Use "Additional Hydraulically Connected Source (606P)" sheet if there is more than one source. If you did not elect to answer these questions or answered these questions earlier in the preapplication meeting, this section is complete; skip to question 162.	

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157. What is the surface water source for which you are answering questions 158 to 161? _____	
158. Are stream gage data available?	☐ Y ☐ N
a. If yes, answer question 159.	
b. If no, answer question 160.	
159. Stream gage data are available	
a. Is one stream gage located above and one stream gage located below the point of net depletion accumulation?	☐ Y ☐ N
i. If no, is only one stream gage located near the point of net depletion accumulation?	☐ Y ☐ N
1. If yes, is the stream gage upstream or downstream? _____	
b. List the gage name(s). Write "N/A" for Gage 2 if one gage available. Gage 1: _____ Gage 2: _____	
c. What is the distance between the gage(s) and the point of net depletion accumulation? Write "N/A" for Gage 2 if one gage available. Gage 1: _____ Gage 2: _____	
d. Is there a limiting or controlling factor on the source between the stream gage(s) and the point where net depletions accrue? This includes dams that control the flow and streams with large gaining and/or losing reaches.	☐ Y ☐ N
i. If yes, explain. _____ _____	☐ A
e. How long is the period of record? Write "N/A" for Gage 2 if one gage is available. Gage 1: _____ Gage 2: _____	

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f. Who operates and maintains the gage(s)? Write "N/A" for Gage 2 if one gage is available. Gage 1: _____ Gage 2: _____	
g. Is each available stream gage operated and maintained by USGS or DNRC?	☐ Y ☐ N
i. If yes, skip to question 159.h.	
ii. If no, answer the following questions for each gage not operated and maintained by USGS or DNRC.	
1. How frequently are stage data recorded? Write "N/A" for Gage 2 if only one gage is not operated or maintained by USGS. Gage 1: _____ Gage 2: _____	
2. If data gaps were to occur, are they identified and left unfilled or estimated using interpolation, ice correction, or indirect discharge measurements methods?	☐ Y ☐ N
a. Gage 1.	☐ Y ☐ N
b. Gage 2. Write "N/A" on the line instead of answering yes or no, if only one gage is not operated or maintained by USGS or DNRC. _____	☐ Y ☐ N
3. Was the rating curve established and maintained throughout the duration of the period of record using measurements taken near the reference gage and stage recorder according to USGS protocols?	☐ Y ☐ N
a. Gage 1.	☐ Y ☐ N
b. Gage 2. Write "N/A" on the line instead of answering yes or no, if only one gage is not operated or maintained by USGS or DNRC. _____	☐ Y ☐ N
4. Were there requirements for maintaining a permanent gage datum and meeting specified accuracy limits?	☐ Y ☐ N
a. Gage 1.	☐ Y ☐ N
b. Gage 2. Write "N/A" on the line instead of answering yes or no, if only one gage is not operated or maintained by USGS or DNRC. _____	☐ Y ☐ N

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h. Do the data for one or more available stream gages meet the Department's standard to be sufficient to calculate the median of the mean monthly flow rate and volume during the months with net depletions?	☐ Y ☐ N
i. If yes, record how many meet the standard, then skip to question 162 because this section is complete. _____	
ii. If no, answer question 160.	
160. If no gage data are available or if available gage data do not meet the Department's standard to be sufficient to calculate the median of the mean monthly flow rate and volume during the months with net depletions, is the source otherwise measured?	☐ Y ☐ N
a. If no, measurements may be necessary. The Department cannot deem the preapplication meeting form adequately completed until the Department receives gage data and/or measurements that meet the Department's measurement standards or, in combination with an approved request to deviate from the Department's standards, are sufficient to complete any necessary technical analyses or scientific credibility reviews and to evaluate the applicable criteria. Skip to question 161.	
b. If yes,	
i. Submit measurements to the Department.	☐ S
ii. Who collected the measurements? _____	☐ A
iii. With what method were the data collected? _____ _____	☐ A
iv. What is the period of record? _____	
v. What is the frequency of measurement? _____	
vi. Are there gaps in the data?	☐ Y ☐ N
1. If yes, what is the nature of the gaps and how are gaps handled to ensure data quality? _____ _____	☐ A

