

Processing Materials

- Work copies of applicant-submitted information
- Deficiency letter
- Deficiency response
- Correct & complete determination
- Any correspondence with the applicant after application receipt and prior to sending the Draft PD

Processing Materials



Missoula Water Resources Regional Office
PO Box 5004
2705 Spurgin Road, Bldg. C
Missoula, MT 59806-5004
(406) 721-4284

June 9, 2026

Circle H Investments LLC
c/o Mark Bretz
4800 Grant Creek Rd
Missoula, MT 59808

Subject: Correct and Complete Application for Change No. 76M 30170836

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.



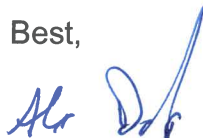
Following issuance of the Draft Preliminary Determination, you (Applicant) will have 15 business days to request an extension of time to submit additional information, if desired pursuant to §85-2-307(3)(a), MCA.

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.

Best,



Alex Dalgleish

Water Resource Specialist

Missoula Regional Office

(406)-542-5886

Alexander.dalgleish@mt.gov

CC:

CC:

WGM Group, Inc.

c/o Patrick Doyle

1111 E Broadway St.

Missoula, MT 59802



From: [Dalglish, Alex](#)
To: "Patrick Doyle"
Cc: [Kyle Mace](#)
Subject: RE: Deficiency Response 76M 30170836
Date: Tuesday, May 19, 2026 10:51:00 AM
Attachments: [image001.png](#)
[image002.png](#)

Thanks Patrick.



Alex Dalglish | Water Conservation Specialist II
Water Resources Division, Missoula Regional Office
Montana Department of Natural Resources and Conservation
2705 Spurgin Road, Bldg C
DESK: 406-542-5886 **EMAIL:** alexander.dalglish@mt.gov
[Website](#) | [Facebook](#) | [X \(Twitter\)](#) | [Instagram](#)
How did we do? Let us know here: [Feedback Survey](#)

From: Patrick Doyle <pdoyle@wgmgroup.com>
Sent: Tuesday, May 19, 2026 10:10 AM
To: Dalglish, Alex <Alexander.Dalglish@mt.gov>
Cc: Thomas, Benjamin <Benjamin.Thomas@mt.gov>; Nave, Jim <jnave@mt.gov>; Kyle Mace <KMace@wgmgroup.com>
Subject: [EXTERNAL] Deficiency Response 76M 30170836

Good morning, Alex,

I have attached the Deficiency Response for Change Application 76M 30170836. Please let me know if you have any questions.

Thank you,

Patrick

Patrick Doyle
Water Rights Technician & GIS Coordinator

M: [406-665-5727](tel:406-665-5727) O: [406-728-4611](tel:406-728-4611)
1111 East Broadway
Missoula, Montana 59802
www.wgmgroup.com [[wgmgroup.com](http://www.wgmgroup.com)]



MEMORANDUM

DATE: May 19, 2026

TO: Alex Dagleish, Jim Nave, and Benjamin Thomas
Montana Department of Natural Resources and Conservation

FROM: Patrick Doyle, Water Right Technician, WGM Group, Inc.

CC: Circle H Investments LLC c/o Mark Bretz, Applicant
Kyle Mace, Water Rights Specialist III, WGM Group, Inc.

RE: Circle H Change Application 76M 30170836 Deficiency Letter Response

Below are the responses to the elements identified in the Deficiency Letter dated March 20, 2026 for Change Application 76M 30170836

1. QUESTION 20.b

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

The application form states that 9.9 acres of lawn and garden will be irrigated in the E2 of Section 26, Township 14N, Range 20W and that 14.7 acres will be irrigated in Section 25, Township 14N, Range 20 West. This contradicts the preapplication materials, which stated that 9.9 acres of lawn and garden are in Section 25 and 14.7 acres are in the E2 of Section 26. Please clarify the lawn and garden place of use and specify how many acres will occur in Sections 25 and 26, Township 14N, Range, 20W.

The correct place of use for lawn and garden is listed in the table below.

Table 1: Proposed Place of Use

| Acres | ¼ | ¼ | ¼ | Section | Township | Range | County |
|-------|-------|---|----|---------|----------|-------|----------|
| 9.9 | | | | 25 | 14N | 20W | Missoula |
| 14.7 | | | E2 | 26 | 14N | 20W | Missoula |
| 24.6 | Total | | | | | | |

2. QUESTION 33

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.

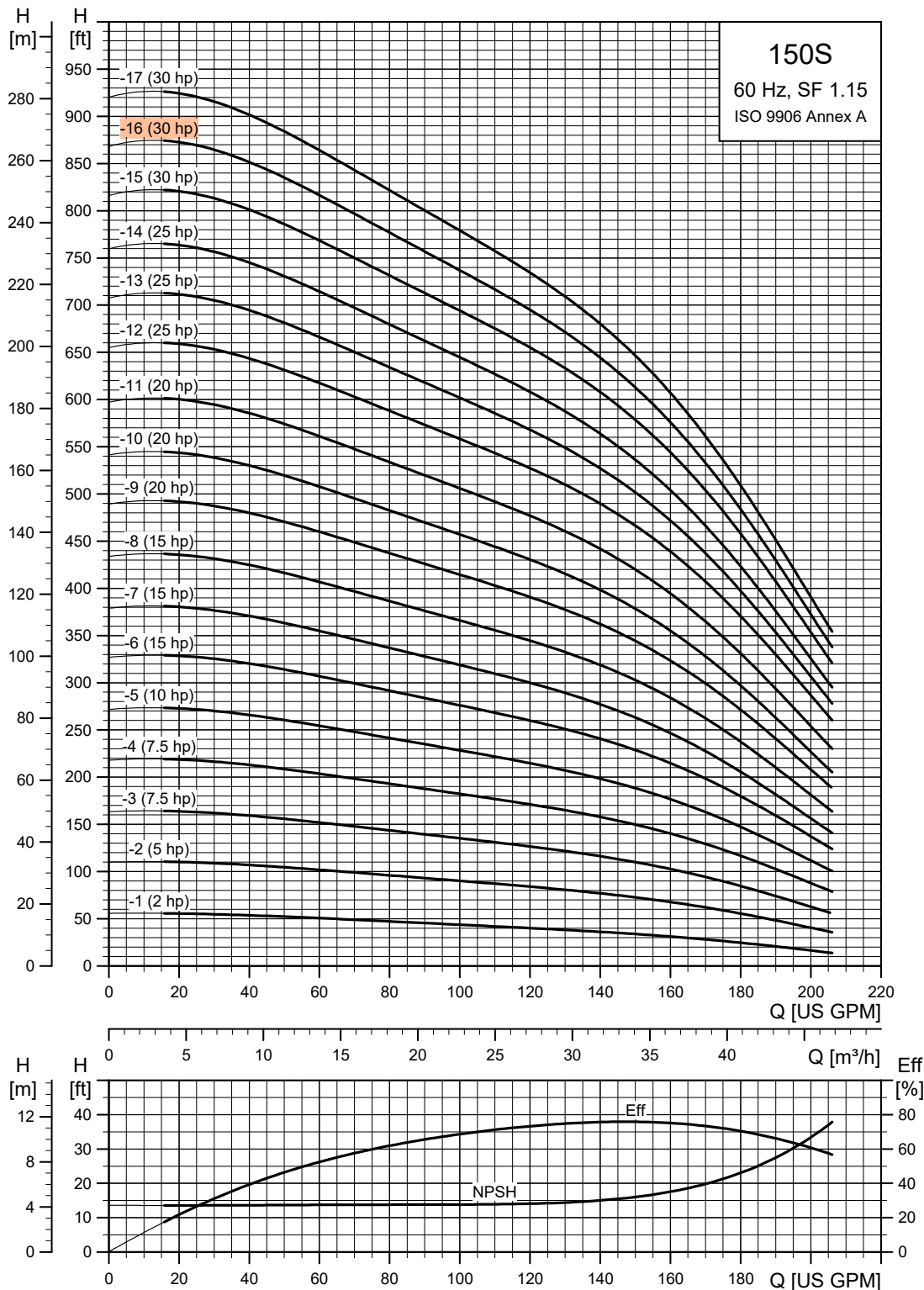
The Application describes some of the pump information for the existing wells and states that "pump curves can be found in the attached". No pump curves or additional information was attached to the Application. Please provide the Department with the pump curves and any supplementary information for the two existing wells.

There are no additional Points of Diversion under the proposed change. The diversionary structures are the two existing wells historically used to divert water into the water system. The pump originally installed in PWS1 has been replaced with a 30HP Grundfos Pump End. The Pump in PWS2 is the original Goulds Model 5WAHC 70 GPM. The pump curves for the pumps found in each well can be found in **Attachment 1**.

6" and larger wells - continued

ATTACHMENT 1
PWS 1

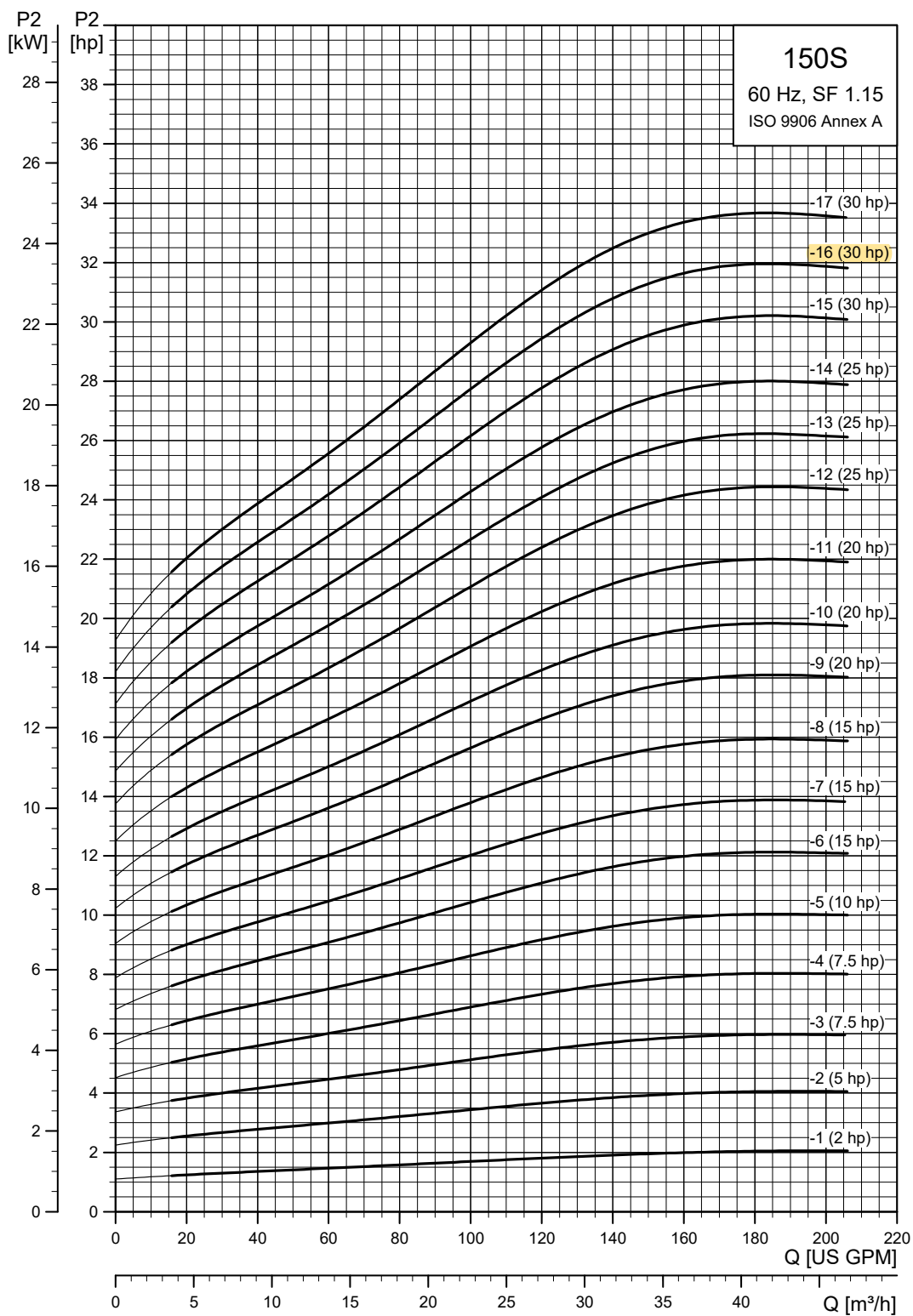
SP 150S (150 gpm)



TM05 0239 1812

6" and larger wells - continued

SP 150S (150 gpm) pump power requirement (P2)

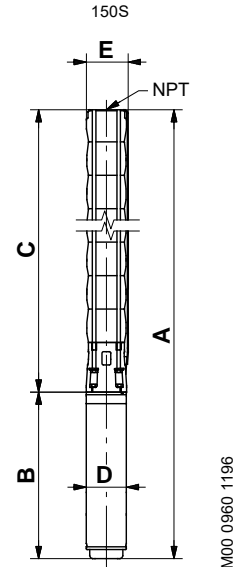


TM05 0241 1812

6" and larger wells - continued

SP 150S (150 gpm) pump with 6", 8" motor

| Pump model | Nom. head [ft] | Motor | | | | Dimensions [in (mm)] | | | | | Net weight (complete) [lb] |
|--|----------------|-------|-----------|------|--------|----------------------|--------------|---------------|------------|------------|----------------------------|
| | | Ph | Volts [V] | [Hp] | [rpm] | A | B | C | D | E | |
| 150S - Motor diameter 6 inch, 60 Hz, rated flow rate 150 gpm (3" NPT) | | | | | | | | | | | |
| 150S300-15 | 592 | 3 | 230 | 30 | ▲ 3476 | 101.89 (2588) | 34.14 (867) | 67.76 (1721) | 5.52 (140) | 5.52 (140) | 209.7 |
| | 596 | 3 | 460 | 30 | ▲ 3488 | 101.89 (2588) | 34.14 (867) | 67.76 (1721) | 5.52 (140) | 5.52 (140) | 209.7 |
| 150S300-16 | 628 | 3 | 230 | 30 | ▲ 3466 | 105.67 (2684) | 34.14 (867) | 71.54 (1817) | 5.52 (140) | 5.52 (140) | 211.5 |
| | 633 | 3 | 460 | 30 | ▲ 3479 | 105.67 (2684) | 34.14 (867) | 71.54 (1817) | 5.52 (140) | 5.52 (140) | 211.5 |
| 150S300-17 | 664 | 3 | 230 | 30 | ▲ 3456 | 109.45 (2780) | 34.14 (867) | 75.32 (1913) | 5.52 (140) | 5.52 (140) | 216.0 |
| | 670 | 3 | 460 | 30 | ▲ 3471 | 109.45 (2780) | 34.14 (867) | 75.32 (1913) | 5.52 (140) | 5.52 (140) | 246.6 |
| 150S400-18 | 721 | 3 | 460 | 40 | ▲ 3501 | 118.35 (3006) | 39.26 (997) | 79.10 (2009) | 5.52 (140) | 5.52 (140) | 246.6 |
| 150S400-19 | 759 | 3 | 460 | 40 | ▲ 3495 | 122.13 (3102) | 39.26 (997) | 82.88 (2105) | 5.52 (140) | 5.52 (140) | 248.4 |
| 150S400-20 | 797 | 3 | 460 | 40 | ▲ 3489 | 125.91 (3198) | 39.26 (997) | 86.66 (2201) | 5.52 (140) | 5.52 (140) | 291.0 |
| 150S400-21 | 834 | 3 | 460 | 40 | ▲ 3483 | 129.69 (3294) | 39.26 (997) | 90.44 (2297) | 5.52 (140) | 5.52 (140) | 271.8 |
| 150S400-22 | 871 | 3 | 460 | 40 | ▲ 3476 | 133.47 (3390) | 39.26 (997) | 94.22 (2393) | 5.52 (140) | 5.52 (140) | 305.9 |
| 150S400-23 | 907 | 3 | 460 | 40 | ▲ 3470 | 137.25 (3486) | 39.26 (997) | 98.00 (2489) | 5.52 (140) | 5.52 (140) | 277.2 |
| 150S500-24 | 954 | 3 | 460 | 50 | ☼ 3483 | 157.88 (4010) | 56.11 (1425) | 101.78 (2585) | 5.67 (144) | 5.67 (144) | 411.8 |
| 150S500-25 | 991 | 3 | 460 | 50 | ☼ 3478 | 161.66 (4106) | 56.11 (1425) | 105.56 (2681) | 5.67 (144) | 5.67 (144) | 419.0 |
| 150S500-26 | 1028 | 3 | 460 | 50 | ☼ 3473 | 165.44 (4202) | 56.11 (1425) | 109.34 (2777) | 5.67 (144) | 5.67 (144) | 426.2 |
| 150S500-27 | 1064 | 3 | 460 | 50 | ☼ 3467 | 169.22 (4298) | 56.11 (1425) | 113.12 (2873) | 5.67 (144) | 5.67 (144) | 433.4 |
| 150S500-28 | 1100 | 3 | 460 | 50 | ☼ 3462 | 173.00 (4394) | 56.11 (1425) | 116.89 (2969) | 5.67 (144) | 5.67 (144) | 440.6 |
| 150S600-29DS | 1131 | 3 | 460 | 60 | ☼ 3465 | 190.64 (4842) | 56.11 (1425) | 134.53 (3417) | 5.67 (144) | 6.89 (175) | 605.0 |
| 150S600-31DS | 1209 | 3 | 460 | 60 | ☼ 3455 | 198.20 (5034) | 56.11 (1425) | 142.09 (3609) | 5.67 (144) | 6.89 (175) | 617.0 |
| 150S600-33DS | 1288 | 3 | 460 | 60 | ☼ 3446 | 205.76 (5226) | 56.11 (1425) | 149.65 (3801) | 5.67 (144) | 6.89 (175) | 629.0 |
| 150S - Motor diameter 8 inch, 60 Hz, rated flow rate 150 gpm (3" NPT) | | | | | | | | | | | |
| 150S500-24 | 966 | 3 | 460 | 50 | * 3505 | 162.45 (4126) | 45.67 (1160) | 116.78 (2966) | 7.56 (192) | 7.56 (192) | 484.5 |
| 150S500-25 | 1004 | 3 | 460 | 50 | * 3501 | 166.23 (4222) | 45.67 (1160) | 120.56 (3062) | 7.56 (192) | 7.56 (192) | 491.7 |
| 150S500-26 | 1042 | 3 | 460 | 50 | * 3497 | 170.00 (4318) | 45.67 (1160) | 124.34 (3158) | 7.56 (192) | 7.56 (192) | 498.9 |
| 150S500-27 | 1080 | 3 | 460 | 50 | * 3493 | 173.78 (4414) | 45.67 (1160) | 128.12 (3254) | 7.56 (192) | 7.56 (192) | 506.1 |
| 150S500-28 | 1117 | 3 | 460 | 50 | * 3489 | 177.56 (4510) | 45.67 (1160) | 131.89 (3350) | 7.56 (192) | 7.56 (192) | 513.3 |
| 150S600-29DS | 1177 | 3 | 460 | 60 | * 3519 | 182.33 (4631) | 50.00 (1270) | 132.33 (3361) | 7.56 (192) | 7.56 (192) | 612.7 |
| 150S600-31DS | 1255 | 3 | 460 | 60 | * 3513 | 189.89 (4823) | 50.00 (1270) | 139.89 (3553) | 7.56 (192) | 7.56 (192) | 623.7 |
| 150S600-33DS | 1332 | 3 | 460 | 60 | * 3508 | 197.45 (5015) | 50.00 (1270) | 147.45 (3745) | 7.56 (192) | 7.56 (192) | 639.1 |
| 150S750-36DS | 1467 | 3 | 460 | 75 | * 3524 | 211.93 (5383) | 53.15 (1350) | 158.78 (4033) | 7.56 (192) | 7.56 (192) | 689.2 |
| 150S750-39DS | 1584 | 3 | 460 | 75 | * 3518 | 223.27 (5671) | 53.15 (1350) | 170.12 (4321) | 7.56 (192) | 7.56 (192) | 704.6 |



TM00 0960 1196

E = Maximum diameter of pump including cable guard and motor.

Notes:

Control box is required for 3-wire, single-phase applications. Data does not include control box.

DS designation = Built into sleeve, 3" NPT, 8" minimum well diameter.

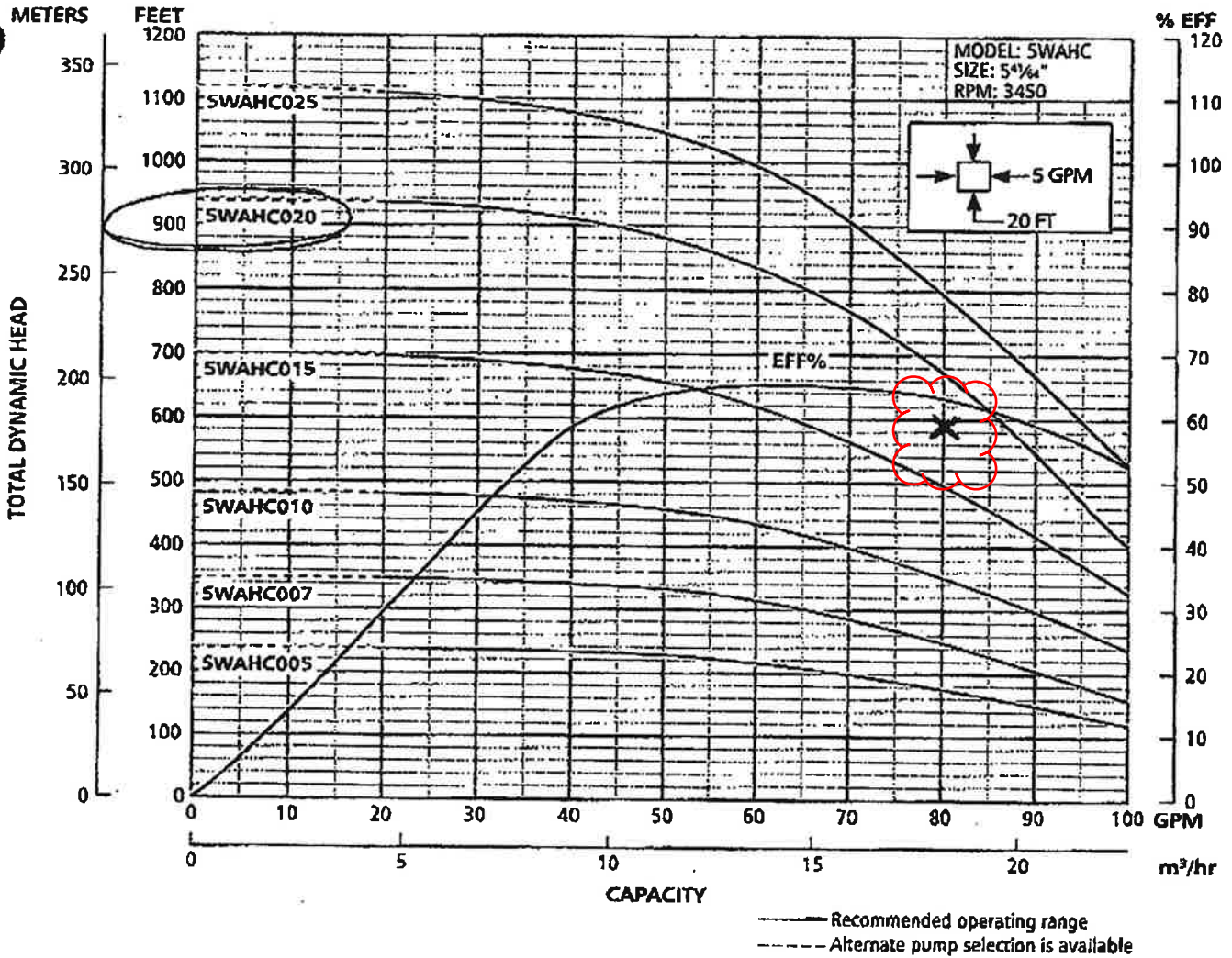
Performance conforms to ISO 9906: 1999 (E) Annex A. Minimum submergence is 5 ft (1.5 m).

- ▲ MS 6000C motor.
- ☼ Takes MMS 6 motor; not available as complete.
- * Takes MMS 8000 motor; not available as complete.

PWS 2

Pump for Well #2

Model SWAHC 70 GPM



DIMENSIONS AND WEIGHTS

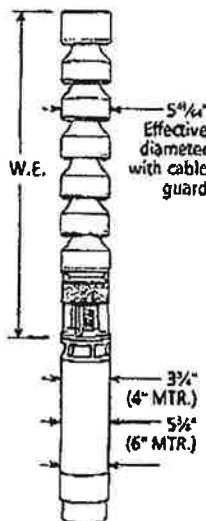
| HP | Stages | W.E. Order Number | W.E. Length | W.E. Wt. (lbs.) |
|-----|--------|-------------------|-------------|-----------------|
| 5 | 4 | 0SWAHC00544CTB | 25.3 | 77 |
| | | 0SWAHC00564CTB | 27.4 | 85 |
| 7.5 | 6 | 0SWAHC00744CTB | 33.3 | 101 |
| | | 0SWAHC00764CTB | 35.4 | 109 |
| 10 | 8 | 0SWAHC01064CTB | 43.4 | 133 |
| 15 | 12 | 0SWAHC01564CTB | 59.4 | 181 |
| 20 | 16 | 0SWAHC02064CTB | 75.4 | 229 |
| 25 | 19 | 0SWAHC02564CTB | 87.4 | 265 |

(All dimensions in inches and weights in lbs. Do not use for construction purposes.)

PLEASE NOTE:

- Order motors separately.
- For intermediate horsepower pumps consult factory.
- Solid line is recommended operating range. The dotted line (---) signifies an alternate pump selection is available.
- Please specify all options changes in W.E. order number.

4" NPT DISCHARGE CONNECTION



MATERIALS OF CONSTRUCTION

| Part Name | Material |
|------------------------|------------------------|
| Shaft | ASTM A582 TYPE 416 |
| Coupling | ASTM A582 S41600 CD |
| Suction Adapter | Ductile Iron ASTM A536 |
| Discharge Bowl | ASTM A48 CL 30B |
| Bronze Bearings | ASTM B584 |
| Discharge Bowl Bearing | ASTM B584 |
| Taperlocks | ASTM A108 GR 101B |
| Bowl | ASTM A48 CL 30B |
| Lipthrust Collar | Polyethylene |
| Impeller | ASTM B584 |
| Fasteners | SAEJ429 GR 8 |
| Cable Guard | ASTM A240 S 30400 |
| Suction Strainer | ASTM A240 S 30400 |

From: [Dagleish, Alex](#)
To: [Patrick Doyle](#)
Subject: RE: Circle H Applications 76M 30170833 and 76M 30170836
Date: Monday, April 27, 2026 11:28:00 AM
Attachments: [image001.png](#)
[image002.png](#)

Ok thank you for explaining that.



Alex Dagleish | Water Conservation Specialist II
Water Resources Division, Missoula Regional Office
Montana Department of Natural Resources and Conservation
2705 Spurgin Road, Bldg C
DESK: 406-542-5886 **EMAIL:** alexander.dagleish@mt.gov
[Website](#) | [Facebook](#) | [X \(Twitter\)](#) | [Instagram](#)
How did we do? Let us know here: [Feedback Survey](#)

From: Patrick Doyle <pdoyle@wmggroup.com>
Sent: Thursday, April 23, 2026 3:05 PM
To: Dagleish, Alex <Alexander.Dagleish@mt.gov>
Subject: [EXTERNAL] RE: Circle H Applications 76M 30170833 and 76M 30170836

Hi Alex,

Thanks for the clarification. The references to the DEQ report as a source of the domestic volume were made in error, as the report does not separate out the domestic use estimates from the lawn and garden estimates. For both the Change and Permit applications, we arrived at the volume of 0.39 AF/unit for the multiple domestic use based on an average home of 4 bedrooms.

Thank you,

Patrick

Patrick Doyle
Water Rights Technician & GIS Coordinator • WGM Group

From: Dagleish, Alex <Alexander.Dagleish@mt.gov>
Sent: Thursday, April 23, 2026 11:33 AM
To: Patrick Doyle <pdoyle@wmggroup.com>
Subject: RE: Circle H Applications 76M 30170833 and 76M 30170836

[EXTERNAL EMAIL] Only open attachments or click on links from senders you trust.

Patrick,

I see that question 40 and 40a of the change application 76M 30170836 describes multiple domestic use based on an average of a 4-bedroom home (which is equivalent to 350 GPD, or 0.39 AF using DNRC's standards in ARM 36.12.115(2)(a)). In the October 22, 2025 follow up information submitted on behalf of the preapplication, for question 77, you state that *"According to the Water Design Report submitted to the DEQ, water use measurements from the current build-out estimate an average use of 504 gpd/household which includes both the domestic and lawn and garden purposes. Domestic volume by itself was estimated to be 0.39 AF/house in the DEQ submittal"*. Further, in the follow up information, the answer to question 106.b.i states *"Households were estimated to use a diverted volume of 0.39AF/house. This estimation is based on the Water Design Report for the subdivision that was submitted to the DEQ"*. The Report does estimate average daily use of 504 GPD per dwelling unit, which induces daily use for irrigation. However, this Report submitted to DEQ does not specify 350 GPD/0.39 AF per domestic unit. The change application proposes to shift the volumes under Provisional Permit 76M 30013295. The current multiple domestic volume is 64 AF for 113 units, or 0.566 AF/unit and the lawn and garden volume is 50 AF for 29.6 acres, or 1.69 AF/acre. The change proposes to use the same volume per acre for irrigation, but because a different volume/unit is requested for the multiple domestic purpose (0.39 AF), I need to understand where the 0.39 AF/unit was derived from.

Separately, on the permit application, question 42.b states that the *"subdivision submittal to DEQ for this project estimates an average volume of 0.39AF per home per year, or 350 gallons per day"*. I understand this may have been mistakenly includes since again I do not see anywhere in the Water Design Report sent to DEQ where it states that the homes will use a volume of 0.39 AF/350 GPD.

The permit and change applications will have a supplemental relationship for multiple domestic use in the subdivisions. Am I correct in understanding that the WGM is arriving at a volume of 0.39 AF/unit for the multiple domestic use in both the change and permit applications based on an average home size in the new subdivision phases of 4 bedrooms (some homes may have more bedrooms, some may be less)?

Thank you,



Montana Department of Natural Resources and Conservation
2705 Spurgin Road, Bldg C

DESK: 406-542-5886 **EMAIL:** alexander.dalgleish@mt.gov

[Website](#) | [Facebook \[facebook.com\]](https://www.facebook.com/) | [X \(Twitter \[twitter.com\]\)](https://twitter.com/) | [Instagram \[instagram.com\]](https://www.instagram.com/)

How did we do? Let us know here: [Feedback Survey \[forms.office.com\]](https://forms.office.com/)

From: Patrick Doyle <pdoyle@wmggroup.com>

Sent: Wednesday, April 22, 2026 10:13 AM

To: Dalgleish, Alex <Alexander.Dalgleish@mt.gov>

Subject: [EXTERNAL] Circle H Applications 76M 30170833 and 76M 30170836

Good morning, Alex,

I looked back through the Permit and Change applications for Circle H. We included the DEQ subdivision submittal water use estimations but, as was noted in our phone conversation, they include a combined domestic and lawn and garden estimation of use. For these two applications, the Multiple Domestic purpose's volume was instead based on the DNRC water use standard for a 4-Bedroom House (0.39AF) for each of the homes.

In the Change Application 76M 30170836, this is described in questions 40. and 40.a, which lists the volumes used for Multiple Domestic and Lawn and Garden as the DNRC standards.

In the Permit Application 76M 30170833, the equivalent questions are 42, 42.a. and 42.b. The reference to the DEQ subdivision submittal was erroneously included in 42.b. The Multiple Domestic purpose for the permit application also uses the DNRC water use standard for volume for a 4-bedroom house at 0.39AF/home.

I hope this answers your question, please let me know if you have any more.

Patrick

Patrick Doyle

Water Rights Technician & GIS Coordinator

M: [406-665-5727](tel:406-665-5727) O: [406-728-4611](tel:406-728-4611)

1111 East Broadway

Missoula, Montana 59802

www.wmggroup.com [[wmggroup.com](http://www.wmggroup.com)]



WGM GROUP
Community Values. Inspired Futures.



Missoula Water Resources Regional Office
PO Box 5004
2705 Spurgin Road, Bldg. C
Missoula, MT 59806-5004
(406) 721-4284

March 20, 2026

Circle H Investments LLC
c/o Mark Bretz
4800 Grant Creek Rd
Missoula, MT 59808

Subject: Deficiency for Change Application No. 76M 30170836

Dear Applicant,

The Department of Natural Resources and Conservation (DNRC or Department) has begun reviewing your application. This letter is to notify you of the deficiencies in your application as required in ARM 36.12.1501(1) and §85-2-302(5)(b), MCA. An Applicant is required to submit substantial and credible information addressing the rules and statutes that are relative to your application. You must provide the information specified below for your application to be considered correct and complete. "Correct and complete" means all of the information provided is substantial and credible and provides all of the information as required by applicable rules and statutes. The application as submitted contains deficiencies in the following section(s):



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

The application form states that 9.9 acres of lawn and garden will be irrigated in the E2 of Section 26, Township 14N, Range 20W and that 14.7 acres will be irrigated in Section 25, Township 14N, Range 20 West. This contradicts the preapplication materials, which stated that 9.9 acres of lawn and garden are in Section 25 and 14.7 acres are in the E2 of Section 26. Please clarify the lawn and garden place of use and specify how many acres will occur in Sections 25 and 26, Township 14N, Range 20W.

- ❑ **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.**

The Application describes some of the pump information for the existing wells and states that “*pump curves can be found in the attached*”. No pump curves or additional information was attached to the Application. Please provide the Department with the pump curves and any supplementary information for the two existing wells.

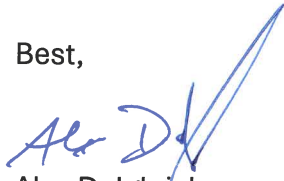
As stated above, the information submitted to address the rules and statutes listed in this deficiency letter must be substantial credible information to be acceptable at the correct and complete determination. §§85-2-102 (9) and (26), MCA.

Please submit the information specified above to the Missoula Regional Office by July 18, 2026. This is the only deficiency letter that will be sent. An application not corrected or completed within 120 days from the date of this letter is terminated per ARM 36.12.1501(2) and §85-2-302(6)(a), MCA.

Please let me know if you have any questions.



Best,



Alex Dalglish

Water Resource Specialist

Missoula Regional Office

(406)-542-5886

Alexander.dalglish@mt.gov

CC:

WGM Group, Inc.

c/o Patrick Doyle

1111 E Broadway St.

Missoula, MT 59802

IMPORTANT NOTICE: This will be the final opportunity for you to provide the required information to the Department. If all of the requested information in this letter is not postmarked or submitted within 120 days of this letter, the application will be terminated within 30 days and the application fee will not be refunded.



