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 Beneficial Water Use Permit No. 76M 30170833

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:	Dalgleish, Alex
To:	Patrick Doyle
Cc:	Kyle Mace
Subject:	RE: Deficiency Response 76M 30170833
Date:	Tuesday, May 19, 2026 10:50:00 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: Tuesday, May 19, 2026 9:59 AM
To: Dalgleish, Alex <Alexander.Dalgleish@mt.gov>
Cc: Thomas, Benjamin <Benjamin.Thomas@mt.gov>; Nave, Jim <jnave@mt.gov>; Kyle Mace <KMace@wgmgroup.com>
Subject: [EXTERNAL] Deficiency Response 76M 30170833

Good morning, Alex,

I have attached the Deficiency Response for Permit Application 76M 30170833. Please let me know if you have any questions.

Thank you,

Patrick

Patrick Doyle
Water Rights Technician & GIS Coordinator

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

WGMGROUP
Community Values. Inspired Futures.

WGMGROUP
Community Values. Inspired Futures.

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

MEMORANDUM

DATE: May 19, 2026

TO: Alex Dalgleish, 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 Permit Application 76M 30170833 Deficiency Letter Response

---

Below are the responses to the elements identified in the Deficiency Letter dated March 20, 2026 for Permit Application 76M 30170833.

1. 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 directs the Department to "see attached for pump curves". However, no such information was attached to the Application. Please provide the Department with the pump curves for the proposed well and any supplementary information.

The Pump Curve for the 30 HP Grundfos Pump End can be found in **Attachment 1.**

2. QUESTION 46 AND 46.a.

46 & 46.a. Do you own all proposed places of use? Mark "NA" if you meet one of the exceptions for possessory interest requirements. 46.a. Explain and submit documentation that shows you either have possessory interest or written permission of the parties with possessory interest of the place of use.

Question 46 was marked as "NA", but the answer should be "no" since you do not own all lots within the proposed place of use (numerous existing privately owned domestic parcels, a lot owned by the City of Missoula and a parcel owned by the West Point Owners Association). The change in answer for Question 46 results in Question 46.a. being deficient. For Question 46.a., since you do not own all parcels within the proposed place of use, please provide the Department with written documentation or evidence that all landowners within the proposed place of use consent to receiving water from the Applicant and their water distribution system.

46. Do you own all proposed places of use? Mark "NA" if you meet one of the exceptions for possessory interest requirements.

No

46.a. Explain and submit documentation that shows you either have possessory interest or written permission of the parties with possessory interest of the place of use.

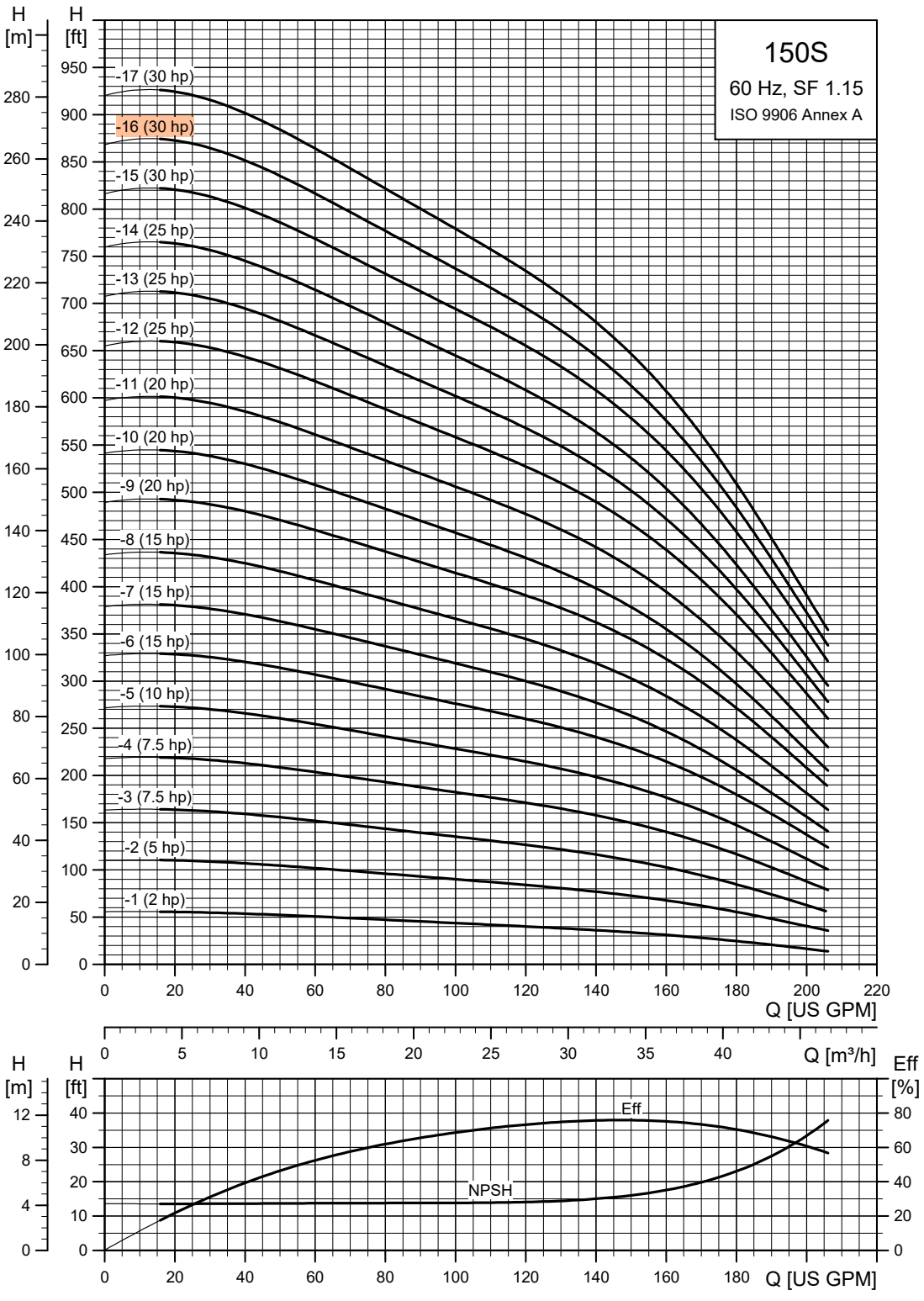
The parcels owned by the City of Missoula and West Point Owners Association, while in the general legal land description of the place of use, will not be covered under the proposed permit. The City of Missoula parcel is a utility lot that is not permitted for development. Common area irrigation found in the West Point Owners Association parcel is covered by the existing permit 76M 30170836. Water is only supplied under the proposed permit 76M 30170833 for the multiple domestic purpose.

Parcels are created and sold to private owners but the water system serving the two subdivisions is owned by Circle H Investments LLC. Lots created within the two subdivisions through the Montana Subdivision and Platting Act utilize a Certificate of Subdivision Approval (COSA) to fulfill the Sanitation in Subdivision Act. Each COSA stipulates lots are required to be connected to the water system that supplies water under the existing and proposed permits. For reference the COSA for Phase 4A was granted stipulating “public water supply will be provided through extensions and connections to the Circle H Water Supply System #MT0004446.” The Letter of Approval can be found in **Attachment 2** with the relevant wording highlighted on page 1.

ATTACHMENT 1

6" and larger wells - continued

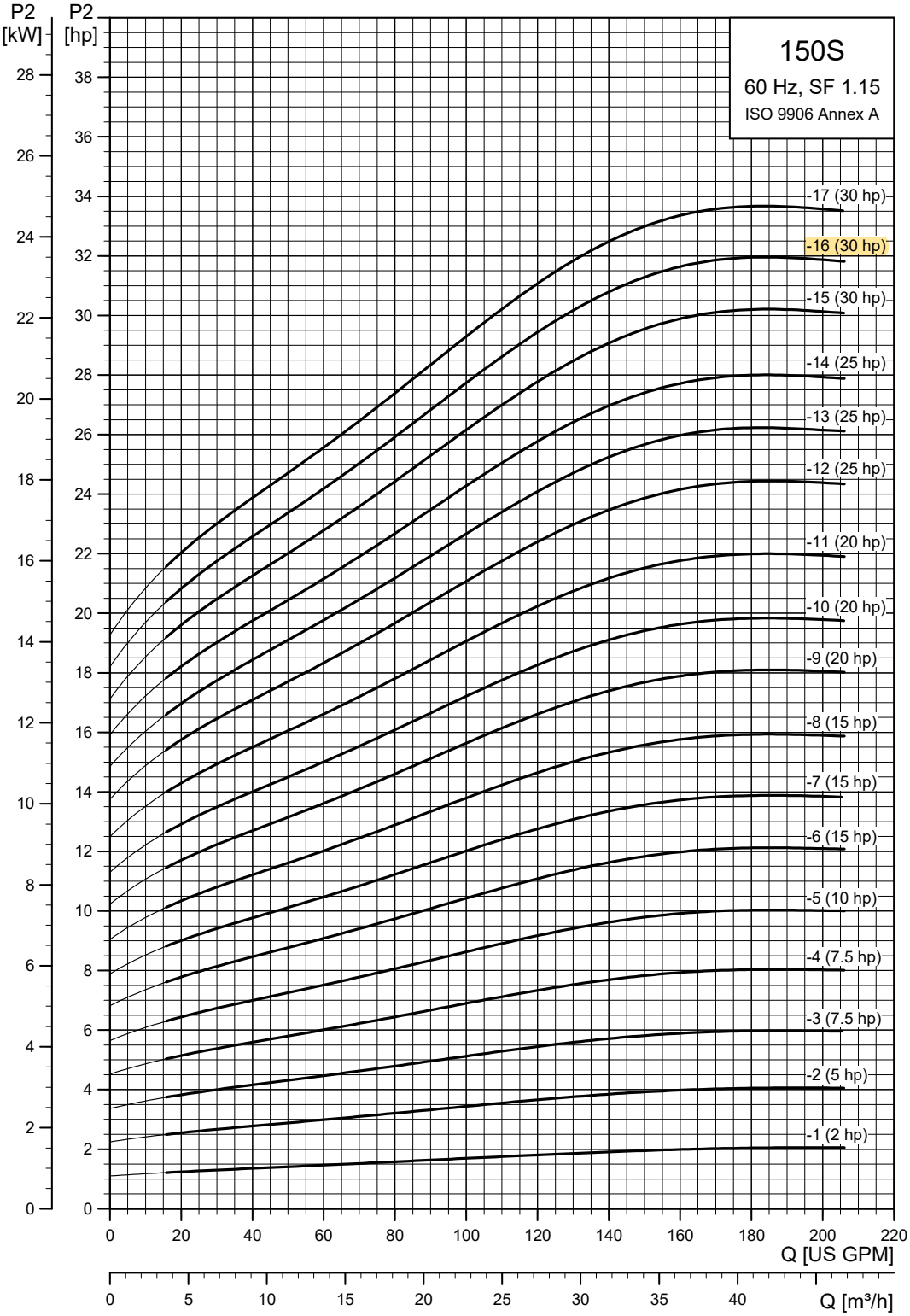
SP 150S (150 gpm)



TM05 0239 1812

6" and larger wells - continued

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

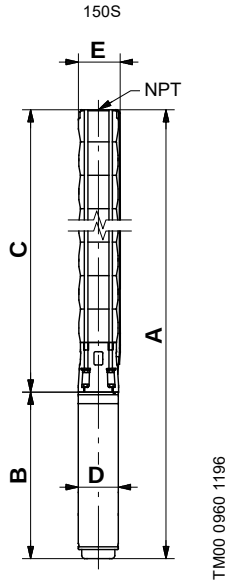


TM05 0241 1812

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



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.

ATTACHMENT 2

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 ¼ 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.

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: _____ for

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

Owner's Name: Circle H Investments, LLC

From: Dalgleish, 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 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: Thursday, April 23, 2026 3:05 PM
To: Dalgleish, Alex <Alexander.Dalgleish@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: Dalgleish, Alex <Alexander.Dalgleish@mt.gov>
Sent: Thursday, April 23, 2026 11:33 AM
To: Patrick Doyle <pdoyle@wgmgroup.com>
Subject: RE: Circle H Applications 76M 30170833 and 76M 30170836

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,

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** [facebook.com] | **X (Twitter** [twitter.com]) | **Instagram** [instagram.com]
How did we do? Let us know here: Feedback Survey [forms.office.com]

From: Patrick Doyle <pdoyle@wgmgroup.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 O: 406-728-4611
1111 East Broadway
Missoula, Montana 59802
www.wgmgroup.com [wgmgroup.com]

WGMGROUP
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 letter for Beneficial Water Use Permit No. 76M 30170833

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):

- ❑ **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 directs the Department to "*see attached for pump curves*". However, no such information was attached to the Application. Please provide the Department with the pump curves for the proposed well and any supplementary information.

- ❑ **46 & *46.a*. Do you own all proposed places of use? Mark "NA" if you meet one of the exceptions for possessory interest requirements. *46.a. Explain and submit documentation that shows you either have possessory interest or written permission of the parties with possessory interest of the place of use.***
  Question 46 was marked as "NA", but the answer should be "no" since you do not own all lots within the proposed place of use (numerous existing privately owned domestic parcels, a lot owned by the City of Missoula and a parcel owned by the West Point Owners Association). The change in answer for Question 46 results in Question 46.a. being deficient. For Question 46.a., since you do not own all parcels within the proposed place of use, please provide the Department with written documentation or evidence that all landowners within the proposed place of use consent to receiving water from the Applicant and their water distribution system.

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 Dalgleish
Water Resource Specialist
Missoula Regional Office

(406)-542-5886
Alexander.dalgleish@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

APPLICATION FOR BENEFICIAL WATER USE PERMIT

§ 85-2-302, MCA

Form No. 600 *(10/2025)*

For Department Use Only

RECEIVED

MAR - 2 2026

MONTANA D.N.R.C
MISSOULA REGIONAL OFFICE

Application # 30170833 Basin 76M
Priority Date _____ Time 11:09 (AM)/PM
Rec'd By TS
Fee Rec'd $ 700/1700 Check # 1548
Deposit Receipt # MSS2621537-01
Payor Circle H Water, Inc.
Refund $ _____ Date _____

FILING FEE

$2900/$1600 – Inside a Basin Closure Area, Controlled Groundwater Area or Compact Closure; without/with filing fee reduction.

$2500/$1200 – Outside a Basin Closure Area; Controlled Groundwater Area or Compact Closure; without/with filing fee reduction.

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 600P-B will be credited toward filing fees shown above.

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

Applicant Name CIRCLE H RANCH INVESTMENTS LLC
Mailing Address 4800 GRANT CREEK RD City MISSOULA State MT Zip 59808
Phone Numbers: Home _____ Work _____ Cell _____
Email Address _____

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 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 correspondences, 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 Permit Preapplication Meeting Form Part A and Part B (Form 600P-A and 600P-B)?

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

2.a. ☐ **S** Submit the Technical Analyses Addendum (Form 600-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 600P? **If yes:**
2.c.i. Please explain.

2.c.ii. ☐ **S** Submit the Technical Analyses Addendum (Form 600-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 600-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 your application is for groundwater, not surface water, and one or more of your points of diversion are in a Basin Closure Area, then submit the Basin Closure Area Addendum (Form 600-BCA).

4. ☐ **S** ☑ **NA** If your application is for groundwater and one or more points of diversion are in a Basin Closure Area, then your project must have a Hydrogeologic Report that conforms with MCA 85-2-361 to comply with the requirements of § 85-2-360, MCA. A Hydrogeologic Report Addendum (Form 600-HRA) or Department Technical Analyses may be used to meet these requirements. Please mark the box below that best applies, then select "S" if submitting a Hydrogeologic Report or "NA" if one is not required. This question does not apply to surface water points of diversion in a Basin Closure Area.

- ☐ If you elected to conduct Technical Analyses, you must submit the Hydrogeologic Report Addendum (Form 600-HRA).
- ☐ If you elected for DNRC to conduct Technical Analyses but did not have a preapplication meeting AND complete a Form 600P Permit Preapplication Meeting Form (or changes have occurred since the completed Form 600P), you must submit the Hydrogeologic Report Addendum (Form 600-HRA).
- ☐ If you elected for DNRC to conduct Technical Analyses, had a preapplication meeting, completed a Form 600P, and the Technical Analyses remain unchanged since the preapplication meeting, you do not need to submit Form 600-HRA because the Department's Technical Analyses meet the report requirements of § 85-2-360 and § 85-2-361, MCA.

5. ☐ **S** ☑ **NA** If the project is for one or more groundwater points of diversion located in a Controlled Groundwater Area, then submit the Controlled Groundwater Area Addendum (Form 600-CGWA).

6. ☐ **S** ☑ **NA** If the project involves an appropriation that is greater than 5.5 CFS and 4,000 acre-feet, then submit a Criteria Addendum Application for Beneficial Water Use Permit for Appropriations Greater than 5.5 CFS and 4,000 AC-FT (Form 600-B).

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

8. ☐ **S** ☑ **NA** If you require mitigation water to meet the criteria of issuance, then submit a Mitigation Purpose Addendum (Form 600/606-MIT).

9. ☐ **S** ☑ **NA** If the proposed purposes include marketing or selling water, (not marketing for mitigation/ aquifer recharge), then submit the Marketing Purpose Addendum (Form 600/606-WMA).

10. ☐ **S** ☑ **NA** If the project involves one or more places of storage, then submit a Permit Storage Addendum (Form 600-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)).

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

12. ☐ **S** ☑ **NA** If the project includes a point of diversion and/or place of use on State of Montana Trust Land, submit documentation of consent from the DNRC Trust Lands Management Division.

13. ☐ **S** ☑ **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.

PURPOSE AND DIVERSION INFORMATION

14. ☐ **Y** ☑ **N** Is the proposed use temporary?

14.a. If yes, when will the appropriation cease? _____

15. Is the proposed source surface water or groundwater? Groundwater

16. What is the source name? Groundwater

17. ☑ **S** Attach a map utilizing an aerial photograph or topographic map that shows the following: section corners; township and range; north arrow; scale bar; all proposed points of diversion labeled with a unique Point of Diversion (POD) ID number and, if applicable, GWIC number; all proposed places of use; all proposed conveyance facilities and or routes; all proposed places of storage labeled with a unique Storage ID number; and places of use (POU) for all overlapping water rights. More than one map may be submitted, if necessary to clearly convey all required information.

18. Fill out the table below. 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.

Purpose	**Means of Diversion**	**Acres Irrigated** (if appl.)	**Period of Diversion** *(Month/Day - Month/Day)*	**Period of Use** *(Month/Day - Month/Day)*	**Flow Rate** ☑ *GPM* ☐ *CFS*	**Volume** *(Acre-Feet)*
Multiple Domestic	Well	NA	01/01/ to 12/31	01/01/ to 12/31	110	49.53
				Total Flow Rate and Volume Required	110GPM	49.53AF

19. ☑ **Y** ☐ **N** Does the proposed use include on or more of the following purposes: domestic, multiple domestic, stock, or irrigation? If yes, fill out the table below, where applicable.

Purpose	**Requested Information**	**Response**
Domestic or multiple domestic	Number of households and bedrooms served per household	127 Households, See attached for details
Stock	Number of animal units	
Irrigation	Method of irrigation type (sprinkler or flood) and subtype (if flood: level border, graded border, furrow, contour ditch, or other; if sprinkler: center pivot, wheel line, or other)	
Irrigation (flood only)	Design slope	

POINT(S) OF DIVERSION

20. Describe the proposed location of the point(s) diversion to the nearest ¼ ¼ ¼ Section. Label each POD with the POD ID number used for the project map (question 17).

POD #	¼	¼	¼	Sec.	Twp.	Rge.	County	Lot	Block	Tract	Subdivision	Gov. Lot
1	NW	SE	SW	26	14N	20W	Missoula					

PLACE OF USE

21. What are the geocodes of the place of use?

NA; See attached	

22. Describe the legal land description for the proposed place of use and, if applying for an irrigation or lawn and garden purpose, list the number of irrigated acres.

Acres	Gov. Lot	Block	¼	¼	¼	Sec.	Twp.	Rge.	County
					E2	26	14N	20W	Missoula
						25	14N	20W	Missoula

SUPPLEMENTAL AND OVERLAPPING WATER RIGHTS

23. ☑ **Y** ☐ **N** Will other water rights supplement or overlap the place of use to contribute to the purpose(s)?

23.a. If yes, summarize how the supplemental and proposed water rights will be operated as a whole to serve the purpose(s).

See Attached

24. For each supplemental or overlapping water right, please list the water right number, typical period of diversion and use (MM/DD-MM/DD), flow rate (GPM or CFS), and the volume of water (AF) contributed to the shared place of use.

Water Right #	Average Period of Diversion	Average Period of Use	Flow Rate	Volume Contributed after proposed change
76M 30013295	01/01 to 12/31	01/01/to 12/31	180GPM	63.18AF Domestic
76M 30013295	4/1 to 10/15	4/1 to 10/15	180GPM	41.57AF L&G

25. ☐ **Y** ☑ **N** Will this application supplement contract water from a Federal Project, ditch company, or other source?

25.a. If yes, explain.

ADVERSE EFFECT

26. 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 well. The water distribution system includes service lines to the homes with curb stop valves that can be closed individually if needed.

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

During times of water shortage, the lawn and garden use in the subdivision will be curtailed followed by reductions in domestic use (which are metered).

28. ☐ 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?

28.a. If yes, explain.

29. ☐ Y ☑ N Does a water commissioner distribute water or oversee water distribution on your proposed source?

29.a. If yes, list the source(s).

30. ☐ Y ☑ N Do other water rights share any of the proposed points of diversion?

30.a. If yes, describe how the proposed project will not adversely affect these water rights.

31. ☑ Y ☐ N Do other water rights share any conveyance infrastructure associated with the proposed project?

31.a. If yes, describe how the proposed project will not adversely affect these water rights.

This well will be connected to the existing water system for the project, currently served under permit 76M 30013295. The water from the proposed project and the existing project are combined to supply water to the current and future phases of the subdivision. The water system has been designed to serve 330 units. At the current proposed full build out, there will be 289 units served by the system.

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.

The motor in the well is a Franklin 30HP 460V 3 Phase with a 30 HP Grundfos Pump End. The total dynamic head is 585'. Please see attached for pump curves.

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. This may include but is not limited to, pipelines and ditches. Include a description of any losses related to the proposed conveyance. Ditch conveyance losses may be estimated numerous ways, which include a ditch loss rate or Department standard methods.

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. Describe how the proposed diversion and conveyance infrastructure can provide the required flow and volume, for the purposes plus any conveyance losses and storage, throughout the proposed period of diversion.

The water diverted from the wells is transported to a 500,000 gallon buried concrete reservoir. Water is delivered to the homes in the West Pointe and existing Circle H subdivisions by gravity and includes an existing Pressure Reducing Valve above West Pointe. An additional buried reservoir may be constructed for future Circle H Phases that will have homes constructed at higher elevations.

36. Provide a plan of operations, which includes 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 buried 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. 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** Does the proposed conveyance require easements?

37.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 for 76M 30013295 and the proposed point of diversion, which was drilled at the same time but not connected to the system. Please see attached for the easement agreement.

38. ☐ **Y** ☑ **N** Do you own the land where all proposed points of diversion are located?

38.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.

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

IF YES,

39.a. Explain the wastewater disposal method.

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

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

40. ☑ **Y** ☐ **N** Do you have any plans to measure your diversion and use?

40.a. If yes, describe the plan and the type of measurements you will take.

The total water diverted from the well will be measured and each home will utilize a meter for measuring individual use.

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

IF YES,

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

41.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

41.c. ☐ **Y** ☐ **N** For all wells yet to be drilled, will a licensed well driller construct the wells?

41.d. ☐ **S** ☑ **NA** Submit any well logs not yet submitted to the Department.

BENEFICIAL USE

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

42.a. ☑ **Y** ☐ **N** If yes, do all proposed beneficial uses fall within Department standards?

42.b. If no Department standard exists, or if any proposed beneficial use falls outside of Department standards, explain how the requested flow rate and volume are reasonable for the purpose.
The subdivision submittal to the DEQ for this project estimates an average volume of 0.39AF per home per year, or 350 gallons per day. The flow rate for this well combined with the two existing wells was determined to be necessary for subdivision requirements.

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

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

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

44.a.i. ☐ **S** ☐ **NA** If yes, please submit the COSA.

44.a.ii. ☐ **Y** ☐ **N** If no, have you researched or consulted with DEQ regarding their requirements?

POSSESSORY INTEREST

45. ☑ **Y** ☐ **N** 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.

45.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.

46. ☐ **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.

IF NO,

46.a. ☐ **S** Explain and submit documentation that shows you either have possessory interest or written permission of the parties with possessory interest of the place of use.

46.b. ☑ **Y** ☐ **N** Would you like the water right to be appurtenant to the land? Please note that if your water right is not appurtenant to land it will not transfer by default with the conveyance of the property, pursuant to § 85-2-403, MCA.

46.b.i. If no, explain.

PROPOSED COMPLETION PERIOD

47. How much time will be needed to complete this project and to submit to the DNRC a Project Completion Notice (Form 617)? 30 years

48. Please 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 phase of these subdivisions took over 20 years to reach build-out due to unforeseen market forces and ownership transition.

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 15:07:51 MST) Date: Feb 23, 2026

Printed Name _____

Applicant Signature _____ Date: _____

Printed Name _____

Applicant Signature _____ Date: _____

CIRCLE H INVESTMENTS LLC
BENEFICIAL WATER USE PERMIT FORM NO. 600
Application 76M 30170833
SUPPLEMENTAL

19. NUMBER OF DWELLINGS
Under the proposed permit, there will be 127 single family dwellings added to the existing subdivisions. There are two subdivisions, Circle H and West Pointe. 42 of the proposed dwellings will be in the Circle H subdivision and 85 will be in West Pointe.

21. WHAT ARE THE GEOCODES OF THE PLACE OF USE?
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 will own 100% of the water right and will be responsible for the water system that supplies water to the lot owners. The lot owners will agree to connect to the water supply and not receive water from any other source. The individual lot owners will have no possessory interest in the water right.

23. WILL OTHER WATER RIGHTS SUPPLEMENT OR OVERLAP THE PLACE OF USE TO CONTRIBUTE TO THE PURPOSE?
76M 30013295 is a provisional permit that supplies water to the subdivision for domestic and lawn and garden purposes. It has been used to cover the initial phases of the subdivision using two wells permitted for a flow rate of 180gpm and a volume of 114.00 AF. If approved, the proposed well will be connected to the existing water system and will provide additional flow rate and volume to cover the water needs of future phases of the subdivision. A change application (#76M 30170836) for permit 76M 30013295 has been submitted in conjunction with this permit application.

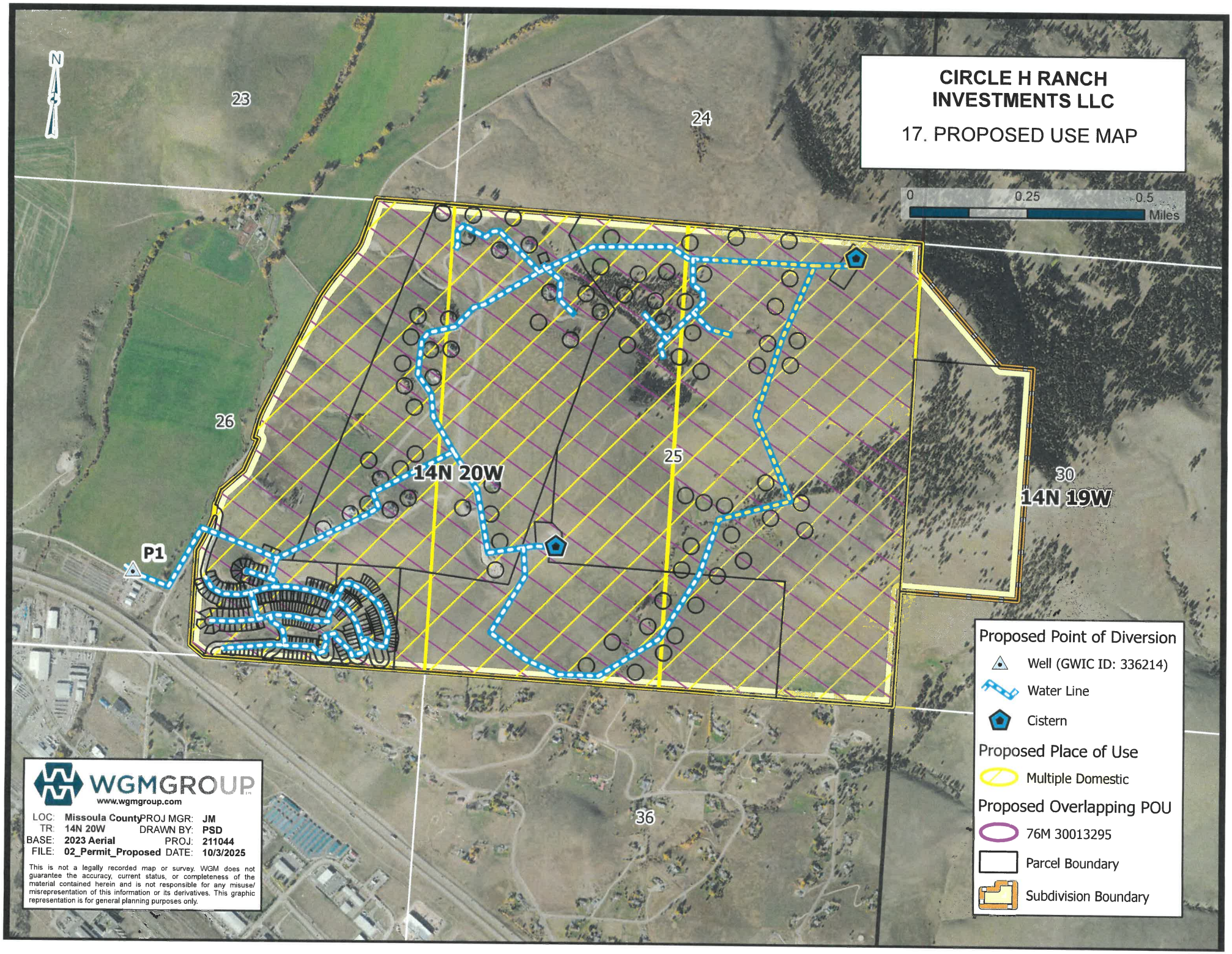
The total flow rate for the system under the combination of 76M 30013295 and the proposed permit will be 290 gpm and the total volume will be 154.28 AF. The post-change permit 76M 30013295 will change a portion of the lawn and garden volume to multiple domestic volume to cover additional homes. The multiple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

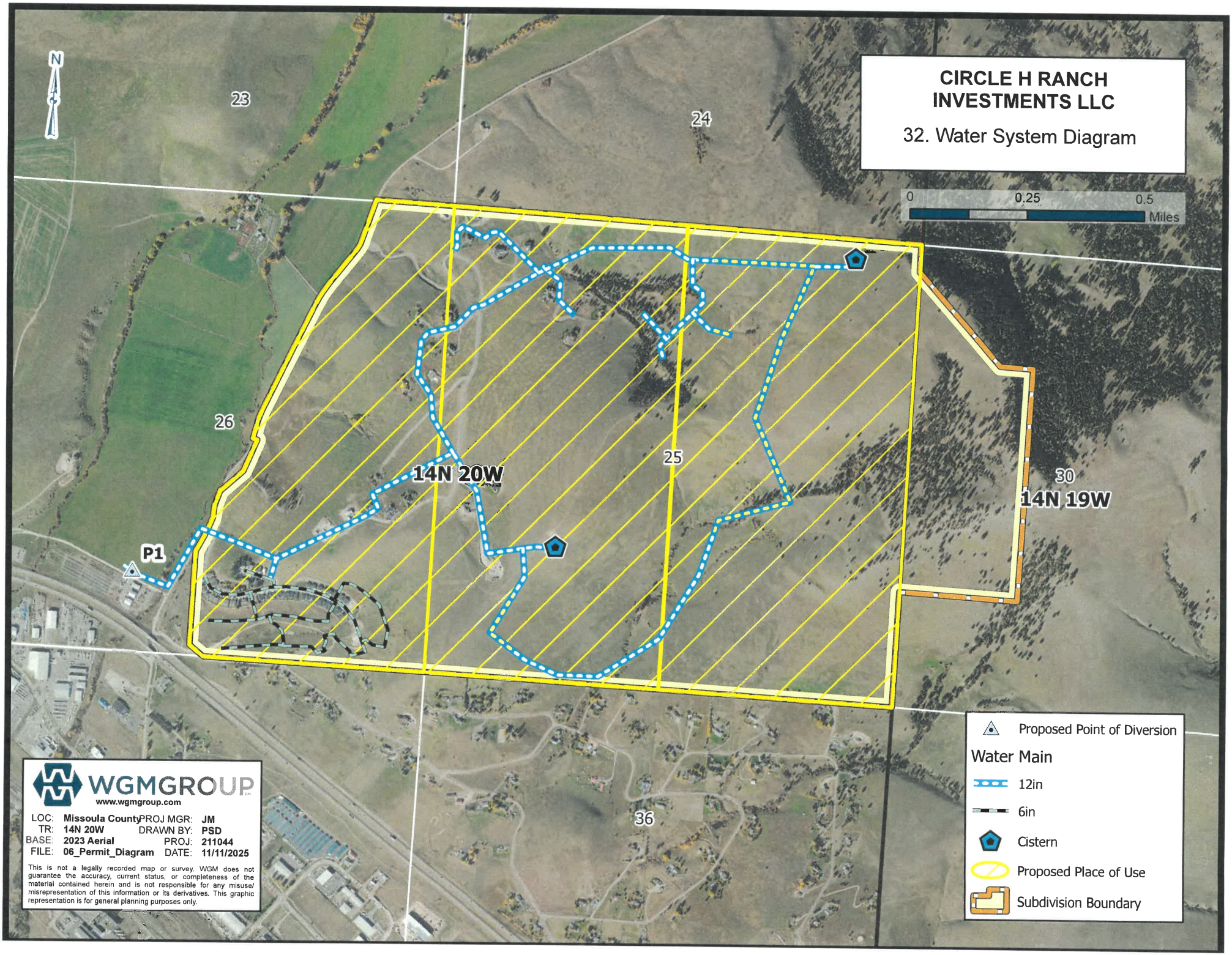
As proposed, 76M 30013295 (post-change) and this proposed permit will combine both flow rate and volume for multiple domestic use in both the existing and proposed phases of the subdivision. The subdivision's lawn and garden volume will only be covered by 76M 30013295.

MAPS

MAP 1 PROPOSED USE MAP

MAP 2 WATER SYSTEM DIAGRAM


CIRCLE H RANCH INVESTMENTS LLC
17. PROPOSED USE MAP
N
0
0.25
0.5
Miles
23
24
26
25
30
14N 20W
14N 19W
P1
36
Proposed Point of Diversion
Well (GWIC ID: 336214)
Water Line
Cistern
Proposed Place of Use
Multiple Domestic
Proposed Overlapping POU
76M 30013295
Parcel Boundary
Subdivision Boundary
WGMGROUP
www.wgmgroup.com
LOC: Missoula County
TR: 14N 20W
BASE: 2023 Aerial
FILE: 02_Permit_Proposed
PROJ MGR: JM
DRAWN BY: PSD
PROJ: 211044
DATE: 10/3/2025
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.


CIRCLE H RANCH INVESTMENTS LLC
32. Water System Diagram
0
0.25
0.5
Miles
N
23
24
26
25
30
14N 20W
14N 19W
P1
36
Proposed Point of Diversion
Water Main
12in
6in
Cistern
Proposed Place of Use
Subdivision Boundary
WGMGROUP
www.wgmgroup.com
LOC: Missoula County
TR: 14N 20W
BASE: 2023 Aerial
FILE: 06_Permit_Diagram
PROJ MGR: JM
DRAWN BY: PSD
PROJ: 211044
DATE: 11/11/2025
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.

ATTACHMENTS

WATER & WELL LINE EASEMENT

Return To:
Sullivan, Tabaracci & Rhoades, P.C.
1821 South Avenue West
Third Floor
Missoula, MT 59801

Missoula County Vickie M Zeier MIS 04:04P BK=667 Pg=907

WELL & WATER LINE LICENSE

This License is dated the ___ day of _____, 2002 and is entered into by and between Circle H Ranch Limited Liability Company, a Montana Limited Liability Company, of 8100 Butler Creek Road Missoula, MT 59808 (Circle H) and Natalie L. Hanson, Paul Allen Hanson and Margaret Hanson of 8255 Butler Creek Road, Missoula, Montana 59808 (Hanson) and provides as follows:

RECITALS

1. Circle H is the owner of a certain parcels of real property, located in Missoula County Montana and described as set out in Exhibit "A" to this License (the Circle H Property).

2. Hanson are owner of a certain parcels of real property, located in Missoula County Montana and described as set out in Exhibit "B" to this License (the Hanson Property).

3. Hanson have consented to the installation of water wells upon and an underground water service lines and related apparatus upon, under and across their property to provide water service to the Circle H Property and to such additional properties as Circle H may determine in return for the consideration, as described in this License.

AGREEMENT

NOW THEREFORE, for and in consideration of the sum of Ten Dollars and other good and valuable consideration, paid by Circle H to Hanson, along with other good and valuable consideration as described below, it is agreed as follows:

2002
2 of 9
/2003 04:04P
Missoula County Vickie M Zeier Mts Bk-697 Pg-907

1. Grant of License. Hanson hereby grant unto Circle H a License for the installation, maintenance, repair and removal of water wells together with underground water lines and related apparatus, including but not limited to electrical service, upon, under and across the Hanson Property, the terms of which License are described herein, together with rights of reasonable access onto the Hanson Property to carry out the installation, maintenance, repair and removal anticipated herein.

2. Grazing. In further consideration of the grant of this License, Circle H shall hereinafter permit Hanson to graze cattle upon that part of the Circle H Property, subjected to that certain Conservation Easement dated the 18th day of November, 1996 and recorded in Book 490, Page 2140 of the records of the Missoula County Clerk and Recorder. Circle H shall not charge Hanson with any rent for such grazing. Provided, if this License is subsequently terminated by Circle H the entitlement to grazing as set out in this Section shall thereupon terminate. Such grazing shall be limited in number of head and times of grazing so as to fully comply with all requirements of the Conservation Easement and to otherwise provide for good stewardship of the land and Hanson shall be responsible for any damages caused by their failure to so comply. Further, in the event Circle H assigns its interest in this License to another or if Circle H deems it unadvisable to continue to permit grazing, the entitlement of Hanson to graze on the Circle H Property arising under this License shall terminate, and thereafter as further consideration the holder of Circle H's interest in this License shall pay Hanson an annual sum equal to the fair market value of such grazing rights.

3. Location. The location of the water wells, along with the underground water lines and related apparatus, shall be at such place on the Hanson Property, as Circle H may reasonably determine, without unduly interfering with any existing use or improvements thereon, provided that the wells, along with the underground water lines and related apparatus will be located in the approximate area as illustrated in Exhibit "C". Once the water wells, along with the underground water lines and related apparatus are installed said License shall pertain to an area 30 feet in radius from the location of the water well and fifteen feet on either side of the water lines and related apparatus as the same are ultimately located on the Hanson Property, together with rights of reasonable access onto the Hanson Property to carry out the activities anticipated herein.

4. License Purpose. The purpose of the License is to provide domestic water to the single family residences and multiple family residences located upon or to be located upon the Circle H Property and to such other properties as Circle H may determine. For the purposes of this License domestic use includes, but is not limited to, watering of lawn and garden areas, but not including irrigation for agricultural purposes. To the extent reasonably possible the water system and apparatus anticipated herein will be buried.

5. Improvement. Hanson shall bear no cost or expense in connection with the installation, maintenance, repair and replacement of the water wells, or with the underground water lines and related apparatus, to be located pursuant to this License. All costs and expense related

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to the installation, maintenance, repair and replacement of the water wells, along with the underground water lines and related apparatus, shall be borne by Circle H. In the event it is necessary to repair or maintain the water wells, underground water lines and/or related apparatus which repair or maintenance requires disturbing the surface of the Hanson Property, Circle H shall be responsible for returning the surface area to as close to its original condition as possible and as soon after the repairs are made as is reasonably possible. Circle H agrees to make proper, advance arrangements with the Missoula County and any necessary utility companies, whose roads or underground service lines the water lines will cross, and with the holders of any other easement or properties, that will be bisected by the water line. Circle H agrees that all electrical service lines shall be buried, to the extent reasonably possible.

6. Connection of Hanson Property. If at some time after the water wells are drilled and operating Hanson desire to develop their property into a residential development, they may connect into the water wells and system to be installed by Circle H, provided first that the anticipated water use on the Hanson Property will not unreasonably interfere with the provision of water to residences located upon or to be located upon the Circle H Property and further provided that Hanson reimburse Circle H for a proportionate share of the costs to develop and operate the wells, and any shared parts of the water lines or apparatus, which proportionate share shall be based upon the number of individual dwelling units located or to be located on the Circle H Property and the number of individual dwelling units located or to be located on the Hanson Property.

7. Abandonment of License. In the event the water produced from the wells anticipated herein is not adequate in quantity or quality to provide an adequate supply, for Circle H's purposes, it shall be under no obligation to proceed with the installation of water lines or related apparatus, and this License shall thereupon be abandoned by Circle H delivering a notice of abandonment to Hanson.

8. Attorney's Fees. In the event either party finds it necessary to employ counsel in order to enforce, rescind or interpret any term or provision of this License, including any proceeding in bankruptcy, before any officer or judge of the U.S. Bankruptcy Court or any proceeding pertaining thereto, the prevailing party shall be entitled to recover from the other party in addition to costs and disbursements allowed by law, the prevailing party's reasonable attorneys fees. Attorneys fees shall include any attorneys services rendered prior to the institution of litigation or proceedings in bankruptcy and include all matters pertaining to litigation, or proceedings in bankruptcy as may be necessarily incurred in such proceedings and shall include an estimate of the attorneys' fees to be incurred by the prevailing party following any initial decision or judgment entered in connection with that matter.