vii. Is there a process for maintaining the data and meeting specified accuracy limits?	☐ Y ☐ N
1. If yes, explain. _____ _____	
viii. Do available measurement data meet the Department's standard to be sufficient to calculate the median of the mean monthly flow rate and volume during the months with net depletions?	☐ Y ☐ N
1. If yes, this section is complete. Skip to question 162.	
2. If no, answer question 161.	
161. Do the available measurement data, gage and/or otherwise measured, meet the Department's standard of including a minimum of high, moderate, and low flows to be sufficient to use for calibration of a Department-accepted estimation technique?	☐ Y ☐ N
a. If yes,	
i. Describe how the measurements are representative of high, moderate, and low flows. _____ _____ _____	☐ A
ii. Describe the estimation technique. _____ _____ _____ _____ _____	☐ A
b. If no, but a Department-accepted estimation technique will be appropriate for the hydraulically connected source:	
i. Will measurements be collected prior to submission of a completed Form 606P-B that meet the Department's standard of including a minimum of high, moderate, and low flows to be sufficient to use for calibration of a Department-accepted estimation technique?	☐ Y ☐ N
1. If yes,	
a. With what method will the data be collected? _____ _____	☐ A

b. What will be the interval of measurement? _____	
c. Describe the proposed estimation technique. _____ _____ _____ _____	☐ A
2. If no, do you plan on requesting to deviate from the Department's standard of including a minimum of high, moderate, and low flows to be sufficient to use for calibration of a Department-accepted estimation technique? The Department's technical analyses or scientific credibility review of your technical analyses cannot commence until the Department receives measurements that meet Department measurement standards, or in combination with a request to deviate, are sufficient to complete any necessary technical analyses or scientific credibility reviews and to evaluate the applicable criteria.	☐ Y ☐ N
c. If no, because no Department-accepted estimation technique will be appropriate for the hydraulically connected source:	
i. Describe why no Department-accepted estimation technique is appropriate for the source characteristics. _____ _____ _____	☐ A
ii. Do the available measurement data, gage and/or otherwise measured, meet the Department's standard for monthly measurements throughout the months with net depletions?	☐ Y ☐ N
1. If no, will measurements be collected prior to submission of a completed Form 606P that meet the Department's standard of monthly measurements throughout the months with net depletions?	☐ Y ☐ N
a. If yes, with what method will the data be collected? _____ _____	☐ A

b. If no, do you plan on requesting to deviate from the Department's standard for monthly measurements throughout the months with net depletions? The Department's technical analyses or scientific credibility review of your technical analyses cannot commence until the Department receives measurements that meet Department measurement standards, or in combination with a to deviate, are sufficient to complete any necessary technical analyses or scientific credibility reviews and to evaluate the applicable criteria.	☐ Y ☐ N
162. If you went straight to this section when referenced, go back to question 84. If you waited to answer in consecutive order and have completed all prior sections, move to question 163.	

Adequate Means of Diversion and Operation

163. Submit a diagram of how you will operate your system from the point of diversion to the place of use.	☐ S
164. Describe specific information about the capacity of the diversionary structure(s). This may include, where applicable: pump curves and total dynamic head calculations, headgate design specifications, and dike or dam height and length. _____ _____ _____	☐ A
165. Describe the size, materials, capacity, and configuration of infrastructure to convey water from point of diversion to place of use. _____ _____ _____ _____	☐ A
166. Does the proposed conveyance require easements?	☐ Y ☑ N
a. If yes, explain. _____ _____	☐ A
167. Do you propose to add a point of diversion?	☑ Y ☐ N
a. If yes, do you own the land where all proposed points of diversion are located?	☑ Y ☐ N
i. If no, documentation to show you have the right to use all points of diversion located on each property you do not own will be required upon application submittal. This may include, but is not limited to, a well agreement, an easement, or permission of the party that owns the property where the proposed point(s) of diversion are located.	