Application Materials

- Application
- Any information submitted with Application including maps

Application Materials



1111 East Broadway
 Missoula, MT 59802
 406.728.4611
 www.wgmgroup.com

TRANSMITTAL

| | |
|--|---|
| TO: DNRC Water Resources Missoula Regional Office 2705 Spurgin Rd, Bldg. C Missoula, MT 59806-5004 <p style="text-align: center;">USPS</p> | DATE: <p style="text-align: center;">2-27-2026</p> <hr/> PROJECT NAME: <p style="text-align: center;">Circle H Water System</p> <hr/> PROJECT NO: <p style="text-align: center;">WGM 21-10-44.4</p> |
|--|---|

| ITEM NO. | DESCRIPTION |
|----------|---|
| 1. | 600 Permit Form - Signed |
| 2. | 606 Change Form - Signed |
| 3. | Check No. 1598 in the amount of \$1,700.00 for application fees |
| | |
| | |
| | |
| | |
| | |

COMMENTS:

SIGNED: Kyle Mace, Water Resource Specialist, VP of Water & Environment



**APPLICATION TO
CHANGE A WATER RIGHT**
§ 85-2-302, MCA
Form No. 606 (Revised 10/2025)

For Department Use Only
RECEIVED

MAR - 2 2026

**MONTANA D.N.R.C
MISSOULA REGIONAL OFFICE**

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.

Application # 30170836 Basin 76M
Priority Date _____ Time 11:10 AM PM
Rec'd By IS
Fee Rec'd \$ 1000⁰⁰/1700 Check # 1598
Deposit Receipt # MSS2621537-02
Payor _____
Refund \$ _____ Date _____

Applicant Information: Add more as necessary.

Applicant Name Circle H Investments LLC c/o Mark Bretz
Mailing Address 4800 Grant Cr Rd City Missoula State MT Zip 59808
Phone Numbers: Home _____ Work _____ Cell _____
Email Address mbretz@bretzrv.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 Patrick Doyle
Mailing Address 1111 E Broadway St City Missoula State MT Zip 59802
Phone Numbers: Home _____ Work 406-728-4611 Cell _____
Email Address pdoyle@wgmgroup.com

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 | |
| 76M 30013295 | 180 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 180 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 2 wells |
| | | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> | |
| | | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> | |
| | | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> | |
| | | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> | |



14. Is the source surface water or groundwater? Groundwater

15. What is the source name? Groundwater

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

| | | | | | |
|---------------------------|-------------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Water Right No. | 76M 30013295 | | | | |
| Point of Diversion | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Place of Use | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Purpose of Use | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Place of Storage | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

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 |
|--------|---|---|---|------|------|------|--------|-----|-------|-------|-------------|----------|------------------|
| | | | | | | | | | | | | | |
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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 |
|--------|---|---|---|------|------|------|--------|-----|-------|-------|-------------|----------|
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |

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.

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?

| | |
|--------------|--|
| See Attached | |
| | |
| | |
| | |
| | |

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 |
|-------|--------------|---|---|----|------|------|------|----------|
| 9.9 | | | | E2 | 26 | 14N | 20W | Missoula |
| 14.7 | | | | | 25 | 14N | 20W | Missoula |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| 24.6 | 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?

See attached.

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 |
|-----------------|--------------------------|--------------------|-----------|-------------------------------------|--------------------------|--------------------|
| | | | Flow | GPM | CFS | |
| PROPOSED | MM/DD-MM/DD | MM/DD-MM/DD | Flow | GPM | CFS | AF |
| 76M 30170833 | 01/01 to 12/31 | 01/01 to 12/31 | 110 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 49.53 |
| | | | | <input type="checkbox"/> | <input type="checkbox"/> | |
| | | | | <input type="checkbox"/> | <input type="checkbox"/> | |
| | | | | <input type="checkbox"/> | <input type="checkbox"/> | |

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.

The diversion can be controlled at a pump house located near the wells. The water distribution system includes service lines to the homes with curb stop valves that can be closed individually if needed.

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

During times of water shortage, the wells can be shut down. Lawn and Garden irrigation within the subdivision will be curtailed followed by reductions in domestic use, which can be metered and monitored.

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.

The additional homes and extended water distribution system will include the same features that are currently in use. The appropriate valves can still be closed to make call.



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?
The water right proposed for change is currently in use.

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.

A related proposed permit will connect a new well into the existing system that will share the conveyance infrastructure. The water system uses a 12" water main that will be capable of transporting water from all 3 wells. This water right and the proposed permit are under the same ownership.

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?

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.

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.

There are no additional Points of Diversion under the proposed change. The two existing wells will use the same pumps as in the original permit. They are Goulds Models 5CLC and 5WAHC and the pump curves can be found in the attached.

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.

From the well to the storage cistern water is transported through 12" ductile iron pipe Class 350. The 12" main is also used to transport water around the Circle H water subdivision. In the West Pointe subdivision, the water system branches from the 12" main into 8" SDR 35 Class 350 with service lines to each home. There are no conveyance losses.

35. Y N Does the proposed conveyance require easements?

35.a. If yes, explain.

The well and underground service line for the proposed point of diversion is located on a neighboring parcel. An easement was created for the installation and maintenance for the existing wells with the original application. Please see attached for the easement agreement.



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.

Water is pumped as needed to keep the storage reservoir full. Water from the buried reservoir is distributed through the water mains to the homes through the use of gravity. A pressure reducing valve is used above the West Pointe subdivision to keep pressure in the water main no higher than 90psi. At full build out, there will be two cisterns. The existing cistern will deliver water to the entire West Pointe subdivision, which consists of 213 homes, and the 34 Circle H homes in a lower elevation. The 42 Circle H homes in higher elevations will be provided water from an additional cistern that has not been constructed.

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.

Homes located in the West Pointe subdivision will be connected to the City of Missoula sewer. Homes located in the Circle H subdivision will utilize individual drain fields.

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?

Camp Well Dr. & Pump Supply, License #7

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.
Multiple Domestic: average 4-bedroom house standard (0.39AF/year).
Lawn and Garden: Missoula airport IWR requirement for pasture grass (1.69AF/acre).

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.

The applicant owns the water distribution system but not the individual lots. When the lots are sold the owners agree to receive water solely from the water system covered under this water right.

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)? 30 years

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

This amount of time is needed to complete the planned subdivision and put the full amount of water to use. The initial phases of these subdivisions required over 20 years to reach build-out due to unforeseen market forces and ownership transitions.



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 Mark Bretz

Applicant Signature  Mark Bretz (Feb 23, 2026 15:08:27 MST) Date: Feb 23, 2026

Printed Name _____

Applicant Signature _____ Date: _____

Printed Name _____

Applicant Signature _____ Date: _____



**CIRCLE H INVESTMENTS LLC
APPLICATION MEETING FORM NO. 606
Application 76M 30170836
SUPPLEMENTAL**

20.a

There are no geocodes associated with the place of use. The proposed place of use is a subdivision with individual lots that have separate ownership. Circle H Investments owns 100% of the water right and is responsible for the water system and supplying water to the lot owners. The lot owners agree to connect to the water supply and do not receive water from any other source. The lot owners have no possessory interest in the water right, and the applicant has no possessory interest in the lots after they are sold.

21.a.i

The existing water use under Permit 76M 30013295 is adequate to cover both subdivisions at their current build-out. Full build-out of the subdivisions will require additional volume and flow rate for the Multiple Domestic purpose. A permit application (76M 30170833) has been submitted in conjunction with this change application to cover the additional flow rate and volume for full build-out of both subdivisions.

The permit will contribute only to the Multiple Domestic purpose with an additional well that will be connected to the existing system. Water from 76M 30013295 and the proposed permit will be pumped into a cistern that provides water to both subdivisions. The Lawn and Garden purpose will continue to be covered only under 76M 30013295.

The overall flow rate for the system under the combination of 76M 30013295 and the proposed permit will be 290 gpm and the volume will be 154.28 AF. This proposed change application will change a portion of the lawn and garden volume to be multiple domestic volume to cover additional homes. The multiple domestic purpose, provided by both permits, will have a total volume of 112.71 AF. The lawn and garden purpose, provided by the changed permit 76M 30013295, will have a volume of 41.57 AF.

 *MAPS*

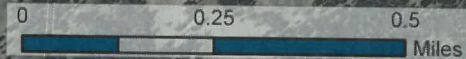
MAP 1 HISTORICAL USE MAP

MAP 2 PROPOSED USE MAP

MAP 3 WATER SYSTEM DIAGRAM



**CIRCLE H RANCH
INVESTMENTS LLC**
17. HISTORICAL USE MAP



23

24

26

25

30

36

H2
H1



LOC: Missoula County PROJ MGR: JM
TR: 14N 20W DRAWN BY: PSD
BASE: 2023 Aerial PROJ: 211044
FILE: 04_Change_App_hist DATE: 11/12/2025

This is not a legally recorded map or survey. WGM does not guarantee the accuracy, current status, or completeness of the material contained herein and is not responsible for any misuse/misrepresentation of this information or its derivatives. This graphic representation is for general planning purposes only.

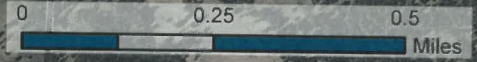
- Historical Point of Diversion
- Cistern
- Water Mainline
- Historical Place of Use
- Parcel Boundary
- Property Boundary



23

24

**CIRCLE H RANCH
INVESTMENTS LLC**
18. PROPOSED USE MAP



26

25

30









P2 P1

36



LOC: Missoula County PROJ MGR: JM
 TR: 14N 20W DRAWN BY: PSD
 BASE: 2023 Aerial PROJ: 211044
 FILE: 05_Change_App_prop DATE: 11/12/2025

This is not a legally recorded map or survey. WGM does not guarantee the accuracy, current status, or completeness of the material contained herein and is not responsible for any misuse/misrepresentation of this information or its derivatives. This graphic representation is for general planning purposes only.

-  Point of Diversion
-  Cistern
- Water Mainline**
-  Existing
-  Proposed
-  Proposed Place of Use
-  Parcel Boundary
-  Proposed Lots
-  Property Boundary



23

24

**CIRCLE H RANCH
INVESTMENTS LLC**

32. Water System Diagram



26

14N 20W

25

30
14N 19W

P2 P1






36



LOC: Missoula County PROJ MGR: JM
 TR: 14N 20W DRAWN BY: PSD
 BASE: 2023 Aerial PROJ: 211044
 FILE: 07_Change_Diagram DATE: 11/12/2025

This is not a legally recorded map or survey. WGM does not guarantee the accuracy, current status, or completeness of the material contained herein and is not responsible for any misuse/misrepresentation of this information or its derivatives. This graphic representation is for general planning purposes only.

Water Main

-  12in
-  6in
-  Cistern
-  Proposed Place of Use
-  Subdivision Boundary







606_Change_Form_ALL

Final Audit Report

2026-02-23

| | |
|-----------------|--|
| Created: | 2026-02-03 |
| By: | Morgan Plasmier (mplasmier@wgmgroup.com) |
| Status: | Signed |
| Transaction ID: | CBJCHBCAABAAQvnNJK3pKigYEVyjE8tbs8XFVIEvpCKP |

"606_Change_Form_ALL" History

-  Document created by Morgan Plasmier (mplasmier@wgmgroup.com)
2026-02-03 - 10:33:25 PM GMT
-  Document emailed to Mark Bretz (mbretz@bretzrv.com) for signature
2026-02-03 - 10:35:46 PM GMT
-  Email viewed by Mark Bretz (mbretz@bretzrv.com)
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Technical Analyses Report/ Scientific Credibility Review

- Departmental Technical Analyses Report/ Scientific Credibility Review
- Any correspondence relating to the Technical Analyses Report

Technical Analyses Report / Scientific Credibility Review

THE MONTANA DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION

GOVERNOR GREG GIANFORTE



DNRC DIRECTOR AMANDA KASTER

Missoula Water Resources Regional Office
PO Box 5004
2705 Spurgin Road, Bldg. C
Missoula, MT 59806-5004
(406) 721-4284

April 3, 2026

Circle H Investments LLC
4800 Grant Creek Rd.
Missoula, MT

RE: Notice of Erratum Application No. 76M 30170836

Dear Applicant,

On December 12, 2025, the Department sent you a letter stating that the required technical analyses had been completed for Change Application No. 76M 30170836. The Department discovered an error in the Groundwater Change Technical Analyses Report - Part A, stating that there was not a change in purpose of use. This is incorrect and the Department recognizes that Application 76M 30170836 is requesting to change the purpose of use (and place of use) for unperfected Provisional Permit 76M 30013295.

Please see the attached Erratum further detailing the error in the Technical Analyses- Part A. There will be no effect on Application processing timelines, and the error has no effect on the Department's analyses.

Please let me know if you have any questions.

Best,

A handwritten signature in blue ink, appearing to be "Amanda Kaster".



Alex Dalglish
Water Resource Specialist
Missoula Regional Office
(406) 542-5886
Alexander.dalglish@mt.gov

CC (via email):

WGM Group Inc.
c/o Patrick Doyle
pdoyle@wgmgroup.com





Groundwater Change Technical Analyses Report – Notice of Erratum

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

Alex Dalgleish, Water Conservation Specialist II, Water Rights Bureau
 April 3, 2026

| | | | |
|------------------------|--------------------------|--|--|
| Application No. | 76M 30170836 | Point of Diversion Legal Land Description | NWSESW of Section 26, T14N, R 20W, Missoula County |
| Applicant | Circle H Investments LLC | | |

Overview

This memo documents a correction to the Groundwater Change Technical Analyses Report- Part A. This Technical Analyses was prepared for Application No. 76M 30170836 for Circle H Ranch Investments LLC. Under section 1.0 Application Details on page 1, an error was identified. The Report states “*While there is not a change in purpose, the Applicant also requests to reassign or shift the total volume of 114.0 acre-feet permitted under right 76M 3013295*”. This statement is incorrect and the Groundwater Change Technical Analyses Report- Part A should be corrected to read “The Applicant also requests to change the purpose of use by decreasing the lawn and garden purpose from 29.6 to 24.6 acres and increasing the number of domestic units from 113 to 162. Provisional Permit 76M 30013295 authorizes a volume of 50 AF for lawn and garden and 64 AF for multiple domestic purposes. Under this change, the lawn and garden volume would be 41.57 AF and the multiple domestic volume would be 63.18 AF”.



Missoula Water Resources Regional Office
PO Box 5004
2705 Spurgin Road, Bldg. C
Missoula, MT 59806-5004
(406) 721-4284

December 12, 2025

Circle H Ranch Investments LLC
4800 Grant Creek Rd
Missoula, MT 59808

Subject: Completed Technical Analyses Report for Change Preapplication No. 76M 30170836

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. 76M 30170836 based on the information provided in your Preapplication Meeting Form accepted by the Department on October 30, 2025. The technical analyses can be found in the attached report. Please note this Change Technical Analyses Report is a two-part publication, comprised of a Part A completed by regional office staff, and a Part B completed by Water Sciences Bureau staff.

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.

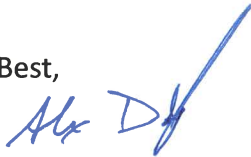


This Technical Analyses Report **IS NOT**: An analysis or discussion of whether the Preapplication Meeting Form as filed meets the criteria (§85-2-402, MCA).

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 Missoula Regional Office by June 10, 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.

Best,



Alex Dagleish
Water Resources Specialist
Missoula Regional Office
406-542-5886
Alex.dagleish@mt.gov

CC:

WGM Group
c/o Patrick Doyle (via email: pdoyle@wgmgroup.com)





Groundwater Change Technical Analyses Report – Part A

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

Alex Dalglish, Water Conservation Specialist, Regional Office

| | | | |
|------------------------|--------------------------------|------------------------------|---|
| Application No. | 76M 30170836 | Proposed Place of Use | Section 25 & E2 Section 26, Township 14 North, Range 20 West, Missoula County |
| Applicant | Circle H Ranch Investments LLC | | |

Overview

This report is Part A of a two-part publication which analyzes data submitted by the Applicant in support of the above-mentioned water right 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 Groundwater Change Technical Analyses Report – Part A contains the following sections:

Overview..... 1

Variations..... 1

1.0 Application Details 1

2.0 Historical Use Analysis..... 2

 2.1 Historical Diverted and Consumed Volumes..... 2

 2.3 Summary of Historical Use 3

Review 3

References..... 3

Variations

No variations were requested for this change proposal.

1.0 Application Details

The Applicant proposes changing the place of use (POU) of unperfected Provisional Permit 76M 30013295. Currently, this permit authorizes the use of groundwater via two wells, to serve as the public water supply for multiple domestic use (up to 113 homes with a total volume of 64.0 acre-feet) and a total of 29.6 acres and a volume of 50.0 acre-feet for lawn and garden use. Permit 76M 30013295 is used in the Circle H and West Pointe Subdivisions. The POU authorizes multiple domestic use in the W2 of Section 25 and the E2 of Section 26, both in Township 14 North, Range



20 West, Missoula County. The lawn and garden use was permitted with 9.90 acres in the W2 of Section 25 and 19.70 acres in the E2 of Section 26. The Applicant proposes to add 49 additional homes in Sections 25 and 26, so the POU would be expanded to include all of Section 26. Upon completion, there would be a total of 162 homes (113 homes under permit 76M 30013295 and 49 additional homes proposed).

While there is not a change in purpose, the Applicant also requests to reassign or shift the total volume of 114.0 acre-feet permitted under right 76M 30013295. Since right 76M 30013295 is unperfected, the Applicant can use the full volume of each purpose originally authorized.

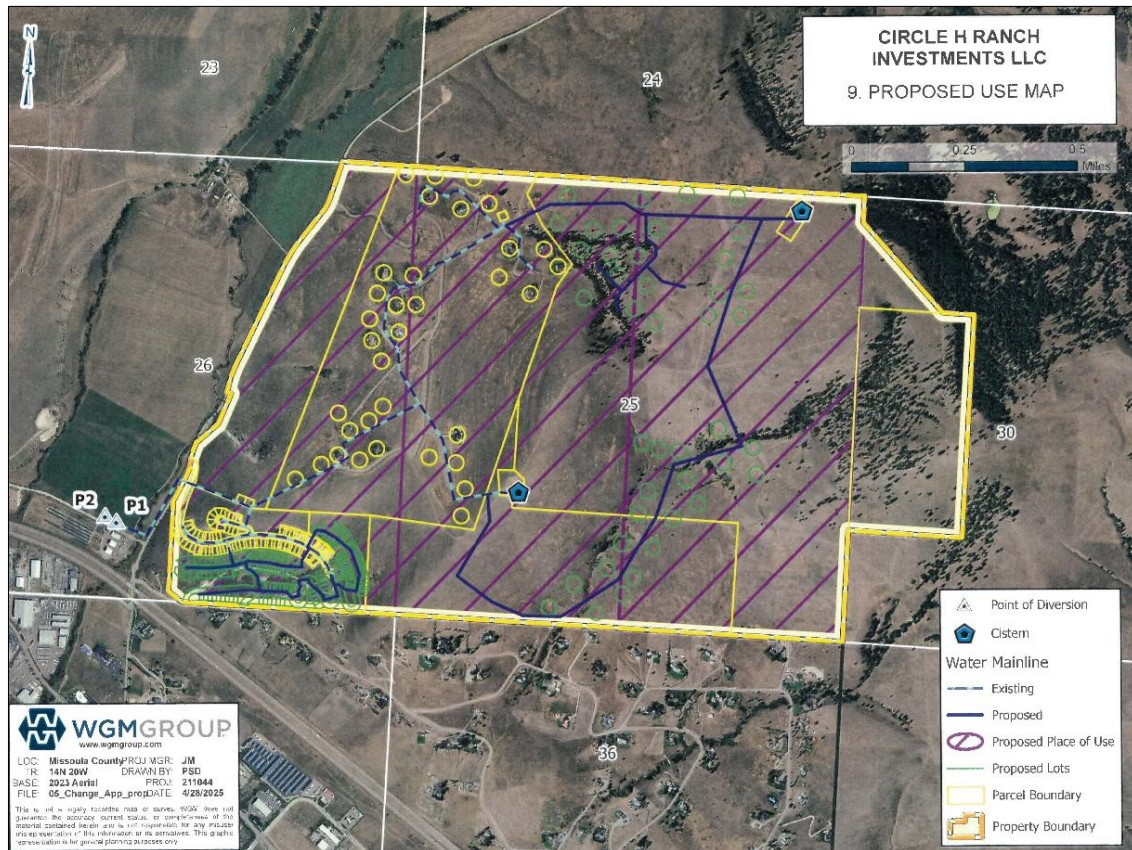


Figure 1: Map of the Applicant’s proposed POD on the source and proposed place of use.

2.0 Historical Use Analysis

2.1 Historical Diverted and Consumed Volumes

Provisional permit 76M 30013295 was authorized in 2006 and remains unperfected. In 2017, the Department granted a 25-year extension for the project completion deadline. Now, the project completion notice is due by December 31, 2042. The Department will not make findings of historical use for unperfected permits, as the final diverted and consumed volumes have not been verified. The Applicant has submitted annual water measurements to the Department each year from 2005 to 2018.



The water right was originally permitted for a total volume of 114-acre feet (50.0 acre-feet for lawn and garden and 64.0 acre-feet for multiple domestic). There will not be an increase in flow rate or volume. Nevertheless, the Applicant is proposing to reassign the permitted volumes of 64.0 acre-feet for multiple domestic to 63.18 acre-feet, and 50.0 acre-feet for lawn and garden to 41.57 acre-feet. As proposed, the total diverted volume would be 104.57 acre-feet (63.18 acre-feet for multiple domestic and 41.57 acre-feet for lawn and garden).

2.3 Summary of Historical Use

The Department will consider the following values when evaluating the historical use of provisional permit 76M 30013295 for the adverse effect criterion:

Table 1: Summary of Historical Use of Provisional Permit 76M 30013295

| Water Right No. | Purpose | Units/Acres | Historical Place of Use | Historical Points of Diversion | Flow Rate | Historically Consumed Volume | Historically Diverted Volume |
|-----------------|-------------------|-------------|---|---|-----------|------------------------------|------------------------------|
| 76M 30013295 | Multiple domestic | 113 homes | Sections 25 and 26, Township 14N, Range 20 W, Missoula County | NWSESW Section 26, T14N, R 20W, Missoula County | 180 GPM | N/A – Unperfected permit | N/A – Unperfected permit |
| | Lawn and garden | 29.6 acres | 9.9 acres in the W2, Section 25 and 19.7 acres in Section 26, both in Township 14N, Range 20 W, Missoula County | | | | |

As Part B of this Technical Analysis Report demonstrates that there will be no change in location, timing, or amount of depletions as a result of this change, it is not necessary to conduct a surface water analysis.

Review

This document has been reviewed by the Department on December 11, 2025

References

Department Standard Practice for Determining Historical Use
 Department Change Manual



Groundwater Change Technical Analyses Report- Part B
The Montana Department of Natural Resources and Conservation (DNRC)
Water Resources Division

Kim Bolhuis, Groundwater Hydrologist, Water Sciences Bureau (WSB)

| | |
|--|--|
| Applicant Name | Circle H Ranch LLC |
| Application No. | 76M 30170836 |
| Point of Diversion Legal Land Description | NW¼SE¼SW¼ of Section 26, Township 14 North, Range 20 West, Missoula County |

Overview

This report is Part B of a two-part publication which 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 Groundwater Change Technical Analyses Report – Part B contains the following sections:

Overview 1

1.0 Executive Summary..... 2

2.0 Hydrogeologic Setting..... 3

3.0 Adverse Effect Analyses 5

3.1 Surface Water - Net Depletions (Consumed Water) 5

Review 12

References..... 12

1.0 Executive Summary

Application Details

The Applicant requests to change the place of use (POU) and purpose of use of unperfected Provisional Permit No. 76M 30013295. Provisional Permit No. 76M 30013295 authorizes the use of two Production Wells, Groundwater Information Center (GWIC) IDs 214761 and 214758, for multiple domestic use up to 113 units and 64 acre-feet (AF) and lawn & garden irrigation of up to 29.6 acres and 50 AF. The Applicant requests to decrease the lawn & garden acreage to 24.6 acres, requiring a volume of 41.57 AF; and increase the number of domestic units from 113 to 162, with a diverted volume of 0.39 AF per unit. The proposed multiple domestic volume would be 63.18 AF under this change. The period of diversion and period of use is year-round for multiple domestic use, while the lawn & garden irrigation period of diversion and use is from April 1st through October 15th. The total combined flow rate and volume from the existing Production Wells authorized under the Provisional Permit are 180 gallons-per-minute (gpm) and 114.0 AF, respectively.

Aquifer Testing Variances from ARM 36.12.121

No new Production Wells are proposed under this change, therefore no aquifer testing was required.

WSB Technical Analyses Findings

Based on information submitted, WSB evaluated the impacts of the proposed change to existing surface water rights. Adverse effects were evaluated by comparing net depletions to surface water for existing and proposed conditions. Impacts to nearby wells from the proposed change were not modeled as the location, amount, and timing of water diverted from the aquifer will not change. These analyses are in support of the criteria assessment for adverse effect. A summary of WSB findings described in subsequent sections are listed below.

TECHNICAL ANALYSES FINDINGS

| | |
|---|---|
| <p>ADVERSE EFFECT (NET DEPLETION TO SURFACE WATER)</p> | <p>Historical net depletions associated with multiple domestic and lawn & garden uses were 40.45 AF annually. Net depletions resulting from the proposed change involving the increase in domestic units and decrease in lawn & garden acreage would be 37.11 AF annually. The net effect of this change would be 3.34 AF.</p> <p>As there is no new point of diversion proposed under this change, the starting point of depletion to the Clark Fork River remains at NE¼NW¼NE¼ of Section 8, Township 13 North, Range 20 West, Missoula County.</p> |
|---|---|

Table 1: The difference between historical and proposed net depletions to the Clark Fork River from the change involving multiple domestic use and lawn & garden irrigation. The historical and proposed consumed and net depletion volumes represent the combined volumes associated with the beneficial uses.

| Month | HISTORICAL USE | | | PROPOSED USE | | | NET EFFECT | |
|--------------|----------------------|--------------------|---------------------|----------------------|--------------------|---------------------|--------------------|---------------------|
| | Consumed Volume (AF) | Net Depletion (AF) | Net Depletion (gpm) | Consumed Volume (AF) | Net Depletion (AF) | Net Depletion (gpm) | Net Depletion (AF) | Net Depletion (gpm) |
| January | 0.24 | 3.44 | 25.1 | 0.32 | 3.15 | 23.0 | 0.28 | 2.07 |
| February | 0.22 | 3.10 | 25.1 | 0.29 | 2.85 | 23.0 | 0.26 | 2.07 |
| March | 0.24 | 3.44 | 25.1 | 0.32 | 3.15 | 23.0 | 0.28 | 2.07 |
| April | 1.00 | 3.32 | 25.1 | 0.95 | 3.05 | 23.0 | 0.27 | 2.07 |
| May | 5.12 | 3.44 | 25.1 | 4.80 | 3.15 | 23.0 | 0.28 | 2.07 |
| June | 7.67 | 3.32 | 25.1 | 6.89 | 3.05 | 23.0 | 0.27 | 2.07 |
| July | 10.51 | 3.44 | 25.1 | 9.27 | 3.15 | 23.0 | 0.28 | 2.07 |
| August | 9.22 | 3.44 | 25.1 | 8.20 | 3.15 | 23.0 | 0.28 | 2.07 |
| September | 5.13 | 3.32 | 25.1 | 4.79 | 3.05 | 23.0 | 0.27 | 2.07 |
| October | 0.61 | 3.44 | 25.1 | 0.63 | 3.15 | 23.0 | 0.28 | 2.07 |
| November | 0.24 | 3.32 | 25.1 | 0.31 | 3.05 | 23.0 | 0.27 | 2.07 |
| December | 0.24 | 3.44 | 25.1 | 0.32 | 3.15 | 23.0 | 0.28 | 2.07 |
| Total | 40.45 | 40.45 | | 37.11 | 37.11 | | 3.34 | |

2.0 Hydrogeologic Setting

As identified in **Figure 1**, the Applicant’s existing Production Wells, GWIC IDs [214761](#) and [214758](#), are located at the mouth of the Butler-LaValle Creek drainage. The wells are approximately 3.34 miles from the nearest point on the Clark Fork River. As seen in the figure and in the 1:100,000 scale map by Lewis (1998), the wells are at the northern extent of the Missoula Valley Aquifer, where the Quaternary alluvium of the aquifer is bound by surface exposures of fine-grained Tertiary sediments.

The Missoula Valley Aquifer is a highly transmissive, unconfined, fluvial-deposited sand and gravel aquifer. The valley is bound by the Belt Supergroup to the east, and by Tertiary-aged sediments to the north and southeast. The basin fill in the Missoula Valley is composed of Tertiary and Quaternary sediments which are estimated to be over a mile thick at its center (Woessner, 1988). The primary Missoula Valley Aquifer delineated by Clark (1986) is within the Quaternary fill of the Missoula Valley. The Missoula Valley is an elongated intermontane depression resultant of basin and range extension coupled with right-lateral movement along the Ninemile fault system (Fields et al., 1985; Woessner, 1988). Woessner (1988) described three hydrostratigraphic units of the Missoula Valley Aquifer which are identifiable throughout the valley: the stratigraphically oldest and deepest Tertiary sediments, the deep alluvial sand-to-cobble sized sediments that comprise the primary aquifer, and the stratigraphically youngest fine-grained Glacial Lake Missoula sediments. Water supplies in the Missoula Valley are derived from the younger, fluvial-deposited sand, gravel, and cobble sediments that

dominate the upper few hundred feet of the valley fill material. The saturated aquifer thickness ranges from 50 feet to 120 feet.

The surficial and subsurficial geology near around production wells, GWIC IDs [214761](#) and [214758](#), is described in detail by Smith (1992). In the area around the Production Wells, the surface deposits are comprised of primarily Glacial Lake Missoula clays and silts, deposited as varves along the northern margin of Missoula Valley. In the LaValle and Butler Creek drainage, the Lake Missoula sediments interfinger with alluvium deposited by the creeks and with Tertiary colluvium deposited in the drainage from the surrounding hillsides. The subsurface geology near the Production Wells is illustrated by Smith (1992) in the cross-section C-C', which shows between approximately 50 to 100 ft of overlying fine-grained sediments overlying deeper gravels of the sole-source Missoula Aquifer. As described by Smith (1992), at the mouth of the LaValle and Butler Creek drainage, these fine-grained Lake Missoula sediments dominate the subsurface and are interfingered with alluvial sands and gravels from LaValle and Butler Creeks. The Production Wells' completions, outlined in **Table 2**, show that the screened intervals for both wells are within one of the water-bearing interfingered alluvial deposits.

Table 2: Completion details of the Production Wells. Swl = static water level, btc = below top of casing, bgs = below ground surface.

| GWIC ID | Depth (ft bgs) | Screened Interval (ft bgs) | SWL (ft btc) | Casing height (ft above ground surface) | Casing Diameter (ft) |
|---------|----------------|----------------------------|--------------|---|----------------------|
| 214758 | 120 | 88 – 98 | 75 | 2 | 0.5 |
| 214761 | 120 | 91.2 – 100 | 78 | 2 | 0.75 |

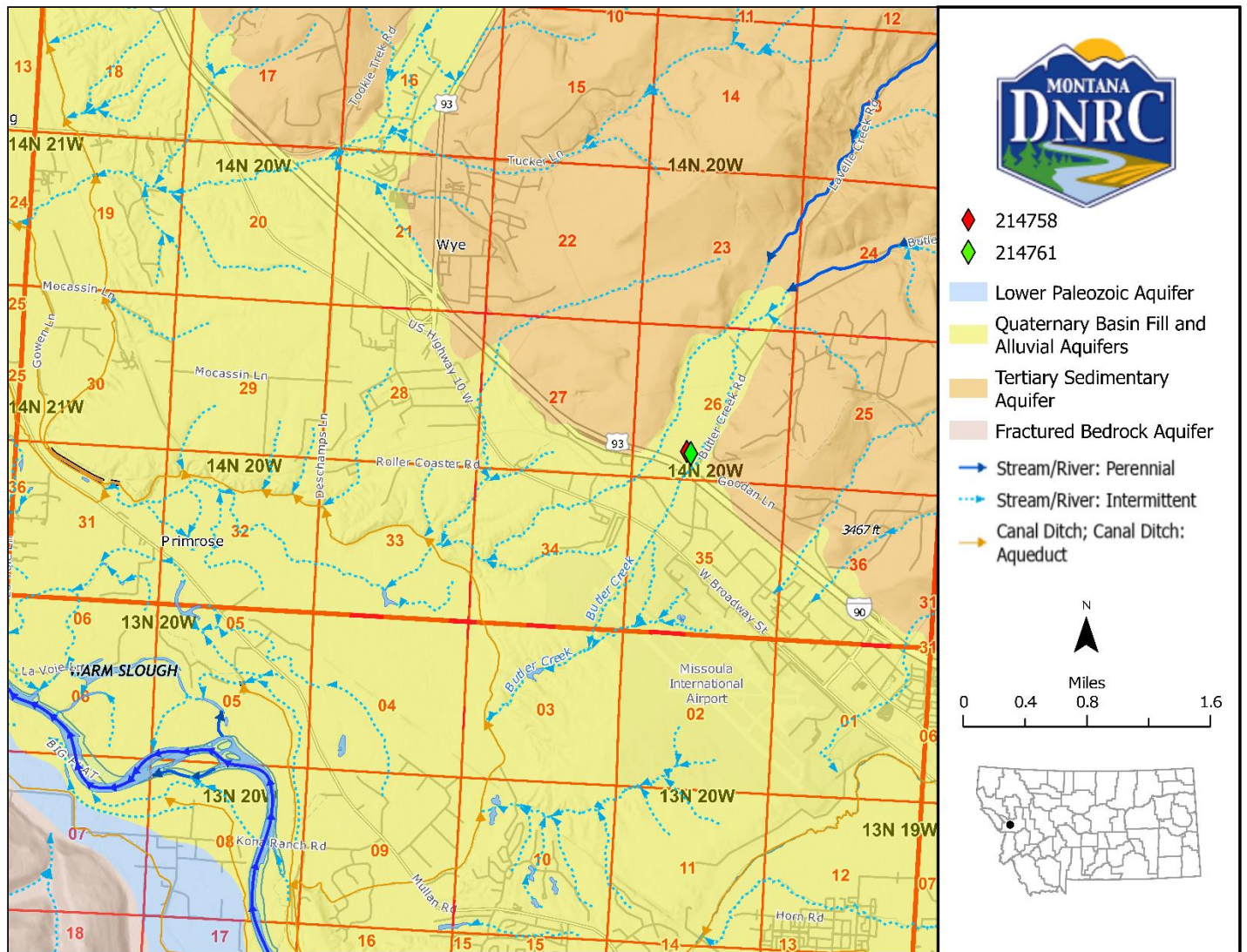


Figure 1: Map of the Applicant's existing Production Wells and northwestern portion of the Missoula Valley Aquifer.