9. Binding Effect. It is the intention of the parties that the License herein granted be deemed a perpetual, irrevocable License for the benefit of Circle H. This License may be terminated only as described herein and may only be modified by the signed written agreement of Circle

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H and Hanson, their respective heirs, successors and assigns. The rights, privileges and obligations granted and assumed by the parties to this document shall be binding upon the heirs, successors and assigns of the parties hereto. It is specifically agreed that Circle H may assign its rights hereunder without restriction.

IN WITNESS WHEREOF the Parties hereto have hereunto set their hands this ___ day of _____, 2002.

Paul Allen Hanson

Paul Allen Hanson

Natalie L. Hanson

Natalie L. Hanson

Margaret Hanson

Margaret Hanson

CIRCLE H RANCH LIMITED LIABILITY COMPANY, a Montana Limited Liability Company

By _____

Howard F. Seale, Sr., Manager

STATE OF NEW JERSEY
:ss.
County of UNION)

This instrument was acknowledged before me on JANUARY 16 2003 by Howard F. Seale, Sr., as Manager of Circle H. Ranch Limited Liability Company.

Regina K. Hague

Notary Public for the State of Montana
Printed Name: REGINA K. HAGUE
Residing at 212 DOGWOOD LA, BERKELEY HEIGHTS
My commission expires: 12-05-03

(Seal)

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of 9
Missoula County Vicki M Zeier MIS
BK-697 Pg-907

STATE OF MONTANA)
:ss.
County of Missoula)

This instrument was acknowledged before me on 12- 19, 2002 by Natalie L. Hanson, Paul Allen Hanson and Margaret Hanson.

Notary Public for the State of Montana
Printed Name: SHIRLEY M. DAY
Residing at: Missoula
My Commission expires: 5-16-2006

(Seal)

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EXHIBIT "A"
LEGAL DESCRIPTION CIRCLE H PROPERTY

Lot 1; Lots A-1 through A-6, Lots B-1, B-2, and B-5, Lots C-1 through C-4, Lots D-1 through D-4, Lots E-1 through E-5, Lots F-1 through F-5 and Lots G-1, through G-5; Lot 2; Public Utility Lots A through D; and Remainder (Future Phase) all as depicted on the plat of Circle H Ranch - Phase I, a subdivision of the County of Missoula, Montana, located in the East 2 of Section 26 and Section 25, Township 14 North, Range 20 West and the West 2 of Section 30, Township 14 North, Range 19 West, PMM, Missoula, County, Montana, according to the official recorded plat thereof.

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EXHIBIT "B"
LEGAL DESCRIPTION OF HANSON PROPERTY

That tract or parcel of land lying and being in County of Missoula, State of Montana, to-wit:

Beginning at the Southwest corner of Section 24, Township 14 North, Range 20 West of the Montana Principal Meridian, thence North 1980 feet; thence N.12°30'E. 274 feet; thence West 1277 feet; thence N.59°45'W. 826 feet; thence N.0°30'E, 466 feet; thence Southwesterly to a point 220 feet East of the center of Section 23; thence West to the Quarter corner between Sections 22 and 23; thence South to the Northeast corner of the SE1/4 of the SE1/4 of Section 22; thence West to the East line of the present Northern Pacific right-of-way; thence South along the East side of said right-of-way to a point which is Northwesterly1958 feet of the Southeast corner of Section 27, said point being on the North and East boundary of the Northern Pacific Railway right-of-way; thence North 800 feet from the boundary of the Northern Pacific Railway right-of-way, thence S.61°57'E. 292 feet; thence S.55°16'E. 612 feet; thence S.67°35'E. 314 feet; thence East 740 feet; thence South 880 feet to a point which is 100 feet East of the Southwest corner of Section 26; thence East to the South quarter corner of Section 26; thence due North on the center line to a point on the West side of the present county road; thence Northeasterly along the West side of the present county road to a point which is 850 feet West of the Southeast corner of Section 23; thence East to the Southeast corner of Section 23; the place of beginning, excepting 5 acres conveyed to Walter L. Pope by deed recorded in Volume 139 of Deeds, page 453, records of Missoula County, Montana.

Also, commencing at the Southwest corner of said Section 24; thence North along the West section line of said section 24; to a point 660 feet south of the quarter corner common to sections 23 and 24; thence Northeasterly to a pont 132 feet East of said quarter corner; thence East 520 feet; thence N. 73°E. 995 feet; thence N. 63°E. 1188 feet; thence S.70°E. 460 feet ; thence N.59°E. 318 feet; thence N.60°30'E. 510 feet; thence N.70°E. 833 feet; thence S.76°E. 730 feet; to the Township line; thence South along said Township line 3593 feet to the Southeast corner of said Section 24; and thence West along the South boundary of said Section 24 to the place of beginning.

Subject to roads, rights of way and easements as the same now exist or appear of record.

Also that portion of the N1/2 and the N1/2 of the SE1/4 of Section 22, Township 14 North, Range 20 West, Montana Principal Meridian, lying North and East of the Northern Pacific right-of-way as now surveyed and located through said section, containing 285 acres, more or less.

Reference: Book 150 of Micro Records at page 2405

Less Certificate of Survey #814, Certificate of Survey #862, Certificate of Survey #1085, Certificate of Survey #1316, Certificate of Survey #1421, all in Section 24, Township 14 North, Range 20 West, Missoula County, Montana; Hanson-Butler Creek #1, a platted subdivision; a tract of land described in Book 10 of Micro Records at Page 1126 in Section 26 and 27, Township 14 North, Range 20 West, a tract of land described in Book 49 of Micro Records at Page 1584 in Section 23 and 24, Township 14 North, Range 20 West, a tract of land described in Book 152 of Micro Records at Page 86 in Section 26, Township 14 North, Range 20 West; and Missoula County, Roads.

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EXHIBIT "C"

ILLUSTRATION OF GENERAL AREA IN WHICH WATER WELLS MAY BE LOCATED

600_Permit_Form_ALL REDUCED

Final Audit Report 2026-02-23

Created:	2026-02-03
By:	Morgan Plasmier (mplasmier@wgmgroup.com)
Status:	Signed
Transaction ID:	CBJCHBCAABAAcPV0kQg2Qh_hRXHrNfEtGcRyUrivx5ep

"600_Permit_Form_ALL REDUCED" History

Document created by Morgan Plasmier (mplasmier@wgmgroup.com)
2026-02-03 - 10:41:56 PM GMT

Document emailed to Mark Bretz (mbretz@bretzrv.com) for signature
2026-02-03 - 10:43:11 PM GMT

Email viewed by Mark Bretz (mbretz@bretzrv.com)
2026-02-23 - 10:06:22 PM GMT

New document URL requested by Mark Bretz (mbretz@bretzrv.com)
2026-02-23 - 10:06:31 PM GMT

Document e-signed by Mark Bretz (mbretz@bretzrv.com)
Signature Date: 2026-02-23 - 10:07:51 PM GMT - Time Source: server

Agreement completed.
2026-02-23 - 10:07:51 PM GMT

From: Dalgleish, Alex
To: Patrick Doyle
Subject: RE: Circle H Ranch Permit 76M 30170833 TA
Date: Tuesday, December 16, 2025 12:56:00 PM
Attachments: 76M 30170833 ZOI Legal Demands Summary.xlsx
image001.png
image002.png

Patrick,

For those water rights in the ZOI without assigned volumes, the Department will calculate a volume, but the methodology differs a bit depending on the type of water right. For Groundwater Certificates, because this area is not within a controlled groundwater area, we assign a volume of 10 AF to each Certificate. For those Statement of Claims (Claims) without assigned volumes, the Department will allocate the volume listed on the original claim file as long as it is reasonable within the Department's standards found in ARM 36.12.115. For stock Claims, we take the number of AU's and multiply it by 0.034 (i.e. 200 AU's * .034 = 6.8 AF). For irrigation Claims with unreasonable claimed volumes, we determine the appropriate Climatic Area (in this case, Area III) and take the low number of the range in the Table in ARM 36.12.115(2)(e) given for the method of irrigation. For example, in the attached spreadsheet, irrigation Claim 76M 149272 00 had no assigned volume. As claimed, this right listed 7 AF for the sprinkler irrigation of 33 acres, or 0.21 AF/acre. This is a very low ratio and did not appear to be reasonable for irrigation use. Therefore, by citing the Table in ARM 36.12.115 (using the row for 70% sprinkler irrigation efficiency and the lower figure for Climatic Area III column (2.08 AF/acre), the volume was determined to be 68.64 AF (2.08 AF/acre * 33 acres).

If the claim is for a purpose that does not have a standard volume described in ARM 36.12.115 (i.e., commercial/industrial), we assign the volume listed in the claim file.

Based on the methods described above, the water rights within the ZOI were calculated to have total legal demands of 6,321.42 AF. The attached spreadsheet lists the groundwater rights in the ZOI. Those rights without assigned volumes are highlighted.

Best,

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**

WRNUMBER	WRTYPE	VOLUME	ALL_OWNERS	PURPOSES
76M 78983 00	GROUND WATER CERTIFICATE	0.02	RGB INVESTMENTS, LLC	DOMESTIC
76M 30136266	GROUND WATER CERTIFICATE	0.02	ROCKY POINT PROPERTY HOLDINGS INC; ROCKY POINT PROPERTY HOLDINGS LLC; T & J MILLER LLC	COMMERCIAL
76M 30161280	GROUND WATER CERTIFICATE	0.04	ROLLER COASTER RD LLC	COMMERCIAL
76M 30148799	GROUND WATER CERTIFICATE	0.04	OLSON PROPERTY MANAGEMENT, LLC	COMMERCIAL
76M 76750 00	GROUND WATER CERTIFICATE	0.05	RICO PROPERTIES LLC	COMMERCIAL
76M 30048336	GROUND WATER CERTIFICATE	0.06	TABLE SCRAPS LLC	DOMESTIC
76M 30067234	GROUND WATER CERTIFICATE	0.08	KIMBER PROPERTIES LLC	OTHER PURPOSE
76M 30163359	GROUND WATER CERTIFICATE	0.09	WHETSTONE ENTERPRISES LLC	FIRE PROTECTION
76M 106274 00	GROUND WATER CERTIFICATE	0.1	WILTZEN, JOHN % ANNA FAMILY TRUST	COMMERCIAL
76M 107404 00	GROUND WATER CERTIFICATE	0.11	BETTY D BIDLAKE; STEVEN V BIDLAKE	COMMERCIAL
76M 30109301	GROUND WATER CERTIFICATE	0.14	TAMARACK ENVIRONMENTAL LLC	COMMERCIAL
76M 79590 00	GROUND WATER CERTIFICATE	0.16	JOHNSON BROTHERS CONTRACTING INC	DOMESTIC
76M 30159123	GROUND WATER CERTIFICATE	0.28	WWW INVESTMENTS LLC	COMMERCIAL
76M 76713 00	GROUND WATER CERTIFICATE	0.39	7295 HWY 10 W EAST LOT, LLC	COMMERCIAL
76M 56827 00	GROUND WATER CERTIFICATE	0.5	RICHARD C BOSSARD	INDUSTRIAL
76M 75756 00	GROUND WATER CERTIFICATE	0.62	JOSHUA TIMBROOK; STACIA J TIMBROOK	LAWN AND GARDEN; STOCK
76M 117407 00	GROUND WATER CERTIFICATE	0.85	MIND LLC	LAWN AND GARDEN
76M 30151132	GROUND WATER CERTIFICATE	0.9	APAK LLC	COMMERCIAL; LAWN AND GARDEN
76M 30050652	GROUND WATER CERTIFICATE	1	DEMON AND DIRT LLC	COMMERCIAL
76M 56836 00	GROUND WATER CERTIFICATE	1	RICHARDS MISSOULA LLC	COMMERCIAL
76M 30045963	GROUND WATER CERTIFICATE	1	FIELDWORKS HOLDINGS LLC	DOMESTIC
76M 88453 00	GROUND WATER CERTIFICATE	1	RICHARD L BEEM; ROBERTA A DYRUD	DOMESTIC
76M 80179 00	GROUND WATER CERTIFICATE	1	MICHEAL J SPENCER; VIKKI A SPENCER	DOMESTIC
76M 30150957	GROUND WATER CERTIFICATE	1	JAMES E MEYER	DOMESTIC
76M 62550 00	GROUND WATER CERTIFICATE	1	GALE R ALBERT; SUSAN A TRUETT	INDUSTRIAL
76M 100946 00	GROUND WATER CERTIFICATE	1.09	LOLO PEAK INVESTMENTS LLC	COMMERCIAL; DOMESTIC

76M 30164837	GROUND WATER CERTIFICATE	1.12	BMLS HOLDINGS LLC	OTHER PURPOSE; DOMESTIC; LAWN AND GARDEN
76M 96047 00	GROUND WATER CERTIFICATE	1.12	SHADOW ASPHALT MAINTENANCE LLC	COMMERCIAL
76M 108652 00	GROUND WATER CERTIFICATE	1.12	HANSON PROPERTIES LLC	COMMERCIAL
76M 30151698	GROUND WATER CERTIFICATE	1.27	PCS HOLDING LLC	LAWN AND GARDEN; COMMERCIAL
76M 30004066	GROUND WATER CERTIFICATE	1.34	FRED'S LOUNGE	DOMESTIC; COMMERCIAL
76M 30159947	GROUND WATER CERTIFICATE	1.35	PHILIP HANSON	DOMESTIC; LAWN AND GARDEN
76M 20307 00	GROUND WATER CERTIFICATE	1.5	JRP INVESTMENTS LLC	DOMESTIC
76M 27273 00	GROUND WATER CERTIFICATE	1.5	MBROWN HOLDINGS LLC	DOMESTIC
76M 43190 00	GROUND WATER CERTIFICATE	1.5	CLIFFORD G LARSEN; PATRICIA P LARSEN	DOMESTIC
76M 149266 00	STATEMENT OF CLAIM	1.5	CAROL H AMMONS	DOMESTIC
76M 30186 00	GROUND WATER CERTIFICATE	1.5	MARIE CORONA	INDUSTRIAL
76M 33989 00	GROUND WATER CERTIFICATE	1.5	GRASSLAND ENTERPRISES LLC	COMMERCIAL
76M 9187 00	GROUND WATER CERTIFICATE	1.5	CHARLES F DELACEY; JENNIFER P DELACEY	DOMESTIC
76M 17463 00	GROUND WATER CERTIFICATE	1.5	MILLER, NEIL R CO	INDUSTRIAL
76M 18417 00	GROUND WATER CERTIFICATE	1.5	BILL KVALSTEN	DOMESTIC
76M 43189 00	GROUND WATER CERTIFICATE	1.5	CLIFFORD G LARSEN; PATRICIA P LARSEN	DOMESTIC
76M 13656 00	GROUND WATER CERTIFICATE	1.5	DESMET SCHOOL DISTRICT #20	DOMESTIC
76M 102298 00	GROUND WATER CERTIFICATE	1.63	CLIFFORD G LARSEN; PATRICIA P LARSEN	DOMESTIC
76M 82181 00	GROUND WATER CERTIFICATE	1.63	PRAIRIE GRASS LLP	DOMESTIC; LAWN AND GARDEN
76M 96971 00	GROUND WATER CERTIFICATE	1.63	GUY M HANSON; JACOB J HANSON; JANET M HANSON	DOMESTIC
76M 104148 00	GROUND WATER CERTIFICATE	1.63	THORN10 LLC	DOMESTIC
76M 110486 00	GROUND WATER CERTIFICATE	1.63	DAN RUSSELL FAMILY, LLC	DOMESTIC
76M 78414 00	GROUND WATER CERTIFICATE	1.63	MIND LLC	DOMESTIC
76M 17694 00	GROUND WATER CERTIFICATE	1.64	DESMET SCHOOL DISTRICT #20	DOMESTIC; STOCK
76M 24474 00	GROUND WATER CERTIFICATE	1.65	ROLLER COASTER RD LLC	DOMESTIC; STOCK
76M 30063032	GROUND WATER CERTIFICATE	1.85	J HAWK INC	LAWN AND GARDEN; OTHER PURPOSE
76M 20429 00	GROUND WATER CERTIFICATE	2	CJ HUNTER LLC	FISHERY
76M 43184 00	GROUND WATER CERTIFICATE	2.09	D L REBER	DOMESTIC; LAWN AND GARDEN; STOCK
76M 30111723	GROUND WATER CERTIFICATE	2.25	BEVERLY J HINIKER	DOMESTIC; LAWN AND GARDEN
76M 70318 00	GROUND WATER CERTIFICATE	2.5	SCOTT SABOL	LAWN AND GARDEN

76M 30107096	GROUND WATER CERTIFICATE	2.5	DSJB INVESTMENTS LLC	LAWN AND GARDEN
76M 47661 00	GROUND WATER CERTIFICATE	2.5	WWW INVESTMENTS LLC	COMMERCIAL
76M 99411 00	STATEMENT OF CLAIM	2.5	WWW INVESTMENTS LLC	COMMERCIAL
76M 94986 00	GROUND WATER CERTIFICATE	2.89	MISSOULA COUNTY AIRPORT AUTHORITY	STOCK
76M 26406 00	GROUND WATER CERTIFICATE	3	EMIL J PAVLIK; KATHLEEN W PAVLIK	INDUSTRIAL
76M 21535 00	GROUND WATER CERTIFICATE	3	NELSON BROTHERS LLC	DOMESTIC
76M 30062907	GROUND WATER CERTIFICATE	3	MISSOULA COUNTY	LAWN AND GARDEN
76M 30110014	GROUND WATER CERTIFICATE	3.2	MISSOULA COUNTY	DOMESTIC; LAWN AND GARDEN
76M 75226 00	GROUND WATER CERTIFICATE	3.36	LMB PROPERTY HOLDINGS LLC	COMMERCIAL
76M 30116018	GROUND WATER CERTIFICATE	3.4	CHARLES M DESCHAMPS; NANCY A DESCHAMPS	STOCK
76M 70319 00	GROUND WATER CERTIFICATE	3.5	SCOTT SABOL	DOMESTIC; LAWN AND GARDEN
76M 57837 00	GROUND WATER CERTIFICATE	3.5	TRENCHLESS SOLUTIONS INC	DOMESTIC; IRRIGATION
76M 84613 00	GROUND WATER CERTIFICATE	3.55	ADAM R RYS-SIKORA	COMMERCIAL; DOMESTIC; LAWN AND GARDEN
76M 30110488	GROUND WATER CERTIFICATE	3.57	SOHLBERG PROPERTIES LLC	COMMERCIAL; LAWN AND GARDEN
76M 66828 00	GROUND WATER CERTIFICATE	3.67	MISSOULA RURAL FIRE DISTRICT	DOMESTIC; LAWN AND GARDEN
76M 30047732	GROUND WATER CERTIFICATE	3.75	MISSOULA COUNTY	LAWN AND GARDEN
76M 142719 00	STATEMENT OF CLAIM	4	BNSF RAILWAY CO	INDUSTRIAL
76M 40006 00	GROUND WATER CERTIFICATE	4	JOHN F PETERSON; MARGARET G PETERSON	DOMESTIC; LAWN AND GARDEN
76M 97072 00	GROUND WATER CERTIFICATE	4.32	KC LA FLESCH	COMMERCIAL; DOMESTIC
76M 30065006	GROUND WATER CERTIFICATE	5	BIG SKY BREWING COMPANY	LAWN AND GARDEN
76M 100470 00	GROUND WATER CERTIFICATE	5.02	MEL'S ELECTRIC & AUTO REPAIR	COMMERCIAL
76M 30067645	GROUND WATER CERTIFICATE	5.2	AMERICAN EAGLE INSTRUMENTS	LAWN AND GARDEN
76M 75229 00	GROUND WATER CERTIFICATE	5.48	SATURN HOSPITALITY 2 LLC	COMMERCIAL
76M 107871 00	STATEMENT OF CLAIM	6	CLIFFORD G LARSEN; PATRICIA P LARSEN	DOMESTIC
76M 15905 00	GROUND WATER CERTIFICATE	6.75	MARGARET M HANSON; PAUL A HANSON	DOMESTIC; STOCK
76M 30148722	GROUND WATER CERTIFICATE	7.31	IBEY LEASING LLP	IRRIGATION; COMMERCIAL
76M 36555 00	GROUND WATER CERTIFICATE	7.5	MARGARET M HANSON; PAUL A HANSON	STOCK
76M 85884 00	GROUND WATER CERTIFICATE	7.68	ROBERT J NIXON; SHERRY R NIXON	LAWN AND GARDEN; MULTIPLE DOMESTIC; STOCK

76M 85885 00	GROUND WATER CERTIFICATE	7.68	ROBERT J NIXON; SHERRY R NIXON	LAWN AND GARDEN; MULTIPLE DOMESTIC; STOCK
76M 85883 00	GROUND WATER CERTIFICATE	7.68	ROBERT J NIXON; SHERRY R NIXON	LAWN AND GARDEN; MULTIPLE DOMESTIC; STOCK
76M 30047733	GROUND WATER CERTIFICATE	8.05	MISSOULA COUNTY	LAWN AND GARDEN
76M 30002652	GROUND WATER CERTIFICATE	10	USA (DEPT OF AGRICULTURE FOREST SERVICE)	DOMESTIC; LAWN AND GARDEN
76M 103832 00	STATEMENT OF CLAIM	10	TA OPERATING LLC	COMMERCIAL
76M 72156 00	GROUND WATER CERTIFICATE	11.53	RASMUSSEN, MARY J REV TRUST UAD 10/6/23	IRRIGATION; STOCK; DOMESTIC
76M 30027088	EXEMPT RIGHT	13.5	E & K TORGERSON INC; TORGERSON FARMS PARTNERSHIP; TREH COMMERCIAL LLC	DOMESTIC; LAWN AND GARDEN
76M 103842 00	PROVISIONAL PERMIT	14.5	MVE RENTALS LLC	COMMERCIAL; LAWN AND GARDEN
76M 29149 00	STATEMENT OF CLAIM	14.55	LMB PROPERTY HOLDINGS LLC	INDUSTRIAL
76M 108720 00	STATEMENT OF CLAIM	24.26	BAIR CLARK PROPERTIES LLC	COMMERCIAL
76M 151002 00	STATEMENT OF CLAIM	30	BUENA VISTA COMMUNITY INC; SROA 6385 US HWY 10 MT LLC	COMMERCIAL
76M 34848 00	GROUND WATER CERTIFICATE	52.5	ROLLER COASTER RD LLC	IRRIGATION
76M 26359 00	STATEMENT OF CLAIM	53.37	MISSOULA, CITY OF	MUNICIPAL
76M 108761 00	PROVISIONAL PERMIT	68.6	USA (DEPT OF AGRICULTURE FOREST SERVICE)	GEOTHERMAL
76M 40406 00	GROUND WATER CERTIFICATE	74	BAIR CLARK PROPERTIES LLC	COMMERCIAL
76M 30151126	PROVISIONAL PERMIT	99	MISSOULA COUNTY AIRPORT AUTHORITY	GEOTHERMAL
76M 30013295	PROVISIONAL PERMIT	114	CIRCLE H INVESTMENTS LLC	MULTIPLE DOMESTIC; LAWN AND GARDEN
76M 52384 00	STATEMENT OF CLAIM	164	USA (DEPT OF AGRICULTURE FOREST SERVICE)	INSTITUTIONAL
76M 30006843	PROVISIONAL PERMIT	171	MISSOULA VENTURES LLC	GEOTHERMAL; LAWN AND GARDEN
76M 73929 00	PROVISIONAL PERMIT	192	GOODAN KEIL COUNTY WATER DISTRICT	MULTIPLE DOMESTIC
76M 87132 00	PROVISIONAL PERMIT	272	MISSOULA COUNTY AIRPORT AUTHORITY	GEOTHERMAL
76M 52385 00	STATEMENT OF CLAIM	474	USA (DEPT OF AGRICULTURE FOREST SERVICE)	INSTITUTIONAL

76M 30027375	PROVISIONAL PERMIT	622.4	WYE AREA WATER COMPANY LLC	MUNICIPAL
76M 52386 00	STATEMENT OF CLAIM	644	USA (DEPT OF AGRICULTURE FOREST SERVICE)	INSTITUTIONAL
76M 52387 00	STATEMENT OF CLAIM	941	USA (DEPT OF AGRICULTURE FOREST SERVICE)	INSTITUTIONAL
76M 26368 00	STATEMENT OF CLAIM	1617.15	MISSOULA, CITY OF	MUNICIPAL
76M 1335 00	GROUND WATER CERTIFICATE	10	THORNTON LUMBER CO	COMMERCIAL
76M 30010838	GROUND WATER CERTIFICATE	10	TEN LLC	OTHER PURPOSE
76M 5627 00	GROUND WATER CERTIFICATE	10	MONTANA BARITE CO INC	COMMERCIAL
76M 30119128	STATEMENT OF CLAIM	6.8	700 SW HIGGINS LLC	STOCK
76M 30019950	GROUND WATER CERTIFICATE	10	SROA 6385 US HWY 10 MT LLC	IRRIGATION; OTHER PURPOSE
76M 5096 00	GROUND WATER CERTIFICATE	10	PACIFIC HIDE & FUR DEPOT	COMMERCIAL
76M 6230 00	GROUND WATER CERTIFICATE	10	CLIFFORD G LARSEN; PATRICIA P LARSEN	DOMESTIC
76M 30042914	GROUND WATER CERTIFICATE	10	RASMUSSEN, MARY J REV TRUST UAD 10/6/23	IRRIGATION
76M 30044803	GROUND WATER CERTIFICATE	10	NORTHWEST INDUSTRIAL SUPPLY INC	COMMERCIAL; LAWN AND GARDEN
76M 149272 00	STATEMENT OF CLAIM	68.64	CAROL H AMMONS	IRRIGATION
76M 30015537	GROUND WATER CERTIFICATE	10	SATURN HOSPITALITY 2 LLC	DOMESTIC
76M 30015268	GROUND WATER CERTIFICATE	10	HI STAR PROPERTIES, LLC	LAWN AND GARDEN
76M 30042154	GROUND WATER CERTIFICATE	10	TRIPLE J-M LLC	IRRIGATION; GEOTHERMAL
76M 30119124	STATEMENT OF CLAIM	6.8	700 SW HIGGINS LLC	STOCK
76M 30019987	GROUND WATER CERTIFICATE	10	RANDY D FRASCH	DOMESTIC
76M 149274 00	STATEMENT OF CLAIM	6.9	CAROL H AMMONS	STOCK
76M 215059 00	STATEMENT OF CLAIM	0.08	DESMET SCHOOL DISTRICT #20	INSTITUTIONAL
76M 30042746	GROUND WATER CERTIFICATE	10	WYEMT LLC	COMMERCIAL
76M 30030080	GROUND WATER CERTIFICATE	10	LUCICH BROTHERS PROPERTIES, LLC	COMMERCIAL
76M 149273 00	STATEMENT OF CLAIM	6.8	CAROL H AMMONS	STOCK
76M 149271 00	STATEMENT OF CLAIM	12.15	CAROL H AMMONS	IRRIGATION
76M 30019951	GROUND WATER CERTIFICATE	10	SROA 6385 US HWY 10 MT LLC	COMMERCIAL; LAWN AND GARDEN
76M 30065028	GROUND WATER CERTIFICATE	10	MISSOULA COUNTY AIRPORT AUTHORITY	GEOTHERMAL
76M 2993 00	GROUND WATER CERTIFICATE	10	WILSON, MARVIN LLC	COMMERCIAL
76M 6105 00	GROUND WATER CERTIFICATE	10	PACIFIC HIDE & FUR DEPOT	DOMESTIC
76M 30030108	GROUND WATER CERTIFICATE	10	RANDY D FRASCH	COMMERCIAL

76M 30043001	GROUND WATER CERTIFICATE	10	BETTY L HANEL	DOMESTIC; LAWN AND GARDEN
76M 30022016	GROUND WATER CERTIFICATE	10	CARNEAL FAMILY TRUST	IRRIGATION
76M 30018411	GROUND WATER CERTIFICATE	10	COPPERSTONE DEVELOPMENT LTD	LAWN AND GARDEN; COMMERCIAL
76M 30031085	GROUND WATER CERTIFICATE	10	TRIPLE J-M LLC	IRRIGATION; GEOTHERMAL
76M 30119129	STATEMENT OF CLAIM	6.8	700 SW HIGGINS LLC	STOCK
76M 30013894	GROUND WATER CERTIFICATE	10	BITTERROOT VALLEY BANK	COMMERCIAL
76M 30013895	GROUND WATER CERTIFICATE	10	NORTHWESTERN CORPORATION	IRRIGATION
76M 30067652	GROUND WATER CERTIFICATE	10	AMERICAN EAGLE INSTRUMENTS	GEOTHERMAL
76M 3235 00	STATEMENT OF CLAIM	12.5	ALVIN F GOODAN; CARMEN L GOODAN	IRRIGATION
76M 30015267	GROUND WATER CERTIFICATE	10	SHERIDAN MONTANA VENTURES LLC	LAWN AND GARDEN
76M 30031233	GROUND WATER CERTIFICATE	10	GALE R ALBERT; SUSAN A TRUETT	DOMESTIC
76M 30005743	GROUND WATER CERTIFICATE	10	DICK ANDERSON CONSTRUCTION INC	COMMERCIAL; LAWN AND GARDEN
76M 105276 00	STATEMENT OF CLAIM	3.91	CLIFFORD G LARSEN; PATRICIA P LARSEN	STOCK
76M 432 00	GROUND WATER CERTIFICATE	10	BAIR CLARK PROPERTIES LLC	COMMERCIAL

Total Volume: **6321.42**

How did we do? Let us know here: Feedback Survey

From: Patrick Doyle <pdoyle@wgmgroup.com>
Sent: Tuesday, December 16, 2025 9:48 AM
To: Dalgleish, Alex <Alexander.Dalgleish@mt.gov>
Subject: [EXTERNAL] RE: Circle H Ranch Permit 76M 30170833 TA

Good morning, Alex,

Thank you for sending the TA. I have a question regarding the water rights within the Zone of Influence, found in Appendix A of Part B. Are you able to provide volumes for the water rights listed? We will need to determine the legal availability of groundwater in the ZOI and would need to know the DNRC's interpretation of those right that do not list their volumes on their abstracts.

Thank you,

Patrick

Patrick Doyle
Water Rights Technician & GIS Coordinator

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

WGMGROUP
Community Values. Inspired Futures.

From: Dalgleish, Alex <Alexander.Dalgleish@mt.gov>
Sent: Friday, December 12, 2025 9:17 AM
To: Patrick Doyle <pdoyle@wgmgroup.com>
Subject: Circle H Ranch Permit 76M 30170833 TA

Patrick,

I've attached a copy of the Technical Analyses (TA) documents for Circle H Ranch Investment LLC's Permit Application 76M 30170833. These documents will be mailed to

the Applicant this morning.

Note that I did not mail a copy of the TA to your office.

Please reach out with any questions.

Thanks,

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** [facebook.com] | **X (Twitter** [twitter.com]) | **Instagram** [instagram.com]
How did we do? Let us know here: Feedback Survey [forms.office.com]

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

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 Permit Preapplication No. 76M 30170833

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 Permit Preapplication No. 76M 30170833 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 Permit 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 §85-2-311, 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 (§85-2-311, MCA).

You have 180 days to submit the Water Right Permit Application Form 600 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 Dalgleish
Water Resources Specialist
Missoula Regional Office
406-542-5886
Alex.dalgleish@mt.gov

CC:

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

Groundwater Permit Technical Analyses Report- Part A

The Montana Department of Natural Resources and Conservation (DNRC) Water Resources Division

David Parmelee, Groundwater Hydrologist, Water Sciences Bureau (WSB)

Applicant Name	Circle H Investments, LLC
Application No.	76M 30170833
Point of Diversion Legal Land Description	NWSESW Section 26, Township 14 North, Range 20 West, Missoula County

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 permit 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 Permit Technical Analyses Report – Part A contains the following sections:

1.0 Executive Summary

Application Details

The Applicant requests to divert 49.53 acre-feet (AF) annually from one well at a maximum flow rate of 110 gallons per minute (gpm) for multiple domestic use. The point of diversion (POD) is Groundwater Information Center (GWIC) ID 336214. The period of diversion and period of use would be January 1 to December 31. The proposed diversion would provide water for 127 new homes in an existing subdivision.

Water for the existing subdivision is supplied by two existing wells, GWIC ID 214761 and GWIC ID 214758, under Provisional Permit No. 76M 30013295, which has an unperfected volume of 114.00 AF and flow rate of 180 gpm for multiple domestic and lawn and garden purposes. The proposed well would be manifolded into the existing water-supply system to provide additional flow rate and volume for domestic use. Lawn and garden irrigation for new and existing homes would be covered under Provisional Permit No. 76M 30013295.

Approved Variances from ARM 36.12.121

Variances from aquifer test requirements found in ARM 36.12.121 were requested on April 29, 2025, and granted from the Missoula Regional Office on June 27, 2025. The reasons for the requested variances can be found in the WSB Aquifer Testing Addendum Review document dated April 29, 2025, which was submitted by WSB to the Missoula Regional Office on June 6, 2025. Granting the variances was recommended because the quality of the data derived from the submitted aquifer test was sufficient for modeling.

WSB Technical Analyses Findings

Based on information submitted, the WSB estimated aquifer properties, calculated the available water column of the proposed well, and assessed potential impacts to existing groundwater and surface water rights. Adverse effects were evaluated by comparing drawdown in existing wells and quantifying net depletions to surface water. These analyses are in support of the following criteria assessment: adequacy of diversion, physical availability, and adverse effect. A summary of WSB findings described in subsequent sections is shown below.

TECHNICAL ANALYSES FINDINGS

AQUIFER TEST ANALYSIS	Using the Moench (1997) solution for unconfined aquifers, an aquifer saturated thickness (b) of 40 feet (ft), and submitted 76-hour aquifer-test data for proposed well GWIC ID 336214, estimates of aquifer properties include a transmissivity (T) of 4,712 ft^2/day, storage coefficient (S) of 6.3 x 10^{-4}, specific yield (S_y) of 0.1, and anisotropy ratio (K_z/K_r) of 0.10. A wellbore skin factor (S_w) of 2.0 was used for the Production Well (GWIC ID 336214).
MODELING INPUTS	The following aquifer properties were used to complete adequacy of diversion, physical availability and adverse effect technical analyses: T = 4,712 ft^2/day, S = 6.3 x 10^{-4}, S_y = 0.1, K_z/K_r = 0.10, S_w = 2.0. Pumping schedules used to model each criterion are identified within the document.

ADEQUACY OF DIVERSION	The aquifer adjacent to GWIC ID 336214 would experience 7.19 ft of drawdown after the first year, leaving approximately 31.4 ft of available water column above the bottom of the perforated interval.
PHYSICAL AVAILABILITY	The model predicted the 0.01-foot drawdown contour, or zone of influence (ZOI), is approximately 10,100 ft from the proposed well at the end of the first year of pumping. The calculated groundwater flux through the ZOI totaled 11,166 AF per year. **Appendix A of Part B** of this report lists the active and severed water rights within the ZOI.
ADVERSE EFFECT (DRAWDOWN IN EXISTING WELLS)	The 1-foot drawdown contour is approximately 98 ft from the proposed well at the end of the fifth year of pumping according to the proposed annual pumping schedule. No water rights are predicted to experience drawdown equal to or greater than one foot.
ADVERSE EFFECT (NET DEPLETION TO SURFACE WATER)	Monthly net depletions resulting from the proposed use of groundwater are identified in **Table 1.** The starting point of the depleted reach on the Clark Fork River is in the NENWNE¼ of Section 8, Township 13 North, Range 20 West, Missoula County

Table 1: Consumed volume and net depletions to hydraulically connected surface-water sources.

Month	Consumed Volume (AF)	Clark Fork River Net Depletion (AF)	Clark Fork River Net Depletion (gpm)
January	0.28	0.52	3.77
February	0.25	0.47	3.77
March	0.28	0.52	3.77
April	0.27	0.50	3.77
May	0.84	0.52	3.77
June	0.82	0.50	3.77
July	0.84	0.52	3.77
August	0.84	0.52	3.77
September	0.82	0.50	3.77
October	0.28	0.52	3.77
November	0.27	0.50	3.77
December	0.28	0.52	3.77
Total	6.07	6.07	

2.0 Hydrogeologic Setting

Proposed well GWIC ID 336214 is located on the northeastern side of the Missoula Valley in the lower part of the drainage of Butler and La Valle Creeks (**Figure 1**). The surficial geology on the floor of the drainage is mapped as Quaternary alluvium, and the flanks of the drainage are mapped as Tertiary gravel and clay deposits of the ancestral Clark Fork River (Lewis, 1998). GWIC ID 336214 has a total depth of 117 ft below ground surface (bgs), screened interval of 90-110 ft bgs, and static water level of 73.23 ft below top of casing (btc). Based on the screened depth, well-log lithology, and the 1:100k geologic map, GWIC ID 336214 is completed in Quaternary alluvial sediments (aquifer code 110ALVM Quaternary Alluvium).

The Missoula Valley is an intermontane depression created by normal displacement along the northwest-trending Clark Fork-Ninemile fault due to post-Laramide extension (Woessner, 1988; Vuke et al., 2007). The Clark Fork River traverses the Missoula Valley from Hellgate Canyon at the east end to Huson at the northwest end. The mountains surrounding the valley and the basement rock underlying it are composed primarily of metasedimentary rocks of the Precambrian Belt Supergroup. Overlying the Belt rocks within the valley are up to 3,000 ft of Tertiary and Quaternary basin-fill sediments (McMurtrey et al., 1965).

Most of the Missoula Valley basin fill consists of Tertiary sediments and sedimentary rock that range from strongly consolidated to unconsolidated (Smith, 2006a). While the Tertiary basin fill generally has low permeability, higher-yielding lenses of sand and gravel can be important sources of groundwater near the valley margins (Woessner, 1988). Overlying the Tertiary sediments are up to 300 ft of Quaternary alluvial sediments, which are divided into shallow and deep alluvial hydrogeologic units in areas of the valley by lower permeability lacustrine deposits of Glacial Lake Missoula. Quaternary alluvium is the main source of exploitable groundwater in the Missoula Valley and comprises the Missoula Aquifer, a highly transmissive aquifer underlying the City of Missoula and adjacent areas typically at depths of 50 to 200 ft (Woessner, 1988). Confining layers in the basin fill are regionally discontinuous, and water-level data from wells at different depths throughout the valley suggest the basin-fill aquifers behave as a single aquifer system on a valley-wide scale (LaFave, 2006).

In the area of the proposed well, the Quaternary alluvium is characterized by interbedded gravel, sand, silt, and clay. Area well logs suggest the presence of a fine-grained unit in the lower Butler-La Valle drainage and adjacent part of the Missoula Valley. Because the water table in much of the area lies below the bottom of this less permeable layer, conditions in the upper part of the alluvial aquifer, in which the proposed and existing wells are completed, remain unconfined or semi-confined.

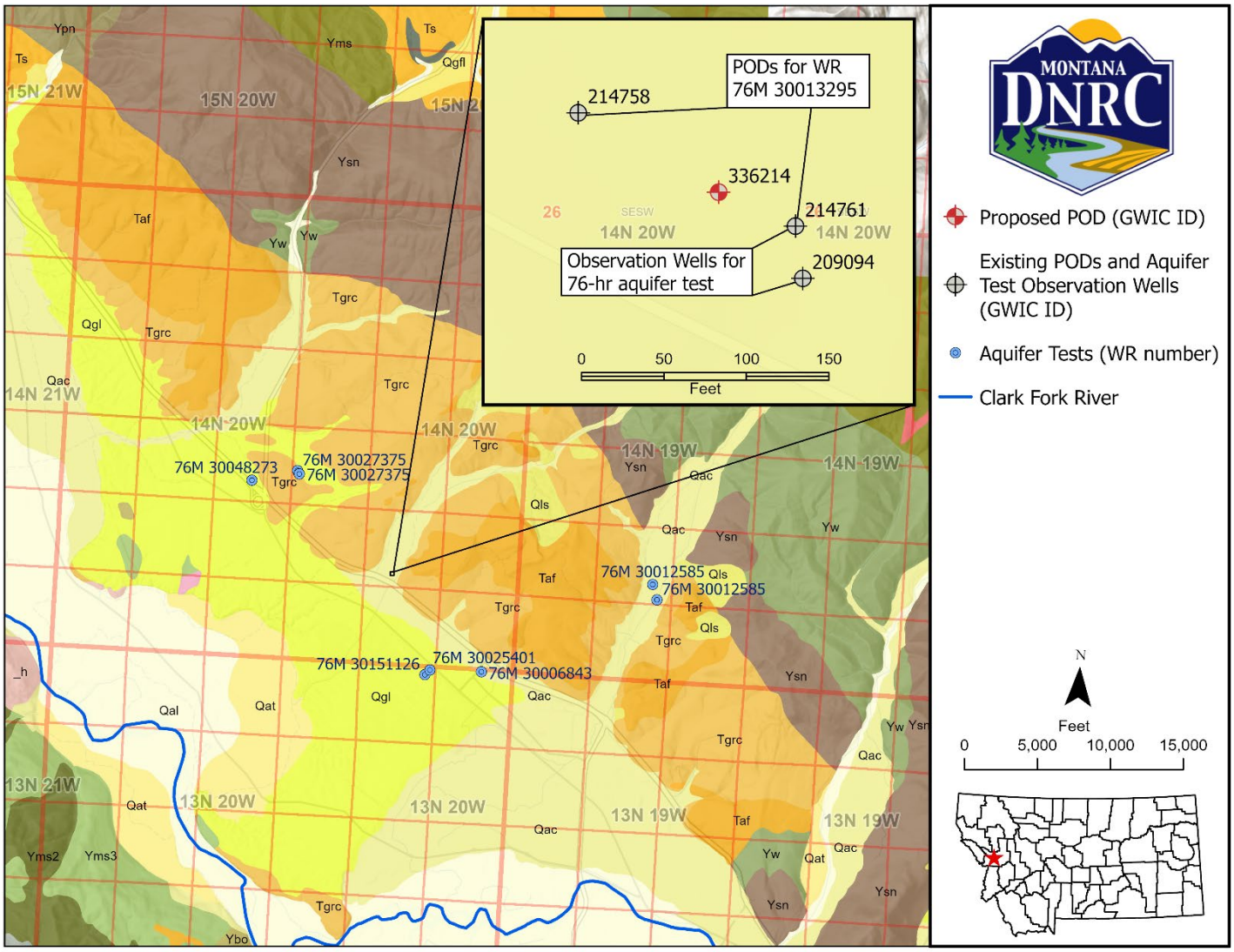

Figure 1: Map of the Applicant's proposed well, aquifer test location, PODs for Provisional Permit No. 76M 30013295, and nearby existing aquifer tests. Geology is mapped at the 1:100k scale and is from Lewis (1998). Yellow, tan, and white geologic units beginning with Q are Quaternary basin fill, orange units beginning with T are Tertiary basin fill, and all other units are Precambrian or Paleozoic fractured bedrock.