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168. Describe your plan of operations, including specific information about how water is delivered within the place of use. This may include, where applicable, the range of flow rates needed for a pivot.	☐ A
169. Do you have any plans to measure your diversion and use?	☐ Y ☑ N
a. If yes, describe the plan and the type of measurements you will take.	☐ A

Beneficial Use

170. Does the Department have a standard for any of the purposes for which water is used? Department standards can be found in ARM 36.12.112 and ARM 36.12.115.	☑ Y ☐ N
a. If yes, list the purposes for which the Department has a standard and note whether the water use falls within or outside the standard. Irrigation, volume is outside standard (volume is 4 AF/AC), volume may be necessary for sandy soils	
171. If no standard exists for any proposed purpose or if any proposed purpose falls outside of Department standards, explain how the use is reasonable for that purpose.	☐ A
172. Will your proposed project be subject to DEQ requirements for a public water supply (PWS) system or Certificate of Subdivision Approval (COSA)?	☐ Y ☑ N
a. If yes, have you researched or consulted with DEQ regarding those requirements?	☐ Y ☐ N
173. Are you proposing to use surface water for in-house domestic use?	☐ Y ☑ N
a. If yes, does a COSA exist for the proposed place of use?	☐ Y ☐ N
i. If yes, please submit the COSA.	☐ S
ii. If no, have you researched or consulted with DEQ regarding their requirements?	☐ Y ☐ N

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Possessory Interest

174. Do you meet one of the exceptions to possessory interest requirements, pursuant to ARM 36.12.1802? Exceptions include cases 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.	☐ Y ☑ N
a. If yes, explain. _____ _____ _____ _____	☐ A
b. If no, do you own all proposed places of use?	☑ Y ☐ N
i. If no, explain. Documentation that shows you either have possessory interest or written permission of the parties with possessory interest of the place of use will be required at application submittal. _____ _____ _____	☐ A

Non-Mandatory Project-Specific Questions

Change in Place of Storage

175. Does the project include one or more places of storage? If yes, answer questions 176 to 178 for each individual place of storage (use "Additional Place of Storage (606P)" sheet for additional places of storage). A Change Storage Addendum (606-SA) will be required at application submittal. If no, this section is complete; skip to question 179.	
176. Are preliminary designs available? Preliminary designs will be required at application submittal.	☐ Y ☐ N
a. If yes, submit preliminary designs.	☐ S
177. Will a drainage device be installed?	☐ Y ☐ N
178. Is the place of storage capacity calculated to be greater than 50 acre-feet?	☐ Y ☐ N
a. If yes, have you made an application to the DNRC Water Operations Bureau for a determination of whether the dam or reservoir is a high-hazard dam?	☐ Y ☐ N

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179. If you are answering Project Specific Questions as they are referenced in Application Details, return to question 16 and if you are answering in consecutive order, go to question 180.	

Instream Flow Change

180. You may respond to the questions in this section if the project involves an instream flow purpose and you choose to answer the non-mandatory questions. Otherwise, this section is complete, skip to question 184.	
181. Does the protected reach begin at the existing point of diversion?	☐ Y ☐ N
a. If no, does the protected reach begin upstream of or downstream from the existing point of diversion? _____	
182. Provide initial details about a streamflow measuring plan, which include the points where measurements occur, the interval of measurement, and the methods and equipment used. A complete streamflow measuring plan will be required for the application. _____ _____ _____ _____ _____ _____	☐ A
183. Provide initial details about an operation plan, which may include the proposed protected flow rate (GPM or CFS), proposed protected volume (AF), and the proposed protected period. If you propose a trigger flow, please explain. A complete operation plan, based on the technical analyses, will be required for the application. _____ _____ _____ _____	☐ A
184. If you are answering Project Specific Questions as they are referenced in Application Details, return to question 27 and if you are answering in consecutive order, go to question 185.	