3.0 Adverse Effect Analyses

Under §85-2-402, Montana Code Annotated (MCA), using the Applicant's proposed changes to volume allocated to each beneficial use, adverse effect is evaluated by modeling changes in net depletions to surface water.

3.1 Surface Water - Net Depletions (Consumed Water)

Pursuant to *Montana Trout Unlimited v. DNRC*, 2006 MT 72, 331 Mont. 483, 133 P.3d 224, the DNRC recognizes the connection between surface water and groundwater, and the effect of pre-stream capture and induced infiltration on surface waters.

Net depletions to surface water depend on propagation of drawdown to areas of the aquifer from which water can be captured. Captured water consists of two possible sources – a reduction in the natural discharge (outflow) rate of groundwater from the aquifer (pre-stream capture) or an increase in the natural/artificial recharge (inflow) rate to the aquifer (e.g. induced infiltration). Two important assumptions are made when evaluating net depletions: first the stream and underlying aquifer remain hydraulically connected by a continuous saturated zone, and second, the stream does not become dry. In addition, net depletion is not a function of groundwater flow rate or direction (Theis, 1938; Leake, 2011) and drawdown from pumping can propagate through the entire thickness of the confining layer to overlying aquifers or surface waters (Konikow and Neuzil, 2007).

As such, net depletions are identified for hydraulically connected surface water sources, not including ditches or ephemeral streams. Net depletion is equal to consumption for proposed groundwater use and is described as the calculated volume, rate, timing, and location of reductions to surface water that are offset by return flows (non-consumed water). Net depletion is evaluated by 1.) quantifying the consumed volume associated with the proposed use; 2.) identifying hydraulically connected surface waters; and 3.) calculating the monthly rate and timing of net depletions to affected surface water(s).

1. Consumed Volume

Consumed groundwater does not return to the source aquifer. Consumed volume depends on the proposed use and its associated percentage of known consumption. Depletion is assumed to be equivalent to consumption on an annual basis unless return flows do not accrete to the potentially affected surface water.

Monthly consumption for irrigation, not including turf grass, can be calculated using ARM 36.12.115 irrigation standards and associated efficiency values or the net irrigation requirement (dry year 80% chance) calculated using the USDA Natural Resources Conservation Service (NRCS) IWR program with inputs consistent with DNRC consumptive use rules in ARM 36.12.1902. Monthly consumption for irrigation of turf grass (lawns) is calculated using either a minimum efficiency value of 70% and ARM 36.12.115 lawn and garden standards or the net irrigation requirement from IWR with inputs consistent with DNRC (2010) Consumptive Use Methodology for turf grass.

Consumption for other purposes are listed in **Table 3** and are based on the results of studies by Kimsey and Flood (1987), Vanslyke and Simpson (1974), Paul, Poeter, and Laws (2007), DNRC (2018), wastewater treatment method, operation of systems, or DNRC policy. Net evaporation is calculated using gridded monthly net evaporation values and methodologies associated with DNRC (2023). Municipal use for non-municipalities (e.g. water district) may have variable consumption rates.

Table 3: Percent consumption by use.

| Purpose | Method of Treatment/Use | Consumed |
|---|---|----------|
| Domestic/Municipal/Commercial/Institutional | Individual drainfields | 10% |
| Domestic/Municipal/Commercial/Institutional | Central treatment facility with minimal consumption | 5% |
| Domestic/Municipal/Commercial/Institutional | Evaporation basin or land application | 100% |
| Municipal Use for Municipality | Variable | 100% |
| Water Marketing/Agriculture Spraying/Stock Water/some Industrial Uses | Variable | 100% |
| Commercial/Industrial | Aggregate Washing – construction standard for moisture allowed in the finished aggregate product. | 5% |
| Commercial | Snow Making – depends on time of day, machine, weather at time of operation, etc. | 10-30% |
| Fisheries, Recreation, Storage for Irrigation | Net evaporation off reservoir surface, gridded monthly net evaporation values and methodologies | AF/acre |
| Geothermal | Closed loop systems | 0% |

WSB Findings

For the subject application, wastewater from the proposed multiple domestic use will be treated in two ways. Of the 162 homes covered by the proposed change, 34 would have wastewater go to individual drain fields and have a consumptive use of 10% (**Table 3**). Wastewater for the other 128 homes would go to the City of Missoula sewer. The Missoula Municipal Wastewater Treatment Facility uses wastewater for poplar-tree-farm irrigation, resulting in increased consumptive use from May through September, annually. Per DNRC standard practice, water that goes to the City of Missoula sewer is assumed to have a consumptive use of 5% in October through April and 25% in September through May. Consumed volume for lawn & garden would be 29.1 AF/year. The consumed volume for multiple domestic use for the 34 units with individual drainfields would be 1.33 AF/year, while the consumed volume for the units connected to the Missoula Municipal Wastewater Treatment Facility would be 6.68 AF/year. The total monthly consumed volume for the proposed use is shown in **Table 1**.

2. Hydraulically Connected Surface Water(s) and Location of Net Depletions

Potentially affected surface waters in a net depletion evaluation are identified by their hydraulic connection, both direct and indirect, to the source aquifer of a proposed groundwater diversion. Hydraulic connection depends on the depth to groundwater beneath the beds of surface waters, connection between deep and overlying shallow aquifers, vertical gradients, and can vary along a reach and with time of year.

Procedures for evaluating hydraulic connection and identifying one or more potentially affected surface water(s) for a proposed well in an unconfined/confined aquifer or regional bedrock aquifer can be found in DNRC (2018) and DNRC (2019), respectively. Net depletion is apportioned between multiple potentially affected surface waters generally following procedures described in Section 3.2 of a guidance document developed by the Province of British Columbia (2016) for determining the effect of groundwater diversion on specific streams.

Following protocols in DNRC (2018) **Table 4** identifies published information used to assess hydraulically connected surface water(s) and suggests the Clark Fork River is the only perennial surface water source that will be depleted. Not all data may be available for each project and is noted as “NA” when that occurs.

Table 4: Published information used to identify hydraulically connected surface water(s).

| Published Information | Surface Water Source: Clark Fork River | Surface Water Source: LaValle Creek | Surface Water Source: Butler Creek |
|---|--|---|--|
| USGS National Hydrographic Dataset (NHD) ¹ | Perennial | Intermittent below southern edge of SE¼ NW¼ of Section 23, Township 14 North, Range 20 West; perennial north of that point | Intermittent below southern edge of NE¼ SE¼ of Section 23, Township 14 North, Range 20 West; perennial north of that point |
| USGS PROSPER Dataset ² | 0.5 – 0.7 | No Data | 0.4 – 0.5 |
| MBMG GWIC wells, less than 50 ft deep, within 1,000 ft of surface water, static water levels above or within 10 ft of elevation of stream bed (DNRC, 2018) ³ | Wells that satisfy criteria are numerous; see Figure 2 | No wells near affected reach meet the criteria for establishing surface water-groundwater connection | No wells near affected reach meet the criteria for establishing surface water-groundwater connection |
| Published Water Table Maps, Publications, Previous Water Rights, etc. | LaFave (2006); Clark (1986); Provisional Permit 76M 30013295; 76M 30134802 | LaFave (2006); Smith (1992); Woessner (1998); 76M 30134802 | LaFave (2006); Smith (1992); Woessner (1998); 76M 30134802 |
| Gridded National Soil Survey Geographic Database ⁴ | Hydric soils and a shallow water table is present along extensive reaches of the river (Figure 2) | No shallow water table is present along stream; hydric soils are present north of the northern boundary of Section 23, Township 14 North, Range 20 West (Figure 2) | No shallow water table is present along stream; hydric soils are present north of the southern boundary of the NE/SW/NE quarter of Section 23, Township 14 |

| | | | |
|----------------|-------------------------------|--|--|
| | | | North, Range 20 West (Figure 2) |
| Aerial imagery | Wet channel (NAIP, 2013-2023) | Wetted reaches (NAIP, 2013-2023) in northern part of drainage, intermittent near Missoula Valley | Wetted reaches (NAIP, 2013-2023) in northern part of drainage, intermittent near Missoula Valley |

¹ NHD identifies potentially perennial, intermittent, and ephemeral classifications for surface water sources most proximal to the proposed diversion(s).

² USGS PROSPER probability of streamflow permanence (greater than 50 percent of the time it flows).

³ Per DNRC (2018) hydraulic connection of individual stream reaches to ground water is evaluated by comparing streambed elevations to static ground water elevations measured in MBMG GWIC wells less than 50 ft deep and within 1,000 ft of surface water or from published water table maps. Surface water within that area is considered hydraulically connected to the unconfined aquifer if static ground water elevations are above or within 10 ft of the elevation of the stream bed.

⁴ Gridded National Soil Survey Geographic Database assists in identifying hydric soils or shallow water tables near surface water sources.

WSB Findings

Based on the review of the published information in **Table 4** and corroborated by the lithologic logs of the Production Wells, the source aquifer is hydraulically connected to the Clark Fork River, a perennial surface water source. A technical analysis for Provisional Permit No. 76M 30013295 noted the presence of an unsaturated zone between the beds of Butler and La Valle Creeks and the water table, and a hydrogeologic report prepared for Provisional Permit No. 76M 30027375 concluded that Butler and La Valle Creeks are “perched losing streams” that have “limited or no interaction” with the alluvial aquifer. Therefore, the source aquifer is not connected to LaValle or Butler Creek where the creeks are perennial. As outlined in **Table 2**, GWIC IDs 214761 and 214758, are screened over 91.2-100 ft bgs and 88-98 ft bgs, respectively. The logs for each well indicate a confining unit with a thickness of approximately 80 ft, comprised of gravels and cobbles in a cemented clay matrix, overlying the source aquifer. Additionally, the swl in GWIC 214761 is 78 ft btc and the swl in GWIC 214758 is 75 ft btc, well below the bed elevation of the intermittent streams. The static water levels and low-permeability sediments between the wells and Butler and LaValle Creeks, along with the data illustrated in **Table 4**, supports the conclusion that Butler and LaValle Creeks are not connected to the source aquifer of the existing Production Wells.

The starting point of the depleted reach on the Clark Fork River under the historical and proposed conditions is in the NE¼ NW¼ NE¼ of Section 8, Township 13 North, Range 20 West, Missoula County (**Figure 2**).

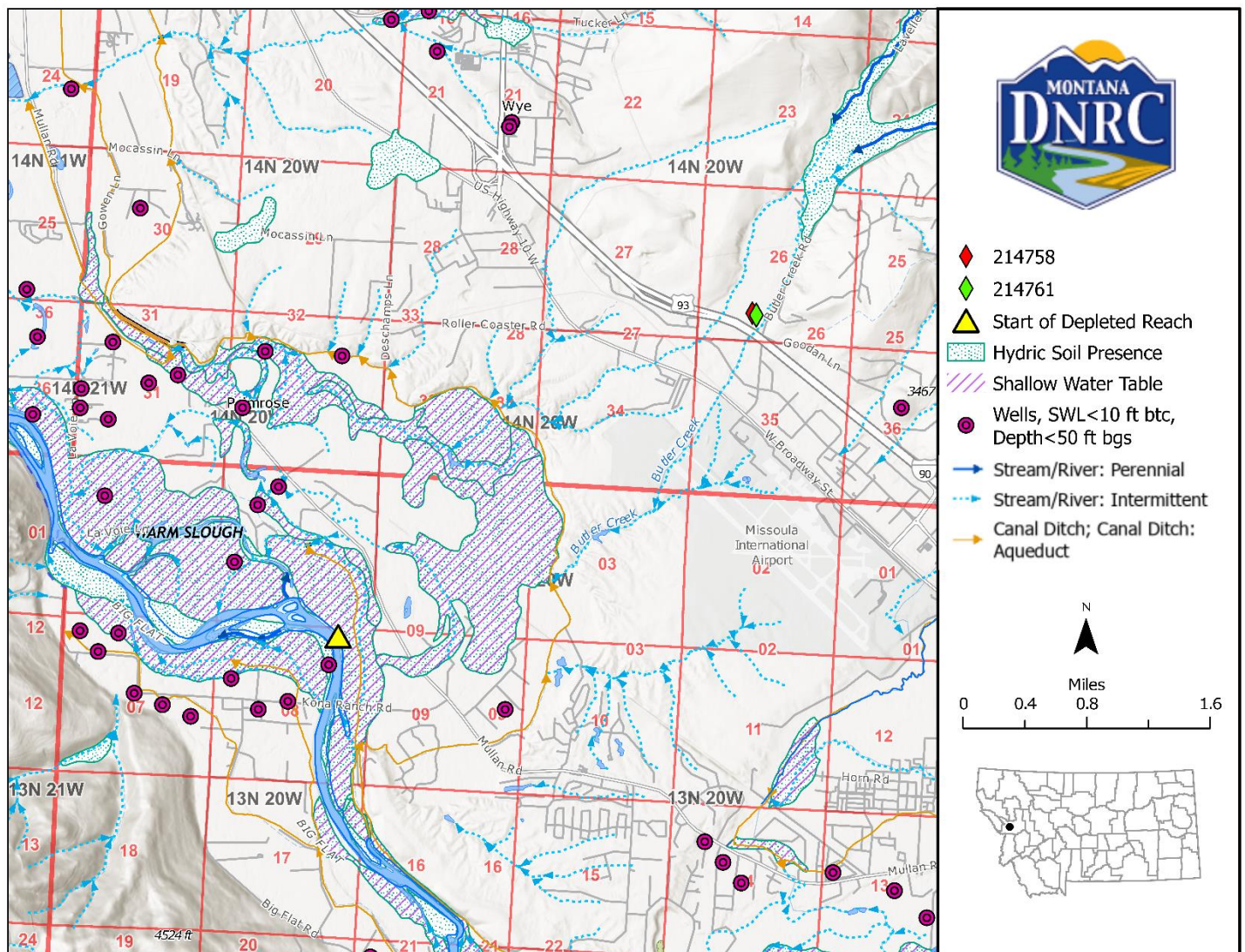


Figure 2: Location of wells used to assess hydrologic connection and starting point of the depleted reach for Change Application No. 76M 30170836.

3. Rate and Timing of Depletions

Evaluations of the rate and timing of depletions caused by pumping are based on the basic concept that groundwater pumping eventually is offset by an equivalent increase in recharge or decrease in discharge (Theis, 1940; Leake et al., 2008), a process defined as capture by Lohman (1972). Capture occurs as drawdown propagates to surface water and areas of phreatophyte vegetation that takes water directly from groundwater. In the absence of credible evidence to the contrary, capture of ET by phreatophytes is neglected and net depletion is assumed to equal total capture. This assumption is justified because published estimates for conditions common in Montana alluvial valleys indicate capture of ET generally is less than 10 percent of total capture (Xunhong, 2006). Capture of ET in ephemeral drainages may be significant and will be evaluated on an application-by-application basis.

The rate and timing of net depletion caused by pumping may be modeled using a variety of analytical and numerical models selected to fit site-specific conditions and needs. Simple models including the Alluvial Water Accounting System (AWAS), the Well Pumping Depletion Model (WPDM) or FWD:SOLV (HydroSOLVE, 2024) typically are used by DNRC to model depletions to one source with simple aquifer boundaries. Adjustments may be made for more complex conditions or multiple sources using methods like those described by Contor (2011), analytical models by Hunt (2003) and Butler et al. (2001) or a superposition numerical groundwater flow model.

Modeling is not necessary in some situations such as where a proposed use is constant year-round because of the depth to the source aquifer and a distance to potentially affected stream reaches. Modeling of depletions can be simplified if the proposed place of use is located the same relative distance from the potentially affected surface water as the proposed wells and all non-consumed water infiltrates the source aquifer and returns to the potentially affected surface water as return flows. Under those simplifying assumptions, depletion can be modeled based on withdrawal of the monthly consumed amounts. Otherwise, depletion by the full withdrawals and return flows need to be modeled separately with net depletion calculated as depletion minus return flows.

Net depletions by pumping the source aquifer primarily occur through propagation of drawdown through the unconfined aquifer to the starting point of the potentially affected reach on the Clark Fork River. As the existing Production Wells are 3.34 miles from the Clark Fork River the net depletions were normalized, resulting in year-round constant net depletion to the river. **Table 1** shows the difference between historical and proposed net depletions from Change Application No. 76M 30170836 involving multiple domestic use and lawn & garden irrigation.

Review

This document has been reviewed on December 11th, 2025, in accordance with Category 7 of DNRC's Water Sciences Bureau Minimum Standards of Review, Version 2, February 2024.

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Excel File Placeholder

*The **PW3 Aquifer Test Data** spreadsheet is available outside of the application file.*

*For **pending applications**, excel files available upon request from the regional office.*

*For **scanned applications**, excel files available in a separate FileNet link.*

Please contact the regional office for more information.

Preapplication Materials

- **Preapplication Meeting Request**
- **Preapplication Meeting Form**
- **All attachments**
- **All correspondence prior to application receipt**

Preapplication Materials

From: [Dalglish, Alex](#)
To: "Patrick Doyle"
Cc: kmace@wgmgroup.com
Subject: RE: Circle H 606
Date: Tuesday, November 25, 2025 10:08:00 AM
Attachments: [image001.png](#)
[image002.png](#)

Thanks Patrick.



Alex Dalglish | Water Conservation Specialist II
Water Resources Division, Missoula Regional Office
Montana Department of Natural Resources and Conservation
2705 Spurgin Road, Bldg C
DESK: 406-542-5886 **EMAIL:** alexander.dalglish@mt.gov
[Website](#) | [Facebook](#) | [X \(Twitter\)](#) | [Instagram](#)
How did we do? Let us know here: [Feedback Survey](#)

From: Patrick Doyle <pdoyle@wgmgroup.com>
Sent: Tuesday, November 25, 2025 9:50 AM
To: Dalglish, Alex <Alexander.Dalglish@mt.gov>
Cc: Kyle Mace <KMace@wgmgroup.com>
Subject: [EXTERNAL] RE: Circle H 606

Good morning, Alex,

I have attached the full Water Design Report from the DEQ submittal, as well as a copy of the Certificate of Subdivision Approval. Please let me know if you need anything else.

Patrick

Patrick Doyle
Water Rights Technician & GIS Coordinator

M: [406-665-5727](tel:406-665-5727) O: [406-728-4611](tel:406-728-4611)
1111 East Broadway
Missoula, Montana 59802
www.wgmgroup.com [[wgmgroup.com](http://www.wgmgroup.com)]



From: Dalglish, Alex <Alexander.Dalglish@mt.gov>
Sent: Monday, November 24, 2025 4:52 PM
To: Patrick Doyle <pdoyle@wgmgroup.com>

Cc: Kyle Mace <KMace@wgmgroup.com>

Subject: Circle H 606

[EXTERNAL EMAIL] Only open attachments or click on links from senders you trust.

Hello Patrick,

The follow up documents submitted for change application 76M 30170836 included a letter from DEQ to Dustin Hoover of WGM Group. The letter states that two copies of the Certificate of Subdivision Plat Approval were enclosed. Can you please send me a copy of this approval?

Additionally, the follow up documents reference the Water Design Report submitted to DEQ. Can you also send me a copy of this report?

Thank you,



Alex Dagleish | Water Conservation Specialist II
Water Resources Division, Missoula Regional Office
Montana Department of Natural Resources and Conservation
2705 Spurgin Road, Bldg C

DESK: 406-542-5886 **EMAIL:** alexander.dagleish@mt.gov

[Website](#) | [Facebook \[facebook.com\]](https://www.facebook.com) | [X \(Twitter \[twitter.com\]\)](https://twitter.com) | [Instagram \[instagram.com\]](https://www.instagram.com)

How did we do? Let us know here: [Feedback Survey \[forms.office.com\]](https://forms.office.com)

STATE OF MONTANA
DEPARTMENT OF ENVIRONMENTAL QUALITY
CERTIFICATE OF SUBDIVISION PLAT APPROVAL
(Section 76-4-101 et seq.)

TO: County Clerk and Recorder
Missoula County
Missoula, Montana

E.Q. #25-2252; CS#0698456

THIS IS TO CERTIFY THAT the plans and supplemental information relating to the subdivision known as **West Pointe Phase IV-A**

A subdivision located in the Southwest $\frac{1}{4}$ of Section 26 of Township 14 North, Range 20 West, P.M.M., Missoula County, Montana as found in the records of the Missoula County Clerk & Recorder, consisting of 40.03 acres,

consisting of 23 lots have been reviewed by personnel of the Water Quality Division, and,

THAT the remaining Lot 2A is excluded from review under Title 76, chapter 4, part 1, MCA pursuant to Section 17.36.6005(2)(a) ARM, a parcel that has no facilities for water supply, wastewater disposal, storm drainage, or solid waste disposal, if no facilities will be constructed on the parcel, and,

THAT the remaining Lot 2B is greater than 20 acres in size and is excluded from review pursuant to Section 76-4-103 MCA, and,

THAT the documents and data required by ARM Chapter 17 Section 36 have been submitted and found to be in compliance therewith, and,

THAT the approval of the Plat is made with the understanding that the following conditions shall be met:

THAT the lot sizes as indicated on the Plat to be filed with the county clerk and recorder will not be further altered without approval, and,

THAT Lots 204 through 225 shall be used for one living unit each, and,

That Common Area 1 shall be used for stormwater drainage facilities, and,

THAT the public water supply will be provided through extensions and connections to the Circle H Water Supply System #MT0004446 and,

THAT the public sewage treatment systems will be provided through extensions and connections to the City of Missoula Sewer System and,

THAT the extensions to the existing public water and sewer systems were reviewed and approved under EQ#25-2576, dated October 16, 2025, and,

THAT the maximum irrigation rate for the Common Area for this phase shall be 3,651 gallons per day, and,

THAT the stormwater design requires Ponds 1 and 2 to be constructed as extended detention ponds and that Pond 1 shall have a forebay minimum volume of 1,790 cubic feet, and a minimum pond storage volume of 17,992 cubic feet; and Pond 2 shall have a forebay minimum volume of 769 cubic feet, and a minimum pond storage volume of 10,632 cubic feet; and Pond 5 shall be a standard detention pond with a minimum storage volume of 6,234 cubic feet, with all ponds to be constructed and located in accordance with the lot layout approved plans, and,

THAT the stormwater conveyance and detention structures were reviewed and approved under EQ#25-2576, dated October 16, 2025, and shall be constructed in accordance with the approved plans and specifications, and,

THAT the operation and maintenance of the stormwater facilities shall be the responsibility of the West Pointe Owners' Association, and,

THAT water supply systems, sewage collection systems and storm drainage systems will be located as shown on the approved plans and lot layout, and,

THAT the developer and/or owner of record shall provide each purchaser of property with a copy of the Plat, approved location of water supply, sewage treatment system and storm drainage structures as shown on the attached lot layout, and a copy of this document, and,

THAT instruments of transfer for this property shall contain reference to these conditions, and,

THAT departure from any criteria set forth in the approved plans and specifications and Title 17, Chapter 36, Sub-Chapters 1, 3, and 6 ARM when erecting a structure and appurtenant facilities in said subdivision without Department approval, is grounds for injunction by the Department of Environmental Quality.

Pursuant to Section 76-4-122 (2)(a), MCA, a person must obtain the approval of both the State under Title 76, Chapter 4, MCA, and local board of health under section 50-2-116(1)(i), before filing a subdivision plat with the county clerk and recorder. This certificate of subdivision approval considered the physical presence and properties of water but does not constitute an entitlement to or a representation regarding water rights or the legal availability of water, which is regulated by the Montana Department of Natural Resources and Conservation or for projects within the reservation boundaries, by the appropriate water management board.

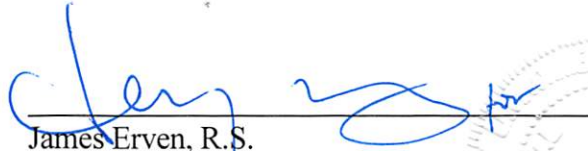
Page 3 of 3
West Pointe Phase IV-A
Missoula County, Montana
E.Q. # 25-2252; CS#0698456

YOU ARE REQUESTED to record this certificate by attaching it to the Plat filed in your office as required by law.

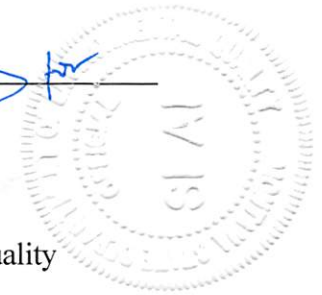
DATED this 16th day of October, 2025.

Sonja Nowakowski
DIRECTOR

By:



James Erven, R.S.
Subdivision Section Supervisor
Engineering Bureau
Water Quality Division
Department of Environmental Quality



Owner's Name: Circle H Investments, LLC



WGMGROUPTM



**Water Main Extension Engineering Design Report
West Pointe, Phase IV-A
WGM Project Number: 21-10-44
05.27.2025**

PREPARED FOR:
The Montana Department of Environmental Quality (DEQ)

CLIENT:
Butler Creek Development

PREPARED BY:
Dustin Hover, PE
Project Engineer

Shane Graham, EI
Staff Engineer
WGM Group, Inc.

REPORT DATE:
05.27.2025



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| 3.0 SITE CONDITIONS | 3 |
| 4.0 ALTERNATE PLANS | 4 |
| 5.0 WATER USE DATA | 5 |
| 6.0 FIRE FLOW | 7 |
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| 8.0 OPERATION & MAINTENANCE..... | 9 |

APPENDICES

A – VICINITY MAP

B – WATER AVAILABILITY LETTER & OWNER CERTIFICATION

C – EXISTING SEWER & WATER DELIVERY SYSTEM MAP

D – NRCS SOIL REPORT

E – PROPOSED WATER ROUTING

F – FIRE HYDRANT APPROVAL & FIRE FLOW CALCULATIONS

G – BLOWOFF SIZING CALCULATIONS

H – PRV VAULT DETAIL



1.0 INTRODUCTION & PROJECT DESCRIPTION

This report is provided for West Pointe, Phase IV-A located in Missoula, MT, described as the SW ¼ of the SE ¼ of Section 26 of Township 14 North, Range 20 West. The existing approximately 39.1-acre site is part of the West Pointe Subdivision development. The project site is located South of existing Macarthur Drive, North of existing Goodan Lane, and East of existing Butler Creek Road. West Pointe, Phase IV-A will create 22 single family dwelling units on 22 lots using approximately 10.8 acres of the total 39.1 acres available on the existing parcel. See **Appendix A** of this report for the project site vicinity map.

This project will consist of installing approximately 1,429 lineal feet of eight-inch CL 350 ductile iron pipe (DIP) water main to provide water service for this phase of the West Pointe Subdivision. Proposed water main A will connect to the existing water main in the existing part of Macarthur Drive through the common area from the North and route to the South where it will tee East and West into water main B along Macarthur Drive. Water main B will then tee South into water main C and run along Grant Way. Finally, when Grant Way reaches the future Macarthur Drive connection, water main C will tee into water main D which primarily runs in the intersection going East and West. There are also two proposed hydrants that will connect to water main B along Macarthur Drive to provide fire service for the site.

Due to the large elevation differences and slopes present on site, a Pressure Reducing Valve (PRV) Vault will be installed to ensure pressure in the water main stays at a manageable level not higher than 90 psi, at the lowest elevation of the main. The outlet pressure at the PRV will be set at 70 psi, which is what the fire flow model is based on to prove that 1,000 gpm of flow can be maintained for 2 hours. This vault will be installed on water main A within the common area and will include the installation of 40 lineal feet of 3" PVC water main pipe that will run south and gooseneck out of the ground above a splash pad that will be used as a vent/overflow. Please see **Appendix H** for a draft detail of the PRV vault. The project is currently served by two wells just West of Butler Creek Road that fill a storage reservoir. An existing third well right next to the other two is currently in for review and approval by DEQ, project number EQ# 25-1769, to be able to provide drinking water to the sites. The storage reservoir holds 500,000 gallons and is where Circle H Ranch and the current phases of West Pointe pull water from.

The project will be constructed according to the Montana Public Works Standard Specifications, with amendments, and Missoula Water Specifications. A letter from Circle H Water, Inc. stating the system has adequate capacity to serve this development is included in **Appendix B** as well as Fire Hydrant Spacing Approval in **Appendix F** from Missoula Rural Fire District. A letter from the owner/developer stating that WGM Group, Inc. (WGM) has been retained for certification of the improvements is also included in **Appendix B**.

The owner of the water system is:
PWSID: MT0004446
Circle H Water, Inc.
4800 Grant Creek Road
Missoula, MT 59808



2.0 GENERAL

Water service in this area is provided by Circle H Water, Inc. through a distribution system supplied by wells located to the Southwest just past Butler Creek Road. Specifically, this area is served by mains North of Macarthur Drive. See **Appendix C** for a schematic layout of the distribution system in the project area, with sewer mains included.

The sewer service for this project will be provided by the City of Missoula. The proposed sewer main for West Pointe, Phase IV-A will tie into the existing sewer main on the West side of the site near the existing trail through Sewer Main A. This main will run along Macarthur Drive and serve all of the 22 lots for this phase of the project. Sewer Main B will be located in the intersection of Grant Way and future Macarthur Drive. This main does not show an outlet on the downstream manhole as it is not intended to accept any flow at this time and is being installed for future use once the subdivision gets built out further. It has been acknowledged that the main will not be accepted by the City at this time and will need to be retested in the future when the main plans to be used.



■ 3.0 SITE CONDITIONS

The soils underlying the site are mostly Minesinger-Bigarm complex, 0 to 4 percent slopes, 4 to 15 percent slopes, and 15 to 30 percent slopes as well as Riverside gravelly sandy loam, 15 to 30 percent slopes. These are generally gravelly soils favorable to drainage. Relatively steep slopes are observed onsite. Depth to restrictive layer is reported at greater than 80 inches deep. In consultation with NRCS web soil survey data, previous construction work in the area, and groundwater study completed with the subdivision approval process, it is anticipated that groundwater level will be below the proposed depth of the main. This project is not within the floodplain or floodway. Please see **Appendix D** for the NRCS web soil survey data.



4.0 ALTERNATE PLANS

There are no alternative plans for this water main extension.



5.0 WATER USE DATA

The following water use data (in **Section 5.0**) was based on the calculations and demands used in the West Pointe, Phase 1B water design report. This report was used to calculate the full build out demands across the entire West Pointe Subdivision. The average daily use for water demand is shown as 0.35 gpm in this report and calculations, however, the current built phases of Circle H have shown to only use about 0.31 gpm.

Design Parameters:

| | |
|-------------------------|---|
| Average daily use: | 0.35 gpm or 504 gpd per dwelling unit (which includes daily use for irrigation per SF home) |
| Maximum daily use: | 1.23 gpm or 1764 gpd per dwelling unit (3.5 times average day) |
| Peak hourly use: | 3.0 gpm per dwelling unit |
| Minimum storage: | 504 gallons per dwelling plus fire flows |
| Common area irrigation: | Approximate 41,000 SF of designated irrigated grass @ 1 inch/week (up to Phase IV-A West Pointe Development) = $(1\text{in/wk} \times 1\text{ft}/12\text{in} \times 1\text{wk}/7\text{d} \times 7.480519\text{ gal/ft}^3) \times (41,000\text{ sf} \times 1\text{d}/24\text{hr} \times 1\text{hr}/60\text{min}) = 2.54\text{ gpm} = 3,651\text{ gpd}$ |

Proposed Water Usage:

| | |
|--|---------------------------------|
| Circle H – Phase I, Existing | 34 units |
| Circle H – Future Phases | 42 units |
| West Pointe – Phase I and 1B, Existing | 69 units |
| West Pointe – Phase IV-A | 22 units (Current Phase) |
| West Pointe – Future Phases | <u>122 units</u> |
| | 289 units |

The original Water Design Report calculations used 175 units for future and miscellaneous resulting in a total of 330 units. This report uses 122 units for the future after development of this phase, which results in 289 total units as that matches the approved phasing plan with irrigation accounted for separately. The full build out water use calculations can be seen below:

| | |
|--------------------|---|
| Average daily use: | $(504\text{ gpd} \times 289\text{ units}) + 3,651\text{ gpd} = 149,307\text{ gpd}$ |
| Maximum daily use: | $(1764\text{ gpd} \times 289\text{ units}) + 3,651\text{ gpd} = 513,447\text{ gpd}$ |
| Peak hourly use: | $(3.0\text{ gpm} \times 289\text{ units}) + 2.54\text{ gpm} = 870\text{ gpm}$ |

Water Usage – This Submittal (Phase IV-A):

| | |
|---------------------------|----------------------------------|
| West Pointe – Phase IV-A: | <u>22 units</u> |
| Common area landscape: | 25,000 SF = 1.55 gpm = 2,226 gpd |

| | |
|--------------------|---|
| Average daily use: | $(504\text{ gpd} \times 22\text{ units}) + 2,226\text{ gpd} = 13,314\text{ gpd}$ |
| Maximum daily use: | $(1764\text{ gpd} \times 22\text{ units}) + 2,226\text{ gpd} = 41,034\text{ gpd}$ |
| Peak hourly use: | $(3\text{ gpm} \times 22\text{ units}) + 1.55\text{ gpm} = 67.6\text{ gpm}$ |



Water Usage – All Built Phases, Circle H – Phase I, West Pointe Phases I, 1B, and IV-A (125 units):

Average daily use: $(504 \text{ gpd} \times 125 \text{ units}) + 3,651 \text{ gpd} = 66,651 \text{ gpd}$
Maximum daily use: $(1764 \times 125 \text{ units}) + 3,651 \text{ gpd} = 224,151 \text{ gpd}$
Peak hourly use: $(3 \text{ gpm} \times 125 \text{ units}) + 1.55 \text{ gpm} = 376.6 \text{ gpm}$

Storage Required: Per DEQ Circular 1 – 7.0.1 (a)

| | |
|--------------------------------|----------------------|
| 125 units x 504 gal/home | = 63,000 gal |
| Common Area irrigation | = 3,651 gal |
| Fire flow 1,000 gpm @ 120 min. | = <u>120,000 gal</u> |
| | 186,651 gal |

Summary:

The storage reservoir already in place for the Circle H Ranch and West Pointe water system is 500,000 gallons, which is more than the required storage shown above, using a fire flow of 1,000 gpm for two hours that was confirmed with Missoula Rural Fire District. The original water system was designed to serve 330 units. With the completion of this phase of construction, a total of 125 units will be served, therefore, the water system has capacity to support the proposed Phase IV-A water main extension and water services.

The three current wells on site each have a pump that will be used to get the water from the well up to the storage reservoir that is on site. The two existing wells that have already been approved for water use are able to pump 105 gpm and 75 gpm respectively. The third well that is currently being reviewed by DEQ, EQ# 25-1769, for water use approval is able to pump water at a rate of 110 gpm. The wells are required to produce and pump enough water per day that meets or exceeds the maximum daily use that is calculated above with the largest pump being out of service. Using the two smaller pump rates gives a total pumping value of 180 gpm which when converted to a daily value gives 259,200 gpd. This is greater than the maximum daily use that was calculated for the 125 developed lots above at 224,151 gpd. This phase can service all existing and proposed lots with the given wells and pumps that currently exist on site.