3.0 Aquifer Test Summary

DNRC requires two different types of tests, "Aquifer Tests" and "Drawdown and Yield Tests," which are used to analyze different application criteria.

- An "Aquifer Test" is a pumping test that is meant to provide data to model aquifer properties. The minimum duration of these tests is either 24-hours or 72-hours, depending on the proposed flow rate and volume (AMR 36.12.121(3)(e)), and DNRC only requires one of these tests per application. Aquifer

Tests must include observation well data, pre-test background water-level data, and post-test recovery data.

- A "Drawdown and Yield Test" is a pumping test that is meant to evaluate well construction and the ability of the aquifer to yield water to the well. This is also known as demonstrating "adequacy of diversion." The minimum duration of these tests is 8 hours, and every well that is a part of the application must be tested. Observation wells, background data, and recovery data are not required for Drawdown and Yield Tests.

Field Methods and Equipment

The Applicant submitted data from a 76-hour aquifer test that was conducted on the Production Well, GWIC ID 336214, starting on May 1, 2023. The average pumping rate was 110 gpm. Completion details for the wells used in the aquifer test are shown in **Table 2**. Additional aquifer-test information, such as the monitoring periods for the test, equipment used, collected water levels, and measured discharge can be found on Form 633. **Figure 1** shows the location of GWIC ID 336214 and the Observation Wells.

Table 2: Specification of wells for aquifer test.

GWIC ID	Role in Aquifer Test	Distance from the Production Well (ft)	Total Well Depth (ft bgs)	Perforated Interval (ft bgs)	Casing Diameter (inches)
336214	Production	NA	117	90-97, 99.8-109.8	8
214761	Observation	50.5	120	91.2-100	8
209094	Observation	72.5	400	85-95, 105-110	8

Background, Drawdown and Recovery Data

Background water-level measurements were recorded prior to the start of the aquifer test for 69 hours in the Production Well, 7 minutes in Observation Well GWIC ID 214761, and 55 minutes in Observation Well GWIC ID 209094 (**Figure 2**). In the Observation Wells, background water levels were not measured long enough to evaluate trends. In the Production Well, water levels showed several downward spikes of 0.1-0.3 ft and one more prolonged decline and recovery of 0.8 ft, interpreted here to reflect the effects of pumping in nearby wells. Overall, background levels in the Production Well trended upward during the first 37 hours of the monitoring period, with a total increase of about 0.2 ft, then flattened for approximately 16 hours before dropping and then recovering 0.8 ft over the course of 14 hours. The water level in the Production Well was still fluctuating immediately prior to the start of the aquifer test. Because the variability in the Production Well background data appears to be related at least in part to nearby pumping, which is unpredictable, no trend correction was applied to the drawdown and recovery data.

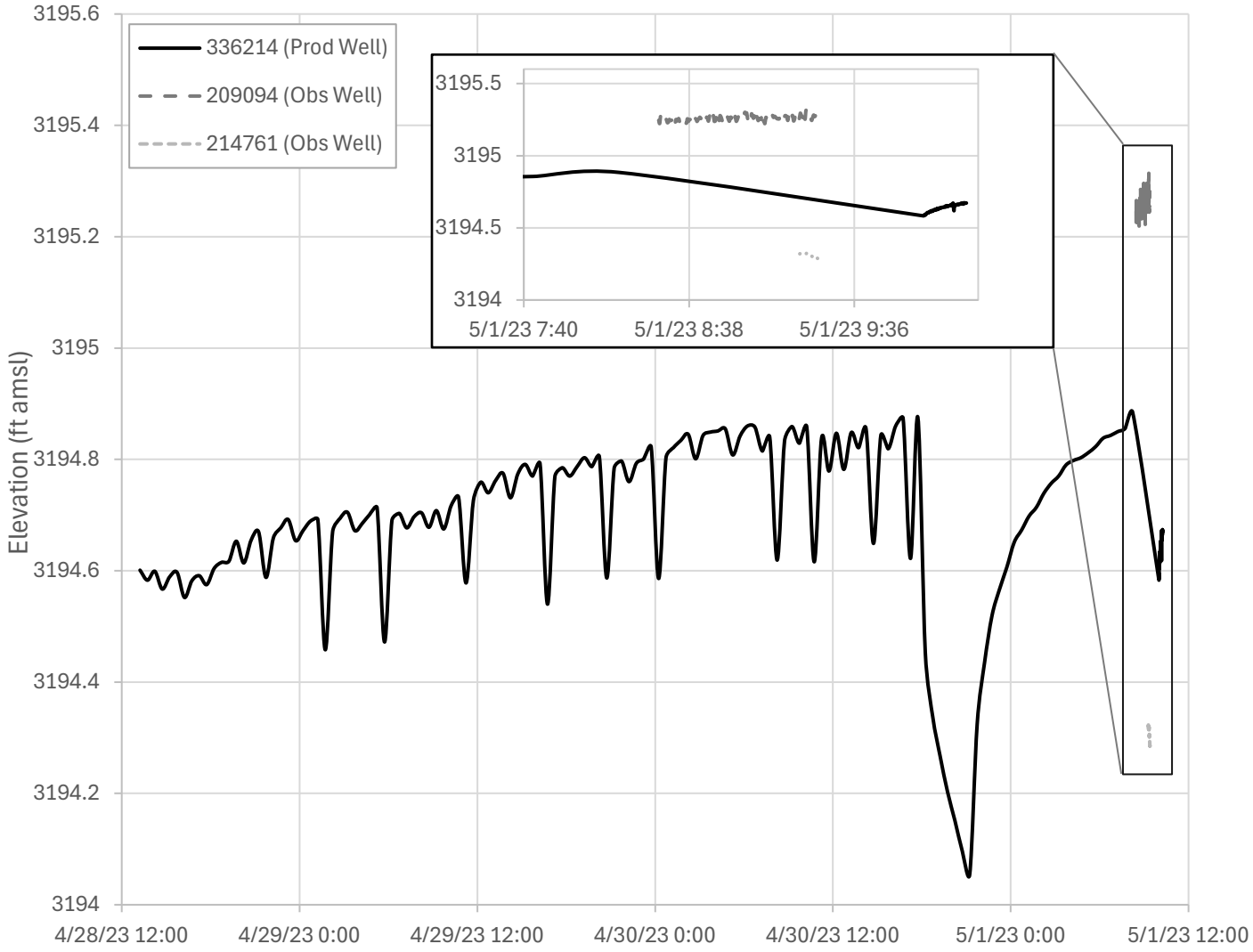

Figure 2: Background data for Production and Observation Wells prior to the aquifer test.

Drawdown data collected in the Production and Observation Wells during the drawdown and recovery phases of the aquifer test are summarized in **Figure 3**. Seven hours after the start of the test, the transducer in Observation Well GWIC ID 214761 failed, and only 8 water-level measurements were collected in that well for the remainder of the test, with no measurement taken between 7 and 21.75 hours after the start of the test. Approximately 18 hours after the start of the test, the pump was inadvertently shut off and remained off for about 3 hours. During this time, the water level in the Production Well recovered to 0.58 ft above the pretest static water level (swl), and the water level in Observation Well GWIC ID 209094 recovered to 0.25 ft below the pretest swl, or 62% of the way from the level of maximum drawdown during the first 18 hours to the pretest swl. The water level was not measured in Observation Well GWIC ID 214761 while the pump was shut off. The pump was restarted approximately 21 hours after the start of the test and ran for another 55 hours. Following final pump shut-off, recovery water levels were monitored in the Production Well and in Observation Well 209094 for 1.7 hours and 2.2 hours, respectively, and were not monitored in Observation

Well GWIC ID 214761. **Table 3** identifies the maximum drawdown and available water column above the bottom of the perforated interval for the Production and Observation Wells at the end of the aquifer test.

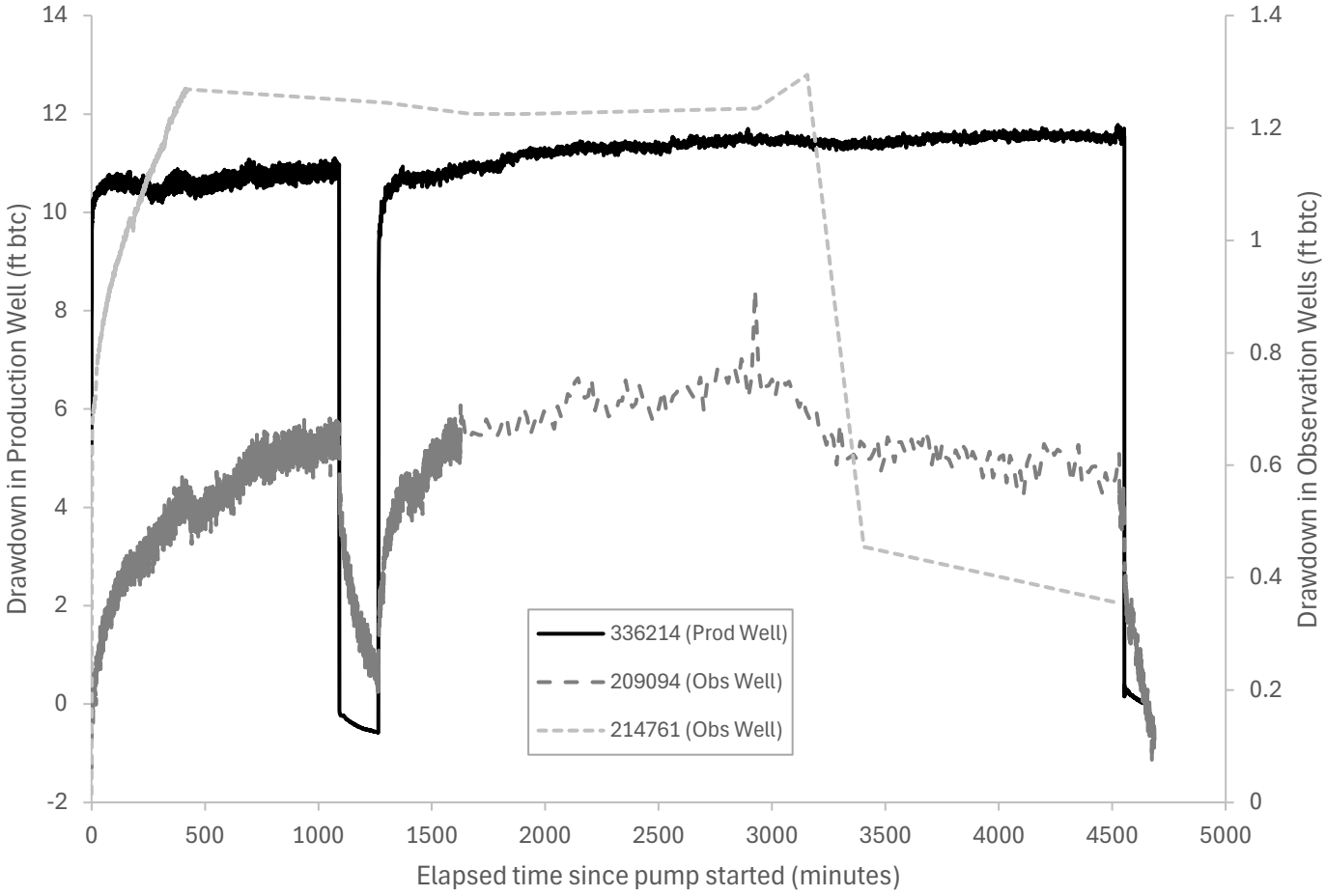

Figure 3: Drawdown and recovery data for the Production and Observation Wells in the 76-hour aquifer test.

Table 3: Available water column at the end of the aquifer test for the Production and Observation Wells.

GWIC ID	Well ID	Static Water Level (ft btc)	Maximum Observed Drawdown (ft)	Available Water Column[1] (ft)
336214	Production	73.23	11.78	26.8
214761	Observation	76.46	1.30	24.2
209094	Observation	71.92	0.91	39.2

[1]Accounts for the 2-ft difference in height between the ground surface and top of well casing.

4.0 Aquifer Test Analysis

Methods

The DNRC utilized AQTESOLV® analytical-modeling software (HydroSOLVE, Inc., 2007) to analyze drawdown data from the 76-hour aquifer test and obtain estimates of aquifer properties. AQTESOLV® uses image-well theory and the principle of superposition to simulate aquifer stress tests. Inputs to the model include drawdown and pumping-rate data, well characteristics and locations, estimated aquifer thickness, and estimated locations of no-flow and constant-head boundaries. Drawdown curves based on user-selected published solutions to the groundwater-flow equation are computed by the program and matched to the observed drawdown and recovery data. The curve that yields the best visual and statistical match between predicted and observed drawdown while cohering with the hydrogeologic setting of the test location is used to derive aquifer properties, including transmissivity (T) and the storage coefficient (S).

A saturated thickness (b) of 40 ft was used based on well logs for the Production and Observation Wells and other nearby wells. A pumping rate of 0 gpm was entered for the period between hours 18 and 21 when the pump was off. Drawdown prediction curves were matched to the entire dataset for each well as well as separately to data from the portions of the test before the pump shut down at hour 18 and after it was restarted at hour 21.

Analyses

AQTESOLV®-predicted drawdown (solid blue line) was compared to the observed drawdown (black squares), and predicted derivatives (dotted red line) were compared to derivatives calculated from observed drawdown (black triangles). The derivative curves for all three wells show a decrease and then increase at early and intermediate time, characteristic of a delayed yield response in an unconfined aquifer (Kruseman and de Ridder, 1994; Neuman, 1974). Solutions applied to the data for this analysis include Theis (1935), Cooper-Jacob (1946), Neuman (1974), Moench (1997), and Cooley-Case (1973). In nearly all cases, observed drawdown data were best fit by the unconfined Moench (1997) solution, which accounts for delayed yield, anisotropy, partial penetration of the test wells into the aquifer, and wellbore skin effects. Moench (1997) curve fits are shown for the Production Well, Observation Well GWIC ID 214761, and Observation Well GWIC ID 209094 in **Figures 4**, **5**, and **6**, respectively. **Table 4** summarizes the results of the aquifer test analyses using Moench (1997) for the Production and Observation Wells.

Wellbore storage effects were not evident in the data for any of the test wells; however, the log-log plot of drawdown in the Production Well shows a difference of greater than one log cycle between observed drawdown and calculated derivatives, indicative of linear well loss (**Figure 4**). Incorporation of well construction details to account for partial penetration of the aquifer corrected for some of the well loss. Additional well loss was accounted for with the wellbore skin factor (S_w), which was increased until the gap between the predicted drawdown and derivative curves matched the data. A skin factor of 2.0 was used for all wells.

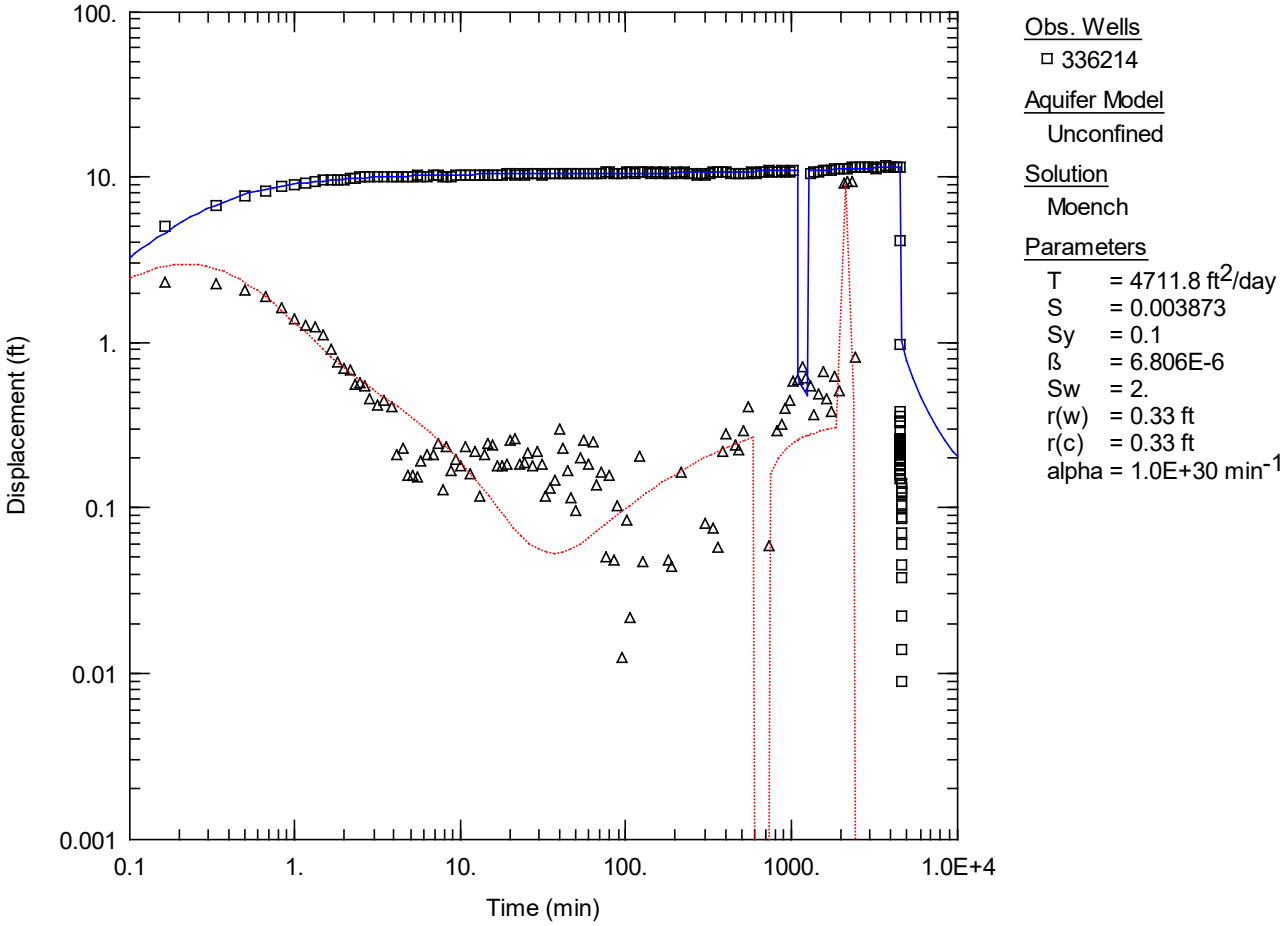

Figure 4: Moench (1997) solution and data and recovery data from the Production Well in the 76-hour aquifer test. The parameter β is a function of K_z/K_r, b, and the radius of the Production Well.

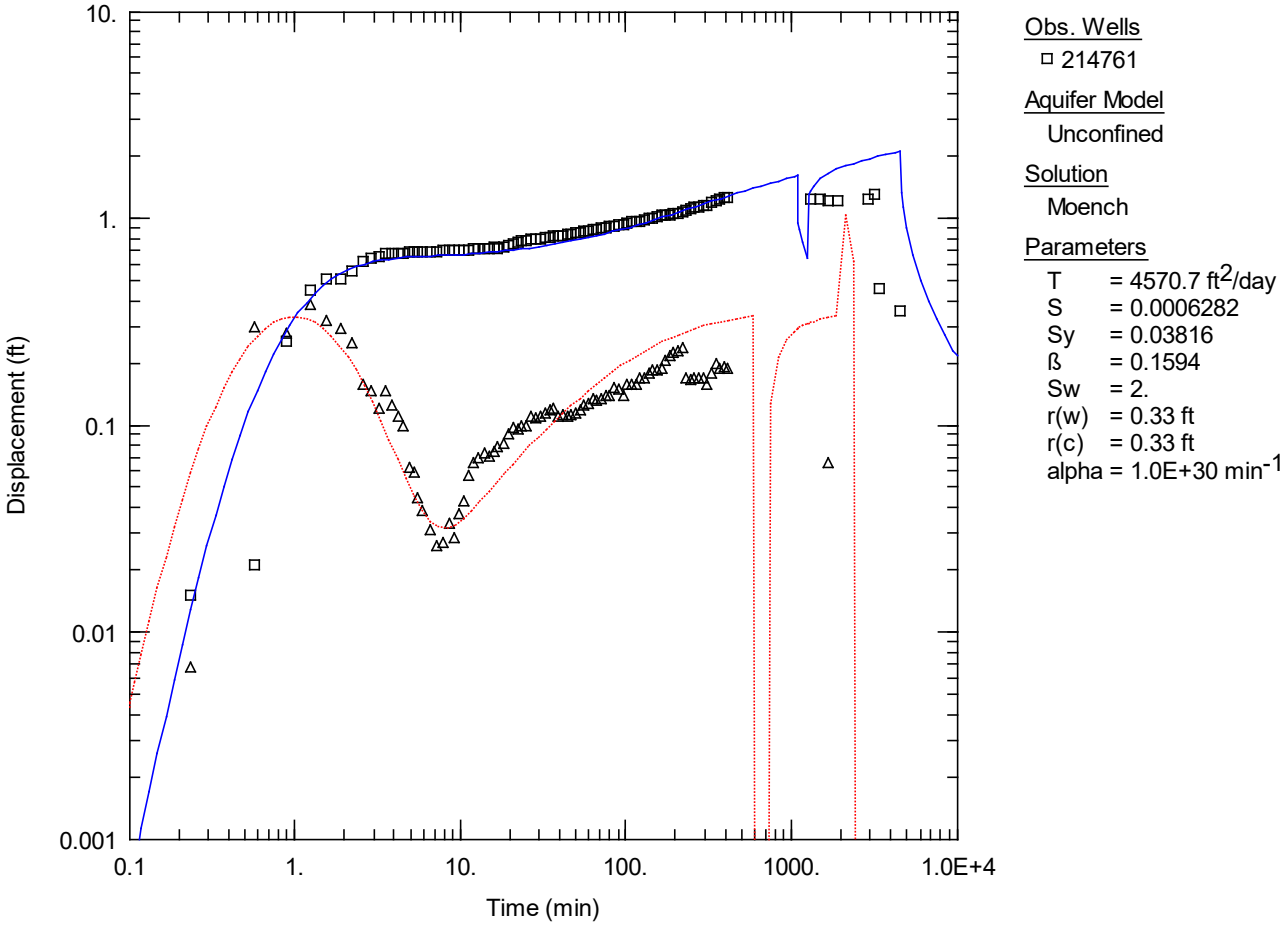

Figure 5: Moench (1997) solution and drawdown data from Observation Well GWIC ID 214761 in the 76-hour aquifer test. The parameter β is a function of K_z/K_r, b, and the distance from the Observation Well to the Production Well.

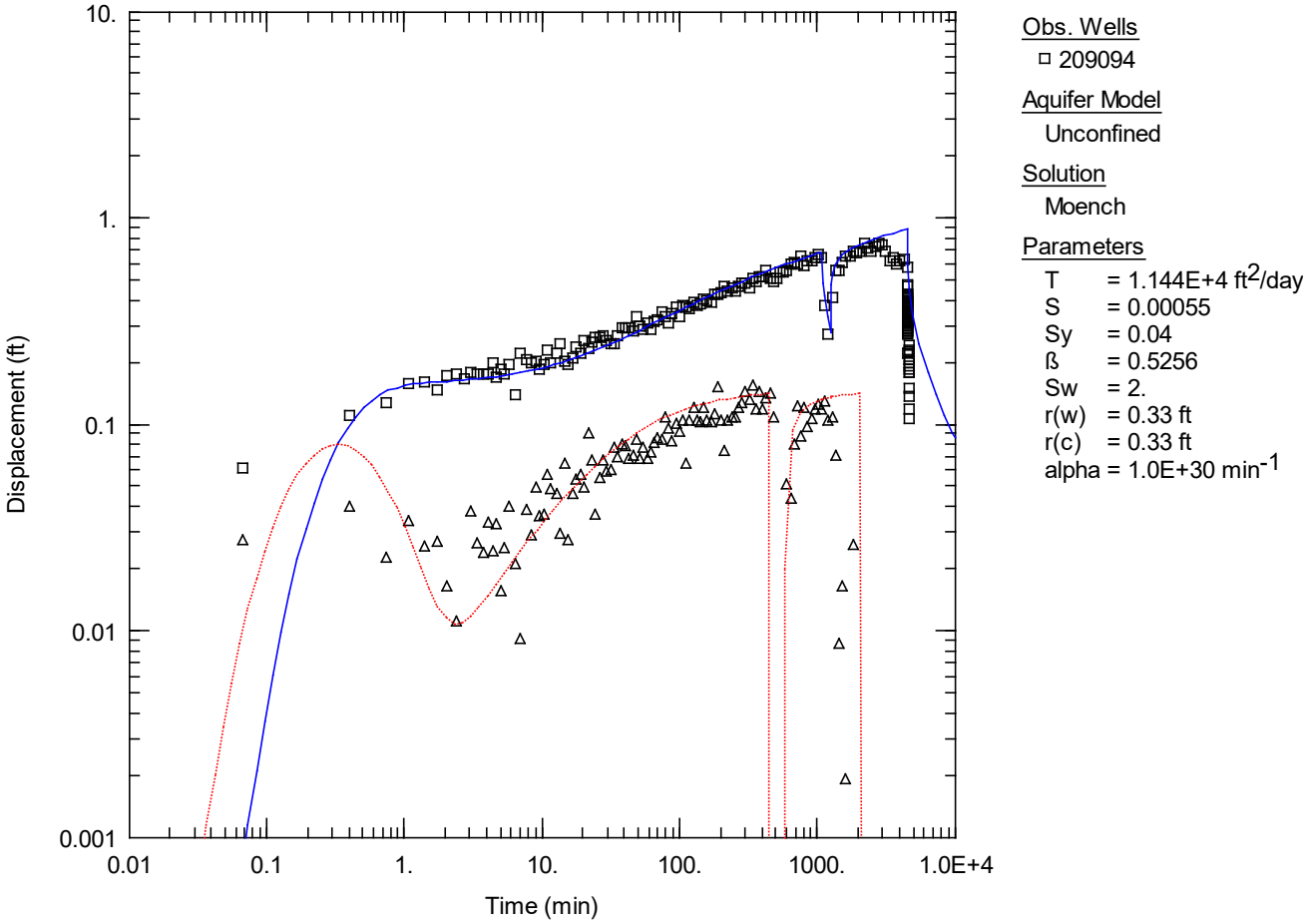

Figure 6: Moench (1997) solution and drawdown and recovery data from Observation Well GWIC ID 209094 in the 76-hour aquifer test. The parameter β is a function of K_z/K_r, b, and the distance from the Observation Well to the Production Well.

Transmissivities derived from Production Well data (4,712 ft^2/day) and Observation Well GWIC ID 214761 data (4,570 ft^2/day) using Moench (1997) are similar, as are other aquifer properties, but the transmissivity derived from Observation Well GWIC ID 209094 data (11,440 ft^2/day) is significantly greater. The same pattern was observed using other aquifer-test solutions as well as using recovery data only. Given the interbedded and discontinuous nature of sediment beds in the vicinity of the test wells, it is possible the difference is due to natural variability in the aquifer, though no significant differences are noted in the well logs and all three wells are close to each other and screened at the same depth. The difference could also be due to a change in the ambient water level during the test or equipment calibration or sensitivity. No precipitation events are recorded immediately prior to or during the aquifer test, and pumped water was discharged at a location 100 ft northeast of the Production Well, approximately equidistant from all three wells.

For characterization of the aquifer in the vicinity of the proposed well, the transmissivity derived from the Production Well data is considered the most reliable for the following reasons:

1) Observation Well GWIC ID 214761 has only seven hours of good-quality data. While aquifer properties derived from these data are useful for corroborating results from other wells, they should not be used for forward modeling, as the minimum requirement of 24 hours of data for the volume and flow rate of the proposed diversion, per ARM 36.12.121(e), was not met. An exception can be made for the elastic storage coefficient (S), which is derived primarily from early-time data in an unconfined aquifer.
2) Background data from the Production Well show short-term fluctuations of up to 0.8 ft and a longer-term increase of 0.2 ft prior to the start of the aquifer test (**Figure 2**). Because the Production Well experienced over 11 ft of drawdown during the aquifer test, fluctuations in the ambient water level during the aquifer test similar to those observed during background monitoring would have only a minor effect on the calculated transmissivity. However, since the maximum drawdown in Observation Well GWIC ID 209094 was less than one foot, changes in the ambient water level of a few tenths of a foot during the aquifer test could make a large difference in the calculated transmissivity.
3) Drawdown ceased and the water level began to rise in Observation Well GWIC ID 209094 eight hours before the end of the drawdown phase of the test (**Figures 3** and **6**). A similar rise is not observed in the Production Well, suggesting it is not due to a decrease in the pumping rate.
4) The transmissivity derived from Production Well data before the pump shut off at hour 18 (4,769 ft^2/day) is consistent with the transmissivity derived from Production Well data after the pump was restarted at hour 21 (4,783 ft^2/day), whereas the transmissivities calculated from Observation Well GWIC ID 209094 data from before and after the pump shut off (10,770 ft^2/day and 16,890 ft^2/day, respectively) differ significantly (**Table 4**). Because the measurements were made at the same location hours apart, the difference in transmissivities calculated from the same well cannot be explained by variability in the aquifer.
5) The drawdown data for Observation Well GWIC ID 209094 (**Figure 6**) are noisy compared to data from the other two wells (**Figures 4** and **5**), suggesting the drawdown measured in Observation Well GWIC ID 209094 may have been outside the sensitivity range of the transducer used in that well.

On this basis, the recommended aquifer T to be used in forward modeling is 4,712 ft^2/day, and the recommended K_z/K_r is 0.10, derived from the Moench (1997) solution for the Production Well (**Table 4**). Because Production Well data are not suitable for deriving the storage coefficient, the recommended S is 6.3 x 10^{-4} from Observation Well GWIC ID 214761. The recommended S_y to be used is 0.1 based on Lohman (1972), per DNRC standard practice for unconfined sand and gravel aquifers.

Table 4: A summary of analyses completed on data from the Production and Observation Wells in the 76-hour aquifer test. Only properties derived using Moench (1997) are included.

Role in Test/ GWIC ID	Before or After Pump Stopped[1]	Aquifer Test Phase	Solution	T (ft^2/day)	S	S_y	K_z/K_r	S_w
Production Well 336214	Whole test	Drawdown & Recovery	Moench (1997)	4,712	0.0039	0.10	0.10	2.0
	Before	Drawdown	Moench (1997)	4,769	0.0043	0.086	0.19	2.0
	Before	Recovery[2]	Moench (1997)	4,161	6.7×10^{-4}	0.078	0.22	2.0
	After	Drawdown	Moench (1997)	4,783	0.0050	0.034	0.022	2.0
	After	Recovery[2]	Moench (1997)	4,166	1.8×10^{-4}	0.069	0.20	2.0
Observation Well 214761	Before	Drawdown (1st 7 hours)	Moench (1997)	4,571	6.3×10^{-4}	0.038	0.10	2.0
Observation Well 209094	Whole test	Drawdown & Recovery	Moench (1997)	11,440	5.5×10^{-4}	0.040	0.16	2.0
	Before	Drawdown	Moench (1997)	10,770	5.9×10^{-4}	0.012	0.17	2.0
	Before	Recovery[2]	Moench (1997)	13,560	0.0012	0.026	0.22	2.0
	After	Drawdown	Moench (1997)	16,890	7.8×10^{-4}	0.029	0.042	2.0
	After	Recovery[2]	Moench (1997)	6,725	0.0020	0.072	0.59	2.0

[1] Before: only data from before the pump shut off at hour 18 were used. After: only data from after the pump was restarted at hour 21 were used. Whole test: data from the full duration of the 76-hour aquifer test were used.
[2] Recovery data were transformed using the Agarwal method (Agarwal, 1980).

Aquifer Property Comparison

Aquifer tests were conducted on the proposed well and several nearby wells, including GWIC IDs 209094, 214761, and 214758, to support the application for Provisional Permit 76M 30013295. Drawdown data were analyzed by the consultant in AQTESOLV using the Theis (1935), Cooper-Jacob (1946), and Theis (1935) recovery solutions. Transmissivities ranged from 2,500 to 18,000 ft^2/day, and storativities ranged from 0.01 to 0.1. An average transmissivity of 7,500 ft^2/day was used to calculate flux in the aquifer.

The DNRC Aquifer Test Database was queried for nearby aquifer tests. Eight tests are listed in **Table 5**, and their locations are shown in **Figure 1**. The aquifer transmissivity derived from the 76-hour aquifer test in this

analysis is low compared to T values derived from nearby tests. Because the tests range in depth from 58 to 527 ft bgs, properties derived from them may not be representative of the alluvial aquifer in the vicinity of the proposed well.

Table 5: Nearby aquifer tests from the DNRC Aquifer Test Database.

Water Right No.	GWIC ID	Well Depth (ft)	Distance from Proposed POD (mi)	Aquifer Test Length (hours)	Pumping Rate (gpm)	T (ft^2/day)	S or S_y
76M 30025401	228086	233	1.34	25	150	54,430	$1.15x10^{-4}$
76M 30151126	311811	255	1.38	24	700	36,700	$1.6x10^{-4}$
76M 30006843	200008	152	1.72	---	---	12,166	---
76M 30027375	228181	412	1.77	72	1021	55,200	$1.2x10^{-3}$
76M 30027375	228198	527	1.81	72	1168	2,700	$1.2x10^{-4}$
76M 30048273	254651	488	2.19	20	222	8,563	0.1
76M 30012585	154496	60	3.38	---	---	16,416	---
76M 30012585	217461	58	3.45	72	270	11,657	0.06

5.0 Modeling Inputs

Technical analyses in support of criteria assessment for adequacy of diversion, physical availability, and adverse effect (drawdown in existing wells) were modeled in AQTESOLV (HydroSOLVE, Inc., 2007) using the following inputs:

- Moench (1997) solution
- Well radius of 0.33 ft and screened interval of 20 ft for the proposed well
- Well locations based on a map supplied by the Applicant
- b = 40 ft
- T = 4,712 ft^2/day
- S = 6.3×10^{-4}
- S_y = 0.1 (Lohman, 1972)
- K_z/K_r = 0.10
- S_w = 2.0

Monthly pumping schedules used to complete technical analyses are identified in subsequent criteria sections.

6.0 Adequacy of Diversion Analysis

An evaluation of the potentially available water column remaining in proposed well GWIC ID 336214 during maximum drawdown in the first year of pumping was modeled in AQTESOLV (HydroSOLVE, Inc., 2007) using

the following:

- Assumed monthly pumping schedules in **Tables 6** and **7** for the period of diversion.

The Applicant requests 49.53 AF per year for multiple domestic use with a year-round period of diversion. Water for domestic use is distributed equally throughout the period of diversion; therefore, the assumed pumping schedule for the proposed well is a constant rate of 30.71 gpm year-round (**Table 6**).

Well efficiency for the proposed well was calculated by dividing the maximum modeled drawdown for the aquifer test by the maximum observed drawdown of the aquifer test. Theoretical drawdown in the proposed well due to the proposed diversion was modeled for the period of diversion using the assumed pumping schedule. Theoretical drawdown with well loss was calculated by dividing the theoretical drawdown by well efficiency.

Interference drawdown in the proposed well due to pumping in existing wells GWIC ID 214761 and GWIC ID 214758, which will be manifolded with proposed well, was modeled using assumed monthly pumping schedules for the existing wells (**Table 7**). Monthly pumping schedules were based on authorized volumes for multiple domestic use and lawn and garden use of 64 AF and 50 AF, respectively, for Provisional Permit No. 76M 30013295. The diverted volume for multiple domestic use was distributed evenly throughout the year and apportioned to each month based on the number of days in the month. The diverted volume for lawn and garden irrigation was apportioned to each month according to the monthly percentage of the total net irrigation requirement (NIR) for pasture grass in a dry year calculated for the Missoula WSO AP weather station using the Irrigation Water Requirement program (NRCS, 2003). Pasture grass was used as a proxy for turf grass by applying the inputs described in DNRC (2010). Total monthly volumes were apportioned to GWIC ID 214761 and GWIC ID 214758 based on the maximum flow rates for each well (105 gpm and 75 gpm, respectively), which were provided by the Applicant.

Table 6: Assumed monthly pumping schedule for the proposed well.

Month	Diverted Volume (AF)	Diverted Flow Rate (gpm)
January	4.21	30.71
February	3.80	30.71
March	4.21	30.71
April	4.07	30.71
May	4.21	30.71
June	4.07	30.71
July	4.21	30.71
August	4.21	30.71
September	4.07	30.71
October	4.21	30.71
November	4.07	30.71
December	4.21	30.71
Total	49.53	

Table 7: Assumed monthly pumping schedule for existing wells GWIC ID 214761 and GWIC ID 214758 authorized by Provisional Permit No. 76M 30013295.

Month	NIR[1] (in/ac)	Provisional Permit No. 76M 30013295				
		Diverted Volume (AF)			Flow Rate Per Well (gpm)	
		Multiple Domestic	*Lawn and Garden*	*Total*	*GWIC ID 214761*	*GWIC ID 214758*
January	0.00	5.44	0.00	5.44	23.15	16.53
February	0.00	4.91	0.00	4.91	23.15	16.53
March	0.00	5.44	0.00	5.44	23.15	16.53
April	0.44	5.26	1.08	6.34	27.89	19.92
May	2.51	5.44	6.16	11.59	49.37	35.26
June	3.99	5.26	9.79	15.05	66.22	47.30
July	5.61	5.44	13.76	19.20	81.75	58.39
August	4.87	5.44	11.95	17.38	74.02	52.87
September	2.53	5.26	6.21	11.47	50.46	36.04
October	0.43	5.44	1.05	6.49	27.64	19.74
November	0.00	5.26	0.00	5.26	23.15	16.53
December	0.00	5.44	0.00	5.44	23.15	16.53
Total	20.38	64.00	50.00	114.00	23.15	16.53

[1]Missoula WSO AP IWR weather station

Total drawdown in the proposed well was calculated as the maximum monthly sum of theoretical drawdown with well loss and interference drawdown during the period of diversion (**Figure 7** and **Table 8**). The aquifer adjacent to the proposed well would experience a total drawdown of 7.19 ft at the end of July in the first year of pumping. The remaining available water column in the proposed well, equal to the initial available drawdown above the bottom of the well minus total drawdown, is 31.4 ft.