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Mitigation, Aquifer Recharge, and Marketing for Mitigation

185. You may respond to the questions in this section if the project involves mitigation, aquifer recharge, or marketing for mitigation, and you choose to answer the non-mandatory questions. Otherwise, this section is complete, skip to question 190. For mitigation water, answer questions 186, 187, and 188. For aquifer recharge water, answer questions 187 and 188. For marketing for mitigation/aquifer recharge, answer question 189.	
186. Do the water rights proposed for change to mitigation water have a period of use that is greater than or equal to the period when mitigation is necessary?	☐ Y ☐ N
a. If no, how will mitigation water be made available during the entire period when mitigation is necessary? _____ _____ _____	☐ A
187. How do the priority dates of the water rights proposed for change compare to other water rights on the source? _____ _____	☐ A
188. Do you have measurement records or Water Commissioner records that show the reliability of the water rights proposed for change to a mitigation water or aquifer recharge purpose?	☐ Y ☐ N
a. If yes, submit them to the Department.	☐ S
189. Describe the need for marketing for mitigation/aquifer recharge. _____ _____ _____ _____	☐ A
190. If you are answering Project Specific Questions as they are referenced in Application Details, return to question 25 and if you are answering in consecutive order, go to question 191.	

Water Marketing

191. You may respond to the questions in this section if the project includes the water marketing purpose, and you choose to answer the non-mandatory questions. This does not include marketing for mitigation. Otherwise, this section is complete, skip to question 195.	☐ Y ☐ N

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192. How will you control or limit access to the water? _____ _____	☐ A
193. Do you have contracts for the entire volume and flow rate sought?	☐ Y ☐ N
194. Submit a service area map. Create map on an aerial photograph or topographic map and show the following: general service area boundary, section corners, township and range, scale bar, and north arrow.	☐ S
195. If you are answering Project Specific Questions as they are referenced in Application Details, return to question 26 and if you are answering in consecutive order, go to Follow-Up section.	

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FOLLOW-UP

The table below will identify all questions marked for follow-up. Applicant follow-up will be submitted with the completed Preapplication Meeting Form: Part B (Form 606P-B). Applicant will provide all responses to questions marked for follow-up on a separate document entitled "Follow-up Responses." At the preapplication meeting, the Department may offer to provide the Applicant with information pertinent to identified follow-up. In this case, record in the notes column what information the Department will provide and the date by which the Department will email this information to the Applicant. This information will supplement but not replace Applicant follow-up. It is the responsibility of the Applicant to provide all follow-up, including questions supplemented by Department information, in the "Follow-up Responses" document.

The "Follow-up Responses" document must conform to the following standards. Label all responses with the question number. Answer questions in the same format as the form. For responses in the form of checkboxes, write "Y", "N", "S". Constrain narrative responses to the specific question as is asked on the form; do not respond to multiple questions in one narrative. Label units in narrative responses and tables. Tables must have the exact headings found on the form. Questions that require items to be submitted to the Department may be marked "S" when the required item is attached to the Preapplication Meeting Form. Label all submitted items with the question number for which they were submitted.

***The Applicant may not alter the Preapplication Meeting Form: Part A (Form 606P-A) signed at the Preapplication Meeting**. Instead, the Applicant must use the Amended Responses procedure defined in Form 606P-B. Do not include additional information for questions that were not marked for follow-up on this table; instead include any additional information pursuant to the process for amending responses defined in Form 606P-B.*

QUESTION #	NOTES
8 & 37	Historical use map, meeting all criteria (can be same map as Q9 with proposed POD included)
9	Proposed use map, meeting all criteria (can be same map as Q8 with historical POD included)
48	Did diversion regularly cease due to inadequate supply or call for pre-73 use. Consider answering 48a if necessary.
50.a.ii.2	Slope of fields pre-73
50.a.ii.4	Percent efficiency, depends on slope of field (50.a.ii.2) pre-73 - ARM 36.12.115(2)(e)

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PREAPPLICATION MEETING AFFIDAVIT & CERTIFICATION

"We attest that the information on this form accurately describes the proposed project discussed during the preapplication meeting and that the items marked for follow-up will require the applicant to provide additional information before the form is deemed complete."