■ 6.0 FIRE FLOW

The proposed water main design includes the installation of two new fire hydrants. The proposed hydrants will be used for Phase IV-A of West Pointe so the fire flow demand must be considered when sizing the proposed mains. The “Proposed Water Routing” in **Appendix E** shows the lot layout and hydrant placement within the development. Missoula Rural Fire District provided approval of the proposed hydrant locations as well as the required fire flow of 1,000 gpm for two hours to service the project site. The approval email and hydrant spacing exhibit can be seen in **Appendix F**. A water model based on the static pressures and flows of the existing hydrants nearby has been created showing the system can provide the required fire flows with residual pressure. This model can also be found in **Appendix F**.



7.0 FLUSHING VELOCITY

The static water pressure was provided by the Missoula Rural Fire District at the existing fire hydrants in Macarthur Drive. The static pressure during peak flows is 68 psi. See **Appendix F** for the hydrant spacing exhibit as well as the hydrant and PRV pressure and flow calculations. The required main pressure to produce a flushing velocity of 3.00 feet per second and a flushing flow of 470 gpm in water mains A, B, C, and D (all eight-inch water mains) is 13 psi, as shown in **Appendix G**. The proposed water mains have more than enough pressure to achieve the required 2.5 feet per second flushing velocity and 400 gpm flushing while maintaining 20 psi, as required by DEQ Circular 1 and the Montana Public Works Standard Specification, 6th addition.



8.0 OPERATION & MAINTENANCE

Water supply for this project will be provided by the Circle H Water, Inc. No additional water sources will be developed as part of this project. Circle H Water, Inc. will own, operate, and maintain this water main installation.



 *APPENDIX A*
VICINITY MAP

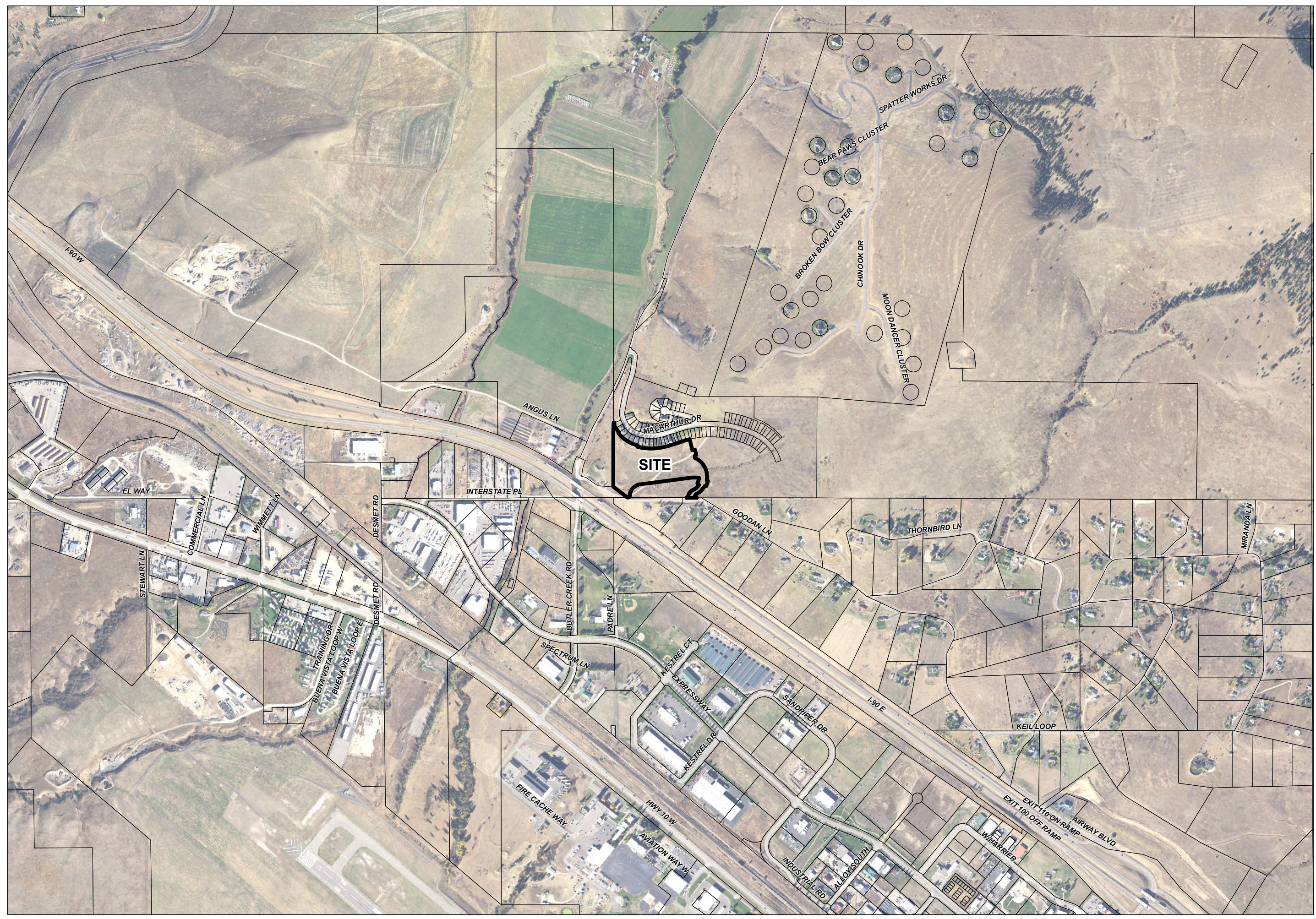




WGM GROUP
WWW.WMGROUP.COM



0 500 1,000
1 inch = 1,000 feet



VICINITY MAP EXHIBIT
WEST POINTE, PHASE IV-A
MISSOULA COUNTY, MONTANA

Disclaimer: This map is neither a legally recorded map nor a survey and is not intended to be used as such. WGM Group does not guarantee the accuracy, current status, or completeness of the material contained herein and is not responsible for any misuse or misrepresentation of this information or its derivatives. This map is a graphic representation and is to be used for general planning purposes only.

PROJECT: 21-10-44.7
FILE NO: 211044.7_vicinity.mxd
FILE PATH: W:\PROJECTS\211044\GIS\MXD
DRAFT: CEG
APPROVE: BKC
DATE:

MARCH 2025

SHEET 1 OF 1

■ *APPENDIX B*
WATER AVAILABILITY LETTER & OWNER
CERTIFICATION





May 28, 2025

Andrew Weigand

Butler Creek Development, LLC
4800 Grant Creek Road
Missoula, MT 59808

Re: West Pointe, Phase IV-A Storm, Sewer, and Water Main Extensions – Water Availability Letter

Dear Andrew:

WGM Group, Inc (WGM) has been retained by Circle H Investments, LLC as an engineering representative. Circle H Water, Inc. (PWSID: MT0004446) is the current owner and operator of the water system that serves both the West Pointe subdivision and the Circle H subdivision. WGM did the original design for this water system and is currently the engineer of record for Circle H Water, Inc.

Please be advised that Circle H Water, Inc. approves the extension of the system to serve the West Pointe, Phase 4A improvements and will agree to provide water according to the rules and regulations of the Montana Department of Environmental Quality and local policies.

Our conclusions are based on researching the original water system design and other records. WGM has concluded:

1. Proposed development of Phase 4A was planned for and contemplated in the original water system report. The original water system was designed to serve 330 units and with the construction of Phase 4A the system will be serving a total of 125 units
2. The water system has adequate capacity to meet the needs of the system expansion to serve West Pointe Phase 4A after a third PWS pump is set in the well field and operational (see the paragraph below regarding pending approval for PWS Expansion (EQ#25-1769))
3. The connections are authorized
4. The appropriate water rights exist for the proposed Phase 4A expansion
5. WGM Group, Inc. has been retained by Butler Creek Development to oversee construction of the project and to complete record drawings
6. The system complies with:
 - a. MCA Title 75, Chapter 6, Part 1
 - b. MCA Title 17, Chapter 30 & 38

Based on the water and sewer plans dated 5/30/25 titled "West Pointe, Phase IV-A Storm, Sewer, and Water Main Extensions" stamped by Dustin Hover (MT PE 48481) and the Circle H Water, Inc. PWS Expansion (EQ#25-1769) submitted to DEQ by WGM Group, the Circle H Water System has capacity to provide service to the above referenced project. WGM expects final approval of the Circle H Water, Inc. PWS Expansion very soon and the developer is ready to increase the capacity of the water system with a third well immediately upon approval from DEQ for the third well. After installation of the third well the Circle H water system will be able to provide maximum day demands with the largest well out of service.

Please let us know if additional information is required by DEQ.

Butler Creek Development, LLC
May 28, 2025
Page 2 of 2

Sincerely,
WGM Group, Inc.

A handwritten signature in blue ink that reads "Ryan Salisbury". The signature is written in a cursive, flowing style.

Ryan Salisbury, PE
Executive VP, Planning & Development

cc: Andrew Weigand, Circle H Water, Inc.

W:\Projects\211044\211044.2\60 Civil Engineering\03-DEQ Submittal\Water\2025-05-23 Water Availability Letter.docx

Dustin Hover

From: Andrew Weigand <andreww@butlercreekdev.com>
Sent: Friday, May 23, 2025 12:16 PM
To: Dustin Hover
Subject: West Pointe 4A Engineer

[EXTERNAL EMAIL] Only open attachments or click on links from senders you trust.

To Whom it may concern:

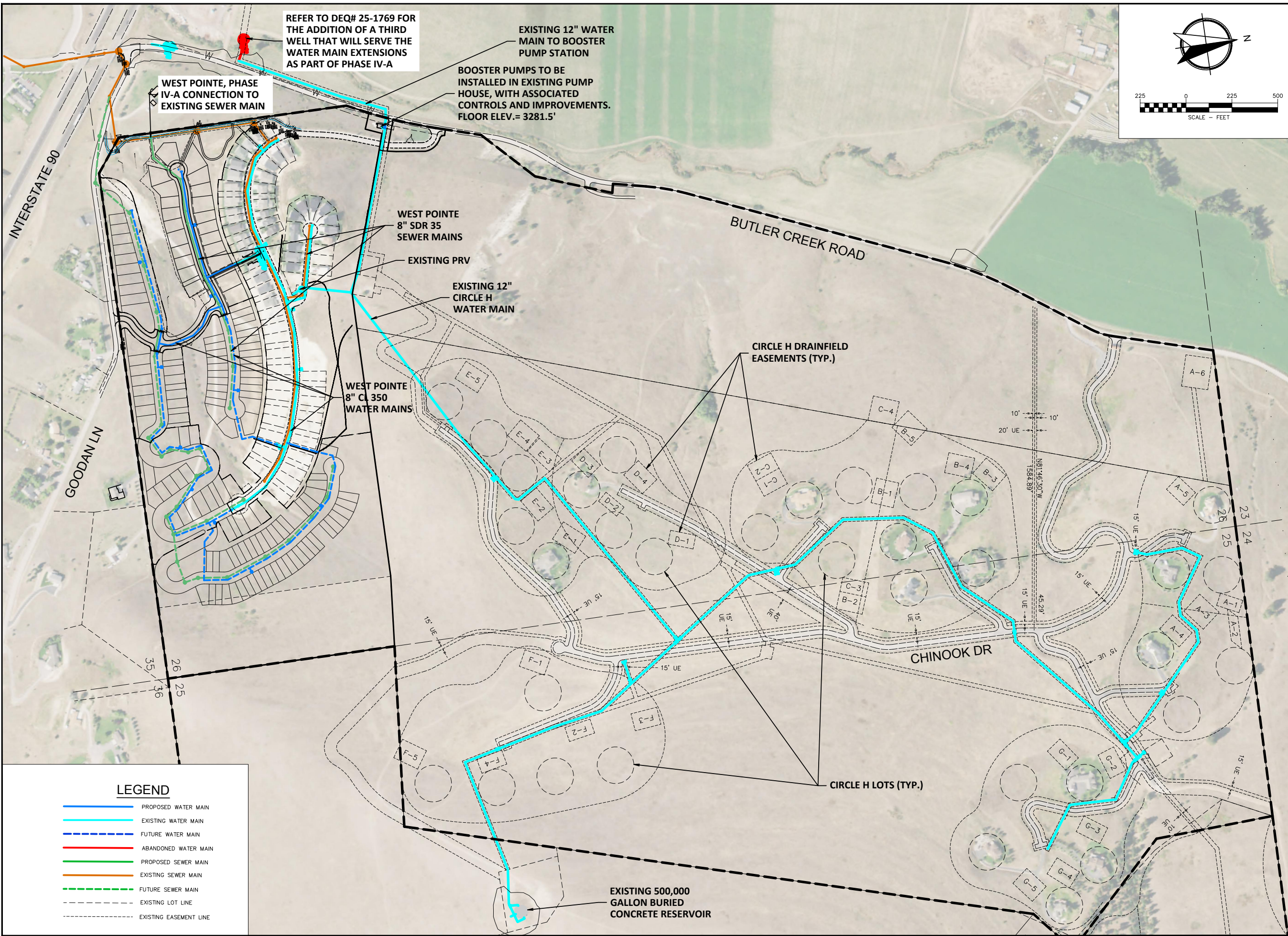
Butler Creek Development, LLC has retained WGM Group for the construction observation, to certify completion, and create record drawings for the West Pointe, Phase IV-A Storm, Sewer, and Water Main Extensions.

Andrew Weigand

Butler Creek Development LLC.

 *APPENDIX C*
EXISTING SEWER & WATER DELIVERY SYSTEM MAP





REFER TO DEQ# 25-1769 FOR THE ADDITION OF A THIRD WELL THAT WILL SERVE THE WATER MAIN EXTENSIONS AS PART OF PHASE IV-A

EXISTING 12" WATER MAIN TO BOOSTER PUMP STATION

BOOSTER PUMPS TO BE INSTALLED IN EXISTING PUMP HOUSE, WITH ASSOCIATED CONTROLS AND IMPROVEMENTS. FLOOR ELEV.= 3281.5'

WEST POINTE, PHASE IV-A CONNECTION TO EXISTING SEWER MAIN

WEST POINTE 8" SDR 35 SEWER MAINS

EXISTING PRV

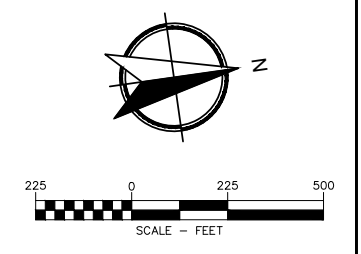
EXISTING 12" CIRCLE H WATER MAIN

WEST POINTE 8" CL 350 WATER MAINS

CIRCLE H DRAINFIELD EASEMENTS (TYP.)

CIRCLE H LOTS (TYP.)

EXISTING 500,000 GALLON BURIED CONCRETE RESERVOIR



PRELIMINARY
 PLOTTED: 4/3/25
 SAVED: 4/3/25

SEWER AND WATER DISTRIBUTION MAP
CIRCLE H - MISSOULA WATER CONNECTION
MISSOULA COUNTY, MONTANA

REVISIONS:

| NO. | DESCRIPTION | DATE |
|-----|-------------|------|
| | | |
| | | |
| | | |
| | | |

PROJECT: 21-10-44
 LAYOUT: EXHIBIT
 SURVEYED: WGM GROUP
 DESIGN: WMH
 DRAFT: RH
 APPROVE: JLG
 DATE:

JUNE 2022

EXHIBIT

LEGEND

| | |
|--|------------------------|
| | PROPOSED WATER MAIN |
| | EXISTING WATER MAIN |
| | FUTURE WATER MAIN |
| | ABANDONED WATER MAIN |
| | PROPOSED SEWER MAIN |
| | EXISTING SEWER MAIN |
| | FUTURE SEWER MAIN |
| | EXISTING LOT LINE |
| | EXISTING EASEMENT LINE |

FILE: W:\Projects\211044\CAD Data\Exhibits\211044 SEWER AND WATER DISTRIBUTION MAP.dwg

 *APPENDIX D*
NRCS SOIL REPORT





United States
Department of
Agriculture

NRCS

Natural
Resources
Conservation
Service

A product of the National
Cooperative Soil Survey,
a joint effort of the United
States Department of
Agriculture and other
Federal agencies, State
agencies including the
Agricultural Experiment
Stations, and local
participants

Custom Soil Resource Report for **Missoula County Area, Montana**

West Pointe Subdivision



Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<https://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require

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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

Custom Soil Resource Report

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

Custom Soil Resource Report

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

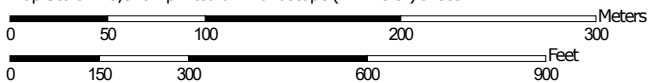
Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report Soil Map




Map Scale: 1:3,870 if printed on A landscape (11" x 8.5") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 11N 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: Missoula County Area, Montana
 Survey Area Data: Version 23, Sep 16, 2024

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

Date(s) aerial images were photographed: Aug 15, 2022—Sep 17, 2022

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 |
|------------------------------------|--|--------------|----------------|
| 7 | Minesinger-Bigarm complex, 0 to 4 percent slopes | 0.4 | 0.7% |
| 8 | Minesinger-Bigarm complex, 4 to 15 percent slopes | 43.2 | 70.0% |
| 9 | Bigarm-Minesinger complex, 15 to 30 percent slopes | 8.1 | 13.1% |
| 22 | Riverside gravelly sandy loam, 15 to 30 percent slopes | 10.0 | 16.2% |
| Totals for Area of Interest | | 61.6 | 100.0% |

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

Custom Soil Resource Report

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Missoula County Area, Montana

7—Minesinger-Bigarm complex, 0 to 4 percent slopes

Map Unit Setting

National map unit symbol: 4wd7
Elevation: 2,600 to 5,500 feet
Mean annual precipitation: 14 to 19 inches
Mean annual air temperature: 41 to 45 degrees F
Frost-free period: 90 to 120 days
Farmland classification: Farmland of local importance

Map Unit Composition

Minesinger and similar soils: 50 percent
Bigarm and similar soils: 45 percent
Minor components: 5 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Minesinger

Setting

Landform: Hills
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Tertiary slope alluvium

Typical profile

A1 - 0 to 6 inches: gravelly loam
A2 - 6 to 13 inches: cobbly loam
Bt - 13 to 24 inches: very gravelly clay
Bk - 24 to 60 inches: very gravelly clay loam

Properties and qualities

Slope: 0 to 4 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 8 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: Low (about 5.4 inches)

Interpretive groups

Land capability classification (irrigated): 3e
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: C
Ecological site: R044AA036MT - Droughty (Dr) LRU 44A-A
Hydric soil rating: No

Description of Bigarm

Setting

Landform: Hills

Custom Soil Resource Report

Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Tertiary slope alluvium

Typical profile

A1 - 0 to 11 inches: gravelly loam
A2 - 11 to 15 inches: very gravelly loam
Bw - 15 to 40 inches: very gravelly sandy loam
C - 40 to 60 inches: extremely gravelly loamy sand

Properties and qualities

Slope: 0 to 4 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat excessively drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high
(0.57 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 5.5 inches)

Interpretive groups

Land capability classification (irrigated): 3e
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: B
Ecological site: R043BP818MT - Upland Grassland Group
Hydric soil rating: No

Minor Components

Larry

Percent of map unit: 5 percent
Landform: Drainageways
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R046XC518MT - Wet Meadow (WM) RRU 46-C 15-19 PZ
Hydric soil rating: No

8—Minesinger-Bigarm complex, 4 to 15 percent slopes

Map Unit Setting

National map unit symbol: 4wdl
Elevation: 2,600 to 5,500 feet
Mean annual precipitation: 14 to 19 inches
Mean annual air temperature: 41 to 45 degrees F
Frost-free period: 90 to 120 days
Farmland classification: Farmland of local importance

Map Unit Composition

Minesinger and similar soils: 60 percent

Custom Soil Resource Report

Bigarm and similar soils: 25 percent

Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Minesinger

Setting

Landform: Hills

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Tertiary slope alluvium

Typical profile

A1 - 0 to 6 inches: gravelly loam

A2 - 6 to 13 inches: cobbly loam

Bt - 13 to 24 inches: very gravelly clay

Bk - 24 to 60 inches: very gravelly clay loam

Properties and qualities

Slope: 4 to 15 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum content: 8 percent

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Available water supply, 0 to 60 inches: Low (about 5.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 4e

Hydrologic Soil Group: C

Ecological site: R044AA036MT - Droughty (Dr) LRU 44A-A

Hydric soil rating: No

Description of Bigarm

Setting

Landform: Hills

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Tertiary slope alluvium

Typical profile

A1 - 0 to 11 inches: cobbly loam

A2 - 11 to 15 inches: very gravelly loam

Bw - 15 to 40 inches: very gravelly sandy loam

C - 40 to 60 inches: extremely gravelly loamy sand

Properties and qualities

Slope: 4 to 15 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Somewhat excessively drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.71 to 2.13 in/hr)

Custom Soil Resource Report

Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 5.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: B
Ecological site: R044AP808MT - Upland Grassland Group
Hydric soil rating: No

Minor Components

Grassvalley

Percent of map unit: 10 percent
Landform: Hills
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R044AA032MT - Loamy (Lo) LRU 44A-A
Hydric soil rating: No

Larry

Percent of map unit: 5 percent
Landform: Drainageways
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R046XC518MT - Wet Meadow (WM) RRU 46-C 15-19 PZ
Hydric soil rating: No

9—Bigarm-Minesinger complex, 15 to 30 percent slopes

Map Unit Setting

National map unit symbol: 4wdy
Elevation: 2,600 to 5,500 feet
Mean annual precipitation: 14 to 19 inches
Mean annual air temperature: 39 to 45 degrees F
Frost-free period: 90 to 120 days
Farmland classification: Not prime farmland

Map Unit Composition

Bigarm and similar soils: 45 percent
Minesinger and similar soils: 40 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Bigarm

Setting

Landform: Hills

Custom Soil Resource Report

Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Tertiary slope alluvium

Typical profile

A1 - 0 to 11 inches: gravelly loam
A2 - 11 to 15 inches: very gravelly loam
Bw - 15 to 40 inches: very gravelly sandy loam
C - 40 to 60 inches: extremely gravelly loamy sand

Properties and qualities

Slope: 15 to 30 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat excessively drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 5.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: B
Ecological site: R044AP808MT - Upland Grassland Group
Hydric soil rating: No

Description of Minesinger

Setting

Landform: Hills
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Tertiary slope alluvium

Typical profile

A1 - 0 to 6 inches: gravelly loam
A2 - 6 to 13 inches: cobbly loam
Bt - 13 to 24 inches: very gravelly clay
Bk - 24 to 60 inches: very gravelly clay loam

Properties and qualities

Slope: 15 to 30 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 8 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: Low (about 5.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6e

Custom Soil Resource Report

Hydrologic Soil Group: C
Ecological site: R044AA036MT - Droughty (Dr) LRU 44A-A
Hydric soil rating: No

Minor Components

Grassvalley

Percent of map unit: 10 percent
Landform: Hills
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R044AA032MT - Loamy (Lo) LRU 44A-A
Hydric soil rating: No

Hogsby

Percent of map unit: 5 percent
Landform: Hills
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R044AP805MT - Shallow Grassland Group
Hydric soil rating: No

22—Riverside gravelly sandy loam, 15 to 30 percent slopes

Map Unit Setting

National map unit symbol: 4wbk
Elevation: 2,500 to 5,500 feet
Mean annual precipitation: 14 to 19 inches
Mean annual air temperature: 41 to 45 degrees F
Frost-free period: 90 to 120 days
Farmland classification: Not prime farmland

Map Unit Composition

Biglake and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Biglake

Setting

Landform: Stream terraces
Landform position (three-dimensional): Riser
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium

Typical profile

A - 0 to 9 inches: gravelly sandy loam
Bw - 9 to 16 inches: very gravelly sandy loam
C - 16 to 60 inches: extremely gravelly loamy sand

Custom Soil Resource Report

Properties and qualities

Slope: 15 to 30 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Excessively drained

Capacity of the most limiting layer to transmit water (Ksat): High (1.98 to 5.95 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water supply, 0 to 60 inches: Very low (about 2.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 6e

Hydrologic Soil Group: A

Ecological site: R044AP808MT - Upland Grassland Group

Hydric soil rating: No

Minor Components

Bigarm

Percent of map unit: 10 percent

Landform: Stream terraces

Landform position (three-dimensional): Riser

Down-slope shape: Linear

Across-slope shape: Linear

Ecological site: R044AB032MT - Loamy (Lo) LRU 44A-B

Hydric soil rating: No

Soils with thin surface layers

Percent of map unit: 5 percent

Hydric soil rating: No

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Custom Soil Resource Report

United States Department of Agriculture, Natural Resources Conservation Service. National soil survey handbook, title 430-VI. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/scientists/?cid=nrcs142p2_054242

United States Department of Agriculture, Natural Resources Conservation Service. 2006. Land resource regions and major land resource areas of the United States, the Caribbean, and the Pacific Basin. U.S. Department of Agriculture Handbook 296. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053624

United States Department of Agriculture, Soil Conservation Service. 1961. Land capability classification. U.S. Department of Agriculture Handbook 210. http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_052290.pdf

 *APPENDIX E*
PROPOSED WATER ROUTING





WGM GROUP
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STAGE 3 SUBMITTAL

OVERALL SEWER AND WATER EXHIBIT WEST POINTE SUBDIVISION PHASE IV-A MISSOULA COUNTY, MONTANA

REVISIONS:
NO. DESCRIPTION DATE

| NO. | DESCRIPTION | DATE |
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PROJECT: 21-10-44
LAYOUT: EX1
SURVEYED: WGM GROUP
DESIGN: SG, MP
DRAFT: RH
APPROVE: DH
DATE:

APRIL 2025

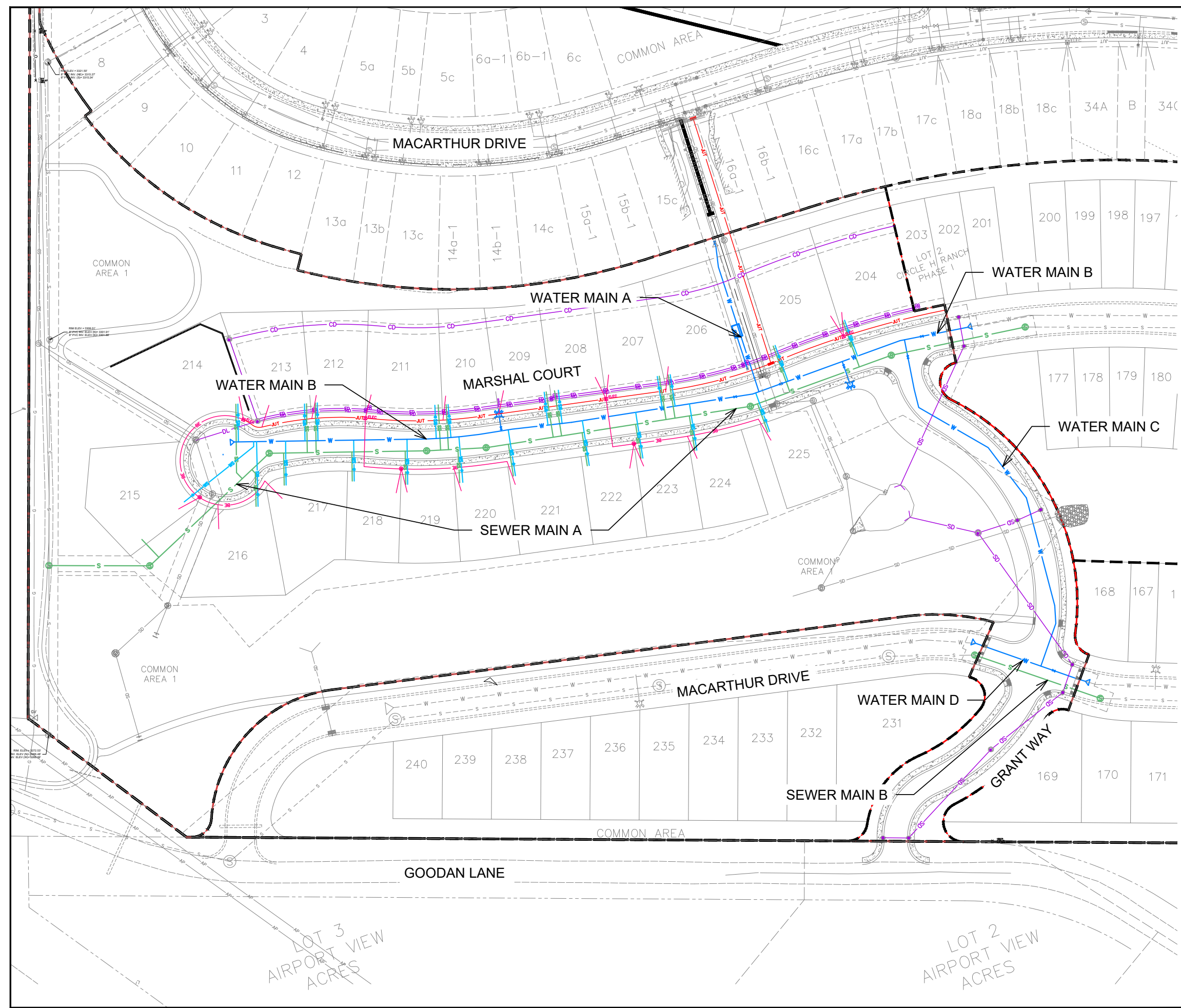
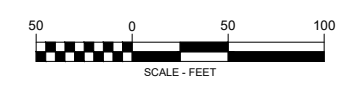
EX1

LEGEND-PROPOSED

- WATER MAIN
- WATER SERVICE
- SANITARY SEWER MAIN
- SANITARY SEWER SERVICE
- STORM DRAIN
- CURTAIN DRAIN
- ROOF DRAIN
- FOOTING DRAIN
- CULVERT
- JUT
- WATER VALVE
- FIRE HYDRANT
- BLOW OFF
- SANITARY SEWER MANHOLE
- STORM DRAIN INLET
- STORM DRAIN SUMP

LEGEND-EXISTING

- WATER MAIN
- WATER SERVICE
- WATER RESERVOIR
- SANITARY SEWER MAIN
- STORM DRAIN
- CURTAIN DRAIN
- ROOF DRAIN
- FOOTING DRAIN
- AERIAL POWER LINE
- GAS MAIN
- JUT
- CULVERT
- WATER VALVE
- FIRE HYDRANT
- BLOW OFF
- SANITARY SEWER MANHOLE
- STORM DRAIN MANHOLE
- DRAINAGE SUMP

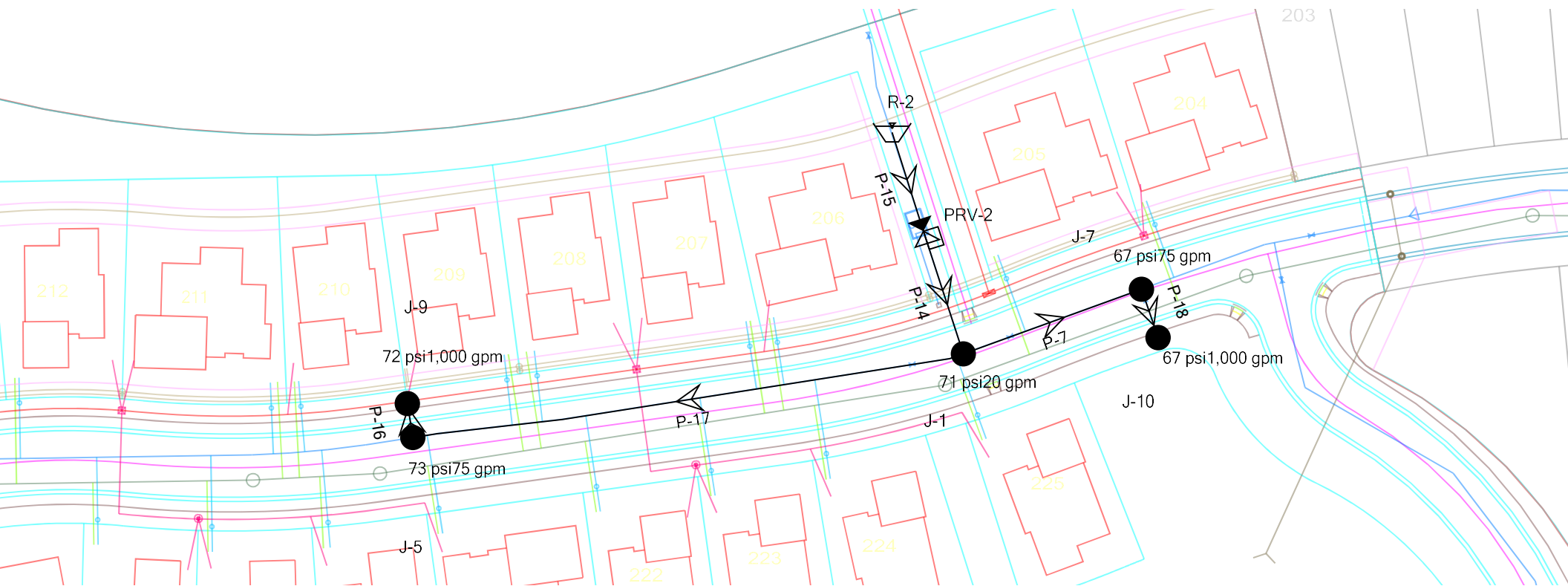


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■ *APPENDIX F*
FIRE HYDRANT APPROVAL & FIRE FLOW
CALCULATIONS



Scenario: Base



Shane Graham

From: Pete Giardino <pgiardino@mrfdfire.org>
Sent: Thursday, May 8, 2025 2:50 PM
To: Shane Graham
Subject: RE: West Pointe Phase IV-A Fire Hydrant Exhibit

[EXTERNAL EMAIL] Only open attachments or click on links from senders you trust.

Thank you, Shane,

I looked over the proposed hydrant locations and they look appropriate for our needs. This plan is approved.

Let me know if there is anything else I can assist with, happy to help.



Peter V Giardino

Deputy Fire Marshal, Missoula Rural Fire District

📞 (406) 239-4844

✉️ pgiardino@mrfdfire.org

🌐 www.MRFDfire.org

📍 [2521 South Avenue West, Missoula MT 59804](https://www.google.com/maps/place/2521+South+Avenue+West,+Missoula,+MT+59804)



From: Shane Graham <sgraham@wgmgroup.com>

Sent: Thursday, May 8, 2025 2:06 PM

To: Pete Giardino <pgiardino@mrfdfire.org>; Paul Finlay <pfinlay@mrfdfire.org>; abeck@missoulacounty.us

Cc: Dustin Hover <dhover@wgmgroup.com>; Cory Horsens <chorsens@mrfdfire.org>

Subject: RE: West Pointe Phase IV-A Fire Hydrant Exhibit

Hey Pete,

Included are the updated, zoomed out exhibit along with the phasing plan for the subdivision overall. Please let me know if you need anything else and thanks for the fast responses here!