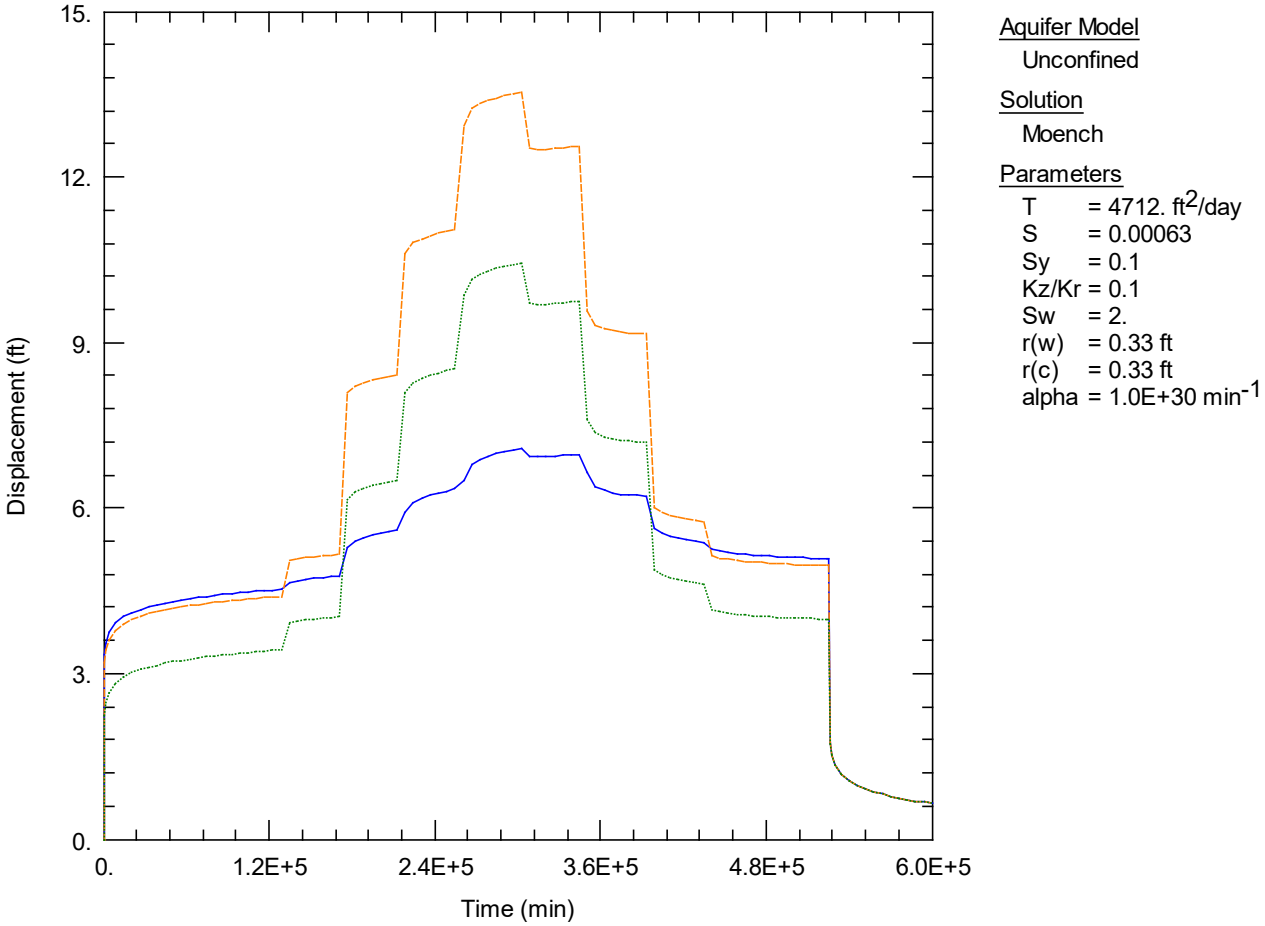

Figure 7: Plot of drawdown vs. time for proposed well GWIC ID 336214 (solid blue line) and existing wells GWIC ID 214761 (dashed orange line) and 214758 (dotted green line) during the first year of pumping. The Moench (1997) solution was used to model drawdown. Maximum drawdown occurs at the end of July.

Table 8: Remaining available water column for the proposed well.

Drawdown Estimate	GWIC ID 336214
Total Depth at Bottom of Perforated Interval (ft btc)[1]	111.8
Pre-Test Static Water Level (ft btc)	73.23
Available Drawdown Above Bottom of Well (ft)	38.6
Maximum Observed Drawdown during Aquifer Test (ft)	11.78
Modeled Drawdown Using Mean Aquifer Test Rate (ft)	11.48
Well Efficiency (%)	97.5%
Maximum Theoretical Drawdown (ft)	3.63
Maximum Theoretical Drawdown with Well Loss (ft)	3.72
Maximum Interference Drawdown (ft)	3.47
Total Drawdown (ft)	7.19
Remaining Available Water Column (ft)	31.4

[1]The total well depth measuring point (bgs) was adjusted to the top of well casing based on a 2-ft well casing stickup reported on the well log.

7.0 Physical Availability Analysis

An evaluation of groundwater availability in the source aquifer for the purpose of assessing physical and legal availability was done by calculating groundwater flux through a zone of influence (ZOI) corresponding to the 0.01-foot drawdown contour. The 0.01-foot drawdown contour was modeled in AQTESOLV (HydroSOLVE, Inc., 2007) using the following pump schedule:

- Constant pumping rate of 30.71 gpm for the proposed well for a period of one year.

The average pumping rate required to produce the proposed volume of 49.53 AF during the period of diversion is 30.71 gpm. As shown in **Figure 8**, the 0.01-foot drawdown contour lies approximately 10,100 ft from the Applicant's well(s). **Appendix A of Part B** of this report lists the active and severed water rights within the ZOI.

The direction of groundwater flow is predominantly to the southwest. The gradient is estimated to be 0.014 ft/ft based on the potentiometric surface map in LaFave (2006). The width of the ZOI perpendicular to groundwater flow is 20,200 ft. Groundwater flux (Q) through the ZOI, calculated using the equation below, is 1,332,554 ft^3/day, or 11,166 AF per year.

$$Q = TWi$$

where:
T = Transmissivity = 4,712 ft^2/day
W = Width of Zone of Influence = 20,200 ft
i = Groundwater gradient (from LaFave, 2006) = 0.014 ft/ft

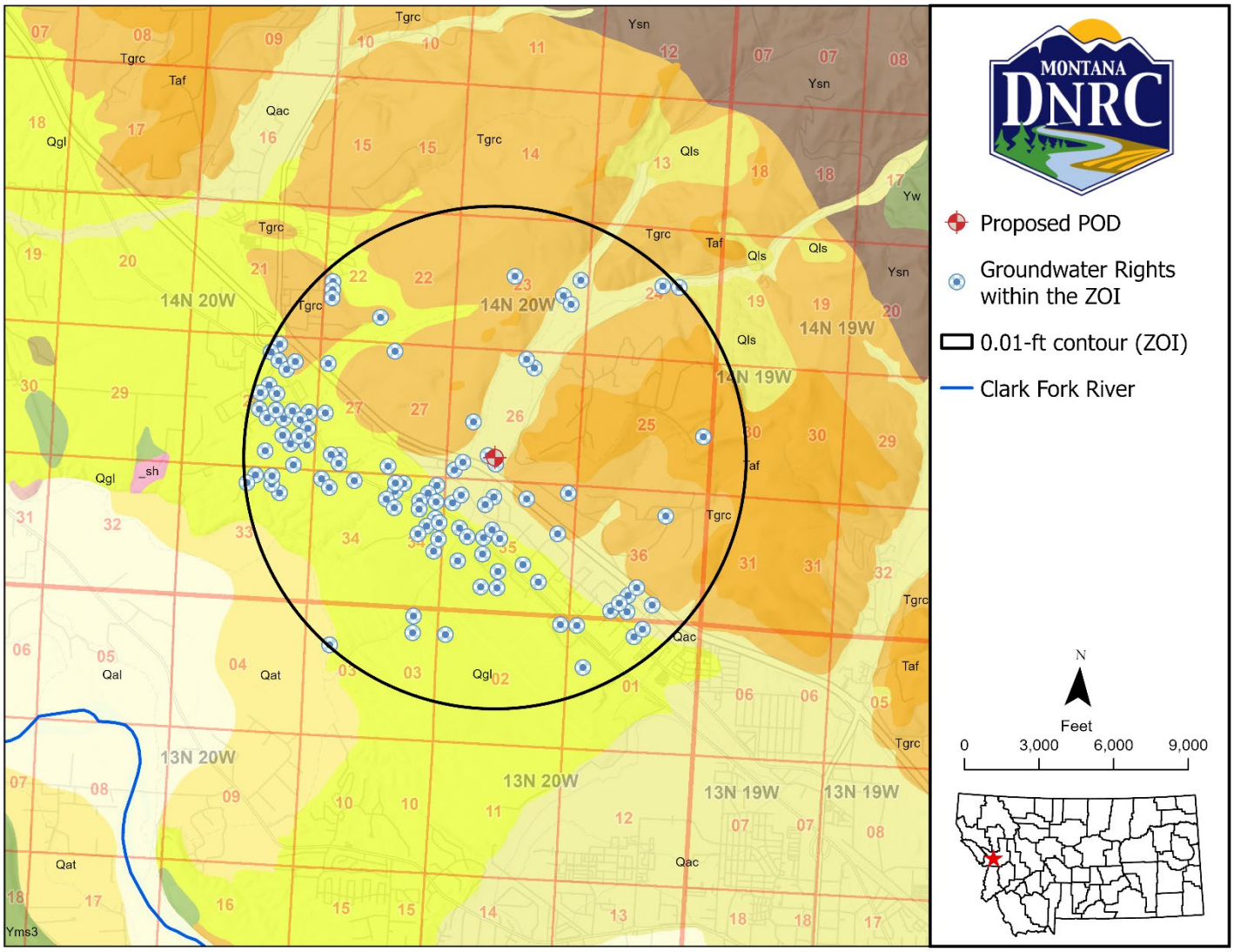

Figure 8: Map showing the 0.01-ft drawdown contour and groundwater rights within the ZOI.

8.0 Adverse Effect Analyses

Under §85-2-402, Montana Code Annotated (MCA), using the Applicant's proposed pump schedule and associated volume, adverse effect is evaluated by modeling drawdown in nearby wells, changes in net depletions to surface water, and changes in return flows to surface water.

8.1 Groundwater - Drawdown in Existing Wells

The drawdown in existing wells was modeled in AQTESOLV (HydroSOLVE, Inc., 2007) using the following:

- Assumed monthly pumping schedule in **Table 6** for a period of five years.

At the end of the fifth year of pumping, drawdown greater than one foot occurs within 98 ft of the proposed well (**Figure 9**). There are no groundwater rights within the one-foot drawdown contour.

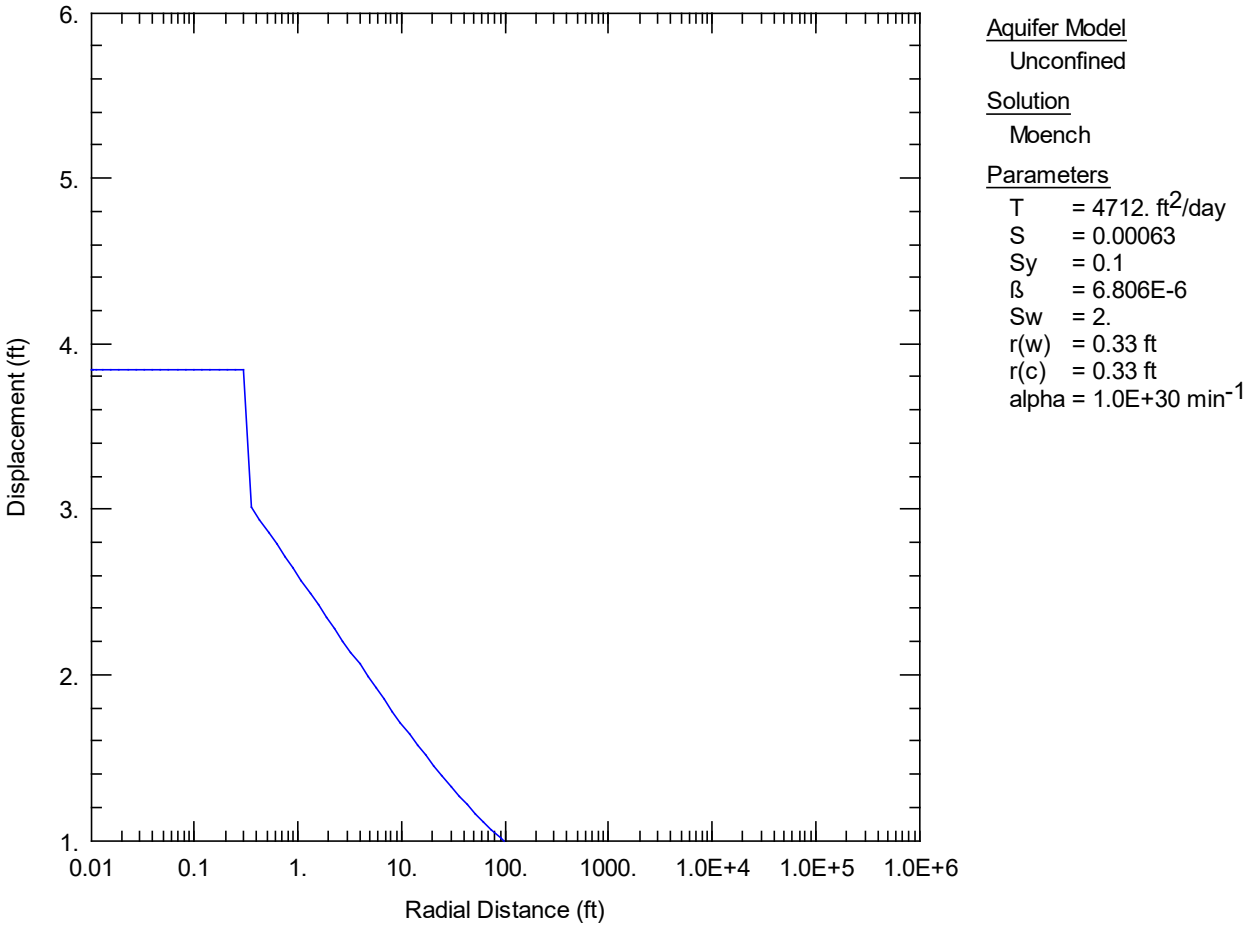

Figure 9: Plot of drawdown vs. distance at the end of the fifth year of pumping the proposed well on the assumed schedule. The Moench (1997) solution was used to model drawdown.

8.2 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 effects of 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 (stream capture), and an increase in the natural/artificial recharge (inflow) rate to the aquifer (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. 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 perennial surface water sources. 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 a 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. Net 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 percentages for other purposes are listed in **Table 9** and are based on Kimsey and Flood (1987), Vanslyke and Simpson (1974), Paul et al. (2007), DNRC (2018), wastewater treatment method, operation of systems, and 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 districts) may have variable consumption rates.

WSB Findings

For the subject application, wastewater from the proposed multiple domestic use will be treated in two ways. Of the 127 homes covered by the new permit, 45 would have wastewater go to individual drain fields and have a consumptive use of 10%. Wastewater for the other 85 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 during part of the year. 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. The total monthly consumed volume for the proposed use is shown in **Table 1**.

Table 9: Percent consumption by use.

Purpose	Method of Treatment/Use	Consumed
Domestic/Municipal/Commercial/Institutional	Individual drain fields	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%

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 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, and vertical gradients, and it can vary along a reach and with time of year.

Procedures for evaluating hydraulic connection and identifying one or more potentially affected surface-water sources for a proposed well in an alluvial aquifer or regional bedrock aquifer can be found in DNRC (2018) and DNRC (2019). Net depletion is apportioned to multiple potentially affected surface waters 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 10** identifies published information used to assess hydraulic connection of nearby surface water(s) to the source aquifer for the proposed wells. Not all data may be available for each project; "NA" is noted when that occurs.

Table 10: Published information used to identify hydraulically connected surface water(s).

Published Information	**Surface-Water Source:** Butler Creek	**Surface-Water Source:** La Valle Creek	**Surface-Water Source:** Clark Fork River
USGS National Hydrographic Dataset (NHD)	Intermittent south of the SENESE¼ of Sec 23, T14N, R20W. Perennial northeast of that point.	Intermittent south of the NWNESE¼ of Sec 23, T14N, R20W. Perennial north of that point.	Perennial
USGS PROSPER Dataset[1]	Butler Creek: 0.4-0.5	NA	0.5-0.7
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)[2]	All GWIC wells along the affected reach are deeper than 50 ft and have water levels significantly greater than 10 ft	All GWIC wells along the affected reach are deeper than 50 ft and have water levels significantly greater than 10 ft	GWIC IDs 69523, 69525, 69499, 69457, and others
Published Water Table Maps, Publications, Previous Water Rights, etc.	LaFave (2006); Provisional Permit Nos. 76M 30013295, 76M 30027375, 76M 30052086, 76M 30134802	LaFave (2006); Provisional Permit Nos. 76M 30013295, 76M 30027375, 76M 30052086, 76M 30134802	LaFave (2006); Woessner (1988); Clark (1986), 76M 30134802
Gridded National Soil Survey Geographic Database[3]	Hydric soils mapped upstream of the NESWNE¼ of Sec 26, T14N, R20W. No shallow water table mapped.	Hydric soils mapped upstream of the SESWSE¼ of Sec 23, T14N, R20W. Shallow water table and hydric soils mapped downstream of the NENWSE¼ of Sec 33, T14N, R20W.	Shallow water table and hydric soils mapped along most of the river and floodplain
Aerial imagery	Wet channel segments (NAIP, 2013-2023)	Wet channel segments (NAIP, 2013-2023)	Wet channel (NAIP, 2013-2023)

[1] USGS PROSPER Streamflow Permanence Probabilities (SPP). Higher values indicate higher probability of year-round flow. Streams with SPP greater than 0.5 are classified as perennial, though values near 0.5 have a high probability of classification error.

[2] 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 groundwater elevations are above or within 10 ft of the elevation of the streambed.
[3] Review Gridded National Soil Survey Geographic Database to identify hydric soils or shallow water tables near surface water sources.

WSB Findings

Surface water sources evaluated for connection to the alluvial aquifer include Butler and La Valle Creeks, which share a drainage before flowing into the Missoula Valley, and the Clark Fork River (**Figure 10**). In the lower half of the Bulter-La Valle drainage and the adjacent part of the Missoula Valley to the southwest, well logs from GWIC wells show the water table to be 50 to 100 ft deep and indicate the presence of a semi-continuous layer of fine-grained sediments between the streambeds and the water table. 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. A technical analysis for Change Authorization No. 76M 30052086 reached the same conclusion and cited additional supporting evidence, including additional GWIC well static water levels and a 2012 written affidavit indicating that La Valle Creek fails to sustain flow throughout the year. The potentially affected reaches of Butler and La Valle Creeks are therefore interpreted to be intermittent and disconnected from the alluvial aquifer and will not be depleted by the proposed diversion.

The Clark Fork River flows from southeast to northwest approximately 3.5 miles downgradient (southwest) of the proposed well. Water levels in GWIC wells and the potentiometric surface map by LaFave (2006) show that groundwater in this area flows toward the river, and shallow groundwater levels measured in GWIC wells near the river and identified on soil maps from the Gridded National Soil Survey Geographic Database indicate hydraulic connection of the river to the adjacent alluvial aquifer. On this basis, the Clark Fork River is determined to be hydraulically connected to the source aquifer and will be depleted by the proposed diversion. The starting point of the depleted reach on the Clark Fork River is in the NENWNE¼ of Section 8, Township 13 North, Range 20 West, Missoula County (**Figure 10**).

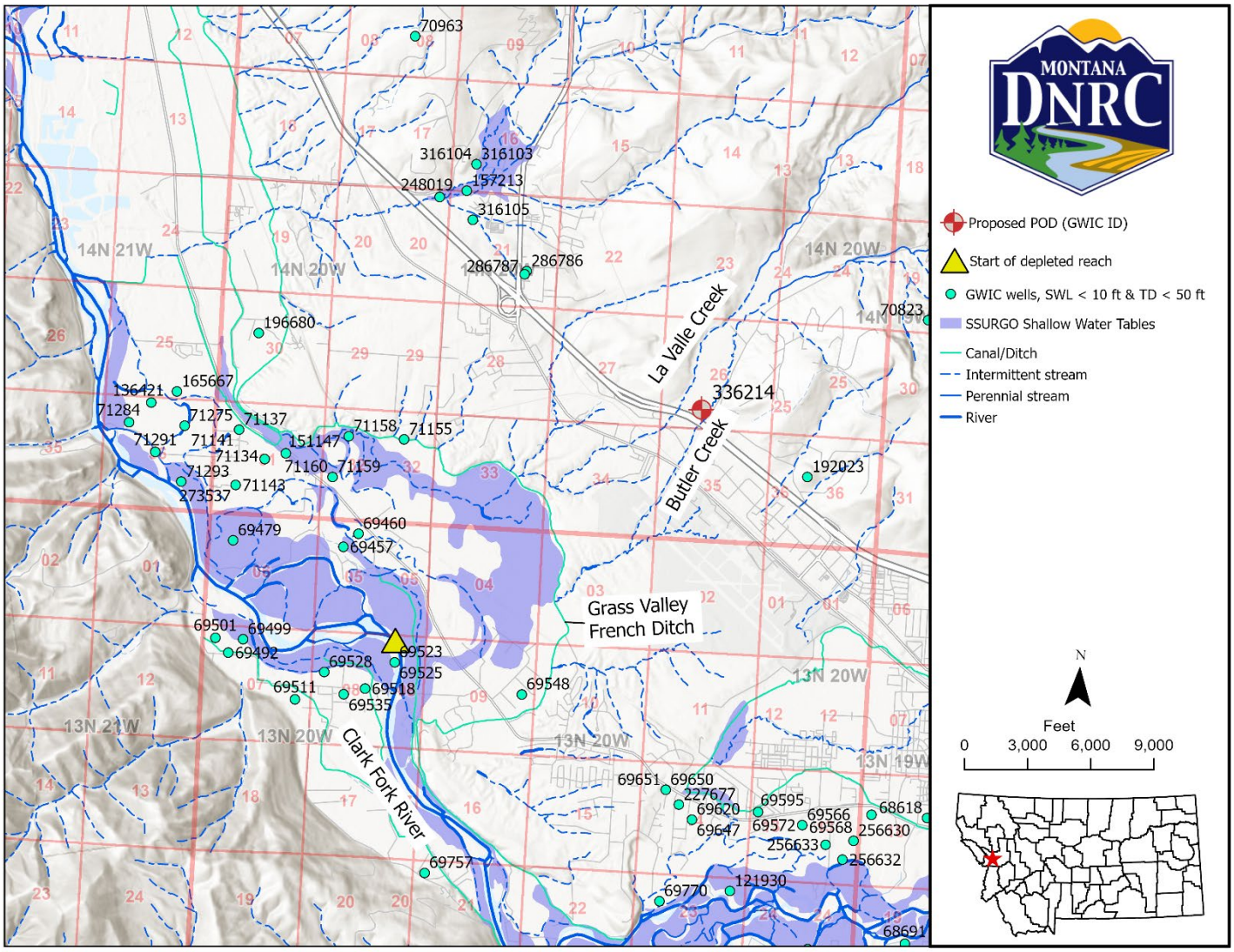

Figure 10: Location of wells used to assess hydraulic connection and starting point of the depleted reach.

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), and 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 when the proposed use is constant year-round, the source aquifer is deep and vertical hydraulic conductivity is low, or the distance between the proposed POD(s) and the affected stream reach(es) is large. 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 depletion by pumping in the source aquifer primarily occurs through propagation of drawdown through the unconfined aquifer to the starting point of the potentially affected reach of the Clark Fork River. Since the proposed use is constant year-round, depletion would also occur at a constant rate year-round. Monthly net depletions to the Clark Fork River are shown in **Table 1**.

Review

This document has been reviewed on December 9, 2025 in accordance with Category 7 of DNRC's Water Sciences Bureau Minimum Standards of Review, Version 2, February 2024.

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Groundwater Permit Technical Analyses Report – Part B

Department of Natural Resources and Conservation (DNRC or Department)
Water Resources Division
Alex Dalgleish, Water Conservation Specialist, Missoula Regional Office

Application No.	76M 30170833	**Proposed Point of Diversion**	NWSESW of Section 26, Township 14 North, Range 20 West, Missoula County
Applicant	Circle H Ranch Investments LLC		

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 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 §85-2-311, Montana Code Annotated (MCA).

This Groundwater Permit Technical Analyses Report – Part B contains the following sections:

Variances

The following variances from the requirements found in ARM 36.12.121 were granted from the Missoula regional office:

- ARM 36.12.121(3)(a): Pumping must be maintained throughout the duration of the test. The rate may not depart from the average pumping rate by more than 5%
    - Reason for granting variance: The generator used for the pump test was vandalized approximately 18 hours into the test. Pumping resumed approximately 3 hours later and continued for another 55 hours uninterrupted, until the test was finished. Aside from the 3 hour gap, the pumping rate did not depart from the average flow rate of 110 GPM by more than 5%.
- ARM 36.12.121(3)(d): Pumping rate must be measured with a reliable measuring device and recorded with a clock time according to the schedule on Form No. 633.
    - Reason for granting variance: The pumping rate was measured with a DAE MJ-SDC 2-inch Totalizing Water Meter and verified with a bucket stopwatch test. Additionally, discharge measurements were not taken according to the exact schedule on Form 633. Eight measurements were taken within the first hour, but only once in the second and third hours. Additionally, three more measurements were recorded during the first 24 hours before the pump test was interrupted. After pumping resumed, measurements were recorded 12 times spread out across the following 55 hours. The measurements indicated a stable pumping rate and the data was sufficient to determine aquifer properties.
- ARM 36.12.121(3)(g): Background groundwater levels in the production well and observation well(s) must be monitored at frequent intervals for at least two days prior to beginning the aquifer test according to Form No. 633.
    - Reason for granting variance: Background water levels in the production well began 69 hours before the pump test. However, background water levels were only monitored for 1 hour in the observation wells. The observation wells are located within 100 feet of the production well so the background data from the production well was deemed sufficient.

1.0 Application Details

The Applicant proposes to divert groundwater from January 1 to December 31 at a rate of 110 gallons per minute (GPM) up to 49.53 acre-feet (AF) of volume annually from a point in the NWSESW of Section 26, Township 14 North, Range 20 West, Missoula County (Figure 1). The Applicant proposes using water for multiple domestic purposes in the E2 of Section 26 and all of Section 25, Township 14 North, Range 20 West, Missoula County (Figure 1). The new multiple domestic purpose will cover a total of 127 new lots, with 42 proposed for the Circle H subdivision and 85 proposed for the West Pointe subdivision.

These existing subdivisions are covered under Provisional Permit 76M 30013295. This right is unperfected, with a total volume of 114.0 AF. Of this volume, 50.0 AF is allocated to lawn and

garden use, and 64.0 AF is for multiple domestic use in 113 homes. The proposed well would be integrated into the existing water system.

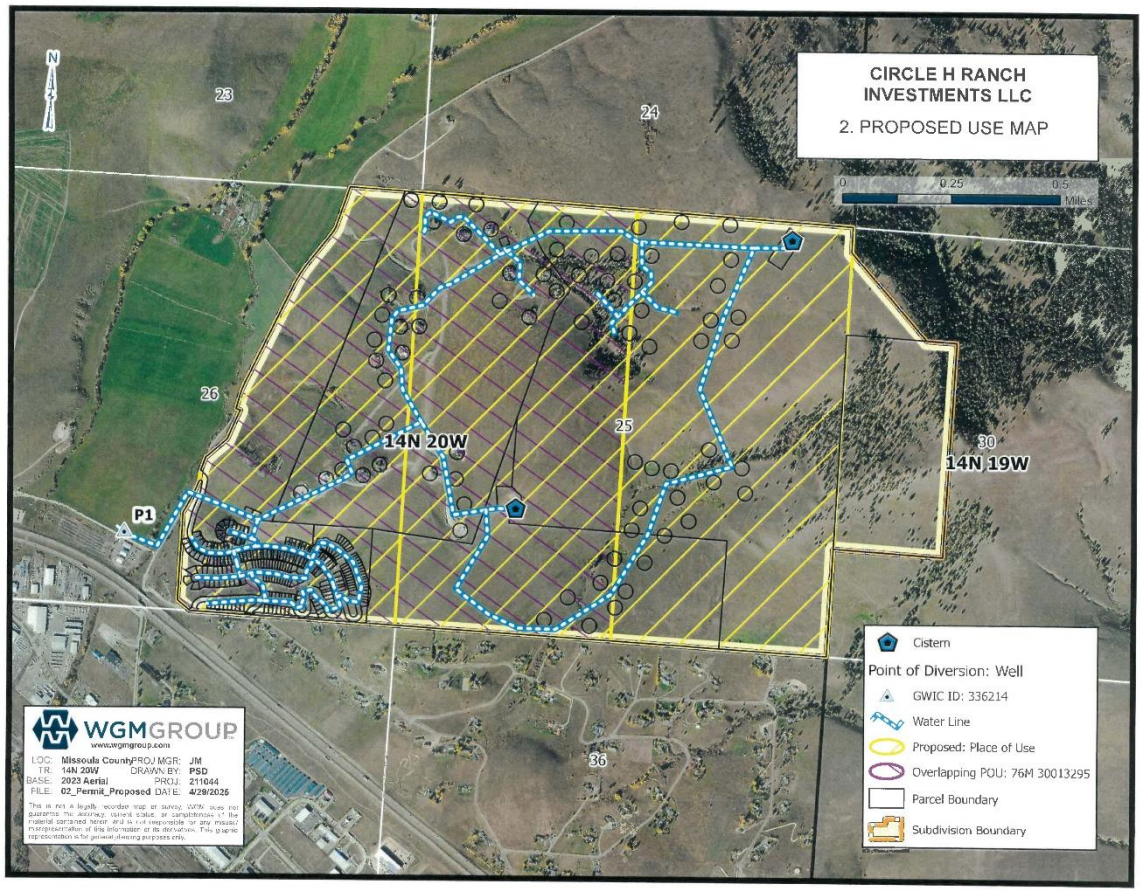


Figure 1: Map of the Applicant's proposed POD on the source and proposed place of use.

2.0 Surface Water Analysis of Depleted Surface Water

2.1 Source Description

Part A of the Technical Analyses Report includes the Groundwater Analysis, which describes the methodologies used to identify the depleted surface water source and the location of net depletions on said source.

Depleted Source of Water: Clark Fork River

Depleted Source Type: Perennial stream

Location of Depletions: Depletions begin in the NENWNE of Section 8, Township 13 North, Range 20 West, Missoula County

2.2 Method of Estimation

Gage Name: Clark Fork below Missoula MT

Gage Number: 12353000

Period of Record: 10/01/1929 to 01/31/2025

Why this gage is considered an appropriate data source: This USGS gage quantifies the flow of water in the Clark Fork River approximately 3.14 miles upstream of the location of depletions. The gage is located on the Clark Fork River and provides flow data for the depleted reach. The period of record for the gage extends back to 1929, which provides a substantial record from which to calculate median flows. This gage is maintained by the USGS, and therefore it meets all other departmental requirements for use in estimating physical and legal availability.

2.3 Monthly Flow Rate and Volume

Methodology: Modeling shows that depletions to the Clark Fork River resulting from the proposed groundwater appropriation will occur starting in the NENWNE of Section 8, Township 13 North, Range 20 West, Missoula County. The point of depletions for this application is downstream from the gaging station and USGS Gage # 12353000 is the nearest gage to the point of depletions. The date range used includes the entire current period of record for this gage (10/1/1929 – 01/31/2025).

Physical availability of the Clark Fork River at the point of depletions will be quantified monthly. Department practice for physical availability analyses where the gage used is upstream of the point of depletions is to subtract the monthly flow rates of existing water rights between the gage and the point of depletions from the median of the mean monthly flows at the gage. The Department used the method below to quantify physical available monthly flows and volumes at the point of depletions during the proposed period of diversion:

1. The Department calculated median of the mean monthly flow rates in cubic feet per second (CFS) for the Clark Fork River using USGS Gage #12353000 records for each month of the proposed period of diversion (Table 1, column B). Those flows were converted to monthly volumes in AF (Table 1, column C) using the following equation found on DNRC Form 615: median of the mean monthly flow (CFS) × 1.98 (AF/day/1 CFS) × days per month = AF/month.
2. The Department calculated the monthly flows appropriated by existing water users between the gate and the point of depletions (Table 1, column D) by:
    i. Generating a list of existing water rights from USGS Gage #12353000 to the point of depletions (see Appendix B);
    ii. Evaluating the water rights within the reach and removing redundant water rights authorizing multiple points of diversion;

iii. Assigning a single combined flow rate of 0.08 CFS to all livestock direct from source rights without a designated flow rate; and,

iv. Assuming that the flow rate of each existing right is continuously diverted throughout each month of the period of diversion. This assumption is necessary due to the difficulty of differentiating the distribution of appropriated volume over the period of diversion. This leads to an overestimation of existing uses from the source. The Department finds this an appropriate measure of assessing existing rights as it protects existing water users.

3. Since the gage used is upstream of the POD, the Department subtracted in the flow rates of the existing surface water rights with points of diversion between USGS Gage #12353000 and the point of depletion (Table 1, column D) from the median of the mean monthly gage values (Table 1, column B) to determine the physical availability at the point of depletions (Table 1, columns D) to the median of the mean monthly gage values (Table 1, column B) to determine physically available monthly flows and volumes at the initial point of depletion (Table 1, columns E and F, respectively).

Table 1: Physical Availability at the Point of Depletions on the Clark Fork River

A	B	C	D	E	F	G
Month	**Median of the Mean Monthly Flow at Gage 12353000 (CFS)**	**Median of the Mean Monthly Volume at Gage 12353000 (AF)**	**Legal Demands of Rights from Gage to Point of Depletions (CFS)**	**Legal Demands from Gage to Point of Depletions (AF)**	**Physically Available Water at Point of Depletions (CFS)**	**Physical Available Water at Point of Depletions (AF)**
Jan	2,059	126,351	0.08	4.91	2,058	126345.82
Feb	2,255	125,017	0.08	4.44	2,255	125012.76
Mar	2,951	181,132	0.08	4.91	2,951	181127.47
Apr	5,893	350,044	175.71	10436.93	5,717	339607.27
May	14,540	892,465	176.04	10805.09	14,364	881660.11
Jun	15,860	942,084	176.04	10456.53	15,684	931627.47
Jul	5,205	319,483	176.04	10805.09	5,029	308677.81
Aug	2,124	130,371	176.04	10805.09	1,948	119566.03
Sep	2,110	125,334	176.04	10456.53	1,934	114877.47
Oct	2,545	156,181	176.04	10805.09	2,368	145376.32
Nov	2,614	155,272	0.16	9.50	2,614	155262.10
Dec	2,243	137,675	0.16	9.82	2,243	137665.52

3.0 Area of Potential Impact Analysis

3.1 Area of Potential Impact Analysis of Groundwater

The Area of Potential Impact for groundwater is considered to be the Zone of Influence (ZOI), or 0.01-foot drawdown contour surrounding the point(s) of diversion. The determination of the Zone of Influence for this application is described in Part A of this report. The groundwater ZOI list of water rights includes active and severed water rights within the ZOI that are either completed in the source aquifer or have an unknown well depth. Groundwater rights within the Zone of Influence are listed in Appendix A of this report.

Quantification Methodology: To calculate physical availability in the source aquifer, the Department modeled groundwater flux through the ZOI. This modeling shows that the ZOI lies approximately 10,000 feet from the proposed well. The Department's modeling was based on a constant pumping rate of 30.71 GPM for the proposed well for a period of one year. This pumping rate (30.71 GPM) is the average pumping rate needed to produce the proposed volume of 49.53 AF during the period of diversion. All active and severed water rights were considered within the ZOI.

3.2 Area of Potential Impact Analysis of Depleted Surface Water

The surface water Area of Potential Impact for this application is: The local area of potential impact consists of the reach of the Clark Fork River which begins in the NENWNE Section 8, Township 13 North, Range 20 West, Missoula County , and ends at the western edge of the Missoula Valley near Huson, MT, in Section 34, Township 15 North, Range 22 West, Missoula County. The surface water rights in this local area of potential impact which will be used to evaluate legal demand are listed in Appendix C.

Review

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

References

Department Standard Practice for Determining Physical Availability of Surface Water
Department Standard Practice for Determining Area of Potential Impact

Appendix A: Groundwater Rights in the Zone of Influence

WATER RIGHT NUMBER	WATER RIGHT TYPE	OWNER(S)
76M 78983 00	GROUND WATER CERTIFICATE	RGB INVESTMENTS, LLC
76M 30136266	GROUND WATER CERTIFICATE	ROCKY POINT PROPERTY HOLDINGS INC; ROCKY POINT PROPERTY HOLDINGS LLC; T & J MILLER LLC
76M 30161280	GROUND WATER CERTIFICATE	ROLLER COASTER RD LLC
76M 30148799	GROUND WATER CERTIFICATE	OLSON PROPERTY MANAGEMENT, LLC
76M 76750 00	GROUND WATER CERTIFICATE	RICO PROPERTIES LLC
76M 30048336	GROUND WATER CERTIFICATE	TABLE SCRAPS LLC
76M 30067234	GROUND WATER CERTIFICATE	KIMBER PROPERTIES LLC
76M 30163359	GROUND WATER CERTIFICATE	WHETSTONE ENTERPRISES LLC
76M 106274 00	GROUND WATER CERTIFICATE	WILTZEN, JOHN % ANNA FAMILY TRUST
76M 107404 00	GROUND WATER CERTIFICATE	BETTY D BIDLAKE; STEVEN V BIDLAKE
76M 30109301	GROUND WATER CERTIFICATE	TAMARACK ENVIRONMENTAL LLC
76M 79590 00	GROUND WATER CERTIFICATE	JOHNSON BROTHERS CONTRACTING INC
76M 30159123	GROUND WATER CERTIFICATE	WWW INVESTMENTS LLC
76M 76713 00	GROUND WATER CERTIFICATE	7295 HWY 10 W EAST LOT, LLC
76M 56827 00	GROUND WATER CERTIFICATE	RICHARD C BOSSARD
76M 75756 00	GROUND WATER CERTIFICATE	JOSHUA TIMBROOK; STACIA J TIMBROOK
76M 117407 00	GROUND WATER CERTIFICATE	MIND LLC
76M 30151132	GROUND WATER CERTIFICATE	APAK LLC
76M 30050652	GROUND WATER CERTIFICATE	DEMON AND DIRT LLC
76M 56836 00	GROUND WATER CERTIFICATE	RICHARDS MISSOULA LLC

76M 30045963	GROUND WATER CERTIFICATE	FIELDWORKS HOLDINGS LLC
76M 88453 00	GROUND WATER CERTIFICATE	RICHARD L BEEM; ROBERTA A DYRUD
76M 80179 00	GROUND WATER CERTIFICATE	MICHEAL J SPENCER; VIKKI A SPENCER
76M 30150957	GROUND WATER CERTIFICATE	JAMES E MEYER
76M 62550 00	GROUND WATER CERTIFICATE	GALE R ALBERT; SUSAN A TRUETT
76M 100946 00	GROUND WATER CERTIFICATE	LOLO PEAK INVESTMENTS LLC
76M 30164837	GROUND WATER CERTIFICATE	BMLS HOLDINGS LLC
76M 96047 00	GROUND WATER CERTIFICATE	SHADOW ASPHALT MAINTENANCE LLC
76M 108652 00	GROUND WATER CERTIFICATE	HANSON PROPERTIES LLC
76M 30151698	GROUND WATER CERTIFICATE	PCS HOLDING LLC
76M 30004066	GROUND WATER CERTIFICATE	FRED'S LOUNGE
76M 30159947	GROUND WATER CERTIFICATE	PHILIP HANSON
76M 20307 00	GROUND WATER CERTIFICATE	JRP INVESTMENTS LLC
76M 27273 00	GROUND WATER CERTIFICATE	MBROWN HOLDINGS LLC
76M 43190 00	GROUND WATER CERTIFICATE	CLIFFORD G LARSEN; PATRICIA P LARSEN
76M 149266 00	STATEMENT OF CLAIM	CAROL H AMMONS
76M 30186 00	GROUND WATER CERTIFICATE	MARIE CORONA
76M 33989 00	GROUND WATER CERTIFICATE	GRASSLAND ENTERPRISES LLC
76M 9187 00	GROUND WATER CERTIFICATE	CHARLES F DELACEY; JENNIFER P DELACEY
76M 17463 00	GROUND WATER CERTIFICATE	MILLER, NEIL R CO
76M 18417 00	GROUND WATER CERTIFICATE	BILL KVALSTEN
76M 43189 00	GROUND WATER CERTIFICATE	CLIFFORD G LARSEN; PATRICIA P LARSEN
76M 13656 00	GROUND WATER CERTIFICATE	DESMET SCHOOL DISTRICT #20
76M 102298 00	GROUND WATER CERTIFICATE	CLIFFORD G LARSEN; PATRICIA P LARSEN
76M 82181 00	GROUND WATER CERTIFICATE	PRAIRIE GRASS LLP
76M 96971 00	GROUND WATER CERTIFICATE	GUY M HANSON; JACOB J HANSON; JANET M HANSON
76M 104148 00	GROUND WATER CERTIFICATE	THORN10 LLC
76M 110486 00	GROUND WATER CERTIFICATE	DAN RUSSELL FAMILY, LLC
76M 78414 00	GROUND WATER CERTIFICATE	MIND LLC

76M 17694 00	GROUND WATER CERTIFICATE	DESMET SCHOOL DISTRICT #20
76M 24474 00	GROUND WATER CERTIFICATE	ROLLER COASTER RD LLC
76M 30063032	GROUND WATER CERTIFICATE	J HAWK INC
76M 20429 00	GROUND WATER CERTIFICATE	CJ HUNTER LLC
76M 43184 00	GROUND WATER CERTIFICATE	D L REBER
76M 30111723	GROUND WATER CERTIFICATE	BEVERLY J HINIKER
76M 70318 00	GROUND WATER CERTIFICATE	SCOTT SABOL
76M 30107096	GROUND WATER CERTIFICATE	DSJB INVESTMENTS LLC
76M 47661 00	GROUND WATER CERTIFICATE	WWW INVESTMENTS LLC
76M 99411 00	STATEMENT OF CLAIM	WWW INVESTMENTS LLC
76M 94986 00	GROUND WATER CERTIFICATE	MISSOULA COUNTY AIRPORT AUTHORITY
76M 26406 00	GROUND WATER CERTIFICATE	EMIL J PAVLIK; KATHLEEN W PAVLIK
76M 21535 00	GROUND WATER CERTIFICATE	NELSON BROTHERS LLC
76M 30062907	GROUND WATER CERTIFICATE	MISSOULA COUNTY
76M 30110014	GROUND WATER CERTIFICATE	MISSOULA COUNTY
76M 75226 00	GROUND WATER CERTIFICATE	LMB PROPERTY HOLDINGS LLC
76M 30116018	GROUND WATER CERTIFICATE	CHARLES M DESCHAMPS; NANCY A DESCHAMPS
76M 70319 00	GROUND WATER CERTIFICATE	SCOTT SABOL
76M 57837 00	GROUND WATER CERTIFICATE	TRENCHLESS SOLUTIONS INC
76M 84613 00	GROUND WATER CERTIFICATE	ADAM R RYS-SIKORA
76M 30110488	GROUND WATER CERTIFICATE	SOHLBERG PROPERTIES LLC
76M 66828 00	GROUND WATER CERTIFICATE	MISSOULA RURAL FIRE DISTRICT
76M 30047732	GROUND WATER CERTIFICATE	MISSOULA COUNTY
76M 142719 00	STATEMENT OF CLAIM	BNSF RAILWAY CO
76M 40006 00	GROUND WATER CERTIFICATE	JOHN F PETERSON; MARGARET G PETERSON
76M 97072 00	GROUND WATER CERTIFICATE	KC LA FLESCH
76M 30065006	GROUND WATER CERTIFICATE	BIG SKY BREWING COMPANY
76M 100470 00	GROUND WATER CERTIFICATE	MEL'S ELECTRIC & AUTO REPAIR
76M 30067645	GROUND WATER CERTIFICATE	AMERICAN EAGLE INSTRUMENTS
76M 75229 00	GROUND WATER CERTIFICATE	SATURN HOSPITALITY 2 LLC