"Applicant acknowledges that any information provided by the Department during the preapplication meeting is preliminary and subject to change."

"Applicant acknowledges that if the follow-up information provided to the Department substantially changes the proposed project, for example in a way that alters which sections of the form are applicable or which technical analyses are required, or who is to complete the technical analyses, the applicant will need to schedule a new preapplication meeting so that the Department can identify any additional information necessary for completion of the technical analyses (ARM 36.12.1302(3)(c))."

Upon Department receipt of the completed form (within 180 days following the meeting), the Department reserves five business days to return the form to the applicant if:

1 – the completed form does not include all necessary follow-up information identified in the meeting, OR
2 – the completed form is not adequate for the Department to proceed with technical analyses, OR
3 – the applicant has elected to complete technical analyses and has not submitted each piece of technical analysis required, OR
4 – the applicant has substantially changed the details of the proposed project, such as in a way that alters which sections of the form are applicable, which technical analyses are required, or who is to complete the technical analyses.

If the Department returns the form to the Applicant within these five days due to reasons 1-3 above, the Applicant can use the balance of their 180-day period in ARM 36.12.1302(4) or (5) to gather the remaining follow-up information needed. If there is no time remaining in the 180-day period, the Applicant can submit a written request for a new preapplication meeting, pursuant to ARM 36.12.1302(2). Even if there is still time remaining, the Applicant can choose to schedule a new preapplication meeting. The Department shall transfer the $500 payment received to the new preapplication meeting, or refund the payment to the Applicant if the Applicant desires. If the Department returns the form to the Applicant within these five days due to reason (4) above, the Applicant must submit a written request for a new preapplication meeting, pursuant to ARM 36.12.1302(2). The Department shall transfer the $500 payment received to the new preapplication meeting, or refund the payment to the Applicant if the Applicant desires.

	Swope Ranch LLC	Member	12/5/2025
Applicant Signature			Date

Applicant Signature	Date
kathy Olsen	12/10/2025
Department Signature	Date

REQUEST FOR PREAPPLICATION MEETING

ARM 36.12.1302(2)

(Revised 02/2025)

For Department Use Only

Date Received _____

Received By _____

Scheduled Meeting Date _____

Instructions

Use this optional form to submit a written request for a preapplication meeting, as required in ARM 36.12.1302(2) for applicants electing to complete a preapplication meeting with the department prior to submitting an application for a beneficial water use permit or change in appropriation right pursuant to § 85-2-302, MCA. Use additional sheets as necessary.

Submit this form to the appropriate regional office; see contact information on the last page of this form.

---

1. **Applicant Name** Swope Ranch LLC (previously Wanda J Swope)

Mailing Address 1110 Kinsey Road

City MILES CITY State MT Zip 59301

Home Phone 4068535027 Other Phone 4069510030

Email: jacob_102@hotmail.com

2. **Representative Name** (if other than Applicant) _____

☐ Representative is Consultant ☐ Representative is Attorney ☐ Representative is Other

Mailing Address _____

City _____ State _____ Zip _____

Home Phone _____ Other Phone _____

Email: _____

3. **Are you requesting a preapplication meeting for a permit or change application?**

☐ Permit ☑ Change

4. **Describe your project:**

Changing POD for an existing water right. Changing the location of POD #1 to POD #2's location listed below.