Shane Graham, EI

Staff Engineer • WGM Group

From: Pete Giardino <pgiardino@mrfdfire.org>

Sent: Thursday, May 8, 2025 1:51 PM

To: Shane Graham <sgraham@wgmgroup.com>; Paul Finlay <pfinlay@mrfdfire.org>; abeck@missoulacounty.us

Cc: Dustin Hover <dhover@wgmgroup.com>; Cory Horsens <chorsens@mrfdfire.org>

Subject: RE: West Pointe Phase IV-A Fire Hydrant Exhibit

[EXTERNAL EMAIL] Only open attachments or click on links from senders you trust.

Thank you, Chief!

Hello Shane,

I am including everyone in this reply just to close the communication loop, feel free to contact me directly going forward. It looks like EX2 is cut off to the east of the new phase. Any chance of getting a full view?



Peter V Giardino

Deputy Fire Marshal, Missoula Rural Fire District

📞 (406) 239-4844

✉️ pgiardino@mrfdfire.org

🌐 www.MRFDIRE.org

📍 [2521 South Avenue West, Missoula MT 59804](https://www.google.com/maps/place/2521+South+Avenue+West,+Missoula,+MT+59804)



From: Shane Graham <sgraham@wgmgroup.com>

Sent: Thursday, May 8, 2025 1:27 PM

To: Paul Finlay <pfinlay@mrfdfire.org>; abeck@missoulacounty.us

Cc: Dustin Hover <dhover@wgmgroup.com>; Pete Giardino <pgiardino@mrfdfire.org>; Cory Horsens <chorsens@mrfdfire.org>

Subject: RE: West Pointe Phase IV-A Fire Hydrant Exhibit

Sounds good thank you for forwarding the chain!

Shane Graham, EI

Staff Engineer • WGM Group

From: Paul Finlay <pfinlay@mrfdfire.org>

Sent: Thursday, May 8, 2025 1:23 PM

To: Shane Graham <sgraham@wgmgroup.com>; abeck@missoulacounty.us

Cc: Dustin Hover <dhover@wgmgroup.com>; Pete Giardino <pgiardino@mrfdfire.org>; Cory Horsens <chorsens@mrfdfire.org>

Subject: RE: West Pointe Phase IV-A Fire Hydrant Exhibit

[EXTERNAL EMAIL] Only open attachments or click on links from senders you trust.

Good afternoon, Shane.

I'm sending your information off to Pete Giardino. Pete is the Fire Marshal here at Missoula Rural Fire District. As of this email, you will have his email address.

Thank you,



Paul Finlay
Fire Chief, Missoula Rural Fire District

-  [\(406\) 549-6172](tel:(406)549-6172)
-  [\(406\) 830-0114](tel:(406)830-0114)
-  pfinlay@mrfdfire.org
-  www.MRDFIRE.org
-  [2521 South Avenue West, Missoula MT 59804](#)



From: Shane Graham <sgraham@wgmgroup.com>
Sent: Thursday, May 8, 2025 1:06 PM
To: Paul Finlay <pfinlay@mrfdfire.org>; abeck@missoulacounty.us
Cc: Dustin Hover <dhover@wgmgroup.com>
Subject: West Pointe Phase IV-A Fire Hydrant Exhibit

Hello Adriane and Paul,

We have been working on pushing forward the West Pointe Phase IV-A subdivision project to get it into DEQ for review. I was hoping that you would be able to review this hydrant exhibit that I pulled together and let me know what comments you have on it or give it an approval if it all looks good on your end. Please let me know if you need any other items or information and thank you for your time!

Shane Graham, EI
Staff Engineer

M: [440-867-1650](tel:440-867-1650) O: [406-728-4611](tel:406-728-4611)
1111 E Broadway
Missoula, MT 59802
www.wgmgroup.com



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WGM GROUP
WWW.WGMGROUP.COM

STAGE 3 SUBMITTAL

OVERALL SEWER AND WATER EXHIBIT WEST POINTE SUBDIVISION PHASE IV-A MISSOULA COUNTY, MONTANA

REVISIONS:
NO. DESCRIPTION DATE

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PROJECT: 21-10-44
LAYOUT: EX1
SURVEYED: WGM GROUP
DESIGN: SG, MP
DRAFT: RH
APPROVE: DH
DATE:

APRIL 2025

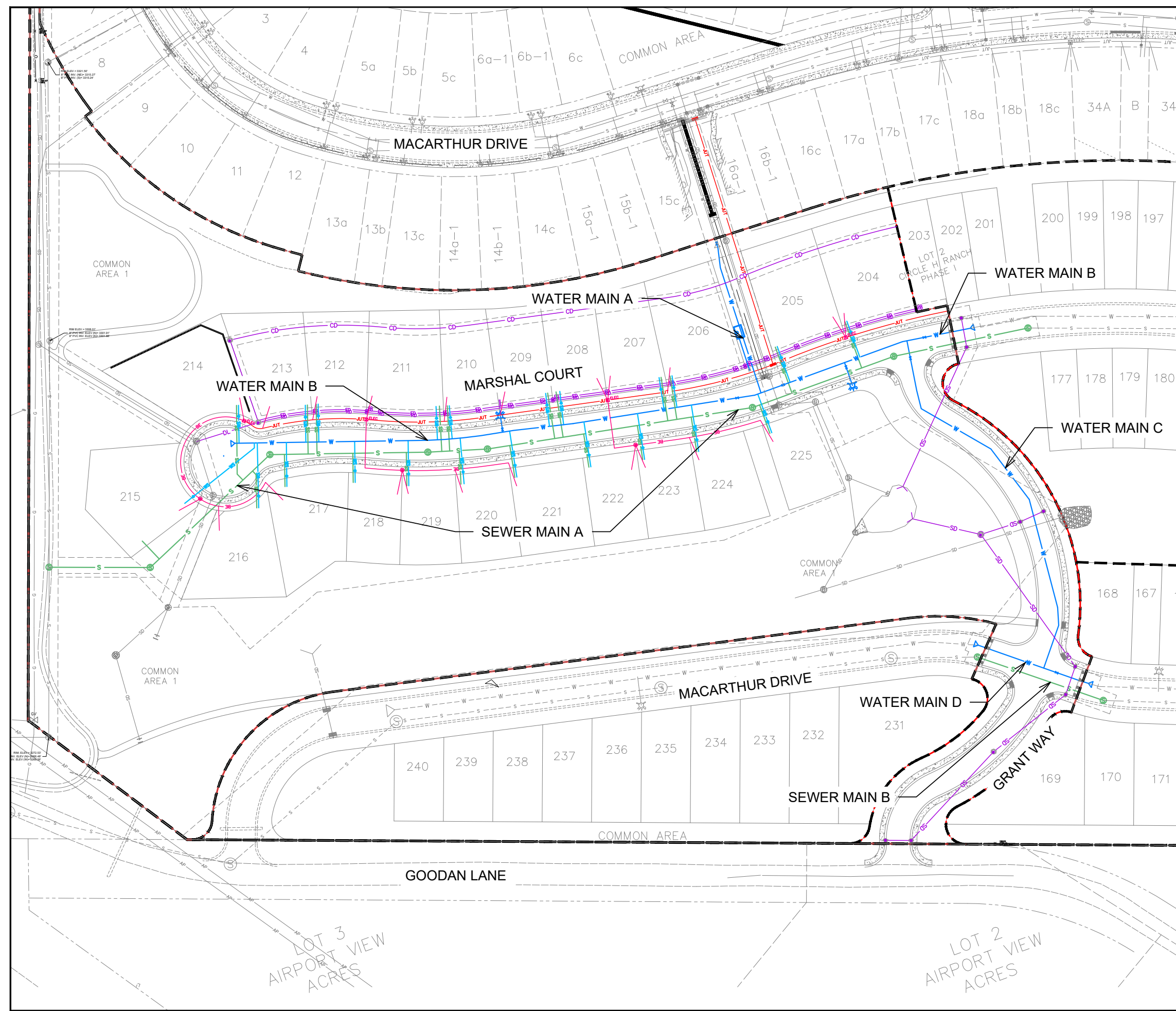
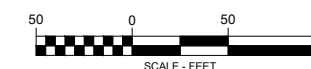
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EX1

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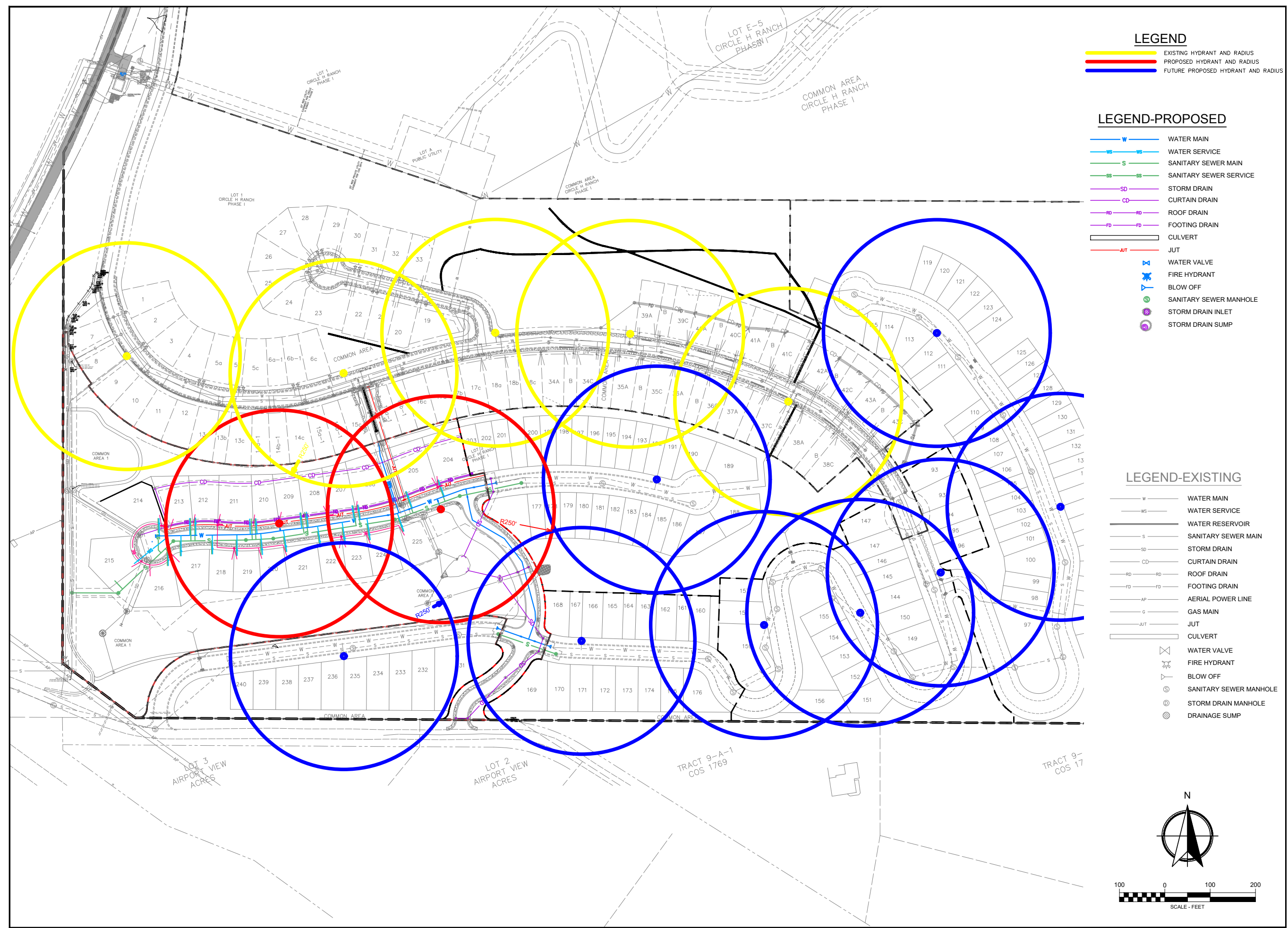
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- WATER SERVICE
- SANITARY SEWER MAIN
- SANITARY SEWER SERVICE
- STORM DRAIN
- CURTAIN DRAIN
- ROOF DRAIN
- FOOTING DRAIN
- CULVERT
- WATER VALVE
- FIRE HYDRANT
- BLOW OFF
- SANITARY SEWER MANHOLE
- STORM DRAIN INLET
- STORM DRAIN SUMP

LEGEND-EXISTING

- WATER MAIN
- WATER SERVICE
- WATER RESERVOIR
- SANITARY SEWER MAIN
- STORM DRAIN
- CURTAIN DRAIN
- ROOF DRAIN
- FOOTING DRAIN
- AERIAL POWER LINE
- GAS MAIN
- CULVERT
- WATER VALVE
- FIRE HYDRANT
- BLOW OFF
- SANITARY SEWER MANHOLE
- STORM DRAIN MANHOLE
- DRAINAGE SUMP



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LEGEND

- EXISTING HYDRANT AND RADIUS
- PROPOSED HYDRANT AND RADIUS
- FUTURE PROPOSED HYDRANT AND RADIUS

LEGEND-PROPOSED

- W WATER MAIN
- WS WATER SERVICE
- S SANITARY SEWER MAIN
- SS SANITARY SEWER SERVICE
- SD STORM DRAIN
- CD CURTAIN DRAIN
- RD ROOF DRAIN
- FD FOOTING DRAIN
- CULVERT
- JUT
- WATER VALVE
- FIRE HYDRANT
- BLOW OFF
- SANITARY SEWER MANHOLE
- STORM DRAIN INLET
- STORM DRAIN SUMP

LEGEND-EXISTING

- W WATER MAIN
- WS WATER SERVICE
- WRS WATER RESERVOIR
- S SANITARY SEWER MAIN
- SD STORM DRAIN
- CD CURTAIN DRAIN
- RD ROOF DRAIN
- FD FOOTING DRAIN
- AP AERIAL POWER LINE
- G GAS MAIN
- JUT
- CULVERT
- WATER VALVE
- FIRE HYDRANT
- BLOW OFF
- SANITARY SEWER MANHOLE
- STORM DRAIN MANHOLE
- DRAINAGE SUMP



**STAGE 3
SUBMITTAL**

**FIRE HYDRANT EXHIBIT
WEST POINTE SUBDIVISION PHASE IV-A
MISSOULA COUNTY, MONTANA**

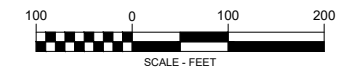
REVISIONS:

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PROJECT: 21-10-44
 LAYOUT: EX2
 SURVEYED: WGM GROUP
 DESIGN: SG, MP
 DRAFT: RH
 APPROVE: DH
 DATE:

APRIL 2025

EX2



FILE: W:\Projects\211044\CAD_Data\Exhibits\Sewer and Water\overall_plan.dwg

 *APPENDIX G*
BLOWOFF SIZING CALCULATIONS



Project: **West Pointe, Phase IV-A**
 Project Number: **21-10-44**
 Prepared By: **SGG**
 Reviewed By: **...**
 Date: **5/16/2025**
 Description: **Blowoff Size Calculation**



Data Input
Results

Assumptions:

Blowoff Sizing Design Parameters

| | | | |
|----------------------------------|--------------|--------|--|
| Water Main Size | 8.00 | inches | |
| Blowoff Size | 3.00 | inches | |
| Blowoff Length | 16.00 | feet | *Assume 4-ft horizontal, 10-ft vertical, 2-ft horizontal |
| Number of 90 Degree Bends | 2.00 | | |
| Number of Gate Valves | 1.00 | | |

Sizing Calculations

| | | | |
|-------------------------------------|---------------|--------------------------|--|
| Flushing Velocity (v1) | 3.00 | ft/s | *C651 recommends 3 (Speed of water just as it reaches the 3in blowoff) |
| Required Flushing Flow (Q) | 470 | gpm | $Q=V \times A=(3.00\text{ft/s}) \times (60\text{s/min}) \times (16\pi\text{in}^2) \times (1\text{ft}^2/144\text{in}^2) \times (7.48\text{gal/ft}^3)=470\text{gal/min}$ |
| Cross Sectional Area | 0.05 | ft² | $A=(\pi/4) \times (3.00\text{in})^2 \times (1\text{ft}^2/144\text{in}^2)=0.05\text{ft}^2$ |
| Blowoff Velocity (v2) | 21.33 | ft/s | *Continuity Equation (Q into assembly=Q out of assembly) |
| Hazen William's Constant (C) | 135.00 | | *Hazen-Williams Constant |
| Equivalent Blowoff Length | 27.60 | ft | *Equivalent length of pipe that would equate to the head loss of entire assembly |
| Blowoff Head loss (hf) | 13.76 | ft | *Hazen Williams Equation |
| Blowoff Elevation (z2) | 10.00 | ft | *Since static pressures are measured above ground , blowoff elevation is 10-feet below the static pressure read |
| Gravity Constant (g) | 32.20 | ft/s² | |
| Density of Water (gamma) | 62.40 | lb/ft³ | |

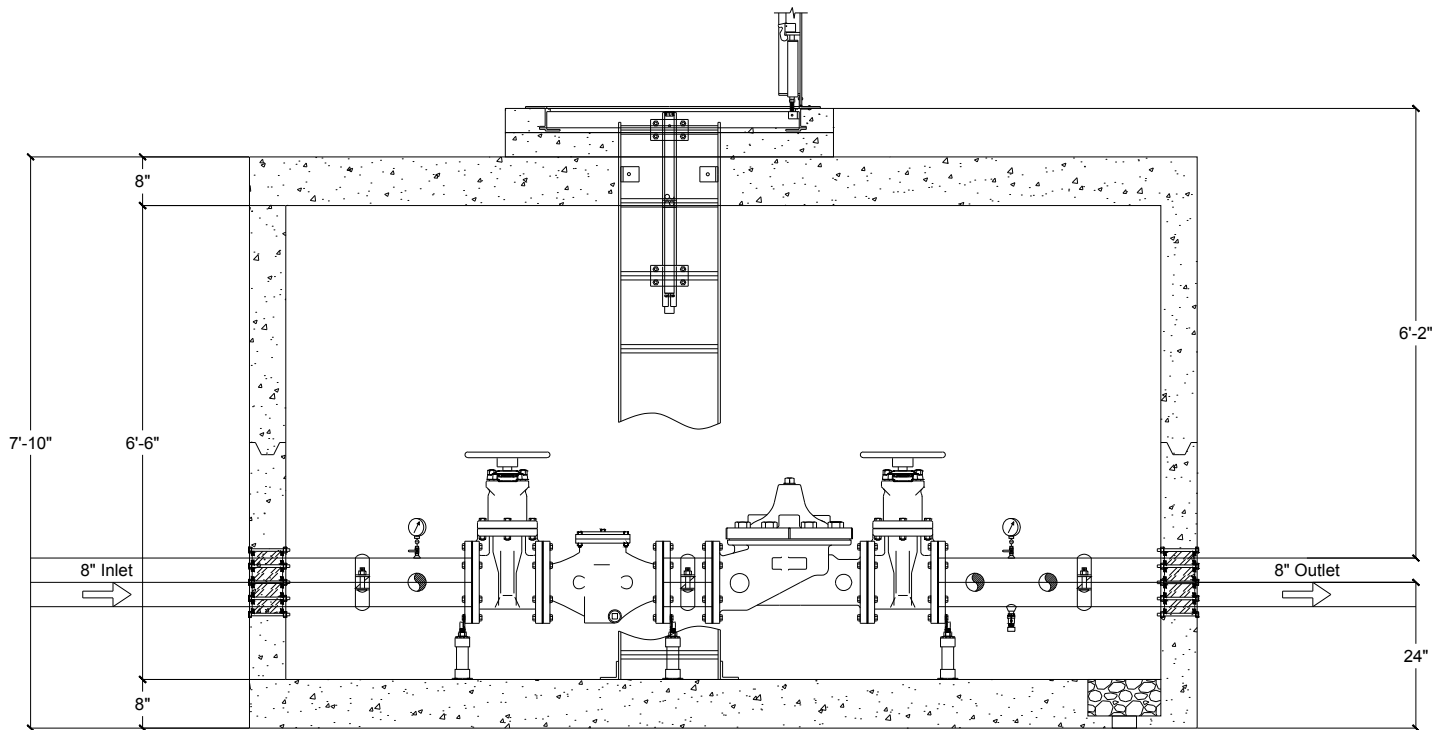
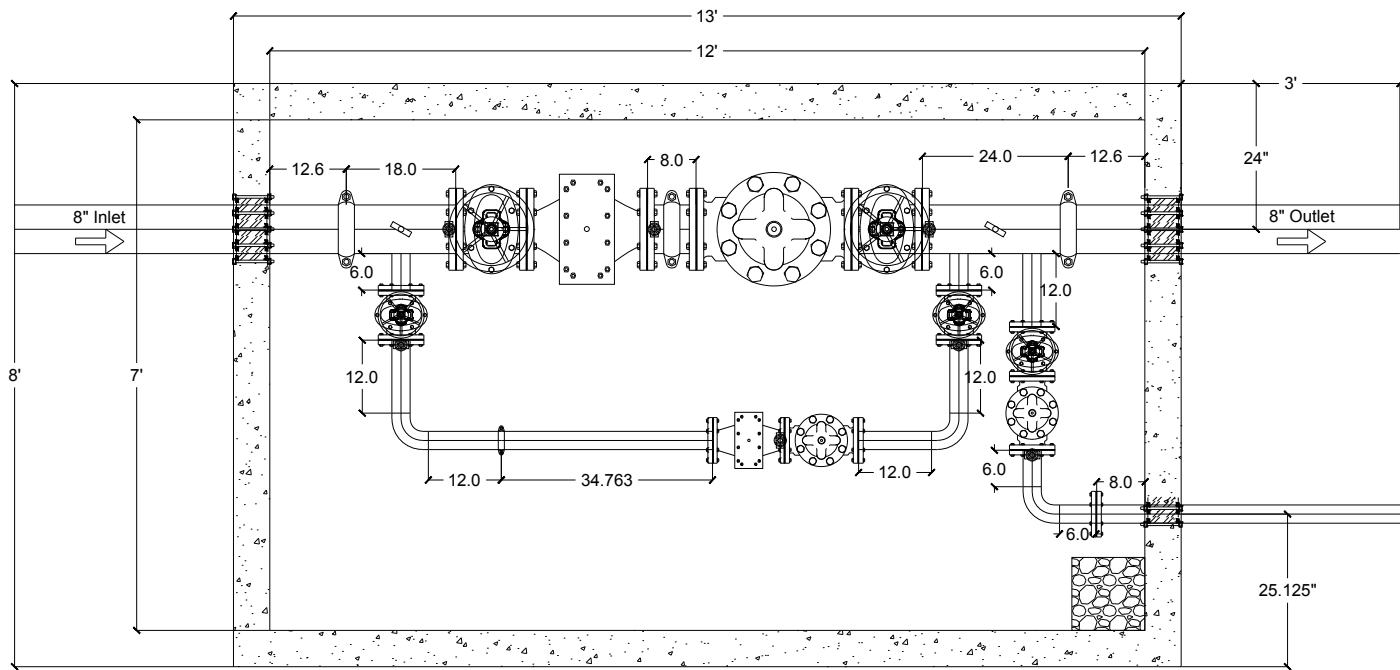
Results

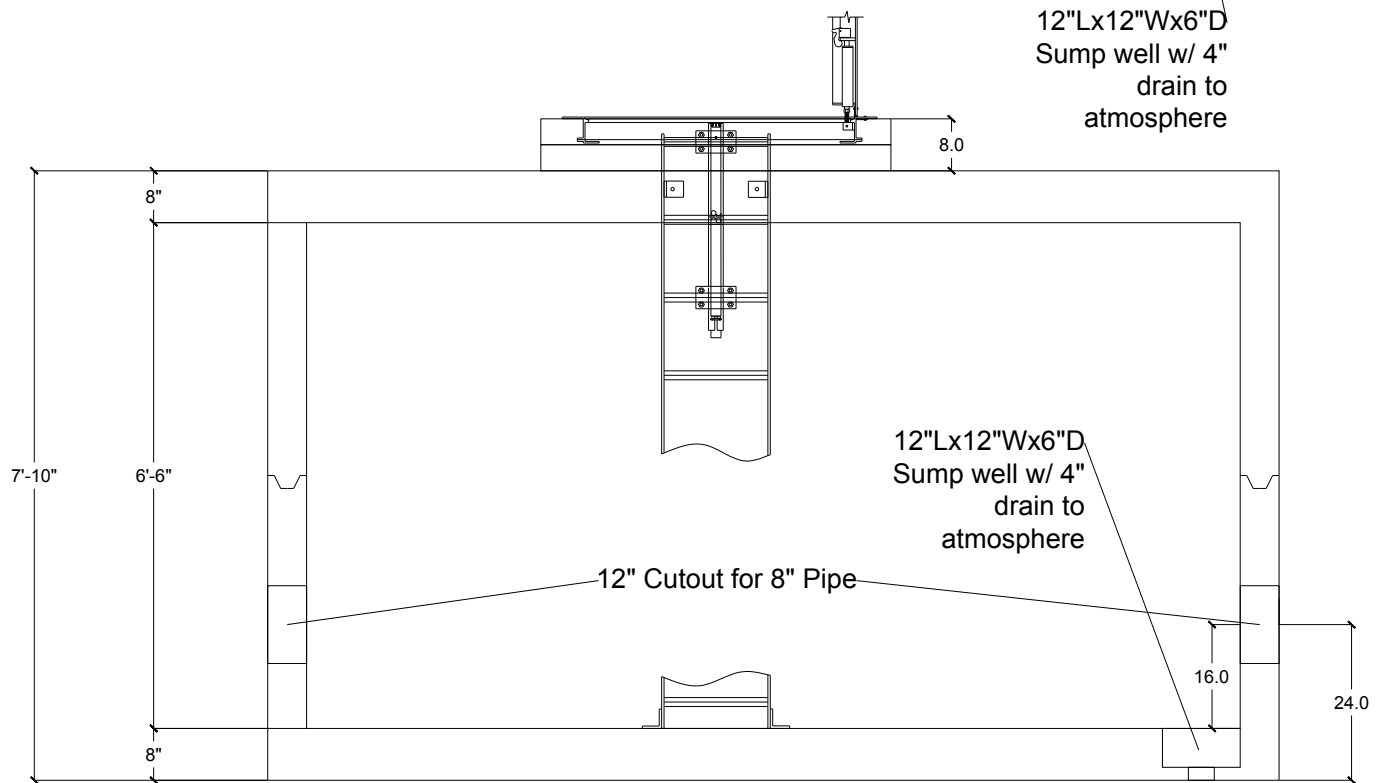
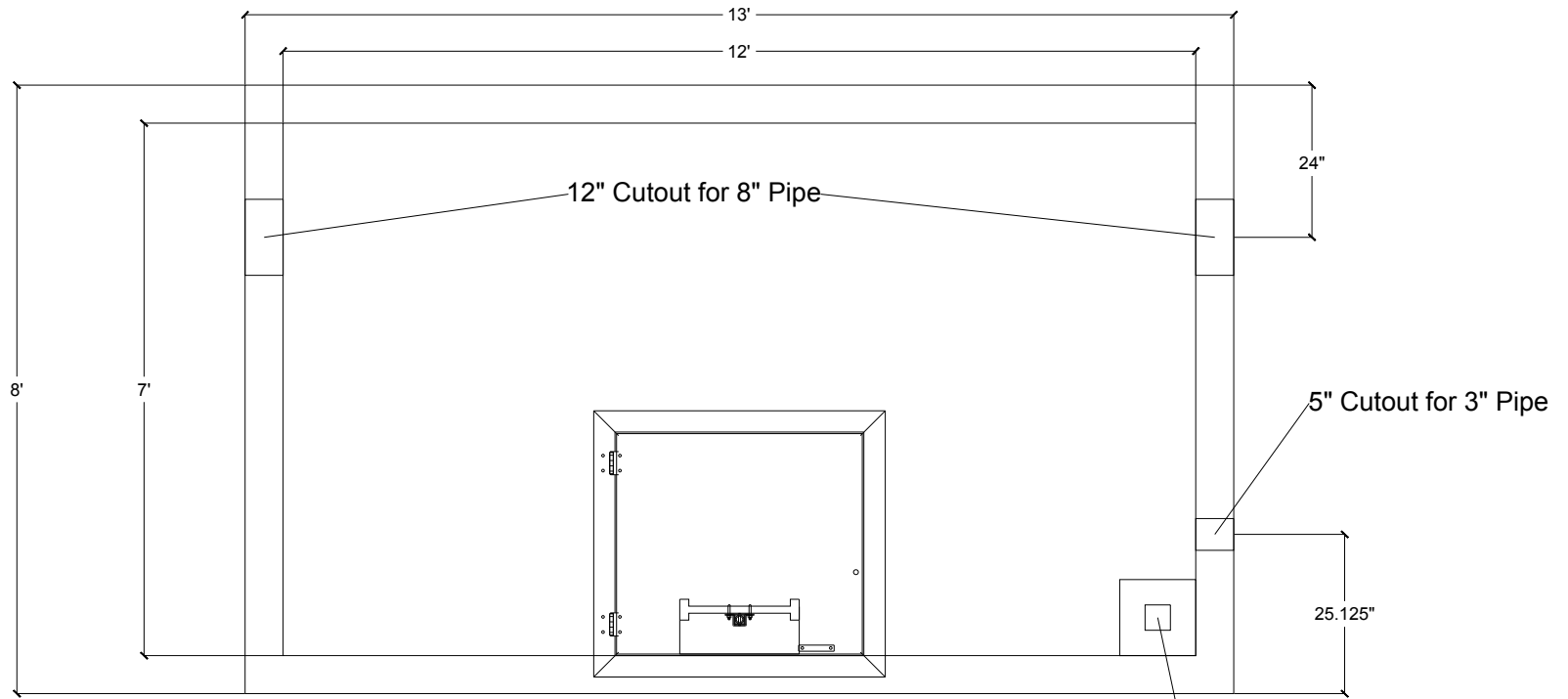
Required Main Pressure (P1) **13 psi** Bernoulli eq (Energy Form): $v1^2/2G+P1/\text{gamma}+hf = v2^2/2g +z2$
 $P1=(v2^2/2G+z2+hf-v1^2/2G) \times \text{gamma}/144$
 (Note: 144 converts pressure from psf to psi)

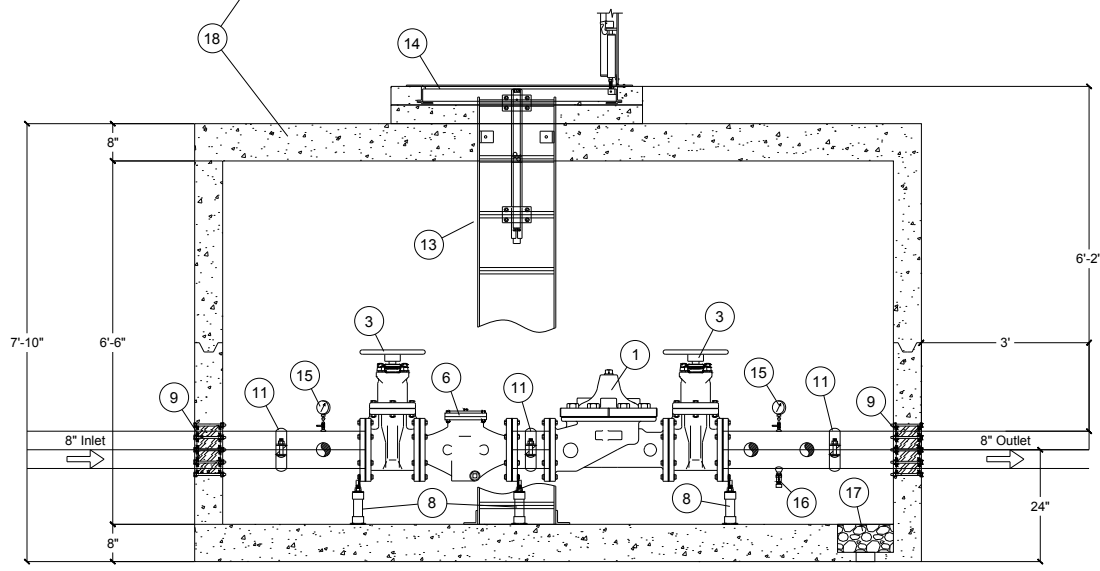
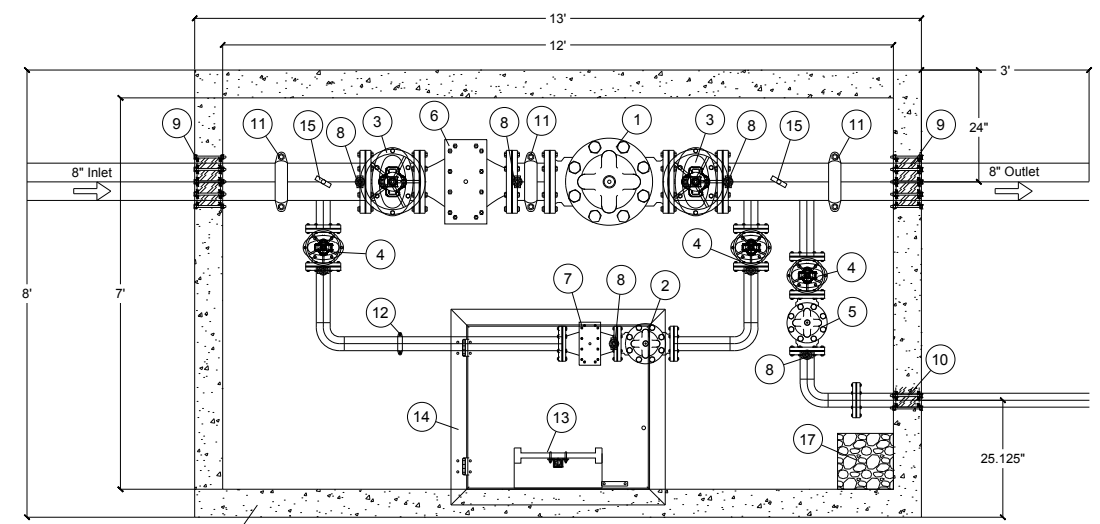
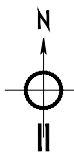
W:\Projects\211044\211044.2\60 Civil Engineering\03-DEQ Submittal\Water\Appendices\[UPDATED Water-Blowoff and Leakage Calcs-DEQ.xlsx]Blowoff Calc

 *APPENDIX H*
PRV VAULT DETAIL









A SECTION
3" BYPASS AND RELIEF
REMOVED FOR CLARITY

BILL OF MATERIALS

| ITEM | QTY | DESCRIPTION |
|------|-----|--|
| 1 | 1 | 8" WATTS MUSTANG 912GD-YCSPX EPOXY COATED DUCTILE IRON SST. TRIM W/ POSITION INDICATOR 150 FLG PSI RED/SUST. VALVE |
| 2 | 1 | 3" WATTS MUSTANG 912GD-YCSPX EPOXY COATED DUCTILE IRON SST. TRIM W/ POSITION INDICATOR 150 FLG PSI RED/SUST. VALVE |
| 3 | 2 | 8" RSW NRS GATE VALVE 150 FLXFL C-515 NSF-61 ANSI/AWWA WITH HAND WHEELS |
| 4 | 3 | 3" RSW NRS GATE VALVE 150 FLXFL C-515 NSF-61 ANSI/AWWA WITH HAND WHEELS |
| 5 | 1 | 3" WATTS MUSTANG M116G-01YB EPOXY COATED DUCTILE IRON SST. TRIM 150 FLG W/ POSITION INDICATOR RELIEF VALVE |
| 6 | 1 | 8" CLA-VAL X43H STRAINER |
| 7 | 1 | 3" CLA-VAL X43H STRAINER |
| 8 | 6 | FLANGE STYLE PIPE SUPPORTS |
| 9 | 2 | 8" LINK SEAL ASSEMBLY |
| 10 | 1 | 3" LINK SEAL ASSEMBLY |
| 11 | 3 | 8" GRUVLOK COUPLING |
| 12 | 1 | 3" GRUVLOK COUPLING |
| 13 | 1 | HALLIDAY H1R3636 ALUMINUM ACCESS DOOR: 36"X36" H20 LOAD RATING, SST LOCK, HINGES, ATTACHING HARDWARE AND COMPRESSION SPRING ASSIST. |
| 14 | 1 | HALLIDAY L1D ALUMINUM LADDER W/ L1E LADDER EXTENSION |
| 15 | 2 | 2 1/2" 0-200 PSI GAUGE LIQUID FILLED W/ 1/4" SST. ISOLATION VALVE |
| 16 | 1 | 1" SST. BALL VALVE |
| 17 | 1 | 12"L X 12"W X 6"D SUMP W/ GRATE W/ 4" K/O |
| 18 | 1 | PRESTIGE WWT 6" WALLED H ₂ O RATED PRV VAULT. WHITE INTERIOR W/ BLACK EXTERIOR SEALANT OD: 13' L x 8' W x 7'10" T ID: 12' L x 7' W x 6'6" T |

- NOTES:
1. ALL PIPING AND EQUIPMENT SUPPLIED BY PRESTIGE WORLDWIDE TECHNOLOGIES. ALL PIPING IS SCHEDULE 40 304 SST.
 2. VAULT SUPPLIER WILL SUPPLY AN INDIVIDUAL WITH AT LEAST 10 YRS EXP. WITH CONTROL VALVE EQUIPMENT START-UP AND TROUBLE SHOOTING.
 3. VAULT SUPPLIER TO PROVIDE 3 COPIES OF O & M MANUALS.
 4. VAULT SHOWN INCLUDES ALL EQUIPMENT REQUIRED FOR A FULLY FUNCTIONING PRV STATION. THIS INCLUDES DELIVERY TO SITE.
 5. INSTALLER WILL OFF-LOAD VAULT AND COORDINATE WITH SUPPLIER DELIVERY. INSTALLER MUST PROVIDE ALL EXCAVATION AND FINAL CONNECTIONS.
 6. DISINFECTIONS: FINAL GRADE AND ANY CONNECTIONS OUTSIDE OF THE VAULT ARE THE INSTALLER'S RESPONSIBILITY.