76M 107871 00	STATEMENT OF CLAIM	CLIFFORD G LARSEN; PATRICIA P LARSEN
76M 15905 00	GROUND WATER CERTIFICATE	MARGARET M HANSON; PAUL A HANSON
76M 30148722	GROUND WATER CERTIFICATE	IBEY LEASING LLP
76M 36555 00	GROUND WATER CERTIFICATE	MARGARET M HANSON; PAUL A HANSON
76M 85884 00	GROUND WATER CERTIFICATE	ROBERT J NIXON; SHERRY R NIXON
76M 85885 00	GROUND WATER CERTIFICATE	ROBERT J NIXON; SHERRY R NIXON
76M 85883 00	GROUND WATER CERTIFICATE	ROBERT J NIXON; SHERRY R NIXON
76M 30047733	GROUND WATER CERTIFICATE	MISSOULA COUNTY
76M 30002652	GROUND WATER CERTIFICATE	USA (DEPT OF AGRICULTURE FOREST SERVICE)
76M 103832 00	STATEMENT OF CLAIM	TA OPERATING LLC
76M 72156 00	GROUND WATER CERTIFICATE	RASMUSSEN, MARY J REV TRUST UAD 10/6/23
76M 30027088	EXEMPT RIGHT	E & K TORGERSON INC; TORGERSON FARMS PARTNERSHIP; TREH COMMERCIAL LLC
76M 103842 00	PROVISIONAL PERMIT	MVE RENTALS LLC
76M 29149 00	STATEMENT OF CLAIM	LMB PROPERTY HOLDINGS LLC
76M 108720 00	STATEMENT OF CLAIM	BAIR CLARK PROPERTIES LLC
76M 151002 00	STATEMENT OF CLAIM	BUENA VISTA COMMUNITY INC; SROA 6385 US HWY 10 MT LLC
76M 34848 00	GROUND WATER CERTIFICATE	ROLLER COASTER RD LLC
76M 26359 00	STATEMENT OF CLAIM	MISSOULA, CITY OF
76M 108761 00	PROVISIONAL PERMIT	USA (DEPT OF AGRICULTURE FOREST SERVICE)
76M 40406 00	GROUND WATER CERTIFICATE	BAIR CLARK PROPERTIES LLC
76M 30151126	PROVISIONAL PERMIT	MISSOULA COUNTY AIRPORT AUTHORITY
76M 30013295	PROVISIONAL PERMIT	CIRCLE H INVESTMENTS LLC
76M 52384 00	STATEMENT OF CLAIM	USA (DEPT OF AGRICULTURE FOREST SERVICE)

76M 30006843	PROVISIONAL PERMIT	MISSOULA VENTURES LLC
76M 73929 00	PROVISIONAL PERMIT	GOODAN KEIL COUNTY WATER DISTRICT
76M 87132 00	PROVISIONAL PERMIT	MISSOULA COUNTY AIRPORT AUTHORITY
76M 52385 00	STATEMENT OF CLAIM	USA (DEPT OF AGRICULTURE FOREST SERVICE)
76M 30027375	PROVISIONAL PERMIT	WYE AREA WATER COMPANY LLC
76M 52386 00	STATEMENT OF CLAIM	USA (DEPT OF AGRICULTURE FOREST SERVICE)
76M 52387 00	STATEMENT OF CLAIM	USA (DEPT OF AGRICULTURE FOREST SERVICE)
76M 26368 00	STATEMENT OF CLAIM	MISSOULA, CITY OF
76M 1335 00	GROUND WATER CERTIFICATE	THORNTON LUMBER CO
76M 30010838	GROUND WATER CERTIFICATE	TEN LLC
76M 5627 00	GROUND WATER CERTIFICATE	MONTANA BARITE CO INC
76M 30119128	STATEMENT OF CLAIM	700 SW HIGGINS LLC
76M 30019950	GROUND WATER CERTIFICATE	SROA 6385 US HWY 10 MT LLC
76M 5096 00	GROUND WATER CERTIFICATE	PACIFIC HIDE & FUR DEPOT
76M 6230 00	GROUND WATER CERTIFICATE	CLIFFORD G LARSEN; PATRICIA P LARSEN
76M 30042914	GROUND WATER CERTIFICATE	RASMUSSEN, MARY J REV TRUST UAD 10/6/23
76M 30044803	GROUND WATER CERTIFICATE	NORTHWEST INDUSTRIAL SUPPLY INC
76M 149272 00	STATEMENT OF CLAIM	CAROL H AMMONS
76M 30015537	GROUND WATER CERTIFICATE	SATURN HOSPITALITY 2 LLC
76M 30015268	GROUND WATER CERTIFICATE	HI STAR PROPERTIES, LLC
76M 30042154	GROUND WATER CERTIFICATE	TRIPLE J-M LLC
76M 30119124	STATEMENT OF CLAIM	700 SW HIGGINS LLC
76M 30019987	GROUND WATER CERTIFICATE	RANDY D FRASCH
76M 149274 00	STATEMENT OF CLAIM	CAROL H AMMONS
76M 215059 00	STATEMENT OF CLAIM	DESMET SCHOOL DISTRICT #20
76M 30042746	GROUND WATER CERTIFICATE	WYEMT LLC
76M 30030080	GROUND WATER CERTIFICATE	LUCICH BROTHERS PROPERTIES, LLC
76M 149273 00	STATEMENT OF CLAIM	CAROL H AMMONS

76M 149271 00	STATEMENT OF CLAIM	CAROL H AMMONS
76M 30019951	GROUND WATER CERTIFICATE	SROA 6385 US HWY 10 MT LLC
76M 30065028	GROUND WATER CERTIFICATE	MISSOULA COUNTY AIRPORT AUTHORITY
76M 2993 00	GROUND WATER CERTIFICATE	WILSON, MARVIN LLC
76M 6105 00	GROUND WATER CERTIFICATE	PACIFIC HIDE & FUR DEPOT
76M 30030108	GROUND WATER CERTIFICATE	RANDY D FRASCH
76M 30043001	GROUND WATER CERTIFICATE	BETTY L HANEL
76M 30022016	GROUND WATER CERTIFICATE	CARNEAL FAMILY TRUST
76M 30018411	GROUND WATER CERTIFICATE	COPPERSTONE DEVELOPMENT LTD
76M 30031085	GROUND WATER CERTIFICATE	TRIPLE J-M LLC
76M 30119129	STATEMENT OF CLAIM	700 SW HIGGINS LLC
76M 30013894	GROUND WATER CERTIFICATE	BITTERROOT VALLEY BANK
76M 30013895	GROUND WATER CERTIFICATE	NORTHWESTERN CORPORATION
76M 30067652	GROUND WATER CERTIFICATE	AMERICAN EAGLE INSTRUMENTS
76M 3235 00	STATEMENT OF CLAIM	ALVIN F GOODAN; CARMEN L GOODAN
76M 30015267	GROUND WATER CERTIFICATE	SHERIDAN MONTANA VENTURES LLC
76M 30031233	GROUND WATER CERTIFICATE	GALE R ALBERT; SUSAN A TRUETT
76M 30005743	GROUND WATER CERTIFICATE	DICK ANDERSON CONSTRUCTION INC
76M 105276 00	STATEMENT OF CLAIM	CLIFFORD G LARSEN; PATRICIA P LARSEN
76M 432 00	GROUND WATER CERTIFICATE	BAIR CLARK PROPERTIES LLC

Appendix B:Water Rights Between Point of Depletions and USGS Gage # 12353000

WATER RIGHT NUMBER	WATER RIGHT TYPE	OWNER(S)
76M 11375 00	PROVISIONAL PERMIT	CLARK R BARTKOWSKI; JAMES E BATES; ERIKA BEARS; WILLIAM BEARS; MICHAEL R BECKEL; JENIFER E BROWN; ALICIA H CABLE; CASEY K CABLE; DENNIS M COTE; JONI R COTE; PHILLIP H DRINKHAUS; REBECCA A DRINKHAUS; SUSAN DUFF; MICHAEL DURRER; CAROLE I ERICKSON; LEIF B ERICKSON; JAMES FOUNTAIN; ALEXIS M GAVRISHEFF; SUGENE GAVRISHEFF; JANNA T GREENWELL; KRYSTAL L GUILHEMOTONIA; SEBASTIEN M GUILHEMOTONIA; ERICA HERMES; JOHN HERMES; MICHELLE L JOHNS; WILLIAM L JOHNS; ALYSSA JURGENSMEIER; CORY JURGENSMEIER; KECK, DAVID WALTE & TAMMY LYNN REVOCABLE LIVING TR; DAMIAN R KHOURY; JOSHUA LEHMAN; KIRSTEN LEHMAN; ASHLEY D LIBERKO; GREG D LIBERKO; DAVID C MAURER; JANICE M MAURER; MONA MAYAHI; MCDONALD, TRACY L. P. REVOCABLE TRUST; BRIAN F MCKERNAN; JODY L MCKERNAN; HANNAH MONAHAN; JUSTIN MONAHAN; MARTA R PIERPOINT; AARON M ROESER; KAREN A ROESER; SHANAHAN LIVING TRUST; D FLYNN SHERICK; SUZANNE R SHERICK; ABIGAIL SPEAR; MARC SPEAR; JOCELYN N SPOON; JANELE K SULLIVAN; ROSS D TILLMAN
76M 102172 00	STATEMENT OF CLAIM	RUBY L CHAVEZ; SEFERINO O CHAVEZ
76M 105070 00	STATEMENT OF CLAIM	FRENCHTOWN IRRIGATION DISTRICT

76M 151516 00	STATEMENT OF CLAIM	GILBERT R JOHNSTON; JUDITH A JOHNSTON; VICKI MUNDLIN SMITH; BRENT R SMITH
76M 105072 00	STATEMENT OF CLAIM	FRENCHTOWN IRRIGATION DISTRICT
76M 30122650	STATEMENT OF CLAIM	COUNCIL VALLEY LLC

Appendix C: Water Rights within the Local Area of Potential Impact

WATER RIGHT NUMER	WATER RIGHT TYPE	OWNER(S)
76M 99559 00	STATEMENT OF CLAIM	CONFEDERATED SALISH & KOOTENAI TRIBES; MELINDA W CORSO; ROBERT M CORSO
76M 115818 00	STATEMENT OF CLAIM	ALBERT CREEK FISH AND WILDLIFE PRESERVE LLC
76M 149109 00	STATEMENT OF CLAIM	FORLORN HOPE LLC
76M 147297 00	STATEMENT OF CLAIM	JAMES P CYR; MATTHEW J CYR; MICHAEL P CYR; RENIE L CYR
76M 150037 00	STATEMENT OF CLAIM	KACIE M ANIBALLI; CKS PROPERTIES LLC; SHELDON S HARRIS; CONRAD HEINEKAMP; TRACY HEINEKAMP; LEEJAMES PROPERTIES LLC; ROBERT O LINDIG; REBICH & SONS LIVESTOCK CO INC; SERENITY LAND HOLDINGS LLC; IAN J SLAUGHTER; JESSICA L SMITH; JOSHUA J SMITH; SPURLOCK, JERRY C & DIANA T LIV TRUST JULY 7 2021; EUGENE STEDMAN; TAMMY STEDMAN; ARTHUR M WARREN; SHELBY N WARREN; BRIAN N WEYAND; JACOB R WEYAND
76M 3239 00	STATEMENT OF CLAIM	CLARK FORK CATTLE CO LLC
76M 147296 00	STATEMENT OF CLAIM	AMANDA C CYR; JAMES P CYR; MATTHEW J CYR; MICHAEL P CYR; RENIE L CYR
76M 211934 00	STATEMENT OF CLAIM	CHARLES D BLUE
76M 3241 00	STATEMENT OF CLAIM	WILLIAM D MURRAY
76M 149106 00	STATEMENT OF CLAIM	CLARK FORK CATTLE CO LLC
76M 118471 00	STATEMENT OF CLAIM	FORLORN HOPE LLC
76M 99095 00	STATEMENT OF CLAIM	CLARK FORK CATTLE CO LLC
76M 30144289	STATEMENT OF CLAIM	LUCIER LAND LLC
76M 13584 00	PROVISIONAL PERMIT	LEROY H FELTUS
76M 63515 00	PROVISIONAL PERMIT	MLH MONTANA LLC
76M 4896 00	PROVISIONAL PERMIT	MONTANA DEPT OF FISH WILDLIFE & PARKS

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

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 Permit Application No. 76M 30170833

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 Dalgleish
Water Resource Specialist
Missoula Regional Office
(406)-542-5886
Alexander.dalgleish@mt.gov

CC:

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

PREAPPLICATION MEETING FORM: PART B
PERMIT

§ 85-2-302, MCA

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

For Department Use Only

Application # 30170833 Basin 76M
Form Received 10/23/25
Fee Rec'd $ 500 of 1000 Check # 83435
Deposit Receipt # MS2601386e-02
Payor WGM Group
Form Returned
Refund $ Date

RECEIVED
OCT 23 2025
MONTANA D.N.R.C
MISSOULA REGIONAL OFFICE

PREAPPLICATION MEETING FEE

$ 500

FILING FEE REDUCTION & EXPEDITED TIMELINE

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

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

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

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

   If yes,

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

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

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

   If yes,

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

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

If yes,

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

Question No.	Question No.	Question No.	Question No.
5			
6			
10			
14			
35.a			
42			

Form600_B - Signature Needed

Final Audit Report 2025-10-22

Created:	2025-10-22
By:	Lara Andre (landre@wgmgroup.com)
Status:	Signed
Transaction ID:	CBJCHBCAABAAfZ2kthnsxdwNoFGQAziAn9Lb1hm7zPci

"Form600_B - Signature Needed" History

Document created by Lara Andre (landre@wgmgroup.com)
2025-10-22 - 4:53:51 PM GMT

Document emailed to Mark Bretz (mbretz@bretzrv.com) for signature
2025-10-22 - 4:54:20 PM GMT

Email viewed by Mark Bretz (mbretz@bretzrv.com)
2025-10-22 - 5:47:12 PM GMT

Document e-signed by Mark Bretz (mbretz@bretzrv.com)
Signature Date: 2025-10-22 - 5:48:48 PM GMT - Time Source: server

Agreement completed.
2025-10-22 - 5:48:48 PM GMT

FOLLOW-UP AND AMENDED RESPONSES AFFIDAVIT & CERTIFICATION

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

Mark Bretz (Oct 22, 2025 11:48:48 MDT)

Applicant Signature — Date: Oct 22, 2025

Applicant Signature — Date

"We confirm that the preapplication form (Form 600P-A and Form 600P-B), amended responses, and follow-up information are adequate for the Department to proceed with technical analyses in ARM 36.12.1303. Or, if the Applicant has elected to complete technical analyses, we confirm they have submitted each required element of technical analysis based on the proposed project and the Department is able to proceed with the scientific credibility review (ARM 36.12.1303(8))."

Department Signature — Date: 10/30/2025

Department Signature — Date

WGMGROUP
Community Values. Inspired Futures

111 East Broadway
Missoula MT 59802
406.728.4611
www.wgmgroup.com

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: Permit Application 76M 30170833 Preapplication Meeting Revised and Amended Follow Up 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 per the meeting held on April 29, 2025.

Two of the follow-up items were not specific to questions in the preapplication form:

- *Need to update supplemental materials regarding existing water right*
- *Provide engineering design/plan if available*

Updated supplemental materials will be answered in the relevant questions in the follow-up and amended response sections. Engineering design/plans can be found in **Attachment 1**. The subdivision approval and associated water use estimates can be found in **Attachment 2.**

PRE-APPLICATION Q 2.

A revised map is attached showing the proposed point of diversion and place of use.

AMENDED RESPONSES

Following are the amended responses from Circle H Investments LLC for questions listed in Form 600P-B.

PRE-APPLICATION Q 5.

Table 1: Proposed Purpose Information

Purpose	Period of Diversion	Period of Use	Flow Rate	Volume
Multiple Domestic	01/01/ to 12/31	01/01/ to 12/31	110 GPM	49.53 AF

PRE-APPLICATION Q 6.

Table 2: Additional Purpose Information

Purpose	Requested Information	Response
Multiple Domestic	Number of Dwellings	The proposed number of dwellings is a total of 127 homes. 42 proposed for the Circle H Ranch subdivision, and 85 proposed for the West Pointe Subdivision.

According to the Water Design Report submitted to the DEQ, homes at full build-out will use an average of 504 gpd for both domestic and lawn and garden purposes. The lawn and garden purpose for both subdivisions is covered under the original Provisional Permit, 76M 30013295. Based on these numbers, the diverted domestic volume per home was estimated to be 0.39 AF. Homes in the Circle H subdivision were considered to have a consumed volume of 10% due to each lot having an individual drain field. Homes in the West Pointe subdivision are connected to the City of Missoula sewer and are considered to have a consumed volume of 25%.

Table 3: Water Use Estimates

Subdivision	Diverted Volume per home (AF)	Number of homes	Total Diverted Volume (AF)	Consumptive use (10% CH, 25% WP) AF
Circle H	0.39	42	16.38	1.638
West Pointe	0.39	85	33.15	8.2875
			49.53	9.9255

PRE-APPLICATION Q 10.a

76M 30013295 is a Provisional Permit that supplies water to the subdivision for domestic and lawn and garden purposes. It has been used to cover the initial phases of the subdivision using two wells permitted for a flow rate of 180 gpm and an unperfected volume of 114.00 AF. If approved, the proposed wells will be connected to the existing water system and will provide additional flow rate and volume to cover the water needs of future phases of the subdivision.

76M 30013295 and the currently proposed permit will combine both flow rate and volume for domestic purposes for the existing and proposed phases of the subdivision. The lawn and garden volume will only be covered by the separate proposed change to Provisional Permit 76M 30013295.

The overall flow rate for the system under the combination of the proposed change for 76M 30013295 and the proposed permit will be 290 gpm and the volume will be 154.28 AF. The domestic purpose, provided by both permits, will have an additive volume of 112.71 AF. The lawn and garden purpose, provided by 76M 30013295, will have a volume of 41.57 AF.

PRE-APPLICATION Q 14.

The 85 proposed lots located in the West Pointe subdivision will discharge water to the Missoula city sewer system. The 42 lots located in the Circle H subdivision will utilize drain fields.

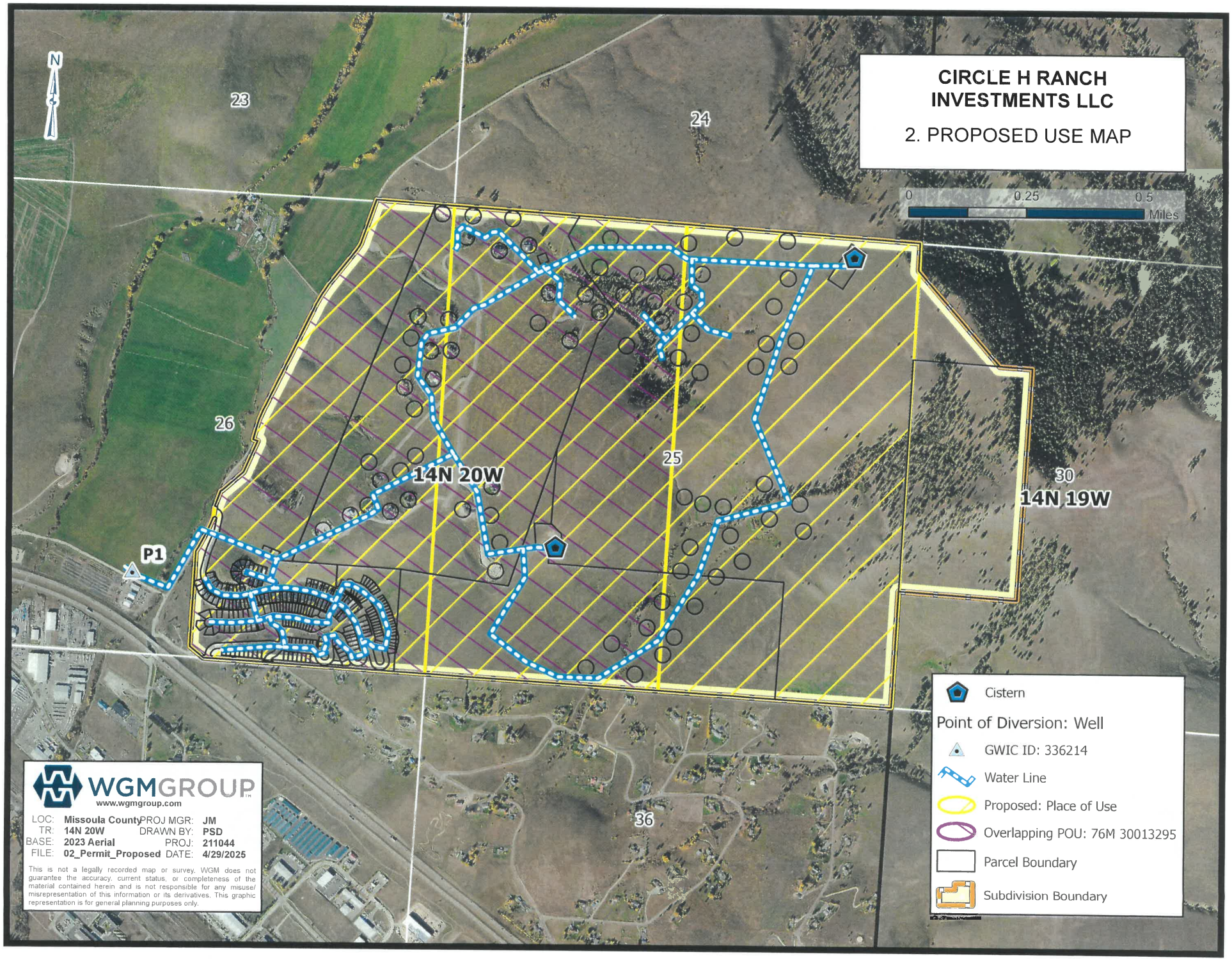
PRE-APPLICATION Q 35.a.

Yes, the proposed well has been constructed.

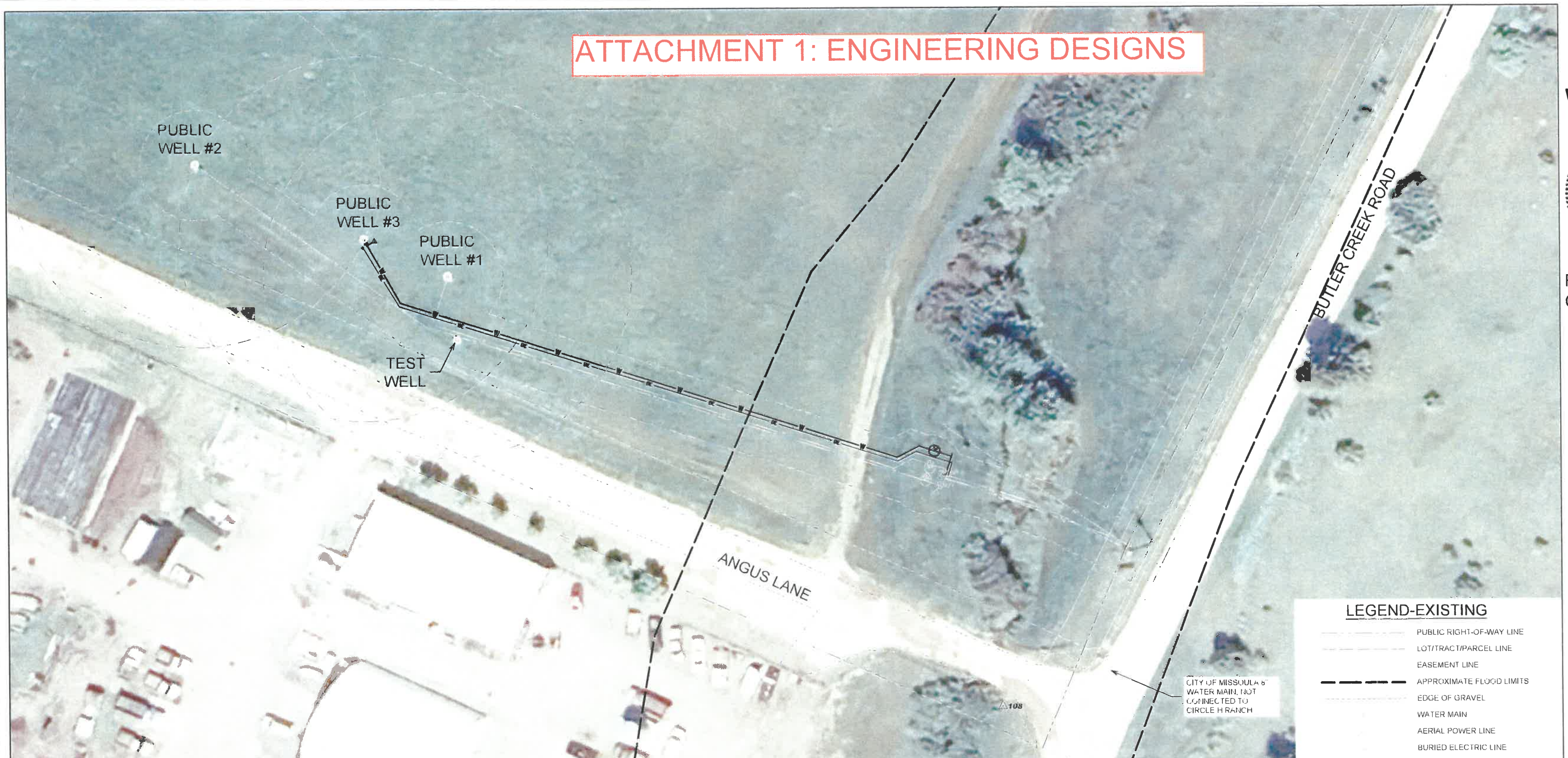
PRE-APPLICATION Q 42.

Table 4: Well Information

POD #	Flow Rate	Volume	Period of Diversion	Depth	Measured or Estimated
1	110 GPM	49.53 AF	01/01/ to 12/31	117ft	Measured


CIRCLE H RANCH INVESTMENTS LLC
2. PROPOSED USE MAP
N
0
0.25
0.5
Miles
23
24
26
25
30
14N 20W
14N 19W
P1
36
Cistern
Point of Diversion: Well
GWIC ID: 336214
Water Line
Proposed: Place of Use
Overlapping POU: 76M 30013295
Parcel Boundary
Subdivision Boundary
WGMGROUP
www.wgmgroup.com
LOC: Missoula County
TR: 14N 20W
BASE: 2023 Aerial
FILE: 02_Permit_Proposed
PROJ MGR: JM
DRAWN BY: PSD
PROJ: 211044
DATE: 4/29/2025
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.

ATTACHMENT 1: ENGINEERING DESIGNS



LEGEND-EXISTING

- PUBLIC RIGHT-OF-WAY LINE
- LOT/TRACT/PARCEL LINE
- EASEMENT LINE
- APPROXIMATE FLOOD LIMITS
- EDGE OF GRAVEL
- WATER MAIN
- AERIAL POWER LINE
- BURIED ELECTRIC LINE
- BURIED COMMUNICATIONS LINE
- FENCE
- IRRIGATION DITCH
- CONTOUR (1 FOOT INTERVAL)
- CURB BOX/WATER SERVICE VALVE
- WATER VALVE
- BLOW OFF
- WELL
- UTILITY POLE
- GUY WIRE
- DECIDUOUS TREE (SIZE AS NOTED)
- DRIP LINE OF TREE
- CONTROL POINT

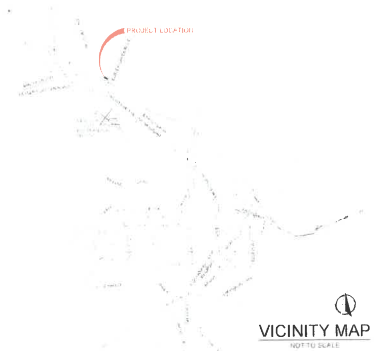
LEGEND-PROPOSED

- WATER MAIN
- BURIED ELECTRIC LINE
- ELECTRICAL JUNCTION BOX
- BLOWOFF
- SAMPLING STATION
- WATER VALVE
- METER PIT

SURVEY CONTROL POINTS

POINT NUMBER	NORTHING	EASTING	ELEVATION	DESCRIPTION
12	200067.71	196670.12	3254.61	WGM OPC CP
102	200328.29	197059.38	3309.02	RPC
108	200469.59	196699.33	3260.34	RPC

	NORTHING	EASTING
WELL #1	200706.0460	196398.0505
WELL #2	200767.2292	196261.3906
WELL #3	200726.3670	196352.6610



VICINITY MAP
NOT TO SCALE

WGM GROUP
WWW.WGMGROUP.COM

MONTANA
GRANT MYHRE
No. 89366PE
LICENSED PROFESSIONAL ENGINEER

RELEASED FOR CONSTRUCTION

WELL SITE PLAN
CIRCLE H RANCH
MISSOULA COUNTY, MONTANA

REVISIONS

NO.	DESCRIPTION	DATE

PROJECT 21-10-44.2
LAYOUT SHT-COVER
SURVEYED -
DESIGN GM
DRAFT EDI
APPROVE -
DATE

JUNE 18, 2025

SHEET 1 OF 4

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) = (1in/wk x 1ft/12in x 1wk/7d x 7.480519 gal/ft^3) x (41,000 sf x 1d/24hr x 1hr/60min) = 2.54 gpm = 3,651 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	122 units
	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 gpd x 289 units) + 3,651 gpd = 149,307 gpd
Maximum daily use:	(1764 gpd x 289 units) + 3,651 gpd = 513,447 gpd
Peak hourly use:	(3.0 gpm x 289 units) + 2.54 gpm = 870 gpm

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

West Pointe – Phase IV-A:	22 units
Common area landscape:	25,000 SF = 1.55 gpm = 2,226 gpd
Average daily use:	(504 gpd x 22 units) + 2,226 gpd = 13,314 gpd
Maximum daily use:	(1764 gpd x 22 units) + 2,226 gpd = 41,034 gpd
Peak hourly use:	(3 gpm x 22 units) + 1.55 gpm = 67.6 gpm

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

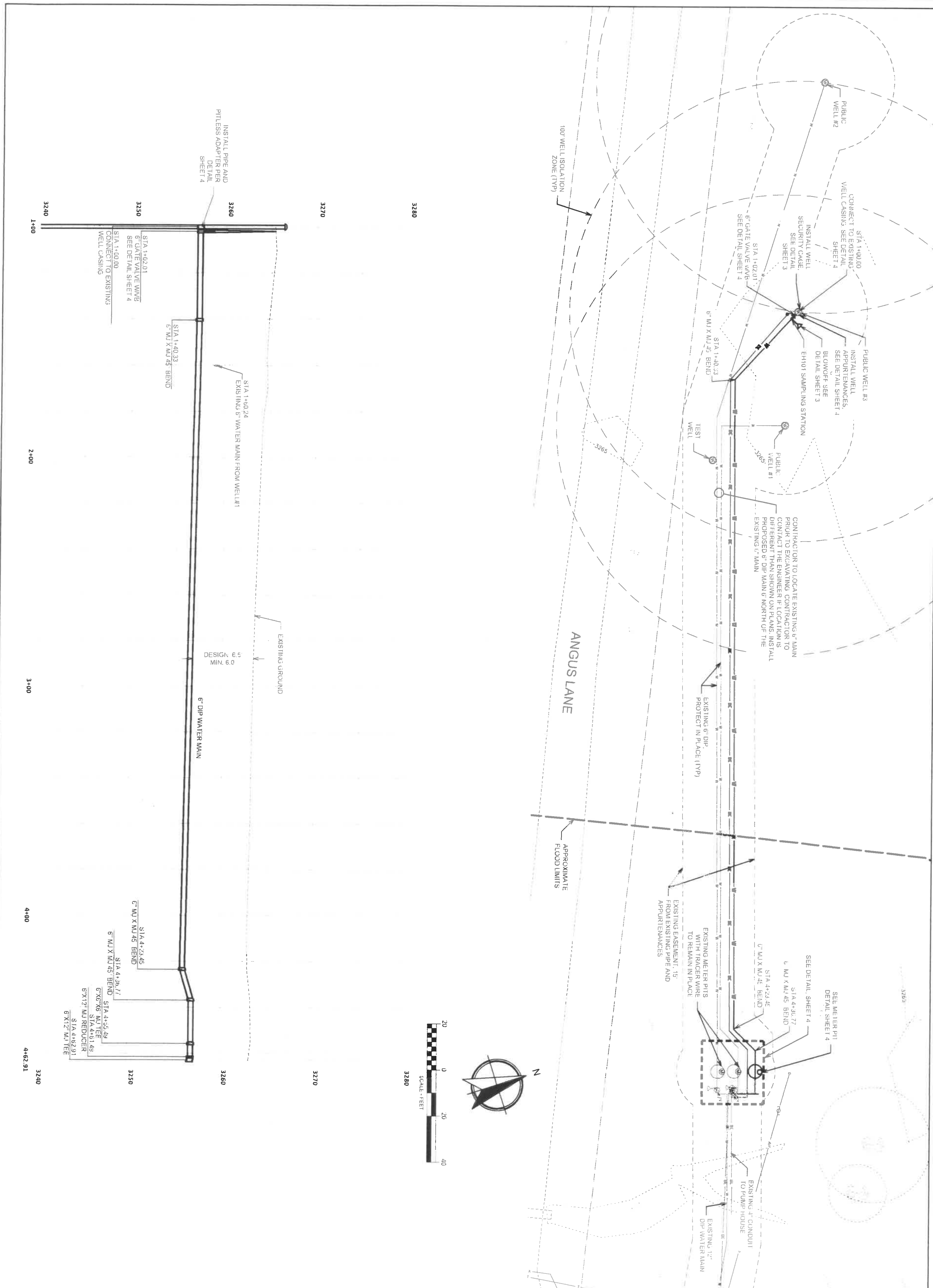
Average daily use:	(504 gpd x 125 units) + 3,651 gpd = 66,651 gpd
Maximum daily use:	(1764 x 125 units) + 3,651 gpd = 224,151 gpd
Peak hourly use:	(3 gpm x 125 units) + 1.55 gpm = 376.6 gpm

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.	= 120,000 gal
	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.



WGM GROUP
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MONTANA
PROFESSIONAL ENGINEER
LICENSED

WELL SITE PLAN
CIRCLE H RANCH
MISSOULA COUNTY, MONTANA

REVISIONS

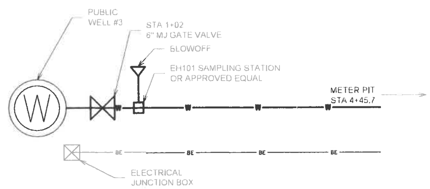
NO.	DESCRIPTION	DATE

PROJECT 21-10-44.2
LAYOUT SHT2-WELLS-SITE
SURVEYED
DESIGN GM
DRAFT EDI
APPROVE
DATE

JUNE 18, 2025

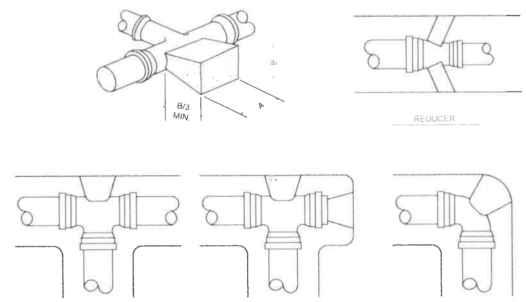
SHEET
2 OF 4

FILE W:\Projects\211044\211044.2\20 Data\CAD\01 Design\211044WELLS.dwg



STA 1+02.00 CONNECTION DETAIL

NOT TO SCALE



TEE

TEE (Plugged)

BEND

UNDISTURBED NATIVE SOIL

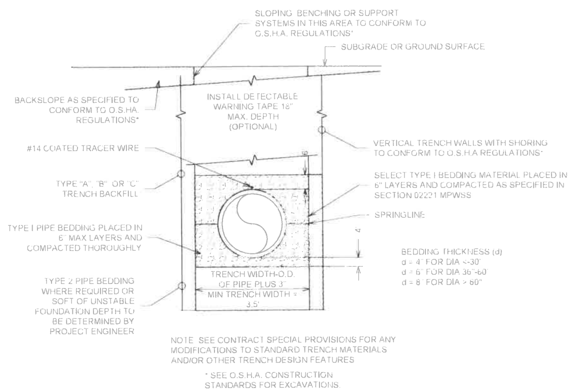
DIMENSIONS FOR THRUST BLOCKING								
FITTING SIZES	TEES & PLUGS		90° BEND		45° BEND & WYES		REDUCERS & 22 1/2° BEND	
	A	B	A	B	A	B	A	B
4"	1'-7"	1'-2"	1'-9"	1'-6"	1'-8	0'-10"	1'-7"	0'-6
6"	2'-0"	1'-11"	2'-5"	2'-2'	1'-10"	1'-7"	1'-9"	0'-10
8"	2'-8"	2'-6'	3'-2"	3'-0'	2'-5'	2'-1	1'-9"	1'-6'
10	3'-4'	3'-3"	4'-0"	3'-10"	3'-0'	2'-9'	2'-2"	1'-11"
12"	4'-0	3'-10"	4'-8"	4'-8"	3'-8"	3'-3"	2'-7"	2'-3"
14"	5'-5'	3'-10"	6'-6"	4'-11"	4'-9"	3'-5"	3'-5"	2'-5"
16'	4'-6"	4'-0"	5'-0"	4'-8'	4'-0"	3'-0	3'-0"	2'-6"
18"	5'-0"	4'-6"	6'-0"	5'-4"	4'-5"	4'-0'	3'-0"	3'-0"
20'	5'-0'	5'-0"	7'-0'	5'-0	4'-6"	4'-0	3'-0'	3'-0"
24	6'-10'	5'-0"	10'-0"	5'-0'	5'-8"	4'-6'	3'-8"	3'-8"

THRUST BLOCKING FOR WATER MAIN FITTINGS

NOT TO SCALE

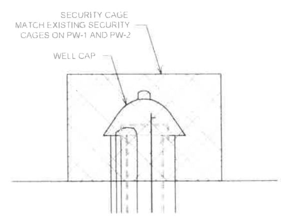
NOTES

1) THIS TABLE BASED ON 150 PSI MAIN PRESSURE AND 2000 PSF SOIL BEARING PRESSURE
2) CLASS 30 CONCRETE
3) WRAP ALL FITTINGS WITH POLYETHYLENE



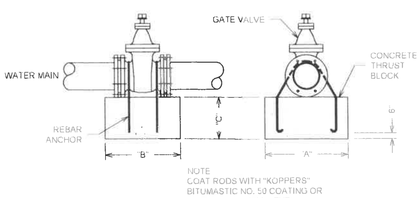
STANDARD PIPE EMBEDMENT

NOT TO SCALE



SECURITY CAGE DETAIL

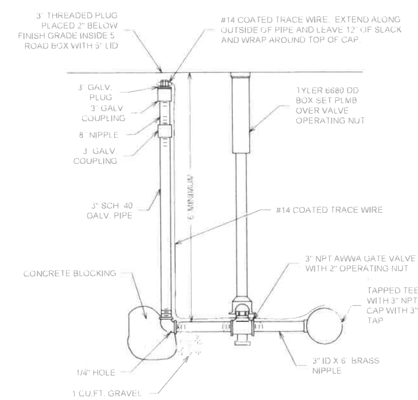
NOT TO SCALE



VALVE THRUST BLOCKING DETAIL

NOT TO SCALE

THRUST BLOCK DIMENSIONS																
ANCHOR ROD SIZE	VALVE SIZE	100 PSI			150 PSI			200 PSI			250 PSI			300 PSI		
		"A"	"B"	"C"	"A"	"B"	"C"	"A"	"B"	"C"	"A"	"B"	"C"	"A"	"B"	"C"
3/4"	6" & 8"	2'-0"	2'-0"	2'-0"	2'-0"	2'-0'	2'-0"	2'-0"	2'-0"	2'-0"	2'-0"	2'-0"	2'-0"	2'-0'	2'-0"	2'-7"
3/4"	10"	2'-0"	2'-0'	2'-0"	2'-6"	2'-6'	2'-0"	2'-9"	2'-6"	2'-6"	3'-0"	3'-0"	3'-0"	3'-7"	3'-0"	3'-0"
3/4"	12"	2'-3	2'-0'	2'-0"	3'-0"	3'-0"	2'-8"	3'-5"	3'-0"	3'-0"	4'-3"	3'-0'	3'-0"	5'-1"	3'-0"	3'-0"
1'	14"	2'-3'	2'-0"	2'-4"	3'-5"	3'-0"	3'-0"	4'-6"	3'-0"	3'-0"	4'-0"	4'-0"	4'-0"	4'-9"	4'-0"	4'-0"
1 1/8"	16"	3'-0"	3'-0"	2'-11"	4'-4"	3'-0"	3'-0"	4'-1"	4'-0	4'-0"	5'-1"	4'-0"	4'-0"	6'-1"	4'-0"	4'-0"
1 1/4"	18"	3'-8"	3'-0"	3'-0"	5'-5"	3'-0"	3'-0"	5'-1"	4'-0"	4'-0"	6'-4"	4'-0"	4'-0"	5'-9"	5'-0"	5'-0"
1 3/8"	24"	4'-4'	4'-0"	4'-0"	6'-5"	4'-0"	4'-0"	6'-6"	5'-0"	5'-0"	6'-5"	6'-0"	6'-0"	7'-8	6'-0"	6'-0"



3" BLOWOFF DETAIL

NOT TO SCALE

WGM GROUP
WWW.WGMGROUP.COM

MONTANA
LICENSED PROFESSIONAL ENGINEER

WELL DETAILS
CIRCLE H RANCH
MISSOULA COUNTY, MONTANA

REVISIONS

NO.	DESCRIPTION	DATE

PROJECT 21-10-44.2
LAYOUT SHT3-WELLS-DETAILS1
SURVEYED --
DESIGN GM
DRAFT EDI
APPROVE --
DATE

JUNE 18, 2025

SHEET 3 OF 4

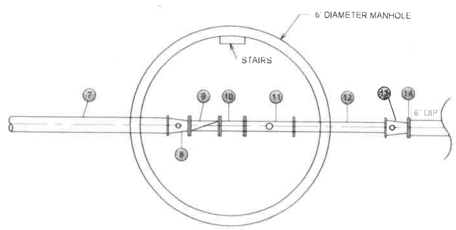
FILE W:\Projects\211044\211044.2\20 Data\CAD\01 Design\211044WELLS.dwg

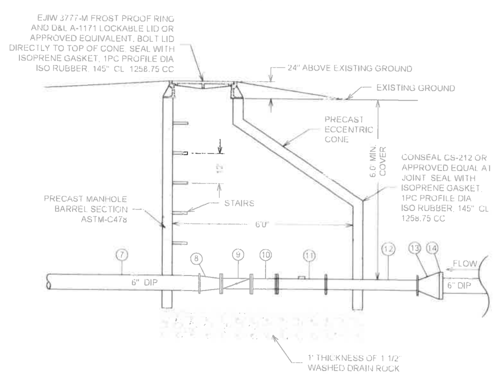
GENERAL NOTES:

1. ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH CONTRACT DOCUMENTS AND SHALL CONFORM TO THE MONTANA PUBLIC WORKS STANDARD SPECIFICATIONS, 7TH EDITION, APRIL 2021.
2. BURIED UTILITIES SHOWN ON THIS SITE ARE BASED ON AVAILABLE RECORDS AND UTILITY LOCATOR PAINT MARKS. DEPTHS AND SIZES OF BURIED UTILITIES HAVE NOT BEEN CONFIRMED. CONTRACTOR SHALL FIELD VERIFY THE LOCATION, SIZE, AND DEPTH OF ALL UTILITIES INCLUDING ALL SERVICES TO ALL PROPERTIES. THESE DRAWINGS MAY NOT SHOW ALL FACILITIES. THE DEPTHS OF ALL EXISTING UTILITIES ARE UNKNOWN. BURIED UTILITIES INCLUDING IRRIGATION LINES, BURIED ELECTRIC LINES TO SITE LIGHTING, AND OTHER PRIVATE UTILITIES HAVE NOT BEEN MARKED BY ONE CALL OR PRIVATE LOCATORS. THESE UTILITIES ARE KNOWN TO EXIST BUT ARE NOT SHOWN ON THIS SITE MAP. CONTRACTOR SHALL LOCATE AND PROTECT ALL EXISTING UTILITIES NOT DESIGNATED FOR DEMOLITION DURING CONSTRUCTION.
3. CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS FROM THE STATE OF MONTANA AND COUNTY OF MISSOULA AND UTILITY COMPANIES PRIOR TO COMMENCING WORK.
4. THIS PLAN IS TO BE USED TO ASSIST THE CONTRACTOR IN HORIZONTAL LOCATION DURING THE STAKING AND LAYOUT. IF THE CONTRACTOR DISCOVERS ANY DISCREPANCY BETWEEN THE GIVEN DATA AND THE INTENT SHOWN BY THE DRAWINGS THE CONTRACTOR SHALL CONTACT THE ENGINEER FOR CLARIFICATION.
5. CONTRACTOR RESPONSIBLE FOR INSTALLING AND MAINTAINING ALL EROSION CONTROL MEASURES, AND PROTECTING HAUL OFF/DRAG ON ONTO ADJACENT PARKING AREAS AND PUBLIC RIGHTS OF WAY. CONTRACTOR MUST MAINTAIN INLET PROTECTION.
6. ALL DEMOLISHED/REMOVED MATERIAL AND EXCESS EXCAVATED MATERIAL NOT DESIGNATED FOR RE-USE OR SALVAGE SHALL BE DISPOSED OF OFF SITE BY CONTRACTOR.
8. ALL MATERIALS AND WORKMANSHIP OF IMPROVEMENTS SHALL MEET OR EXCEED STATE AND LOCAL REGULATIONS. WHERE THERE IS A CONFLICT BETWEEN THESE PLANS AND THE SPECIFICATIONS, OR ANY APPLICABLE STANDARD THE HIGHER QUALITY STANDARD SHALL APPLY.
9. MINIMUM 2 WEEKS NOTICE FOR ALL SHUT DOWNS. CONTRACTOR TO PROVIDE PROPOSED SCHEDULE TO CIRCLE H RANCH.