5. Identify the following elements of the proposed permit or change in appropriation.

a) The flow rate and volume of water required:

Flow Rate 6.68 ☐ GPM ☑ CFS Volume 395.20 Acre-Feet

b) The point of diversion:

Point of Diversion #1 SW 1/4 SW 1/4 SW 1/4 Section 14, Township 8 ☑ N ☐ S, Range 47 ☑ E ☐ W
County Custer
Lot/Tract _____ Block _____ Subdivision Name _____
Point of Diversion #2 SE 1/4 NW 1/4 SW 1/4 Section 14, Township 8 ☑ N ☐ S, Range 47 ☑ E ☐ W
County Custer
Lot/Tract _____ Block _____ Subdivision Name _____

c) The place of use:

15 Acres ____ Lot ____ Block E2 1/4 E2 1/4 SE 1/4 Sec 15, Twp 8 ☑ N ☐ S, Rge 47 ☑ E ☐ W
83.80 Acres ____ Lot ____ Block W2 1/4 ____ 1/4 ____ 1/4 Sec 14, Twp 8 ☑ N ☐ S, Rge 47 ☑ E ☐ W
____ Acres ____ Lot ____ Block ____ 1/4 ____ 1/4 ____ 1/4 Sec ____, Twp ____ ☐ N ☐ S, Rge ____ ☐ E ☐ W
____ Acres ____ Lot ____ Block ____ 1/4 ____ 1/4 ____ 1/4 Sec ____, Twp ____ ☐ N ☐ S, Rge ____ ☐ E ☐ W
____ Acres ____ Lot ____ Block ____ 1/4 ____ 1/4 ____ 1/4 Sec ____, Twp ____ ☐ N ☐ S, Rge ____ ☐ E ☐ W

d) The source of water: Yellowstone River

e) The proposed purpose: Flood Irrigation

f) For a change in appropriation right, the water right(s) proposed for change:

Type of water right _____ Basin _____ Water Right # _____
Type of water right _____ Basin _____ Water Right # _____
Type of water right _____ Basin _____ Water Right # _____

Identify the water right elements proposed for change, with a checkmark for each water right proposed for change.

Water Right #	175169-00				
Point of diversion	☑	☐	☐	☐	☐
Place of use	☐	☐	☐	☐	☐
Purpose of use	☐	☐	☐	☐	☐
Place of storage	☐	☐	☐	☐	☐

g) For a change in appropriation right, an explanation of historical use of the right(s) proposed for change:

h) Any proposed place of storage, if applicable (only if storage capacity is greater than 0.1 acre-feet):

#1 Capacity: Surface Acres _____ x Max Depth (feet) _____ x (.4 for dams/.5 for pits) = _____Acre-Feet

Location: ____1/4 ____1/4 ____1/4 Section ___, Township ___ ☐ N ☐ S, Range ___ ☐ E ☐ W

#2 Capacity: Surface Acres _____ x Max Depth (feet) _____ x (.4 for dams/.5 for pits) = _____Acre-Feet

Location: ____1/4 ____1/4 ____1/4 Section ___, Township ___ ☐ N ☐ S, Range ___ ☐ E ☐ W

#3 Capacity: Surface Acres _____ x Max Depth (feet) _____ x (.4 for dams/.5 for pits) = _____Acre-Feet

Location: ____1/4 ____1/4 ____1/4 Section ___, Township ___ ☐ N ☐ S, Range ___ ☐ E ☐ W

i) For applications proposing a well or wells, the well depth(s) and location. If more than two wells, attach a separate sheet to this request:

