2nd Governing Body Review Submittal
for the

Blue Creek Subdivision

A 9-Lot County Major Subdivision

On Property Legally Described as: The Southwest One-Quarter of the Northwest One-Quarter (SW1/4NW1/4) of Section 20 Lying North of Montana Highway 200, Township 27 North, Range 34 West, Principal Meridian Montana, Sanders County, Montana. Containing a total of 25.94 Acres, more or less.

Date	Subdivision Requirements
08/05/2022	Pre-Application Meeting
01/29/2024	1st Element Submittal (Expired Pre-Application)
02/27/2024	1st Element Submittal
03/15/2024	2nd Element Submittal
03/18/2024	1st Sufficiency Review
04/26/2024	2nd Sufficiency Review
05/09/2024	Governing Body Review
09/09/2024	Governing Body – Continuance Hearing

Owner:
Tungsten Holdings, Inc.
809 Mineral Ave.
Libby, MT 59923

Provided By:
IMEG Corp.
1817 South Ave West Suite A
Missoula, MT 59801

Project No. 22003448.00

IMEG Corp.
(406) 721-0142

1817 South Ave. W
Missoula, MT 59801

BLUE CREEK SUBDIVISION
2nd GOVERNING BODY - TABLE OF CONTENTS

Reviews

Sanders County Planning Reviews
Suspension of Review Agreement

September 6, 2024

Sanders County
Land Services Department
Attn: Chris McComas
1111 Main St.,
Thompson Falls, MT 59873

RE: Blue Creek Subdivision – Public Hearing Continuation
Generally Located in the NW1/4 Of Section 20, T.27N., R.34W., P.M.M., Sanders County, Montana
IMEG #22003448.00

Dear Chris:

IMEG Corp. is representing subdivider Crawford Dinning of Tungsten Holdings, Inc., with this letter and supporting materials to address public comments received during the Public Hearing held on July 23rd, 2024, at the Sanders County Commissioner's Conference Room for the proposed subdivision. The Land Services Department has requested the submitted subdivision materials and supporting exhibits be revised to further address public comments received during this hearing. Further, the county has requested and received additional comments from agencies, Montana Department of Transportation (MDT) and Montana Fish, Wildlife & Parks (FWP). Therefore, this submittal addresses the FWP agency comment letter received by IMEG via email on August 15th, 2024, although the letter was created on March 16th, 2024. Therefore, both the FWP Comment Letter and Email Correspondence provided when the letter was received have been included with this letter to summarize changes made to the Blue Creek Subdivision application packet. Additional agency comment from MDT has been received on July 24th, 2024, and is included within the Agency Comments – Hearing Continuation exhibit, to support the revisions made to the Blue Creek Subdivision application packet.

Property Location and Details

The Blue Creek Subdivision is located entirely within unincorporated Sanders County and proposes 9 lots for residential development. The project is generally located adjacent to the east of Blue Creek Road and north of HWY 200 comprising of +/- 25.94 acres. The property can currently be described as vacant rural land that has been historically timber and can be easily located east of addressed location 17 Blue Creek Road, Heron, MT 59844. The preliminary location of each proposed single-family dwelling, internal roadway, individual well and drainfield locations are shown on the Preliminary Plat within the subdivision packet.

Regulatory Timelines & Public Hearings:

08/05/2022: Pre-Application Meeting
01/29/2024: 2nd Pre-Application Meeting
02/27/2024: 1st Element Review
03/15/2024: 2nd Element Review
03/18/2024: 1st Sufficiency Review
04/26/2024: 2nd Sufficiency Review
05/09/2024: Governing Body Review
07/23/2024: Governing Body Hearing
07/30/2024: Suspension of Review Agreement
09/05/2024: 2nd Governing Body Review

The first certified Agency Notice was sent to all applicable agencies prior to the 1st Element Submittal on February 27th, 2024, using the Agency Contact List provided by the Sanders County Land Services Department. The Agency Notice was sent via certified mail by IMEG Corp. on March 5th, 2024, requesting that any comments be sent directly to the consultant via email, by the end of the day, March 14th, 2024, and the Land Services Department. The Agency Notice also suggested comments could be physically mailed to IMEG Corp. at 1817 South Ave West, Suite A, Missoula, MT 59801 and the Sanders County Land Services at P.O. Box 519, Thompson Falls, MT 59873. All comments had been reviewed by both the land services administrator and provided to the Sanders County