WATER SYSTEM CONSTRUCTION NOTES:

1. WATER MAINS TO HAVE A MINIMUM 6' OF COVER.
2. CONTRACTOR TO INSTALL TRUST BLOCKS TO ALL VALVES, FITTINGS AND BLOWOFFS PER DETAILS AND TRUST BLOCK TABLE.
3. ALL FLANGE GASKETS TO BE FULL FACE FLANGE-TYPE GASKETS.
4. CONTRACTOR TO PROVIDE BLOWOFF AND TESTING PLAN TO ENGINEER FOR APPROVAL PRIOR TO DISINFECTING AND FLUSHING.
5. CONTRACTOR TO VERIFY EXISTING CONDITIONS PRIOR TO BEGINNING CONSTRUCTION

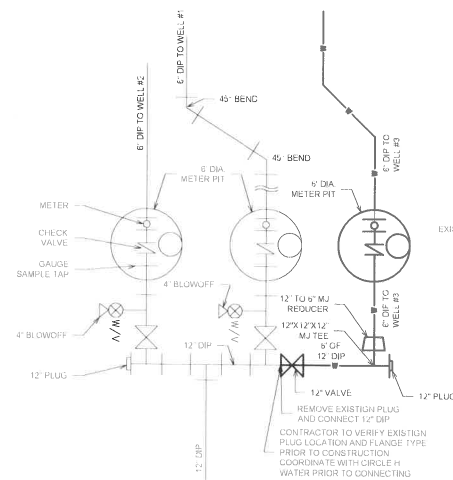




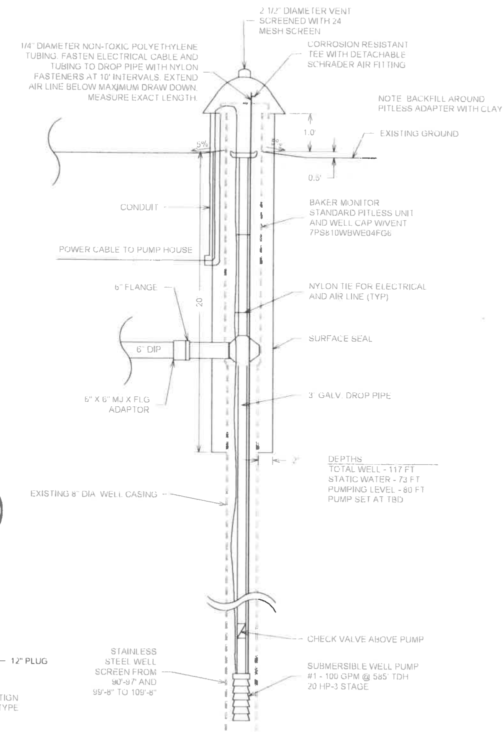
METER PIT DETAIL
NOT TO SCALE

KEY

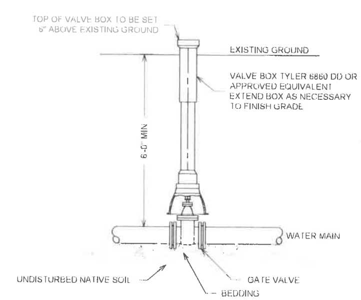
7) 6" DIA X 60" FLG SPOOL - CL 53
8) 6"X4" FLG ECCENTRIC REDUCER WITH 1/2" BALL VALVE WITH PRESSURE GAUGE
9) 4" DIAMETER DUO-CHECK II CHECK VALVE
10) 4" DIA X 10" SPOOL DIP CL 53
11) 4" DIA PROPELLER METER GPM RATE INDICATOR AND C.F. TOTALIZOR. MICROMETER QZ 500 OR EQUIVALENT
12) 4" DIA X 36" SPOOL DIP CL 53
13) 6"X4" CONCENTRIC FLG REDUCER
14) 6" MJXFLG ADAPTER



METER PIT SCHEMATIC
NOT TO SCALE



WELL DETAIL
NOT TO SCALE



VALVE DETAIL
NOT TO SCALE

WGM GROUP
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MONTANA
GRANT MYHRE
No. 89309PE
LICENSED PROFESSIONAL ENGINEER

WELL DETAILS
CIRCLE H RANCH
MISSOULA COUNTY, MONTANA

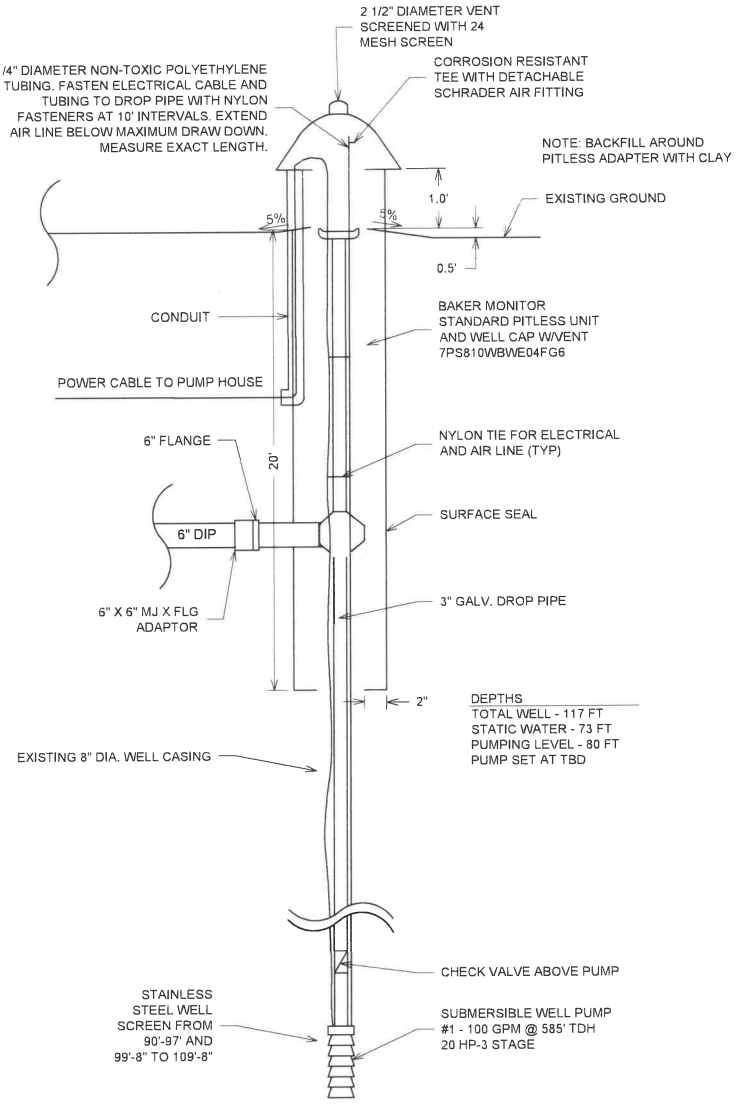
REVISIONS

NO.	DESCRIPTION	DATE

PROJECT 21-10-44.2
LAYOUT SHT4-WELLS-DETAILS2
SURVEYED ...
DESIGN GM
DRAFT EDI
APPROVE
DATE
JUNE 18, 2025

SHEET 4 OF 4

FILE W:\Projects\211044\211044.2\20 Data\CAD\01 Design\211044WELLS.dwg



WELL DETAIL

NOT TO SCALE

PUBLIC WELL #3 - WELL DETAIL
CIRCLE H RANCH
MISSOULA COUNTY, MONTANA

WGM GROUP
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PROJECT:	21-10-44
FILE No:	211044WELLS.dwg
FILE PATH:	W:\Projects\211044\211044.2\20 Data\CAD\01 Design
LAYOUT:	WELL DETAIL 8.5x11
SURVEYED:	
DESIGN:	GM
DRAFT	EDI
APPROVE:	
DATE:	DECEMBER 23, 2024
SHEET	1 OF 1 SHEETS

ATTACHMENT 2: DEQ SUBDIVISION APPROVAL AND WATER USE ESTIMATE

DEQ
Montana Department of Environmental Quality

October 17, 2025

Dustin Hoover PE
WGM Group
1111 East Broadway
Missoula MT 59808

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 ¼ 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.

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

Owner's Name: Circle H Investments, LLC

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 ll
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 O: 406-728-4611
1111 East Broadway
Missoula, Montana 59802
www.wgmgroup.com [wgmgroup.com]

WGMGROUP
Community Values. Inspired Futures.

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

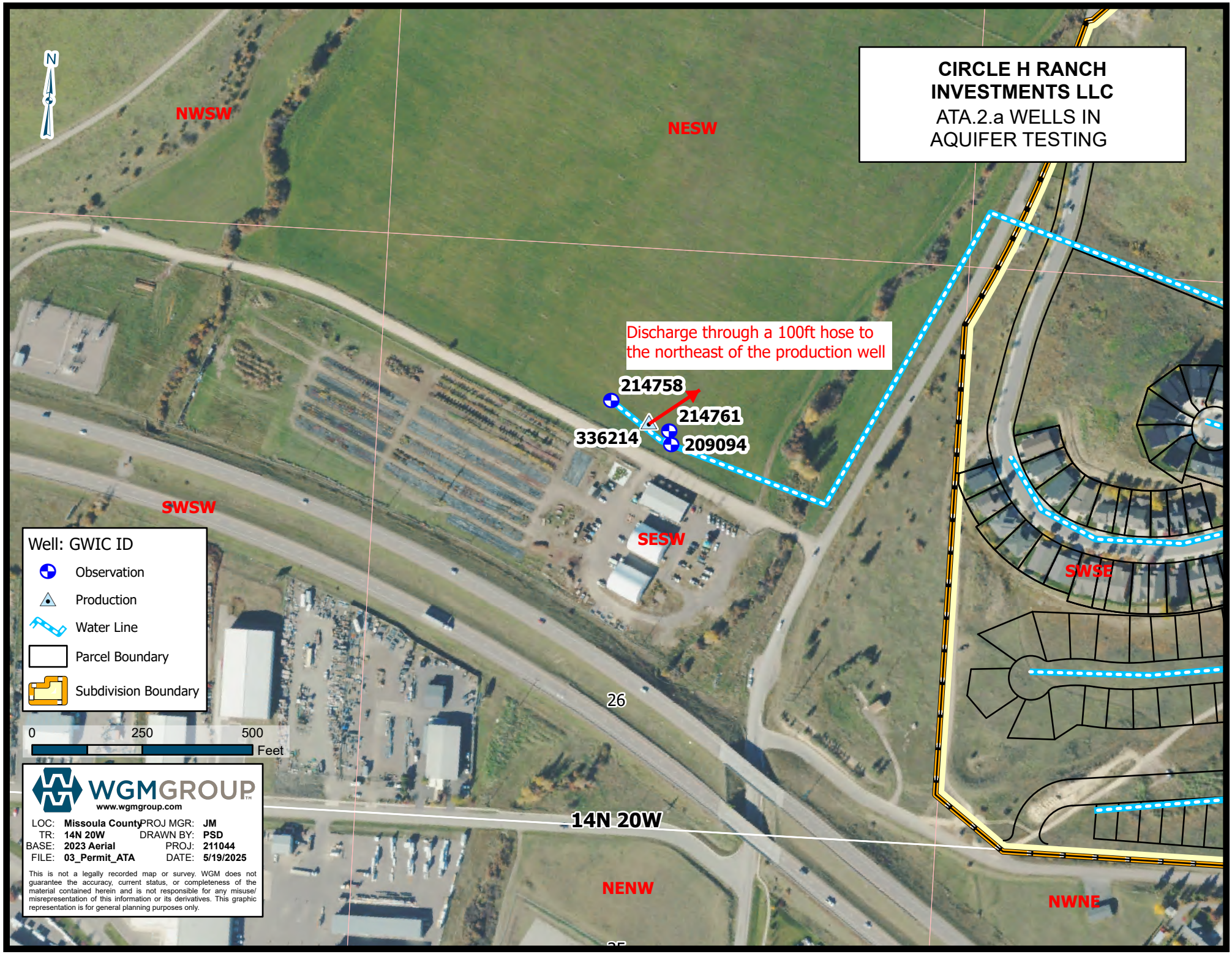
To: Patrick Doyle <pdoyle@wgmgroup.com>
Cc: Kyle Mace <KMace@wgmgroup.com>
Subject: Circle H Form 633 Question

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 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** [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
N
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
0
250
500
Feet
WGMGROUP
www.wgmgroup.com
LOC: Missoula County
TR: 14N 20W
BASE: 2023 Aerial
FILE: 03_Permit_ATA
PROJ MGR: JM
DRAWN BY: PSD
PROJ: 211044
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
To: Nave, Jim; Kyle Mace
Subject: RE: Circle H pre app question
Date: Monday, May 5, 2025 10:07:13 AM
Attachments: image001.png
image002.png

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 Mananger
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@wgmgroup.com>
Sent: Thursday, May 1, 2025 5:18 PM
To: Nave, Jim <jnave@mt.gov>
Cc: Patrick Doyle <pdoyle@wgmgroup.com>; Emily Clark <eclark@wgmgroup.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@wgmgroup.com>
Subject: RE: Circle H pre app question

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 Mananger
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]| **X (Twitter** [twitter.com]) | **Instagram** [instagram.com]
How did we do? Let us know here: **Feedback Survey** [forms.office.com]

From: Kyle Mace <KMace@wgmgroup.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 O: 406-728-4611
1111 East Broadway
Missoula, Montana 59802
www.wgmgroup.com [wgmgroup.com]

PREAPPLICATION MEETING FORM: PART A
PERMIT

§ 85-2-302, MCA
Form No. 600P-A *(Revised 03/2025)*

For Department Use Only

Application # 30170833 Basin # 76M

Meeting Date 4/29/2025 Time 10:00 AM

Variance Request Deadline _____

Completed Form Deadline 10/26/2025

RECEIVED
By Jim Nave at 11:21 am, May 15, 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)).

The Department will fill out Permit Preapplication Meeting Form Part A (Form 600P-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 600P-B), including identified follow-up, any amended responses, and Follow-up and Amended Responses Affidavit & Certification. Variance requests must be submitted on Form 653 to the Department on or before the Variance Request Deadline, which is day 138 of the 180 day-deadline for a completed preapplication meeting form. Form 653 may be submitted earlier than the Variance Request Deadline. The Department has 30 business days to process the Form 653.

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 markbretz@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 City MISSOULA State MT Zip 59802
Phone Numbers: Home _____ Work _____ 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 applicant will receive all correspondences, and a copy may be sent to the contact person (ARM 36.12.122(3)).*

Meeting Attendees: *Add more as necessary.*

Name	Role	Name	Role
Jim Nave	DNRC	Patrick Doyle	WGM Group
David Parelee	DNRC	Kyle Mace	WGM Group
Melissa Brickl	DNRC		
Benjamin Thomas	DNRC		
Alex Dalgleish	DNRC		

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APPLICATION DETAILS

The following questions are mandatory and must be filled out before the Preapplication Meeting Form is determined to be complete. Narrative responses that are larger than the space provided can be answered in an attachment. If an attachment is used, mark the see attachment ("A") checkbox on this form and label the attachment with the question number. Constrain narrative responses to the specific question as is asked on the form; do not respond to multiple questions in one narrative. Responses in the form of a table may be entered into the table provided on this form or in an attachment. If an attachment is used, the table must have the exact headings found on this form, and the see attachment ("A") checkbox must be marked. Label units in narrative responses and tables. Questions that require Applicant to submit items to the Department have a submitted ("S") checkbox, which is marked when the required item is attached to the Preapplication Meeting Form. Label all submitted items with the question number for which they were submitted. For all questions where follow-up is necessary, mark the "F" checkbox in the "Follow-Up" column and write the question number on the "Follow-Up Page".

S = Submitted. *Use when required item is included with form.*

A = See attachment. *Use when additional space is needed to answer a question.*

F = Follow-up. *Use when follow-up is necessary.*

Questions, Narrative Responses, and Tables	**Check-boxes**	**Follow-up**
1. Do you elect to have DNRC conduct Technical Analyses?	■ Y ☐ N	☐ F
2. Provide a 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 number (include GWIC ID, if available, for wells), all proposed places of use, all proposed conveyance structures (including ditches and pipelines), all proposed places of storage, and places of use for all overlapping water rights. More than one map may be submitted, if necessary to clearly convey all required information.	■ S	☐ F
3. Is the project located in a Controlled Groundwater Area or Basin Closure Area? If yes, immediately go to Mandatory Project-Specific questions 54 to 56 because Form 600 may be the incorrect form, or this project may not meet the requirements for the Department to accept a Form 600.	☐ Y ■ N	☐ F
4. Is the proposed use temporary?	☐ Y ■ N	☐ F
a. If yes, when will the appropriation cease? _____	☐ A	☐ F

5. Describe the proposed purpose information, including period of diversion (MM/DD-MM/DD), period of use (MM/DD-MM/DD), flow rate (GPM or CFS) and volume (AF). ☐ A ☐ F

Purpose	Period of Diversion	Period of Use	Flow Rate			Volume
	(MM/DD-MM/DD)	*(MM/DD-MM/DD)*	*Flow Rate*	*GPM*	*CFS*	*(AF)*
MULTIPLE DOMESTIC	01/01 TO 12/31	01/01 TO 12/31	110	☑	☐	26.88
				☐	☐	
				☐	☐	
				☐	☐	
				☐	☐	
		Total	110	☑	☐	26.88

6. Does the proposed use include one or more of the following purposes: domestic, multiple domestic, stock, or irrigation? If yes, fill out the following table, where applicable. ☒ Y ☐ N ☐ F

Purpose	Requested Information	Response
Domestic or multiple domestic	Number of dwellings	96; SEE ATTACHED
Stock	Number of animal units	
Irrigation	Method of irrigation type (sprinkler or flood) and subtype (if flood: level border, graded border, furrow, contour ditch, or other; if sprinkler: center pivot, wheel line, or other)	
Irrigation (flood only)	Design slope	

7. Describe the proposed location of the point(s) diversion to the nearest 10 acres, if source is groundwater (GW) or surface water (SW), source name, and means of diversion (e.g., pump, headgate, well). Label each POD with the POD # used for the project map (question 2). ☐ A ☐ F

POD #	¼	¼	¼	Sec	Twp	Rge	County	Lot	Block	Tract	Subdivision	Gov Lot	SW or GW	Source Name	Means
P3	nw	se	sw	26	14N	20W	MISSOULA						GW	Groundwater	Well

8. What are the geocodes of the place of use?	☒ A	☐ F

N/A SEE ATTACHED	

9. Describe the legal land description for the proposed place of use and, if an irrigation or lawn and garden purpose, list the number of irrigated acres.	☐ A	☐ F

Acres	Gov't Lot	Block	¼	¼	¼	Sec	Twp	Rge	County
					E2	26	14N	20W	MISSOULA
						25	14N	20W	MISSOULA
	Total								

10. Will other water rights supplement or overlap the place of use to contribute to the purpose(s)?	☒ Y ☐ N	☐ F
a. If yes, summarize how the water rights will be operated as a whole to serve the purpose(s). SEE ATTACHED	■ A	☒ F

11. For each supplemental or overlapping water right, please list the water right number, purpose, typical period of diversion and use (MM/DD-MM/DD), flow rate (GPM or CFS), and the volume of water (AF) contributed.	■ A	☐ F

Water Right No. SEE ATTACHED	**Avg. Period of Diversion**	**Avg. Period of Use**	**Flow Rate**			**Volume Contributed**
	MM/DD-MM/DD	*MM/DD-MM/DD*	*Flow Rate*	*GPM*	*CFS*	*AF*
76M 30013295-multi dom	01/01 to 12/31	01/01 to 12/31	*	☐	☐	64.00 AF
76M 30013295-lawn&gard	04/01 to 10/15	04/01 to 10/15	*	☐	☐	50.00 AF
				☐	☐	
				☐	☐	
				☐	☐	

12. Will this application supplement contract water from a Federal Project, ditch company, or other source?	☐ Y ■ N	☐ F
a. If yes, explain. _____ _____ _____	☐ A	☐ F
13. Does the project involve 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 the following questions once for each place of storage. Use an "Additional Place of Storage (600P)" sheet if more than one. Additionally, you may choose to answer non-mandatory questions 76 to 80 for place of storage.	☐ Y ▣ N	☐ F
a. Is this application to enlarge an existing reservoir? If yes, list the water right numbers for the existing reservoir. _____	☐ Y ☐ N	☐ F
b. Is the place of storage located on-stream?	☐ Y ☐ N	☐ F
c. What is the capacity of the proposed place of storage or the existing place of storage after it is enlarged? Use bathymetry data, survey, or engineering plans for capacity. Submit the data source used with this form. In lieu of these data sources, use the following equation: *Surface Acres x Maximum Depth (FT) x 0.5 = Capacity (AF)* _____	☐ A	☐ F

d. What is the surface area of the place of storage?	☐ A	☐ F
14. Will your system be designed to discharge water from the project?	☐ Y ■ N	☐ F
a. If yes, explain the wastewater disposal method. A discharge permit may be required to comply with §§ 75-5-410 and 85-2-364, MCA. All 96 lots will discharge water to city sewer system.	☐ A	☐ F
15. Does the project involve an appropriation that is greater than 5.5 CFS and 4,000 AF? If yes, you must submit a Criteria Addendum Application for Beneficial Water Use Permit for Appropriations Greater than 5.5 CFS and 4,000 AF (Form 600-B) with application submittal. The criteria are found in §85-2-311(3), MCA.	☐ Y ■ N	☐ F
16. Will you be transporting water for use outside of Montana? If yes, you must submit an Out-of-State Use Addendum (Form 600/606-OSA) with the application. The out-of-state use criteria are outlined in §85-2-402(6), MCA.	☐ Y ■ N	☐ F
17. Does the project include the water marketing purpose? If yes, you may choose to answer non-mandatory questions 81 to 85 for water marketing. A Water Marketing Purpose Addendum (Form 600/606-WMA) will be required with application submittal.	☐ Y ■ N	☐ F
18. Are you proposing a point of diversion and/or place of use on State of Montana Trust Land? If yes, documentation of consent from the DNRC Trust Lands Management Division will be required at application submittal.	☐ Y ■ N	☐ F
19. Is the project located in designated sage grouse habitat? If yes, a review letter from the Montana Sage Grouse Habitat Conservation Program will be required at application submittal.	☐ Y ■ N	☐ F

SURFACE WATER

☐ **Applicable**, move on to question 20. ☒ **Not Applicable**, skip to question 30.

The following questions are mandatory for surface water permit applications and must be filled out before the Preapplication Meeting Form is determined to be complete.

Surface Water Analysis

Questions, Narrative Responses, and Tables	**Check-boxes**	**Follow-up**
20. What is the flow rate (GPM or CFS), volume (AF), period of diversion start date and end date (MM/DD-MM/DD), and source type (e.g., perennial, ephemeral) at each point of diversion? Use the same POD # as the project map (question 2) to label each point of diversion.	☐ A	☐ F

POD #	**Flow Rate**			**Volume**	**Period Start**	**Period End**
	Flow Rate	*GPM*	*CFS*	*AF*	*MM/DD*	*MM/DD*
		☐	☐			
		☐	☐			
P3		☐	☐			
		☐	☐			
		☐	☐			

21. Is the source type of the diversion perennial or intermittent, ephemeral, lake, or other? _____	☐ A	☐ F

Perennial or intermittent	Answer questions 22 to 25	**Ephemeral**	Answer question 26	**Lake**	Answer question 27	**Other**	Answer questions 28 to 29

Surface Water Analysis: Perennial or Intermittent

☐ **Applicable** ☐ **Not Applicable**

22. Are stream gage data available?	☐ Y ☐ N	☐ F
a. If yes, answer question 23.		
b. If no, answer question 24.		

23. Stream gage data are available.		
a. Is one stream gage located above the most upstream POD and one stream gage located below the most upstream POD?	☐ Y ☐ N	☐ F
i. If no, is only one stream gage located near the most upstream POD?	☐ Y ☐ N	☐ F
1. If yes, is the stream gage located upstream or downstream? _____		☐ F
b. List the gage name(s). Write "N/A" for Gage 2 if one gage is available. Gage 1: _____ Gage 2: _____		☐ F
c. What is the distance between the gage(s) and the most upstream POD? Write "N/A" for Gage 2 if one gage is available. Gage 1: _____ Gage 2: _____		☐ F
d. Is there a limiting or controlling factor on the source between the stream gage(s) and the most upstream POD? This includes dams that control the flow and streams with large gaining and/or losing reaches. If you have questions about this, the Regional Office may provide assistance.	☐ Y ☐ N	☐ F
i. If yes, explain. _____ _____ _____	☐ A	☐ F
e. How long is the period of record? Write "N/A" for Gage 2 if one gage is available. Gage 1: _____ Gage 2: _____		☐ F
f. Who operates and maintains the gage(s)? Write "N/A" for Gage 2 if one gage is available. Gage 1: _____ Gage 2: _____		☐ F

g. Is each available stream gage operated and maintained by USGS or DNRC?	☐ Y ☐ N	☐ F
i. If yes, skip to question 23.h.		
ii. If no, answer the following questions for each gage not operated and maintained by USGS or DNRC.		
1. How frequently are stage data recorded? Write "N/A" for Gage 2 if only one gage is not operated or maintained by USGS. Gage 1: _____ Gage 2: _____		☐ F
2. If data gaps were to occur, are they identified and left unfilled or estimated using interpolation, ice correction, or indirect discharge measurements methods?		
a. Gage 1._____	☐ Y ☐ N	☐ F
b. Gage 2. Write "N/A" on the line instead of answering yes or no, if only one gage is not operated or maintained by USGS or DNRC. _____	☐ Y ☐ N	☐ F
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?		
a. Gage 1._____	☐ Y ☐ N	☐ F
b. Gage 2. Write "N/A" on the line instead of answering yes or no, if only one gage is not operated or maintained by USGS or DNRC. _____	☐ Y ☐ N	☐ F
4. Were requirements established and followed for maintaining a permanent gage datum and meeting specified accuracy limits?		
a. Gage 1._____	☐ Y ☐ N	☐ F
b. Gage 2. Write "N/A" on the line instead of answering yes or no, if only one gage is not operated or maintained by USGS or DNRC. _____	☐ Y ☐ N	☐ F

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 proposed months of diversion?	☐ Y ☐ N	☐ F
i. If yes, record how many meet the standard, then skip to question 54 because this section is complete. _____		☐ F
ii. If no, answer question 24.		
24. 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 proposed months of diversion, is the source otherwise measured?	☐ Y ☐ N	☐ F
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 requirements of ARM 36.12.1702 or, in combination with an approved variance request, are sufficient to complete any necessary technical analyses or scientific credibility reviews and to evaluate the applicable criteria. Skip to question 25.		
b. If yes,		
i. Submit available measurements to the Department.	☐ S	☐ F
ii. Who collected the measurements? _____	☐ A	☐ F
iii. With what method were the data collected? _____ _____	☐ A	☐ F
iv. What is the period of record? _____		☐ F
v. What is the frequency of measurement? _____		☐ F
vi. Are there gaps in the data?	☐ Y ☐ N	☐ F

1. If yes, what is the nature of the gaps and how are gaps handled to ensure data quality? _____ _____ _____	☐ A	☐ F
vii. Is there a process for maintaining the data and meeting specified accuracy limits?	☐ Y ☐ N	☐ F
1. If yes, explain. _____ _____ _____	☐ A	☐ F
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 proposed months of diversion?	☐ Y ☐ N	☐ F
1. If yes, this section is complete. Skip to question 54.		
2. If no, answer question 25.		
25. 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 validation of a Department-accepted estimation technique?	☐ Y ☐ N	☐ F
a. If yes,		
i. Describe how the measurements are representative of high, moderate, and low flows. _____ _____ _____ _____	☐ A	☐ F
ii. Describe the estimation technique. _____ _____ _____ _____ _____ _____	☐ A	☐ F
b. If no, but a Department-accepted estimation technique will be appropriate for the source:		

i. Will measurements be collected prior to submission of Form 600P-B that meet the Department's standard of including a minimum of high, moderate, and low flows to be sufficient to use for calibration of a Department-accepted estimation technique?	☐ Y ☐ N	☐ F
1. If yes,		
a. With what method will the data be collected? _____ _____	☐ A	☐ F
b. What will be the interval of measurement? _____		☐ F
c. Describe the proposed estimation technique. _____ _____ _____ _____ _____	☐ A	☐ F
2. If no, do you plan on requesting a variance from measurement requirements pursuant to ARM 36.12.1702(1)(b)? If you plan to request a variance, you must submit Form 653 on or before the Variance Request Deadline. The Department cannot deem the preapplication meeting form adequately completed until the Department receives measurements that meet the requirements of ARM 36.12.1702(1)(b) or, in combination with an approved variance request, are sufficient to complete any necessary technical analyses or scientific credibility reviews and to evaluate the applicable criteria.	☐ Y ☐ N	☐ F
c. If no, because no Department-accepted estimation technique will be appropriate for the source:		
i. Describe why no Department-accepted estimation technique is appropriate for the source characteristics. _____ _____ _____	☐ A	☐ F
ii. Do the available measurement data, gage and/or otherwise measured, meet the Department's standard for monthly measurements throughout the proposed period of diversion pursuant to ARM 36.12.1702(4)?	☐ Y ☐ N	☐ F

1. If no, will measurements be collected prior to submission of a completed Form 600P that meet the Department's standard of monthly measurements throughout the proposed period of diversion?	☐ Y ☐ N	☐ F
a. If yes, with what method will the data be collected? _____ _____	☐ A	☐ F
b. If no, do you plan on requesting a variance from measurement requirements pursuant to ARM 36.12.1702(4)? If you plan to request a variance, you must submit Form 653 on or before the Variance Request Deadline. The Department cannot deem the preapplication meeting form adequately completed until the Department receives measurements that meet the requirements of ARM 36.12.1702(4) or, in combination with an approved variance request, are sufficient to complete any necessary technical analyses or scientific credibility reviews and to evaluate the applicable criteria.	☐ Y ☐ N	☐ F

Surface Water Analysis: Ephemeral

☐ **Applicable** ☐ **Not Applicable**

26. Did you elect for the Department to conduct the Technical Analyses?	☐ Y ☐ N	☐ F
a. If yes, do you have climate or drainage area data you would like the Department to consider during Technical Analyses?	☐ Y ☐ N	☐ F
i. If yes, submit this information to the Department.	☐ S	☐ F
b. If no,		
i. Describe the estimation technique you propose to use to estimate physical availability at the point of diversion. _____ _____ _____	☐ A	☐ F
ii. What is the net annual precipitation? Include the source of this information. _____ _____	☐ A	☐ F

iii. What is the drainage area upstream of the point of diversion and how was this figure calculated? _____ _____ _____	☐ A	☐ F

Surface Water Analysis: Lakes

☐ **Applicable** ☐ **Not Applicable**

27. Has the lake volume been quantified by a qualified entity based on bathymetric data?	☐ Y ☐ N	☐ F
a. If yes, provide this information to DNRC.	☐ S	☐ F
b. If no, answer the following questions,		
i. When do you plan to collect this information? _____		☐ F
ii. What data collection method will you use? _____ _____	☐ A	☐ F

Surface Water Analysis: Other

☐ **Applicable** ☐ **Not Applicable**

28. Explain why the source type is “other”. _____ _____	☐ A	☐ F
29. Have you measured the source?	☐ Y ☐ N	☐ F
a. If yes, answer the following questions,		
i. With what method was the measurement data collected? _____ _____	☐ A	☐ F

ii. What is the measurement interval? _____		☐ F
1. Does the interval meet the Department's standard for monthly measurements throughout the proposed period of diversion pursuant to ARM 36.12.1702(4)?	☐ Y ☐ N	☐ F
a. If no, do you plan on requesting a variance from measurement requirements pursuant to ARM 36.12.1702(4)? If you plan to request a variance, you must submit Form 653 on or before the Variance Request Deadline.	☐ Y ☐ N	☐ F
b. If no,		
i. When do you plan to measure? _____		☐ F
ii. What data collection method will be used? _____ _____ _____	☐ A	☐ F
iii. Do you plan on requesting a variance from measurement requirements pursuant to ARM 36.12.1702(4)? If you plan to request a variance, you must submit Form 653 on or before the Variance Request Deadline. The Department cannot deem the preapplication meeting form adequately completed until the Department receives measurements that meet the requirements of ARM 36.12.1702(4) or, in combination with an approved variance request, are sufficient to complete any necessary technical analyses or scientific credibility reviews and to evaluate the applicable criteria.	☐ Y ☐ N	☐ F

Area of Potential Impact Analysis

No additional information needed for Technical Analyses.

GROUNDWATER

■ **Applicable**, move on to question 30. ☐ **Not Applicable**, skip to question 54.

The following questions are mandatory for groundwater permit applications and must be filled out before the Preapplication Meeting Form is determined to be complete.