DISCLAIMER: THIS DRAWING IS THE PROPERTY OF PRESTIGE WORLDWIDE TECHNOLOGIES, LLC. AND EMBODIES CONFIDENTIAL INFORMATION, REGISTERED MARKS, TRADE SECRET INFORMATION, AND/OR KNOW HOW THAT IS PROPERTY OF PRESTIGE WORLDWIDE TECHNOLOGIES, LLC AND SHALL NOT BE DISCLOSED TO ANYONE OUTSIDE THIS PROJECT WITHOUT DIRECT CONSENT FROM PRESTIGE WWT.

TITLE: 8x3x3 Pressure Reducing/Sustaining Station w/ Relief

PROJECT: West Point Phase IV-A

DRAWN BY: JD
DATE: 5/13/2025
SCALE AT AO: 1:40

CHECKED BY: MW
DATE: 5/13/2025
REVISION: Original

DRAWING NO: 1



204 E. 14TH ST.
MT. PLEASANT, TX 75455
MARTY@PRESTIGEWWT.COM
P: 800-283-9432
WWW.PRESTIGEWWT.COM



Missoula Water Resources Regional Office
PO Box 5004
2705 Spurgin Road, Bldg. C
Missoula, MT 59806-5004
(406) 721-4284

10/30/2025

Circle H Ranch Investments LLC
c/o Mark Bretz
4800 Grant Creek Rd
Missoula, MT 59808

Subject: Complete Preapplication Form for Change Application No. 76M 30170836

Dear Applicant,

The Missoula Regional Office of the Department of Natural Resources and Conservation (DNRC or Department) received your Preapplication Meeting Form and preapplication meeting fee on October 23, 2025 and the Department deemed the submitted Preapplication Meeting Form to be successfully completed per ARM 36.12.1302 on October 30, 2025.

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 October 30, 2025.

Please let me know if you have any questions.



Best,



Alex Dagleish
Water Resource Specialist
Missoula Regional Office
(406)-542-5886
Alexander.dagleish@mt.gov

CC:

WGM Group, Inc.
c/o Patrick Doyle
1111 E Broadway St.
Missoula, MT 59802



From: [Dagleish, Alex](#)
To: [Patrick Doyle](#)
Subject: RE: Circle H Change Application 76M 30170836
Date: Wednesday, October 29, 2025 3:00:00 PM
Attachments: [image001.png](#)
[image003.png](#)

Thank you Patrick.



Alex Dagleish | Water Conservation Specialist II
Water Resources Division, Missoula Regional Office
Montana Department of Natural Resources and Conservation
2705 Spurgin Road, Bldg C
DESK: 406-542-5886 **EMAIL:** alexander.dagleish@mt.gov
[Website](#) | [Facebook](#) | [X \(Twitter\)](#) | [Instagram](#)
How did we do? Let us know here: [Feedback Survey](#)

From: Patrick Doyle <pdoyle@wgmgroup.com>
Sent: Wednesday, October 29, 2025 2:59 PM
To: Dagleish, Alex <Alexander.Dagleish@mt.gov>
Subject: [EXTERNAL] Circle H Change Application 76M 30170836

Hello Alex,

As per our phone conversation, the Follow Up to Question 77 should have a reduced Lawn and Garden volume of 41.57AF. The listed volume of 43.24AF is incorrect.

Thank you for your attention to this,

Patrick

Patrick Doyle
Water Rights Technician & GIS Coordinator

M: [406-665-5727](tel:406-665-5727) O: [406-728-4611](tel:406-728-4611)
1111 East Broadway
Missoula, Montana 59802
www.wgmgroup.com [[wgmgroup.com](http://www.wgmgroup.com)]





**PREAPPLICATION MEETING
FORM: PART B
CHANGE**
§ 85-2-302(3)(b), MCA
Form No. 606P-B (Revised 02/2025)

For Department Use Only

Application # 30170836 Basin 76M
Form Received 10/23/25
Fee Rec'd \$ 500 of 1000 Check # 83435
Deposit Receipt # MSS2607386-61
Payor W6M Group
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)).

RECEIVED

OCT 23 2025

MONTANA D.N.R.C
MISSOULA REGIONAL OFFICE

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): _____
- 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.



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))."


Mark Bretz (Oct 22, 2025 11:50:19 MDT)

Oct 22, 2025

Applicant Signature

Date

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

10/30/2025
Date

Department Signature

Date








Form_606P-B - Signature Needed

Final Audit Report

2025-10-22

| | |
|-----------------|--|
| Created: | 2025-10-22 |
| By: | Lara Andre (landre@wgmgroup.com) |
| Status: | Signed |
| Transaction ID: | CBJCHBCAABAAVjR6DB3JoJbont9oNU3fEH5Bf6LEQ3EH |

"Form_606P-B - Signature Needed" History

-  Document created by Lara Andre (landre@wgmgroup.com)
2025-10-22 - 4:51:30 PM GMT
-  Document emailed to Mark Bretz (mbretz@bretzrv.com) for signature
2025-10-22 - 4:52:59 PM GMT
-  Email viewed by Mark Bretz (mbretz@bretzrv.com)
2025-10-22 - 5:49:27 PM GMT
-  Document e-signed by Mark Bretz (mbretz@bretzrv.com)
Signature Date: 2025-10-22 - 5:50:19 PM GMT - Time Source: server
-  Agreement completed.
2025-10-22 - 5:50:19 PM GMT

MEMORANDUM

DATE: October 22, 2025

TO: Alex Dalgleish, Benjamin Thomas, Jim Nave, Kim Bolhuis
Montana Department of Natural Resources and Conservation

FROM: Patrick Doyle, Water Right Technician, WGM Group, Inc.

CC: Mark Bretz, Applicant
Kyle Mace, Water Rights Specialist III, WGM Group, Inc.

RE: Change Application 76M 30170836 Preapplication Meeting Follow Up and Amended Responses

FOLLOW UP RESPONSES

Following are the responses from Circle H Investments LLC to the items marked for follow up on the Pre-Application Meeting Form for Permit 76M 30013295 per the meeting held on April 29, 2025.

PRE-APPLICATION Q 77.

Yes, the applicant proposes to decrease the Lawn and Garden acreage from 29.6 ac to 24.6 ac, which will reduce the L&G volume from 50 AF to 43.24 AF. The remaining volume will be transferred to the multiple-domestic purpose to increase the number of houses from 113 to 162. The new houses will be located in the West Pointe subdivision.

According to the Water Design Report submitted to the DEQ, water use measurements from the current build-out estimate an average use of 504 gpd/household which includes both the domestic and lawn and garden purposes. Domestic volume by itself was estimated to be 0.39 AF/house in the DEQ submittal. Under the proposed change, 162 houses will relate to a diverted volume of 63.18 AF (at 0.39 AF per). The subdivision approval and associated water use estimates can be found in **Attachment 1**.

AMENDED RESPONSES

Following are the amended responses from Circle H Investments LLC for questions listed in Form 606P-B.

PRE-APPLICATION Q 9.

A revised map is attached showing the proposed use.

PRE-APPLICATION Q 13.a.ii.

Table 1: Proposed Place of Use

| Acres | ¼ | ¼ | ¼ | Section | Township | Range | County |
|-------|-------|---|----|---------|----------|-------|----------|
| 9.9 | | | | 25 | 14N | 20W | Missoula |
| 14.7 | | | E2 | 26 | 14N | 20W | Missoula |
| 24.6 | Total | | | | | | |

PRE-APPLICATION Q 14

Yes, the project involves reassigning the volume for each purpose. The permitted purposes are not technically being changed.

PRE-APPLICATION Q 101

Yes, the project involves changing/reassigning the permitted volume for each purpose.

PRE-APPLICATION Q 102

Table 2: Changed Purpose Information

| Purpose | New or Unchanged | Period of Diversion | Period of Use | Flow Rate | Volume |
|-------------------|-------------------------------------|---------------------|----------------|-----------|----------------|
| Multiple Domestic | New volume and number of households | 01/01 to 12/31 | 01/01 to 12/31 | 180 GPM | 63.18AF |
| Lawn and Garden | New volume and acres | 04/15 to 10/15 | 04/15 to 10/15 | | 41.57AF |

PRE-APPLICATION Q 104.a

No

PRE-APPLICATION Q 104.a.ii

Consumptive use is estimated to be 1.13AF/acre for the Lawn & Garden purpose. This is based on the historical consumptive use for the Missoula Airport weather station at 19.45 inches with the County Management Factor of 69.5%.

Table 3: Lawn and Garden Consumptive Use Estimate

| Diverted Volume per acre | Acres | Total Diverted Volume | Consumptive Use Volume (1.13AF/ac) |
|--------------------------|-------|-----------------------|------------------------------------|
| 1.69AF | 24.6 | 41.57AF | 27.8AF |

PRE-APPLICATION Q 106.a

There will be 162 households served under the multiple domestic purpose. 34 of the 162 households are located in the Circle H subdivision, which is unchanged from the original permit. 128 of the 162 households will be located in the West Pointe subdivision, 49 more households than was originally permitted.

PRE-APPLICATION Q 106.b

No

PRE-APPLICATION Q 106.b.i

Households were estimated to use a diverted volume of 0.39AF/house. This estimation is based on the Water Design Report for the subdivision that was submitted to the DEQ. Consumptive use was estimated as 10% for each house in the Circle H subdivision due to the use of individual drain fields, and 25% per house in the West Pointe subdivision due to the use of City of Missoula sewer (see Table 4 below)

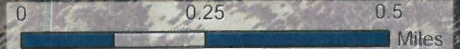
PRE-APPLICATION Q 106.c

The 34 households in the Circle H subdivision are connected to individual drain fields. The 128 houses in the West Pointe subdivision will all be hooked up to the City of Missoula sewer.

Table 4: Domestic Consumptive Use Estimate

| Subdivision | Diverted Volume per home (AF) | Number of homes | Total Diverted Volume (AF) | Total Consumptive Use (AF) |
|-------------|-------------------------------|-----------------|----------------------------|----------------------------|
| Circle H | 0.39 | 34 | 13.26 | 1.326 |
| West Pointe | 0.39 | 128 | 49.92 | 12.48 |
| | | | 63.18 | 13.806 |

**CIRCLE H RANCH
INVESTMENTS LLC**
9. PROPOSED USE MAP

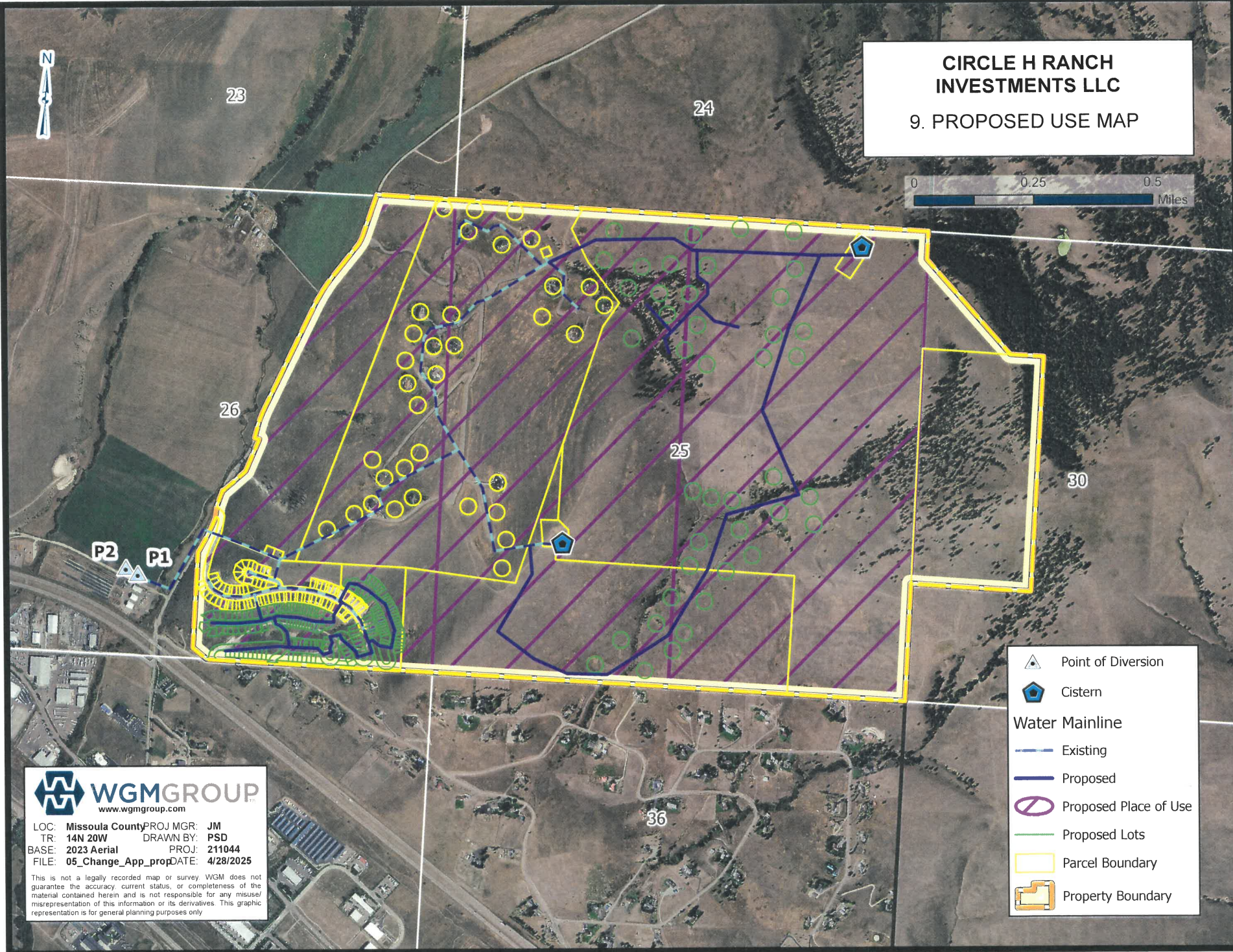


- Point of Diversion
- Cistern
- Water Mainline**
 - Existing
 - Proposed
- Proposed Place of Use
- Proposed Lots
- Parcel Boundary
- Property Boundary



LOC: Missoula County PROJ MGR: JM
 TR: 14N 20W DRAWN BY: PSD
 BASE: 2023 Aerial PROJ: 211044
 FILE: 05_Change_App_prop DATE: 4/28/2025

This is not a legally recorded map or survey. WGM does not guarantee the accuracy, current status, or completeness of the material contained herein and is not responsible for any misuse/misrepresentation of this information or its derivatives. This graphic representation is for general planning purposes only.





Montana Department
of Environmental Quality

Dustin Hoover PE
WGM Group
1111 East Broadway
Missoula MT 59808

ATTACHMENT 1: DEQ SUBDIVISION APPROVAL AND WATER USE ESTIMATE

October 17, 2025

RE: West Pointe Phase IV-A
Missoula County
E.Q. #25-2252

Dear Mr Hoover:

The plans and supplemental information relating to the water supply, sewage, solid waste disposal, and storm drainage (if any) for the above referenced division of land have been reviewed as required by ARM Title 17 Chapter 36(101-805) and have been found to be in compliance with those rules.

Two copies of the Certificate of Subdivision Plat Approval are enclosed. The original is to be filed at the office of the county clerk and recorder. The duplicate is for your personal records.

Pursuant to MAR Notice No. 17-447, ARM 17.36.103 has been amended to no longer require a letter from the Montana Department of Natural Resources and Conservation (DNRC) or for projects within the reservation boundaries, by the appropriate water management board, regarding legal water availability (i.e. water rights) prior to certificate of subdivision approval. Thus, this certificate of subdivision approval does not consider legal water availability, but only the physical presence and properties of water (i.e. quantity and quality). For water rights determinations, contact DNRC or the appropriate management board as the regulatory authority of legal water availability.

Development of the approved subdivision may require coverage under the Department's General Permit for Storm Water Discharges Associated with Construction Activity, if your development has construction-related disturbance of one or more acre. If so, please contact the Storm Water Program at (406) 444-3080 for more information or visit the Department's storm water construction website at <http://www.deq.state.mt.us/wqinfo/MPDES/StormwaterConstruction.asp>. Failure to obtain this permit (if required) prior to development can result in significant penalties.

In addition, your project may be subject to Federal regulations relating to Class V injection wells. Please contact the United States Environmental Protection Agency regarding specific rules that may apply.

Your copy is to inform you of the conditions of the approval. Please note that you have specific responsibilities according to the plat approval statement primarily with regard to informing any new owner as to any conditions that have been imposed.

If you have any questions, please contact this office.

Sincerely,


Rachel Clark PE Bureau Chief

Engineering Bureau
Water Quality Division
Department of Environmental Quality

RC/LE

cc: County Sanitarian
County Planning Board (e-mail)
Owner (e-mail)

STATE OF MONTANA
DEPARTMENT OF ENVIRONMENTAL QUALITY
CERTIFICATE OF SUBDIVISION PLAT APPROVAL
(Section 76-4-101 et seq.)

TO: County Clerk and Recorder
Missoula County
Missoula, Montana

E.Q. #25-2252; CS#0698456

THIS IS TO CERTIFY THAT the plans and supplemental information relating to the subdivision known as **West Pointe Phase IV-A**

A subdivision located in the Southwest $\frac{1}{4}$ of Section 26 of Township 14 North, Range 20 West, P.M.M., Missoula County, Montana as found in the records of the Missoula County Clerk & Recorder, consisting of 40.03 acres,

consisting of 23 lots have been reviewed by personnel of the Water Quality Division, and,

THAT the remaining Lot 2A is excluded from review under Title 76, chapter 4, part 1, MCA pursuant to Section 17.36.6005(2)(a) ARM, a parcel that has no facilities for water supply, wastewater disposal, storm drainage, or solid waste disposal, if no facilities will be constructed on the parcel, and,

THAT the remaining Lot 2B is greater than 20 acres in size and is excluded from review pursuant to Section 76-4-103 MCA, and,

THAT the documents and data required by ARM Chapter 17 Section 36 have been submitted and found to be in compliance therewith, and,

THAT the approval of the Plat is made with the understanding that the following conditions shall be met:

THAT the lot sizes as indicated on the Plat to be filed with the county clerk and recorder will not be further altered without approval, and,

THAT Lots 204 through 225 shall be used for one living unit each, and,

That Common Area 1 shall be used for stormwater drainage facilities, and,

THAT the public water supply will be provided through extensions and connections to the Circle H Water Supply System #MT0004446 and,

THAT the public sewage treatment systems will be provided through extensions and connections to the City of Missoula Sewer System and,

THAT the extensions to the existing public water and sewer systems were reviewed and approved under EQ#25-2576, dated October 16, 2025, and,

THAT the maximum irrigation rate for the Common Area for this phase shall be 3,651 gallons per day, and,

THAT the stormwater design requires Ponds 1 and 2 to be constructed as extended detention ponds and that Pond 1 shall have a forebay minimum volume of 1,790 cubic feet, and a minimum pond storage volume of 17,992 cubic feet; and Pond 2 shall have a forebay minimum volume of 769 cubic feet, and a minimum pond storage volume of 10,632 cubic feet; and Pond 5 shall be a standard detention pond with a minimum storage volume of 6,234 cubic feet, with all ponds to be constructed and located in accordance with the lot layout approved plans, and,

THAT the stormwater conveyance and detention structures were reviewed and approved under EQ#25-2576, dated October 16, 2025, and shall be constructed in accordance with the approved plans and specifications, and,

THAT the operation and maintenance of the stormwater facilities shall be the responsibility of the West Pointe Owners' Association, and,

THAT water supply systems, sewage collection systems and storm drainage systems will be located as shown on the approved plans and lot layout, and,

THAT the developer and/or owner of record shall provide each purchaser of property with a copy of the Plat, approved location of water supply, sewage treatment system and storm drainage structures as shown on the attached lot layout, and a copy of this document, and,

THAT instruments of transfer for this property shall contain reference to these conditions, and,

THAT departure from any criteria set forth in the approved plans and specifications and Title 17, Chapter 36, Sub-Chapters 1, 3, and 6 ARM when erecting a structure and appurtenant facilities in said subdivision without Department approval, is grounds for injunction by the Department of Environmental Quality.

Pursuant to Section 76-4-122 (2)(a), MCA, a person must obtain the approval of both the State under Title 76, Chapter 4, MCA, and local board of health under section 50-2-116(1)(i), before filing a subdivision plat with the county clerk and recorder. This certificate of subdivision approval considered the physical presence and properties of water but does not constitute an entitlement to or a representation regarding water rights or the legal availability of water, which is regulated by the Montana Department of Natural Resources and Conservation or for projects within the reservation boundaries, by the appropriate water management board.

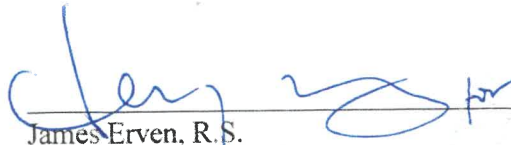
Page 3 of 3
West Pointe Phase IV-A
Missoula County, Montana
E.Q. # 25-2252; CS#0698456

YOU ARE REQUESTED to record this certificate by attaching it to the Plat filed in your office as required by law.

DATED this 16th day of October, 2025.

Sonja Nowakowski
DIRECTOR

By:



James Erven, R.S.
Subdivision Section Supervisor
Engineering Bureau
Water Quality Division
Department of Environmental Quality

Owner's Name: Circle H Investments, LLC

From: [Nave, Jim](#)
To: [Patrick Doyle](#)
Cc: [Dalgleish, Alex](#)
Subject: Circle H Ranch LLC Change Application Follow Up
Date: Friday, June 27, 2025 11:46:00 AM
Attachments: [image001.png](#)

Hello Patrick,

This email is to provide the information requested from DNRC that is listed in the follow up section of the pre-application meeting form for Circle H Ranch, LLC's change application 76M 30170836. The follow up question asked of the Department is whether the applicant can add more homes than what was originally permitted on an unperfect permit through a change application. The response below is specific to the proposed change in water use for permit 76M 30013295.

In this particular instance, the applicant is entitled to the full volume of each purpose originally permitted. For permit 76M 30013295, the purpose volumes are 64 acre-feet for 113 residential connections and 50 acre-feet for irrigation of 29.6 acres of lawn and garden. For this particular permit, the Department did not consider depletions to surface water in its original analysis, and mitigation water was not required. This provides the applicant some leeway to potentially use the 64 acre-feet for multiple domestic to supply water to more than the permitted 113 residential connections. If the proposal is to use some of volume permitted for lawn and garden irrigation for residential connections, the Department may further consider this change in purpose volume in its adverse effect analysis. Also, some justification for the new number of residential connections would be required, and how the permitted purpose volume is sufficient to supply domestic water to the new number of homes.

Additional information that the Department will need to complete our evaluation will include whether single use rate (volume) be used for each individual residential dwelling, or is there a different volume proposed for the different types of dwellings in the development. For example, will some homes be allocated 0.28 acre-feet per dwelling and others a higher amount? Also, did DEQ approve a specific volume per residence in the original subdivision approval, and will that volume be different if the change authorization is issued? If it is different, will there need to be a revised Certificate of Subdivision Approval. We would want to make sure that what we would be authorizing is the same as what DEQ authorized.

Let me know if you have any questions.

Sincerely,
Jim Nave



Jim Nave Regional Manager
Water Resource Division Missoula Regional Office
Montana Department of Natural Resources and Conservation
2705 Spurgin Road, Bldg C
DESK: 406-542-5889 **EMAIL:** jnave@mt.gov
Website | **Facebook** | **X (Twitter)** | **Instagram**
How did we do? Let us know here: [Feedback Survey](#)

From: [Dalgleish, Alex](#)
To: [Patrick Doyle](#)
Cc: [Kyle Mace](#)
Subject: RE: Circle H Form 633 Question
Date: Tuesday, June 3, 2025 8:11:00 AM
Attachments: [image001.png](#)
[image002.png](#)

Thank you Patrick.



Alex Dalgleish | Water Conservation Specialist II
Water Resources Division, Missoula Regional Office
Montana Department of Natural Resources and Conservation
2705 Spurgin Road, Bldg C
DESK: 406-542-5886 **EMAIL:** alexander.dalgleish@mt.gov
[Website](#) | [Facebook](#) | [X \(Twitter\)](#) | [Instagram](#)
How did we do? Let us know here: [Feedback Survey](#)

From: Patrick Doyle <pdoyle@wgmgroup.com>
Sent: Monday, June 2, 2025 10:50 AM
To: Dalgleish, Alex <Alexander.Dalgleish@mt.gov>
Cc: Kyle Mace <KMace@wgmgroup.com>
Subject: [EXTERNAL] RE: Circle H Form 633 Question

Good morning, Alex,

Water for the test was discharged through a 100ft hose in the northeast direction from the production well. I attached an updated map with the information and an arrow. Please let me know if you need anything else.

Patrick

Patrick Doyle
Water Rights Technician & GIS Coordinator

M: [406-665-5727](tel:406-665-5727) O: [406-728-4611](tel:406-728-4611)
1111 East Broadway
Missoula, Montana 59802
www.wgmgroup.com [[wgmgroup.com](http://www.wgmgroup.com)]



From: Dalgleish, Alex <Alexander.Dalgleish@mt.gov>
Sent: Monday, June 2, 2025 8:52 AM

To: Patrick Doyle <pdoyle@wgmgroup.com>

Cc: Kyle Mace <KMace@wgmgroup.com>

Subject: Circle H Form 633 Question

[EXTERNAL EMAIL] Only open attachments or click on links from senders you trust.

Good Morning Patrick,

It has come to my attention that Form 633 for Circle H is missing information regarding where water was discharged during the pumping test. Can you please clarify the distance and direction of the discharge point relative to the production well?

Thank you,



Alex Dagleish | Water Conservation Specialist II
Water Resources Division, Missoula Regional Office
Montana Department of Natural Resources and Conservation
2705 Spurgin Road, Bldg C

DESK: 406-542-5886 **EMAIL:** alexander.dagleish@mt.gov

[Website](#) | [Facebook \[facebook.com\]](#) | [X \(Twitter \[twitter.com\]\)](#) | [Instagram \[instagram.com\]](#)

How did we do? Let us know here: [Feedback Survey \[forms.office.com\]](#)



CIRCLE H RANCH INVESTMENTS LLC
 ATA.2.a WELLS IN AQUIFER TESTING

NWSW

NESW

Discharge through a 100ft hose to the northeast of the production well

214758
 214761
 336214
 209094

SWSW

SESW

SWSE






26

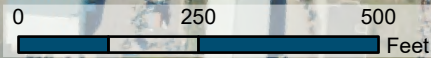

14N 20W

NENW

NWNE

Well: GWIC ID

-  Observation
-  Production
-  Water Line
-  Parcel Boundary
-  Subdivision Boundary

WGM GROUP
 www.wgmgroup.com

LOC: Missoula County PROJ MGR: JM
 TR: 14N 20W DRAWN BY: PSD
 BASE: 2023 Aerial PROJ: 211044
 FILE: 03_Permit_ATA DATE: 5/19/2025

This is not a legally recorded map or survey. WGM does not guarantee the accuracy, current status, or completeness of the material contained herein and is not responsible for any misuse/misrepresentation of this information or its derivatives. This graphic representation is for general planning purposes only.

From: Brickl, Melissa

Sent: Monday, May 5, 2025 10:07 AM

To: Nave, Jim <jnave@mt.gov>; Kyle Mace <KMace@wgmgroup.com>

Subject: RE: Circle H pre app question

Kyle and Jim,

The test well is not Well 4 (W4). The purpose of testing W4 is to derive an efficiency value from the drawdown/pumping rate data to use in forward modeling to assess the adequacy of diversion criteria. If we use the test well, it doesn't reflect the efficiency of W4.

The 8-hr test needs to be completed on W4.



Melissa Brickl | Groundwater Section Supervisor
Water Sciences Bureau, Groundwater Studies, Water Resources Division
Montana Department of Natural Resources and Conservation
1424 9th Ave, Helena, MT 59601
MOBILE: 406-437-4025 **EMAIL:** melissa_brickl@mt.gov
[Website](#) | [Facebook](#) | [X \(Twitter\)](#) | [Instagram](#)
How did we do? Let us know here: [Feedback Survey](#)

From: Nave, Jim <jnave@mt.gov>

Sent: Friday, May 2, 2025 1:23 PM

To: Kyle Mace <KMace@wgmgroup.com>

Cc: Brickl, Melissa <Melissa.Brickl@mt.gov>

Subject: RE: Circle H pre app question

Hello Kyle,

I am pretty certain that it needs to be the actual well that will be used to divert water under the permit if it is granted. If Circle H Ranch LLC can use that well instead of drilling a new one, that might work. I will check with Melissa, however she is out of office today, so I will get back to you next week.

Sincerely,

Jim



Jim Nave Regional Manager
Water Resource Division Missoula Regional Office
Montana Department of Natural Resources and Conservation
2705 Spurgin Road, Bldg C
DESK: 406-542-5889 **EMAIL:** jnave@mt.gov
[Website](#) | [Facebook](#) | [X \(Twitter\)](#) | [Instagram](#)
How did we do? Let us know here: [Feedback Survey](#)

From: Kyle Mace <KMace@wmggroup.com>
Sent: Thursday, May 1, 2025 5:18 PM
To: Nave, Jim <jnave@mt.gov>
Cc: Patrick Doyle <pdoyle@wmggroup.com>; Emily Clark <eclark@wmggroup.com>
Subject: [EXTERNAL] RE: Circle H pre app question

Jim,
I followed up with Emily since she did the pump test and completed the 633 for this.

There is a test well that is very close to the location that the applicant would drill a fourth supply well in the future. This test well was pump tested for 12 hours on 12/5/2003 and was described in the 600 Criteria Addendum narrative of the original water right application. The test well was pumped at 110 gpm with 8 ft of total drawdown (SWL ~74 ft from TOC). I don't think we have access to the data for it though.

Would this qualify as sufficient to include the undrilled well as a POD on the Permit application?

Thanks,

Kyle Mace

Water Resource Specialist • Vice President of Water & Environment • WGM Group

From: Nave, Jim <jnave@mt.gov>
Sent: Thursday, May 1, 2025 4:44 PM
To: Kyle Mace <KMace@wmggroup.com>
Subject: RE: Circle H pre app question

[EXTERNAL EMAIL] Only open attachments or click on links from senders you trust.

Hello Kyle,

Per 36.12.121 minimum testing procedures are as follows:

(3)(c) The proposed pumping rate may be demonstrated by testing multiple wells as long as (e) is met by one well and the remaining flow rate is demonstrated by eight-hour drawdown and yield tests on additional production wells under (e)(ii) and (e)(iii).

The 110 gpm 72-hour test they submitted meets the requirements of 36.12.121 (3)(e) BUT they still need to show they can produce the remaining flow rate through an 8-hr test on undrilled Well 4. So hence, the test rate would be 110 gpm to total 220 gpm (requested).

Circle H Ranch LLC could always complete a new 72-hour test at 220 gpm, if they did this they would meet the requirements of 36.12.121(3)(b) "The average pumping rate must be equal to or greater than the proposed flow rate if the application is for one well or if the total proposed rate for multiple wells can be obtained from a single well." In this scenario they would still need to do an 8-hr test on undrilled Well 4 per ARM.36.12.121(3)(e)(i) and the test would have to happen within 138 days of the date of the pre-application meeting so the Department can review the 8-hour test data to determine if it is adequate or if a variance is required before the 180-day deadline to return the second pre-application form. If this occurred, then they could file for both wells on the permit. It should be noted that with this application, any variance request needs to be submitted within 138 days of the date of the pre-app meeting, which is September 14, 2025.