Well #1 ☐ New Well ☐ Existing Well

For existing well, if available, Water Right # _____ GWIC ID _____

1/4 _____1/4 ___1/4 Section _____, Township _____ ☐ N ☐ S, Range _____ ☐ E ☐ W

County _____

Lot/Tract _____ Block_____ Subdivision Name_____

Estimated Well Depth _____ Feet

Well #2 ☐ New Well ☐ Existing Well

For existing well, if available, Water Right # _____ GWIC ID _____

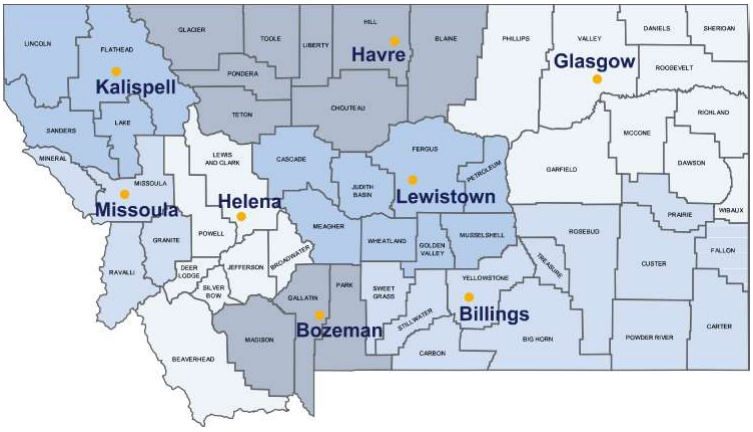
_____1/4 ___1/4 ____1/4 Section _____, Township _____ ☐ N ☐ S, Range _____ ☐ E ☐ W

County _____

Lot/Tract _____ Block_____ Subdivision Name_____

Estimated Well Depth _____ Feet

WATER RESOURCES REGIONAL OFFICES



BILLINGS
Airport Industrial Park, 1371 Rimtop Dr
Billings, MT 59105-9702

PHONE 406-247-4415 FAX 406-247-4416
EMAIL DNRCBillingsWater@mt.gov

Big Horn, Carbon, Carter, Custer, Fallon, Powder River, Prairie, Rosebud, Stillwater, Sweet Grass, Treasure, and Yellowstone Counties

BOZEMAN
2273 Boot Hill Court, Suite 110
Bozeman, MT 59715-7249

PHONE 406-586-3136 FAX 406-587-9726
EMAIL DNRCBozemanWater@mt.gov

Gallatin, Madison, and Park Counties

GLASGOW
222 6th Street South, PO Box 1269
Glasgow, MT 59230-1269

PHONE 406-228-2561
EMAIL DNRCGlasgowWater@mt.gov

Daniels, Dawson, Garfield, McCone, Phillips, Richland, Roosevelt, Sheridan, Valley, and Wibaux Counties

HAVRE
210 6th Ave., PO Box 1828
Havre, MT 59501-1828

PHONE 406-265-5516
EMAIL DNRCHavreWater@mt.gov

Blaine, Chouteau, Glacier, Hill, Liberty, Pondera, Teton, and Toole Counties

HELENA
1424 9th Ave., PO Box 201601,
Helena, MT 59620-1601

PHONE 406-444-6999 FAX 406-444-9317
EMAIL DNRCHelenaWater@mt.gov

Beaverhead, Broadwater, Deer Lodge, Jefferson, Lewis and Clark, Powell, and Silver Bow Counties

KALISPELL
655 Timberwolf Parkway, Suite 4
Kalispell, MT 59901-1215

PHONE 406-752-2288
EMAIL DNRCKalispellWater@mt.gov

Flathead, Lake, Lincoln, and Sanders Counties

LEWISTOWN
613 Northeast Main St., Suite E
Lewistown, MT 59457-2020

PHONE 406-538-7459
EMAIL DNRCLewistownWater@mt.gov

Cascade, Fergus, Golden Valley, Judith Basin, Meagher, Musselshell, Petroleum, and Wheatland Counties

MISSOULA
2705 Spurgin Rd. Bldg. C, PO Box 5004
Missoula, MT 59806-5004

PHONE 406-721-4284 FAX 406-542-5899
EMAIL DNRCMissoulaWater@mt.gov

Granite, Mineral, Missoula, and Ravalli Counties