Groundwater Analysis for Permits

Questions, Narrative Responses, and Tables	**Check-boxes**	**Follow-up**
30. What is the type of groundwater diversion? WELL	■ A	☐ F

Well/Pumping Pit	Answer questions 31 to 35	**Developed Spring**	Answer question 36	**Pond**	Answer questions 37 to 39

Groundwater Analysis for Permits: Well/Pumping Pit

■ Applicable ☐ Not Applicable

31. Per ARM 36.12.121 a 24- or 72-hour aquifer test is required; do you propose not to conduct the test? An 8-hour test will be required, if no aquifer test is completed.	☐ Y ■ N	☐ F
a. If yes, explain. The Department will let you know if the request is reasonable and identify additional data needs. _____ _____ _____ _____ _____	☐ A	☐ F

32. Submit Aquifer Test Data Form (Form 633). If a variance is requested, Form 633 must be submitted on or before the Variance Request Deadline. If no variance is requested, Form 633 is due by the time the preapplication meeting form is complete but may be submitted earlier. However, if the Department determines a variance is needed and the Variance Request Deadline has passed, to submit the Form 653 you must reschedule the preapplication meeting or submit the application without expedited fees and timelines (ARM 36.12.1302(6)).	■ S	☐ F
33. Submit the Aquifer Testing Addendum (Form 600/606-ATA) and associated materials (e.g., well logs). If you request a variance, Form 600/606-ATA must be submitted on or before the Variance Request Deadline. If no variance is requested, Form 600/606-ATA is due by the time the preapplication meeting form is complete but may be submitted earlier. However, if the Department determines a variance is needed and the Variance Request Deadline has passed, to submit the Form 653 you must reschedule the preapplication meeting or submit the application without expedited fees and timelines (ARM 36.12.1302(6)).	■ S	☐ F
34. Are you requesting a variance from ARM 36.12.121? If you are unsure if a variance request will be needed, mark follow-up and answer this question once Form 600/606-ATA and Form 633 are complete. A variance must be requested by the Variance Request Deadline.	■ Y ☐ N	☐ F
a. If yes, submit Form 653, Form 600/606-ATA, and Form 633 together on or before the Variance Request Deadline.	■ S	☐ F
b. If no, you may choose to submit Form 600/606-ATA and Form 633 before the Variance Request Deadline, and the Department will review these two forms. However, 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)).		
35. Have all proposed wells/pumping pits been constructed?	■ Y ☐ N	☐ F
a. If no, answer the following questions:		
i. Submit a list of the POD IDs for all wells/pumping pits and mark whether they have or have not been constructed.	☐ S	☐ F
ii. When will all proposed wells/pumping pits be constructed? _____		☐ F
iii. Is the requested volume for each proposed well/pumping pit known?	■ Y ☐ N	☐ F
1. If yes, list the flow rate and volume requested for each proposed well/pumping pit. Label with POD ID. SEE ATTACHED	■ A	☐ F

2. If no, what is the total requested volume (AF) and the number of proposed PODs? _____		☐ F

Groundwater Analysis for Permits: Developed Spring

☐ Applicable ■ Not Applicable

36. Have you measured the source?	☐ Y ☐ N	☐ F
a. If yes, submit the measurements and answer the following questions,	☐ S	☐ F
i. Do you have flow rate (GPM or CFS) and volume measurements?	☐ Y ☐ N	☐ F
ii. With what method were measurements collected? _____ _____	☐ A	☐ F
iii. What is the interval of measurements? _____		☐ F
iv. Is the interval of measurements sufficient to comply with ARM 36.12.1703(1)?	☐ Y ☐ N	☐ F
b. If no, or if measurements do not comply with ARM 36.12.1703(1), answer the following questions. The Department cannot deem the preapplication meeting form adequately completed until the Department receives measurements that meet the requirements of ARM 36.12.1703(1). Variances from ARM 36.12.1703(1) are not allowed.		
i. When do you plan to measure? _____		☐ F
ii. With what method and at what interval will measurements be collected? _____ _____	☐ A	☐ F

Groundwater Analysis for Permits: Pond

☐ Applicable ■ Not Applicable

37. Submit Form 653 to apply for a variance from ARM 36.12.121 for the Aquifer Test on or before the Variance Request Deadline.	☐ S	☐ F
38. Submit pond bathymetry data, survey, or engineering plans to the Department.	☐ S	☐ F
39. Is the pond fed or drained by surface water?	☐ Y ☐ N	☐ F
a. If yes,		
i. Explain. _____ _____ _____	☐ A	☐ F
ii. Submit measurements of the connected surface water source. These may include inflow and outflow measurements.	☐ S	☐ F

Surface Water Depletion Analysis

40. Is the type of groundwater diversion for your proposed project a developed spring? If yes, skip to question 45 because this section is complete. If no, move onto question 41.	☐ Y ■ N	☐ F
41. Is the type of groundwater diversion for your proposed project a pond? If yes, answer question 41.a, then skip to question 45 because this section is complete. If no, move onto question 42.	☐ Y ■ N	☐ F
a. Will any of the ponds have diversions for out-of-pond use that differ from, if year-round use, an allocation of diverted volume by the number of days in the month, or, if irrigation/lawn and garden use, the 80% dry year net irrigation requirement (IWR, NRCS 2003)?	☐ Y ☐ N	☐ F
i. If yes, provide a schedule of the diversions for out-of-pond use in the table below. Use the same POD # as the project map (question 2). Attach any additional schedules with POD # labeled.	☐ A	☐ F

POD #			
Month	**Diversions for Out-of-Pond Use Volume (AF)**	**Month**	**Diversions for Out-of-Pond Use Volume (AF)**
January		July	
February		August	
March		September	
April		October	
May		November	
June		December	

42. What is the flow rate (GPM or CFS), volume (AF), and period of diversion required (MM/DD-MM/DD) at each well/pumping pit? What is the well/pumping pit depth (FT), if available, or estimated well/pumping pit depth (FT). Please use the same POD # as the project map (question 2) to match this information with the location information.	■ A	☐ F

POD #	Flow Rate			Volume	Period of Diversion	Depth	Measured or Estimated
	Flow Rate	*GPM*	*CFS*	*AF*	*MM/DD-MM/DD*	*FT*	
		☐	☐				
		☐	☐				
P3	110	✔	☐	26.88	01/01 to 12/31	117	measured
		☐	☐				
		☐	☐				

43. Will any of the *new* wells/pumping pits have a monthly pumping schedule that differs from, if year-round use, an allocation of diverted volume by the number of days in the month, or, if irrigation/lawn and garden use, the 80% dry year net irrigation requirement (IWR, NRCS 2003)?	☐ Y ■ N	☐ F
a. If yes, provide the alternative pumping schedule(s) in the table below. Use the same POD # as the project map (question 2). Attach any additional pumping schedules with POD # labeled.	☐ A	☐ F

POD #				POD #			
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	

44. Will one or more *existing* wells/pumping pits be used for the proposed project?	☐ Y ■ N	☐ F
a. If yes, will any of the *existing* wells/pumping pits have a monthly pumping schedule, before or after the proposed project, that differs from an allocation of diverted volume by the number of days in the month (if year-round use) or the 80% dry year net irrigation requirement (if irrigation/lawn and garden use) (IWR, NRCS 2003)?	☐ Y ☐ N	☐ F
i. If yes, provide the pumping schedules before and after the proposed project in the table below. Use the same POD # as the project map (question 2). Attach any additional pumping schedules with POD # and before/after proposed project labeled.	☐ A	☐ F

Before proposed project: POD #				**After proposed project: POD #**			
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 Analysis of Depleted Surface Water

45. Based on the preliminary net depletion data provided by the Department at this preapplication meeting, what are the hydraulically connected surface water source(s)? **Net depletion 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 net depletion data changes during Technical Analyses, then surface water analysis of depleted surface water source(s) 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).* If the type of groundwater diversion for your proposed project is a developed spring, write "NA" and skip to question 51 because this section is complete. Clark Fork River	☐ A	☐ F
46. Answer the questions in this section one time for each hydraulically connected source. Use the "Additional Hydraulically Connected Source (600P)" sheet, as necessary. For which hydraulically connected source are you answering questions 47 to 50? _____		☐ F
47. Are stream gage data available?	■ Y ☐ N	☐ F
a. If yes, answer question 48.		
b. If no, answer question 49.		

48. Stream gage data are available		
a. Is one stream gage located above and one stream gage located below the start of the depleted reach?	☐ Y ■ N	☐ F
i. If no, is only one stream gage located near the start of the depleted reach?	■ Y ☐ N	☐ F
1. If yes, is the stream gage upstream or downstream? Clark Fork Below Missoula (located upstream of projected depletions)		☐ F
b. List the gage name(s). Write "N/A" for Gage 2 if one gage available. Gage 1: Clark Fork Below Missoula 12353000 Gage 2: N/A		☐ F
c. What is the distance between the gage(s) and the start of the depleted reach? Write "N/A" for Gage 2 if one gage available. Gage 1: Approx. 3 miles Gage 2: N/A		☐ F
d. Is there a limiting or controlling factor on the source between the stream gage(s) and the start of the depleted reach? This includes dams that control the flow and streams with large gaining and/or losing reaches. If you have questions about this, the Regional Office may provide assistance.	☐ Y ■ N	☐ F
i. If yes, explain.	☐ A	☐ F
e. How long is the period of record? Write "N/A" for Gage 2 if one gage is available. Gage 1: October 1929 through present Gage 2: N/A		☐ F
f. Who operates and maintains the gage(s)? Write "N/A" for Gage 2 if one gage is available. Gage 1: USGS Gage 2: N/A		☐ F
g. Is each available stream gage operated and maintained by USGS or DNRC?	■ Y ☐ N	☐ F
i. If yes, skip to question 48.h.		
ii. If no, answer the following questions for each gage not operated and maintained by USGS or DNRC.		

1. How frequently is stage data recorded? Write "N/A" for Gage 2 if only one gage is not operated or maintained by USGS. Gage 1: _____ Gage 2: _____		☐ F
2. If data gaps were to occur, are they identified and left unfilled or estimated using interpolation, ice correction, or indirect discharge measurements methods?	☐ Y ☐ N	☐ F
a. Gage 1._____	☐ Y ☐ N	☐ F
b. Gage 2. Write "N/A" on the line instead of answering yes or no, if only one gage is not operated or maintained by USGS or DNRC. _____	☐ Y ☐ N	☐ F
3. Was the rating curve established and maintained throughout the duration of the period of record using measurements taken near the reference gage and stage recorder according to USGS protocols?	☐ Y ☐ N	☐ F
a. Gage 1._____	☐ Y ☐ N	☐ F
b. Gage 2. Write "N/A" on the line instead of answering yes or no, if only one gage is not operated or maintained by USGS or DNRC. _____	☐ Y ☐ N	☐ F
4. Were there requirements for maintaining a permanent gage datum and meeting specified accuracy limits?	☐ Y ☐ N	☐ F
a. Gage 1._____	☐ Y ☐ N	☐ F
b. Gage 2. Write "N/A" on the line instead of answering yes or no, if only one gage is not operated or maintained by USGS or DNRC. _____	☐ Y ☐ N	☐ F
h. Do the data for one or more available stream gages meet the Department's standard to be sufficient to calculate the median of the mean monthly flow rate and volume during the months with net depletions?	■ Y ☐ N	☐ F
i. If yes, record how many meet the standard, then skip to question 54 because this section is complete. _____		
ii. If no, answer question 49.		
49. If no gage data are available or if available gage data do not meet the Department's standard to be sufficient to calculate the median of the mean monthly flow rate and volume during the months with net depletions, is the source otherwise measured?	☐ Y ☐ N	☐ F

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 50.		
b. If yes,		
i. Submit measurements to the Department.	☐ S	☐ F
ii. Who collected the measurements? _____	☐ A	☐ F
iii. With what method was the data collected? _____ _____	☐ A	☐ F
iv. What is the period of record? _____		☐ F
v. What is the frequency of measurement? _____		☐ F
vi. Are there gaps in the data?	☐ Y ☐ N	☐ F
1. If yes, what is the nature of the gaps and how are gaps handled to ensure data quality? _____ _____ _____	☐ A	☐ F
vii. Is there a process for maintaining the data and meeting specified accuracy limits?	☐ Y ☐ N	☐ F
1. If yes, explain. _____ _____ _____	☐ A	☐ F
viii. Do available measurement data meet the Department's standard to be sufficient to calculate the median of the mean monthly flow rate and volume during the months with net depletions?	☐ Y ☐ N	☐ F
1. If yes, this section is complete. Skip to question 54.		
2. If no, answer question 50.		

50. Do the available measurement data, gage and/or otherwise measured, meet the Department's standard of including a minimum of high, moderate, and low flows to be sufficient to use for calibration of a Department-accepted estimation technique?	☐ Y ☐ N	☐ F
a. If yes,		
i. Describe how the measurements are representative of high, moderate, and low flows. _____ _____ _____ _____	☐ A	☐ F
ii. Describe the estimation technique. _____ _____ _____ _____ _____ _____	☐ A	☐ F
b. If no, but a Department-accepted estimation technique will be appropriate for the hydraulically connected surface water source:		
i. Will measurements be collected prior to submission of a completed Form 600P-B that meet the Department's standard of including a minimum of high, moderate, and low flows to be sufficient to use for calibration of a Department-accepted estimation technique?	☐ Y ☐ N	☐ F
1. If yes,		
a. With what method will the data be collected? _____ _____	☐ A	☐ F
b. What will be the interval of measurement? _____		☐ F

c. Describe the proposed estimation technique. _____ _____ _____ _____ _____	☐ A	☐ F
2. If no, do you plan on requesting to deviate from the Department's standard of including a minimum of high, moderate, and low flows to be sufficient to use for calibration of a Department-accepted estimation technique? The Department's technical analyses or scientific credibility review of your technical analyses cannot commence until the Department receives measurements that meet Department measurement standards, or in combination with a request to deviate, are sufficient to complete any necessary technical analyses or scientific credibility reviews and to evaluate the applicable criteria.	☐ Y ☐ N	☐ F
c. If no, because no Department-accepted estimation technique will be appropriate for the hydraulically connected surface water source:		
i. Describe why no Department-accepted estimation technique is appropriate for the source characteristics. _____ _____ _____	☐ A	☐ F
ii. Do the available measurement data, gage and/or otherwise measured, meet the Department's standard for monthly measurements throughout the months with net depletions?	☐ Y ☐ N	☐ F
1. If no, will measurements be collected prior to submission of a completed Form 600P that meet the Department's standard of monthly measurements throughout the months with net depletions?	☐ Y ☐ N	☐ F
a. If yes, with what method will the data be collected? _____ _____	☐ A	☐ F

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 request to deviate, are sufficient to complete any necessary technical analyses or scientific credibility reviews and to evaluate the applicable criteria.	☐ Y ☐ N	☐ F

Area of Potential Impact Analysis of Depleted Surface Water

All information for area of potential impact of depleted surface water was collected in previous questions.

Hydrogeologic Report

51. Does your project include one or more wells, pumping pits, or ponds that are in a basin closure area? If yes, fill out questions 52 to 53. Your project must have a Hydrogeologic Report that conforms with § 85-2-361 to comply with the requirements of § 85-2-360, MCA. A Hydrogeologic Report Addendum (Form 600-HRA) or Department Technical Analyses may be used to meet these requirements.	☐ Y ▣ N	☐ F
52. Did you elect in question 1 for the Department to conduct the Technical Analyses?	☐ Y ☐ N	☐ F
a. If yes, the Basin Closure Area Addendum (Form 600-BCA), Form 600-HRA, and Hydrogeologic Report are not required at this time. The Department's Technical Analyses will meet requirements of §85-2-360, MCA for a Hydrogeologic Report and Form 600-HRA. Form 600-BCA will be required with application submittal.		
b. If no, submit the Basin Closure Area Addendum (Form 600-BCA) and Hydrogeologic Report Addendum (600-HRA) with your Technical Analyses.	☐ S	☐ F
53. If the Hydrogeologic Report indicates that the proposed groundwater use will impact a surface water source, identify and explain which of the following three options best describes your plan to mitigate depletions of hydraulically connected surface water and respond to the relevant questions below. ☐ Application to Change a Water Right to mitigate the adverse effects created ☐ Alternative mitigation plan ☐ Documentation to show a mitigation plan is not required		
a. Application to Change a Water Right to mitigate the adverse effects created: Submit a summary of your initial proposal. *A separate Preapplication Meeting will be required for each Application to Change a Water right to a mitigation or aquifer recharge purpose to qualify for expedited timelines and reduced filing fees for the project per ARM 36.12.1302(7)(a).*	☐ S	☐ F
b. Alternative mitigation plan: Submit a summary of your initial proposal.	☐ S	☐ F

i. Do you propose to use water with a marketing for mitigation/aquifer recharge purpose?	☐ Y ☐ N	☐ F
1. If yes,		
a. List the change authorization number(s) for all water rights proposed for use. _____	☐ A	☐ F
b. What is the area defined for marketing for all water rights proposed for use? _____	☐ A	☐ F
c. If Marketing for aquifer recharge, submit the analysis of the monthly accretions to hydraulically connected surface water(s); otherwise write "NA". _____	☐ S	☐ F
c. Documentation to show a mitigation plan is not required: Submit all documentation.	☐ S	☐ F

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.

Project-Specific Questions: Controlled Groundwater Areas and Basin Closures

Questions, Narrative Responses, and Tables	Check-boxes	Follow-up
54. Does the project include one or more groundwater points of diversion located in the East Valley Controlled Groundwater Area (EVCGWA)?	☐ Y ■ N	☐ F
a. If yes, is the use over 35 GPM or 10 AF/YR?	☐ Y ☐ N	☐ F
i. If no, this is the incorrect form. Use instead Form 600-EVCGWA: East Valley Controlled Groundwater Area Permit Application.		
ii. If yes, how does this project meet the specific requirements of the East Valley Controlled Groundwater Area? Include any relevant documentation. _____ _____ _____ _____	☐ A	☐ F
b. If no, skip to question 55.		
55. Does the project include one or more groundwater points of diversion located in the Yellowstone Controlled Groundwater Area?	☐ Y ■ N	☐ F
a. If yes, is the proposed flow rate and volume over 35 GPM or 10 AF/YR?	☐ Y ☐ N	☐ F
i. If no, this is the incorrect form. Use instead Form 600-YCGA: Yellowstone Controlled Groundwater Area Permit Application.		
ii. If yes, answer the remaining parts of question 55 and submit *Form 600 YCGA: A Yellowstone Controlled Groundwater Area Addendum Over 35 gallons per minute* with the application.		
1. Does the proposed use require a point of diversion with water temperature of 60 degrees Fahrenheit or more?	☐ Y ☐ N	☐ F
2. If an application is in a basin tributary to a category 3 or 4 stream (generally in or upstream of Yellowstone National Park), submit with the application a report prepared by a qualified professional verifying that the appropriation is not hydrologically connected to surface flow that is tributary to the reserved portion of category 3 or 4 streams.		
b. If no, skip to question 56.		

56. Is the project for surface water or groundwater and subject to one or more of the Controlled Groundwater Areas; administrative, Department ordered, or legislative basin closures; or compact closures listed on the Department's website (https://dnrc.mt.gov/Water-Resources/Water-Rights/Basin-Closures-Stream-Depletion-Controlled-Ground-Water-Areas) not covered in questions 54 to 55?	☐ Y ☒ N	☐ F
a. If yes, identify each area and describe how the proposed project meets its requirements. An application must meet the specific requirements of the Controlled Groundwater Area or closure to be accepted by the Department.	☐ A	☐ F

NON-MANDATORY QUESTIONS FOR CRITERIA ANALYSIS

The following questions are not mandatory. They should be discussed in the Preapplication Meeting, but do not need to be filled out before the Preapplication Meeting Form is determined to be complete.

Adverse Effect

Questions, Narrative Responses, and Tables	Check-boxes
57. Describe your plan to ensure that existing water rights will be satisfied during times of water shortage.	☐ A
58. Explain how you can control your diversion in response to call being made.	☐ A
59. Are you aware of any calls that have been made on the source of supply or depleted surface water source?	☐ Y ☐ N
a. If yes, explain.	☐ A
60. Does a water commissioner distribute water or oversee water distribution on your proposed source or depleted surface water source?	☐ Y ☐ N

61. Will the point of diversion or conveyance infrastructure be shared with one or more existing water rights?	☐ Y ☐ N
a. If yes, explain how capacity of the shared point of diversion and/or conveyance infrastructure is sufficient for all water rights. _____ _____ _____ _____ _____	☐ A

Adequate Diversion Means and Operation

62. Submit a diagram of how you will operate your system from the point of diversion to the place of use.	☐ S
63. Describe specific information about the capacity of the diversionary structure(s). This may include, where applicable: pump curves and total dynamic head calculations, headgate design specifications, and dike or dam height and length. _____ _____ _____ _____ _____ _____ _____	☐ A

64. Describe the size, materials, capacity, and configuration of infrastructure to convey water from point of diversion to place of use. This may include but is not limited to, pipelines and ditches. Include a description of any losses related to the proposed conveyance. Ditch conveyance losses may be estimated numerous ways, which include a ditch loss rate or Department standard methods. You may work with the Department to estimate ditch conveyance losses but will need to provide sufficient baseline information; which includes ditch slope, dimensions, length, lining material, soil type, and location.	☐ A
65. Describe how the proposed diversion and conveyance infrastructure can provide the required flow and volume, for the purposes plus any conveyance losses and storage, throughout the proposed period of diversion.	☐ A
66. Provide a plan of operations, which includes specific information about how water is delivered within the place of use. This may include, where applicable, the range of flow rates needed for a pivot.	☐ A

67. Does the proposed conveyance require easements?	☐ Y ☐ N
a. If yes, explain. _____ _____ _____	☐ A
68. Do you own the land where all proposed points of diversion are located?	☐ Y ☐ N
a. 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.	
69. Describe any places of storage, including whether drainage devices will be installed, and provide preliminary designs, if available. Preliminary designs will be required at application submittal. _____ _____ _____ _____	☐ A
70. Do you have any plans to measure your diversion and use?	☐ Y ☐ N
a. If yes, describe the plan and the type of measurements you will take. _____ _____ _____	☐ A

Beneficial Use

71. Does the Department have a standard for any of the purposes for which water is used? Department standards can be found in ARM 36.12.112 and ARM 36.12.115.	☐ Y ☐ N
a. If yes, list the purposes for which the Department has a standard and note whether the proposed use falls within or outside the standard. _____ _____	

72. If no Departmental standard exists for any proposed purpose, or if any proposed purpose falls outside of Department standards, explain how the use is reasonable for that purpose. _____ _____ _____ _____ _____ _____ _____	☐ A
73. Will your proposed project be subject to DEQ requirements for a public water supply (PWS) system or Certificate of Subdivision Approval (COSA)?	☐ Y ☐ N
a. If yes,	
i. Have you researched or consulted with DEQ regarding those requirements?	☐ Y ☐ N
74. Are you proposing to use surface water for in-house domestic use?	☐ Y ☐ N
a. If yes, does a COSA exist for the proposed place of use?	☐ Y ☐ N
i. If yes, please submit the COSA.	☐ S
ii. If no, have you researched or consulted with DEQ regarding their requirements?	☐ Y ☐ N

Possessory Interest

75. Do you meet one of the exceptions to possessory interest requirements, pursuant to ARM 36.12.1802? Exceptions include cases where the application is for sale, rental, distribution, or is a municipal use, or in any other context in which water is being supplied to another and it is clear that the ultimate user will not accept the supply without consenting to the use of water on the user's place of use.	☐ Y ☐ N
a. If yes, explain. _____ _____ _____ _____	☐ A

b. If no,	
i. Do you own all proposed places of use?	☐ Y ☐ N
1. If no,	
a. Explain. Documentation that shows you either have possessory interest or written permission of the parties with possessory interest of the place of use will be required at application submittal. _____ _____ _____ _____	☐ A
b. Would you like the water right to be appurtenant to the land? Please note that if your water right is not appurtenant to land it will not transfer by default with the conveyance of the property, pursuant to § 85-2-403.	☐ Y ☐ N
i. If no, explain. _____ _____ _____	☐ A

Non-Mandatory Project Specific Questions

Place of Storage

76. Does the proposal include at least one place of storage? If yes, answer questions 77 to 80 for each individual place of storage (use "Additional Place of Storage (600P)" sheet for additional places of storage). A Permit Storage Addendum (Form 600-SA) will be required at application submittal. If no, this section is complete, and you can skip to question 81.	☐ Y ☐ N
77. Are preliminary designs available? Preliminary designs will be required at application submittal.	☐ S
a. If yes, submit preliminary designs.	☐ Y ☐ N
78. Will the place of storage be lined?	☐ Y ☐ N
79. What is the annual net evaporation of water from the place of storage, based on the Department's gridded net evaporation layer? If you propose a different method, attach an explanation and justification of the method. _____	☐ A

80. Is the place of storage capacity calculated to be greater than 50 AF?	☐ Y ☐ N
a. If yes, have you made an application to the DNRC Water Operations Bureau for a determination of whether the dam or reservoir is a high-hazard dam? This will be required by application submittal.	☐ Y ☐ N

Project-Specific Questions: Water Marketing

81. Does the proposal include water marketing? If yes, please answer the questions in this section (questions 82 to 85). A Water Marketing Addendum Purpose Addendum (600/606-WMA) will be required at application submittal. If no, this section is complete.	☐ Y ☐ N
82. For what purpose(s) will the marketed water be used? _____ _____ _____	☐ A
83. How will you control or limit access to the water? _____ _____ _____	☐ A
84. Do you have contracts for the entire volume and flow rate sought?	☐ Y ☐ N
85. Provide a service area map. Create map on an aerial photograph or topographic map and show the following: general service area boundary, section corners, township and range, scale bar, and north arrow.	☐ S

FOLLOW-UP

The tables below will identify all questions marked for follow-up. Applicant follow-up will be submitted with the completed Preapplication Meeting Form: Part B (Form 600P-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 600P-A) signed at the Preapplication Meeting**. Instead, the Applicant must use the Amended Responses procedure defined in Form 600P-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 600P-B.*

QUESTION #	NOTES
	Need to update supplemental materials regarding existing water right
	Provide engineering design/plan if available
2	Provide updated map with P3 Well only

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 — 5/15/2025

Applicant Signature — Date

Applicant Signature — Date

Jim Nave — 5/15/2025

Department Signature — Date

CIRCLE H INVESTMENTS LLC
PREAPPLICATION MEETING FORM NO. 600P PART A
SUPPLEMENTAL

6. NUMBER OF DWELLINGS
Under the proposed permit, there will be 96 single family dwellings, added to an existing subdivision. The new homes will be part of future phases of the subdivision, which is currently covered under 76M 30013295.

8. WHAT ARE THE GEOCODES OF THE PLACE OF USE?
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 will own 100% of the water right and will be responsible for the water system that supplies water to the lot owners. The lot owners will agree to connect to the water supply and not receive water from any other source. The lot owners will have no possessory interest in the water right, and the applicant will have no possessory interest in the lots after they are sold.

10. WILL OTHER WATER RIGHTS SUPPLEMENT OR OVERLAP THE PLACE OF USE TO CONTRIBUTE TO THE PURPOSE?
76M 30013295 is a provisional permit that supplies water to the subdivision for domestic and lawn and garden purposes. It has been used to cover the initial phases of the subdivision using two wells permitted for a flow rate of 180gpm and a volume of 114.00 AF. If approved, the proposed wells will be connected to the existing water system and will provide additional flow rate and volume to the water system to cover the water needs of future phases of the subdivision.

76M 30013295 and the proposed permit will combine both flow rate and volume for domestic purposes in both the existing and proposed phases of the subdivision. The lawn and garden volume will only be covered by 76M 30013295.

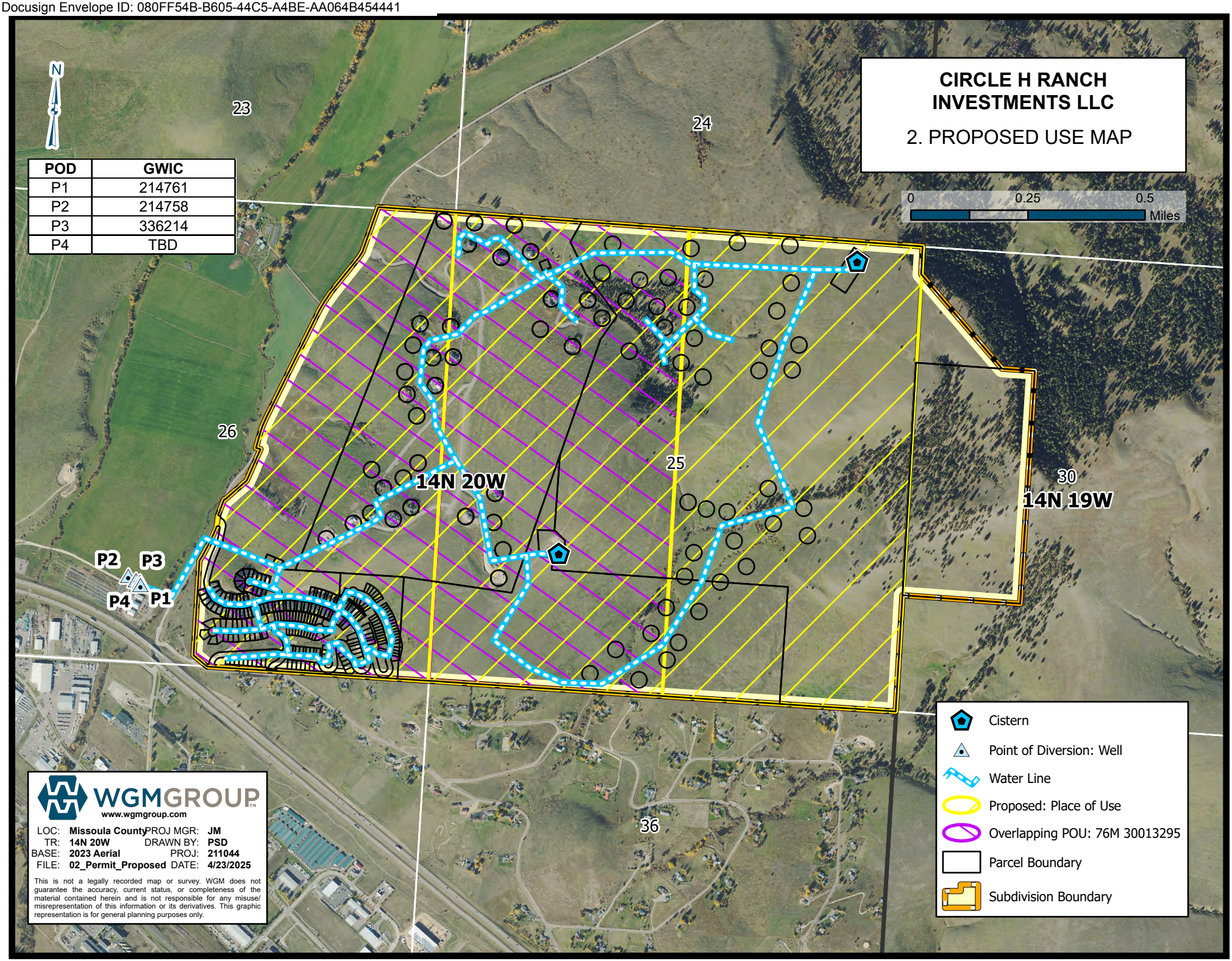
The overall flow rate for the system under the combination of 76M 30013295 and the proposed permit will be 390 gpm and the volume will be 140.88 AF. The domestic purpose, provided by both permits, will have a volume of 90.88 AF. The lawn and garden purpose, provided by 76M 30013295, will have a volume of 50 AF.

11. SUPPLEMENTAL WATER RIGHT
The supplemental water right 76M 30013295 has two wells that pump water into a cistern. The cistern distributes water as needed and so the flow rates are not split by purpose.

35.i. SUBMIT A LIST OF THE POD IDS FOR ALL WELLS AND MARK WHETHER THEY HAVE OR HAVE NOT BEEN CONSTRUCTED.

POD	GWIC	Constructed?	Flow Rate
P1	214761	Yes	105
P2	214758	Yes	75
P3	336214	Yes	110
P4	TBD	No	100

*All 4 Wells will be used together for the proposed volume of 26.88 AF and the existing volume of 114 AF permitted by 76M 30013295



POD	GWIC
P1	214761
P2	214758
P3	336214
P4	TBD

WGMGROUP
www.wgmgroup.com

LOC:	Missoula County	PROJ MGR:	JM
TR:	14N 20W	DRAWN BY:	PSD
BASE:	2023 Aerial	PROJ:	211044
FILE:	02_Permit_Proposed	DATE:	4/23/2025

Form No. 600/606-ATA *(02/2025)* **Applicant Name** CIRCLE H INVESTMENTS LLC

APPLICATION FOR BENEFICIAL WATER USE PERMIT OR APPLICATION TO CHANGE A WATER RIGHT

AQUIFER TESTING ADDENDUM

ARM 36.12.121

Complete this addendum if the source of water for a Beneficial Water Use Permit or Water Right Change application is groundwater. Do not use this form if the source is a developed spring. Check the box denoting the information is attached or data was collected following minimum testing procedures. On a separate document, address the required information. Attachments must be labeled as shown in the sections below (i.e., ATA.3.a).

Section 1. Attachments must make specific reference to the section item shown.

VARIANCE INFORMATION:

ATA.1.a ☐ The Applicant submitted a variance request per ARM 36.12.123 for a variance from the requirements of ARM 36.12.121 and has provided a copy of the written request.

Section 2. Attachments must make specific reference to the section item shown.

MINIMUM INFORMATION THAT MUST BE SUBMITTED WITH APPLICATIONS:

ATA.2.a ☐ Provide a map with labeled location of production and observation wells.

ATA.2.b ☐ Provide well logs of production and observation wells.

ATA.2.c ☐ Provide Form No. 633, in electronic format, with all information and data provided.

ATA.2.d ☐ Provide a description of testing methods and quality of the aquifer test and data.

Section 3. Attachments must make specific reference to the section item shown.

MINIMUM TESTING PROCEDURES:

For any of the following, if the answer is “NO” or “NA”, provide information explaining why on a separate attachment.

ATA.3.a YES☐ NO☑ NA☐ Pumping was maintained throughout the duration of the test and the rate did not depart from the average pumping rate by more than 5%.

ATA.3.b YES☑ NO☐ NA☐ The average pumping rate is 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.

ATA.3.c YES☐ NO☐ NA☑ The proposed pumping rate was demonstrated by testing multiple wells, and 3.e was met by one well and the remaining flow rate demonstrated by eight-hour drawdown and yield tests on additional production wells under 3.e.ii and 3.e.iii.

ATA.3.d YES☐ NO☑ NA☐ The pumping rate was measured with a reliable measuring device and recorded with clock time according to the schedule on Form No. 633.

ATA.3.e YES☑ NO☐ NA☐ The duration of pumping during an aquifer test was at least 24 hours for a proposed pumping rate and volume equal to or less than 150 gpm or 50 acre-feet, or at least 72 hours for a proposed pumping rate and volume greater than 150 gpm or 50 acre-feet.

i. If a variance from 3.e was granted, at a minimum, eight-hour drawdown and yield tests were completed on all new production wells.
ii. In addition to 3.e, if more than one new production well is proposed, at a minimum, eight-hour drawdown and yield tests were completed on all subsequent new production wells.
iii. The testing procedures for a minimum eight-hour drawdown and yield test performed on any production well followed 3.a, 3.d, and 3.h.

ATA.3.f YES☑ NO☐ NA☐ One or more observation wells were completed in the same source aquifer as the proposed production well and close enough to the production well so that drawdown is measurable and far enough away so that well hydraulics do not affect the observation well.

ATA.3.g YES☐ NO☑ NA☐ Background groundwater levels in the production well and observation well(s) were monitored at frequent intervals for at least two days prior to beginning the aquifer test according to Form No. 633.

ATA.3.h YES☑ NO☐ NA☐ Water levels in the production well and observation well(s) were reported with 0.01-foot precision according to the schedule specified on Form No. 633 (8-hour drawdown and yield test only need to provide water levels for drawdown; no background and recovery data are necessary).

Section 2:
ATA.2.d Provide a description of testing methods and quality of the aquifer test and data

The static water levels in all wells were manually measured with an electric water tape on April 27, 2023. A step drawdown test was conducted on April 27th to confirm that PW-3 could sustainably yield 110 gallons per minute (gpm). On April 28, 2023, three days before the scheduled test, an In-Situ Level Troll 500 pressure transducer/data logger was placed in Production Well 3 (PW-3). The transducer recorded background water levels every 30 minutes until the morning of the test. The logging interval was changed to ten seconds before the pumping test began.

Transducers were also deployed in two of the observation wells, TW-1 and PW-1, on the morning of test and recorded about an hour of background data before the test began. TW-1 (Observation Well #1) is 72.5 feet away from the production well and PW-1 (Observation Well #2) is 50.5 feet away from the production well.

The static water level in PW-3 was 73.23 feet from top of casing at 10:15 am on May 1, 2023, seconds before pumping commenced. The pump in PW-3 was powered by a generator.

The flow rate during the pumping test was measured with a DAE MJ-SDC 2" Totalizing Water Meter and verified with a bucket and stopwatch test. The average discharge rate was 110 gpm. Drawdown was observed in both observation wells during the test.

Two significant issues arose during the test. The generator running the pump was vandalized; it was shut off at 4:24 am on the morning of 5/2/2023 when someone siphoned gas. This interference occurred approximately 18 hours into the test. Pumping was resumed approximately 3 hours later at 7:21am. To compensate for the lost time, the pumping continued for another 55 hours uninterrupted until the test was finished, for a total testing time of 76 hours (73 hours of pumping). The second issue was a transducer failure in PW-1 around 5:15pm on May 1st. Depth measurements were taken manually with an electric water tape in this observation well for the remainder of the test.

The pumping ended at 2:07pm on May 4th. Recovery data was recorded in the Production Well and Observation Well #1 after the test concluded. The water level in the production well recovered to 95% of the static water level within 20 seconds of the pump being shut off. Recovery data measurements continued until 3:51pm on May 4th. The water level in Observation Well #1 recovered immediately and recovery data measurements continued until 4:21 pm on May 4th.

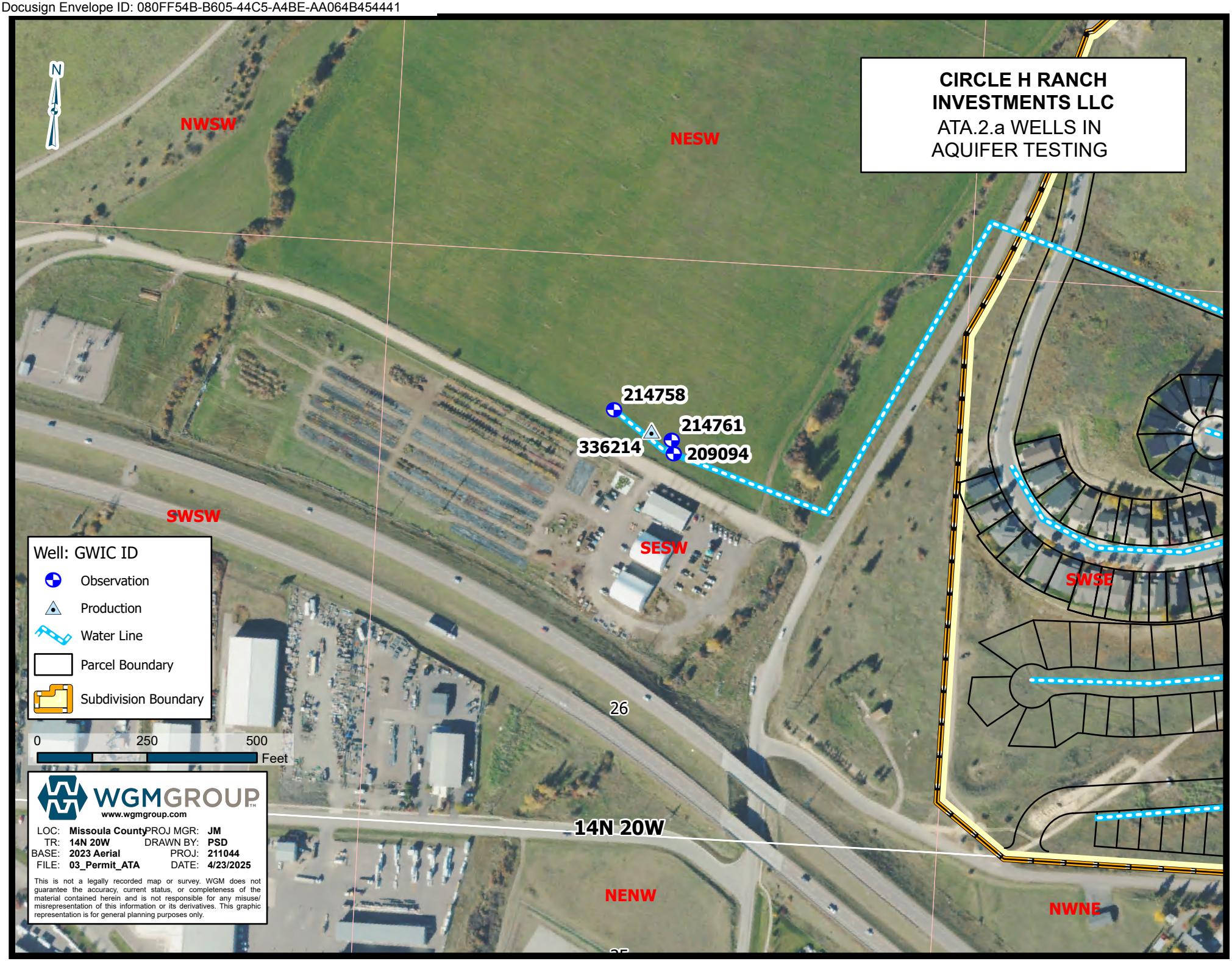
Section 3:
ATA.3.a
Pumping was not maintained throughout the duration of the test because the generator running the pump was shut off and vandalized early in the morning of 5/2/2023, approximately 18 hours into the test. WGM Group notified Jackie Kuhl and Angela Pugh, from Montana Department of Environmental Quality's PWS section, about the vandalism and was instructed to just extend the pumping test to account for the time period the pump was off. Pumping resumed approximately 3 hours later and continued for another 55 hours uninterrupted until the test was finished. Apart from the 3 hours when the pump was not running, the pumping rate did not depart from the average flow rate of 110 gpm by more than 5%.

ATA.3.C
This is not applicable because the proposed pumping rate was met by testing one well.

ATA.3.D
The pumping rate was measured with a DAE MJ-SDC 2-inch Totalizing Water Meter, and verified with a bucket stopwatch test. At the time of this test, the 633 Form did not include a separate column for the totalizer readings, so only discharge readings were recorded, rather than the total listed on the totalizer.

Additionally, discharge measurements were not taken using the exact schedule on Form No. 633. Measurements were taken 8 times within the first hour but only once in the second and third hours each. Three more measurements during the first 24 hours before pumping was interrupted. After pumping was resumed, measurements were recorded 12 times spread out across the following 55 hours.

ATA.3.G
Logging of background water level data in the production well began at 1:14 pm on April 28, 2023, or 69 hours before the pumping test. Background static water levels in the observation wells were manually measured on April 27th and April 28th, but continuous data was not logged in the observation wells prior to pumping because the transducers were in use for another project. Background data in the observation wells was logged for about one hour prior to pumping, starting at 9:22 am on May 1st.



OBSERVATION WELL
GWIC ID: 214761

PW-1

MONTANA WELL LOG REPORT

Well ID# 9354

This log reports the activities of a licensed Montana well driller and serves as the official record of work done within the borehole and casing and describes the amount of water encountered. **This form is to be completed by the driller and filed with DNRC within 60 days of completion of the work. Acquiring Water Rights is the well owner's responsibility and is not accomplished by the filing of this report.**

Well log information is stored in the Groundwater Information Center at the Montana Bureau of Mines and Geology (Butte) and water right information is stored in the Water Rights Bureau records (Helena).

For fields that are not applicable, enter NA. Optional fields have a grayed background. Record additional information in the REMARKS section.

1. WELL OWNER:
Name Circle H Ranch LLC
Mailing address 8100 Butler Cr. Road
Missoula Montana 59808

2. WELL LOCATION: List ¼ from smallest to largest
SE ¼ SW ¼ ____ ¼ ____ ¼, Section 26
Township 14 N/S Range 20 W County Missoula
Lot ____ Tract/Blk ____ Subdivision Name ____
Well Address ____
GPS ☐ Yes ☒ No
Latitude ____ Longitude ____
Error as reported by GPS locator (± feet) ____
Horizontal datum ☐ NAD27 ☐ WGS84

3. PROPOSED USE: ☒ Domestic ☐ Stock ☐ Irrigation
☒ Public water supply ☐ Monitoring Well ☐ Other: ____

4. TYPE OF WORK:
☒ New well ☐ Deepen existing well ☐ Abandon existing well
Method: ☐ Cable ☒ Rotary ☐ Other: ____

5. WELL CONSTRUCTION DETAILS:
Borehole:
Dia. 8" in. from G-Level ft. to 120' ft.
Dia. ____ in. from ____ ft. to ____ ft.
Dia. ____ in. from ____ ft. to ____ ft.

Casing:
Steel: Wall thickness .250 ☐ Threaded ☒ Welded
Dia. 8" in. from +2 ft. to 120' ft.
Dia. ____ in. from ____ ft. to ____ ft.