Sincerely,
Jim

Jim Nave Regional Manager



Water Resource Division Missoula Regional Office
Montana Department of Natural Resources and Conservation
2705 Spurgin Road, Bldg C

DESK: 406-542-5889 EMAIL: jnave@mt.gov

Website | Facebook [\[facebook.com\]](https://facebook.com) | X (Twitter [\[twitter.com\]](https://twitter.com)) | Instagram [\[instagram.com\]](https://instagram.com)

How did we do? Let us know here: [Feedback Survey \[forms.office.com\]](https://forms.office.com)

From: Kyle Mace <KMace@wmggroup.com>

Sent: Wednesday, April 30, 2025 11:11 AM

To: Nave, Jim <jnave@mt.gov>

Subject: [EXTERNAL] Circle H pre app question

Jim,

When you get a chance, will you please briefly outline the reasons why we can't include the undrilled 4th well on a Permit or Change App? We noted Melissa's concern about the pump test, but I recall that we talked about another reason. Was it only allowed for Municipal applications? Just want to be clear so that we can explain it to the applicant. Thanks again for your time yesterday.

Kyle Mace

Water Resource Specialist
Vice President of Water & Environment

M: [406-431-1750](tel:406-431-1750) O: [406-728-4611](tel:406-728-4611)

1111 East Broadway

Missoula, Montana 59802

www.wmggroup.com [\[wmggroup.com\]](https://wmggroup.com)





**PREAPPLICATION MEETING FORM:
PART A
CHANGE**
§ 85-2-302(3)(b)
Form No. 606P-A (Revised 02/2025)

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)).

For Department Use Only

Application # 30170836 Basin 76M
 Meeting Date 4/29/2025 Time 1:45 pm
 Variance Request Deadline _____
 Completed Form Deadline 10/26/2025

RECEIVED
By Jim Nave at 11:01 am, May 15, 2025

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 Circle H Ranch Investments LLC c/o Mark Bretz
 Mailing Address 4800 Grant Creek Rd City Missoula State MT Zip 59808
 Phone Numbers: Home _____ Work _____ Cell _____
 Email Address mbretz@bretzrv.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 Patrick Doyle
 Mailing Address 1111 E Broadway St City Missoula State MT Zip 59802
 Phone Numbers: Home _____ Work _____ Cell _____
 Email Address pdoyle@wgmggroup.com

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 |
|-----------------|--------------|----------------------------|
| Alex Dalglish | DNRC | Water Resource Specialist |
| Benjamin Thomas | DNRC | Water Resources Specialist |
| Jim Nave | DNRC | Regional Manager |
| Kim Bolhuis | DNRC | Groundwater Hydrologist |
| Kyle Mace | WGM Group | Water Rights Technician |
| Patrick Doyle | WGM Group | Water Resource Specialist |

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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.

| <u>Questions, Narrative Responses, and Tables</u> | | | | | | | <u>Check-boxes</u> | <u>Follow-Up</u> |
|---|------------------------------|-------------------------------------|--------------------------|------------------------------|-------------------------------------|--------------------------|--|----------------------------|
| 1. Do you elect to have DNRC conduct technical analyses? | | | | | | | <input checked="" type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| 2. How many change applications will be needed for this project? Please refer to ARM 36.12.1305 for more information. 1 | | | | | | | | <input type="checkbox"/> F |
| 3. Which water right(s) are proposed for change? | | | | | | | <input type="checkbox"/> A | <input type="checkbox"/> F |
| Water Right No. | Current Authorized Flow Rate | | | Flow Rate Needed for Project | | | Means of Diversion | |
| | Flow | GPM | CFS | Flow | GPM | CFS | | |
| 76M 30013295 | 180 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 180 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 2 Wells | |
| | | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> | | |
| | | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> | | |
| | | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> | | |
| | | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> | | |
| 4. Is the proposed change on a non-filed water project? | | | | | | | <input type="checkbox"/> Y <input checked="" type="checkbox"/> N | <input type="checkbox"/> 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. | | | | | | | <input type="checkbox"/> S | <input type="checkbox"/> F |



| | | |
|---|----------------------------|----------------------------|
| 5. Is the source surface water or groundwater? <u>Groundwater</u> | | |
| 6. What is the source name? <u>Groundwater</u> | | |
| 7. Identify the water right elements proposed for change, with a checkmark, for each water right proposed for change. | <input type="checkbox"/> A | <input type="checkbox"/> F |

| Water Right # | | | | | | |
|--------------------|-------------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Point of diversion | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Place of use | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Purpose of use | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Place of storage | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

| | | |
|---|--|----------------------------|
| 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. | <input checked="" type="checkbox"/> S | <input type="checkbox"/> 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. | <input checked="" type="checkbox"/> S | <input type="checkbox"/> F |
| 10. Does the change involve a change in point of diversion? | <input type="checkbox"/> Y <input checked="" type="checkbox"/> N | <input type="checkbox"/> F |
| a. If yes, describe the location for all <i>new</i> and <i>unchanged</i> points of diversion to the nearest 10 acres. Label POD ID with the POD ID assigned for the proposed use map (question 9). | <input type="checkbox"/> A | <input type="checkbox"/> F |

| POD ID | 1/4 | 1/4 | 1/4 | Sec | Twp | Rge | County | Lot | Block | Tract | Subdivision | Gov. Lot | New or Unchanged |
|--------|-----|-----|-----|-----|-----|-----|--------|-----|-------|-------|-------------|----------|------------------|
| | | | | | | | | | | | | | |
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| 11. Describe the location of all historical PODs you propose to <i>retire</i> . 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: <u> n/a </u> | <input type="checkbox"/> A | <input type="checkbox"/> F |
|--|----------------------------|----------------------------|

| POD ID | ¼ | ¼ | ¼ | Sec. | Twp. | Rge | County | Lot | Block | Tract | Subdivision | Gov. Lot |
|--------|---|---|---|------|------|-----|--------|-----|-------|-------|-------------|----------|
| | | | | | | | | | | | | |
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|---|--|----------------------------|
| 12. What is the means of diversion for all <i>new</i> 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. n/a _____ _____ | | <input type="checkbox"/> F |
|---|--|----------------------------|

| | | |
|--|--|----------------------------|
| 13. Does the change involve a change in place of use? | <input checked="" type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| a. If yes, | | |
| i. What are the geocodes of the proposed place of use? | <input type="checkbox"/> A | <input type="checkbox"/> F |

| | |
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|---|----------------------------|----------------------------|
| 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. | <input type="checkbox"/> A | <input type="checkbox"/> F |
|---|----------------------------|----------------------------|

| Acres | Gov't Lot | ¼ | ¼ | ¼ | Sec | Twp | Rge | County |
|-------|--------------|---|---|----|-----|-----|-----|----------|
| 9.9 | | | | | 25 | 14N | 20W | Missoula |
| 19.7 | | | | E2 | 26 | 14N | 20W | Missoula |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| 29.6 | Total | | | | | | | |



| | | |
|--|--|----------------------------|
| iii. Do other water rights supplement or overlap the historical and/or proposed place of use? | <input type="checkbox"/> Y <input checked="" type="checkbox"/> N | <input type="checkbox"/> 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? _____ _____ _____ | <input type="checkbox"/> A | <input type="checkbox"/> 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"). | <input type="checkbox"/> A | <input type="checkbox"/> 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. | <input type="checkbox"/> Y <input checked="" type="checkbox"/> N | <input type="checkbox"/> F |
| 15. Are conveyance ditches used for historical or proposed uses? If yes, answer ditch-specific questions 109 to 115. | <input type="checkbox"/> Y <input checked="" type="checkbox"/> N | <input type="checkbox"/> 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. | <input type="checkbox"/> Y <input checked="" type="checkbox"/> N | <input type="checkbox"/> F |
| 17. Is the proposed use temporary? If yes, answer questions 94 to 100 for temporary changes. | <input type="checkbox"/> Y <input checked="" type="checkbox"/> N | <input type="checkbox"/> F |
| 18. Are you filing on behalf of another entity? If yes, describe. _____ _____ | <input type="checkbox"/> Y <input checked="" type="checkbox"/> N | <input type="checkbox"/> F |



| | | |
|---|--|---------------------------------------|
| 19. Do you own the entire historical place of use for all water rights proposed for change? | <input type="checkbox"/> Y <input checked="" type="checkbox"/> N | <input type="checkbox"/> 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? | <input checked="" type="checkbox"/> Y <input type="checkbox"/> N | <input checked="" type="checkbox"/> F |
| i. If no, | | |
| 1. List the water rights for which you do not own the entire historical place of use. _____ | <input type="checkbox"/> A | <input type="checkbox"/> F |
| 2. Are the water rights listed in question 19.a.i.1 severed from the historical POU? | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| a. If yes, do you own the entirety of the severed water rights proposed for change? | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> 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? | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> 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. _____ _____ _____ | <input type="checkbox"/> A | <input type="checkbox"/> F |
| 20. Are you proposing to add a point of diversion or place of use on State of Montana Trust Land? | <input type="checkbox"/> Y <input checked="" type="checkbox"/> N | <input type="checkbox"/> 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. | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |



| | | |
|---|--|----------------------------|
| 21. Will your system be designed to discharge water from the project? | <input type="checkbox"/> Y <input checked="" type="checkbox"/> N | <input type="checkbox"/> F |
| <p>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. West Pointe homes connected to city sewer, Circle H homes on individual drain fields</p> <p>_____</p> <p>_____</p> <p>_____</p> | <input type="checkbox"/> A | <input type="checkbox"/> 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. | <input type="checkbox"/> Y <input checked="" type="checkbox"/> N | <input type="checkbox"/> 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. | <input type="checkbox"/> Y <input checked="" type="checkbox"/> N | <input type="checkbox"/> 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. | <input type="checkbox"/> Y <input checked="" type="checkbox"/> N | <input type="checkbox"/> 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. | <input type="checkbox"/> Y <input checked="" type="checkbox"/> N | <input type="checkbox"/> 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. | <input type="checkbox"/> Y <input checked="" type="checkbox"/> N | <input type="checkbox"/> F |
| <p>a. For what purposes will the marketed water be used?</p> <p>_____</p> <p>_____</p> <p>_____</p> | <input type="checkbox"/> A | <input type="checkbox"/> 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. | <input type="checkbox"/> Y <input checked="" type="checkbox"/> N | <input type="checkbox"/> 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. | <input type="checkbox"/> Y <input checked="" type="checkbox"/> N | <input type="checkbox"/> F |



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.

| <u>Questions, Narrative Responses, and Tables</u> | | | | <u>Check-boxes</u> | <u>Follow-Up</u> |
|---|--------------------------------------|--------------------------------|--|----------------------------|----------------------------|
| 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. Provisional Permit <hr/> <hr/> | | | | <input type="checkbox"/> A | <input type="checkbox"/> 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. | | | | <input type="checkbox"/> A | <input type="checkbox"/> F |
| Statement of Claim Number | Previous Change Authorization Number | Project Completion Notice Date | Previous Historical Use Analysis Quality | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |



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.

| | |
|----------------------------|----------------------------|
| <input type="checkbox"/> A | <input type="checkbox"/> F |
|----------------------------|----------------------------|

| Provisional Permit Number | Project Completion Notice Date | Previous Change Authorization Number | Previous Change Project Completion Notice Date | Previous Historical Use Analysis Quality |
|---------------------------|--------------------------------|--------------------------------------|--|--|
| 76M 30013295 | 12/31/2042 | None | n/a | n/a |
| | | | | |
| | | | | |

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.

| | |
|----------------------------|----------------------------|
| <input type="checkbox"/> A | <input type="checkbox"/> 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? | <input type="checkbox"/> Y <input checked="" type="checkbox"/> N | <input type="checkbox"/> F |
| a. If yes, explain. _____ _____ _____ _____ _____ | <input type="checkbox"/> A | <input type="checkbox"/> 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. | <input type="checkbox"/> A | <input type="checkbox"/> F |

| Water Right No. Proposed for Change | Historical Use Analysis Options |
|-------------------------------------|---|
| 76M 30013295 | <input type="checkbox"/> New Historical Use Analysis. Date for which historical use will be analyzed: _____ |
| | <input type="checkbox"/> Existing Historical Use Analysis. Change authorization number with existing Historical Use Analysis: _____ |
| | <input checked="" type="checkbox"/> Full Historical Use Analysis N/A. Water right number serving as historical use in lieu of analysis: <u>Unperfected permit- N/A</u> |



| | |
|--|--|
| | <input type="checkbox"/> New Historical Use Analysis. Date for which historical use will be analyzed: _____ |
| | <input type="checkbox"/> Existing Historical Use Analysis. Change authorization number with existing Historical Use Analysis: _____ |
| | <input type="checkbox"/> Full Historical Use Analysis N/A. Water right number serving as historical use in lieu of analysis: _____ |
| | <input type="checkbox"/> New Historical Use Analysis. Date for which historical use will be analyzed: _____ |
| | <input type="checkbox"/> Existing Historical Use Analysis. Change authorization number with existing Historical Use Analysis: _____ |
| | <input type="checkbox"/> 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? | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| a. If yes, | | |
| i. Is this firsthand knowledge? | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| ii. Who has this knowledge and what was their role? _____ | <input type="checkbox"/> A | <input type="checkbox"/> F |
| b. If no, where will the historical use data be derived? _____ _____ | <input type="checkbox"/> A | <input type="checkbox"/> 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? _____ | | <input type="checkbox"/> 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? | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| 38. Are you proposing to change all water rights associated with the historical place of use? | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> 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. | <input type="checkbox"/> A | <input type="checkbox"/> F |

| Water Right No. | Priority Date | Reason Not Included in Change |
|-----------------|---------------|-------------------------------|
| | | |
| | | |
| | | |
| | | |
| | | |



| | | |
|---|---|----------------------------|
| 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? | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> 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. _____ | <input type="checkbox"/> S | <input type="checkbox"/> F |
| b. Irrigation | | |
| i. Is the water right being changed a Statement of Claim? | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| 1. If yes, does the Water Resources Survey corroborate the acres irrigated listed on the abstract? | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> 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. | <input type="checkbox"/> S | <input type="checkbox"/> F |
| 2. If no, submit one or more aerial photographs that can corroborate the historical place of use, including the number of irrigated acres. | <input type="checkbox"/> S | <input type="checkbox"/> F |
| c. Lawn and garden | | |
| i. Submit aerial photographs that can corroborate the historical place of use, including the number of irrigated acres. | <input type="checkbox"/> S | <input type="checkbox"/> F |
| d. Stock | | |
| i. Submit aerial photographs, grazing records, or other records to corroborate the historical place of use. | <input type="checkbox"/> S | <input type="checkbox"/> F |
| ii. Did the stock drink direct from source or direct from ditch? | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| 1. If no, submit data sources that make clear the location of the stock watering infrastructure. | <input type="checkbox"/> S | <input type="checkbox"/> 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. | <input type="checkbox"/> S | <input type="checkbox"/> 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? |
|--------|-------|--------------------------|---|
| | | | <input type="checkbox"/> Y <input type="checkbox"/> N |
| | | | <input type="checkbox"/> Y <input type="checkbox"/> N |
| | | | <input type="checkbox"/> Y <input type="checkbox"/> N |
| | | | <input type="checkbox"/> Y <input type="checkbox"/> 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 | |
| | | | | | <input type="checkbox"/> | <input type="checkbox"/> | |
| | | | | | <input type="checkbox"/> | <input type="checkbox"/> | |
| | | | | | <input type="checkbox"/> | <input type="checkbox"/> | |
| | | | | | <input type="checkbox"/> | <input type="checkbox"/> | |
| | | | | | <input type="checkbox"/> | <input type="checkbox"/> | |



| 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). | | | | <input type="checkbox"/> A | <input type="checkbox"/> F | |
| POD ID | Estimated Capacity | | | Method | | |
| | <i>Cap.</i> | <i>GPM</i> | <i>CFS</i> | | <input type="checkbox"/> | <input type="checkbox"/> |
| | | <input type="checkbox"/> | <input type="checkbox"/> | | | |
| | | <input type="checkbox"/> | <input type="checkbox"/> | | | |
| | | <input type="checkbox"/> | <input type="checkbox"/> | | | |
| | | <input type="checkbox"/> | <input type="checkbox"/> | | | |
| | | <input type="checkbox"/> | <input type="checkbox"/> | | | |

| 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). | | | | <input type="checkbox"/> A | <input type="checkbox"/> F | |
| POD ID | Estimated Capacity | | | Method | | |
| | <i>Cap.</i> | <i>GPM</i> | <i>CFS</i> | | <input type="checkbox"/> | <input type="checkbox"/> |
| | | <input type="checkbox"/> | <input type="checkbox"/> | | | |
| | | <input type="checkbox"/> | <input type="checkbox"/> | | | |
| | | <input type="checkbox"/> | <input type="checkbox"/> | | | |
| | | <input type="checkbox"/> | <input type="checkbox"/> | | | |
| | | <input type="checkbox"/> | <input type="checkbox"/> | | | |



| | | |
|---|---|----------------------------|
| 43. Do other water rights share any of the points of diversion? | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> 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). | <input type="checkbox"/> A | <input type="checkbox"/> F |

| POD ID | Water Right No. | Flow Rate | | | Relationship |
|--------|-----------------|-----------|--------------------------|--------------------------|--------------|
| | | Flow | GPM | CFS | |
| | | | <input type="checkbox"/> | <input type="checkbox"/> | |
| | | | <input type="checkbox"/> | <input type="checkbox"/> | |
| | | | <input type="checkbox"/> | <input type="checkbox"/> | |
| | | | <input type="checkbox"/> | <input type="checkbox"/> | |
| | | | <input type="checkbox"/> | <input type="checkbox"/> | |

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? | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| a. If no, | | |
| i. Why are they different? | <input type="checkbox"/> A | <input type="checkbox"/> F |
| ii. Is there a place of storage? | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| 45. When was water diverted for the purposes of the water rights being changed? | <input type="checkbox"/> A | <input type="checkbox"/> F |

| | |
|---|-------------------------|
| Start Date (Month (MM)/Day (DD)) | End Date (MM/DD) |
| | |



| | | |
|---|---|----------------------------|
| 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? | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| a. If yes, does the period of diversion for all purposes fall within Department standards? | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> 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. _____ | <input type="checkbox"/> A | <input type="checkbox"/> 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? | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> 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. | <input type="checkbox"/> S | <input type="checkbox"/> F |
| ii. What were the crop(s) grown? _____ | | <input type="checkbox"/> 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. _____ | <input type="checkbox"/> A | <input type="checkbox"/> F |
| _____ | | |
| _____ | | |
| _____ | | |



| | | | |
|--|--|---|----------------------------|
| 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. _____ _____ _____ _____ | | <input type="checkbox"/> A | <input type="checkbox"/> 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. _____ _____ _____ _____ | | <input type="checkbox"/> A | <input type="checkbox"/> F |
| iii. Did historical diversions serve more than one non-irrigation purpose? | | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| 1. If yes, how much of the diversions served each non-irrigation purpose and how did you determine this? _____ _____ _____ | | <input type="checkbox"/> A | <input type="checkbox"/> F |
| 48. Did diversions ever regularly cease within the period of use due to insufficient water in source or calls based on priority date? | | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| a. If yes, please explain. _____ _____ _____ | | <input type="checkbox"/> A | <input type="checkbox"/> 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. <ul style="list-style-type: none"> <input type="checkbox"/> Irrigation. Answer question 50. <input type="checkbox"/> Lawn and garden. Answer question 51. <input type="checkbox"/> Stock. Answer question 52. <input type="checkbox"/> Domestic and multiple domestic. Answer question 53. <input type="checkbox"/> Municipal. Answer question 54. <input type="checkbox"/> Other. Answer question 55. | | |
|---|--|--|

| | | |
|--|---|----------------------------|
| 50. Irrigation | | |
| a. Will you use Department standards for historical consumptive use as defined in ARM 36.12.1902? | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| i. If no, | | |
| 1. What method will you use to determine historical consumptive use? _____ | <input type="checkbox"/> A | <input type="checkbox"/> 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. | <input type="checkbox"/> S | <input type="checkbox"/> 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. _____ | <input type="checkbox"/> A | <input type="checkbox"/> F |
| 2. What was the slope (%) of the historical place of use? _____ | | <input type="checkbox"/> F |



| | | |
|--|--|-----------------------------------|
| <p>3. Are there any factors beyond irrigation method type/subtype and place of use slope that may influence percent efficiency of irrigation?</p> | <p><input type="checkbox"/> Y <input type="checkbox"/> N</p> | <p><input type="checkbox"/> F</p> |
| <p>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.</p> | <p><input type="checkbox"/> S</p> | <p><input type="checkbox"/> F</p> |
| <p>4. Based on answers to the above questions, what is the percent efficiency of irrigation? _____</p> | | <p><input type="checkbox"/> F</p> |
| <p>5. What is the County Management Factor? _____</p> | | <p><input type="checkbox"/> F</p> |
| <p>6. What is evapotranspiration (ET) based on the irrigation method and county? _____</p> | | <p><input type="checkbox"/> F</p> |
| <p>7. What percent of applied water are irrecoverable losses per ARM 36.12.1902(17)? _____</p> | | <p><input type="checkbox"/> F</p> |



| | | |
|---|---|----------------------------|
| 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. | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| i. If yes, which standard? _____ | | <input type="checkbox"/> F |
| ii. If no, please provide an estimate of historical water use based on expert analysis and methods used to determine this estimate. _____ _____ | <input type="checkbox"/> A | <input type="checkbox"/> 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. _____ | <input type="checkbox"/> A | <input type="checkbox"/> F |
| b. How many animal units were historically served? _____ | | <input type="checkbox"/> F |
| c. Did these animal units rely entirely on the water right(s) proposed for change for their full water demand? | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| i. If no, explain. _____ _____ | <input type="checkbox"/> A | <input type="checkbox"/> F |



| | | |
|--|---|----------------------------|
| 53. Domestic and multiple domestic | | |
| a. How many households were served? _____ | | <input type="checkbox"/> 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. | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| i. If no, what standard will be used? _____ | | <input type="checkbox"/> F |
| c. Did the historical use include wastewater disposal and treatment? | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> 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? _____ | <input type="checkbox"/> A | <input type="checkbox"/> F |

| | | |
|--|----------------------------|----------------------------|
| 54. Municipal | | |
| a. What is the volume of water (AF) historically consumed for municipal purposes? _____ | | <input type="checkbox"/> 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. | <input type="checkbox"/> S | <input type="checkbox"/> F |

| | | |
|--|----------------------------|----------------------------|
| 55. Other | | |
| a. Specify the other purposes. _____ | | <input type="checkbox"/> F |
| b. What is the volume of water (AF) historically consumed for other purposes? _____ | | <input type="checkbox"/> F |
| c. Submit evidence to support the volume of water historically consumed. | <input type="checkbox"/> S | <input type="checkbox"/> 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)). | | | | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> 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. | | | | <input type="checkbox"/> A | <input type="checkbox"/> 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

| <u>Questions, Narrative Responses, and Tables</u> | <u>Check-boxes</u> | <u>Follow-Up</u> |
|--|---|----------------------------|
| 57. Do the purposes of the water rights proposed for change include irrigation? | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| a. If yes, does the proposed change include a change in place of use <i>and/or</i> 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. | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> 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? | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> 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. | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |



| | | |
|---|---|----------------------------|
| 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. | <input type="checkbox"/> S | <input type="checkbox"/> F |
| 61. How many acres, if any, will be retired from the historical place of use? _____ | | <input type="checkbox"/> F |
| 62. Are irrigated acres proposed that are outside the historical place of use? | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| a. If yes, | | |
| i. How many acres? _____ | | <input type="checkbox"/> 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? _____ | | <input type="checkbox"/> F |
| iii. What is the slope (%) of the new place of use? _____ | | <input type="checkbox"/> F |
| iv. Based on 62.a.ii to 62.a.iii, what is the percent efficiency of irrigation for the new acres? _____ | | <input type="checkbox"/> F |
| v. What is the County Management Factor for the new acres? _____ | | <input type="checkbox"/> F |
| vi. What is the ET based on the irrigation method and county for the new acres? _____ | | <input type="checkbox"/> F |
| vii. What percent of applied water are irrecoverable losses for new acres? _____ | | <input type="checkbox"/> F |
| 63. Do you have information for the Department to consider about the source and location where return flows historically accrued? | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| a. If yes, submit this information to the Department. | <input type="checkbox"/> S | <input type="checkbox"/> F |



Extended Return Flow Analysis

| | | |
|--|---|----------------------------|
| <p>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? <i>*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).</i></p> <hr/> <hr/> | <input type="checkbox"/> A | <input type="checkbox"/> F |
| <p>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?</p> | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| <p>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.</p> | | |
| <p>b. If no, did you elect in question 1 for the Department to conduct technical analyses?</p> | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| <p>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.</p> | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| <p>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.</p> | | |



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

| <u>Questions, Narrative Responses, and Tables</u> | | | | <u>Check-boxes</u> | <u>Follow-Up</u> |
|---|---------------------------|-------------------------|--------------------|--|----------------------------|
| 66. Does the proposed change include a change in point of diversion? | | | | <input type="checkbox"/> Y <input checked="" type="checkbox"/> N | <input type="checkbox"/> 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? _____ | | | | | <input type="checkbox"/> 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. | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| a. If yes, explain. The Department will let you know if the request is reasonable and identify additional data needs. _____ _____ _____ _____ | <input type="checkbox"/> A | <input type="checkbox"/> F |



| | | |
|---|---|----------------------------|
| <p>68. Submit Aquifer Test Data Form (Form 633) for each <i>new</i> well/pumping pit that will be constructed prior to technical analyses or <i>existing</i> well/pumping pit that is added by the change. If an aquifer test was already conducted for an <i>existing</i> well/pumping pit, and you would like to use that instead of conducting a new aquifer test, describe this in question 67.a.</p> <p>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)).</p> | <input type="checkbox"/> S | <input type="checkbox"/> F |
| <p>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)).</p> | <input type="checkbox"/> S | <input type="checkbox"/> F |
| <p>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.</p> | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| <p>a. If yes, submit Form 653, Form 600/606-ATA, and Form 633 together on or before the Variance Request Deadline.</p> | <input type="checkbox"/> S | <input type="checkbox"/> F |
| <p>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)).</p> | | |
| <p>71. Have all the wells/pumping pits been constructed?</p> | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| <p>a. If no,</p> | | |
| <p>i. Submit a list of the POD IDs for all wells/pumping pits and mark whether they have or have not been constructed.</p> | <input type="checkbox"/> S | <input type="checkbox"/> F |
| <p>ii. When will the proposed wells/pumping pits be constructed? _____</p> | | <input type="checkbox"/> F |



| | | |
|---|---|----------------------------|
| iii. Is the requested volume for each proposed well/pumping pit known? | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| 1. If yes, list the flow rate and volume requested for each proposed well/pumping pit. Label with POD ID. _____ _____ | <input type="checkbox"/> A | <input type="checkbox"/> F |
| 2. If no, what is the total requested volume (AF) and the number of proposed PODs? _____ | | <input type="checkbox"/> 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 <i>new</i> or an <i>existing</i> well added by the change. | <input type="checkbox"/> A | <input type="checkbox"/> F |

| POD ID | GWIC ID <i>(if available)</i> | Flow Rate | | | Volume <i>AF</i> | Period of Diversion <i>MM/DD-MM/DD</i> | Depth <i>FT</i> | Measured or Estimated | New or Existing |
|--------|----------------------------------|-------------|--------------------------|--------------------------|---------------------|---|--------------------|-----------------------|-----------------|
| | | <i>Flow</i> | <i>GPM</i> | <i>CFS</i> | | | | | |
| | | | <input type="checkbox"/> | <input type="checkbox"/> | | | | | |
| | | | <input type="checkbox"/> | <input type="checkbox"/> | | | | | |
| | | | <input type="checkbox"/> | <input type="checkbox"/> | | | | | |
| | | | <input type="checkbox"/> | <input type="checkbox"/> | | | | | |
| | | | <input type="checkbox"/> | <input type="checkbox"/> | | | | | |

Groundwater Analysis: Developed Spring

Applicable Not Applicable

| | | |
|--|---|----------------------------|
| 73. Have you measured each <i>new</i> developed spring or <i>existing</i> developed spring that will be added by the change? | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| a. If yes, submit the measurements to the Department and answer the following questions: | <input type="checkbox"/> S | <input type="checkbox"/> F |
| i. Do you have flow rate (GPM or CFS) and volume measurements? | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| ii. With what method were measurements collected? _____ _____ | <input type="checkbox"/> A | <input type="checkbox"/> F |



| | | |
|--|---|----------------------------|
| iii. What is the interval of measurements? _____ | | <input type="checkbox"/> 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? | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> 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? _____ | <input type="checkbox"/> A | <input type="checkbox"/> F |
| ii. With what method and at what interval will measurements be collected? _____ _____ | <input type="checkbox"/> A | <input type="checkbox"/> 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. | <input type="checkbox"/> S | <input type="checkbox"/> F |
| 75. Submit bathymetry data, survey, or engineering plans for each <i>new</i> pond added or <i>existing</i> 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 <i>new</i> or an <i>existing</i> pond. | <input type="checkbox"/> S | <input type="checkbox"/> F |
| 76. Are any of the <i>new</i> ponds, or <i>existing</i> ponds added or modified by the proposed change the pond, fed or drained by surface water in addition to groundwater? | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| a. If yes, | | |
| i. Explain. _____ _____ _____ | <input type="checkbox"/> A | <input type="checkbox"/> F |
| ii. Submit measurements of the connected surface water source. These may include inflow and outflow measurements. | <input type="checkbox"/> S | <input type="checkbox"/> F |



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)? | | | | | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| <ul style="list-style-type: none"> • 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. | | | | | | |
| 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? <u>Wells</u> | | | | | | <input type="checkbox"/> 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 (“ <i>unchanged</i> ”) or will be retired (“ <i>retired</i> ”): 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 <i>unchanged</i> or <i>retired</i> . Please use the same POD ID as the Historical Use Map (question 8) and, if available, provide the GWIC ID number. | | | | | | | | <input type="checkbox"/> A | <input type="checkbox"/> F |
|--|----------------------------------|-----------|-------------------------------------|--------------------------|--------------|------------------------------------|-------------|----------------------------|----------------------------|
| POD ID | GWIC ID <i>(if available)</i> | Flow Rate | | | Volume AF | Period of Diversion MM/DD-MM/DD | Depth FT | Measured or Estimated | Unchanged or Retired |
| | | Flow Rate | GPM | CFS | | | | | |
| P1 | 214761 | 105 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 66.5 | 01/01 to 12/31 | 120 | measured | unchanged |
| P2 | 214758 | 75 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 47.5 | 01/01 to 12/31 | 120 | measured | unchanged |
| | | | <input type="checkbox"/> | <input type="checkbox"/> | | | | | |
| | | | <input type="checkbox"/> | <input type="checkbox"/> | | | | | |
| | | | <input type="checkbox"/> | <input type="checkbox"/> | | | | | |



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 p1&p2 | | | | (After) POD ID p17p2 | | | |
| <input checked="" type="checkbox"/> Diverted volume/# of Days <input type="checkbox"/> 80% dry year IWR <input type="checkbox"/> N/A | | | | <input checked="" type="checkbox"/> Diverted volume/# of Days <input type="checkbox"/> 80% dry year IWR <input type="checkbox"/> N/A | | | |
| Month | Volume (AF) | Month | Volume (AF) | Month | Volume (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



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 (“ <i>unchanged</i> ”) or will be retired (“ <i>retired</i> ”) ? If yes, | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| a. Did you skip questions 74 to 76 because there is no change in POD? If yes, | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> 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. | <input type="checkbox"/> S | <input type="checkbox"/> F |
| b. Submit bathymetry data, survey, or engineering plans for each <i>unchanged</i> pond or <i>retired</i> pond. Label the submittal with the POD ID and whether the pond is <i>unchanged</i> or <i>retired</i> . | <input type="checkbox"/> S | <input type="checkbox"/> F |
| c. Are any of the <i>unchanged</i> or <i>retired</i> ponds fed or drained by surface water, in addition to groundwater? | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| i. If yes, | | |
| 1. Explain. | <input type="checkbox"/> A | <input type="checkbox"/> F |
| _____ | | |
| _____ | | |
| _____ | | |
| 2. Submit measurements of the connected surface water source. These may include inflow and outflow measurements. | <input type="checkbox"/> S | <input type="checkbox"/> 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 | | | |
|---|--|-----------|--|---|--|-----------|--|
| <input type="checkbox"/> Diverted volume/# of Days <input type="checkbox"/> 80% dry year IWR <input type="checkbox"/> N/A | | | | <input type="checkbox"/> Diverted volume/# of Days <input type="checkbox"/> 80% dry year IWR <input type="checkbox"/> 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).*
 Clark Fork River

A

F



| | | |
|---|--|----------------------------|
| 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? | <input checked="" type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> 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? | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> 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. | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> 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? | <input type="checkbox"/> Y <input checked="" type="checkbox"/> N | <input type="checkbox"/> F |
| a. If yes, does the proposed change include a change in place of use <i>and/or</i> 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. | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> 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? | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> 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. | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |



| | | |
|---|---|----------------------------|
| 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. | <input type="checkbox"/> S | <input type="checkbox"/> F |
| 89. How many acres, if any, will be retired from the historical place of use? _____ | | <input type="checkbox"/> F |
| 90. Are irrigated acres proposed that are outside the historical place of use? | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| a. If yes, | | |
| i. How many acres? _____ | | <input type="checkbox"/> 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? _____ | <input type="checkbox"/> A | <input type="checkbox"/> F |
| iii. What is the slope (%) of the new place of use? _____ | | <input type="checkbox"/> F |
| iv. Based on question 90.a.ii to 90.a.iii, what is the percent efficiency of irrigation for the new acres? _____ | | <input type="checkbox"/> F |
| v. What is the County Management Factor for the new acres? _____ | | <input type="checkbox"/> F |
| vi. What is the ET based on the irrigation method and county for the new acres? _____ | | <input type="checkbox"/> F |
| vii. What percent of applied water are irrecoverable losses for new acres? _____ | | <input type="checkbox"/> F |
| 91. Do you have information for the Department to consider about the source and location where return flows historically accrued? | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| a. If yes, submit this information to the Department. | <input type="checkbox"/> S | <input type="checkbox"/> F |



Extended Return Flow Analysis

| | | |
|--|---|----------------------------|
| <p>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? <i>*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).</i></p> <p>_____</p> <p>_____</p> | <input type="checkbox"/> A | <input type="checkbox"/> F |
| <p>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?</p> | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| <p>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.</p> | | |
| <p>b. If no, did you elect in question 1 for the Department to conduct technical analyses?</p> | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| <p>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.</p> | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| <p>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.</p> | | |



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

| <u>Questions, Narrative Responses, and Tables</u> | <u>Check-boxes</u> | <u>Follow-Up</u> |
|--|--|----------------------------|
| 94. Does the proposal include a temporary change? <i>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.</i> If yes, answer the questions in this section (questions 95 to 100). If no, this section is complete; skip to question 100. | <input type="checkbox"/> Y <input checked="" type="checkbox"/> N | <input type="checkbox"/> F |
| 95. What elements of the water rights are being temporarily changed? _____ | | <input type="checkbox"/> F |
| 96. For what purpose will the water rights be temporarily used? _____ | | <input type="checkbox"/> F |
| 97. For how many years will the water rights be temporarily changed? _____ | | <input type="checkbox"/> F |
| 98. Will the temporary change be intermittent over the years? | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| a. If yes, explain. _____ | <input type="checkbox"/> A | <input type="checkbox"/> 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? | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| a. If yes, explain the water conservation or storage project. _____ _____ _____ | <input type="checkbox"/> A | <input type="checkbox"/> 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. | <input type="checkbox"/> Y <input checked="" type="checkbox"/> N | <input type="checkbox"/> 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. | <input type="checkbox"/> A | <input type="checkbox"/> F |

| Purpose | New or Unchanged? | Period of Diversion (MM/DD-MM/DD) | Period of Use (MM/DD-MM/DD) | Flow Rate | | | Volume (AF) |
|--------------|-------------------|--------------------------------------|--------------------------------|-----------|--------------------------|--------------------------|----------------|
| | | | | Flow Rate | GPM | CFS | |
| | | | | | <input type="checkbox"/> | <input type="checkbox"/> | |
| | | | | | <input type="checkbox"/> | <input type="checkbox"/> | |
| | | | | | <input type="checkbox"/> | <input type="checkbox"/> | |
| | | | | | <input type="checkbox"/> | <input type="checkbox"/> | |
| | | | | | <input type="checkbox"/> | <input type="checkbox"/> | |
| Total | | | | | <input type="checkbox"/> | <input type="checkbox"/> | |

| | | | | | | | | |
|--|--------------|--------------|--------------|---------------------------------------|--------------|----------------------|--------------|--|
| 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 | |

| | | |
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| 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? | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| i. If yes, which standard? _____ | | <input type="checkbox"/> F |
| ii. If no, describe how consumptive use will be estimated. This must be based on expert analysis. _____ _____ | <input type="checkbox"/> A | <input type="checkbox"/> F |
| 105. Stock | | |
| a. How many animal units will be served? _____ | | <input type="checkbox"/> F |



| | | |
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| 106. Domestic and multiple domestic | | |
| a. How many households will be served? _____ | | <input type="checkbox"/> F |
| b. Will the Department standard of 1 acre-foot per household be used to determine consumptive use? | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| i. If no, what standard will be used? _____ | <input type="checkbox"/> A | <input type="checkbox"/> F |
| c. Will the proposed use include wastewater disposal and treatment? | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> 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? _____ | | <input type="checkbox"/> F |
| 107. Other purpose | | |
| a. What is the other purpose (e.g., municipal, commercial)? _____ | | <input type="checkbox"/> F |
| b. What is the percentage of consumption for the proposed use? Please explain. _____ _____ _____ | <input type="checkbox"/> A | <input type="checkbox"/> 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. | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> 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. | <input type="checkbox"/> S | <input type="checkbox"/> 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? _____ | | <input type="checkbox"/> F |
| b. List the water rights proposed for change that were conveyed by the ditch. _____ _____ | | <input type="checkbox"/> 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. _____ | <input type="checkbox"/> A | <input type="checkbox"/> 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. | <input type="checkbox"/> S | <input type="checkbox"/> F |

| ID # | Width (FT) | Depth (FT) | Slope (%) | Date of Measurement |
|------|------------|------------|-----------|---------------------|
| | | | | |
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|---|----------------------------|----------------------------|
| 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. _____ _____ | <input type="checkbox"/> A | <input type="checkbox"/> F |
| f. What type of soils compose the historical conveyance ditch? For lined ditches, write "lined" instead. _____ _____ | <input type="checkbox"/> A | <input type="checkbox"/> F |



| | | |
|---|---|----------------------------|
| g. Are other water rights conveyed by the historical conveyance ditch? | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| i. If yes, | | |
| 1. List the water right numbers and their flow rates. _____ _____ _____ | <input type="checkbox"/> A | <input type="checkbox"/> F |
| 2. What is the sum of the flow rates, including the water rights proposed for change? _____ | <input type="checkbox"/> A | <input type="checkbox"/> 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. | <input type="checkbox"/> S | <input type="checkbox"/> F |
| h. Were any water rights proposed for change part of one historical water right that was split? | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> 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? | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| 1. If no, do any of the water rights proposed for change have a carriage water requirement? | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| a. If yes, | | |
| i. List the water rights with a carriage water requirement _____ | | <input type="checkbox"/> 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. | <input type="checkbox"/> S | <input type="checkbox"/> 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. | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |



| | | |
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| 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. | <input type="checkbox"/> S | <input type="checkbox"/> 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? _____ | | <input type="checkbox"/> F |
| b. Is this ditch a historical conveyance ditch detailed in questions 110 to 111? | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> 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? | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> 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. _____ | | <input type="checkbox"/> 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. _____ _____ | <input type="checkbox"/> A | <input type="checkbox"/> 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. | <input type="checkbox"/> S | <input type="checkbox"/> F |

| ID # | Width (FT) | Depth (FT) | Slope (%) | Date of Measurement |
|------|------------|------------|-----------|---------------------|
| | | | | |
| | | | | |
| | | | | |



| | | |
|--|---|----------------------------|
| <p>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.</p> <p>_____</p> <p>_____</p> | <input type="checkbox"/> A | <input type="checkbox"/> F |
| <p>g. What type of soils compose the proposed conveyance ditch? For lined ditches, write “lined” instead.</p> <p>_____</p> <p>_____</p> | <input type="checkbox"/> A | <input type="checkbox"/> F |
| <p>h. Are other water rights conveyed by the proposed conveyance ditch?</p> | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| <p>i. If yes,</p> | | |
| <p>1. List the water right numbers and their flow rates.</p> <p>_____</p> <p>_____</p> <p>_____</p> | <input type="checkbox"/> A | <input type="checkbox"/> F |
| <p>2. What is the sum of the flow rates, including the water rights proposed for change?</p> <p>_____</p> | <input type="checkbox"/> A | <input type="checkbox"/> F |
| <p>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.</p> | <input type="checkbox"/> S | <input type="checkbox"/> F |
| <p>i. Were any water right(s) proposed for change identified as having a carriage water requirement in question 111.h.i.1.a.i?</p> | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| <p>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.</p> | <input type="checkbox"/> S | <input type="checkbox"/> F |
| <p>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.</p> | | |



Change in Place of Storage

| | | |
|---|---|----------------------------|
| <p>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.</p> | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| <p>117. Is this application to add a new place of storage or change an existing place of storage? _____</p> | | <input type="checkbox"/> F |
| <p>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. _____ _____</p> | <input type="checkbox"/> A | <input type="checkbox"/> F |
| <p>118. Is the place of storage located on-stream?</p> | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| <p>a. If no, describe any losses related to conveyance that are not detailed in “Ditch-Specific Questions.” _____ _____ _____</p> | <input type="checkbox"/> A | |
| <p>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: <i>Surface Acres x Maximum Depth (ft) x 0.5 = Capacity (AF)</i> _____</p> | <input type="checkbox"/> S | <input type="checkbox"/> F |
| <p>120. What is the proposed surface area of the place of storage? _____</p> | <input type="checkbox"/> A | <input type="checkbox"/> F |
| <p>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. _____</p> | <input type="checkbox"/> A | <input type="checkbox"/> F |
| <p>122. Will the place of storage be lined?</p> | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| <p>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.</p> | | |



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. | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| a. Mitigation water. If yes, answer question 125 and 126. | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| b. Aquifer recharge water. If yes, answer question 125 and 127. | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| c. Marketing for mitigation/aquifer recharge. If yes, answer question 128. | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| 125. Mitigation Water and Aquifer Recharge Water | | |
| a. Identify the water right(s) for which the mitigation/aquifer recharge water will be used. _____ | <input type="checkbox"/> A | <input type="checkbox"/> 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. _____ | <input type="checkbox"/> A | <input type="checkbox"/> 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? | <input type="checkbox"/> A | <input type="checkbox"/> F |

| Month | Days | Flow Rate | | | Volume | Month | Days | Flow Rate | | | Volume |
|----------|------|-----------|--------------------------|--------------------------|--------|-----------|------|-----------|--------------------------|--------------------------|--------|
| | | Flow | GPM | CFS | | | | AF | Flow | GPM | |
| January | | | <input type="checkbox"/> | <input type="checkbox"/> | | July | | | <input type="checkbox"/> | <input type="checkbox"/> | |
| February | | | <input type="checkbox"/> | <input type="checkbox"/> | | August | | | <input type="checkbox"/> | <input type="checkbox"/> | |
| March | | | <input type="checkbox"/> | <input type="checkbox"/> | | September | | | <input type="checkbox"/> | <input type="checkbox"/> | |
| April | | | <input type="checkbox"/> | <input type="checkbox"/> | | October | | | <input type="checkbox"/> | <input type="checkbox"/> | |
| May | | | <input type="checkbox"/> | <input type="checkbox"/> | | November | | | <input type="checkbox"/> | <input type="checkbox"/> | |
| June | | | <input type="checkbox"/> | <input type="checkbox"/> | | December | | | <input type="checkbox"/> | <input type="checkbox"/> | |



| | | |
|---|---|----------------------------|
| 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. | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| i. If yes, describe the origin of this water and in the table below, list how much it will contribute. _____ | <input type="checkbox"/> A | <input type="checkbox"/> F |

| Month | Days | Flow Rate | | | Volume | Month | Days | Flow Rate | | | Volume |
|----------|------|-----------|--------------------------|--------------------------|--------|-----------|------|--------------------------|--------------------------|-----|--------|
| | | Flow | GPM | CFS | | | | AF | Flow | GPM | |
| January | | | <input type="checkbox"/> | <input type="checkbox"/> | | July | | <input type="checkbox"/> | <input type="checkbox"/> | | |
| February | | | <input type="checkbox"/> | <input type="checkbox"/> | | August | | <input type="checkbox"/> | <input type="checkbox"/> | | |
| March | | | <input type="checkbox"/> | <input type="checkbox"/> | | September | | <input type="checkbox"/> | <input type="checkbox"/> | | |
| April | | | <input type="checkbox"/> | <input type="checkbox"/> | | October | | <input type="checkbox"/> | <input type="checkbox"/> | | |
| May | | | <input type="checkbox"/> | <input type="checkbox"/> | | November | | <input type="checkbox"/> | <input type="checkbox"/> | | |
| June | | | <input type="checkbox"/> | <input type="checkbox"/> | | December | | <input type="checkbox"/> | <input type="checkbox"/> | | |

| | | |
|--|----------------------------|----------------------------|
| 126. Mitigation Water | | |
| a. What is legal land description (¼ ¼ ¼ section of start and end) and length (ft) of the mitigation reach? _____ | <input type="checkbox"/> A | <input type="checkbox"/> 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). _____ _____ _____ | <input type="checkbox"/> A | <input type="checkbox"/> 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? _____ | <input type="checkbox"/> A | <input type="checkbox"/> F |



| | | |
|--|---|----------------------------|
| <p>b. What is the volume of net depletions that will be offset by the aquifer recharge water? <i>The volume of aquifer recharge water injected may not equal the volume of net depletions.</i></p> <p>_____</p> | <input type="checkbox"/> A | <input type="checkbox"/> F |
| <p>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).</p> <p>_____</p> <p>_____</p> <p>_____</p> | <input type="checkbox"/> A | <input type="checkbox"/> F |
| <p>d. Describe any constraints on the aquifer recharge schedule, such as priority date limitations.</p> <p>_____</p> <p>_____</p> | <input type="checkbox"/> A | <input type="checkbox"/> F |
| <p>e. What is the proposed area or location of aquifer recharge? <i>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).</i></p> <p>_____</p> <p>_____</p> <p>_____</p> | <input type="checkbox"/> A | <input type="checkbox"/> F |
| <p>128. Marketing for Mitigation/Aquifer Recharge</p> | | |
| <p>a. What is the proposed location of the reach where water is to be marketed ($\frac{1}{4}$ $\frac{1}{4}$ $\frac{1}{4}$ section of the start and the end of the reach)?</p> <p>_____</p> | <input type="checkbox"/> A | <input type="checkbox"/> F |
| <p>b. Is this marketing for mitigation</p> | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| <p>i. If yes, by what means will water be made available?</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> | <input type="checkbox"/> A | <input type="checkbox"/> F |



| | | |
|---|---|----------------------------|
| c. Is this marketing for aquifer recharge? | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> 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). _____ _____ _____ _____ | <input type="checkbox"/> A | <input type="checkbox"/> F |
| 2. What is the volume of water that will be used for aquifer recharge? _____ | <input type="checkbox"/> A | <input type="checkbox"/> F |
| 3. Describe any constraints on the aquifer recharge schedule, such as priority date limitations. _____ _____ | <input type="checkbox"/> A | <input type="checkbox"/> F |
| 4. What is the proposed area or location of aquifer recharge? <i>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).</i> _____ _____ _____ | <input type="checkbox"/> A | <input type="checkbox"/> F |
| d. Describe your ability to measure and operate all existing diversions to adjust flow rate as water is sold or leased. _____ _____ _____ _____ | <input type="checkbox"/> A | <input type="checkbox"/> F |



| | | |
|---|----------------------------|----------------------------|
| <p>e. How will you cease diversions for the existing beneficial use as water is sold or leased?</p> <p>_____</p> <p>_____</p> <p>_____</p> | <input type="checkbox"/> A | <input type="checkbox"/> F |
| <p>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.</p> | | |

Instream Flow

| | | |
|--|---|----------------------------|
| <p>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.</p> | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| <p>131. What is the source name where streamflow will be maintained or enhanced?</p> <p>_____</p> | | <input type="checkbox"/> F |
| <p>132. What is the location (¼ ¼ ¼ section of start and end of reach) and length (FT) of the protected reach?</p> <p>_____</p> | <input type="checkbox"/> A | <input type="checkbox"/> F |
| <p>133. Describe the way the streamflow is to be maintained or enhanced.</p> <p>_____</p> <p>_____</p> | <input type="checkbox"/> A | <input type="checkbox"/> F |
| <p>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.</p> | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| <p>a. If no, describe the proposed change to existing purposes, including flow rate, volume, and, if applicable, acres.</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> | <input type="checkbox"/> A | <input type="checkbox"/> F |
| <p>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.</p> | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |



| | | |
|--|--|--|
| 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. | | |
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Salvage Water

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|--|---|----------------------------|
| 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. | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> 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. _____ | <input type="checkbox"/> A | <input type="checkbox"/> F |
| 139. How much water was salvaged from implementation of the water saving method? Include flow rate (GPM or CFS) and volume (AF). _____ | | <input type="checkbox"/> F |
| 140. How did you determine the amount of water salvaged? _____ _____ _____ | <input type="checkbox"/> A | <input type="checkbox"/> 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. | | |



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

| <u>Questions, Narrative Responses, and Tables</u> | <u>Check-boxes</u> |
|---|---|
| 142. Describe your plan to ensure that existing water rights will be satisfied during times of water shortage. _____ _____ _____ | <input type="checkbox"/> A |
| 143. Explain how you can control your diversion in response to call being made. _____ _____ _____ | <input type="checkbox"/> A |
| 144. Are you aware of any calls that have been made on any source of supply or depleted surface water source? a. If yes, explain. _____ _____ | <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> A |
| 145. Does a water commissioner distribute water or oversee water distribution on your proposed source or depleted surface water source? a. If yes, list the sources and explain. _____ _____ | <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> A |
| 146. Describe how the change will or will not affect your ability to make call. _____ _____ | <input type="checkbox"/> A |



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| <p>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.</p> <p>_____</p> | |
| <p>a. Why was the water right not used?</p> <p>_____</p> <p>_____</p> | <input type="checkbox"/> A |
| <p>b. Why will a resumption of use not adversely affect other water users?</p> <p>_____</p> <p>_____</p> | <input type="checkbox"/> A |
| <p>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. _____</p> | <input type="checkbox"/> Y <input type="checkbox"/> N |
| <p>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.</p> <p>_____</p> <p>_____</p> | <input type="checkbox"/> Y <input type="checkbox"/> N |
| <p>148. Is this a point of diversion change?</p> | <input type="checkbox"/> Y <input type="checkbox"/> N |
| <p>a. If yes,</p> | |
| <p>i. Are the proposed points of diversion upstream or downstream of the historical points of diversion?</p> <p>_____</p> | |
| <p>ii. Are there intervening water users between the historical and proposed points of diversion?</p> | <input type="checkbox"/> Y <input type="checkbox"/> N |
| <p>1. If yes, list the water rights.</p> <p>_____</p> <p>_____</p> | <input type="checkbox"/> A |



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| iii. Will any new points of diversion or conveyance infrastructure be shared with one or more existing water rights? | <input type="checkbox"/> Y <input type="checkbox"/> N |
| 1. If yes, describe how capacity of the new shared point of diversion and/or conveyance infrastructure is sufficient for all water rights. _____ _____ _____ | <input type="checkbox"/> A |

Adverse Effect: Evaluation of Impacts to Identified Surface Water Rights for Return Flow Analysis

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| 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? | <input type="checkbox"/> Y <input type="checkbox"/> 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? | <input type="checkbox"/> Y <input type="checkbox"/> N |
| i. If no, is only one stream gage located near the location where return flows accrue? | <input type="checkbox"/> Y <input type="checkbox"/> 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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| <p>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: _____</p> | |
| <p>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.</p> | <input type="checkbox"/> Y <input type="checkbox"/> N |
| <p>i. If yes, explain. _____ _____</p> | <input type="checkbox"/> A |
| <p>e. How long is the period of record? Write "N/A" for Gage 2 if one gage is available. Gage 1: _____ Gage 2: _____</p> | |
| <p>f. Who operates and maintains the gage(s)? Write "N/A" for Gage 2 if one gage is available. Gage 1: _____ Gage 2: _____</p> | |
| <p>g. Is each available stream gage operated and maintained by USGS or DNRC?</p> | <input type="checkbox"/> Y <input type="checkbox"/> N |
| <p>i. If yes, skip to question 152.h.</p> | |
| <p>ii. If no, answer the following questions for each gage not operated and maintained by USGS or DNRC.</p> | |
| <p>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: _____</p> | |
| <p>2. If data gaps were to occur, are they identified and left unfilled or estimated using interpolation, ice correction, or indirect discharge measurements methods?</p> | <input type="checkbox"/> Y <input type="checkbox"/> N |
| <p>a. Gage 1.</p> | <input type="checkbox"/> Y <input type="checkbox"/> N |
| <p>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. _____</p> | <input type="checkbox"/> Y <input type="checkbox"/> 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? | <input type="checkbox"/> Y <input type="checkbox"/> N |
| a. Gage 1. | <input type="checkbox"/> Y <input type="checkbox"/> 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. _____ | <input type="checkbox"/> Y <input type="checkbox"/> N |
| 4. Were there requirements for maintaining a permanent gage datum and meeting specified accuracy limits? | <input type="checkbox"/> Y <input type="checkbox"/> N |
| a. Gage 1. | <input type="checkbox"/> Y <input type="checkbox"/> 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. _____ | <input type="checkbox"/> Y <input type="checkbox"/> 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? | <input type="checkbox"/> Y <input type="checkbox"/> 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? | <input type="checkbox"/> Y <input type="checkbox"/> 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. | <input type="checkbox"/> S |
| ii. Who collected the measurements? _____ | <input type="checkbox"/> A |



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| <p>iii. With what method were the data collected?</p> <p>_____</p> <p>_____</p> | <input type="checkbox"/> A |
| <p>iv. What is the period of record?</p> <p>_____</p> | |
| <p>v. What is the frequency of measurement?</p> <p>_____</p> | |
| <p>vi. Are there gaps in the data?</p> | <input type="checkbox"/> Y <input type="checkbox"/> N |
| <p>1. If yes, what is the nature of the gaps and how are gaps handled to ensure data quality?</p> <p>_____</p> <p>_____</p> | <input type="checkbox"/> A |
| <p>vii. Is there a process for maintaining the data and meeting specified accuracy limits?</p> | <input type="checkbox"/> Y <input type="checkbox"/> N |
| <p>1. If yes, explain.</p> <p>_____</p> <p>_____</p> | |
| <p>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?</p> | <input type="checkbox"/> Y <input type="checkbox"/> N |
| <p>1. If yes, this section is complete. Skip to question 155.</p> | |
| <p>2. If no, answer question 154.</p> | |
| <p>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?</p> | <input type="checkbox"/> Y <input type="checkbox"/> N |
| <p>a. If yes,</p> | |
| <p>i. Describe how the measurements are representative of high, moderate, and low flows.</p> <p>_____</p> <p>_____</p> <p>_____</p> | <input type="checkbox"/> A |



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| <p>ii. Describe the estimation technique.</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> | <input type="checkbox"/> A |
| <p>b. If no, but a Department-accepted estimation technique will be appropriate for the source receiving return flows:</p> | |
| <p>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?</p> | <input type="checkbox"/> Y <input type="checkbox"/> N |
| <p>1. If yes,</p> | |
| <p>a. With what method will the data be collected?</p> <p>_____</p> <p>_____</p> | <input type="checkbox"/> A |
| <p>b. What will be the interval of measurement?</p> <p>_____</p> | |
| <p>c. Describe the proposed estimation technique.</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> | <input type="checkbox"/> A |
| <p>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.</p> | <input type="checkbox"/> Y <input type="checkbox"/> N |



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| <p>c. If no, because no Department-accepted estimation technique will be appropriate for the source receiving return flows:</p> | |
| <p>i. Describe why no Department-accepted estimation technique is appropriate for the source characteristics.</p> <p>_____</p> <p>_____</p> <p>_____</p> | <p><input type="checkbox"/> A</p> |
| <p>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?</p> | <p><input type="checkbox"/> Y <input type="checkbox"/> N</p> |
| <p>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?</p> | <p><input type="checkbox"/> Y <input type="checkbox"/> N</p> |
| <p>a. If yes, with what method will the data be collected?</p> <p>_____</p> <p>_____</p> | <p><input type="checkbox"/> A</p> |
| <p>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.</p> | <p><input type="checkbox"/> Y <input type="checkbox"/> N</p> |
| <p>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.</p> | |

Adverse Effect: Evaluation of Impacts to Identified Water Rights for Surface Water Depletion Analysis

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| <p>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.</p> | |
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| 157. What is the surface water source for which you are answering questions 158 to 161? Clark Fork River _____ | |
| 158. Are stream gage data available? | <input checked="" type="checkbox"/> Y <input type="checkbox"/> 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? | <input type="checkbox"/> Y <input type="checkbox"/> N |
| i. If no, is only one stream gage located near the point of net depletion accumulation? | <input checked="" type="checkbox"/> Y <input type="checkbox"/> N |
| 1. If yes, is the stream gage upstream or downstream? <u>Upstream</u> | |
| b. List the gage name(s). Write "N/A" for Gage 2 if one gage available. Gage 1: <u>Clark Fork River Below Missoula Mt 12353000</u> Gage 2: <u>N/A</u> | |
| 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: <u>3 miles</u> Gage 2: <u>N/A</u> | |
| 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. | <input type="checkbox"/> Y <input checked="" type="checkbox"/> N |
| i. If yes, explain. _____ _____ | <input type="checkbox"/> A |
| e. How long is the period of record? Write "N/A" for Gage 2 if one gage is available. Gage 1: <u>October 1929 - Present</u> Gage 2: _____ | |



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| <p>f. Who operates and maintains the gage(s)? Write "N/A" for Gage 2 if one gage is available. Gage 1: <u>USGS</u> Gage 2: <u>N/A</u></p> | |
| <p>g. Is each available stream gage operated and maintained by USGS or DNRC?</p> | <input checked="" type="checkbox"/> Y <input type="checkbox"/> N |
| <p>i. If yes, skip to question 159.h.</p> | |
| <p>ii. If no, answer the following questions for each gage not operated and maintained by USGS or DNRC.</p> | |
| <p>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: _____</p> | |
| <p>2. If data gaps were to occur, are they identified and left unfilled or estimated using interpolation, ice correction, or indirect discharge measurements methods?</p> | <input type="checkbox"/> Y <input type="checkbox"/> N |
| <p>a. Gage 1.</p> | <input type="checkbox"/> Y <input type="checkbox"/> N |
| <p>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. _____</p> | <input type="checkbox"/> Y <input type="checkbox"/> N |
| <p>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?</p> | <input type="checkbox"/> Y <input type="checkbox"/> N |
| <p>a. Gage 1.</p> | <input type="checkbox"/> Y <input type="checkbox"/> N |
| <p>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. _____</p> | <input type="checkbox"/> Y <input type="checkbox"/> N |
| <p>4. Were there requirements for maintaining a permanent gage datum and meeting specified accuracy limits?</p> | <input type="checkbox"/> Y <input type="checkbox"/> N |
| <p>a. Gage 1.</p> | <input type="checkbox"/> Y <input type="checkbox"/> N |
| <p>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. _____</p> | <input type="checkbox"/> Y <input type="checkbox"/> 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? | <input checked="" type="checkbox"/> Y <input type="checkbox"/> N |
| i. If yes, record how many meet the standard, then skip to question 162 because this section is complete. 1 _____ | |
| 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? | <input type="checkbox"/> Y <input type="checkbox"/> 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. | <input type="checkbox"/> S |
| ii. Who collected the measurements? _____ | <input type="checkbox"/> A |
| iii. With what method were the data collected? _____ _____ | <input type="checkbox"/> A |
| iv. What is the period of record? _____ | |
| v. What is the frequency of measurement? _____ | |
| vi. Are there gaps in the data? | <input type="checkbox"/> Y <input type="checkbox"/> N |
| 1. If yes, what is the nature of the gaps and how are gaps handled to ensure data quality? _____ _____ | <input type="checkbox"/> A |



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| vii. Is there a process for maintaining the data and meeting specified accuracy limits? | <input type="checkbox"/> Y <input type="checkbox"/> 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? | <input type="checkbox"/> Y <input type="checkbox"/> 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? | <input type="checkbox"/> Y <input type="checkbox"/> N |
| a. If yes, | |
| i. Describe how the measurements are representative of high, moderate, and low flows. _____ _____ _____ | <input type="checkbox"/> A |
| ii. Describe the estimation technique. _____ _____ _____ _____ | <input type="checkbox"/> 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? | <input type="checkbox"/> Y <input type="checkbox"/> N |
| 1. If yes, | |
| a. With what method will the data be collected? _____ _____ | <input type="checkbox"/> A |



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| <p>b. What will be the interval of measurement?</p> <p>_____</p> | |
| <p>c. Describe the proposed estimation technique.</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> | <input type="checkbox"/> A |
| <p>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.</p> | <input type="checkbox"/> Y <input type="checkbox"/> N |
| <p>c. If no, because no Department-accepted estimation technique will be appropriate for the hydraulically connected source:</p> | |
| <p>i. Describe why no Department-accepted estimation technique is appropriate for the source characteristics.</p> <p>_____</p> <p>_____</p> <p>_____</p> | <input type="checkbox"/> A |
| <p>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?</p> | <input type="checkbox"/> Y <input type="checkbox"/> N |
| <p>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?</p> | <input type="checkbox"/> Y <input type="checkbox"/> N |
| <p>a. If yes, with what method will the data be collected?</p> <p>_____</p> <p>_____</p> | <input type="checkbox"/> A |



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| <p>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.</p> | <input type="checkbox"/> Y <input type="checkbox"/> N |
| <p>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.</p> | |

Adequate Means of Diversion and Operation

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| <p>163. Submit a diagram of how you will operate your system from the point of diversion to the place of use.</p> | <input type="checkbox"/> S |
| <p>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.</p> <p>_____</p> <p>_____</p> <p>_____</p> | <input type="checkbox"/> A |
| <p>165. Describe the size, materials, capacity, and configuration of infrastructure to convey water from point of diversion to place of use.</p> <p>_____</p> <p>_____</p> <p>_____</p> | <input type="checkbox"/> A |
| <p>166. Does the proposed conveyance require easements?</p> | <input type="checkbox"/> Y <input type="checkbox"/> N |
| <p>a. If yes, explain.</p> <p>_____</p> <p>_____</p> | <input type="checkbox"/> A |
| <p>167. Do you propose to add a point of diversion?</p> | <input type="checkbox"/> Y <input type="checkbox"/> N |
| <p>a. If yes, do you own the land where all proposed points of diversion are located?</p> | <input type="checkbox"/> Y <input type="checkbox"/> N |
| <p>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.</p> | |



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| <p>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.</p> <p>_____</p> <p>_____</p> <p>_____</p> | <input type="checkbox"/> A |
| <p>169. Do you have any plans to measure your diversion and use?</p> | <input type="checkbox"/> Y <input type="checkbox"/> N |
| <p>a. If yes, describe the plan and the type of measurements you will take.</p> <p>_____</p> <p>_____</p> | <input type="checkbox"/> A |

Beneficial Use

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| <p>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.</p> | <input type="checkbox"/> Y <input type="checkbox"/> N |
| <p>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.</p> <p>_____</p> <p>_____</p> | |
| <p>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.</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> | <input type="checkbox"/> A |
| <p>172. Will your proposed project be subject to DEQ requirements for a public water supply (PWS) system or Certificate of Subdivision Approval (COSA)?</p> | <input type="checkbox"/> Y <input type="checkbox"/> N |
| <p>a. If yes, have you researched or consulted with DEQ regarding those requirements?</p> | <input type="checkbox"/> Y <input type="checkbox"/> N |
| <p>173. Are you proposing to use surface water for in-house domestic use?</p> | <input type="checkbox"/> Y <input type="checkbox"/> N |
| <p>a. If yes, does a COSA exist for the proposed place of use?</p> | <input type="checkbox"/> Y <input type="checkbox"/> N |
| <p>i. If yes, please submit the COSA.</p> | <input type="checkbox"/> S |
| <p>ii. If no, have you researched or consulted with DEQ regarding their requirements?</p> | <input type="checkbox"/> Y <input type="checkbox"/> N |



Possessory Interest

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| <p>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.</p> | <p><input type="checkbox"/> Y <input type="checkbox"/> N</p> |
| <p>a. If yes, explain.</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> | <p><input type="checkbox"/> A</p> |
| <p>b. If no, do you own all proposed places of use?</p> | <p><input type="checkbox"/> Y <input type="checkbox"/> N</p> |
| <p>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.</p> <p>_____</p> <p>_____</p> <p>_____</p> | <p><input type="checkbox"/> A</p> |

Non-Mandatory Project-Specific Questions

Change in Place of Storage

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| <p>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.</p> | <p style="background-color: #cccccc;"></p> |
| <p>176. Are preliminary designs available? Preliminary designs will be required at application submittal.</p> | <p><input type="checkbox"/> Y <input type="checkbox"/> N</p> |
| <p>a. If yes, submit preliminary designs.</p> | <p><input type="checkbox"/> S</p> |
| <p>177. Will a drainage device be installed?</p> | <p><input type="checkbox"/> Y <input type="checkbox"/> N</p> |
| <p>178. Is the place of storage capacity calculated to be greater than 50 acre-feet?</p> | <p><input type="checkbox"/> Y <input type="checkbox"/> N</p> |
| <p>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?</p> | <p><input type="checkbox"/> Y <input type="checkbox"/> N</p> |



| | |
|--|--|
| 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? | <input type="checkbox"/> Y <input type="checkbox"/> 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. _____ _____ _____ _____ _____ | <input type="checkbox"/> 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. _____ _____ _____ _____ | <input type="checkbox"/> 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. | |
|--|--|



Mitigation, Aquifer Recharge, and Marketing for Mitigation

| | |
|--|---|
| <p>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.</p> | |
| <p>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?</p> | <input type="checkbox"/> Y <input type="checkbox"/> N |
| <p>a. If no, how will mitigation water be made available during the entire period when mitigation is necessary?</p> <p>_____</p> <p>_____</p> <p>_____</p> | <input type="checkbox"/> A |
| <p>187. How do the priority dates of the water rights proposed for change compare to other water rights on the source?</p> <p>_____</p> <p>_____</p> | <input type="checkbox"/> A |
| <p>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?</p> | <input type="checkbox"/> Y <input type="checkbox"/> N |
| <p>a. If yes, submit them to the Department.</p> | <input type="checkbox"/> S |
| <p>189. Describe the need for marketing for mitigation/aquifer recharge.</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> | <input type="checkbox"/> A |
| <p>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.</p> | |

Water Marketing

| | |
|--|---|
| <p>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.</p> | <input type="checkbox"/> Y <input type="checkbox"/> N |
|--|---|



| | |
|---|---|
| <p>192. How will you control or limit access to the water?</p> <p>_____</p> <p>_____</p> | <input type="checkbox"/> A |
| <p>193. Do you have contracts for the entire volume and flow rate sought?</p> | <input type="checkbox"/> Y <input type="checkbox"/> N |
| <p>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.</p> | <input type="checkbox"/> S |
| <p>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.</p> | |



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 |
|------------|--|
| 77 | DNRC will follow up. Is applicant able to add additional homes to unperfected permit to what was originally permitted. |
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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.

Mark A Bretz

5/14/2025

Applicant Signature

Date

Applicant Signature

Date

Jim Nave

5/15/2025

Department Signature

Date





REQUEST FOR PREAPPLICATION MEETING

ARM 36.12.1302(2)
(Revised 02/2025)

For Department Use Only

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.

Date Received _____
Received By _____
Scheduled Meeting Date _____

1. Applicant Name _____
Mailing Address _____
City _____ State _____ Zip _____
Home Phone _____ Other Phone _____
Email: _____

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:



5. Identify the following elements of the proposed permit or change in appropriation.

a) The flow rate and volume of water required:

Flow Rate _____ GPM CFS Volume _____ Acre-Feet

b) The point of diversion:

Point of Diversion #1 ____ 1/4 ____ 1/4 ____ 1/4 Section ____, Township ____ N S, Range ____ E W
County _____

Lot/Tract _____ Block _____ Subdivision Name _____

Point of Diversion #2 ____ 1/4 ____ 1/4 ____ 1/4 Section ____, Township ____ N S, Range ____ E W
County _____

Lot/Tract _____ Block _____ Subdivision Name _____

c) The place of use:

Lawn and Garden _____ 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
 Multiple Domestic _____ 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: _____

e) The proposed purpose: _____

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 # | | | | | |
|--------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Point of diversion | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Place of use | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Purpose of use | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Place of storage | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |



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

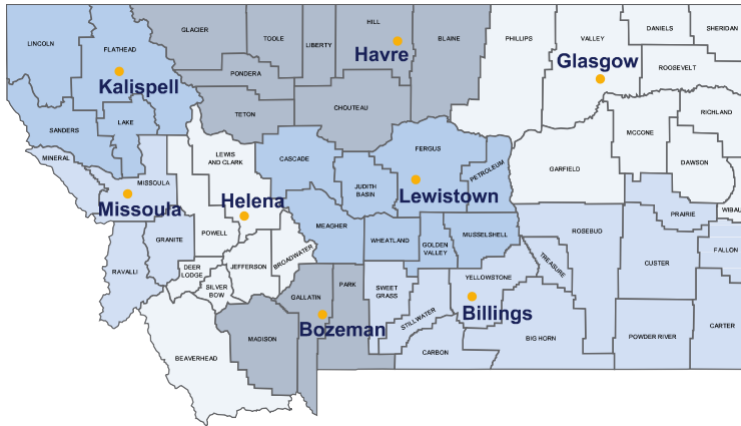
County _____

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