Plastic: Pressure Rating ____ lbs. ☐ Threaded ☐ Welded
Dia. ____ in. from ____ ft. to ____ ft.

Perforations/Slotted Pipe:
Type of perforator used ____
Size of perforations/slots ____ in. by ____ in.
____ no. of perforations/slots from ____ ft. to ____ ft.
____ no. of perforations/slots from ____ ft. to ____ ft.

Screens: ☒ Yes ☐ No
Material Stainless Steel
Dia. 7.77" Slot size .060 from 91' ft. to 100' ft.
Dia. ____ Slot size ____ from ____ ft. to ____ ft.

Gravel Packed: ☐ Yes ☒ No
Size of gravel ____
Gravel placed from ____ ft. to ____ ft.

Packer: ☐ Yes ☒ No
Type ____ Depth(s) ____

Grout: Material used Bentonite
Depth from 0 ft. to 20' ft. OR ☐ Continuous feed

6. WELL TEST DATA:
A well test is required for all wells. (*See details on well log report cover.*)
☒ Static water level 78' ft. below top of casing or
☐ Closed-in artesian pressure ____ psi.
How was test flow measured:
bucket/stopwatch, weir, flume, flowmeter, etc ____
Yellowstone Controlled Groundwater Area - Water Temperature ____ °F
☐ AQUIFER TEST DATA FORM ATTACHED

Test - 1 hour minimum
Drawdown is the amount water level is lowered below static level.
All depth measurements shall be from the top of the well casing.
Time of recovery is hours/minutes since pumping stopped.

Air test*:
200 gpm with drill stem set at 96' ft. for 8 hours
Time of recovery 5min hrs/min. Recovery water level 78' ft.

OR Bailer test*:
____ gpm with ____ ft. of drawdown after ____ hours
Time of recovery ____ hrs/min. Recovery water level ____ ft.

OR Pump test*:
Depth pump set for test ____ ft.
____ gpm pump rate with ____ ft. of drawdown after ____ hrs pumping
Time of recovery ____ hrs/min. Recovery water level ____ ft.

OR Flowing Artesian*:
____ gpm for ____ hours
Flow controlled by ____

**During the well test the discharge rate shall be as uniform as possible. This rate may or may not be the sustainable yield of the well. Sustainable yield does not include the resevoir of the well casing.*

7. WELL LOG:

Depth, Feet From	Depth, Feet To	Material: color/rock and type/descriptor (example: blue/shale/hard, or brown/gravel/water, or brown/sand/heaving)
0	1'	Top Soil
1'	78'	Cemmented multi-colored gravel & cobbles tan clay
78'	98'	multi colored gravel & cobbles sand tan clay "w"
98'	120'	tan & orange clay cemented gravel & cobbles

☐ ADDITIONAL SHEETS ATTACHED

8. DATE WELL COMPLETED: 7-15-04

9. REMARKS:

10. DRILLER/CONTRACTOR'S CERTIFICATION:
All work performed and reported in this well log is in compliance with the Montana well construction standards. This report is true to the best of my knowledge.
Name, firm, or corporation (print) Jerome's Drilling Co.
Address P.O. Box 17020 Missoula Mt 59808
Signature /Randy Koterba
Date 10-22-04 License no. 600

Montana DNRC P.O. BOX 201601 HELENA, MT 59620-1601 444-6610

MBMG ID#

DEPARTMENT COPY

DRILLER: Please give this copy to the well owner to complete reverse side.

Docusign Envelope ID: 080FF54B-B605-44C5-A4BE-AA064B454441

OBSERVATION WELL
GWIC ID: 214758

PW-2

MONTANA WELL LOG REPORT

Well ID# 9355

This log reports the activities of a licensed Montana well driller and serves as the official record of work done within the borehole and casing and describes the amount of water encountered. **This form is to be completed by the driller and filed with DNRC within 60 days of completion of the work. Acquiring Water Rights is the well owner's responsibility and is not accomplished by the filing of this report.**

Well log information is stored in the Groundwater Information Center at the Montana Bureau of Mines and Geology (Butte) and water right information is stored in the Water Rights Bureau records (Helena).

For fields that are not applicable, enter NA. Optional fields have a grayed background. Record additional information in the REMARKS section.

1. WELL OWNER:
Name Circle H Ranch LLC
Mailing address 8100 Butler Cr. Road
Missoula Montana 59808

2. WELL LOCATION: List ¼ from smallest to largest
SE ¼ SW ¼ ____ ¼ ____ ¼, Section 26
Township 14 N/S Range 20 W/W County Missoula
Lot ____ Tract/Blk ____ Subdivision Name ____
Well Address ____
GPS ☐ Yes ☒ No
Latitude ____ Longitude ____
Error as reported by GPS locator (± feet) ____
Horizontal datum ☐ NAD27 ☐ WGS84

3. PROPOSED USE: ☐ Domestic ☐ Stock ☐ Irrigation
☒ Public water supply ☐ Monitoring Well ☐ Other: ____

4. TYPE OF WORK:
☒ New well ☐ Deepen existing well ☐ Abandon existing well
Method: ☐ Cable ☒ Rotary ☐ Other: ____

5. WELL CONSTRUCTION DETAILS:
Borehole:
Dia. 8" in. from G-Level ft. to 120' ft.
Dia. ____ in. from ____ ft. to ____ ft.
Dia. ____ in. from ____ ft. to ____ ft.

Casing:
Steel: Wall thickness .250 ☐ Threaded ☒ Welded
Dia. 8" in. from +2 ft. to 120' ft.
Dia. ____ in. from ____ ft. to ____ ft.

Plastic: Pressure Rating ____ lbs. ☐ Threaded ☐ Welded
Dia. ____ in. from ____ ft. to ____ ft.

Perforations/Slotted Pipe:
Type of perforator used ____
Size of perforations/slots ____ in. by ____ in.
____ no. of perforations/slots from ____ ft. to ____ ft.
____ no. of perforations/slots from ____ ft. to ____ ft.

Screens: ☒ Yes ☐ No
Material Stainless Steel
Dia. 8" Slot size .040 from 88' ft. to 98' ft.
Dia. ____ Slot size ____ from ____ ft. to ____ ft.

Gravel Packed: ☐ Yes ☒ No
Size of gravel ____
Gravel placed from ____ ft. to ____ ft.

Packer: ☐ Yes ☒ No
Type ____ Depth(s) ____

Grout: Material used Bentonite
Depth from 0 ft. to 20' ft. OR ☐ Continuous feed

6. WELL TEST DATA:
A well test is required for all wells. (*See details on well log report cover.*)
☒ Static water level 75' ft. below top of casing or
☐ Closed-in artesian pressure ____ psi.
How was test flow measured:
bucket/stopwatch, weir, flume, flowmeter, etc ____
Yellowstone Controlled Groundwater Area - Water Temperature ____ °F
☐ AQUIFER TEST DATA FORM ATTACHED

Test - 1 hour minimum
Drawdown is the amount water level is lowered below static level.
All depth measurements shall be from the top of the well casing.
Time of recovery is hours/minutes since pumping stopped.

Air test*:
200 gpm with drill stem set at 94' ft. for 8 hours
Time of recovery 5min hrs/min. Recovery water level 75' ft.

OR Bailer test*:
____ gpm with ____ ft. of drawdown after ____ hours
Time of recovery ____ hrs/min. Recovery water level ____ ft.

OR Pump test*:
Depth pump set for test ____ ft.
____ gpm pump rate with ____ ft. of drawdown after ____ hrs pumping
Time of recovery ____ hrs/min. Recovery water level ____ ft.

OR Flowing Artesian*:
____ gpm for ____ hours
Flow controlled by ____

**During the well test the discharge rate shall be as uniform as possible. This rate may or may not be the sustainable yield of the well. Sustainable yield does not include the reservoir of the well casing.*

7. WELL LOG:

Depth, Feet From	Depth, Feet To	Material: color/rock and type/descriptor (example: blue/shale/hard, or brown/gravel/water, or brown/sand/heaving)
0	1'	Top Soil
1'	75'	cemented multi colored gravel & cobbles tan clay
75'	105'	multi colored gravel & cobbles sand tan clay "w"
105'	120'	tan & brown clay cemented gravel & cobbles

☐ ADDITIONAL SHEETS ATTACHED

8. DATE WELL COMPLETED: 7-15-04

9. REMARKS:

10. DRILLER/CONTRACTOR'S CERTIFICATION:
All work performed and reported in this well log is in compliance with the Montana well construction standards. This report is true to the best of my knowledge.
Name, firm, or corporation (print) Jerome's DRilling Co.
Address P.O. Box 17020 Missoula Mt 59808
Signature Randy Roberts
Date 10-22-04 License no. 600

Montana DNRC P.O. BOX 201601 HELENA, MT 59620-1601 444-6610

MBMG ID#

DEPARTMENT COPY

YELLOW COPY: Please give this copy to the well owner to complete reverse side.

Docusign Envelope ID: 080FF54B-B605-44C5-A4BE-AA064B454441

PRODUCTION WELL
GWIC: 336214

MONTANA WELL LOG REPORT

Form No

Well ID#788

14N 20W 26 CD

This log reports the activities of a licensed Montana well driller and serves as the official record of work done within the borehole and casing and describes the amount of water encountered. **This form is to be completed by the driller and filed with DNRC within 60 days of completion of the work. Acquiring Water Rights is the well owner's responsibility and is not accomplished by the filing of this report.** Well log information is stored in the Groundwater Information Center at the Montana Bureau of Mines and Geology (Butte) and water right information is stored in the Water Rights Bureau records (Helena). For fields that are not applicable, enter NA. ***Optional fields are in italics.*** Record additional information in the REMARKS section.

1. WELL OWNER:
Name Circle H Ranch
OK **Mailing address** 8100 Butler Creek Road
Missoula, MT 59808

2. WELL LOCATION: List ¼ from smallest to largest
SE ¼ SW ¼ ¼ ¼ Section 26
Township 14 N Range 20 W County Missoula
Lot ____ *Tract/Blk* ____ *Subdivision Name* ____
Well Address ____
GPS ☐*Yes* ☐ *No*
Latitude ____ *Longitude* ____
Error as reported by GPS locator (± feet)
Horizontal datum ☐ *NAD27* ☐ *WGS84*

3. PROPOSED USE: Domestic ☐ Stock Irrigation
X Public water supply ☐ Monitoring Well Other: ____

3. TYPE OF WORK:
X New well ☐ Deepen existing well Abandon existing well
Method: ☐ Cable X Rotary ☐ Other: ____

5. WELL CONSTRUCTION DETAILS:
Borehole:
Dia. 12 in. from GL ft. to 20 ft.
Dia. 8 in. from GL ft. to 117 ft.
Dia. ____ in. from ____ ft. to ____ ft.
Casing:
Steel: Wall thickness ☐ Threaded X Welded
Dia. 8 in. from +2 ft. to 117 ft.
Dia. ____ in. from ____ ft. to ____ ft.

Plastic: Pressure Rating ____ lbs. ☐ Threaded ☐ Welded
Dia. ____ in. from ____ ft. to ____ ft.

Perforations/Slotted Pipe:
Type of perforator used Hole TE
Size of perforations/slots ¼ in. by 1¼ in.
108 no. of perforations/slots from 90 ft. to 97 ft.
____ no. of perforations/slots from ft. to ____ ft.
Screens: X Yes No
Material Stainless Steel
Dia. 8 Slot size 60 from 99'8" ft. to 109'8" ft.
Dia. ____ Slot size ____ from ____ ft. to ____ ft.
Gravel Packed: Yes X No
Size of gravel ____
Gravel placed from ____ ft. to ____ ft.
Packer: X Yes No
Type K-Packer Depth(s) 96'8"
Grout: Material used Bentonite Slurry
Depth from GL ft. to 20 ft. OR ☐ Continuous feed

6. WELL TEST DATA:
A well test is required for all wells. *(See details on well log report cover.)*
Static water level ____
ft. below top of casing **or**
☐ Closed-in artesian pressure ____ psi.
How was test flow measured:
bucket/stopwatch, weir, flume, flowmeter, etc ____
Yellowstone groundwater closure area only - Water Temperature ____ °F
☐AQUIFER TEST DATA FORM ATTACHED
Test - 1 hour minimum
Drawdown is the amount water level is lowered below static level.

All depth measurements shall be from the top of the well casing.
Time of recovery is hours/minutes since pumping stopped.
Air test*
____ gpm with drill stem set at ____ ft. for ____ hours
Time of recovery ____ hrs/min. Recovery water level ____ ft.
OR Bailer test*
____ gpm with ____ ft. of drawdown after ____ hours
Time of recovery ____ hrs/min. Recovery water level ____ ft.

OR Pump test*
Depth pump set for test ____ ft.
110 gpm pump rate with ____ ft. of drawdown after ____ hrs pumping
Time of recovery ____ min. Recovery water level ____ ft.

OR Flowing Artesian*
____ gpm for ____ hours
Flow controlled by ____

**During the well test the discharge rate shall be as uniform as possible. This rate may or may not be the sustainable yield of the well. Sustainable yield does not include the reservoir of the well casing.*

7. WELL LOG: PD

Depth, Feet From	Depth, Feet To	Material: Color/rock and type/descriptor (example: blue/shale/hard, or brown gravel/water, or brown/sand/heaving)
0	2	Top Soil
2	71	Gravel & Clay
71	117	Gravel, Clay, Sand & Water

RECEIVED
APR 03 2025
MBMG

☐ADDITIONAL SHEETS ATTACHED

8. DATE WELL COMPLETED: December 8, 2003

9. *REMARKS:* ____

10. DRILLER/CONTRACTOR'S CERTIFICATION:
All work performed and reported in this well log is in compliance with the Montana well construction standards. This report is true to the best of my knowledge.
Name, firm, or corporation (print) Camp Well Dr. & Pump Supply
Address 1522 South 14th West, Missoula, MT 59801
Signature ____
Date December 8, 2003 License no: 7

336214

4-13-06 J.F. - MEASURED WELL DEPTH @ 118'11" FROM TOP OF CASING
SWL 68'14

VARIANCE REQUEST

ARM 36.12.123

Form No. 653 *(Revised 11/2024)*

For Department Use Only

Application # _____ Basin _____

Received Date _____

Received By _____

INSTRUCTIONS

Use this form to request a variance from the requirements of ARM 36.12.121 or 36.12.1702, as provided for in ARM 36.12.123.

Submit this completed form to the appropriate regional office by the deadline established during the preapplication meeting or, if a preapplication meeting is not held, include this request with your filed application or as part of a deficiency response.

Applicant Name CIRCLE H RANCH INVESTMENTS LLC

Mailing Address 4800 GRANT CREEK RD

City MISSOULA State MT Zip 29808

Home Phone _____ Other Phone _____

Email: _____

Representative Name (if other than Applicant) PATRICK DOYLE

☒ Representative is Consultant ☐ Representative is Attorney ☐ Representative is Other (describe) _____

Mailing Address 1111 E BROADWAY

City MISSOULA State MT Zip 59802

Home Phone 406-728-4611 Other Phone _____

Email: pdoyle@wgmgroup.com

Identify from which section(s) of ARM 36.12.121 or 36.12.1702 you are requesting a variance. Refer to the rule for a full list of requirements in these sections.

☒ ARM 36.12.121 Aquifer Testing Requirements

- ☐ (2)(a) map with labeled location of production and observation wells
- ☐ (2)(b) well logs of the production and observation wells
- ☐ (2)(c) Form No. 633, in electronic format, with all information and data provided
- ☒ (3)(a) pumping rate may not depart from the average pumping rate by more than +/- 5%
- ☐ (3)(b) average pumping rate 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
- ☐ (3)(c) 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)(i)(i)
- ☒ (3)(d) pumping rate must be measured with a reliable measuring device and recorded with clock time according to the schedule on Form No. 633
- ☐ (3)(e) minimum duration of pumping during an aquifer test must be 24 hours for a proposed pumping rate and volume equal to or less than 150 GPM or 50 AF, or 72 hours for a proposed pumping rate and volume greater than 150 GPM or 50 AF
- ☐ (3)(e)(i) at a minimum an eight-hour drawdown and yield test is required on all new production wells
- ☐ (3)(e)(ii) In addition to (e), if more than one new production well is proposed, at a minimum an eight-hour drawdown and yield test is required on all subsequent new production wells
- ☐ (3)(e)(iii) the testing procedures for a minimum eight-hour drawdown and yield test performed on any production well must follow (a), (d), and (h)
- ☐ (3)(f) one or more observation wells must be completed in the same source aquifer as the proposed production well and close enough to the production well so that drawdown is measurable and far enough that well hydraulics do not affect the observation well
- ☒ (3)(g) background groundwater levels in the production well and observation well(s) must be monitored at frequent intervals for at least two days prior to beginning the aquifer test according to the Form No. 633
- ☐ (3)(h) groundwater levels in the production and/or observation well(s) must be reported with 0.01-foot precision according to the schedule specified on Form No. 633

Explain the specific variance you are requesting and the reason for requesting it. Also identify your proposed alternative testing methodology or aquifer test data, if applicable. Attach additional sheets if necessary.

SEE ATTACHED

☐ ARM 36.12.1702 Physical Surface Water Availability
- ☐ (1)(b) at a minimum, three measurements that reflect high, moderate, and low flows during the period of diversion
- ☐ (4) once monthly measurements at department-approved intervals during the proposed period of diversion

Explain the specific variance you are requesting and the reason for requesting it. Also identify your proposed alternative measurement methodology, if applicable. Attach additional sheets if necessary.

Explain the specific variance you are requesting and the reason for the requesting it. Also identify your proposed alternative testing methodology or aquifer test data, if applicable.

There is one production well associated with the permit application, referred to as PW-3. The variances being requested are from ARM 36.12.121 3.a, 3.d, and 3.g.

ARM 36.12.121 ATA.3.a
There was a 3-hour interruption 18 hours into the test where the pumping rate was 0. This was due to vandalization to the generator powering the pump. The generator was turned back on and pumping resumed. Outside of this interruption, the pumping rate did not depart from the average pumping rate by more than 5%.

The DEQ was contacted in regards to the pump being shut off the day of the test. It was suggested that the gap in pumping could be compensated by extending the total pump test time. When pumping was resumed it was at the same discharge rate as the first 18 hours. The test continued for another 55 hours for a total of 76 hours with a 3 hour gap from hour 18 to hour 21.

ARM 36.12.121 ATA.3.d
The pumping rate was measured by the discharge rate using a DAE MJ-SDC 2” Totalizing Water Meter and a bucket stopwatch test. The totalizer readings were not recorded. Discharge measurements were recorded with clocked time, but not to the exact schedule on Form 633.

Measurements were taken 8 times within the first hour but only once in the second and third hours each. 3 more measurements during the first 24 hours before pumping was interrupted. After pumping was resumed, measurements were taken 12 times spread out across the following 55 hours. The largest gaps were during the overnight hours of May 1-2, 2-3, 3-4.

Despite the gaps, measurements show a consistent discharge for the entire test and drawdown measurements continued during the gaps. The drawdown shows a steady increase with the exception of the 3-hour gap when the pump was shut off.

ARM 36.12.121 ATA.3.g
The production well took background data starting from 1:14pm on April 28, 2023, 69 hours before testing began. However, Observation well 1 (TW-1) took background data 1 hour and 48 minutes before testing began, and Observation well 2 (PW-2) took background data 1 hour before testing.

The background measurements of the observation wells, while brief, show a stable water level leading up to the test. The two observation wells are in close proximity to the production well, which also showed a stable water level leading up to the test. Recovery data from the production well and one of the test wells show that the water level recovered very quickly to a stable level after the pump was shut off.

REQUEST FOR PREAPPLICATION MEETING

ARM 36.12.1302(2)

(Revised 02/2025)

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.

For Department Use Only

Date Received _____

Received By _____

Scheduled Meeting Date _____

1. **Applicant Name** CIRCLE H RANCH INVESTMENTS LLC

Mailing Address 4800 GRANT CREEK RD

City MISSOULA State MT Zip 29808-1454

Home Phone _____ Other Phone _____

Email: _____

2. **Representative Name** (if other than Applicant) PATRICK DOYLE

☑ Representative is Consultant ☐ Representative is Attorney ☐ Representative is Other

Mailing Address 1111 E BROADWAY ST

City MISSOULA State MT Zip 59802

Home Phone _____ Other Phone _____

Email: pdoyle@wgmgroup.com

3. **Are you requesting a preapplication meeting for a permit or change application?**

☑ Permit ☐ Change

4. **Describe your project:**

A proposed permit to service future phases of an existing subdivision. The proposed point of diversion is a well that will be connected to an existing water system that pumps water from the Missoula aquifer to a cistern installed above the existing houses. The proposed place of use is the future phases of the subdivision.

The existing subdivision is a combination of circular lots for single family homes (Circle H) and a series of townhomes in adjoining lots (West Point). The existing water right, 76M 30013295, uses two wells to supply water for domestic and lawn and garden purposes in the subdivision, which was permitted for 34 lots in the Circle H portion and 79 lots in the West Pointe portion.

An additional 42 lots in the Circle H portion and 141 lots in the West Pointe portion are proposed for the future phases. The proposed well will provide an increase in flow rate and volume to accommodate the domestic purposes of these future phases.

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

a) The flow rate and volume of water required:

Flow Rate 110 ☑ GPM ☐ CFS Volume 29.8 Acre-Feet

b) The point of diversion:

Point of Diversion #1 NW 1/4 SE 1/4 SW 1/4 Section 26, Township 14 ☑ N ☐ S, Range 20 ☐ E ☑ W
County MISSOULA
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:

_____Acres ____ Lot ____ Block _____ 1/4 _____1/4 E2 1/4 Sec 26, Twp 14 ☑ N ☐ S, Rge 20 ☐ E ☑ W
_____Acres ____ Lot ____ Block _____ 1/4 _____1/4 _____1/4 Sec 25, Twp 14 ☑ N ☐ S, Rge 20 ☐ E ☑ W
_____Acres ____ Lot ____ Block _____ 1/4 _____1/4 _____1/4 Sec ____, Twp ____ ☐ N ☐ S, Rge ____ ☐ E ☐ W
_____Acres ____ Lot ____ Block _____ 1/4 _____1/4 _____1/4 Sec ____, Twp ____ ☐ N ☐ S, Rge ____ ☐ E ☐ W
_____Acres ____ Lot ____ Block _____ 1/4 _____1/4 _____1/4 Sec ____, Twp ____ ☐ N ☐ S, Rge ____ ☐ E ☐ W

d) The source of water: GROUNDWATER

e) The proposed purpose: MULTIPLE DOMESTIC

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	☐	☐	☐	☐	☐
Place of use	☐	☐	☐	☐	☐
Purpose of use	☐	☐	☐	☐	☐
Place of storage	☐	☐	☐	☐	☐

g) For a change in appropriation right, an explanation of historical use of the right(s) proposed for change:

h) Any proposed place of storage, if applicable (only if storage capacity is greater than 0.1 acre-feet):

#1 Capacity: Surface Acres _____ x Max Depth (feet) _____ x (.4 for dams/.5 for pits) = _____Acre-Feet

Location: ____1/4 ____1/4 ____1/4 Section ___, Township ___ ☐N ☐S, Range ___ ☐E ☐W

#2 Capacity: Surface Acres _____ x Max Depth (feet) _____ x (.4 for dams/.5 for pits) = _____Acre-Feet

Location: ____1/4 ____1/4 ____1/4 Section ___, Township ___ ☐N ☐S, Range ___ ☐E ☐W

#3 Capacity: Surface Acres _____ x Max Depth (feet) _____ x (.4 for dams/.5 for pits) = _____Acre-Feet

Location: ____1/4 ____1/4 ____1/4 Section ___, Township ___ ☐N ☐S, Range ___ ☐E ☐W

i) For applications proposing a well or wells, the well depth(s) and location. If more than two wells, attach a separate sheet to this request:

Well #1 ☐ New Well ☑ Existing Well

For existing well, if available, Water Right # _____ GWIC ID TBD

NWSESW

1/4 ____1/4 ___1/4 Section 26, Township 14 ☑N ☐S, Range 20 ☐E ☑W

County MISSOULA

Lot/Tract _____ Block_____ Subdivision Name_____

Estimated Well Depth 117 Feet

Well #2 ☐ New Well ☐ Existing Well

For existing well, if available, Water Right # _____ GWIC ID _____

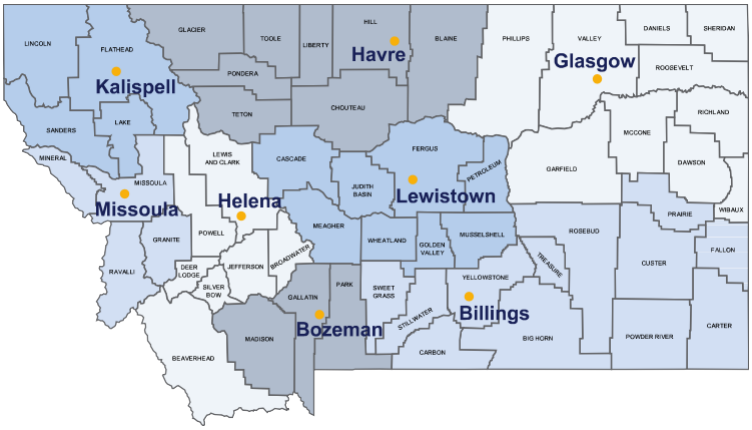
_____1/4 ___1/4 ____1/4 Section _____, Township _____ ☐N ☐S, Range _____ ☐E ☐W

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

Variance Information

- Variance Request Form
- WSB Variance Sheet
- Approval or Denial of Variance Request

Variance Information

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

June 27, 2025

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

Re: Pre-Application No. 76M 30170833 Aquifer Testing Variance Requests

Dear Circle H Investments, LLC:

This correspondence is in response to the aquifer testing variance request form 653 submitted as part of your Beneficial Water Use Permit Application, which was assigned the number 76M 30170833. On your Variance Request (Form 653), you ask for a variance to the aquifer testing requirements found in Administrative Rules of Montana (ARM) 36.12.121 (3)(d), ARM 36.12.121 (3)(e)(i), ARM 36.12.121 (3)(e)(ii) and ARM 36.12.121 (3)(g).

Upon consideration of your variance request the Department agrees to grant a variance to the following requested Administrative Rules of Montana; ARM 36.12.121 (3)(a), ARM 36.12.121 (3)(d), and ARM 36.12.121 (3)(g). For an explanation of the rational used by the Department to grant these variances, please refer to the enclosed DNRC Aquifer Testing Addendum review form.

If you have any questions or comments, please feel free to contact me.

Sincerely,

Jim Nave
Regional Manager

cc: Patrick Doyle, WGM Group

ARM 36.12.121 - Aquifer Testing Addendum (ATA) - Review

Department of Natural Resources and Conservation (DNRC)
Water Sciences Bureau (WSB)

Applicant	Circle H Ranch Investments, LLC		
Pre-Application/Application No.	76M 30170833	**Date Sent to RO**	April 29, 2025
Regional Office (RO)	Missoula	**WSB Staff Name**	David Parmelee, Groundwater Hydrologist

This checklist identifies any deficiencies that would require a variance pertinent to Administrative Rules of Montana (ARM) 36.12.121. **Table 1** lists deficiencies that would require a variance, the recommended action and the rationale describing why the variance request could be considered appropriate. If the requirements of ARM 36.12.121 are satisfied for each item, the box will be checked next to that item indicating such.

Table 1: Deficiencies identified, recommended action and rationale from WSB**.**

☐ **No Deficiencies Identified**			
Test Duration	**Variance (ARM) (R=Requested; A=Additional)**	**Recommend Granting Variance Request**	**Rationale:**
72-hr	3(a) ☒ R ☐ A	☒ Yes ☐ No	The pump was shut off due to vandalism approximately 18 hours after the test started. It was restarted 2.9 hours later, and the test was run for an additional 55 hours following pump restart. While the pump was off, the water level in the production well fully recovered to its initial state, and the water level in the observation well mostly recovered. After pump restart, measurements of the discharge rate remained within 5% of average. The minimum duration of the pumping test required by ARM 36.12.121(3)(e) for the proposed flow rate and volume is 24 hours. The discharge data acquired after the pump was restarted are sufficient for a 24-hour pumping test; therefore, a variance is recommended.
72-hr	3(d) ☒ R ☐ A	☒ Yes ☐ No	The Applicant indicates that the pumping rate was measured with a DAE MJ-SDC 2-inch totalizing water meter and verified with periodic bucket-and-stopwatch tests. Instantaneous discharge measurements were recorded but totalizer readings were not. The discharge measurements are rounded to the nearest 1 gpm and were not recorded according to the schedule on Form 633. The measurements that were recorded indicate a stable pumping rate, and the data are sufficient to derive aquifer properties and demonstrate adequacy of diversion. Therefore, a variance is recommended.
72-hr	3(g) ☒ R ☐ A	☒ Yes ☐ No	Background groundwater levels were monitored in the production well for 69 hours prior to beginning the aquifer test—exceeding the 48-hour requirement—but they were

			monitored in observation wells for less than an hour. Because the observation wells are located close to the production well (<100 feet), background data from the production well is sufficient. A variance to this requirement is therefore recommended.

36.12.121 ☒ (1) ☐ NA Aquifer testing design and procedures must follow standards procedures that are discussed in hydrogeology textbooks and professional literature.

36.12.121(2): Minimum information that must be submitted with applications, check if provided:

☒ **(a)** Map with labeled location of production and observation wells; and

☒ **(b)** ☐ **NA** Well logs of the production and observation wells; and

☒ **(c)** ☐ **NA** Form No. 633, in electronic format, with *all* information and data provided.

36.12.121 (3): Minimum testing procedures are as follows, check if met:

☐ **(a)** ☐ **NA** Pumping must be maintained throughout the duration of the test. The rate may not depart from the average pumping rate by more than +/- 5%.

☒ **(b)** ☐ **NA** 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.

☐ **(c)** ☒ **NA** 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).

☐ **(d)** ☐ **NA** Pumping rate must be measured with a reliable measuring device and recorded with clock time according to the schedule on Form No. 633.

☒ **(e)** ☐ **NA** Minimum duration of pumping during an aquifer test must be 24 hours for a proposed pumping rate and volume equal to or less than 150 GPM or 50 AF, or 72 hours for a proposed pumping rate and volume greater than 150 GPM or 50 AF.

☒ **(e)(i)** ☐ **NA** At a minimum an eight-hour drawdown and yield test is required on all new production wells.

☐ **(e)(ii)** ☒ **NA** In addition to (e), if more than one new production well is proposed, at a minimum an eight-hour drawdown and yield test is required on all subsequent new production wells.

☐ **(e)(iii)** ☒ **NA** The testing procedures for a minimum eight-hour drawdown and yield test performed on any production well must follow (a), (d), and (h).

☒ **(f)** ☐ **NA** One or more observation wells must be completed in the same source aquifer as the proposed production well and close enough to the production well so that drawdown is measurable and far enough that well hydraulics do not affect the observation well.

☐ **(g)** ☐ **NA** Background groundwater levels in the production well and observation well(s) must be monitored at frequent intervals for at least two days prior to beginning the aquifer test according to the Form No. 633.

☒ **(h)** ☐ **NA** Groundwater levels in the production and/or observation well(s) must be reported with 0.01-foot precision according to the schedule specified on Form No. 633.

VARIANCE REQUEST

ARM 36.12.123

Form No. 653 *(Revised 11/2024)*

For Department Use Only

RECEIVED

APR 29 2025

MONTANA D.N.R.C
MISSOULA REGIONAL OFFICE

Application # 30170833 Basin 76M
Received Date April 29, 2025
Received By AD

INSTRUCTIONS

Use this form to request a variance from the requirements of ARM 36.12.121 or 36.12.1702, as provided for in ARM 36.12.123.

Submit this completed form to the appropriate regional office by the deadline established during the preapplication meeting or, if a preapplication meeting is not held, include this request with your filed application or as part of a deficiency response.

Applicant Name CIRCLE H RANCH INVESTMENTS LLC
Mailing Address 4800 GRANT CREEK RD
City MISSOULA State MT Zip 29808
Home Phone _____ Other Phone _____
Email: _____

Representative Name (if other than Applicant) PATRICK DOYLE
☒ Representative is Consultant ☐ Representative is Attorney ☐ Representative is Other (describe) _____
Mailing Address 1111 E BROADWAY
City MISSOULA State MT Zip 59802
Home Phone 406-728-4611 Other Phone _____
Email: pdoyle@wgmgroup.com

Identify from which section(s) of ARM 36.12.121 or 36.12.1702 you are requesting a variance. Refer to the rule for a full list of requirements in these sections.

☒ ARM 36.12.121 Aquifer Testing Requirements
- ☐ (2)(a) map with labeled location of production and observation wells
- ☐ (2)(b) well logs of the production and observation wells
- ☐ (2)(c) Form No. 633, in electronic format, with all information and data provided
- ☒ (3)(a) pumping rate may not depart from the average pumping rate by more than +/- 5%
- ☐ (3)(b) average pumping rate 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
- ☐ (3)(c) 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)(i)(i)
- ☒ (3)(d) pumping rate must be measured with a reliable measuring device and recorded with clock time according to the schedule on Form No. 633
- ☐ (3)(e) minimum duration of pumping during an aquifer test must be 24 hours for a proposed pumping rate and volume equal to or less than 150 GPM or 50 AF, or 72 hours for a proposed pumping rate and volume greater than 150 GPM or 50 AF
- ☐ (3)(e)(i) at a minimum an eight-hour drawdown and yield test is required on all new production wells
- ☐ (3)(e)(ii) In addition to (e), if more than one new production well is proposed, at a minimum an eight-hour drawdown and yield test is required on all subsequent new production wells
- ☐ (3)(e)(iii) the testing procedures for a minimum eight-hour drawdown and yield test performed on any production well must follow (a), (d), and (h)
- ☐ (3)(f) one or more observation wells must be completed in the same source aquifer as the proposed production well and close enough to the production well so that drawdown is measurable and far enough that well hydraulics do not affect the observation well
- ☒ (3)(g) background groundwater levels in the production well and observation well(s) must be monitored at frequent intervals for at least two days prior to beginning the aquifer test according to the Form No. 633
- ☐ (3)(h) groundwater levels in the production and/or observation well(s) must be reported with 0.01-foot precision according to the schedule specified on Form No. 633

Explain the specific variance you are requesting and the reason for requesting it. Also identify your proposed alternative testing methodology or aquifer test data, if applicable. Attach additional sheets if necessary.

SEE ATTACHED

☐ ARM 36.12.1702 Physical Surface Water Availability
- ☐ (1)(b) at a minimum, three measurements that reflect high, moderate, and low flows during the period of diversion
- ☐ (4) once monthly measurements at department-approved intervals during the proposed period of diversion

Explain the specific variance you are requesting and the reason for requesting it. Also identify your proposed alternative measurement methodology, if applicable. Attach additional sheets if necessary.

Explain the specific variance you are requesting and the reason for the requesting it. Also identify your proposed alternative testing methodology or aquifer test data, if applicable.

There is one production well associated with the permit application, referred to as PW-3. The variances being requested are from ARM 36.12.121 3.a, 3.d, and 3.g.

ARM 36.12.121 ATA.3.a
There was a 3-hour interruption 18 hours into the test where the pumping rate was 0. This was due to vandalization to the generator powering the pump. The generator was turned back on and pumping resumed. Outside of this interruption, the pumping rate did not depart from the average pumping rate by more than 5%.

The DEQ was contacted in regards to the pump being shut off the day of the test. It was suggested that the gap in pumping could be compensated by extending the total pump test time. When pumping was resumed it was at the same discharge rate as the first 18 hours. The test continued for another 55 hours for a total of 76 hours with a 3 hour gap from hour 18 to hour 21.

ARM 36.12.121 ATA.3.d
The pumping rate was measured by the discharge rate using a DAE MJ-SDC 2" Totalizing Water Meter and a bucket stopwatch test. The totalizer readings were not recorded. Discharge measurements were recorded with clocked time, but not to the exact schedule on Form 633.

Measurements were taken 8 times within the first hour but only once in the second and third hours each. 3 more measurements during the first 24 hours before pumping was interrupted. After pumping was resumed, measurements were taken 12 times spread out across the following 55 hours. The largest gaps were during the overnight hours of May 1-2, 2-3, 3-4.

Despite the gaps, measurements show a consistent discharge for the entire test and drawdown measurements continued during the gaps. The drawdown shows a steady increase with the exception of the 3-hour gap when the pump was shut off.

ARM 36.12.121 ATA.3.g
The production well took background data starting from 1:14pm on April 28, 2023, 69 hours before testing began. However, Observation well 1 (TW-1) took background data 1 hour and 48 minutes before testing began, and Observation well 2 (PW-2) took background data 1 hour before testing.

The background measurements of the observation wells, while brief, show a stable water level leading up to the test. The two observation wells are in close proximity to the production well, which also showed a stable water level leading up to the test. Recovery data from the production well and one of the test wells show that the water level recovered very quickly to a stable level after the pump was shut off.

Existing Rights

- Abstracts of supplemental, associated, or otherwise related water rights

Existing Rights

STATE OF MONTANA

DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION

1424 9TH AVENUE P.O. BOX 201601 HELENA, MONTANA 59620-1601

GENERAL ABSTRACT

Water Right Number: 76M 30013295 PROVISIONAL PERMIT

Version: 1 -- ORIGINAL RIGHT

Version Status: ACTIVE

Owners: CIRCLE H INVESTMENTS LLC
4800 GRANT CREEK RD
MISSOULA, MT 59808

Priority Date: DECEMBER 3, 2004 at 03:11 P.M.

Enforceable Priority Date: DECEMBER 3, 2004 at 03:11 P.M.

Purpose (Use): LAWN AND GARDEN
MULTIPLE DOMESTIC

Maximum Flow Rate: 180.00 GPM

Maximum Volume: 114.00 AC-FT

Maximum Acres: 29.60

Source Name: GROUNDWATER

Source Type: GROUNDWATER

Point of Diversion and Means of Diversion:

ID	Govt Lot	Qtr Sec	Sec	Twp	Rge	County
1		NWSESW	26	14N	20W	MISSOULA

Period of Diversion: JANUARY 1 TO DECEMBER 31

Diversion Means: WELL

Well Depth: 120.00 FEET

Static Water Level: 78.00 FEET

Casing Diameter: 8.00 INCHES

Pump Size: 20.00 HP

ID	Govt Lot	Qtr Sec	Sec	Twp	Rge	County
2		NWSESW	26	14N	20W	MISSOULA

Period of Diversion: JANUARY 1 TO DECEMBER 31

Diversion Means: WELL

Well Depth: 120.00 FEET

Static Water Level: 75.00 FEET

Casing Diameter: 8.00 INCHES

Pump Size: 20.00 HP

Purpose (Use): LAWN AND GARDEN

Climatic Area: 3 - MODERATE

Volume: 50.00 AC-FT

Period of Use: APRIL 1 to OCTOBER 15

Place of Use:

ID	Acres	Govt Lot	Qtr Sec	Sec	Twp	Rge	County
1	9.90		W2	25	14N	20W	MISSOULA
2	19.70		E2	26	14N	20W	MISSOULA
Total:	29.60						

Purpose (Use): MULTIPLE DOMESTIC

Households: 113

Volume: 64.00 AC-FT

Period of Use: JANUARY 1 to DECEMBER 31

Place of Use:

ID	Acres	Govt Lot	Qtr Sec	Sec	Twp	Rge	County
1			W2	25	14N	20W	MISSOULA
2			E2	26	14N	20W	MISSOULA

Geocodes/Valid: 00-0000-00-0-00-00-0000 - Y

Remarks:

CLARK FORK RIVER BASIN LAW

THIS PROVISIONAL WATER USE PERMIT HAS A PRIORITY DATE THAT IS JUNIOR TO THE RIGHTS OF SENIOR WATER RIGHT HOLDERS IN THE CLARK FORK RIVER BASIN. IN ACCORDANCE WITH MONTANA LAW, YOU MAY BE SUBJECT TO A CALL BY SENIOR WATER RIGHT HOLDERS, IN WHICH CASE YOU MAY BE REQUIRED TO DISCONTINUE YOUR USE OF WATER FOR THE PERIOD OF THE CALL.

IMPORTANT INFORMATION

THE PUBLIC WATER SUPPLY SYSTEM UTILIZES A 1.53 ACRE-FEET UNDERGROUND STORAGE RESERVOIR.

WATER MEASUREMENT-INLINE FLOW METER REQUIRED

THE APPROPRIATOR SHALL INSTALL A DEPARTMENT APPROVED IN-LINE FLOW METER AT A POINT IN THE DELIVERY LINE APPROVED BY THE DEPARTMENT. WATER MUST NOT BE DIVERTED UNTIL THE REQUIRED MEASURING DEVICE IS IN PLACE AND OPERATING. ON A FORM PROVIDED BY THE DEPARTMENT, THE APPROPRIATOR SHALL KEEP A WRITTEN MONTHLY RECORD OF THE FLOW RATE AND VOLUME OF ALL WATER DIVERTED, INCLUDING THE PERIOD OF TIME. RECORDS SHALL BE SUBMITTED BY NOVEMBER 30 OF EACH YEAR AND UPON REQUEST AT OTHER TIMES DURING THE YEAR. FAILURE TO SUBMIT REPORTS MAY BE CAUSE FOR REVOCATION OF A PERMIT OR CHANGE. THE RECORDS MUST BE SENT TO THE WATER RESOURCES REGIONAL OFFICE. THE APPROPRIATOR SHALL MAINTAIN THE MEASURING DEVICE SO IT ALWAYS OPERATES PROPERLY AND MEASURES FLOW RATE AND VOLUME ACCURATELY.

WATER MEASUREMENT - ANNUAL DATA

OWNERSHIP UPDATE RECEIVED

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