Commissioners for further comment and consideration prior to the scheduled public hearing. An email or physical comment letter was not received by the IMEG Corp. from FWP during the agency comment period. Therefore, upon the 1st Element Submittal a FWP Comment Letter was not provided in the submittal packet or specifically addressed within the Environmental Assessment (EA), Community Impacts or Summary of Probable Impacts. Prior to the projects 1st Element Submittal, a site visit was conducted with IMEG staff, Katherine Maudrone, and the District 3 Road Foreman in September of 2022 which concluded that an approach off of Blue Creek Road would not be supported due to heavy truck traffic and slopes along the existing roadway. During the Preliminary Plat Application process a second formal site visit occurred on April 16, 2024, with a MDT Maintenance Superintendent, the Sanders County Director of Land Services, the current property titleholder, and an IMEG representative to discuss possible hazardous conditions due to the proposed approach unto the adjacent HWY and why Blue Creek Road would not provide adequate access to the division. Therefore, this development applied for an approach permit unto HWY 200 as provided in the MDT Approach Application. The MDT Approach Permit (#8851) was issued on June 6th, 2024, for a shared access driveway for nine residential lots located on the north side of HWY 200 and was provided within the Preliminary Plat Application packet.

The Sanders County Board of Commissioners conducted a public hearing on the preliminary plat application for Blue Creek Subdivision on Tuesday, July 23rd, 2024, in the Commissioner's Conference Room at the Sanders County Courthouse in Thompson Falls, Montana. As of July 22nd, both the consultant, IMG Corp. and the Sanders County Land Services Department had not received public comment or agency comments regarding the subdivision as it pertains to wildlife or wildlife habitat. During the public comment portion of the hearing held on July 23rd neighboring property owners had shared this property has an elk migration route through it and large game have been seen in the area as well as bedding on the subject property. Neighboring property owners had shared concerns regarding approach visibility, traffic safety and wanted further information on why a turn lane was not required of the developer.

Agency Comments After Governing Body Hearing

Public comments have been considered by the Board of County Commissioners and resulted in an extended review period of the Governing Body Review and will require a second public hearing for the Blue Creek Subdivision. As a result, the Director of Land Services reached out to the local FWP Wildlife Division in Thompson Falls, on July 24th and August 13th, 2024, for further information and another opportunity to provide agency comments on the project. Correspondence between the County and FWP resulted in some additional information providing that the proposed subdivision is within an area known for historic elk winter range and elk do frequent the area and that FWP's primary concern in relation to the Blue Creek Subdivision, as outlined in the comment letter, is the loss of winter range for big game and the potential to increase negative human-wildlife interactions. The FWP Agency comment letter has been received by IMEG via email on August 15th, 2024, although the letter was created on March 16th, 2024, it was not provided to IMEG or Sanders County in March. Both the FWP Comment Letter and Email Correspondence provided when the letter was received have been included herein. The following sections address the comments received by FWP via email on August 15th, 2024, and are reflected in the revised Environmental Assessment (EA), Community Impacts Report (CIR), and Summary of Probable Impacts (SOPI).

The Land Services Department has requested additional agency comment from the Montana Department of Transportation on July 25th, 2024, because of public comments during the governing body hearing. The MDT Email Correspondence provided during the hearing continuance timeframe has been provided within Section E of the subdivision packet. The application packet has been updated because of the comments received by MDT via email on July 25th, 2024, and are reflected in the revised EA, CIR, and SOPI.

Public concerns during the governing body meeting also involved the available water quantity for the proposed individual wells and potential impacts on neighboring wells. These concerns tie into water availability, potential groundwater depletion, and impacts to area water resources. With that public testimony, and counties review of area well logs, there were concerns with water availability for the subject subdivision and potential groundwater depletion. Further, the Upper Missouri Waterkeepers v. Broadwater County Court decision has had implications on

how closely counties look at water availability and has impacted the revisions provided within the revised EA, CIR, and SOPI.

FWP Agency Comments & Application Revisions Summarized

The Blue Creek Subdivision application materials have been revised to further expand on mitigation as it pertains to wildlife impacts and reduce wildlife-human conflicts and submitted for the second Governing Body Review and Hearing. FWP recommends clustering lots, maintaining open areas, and providing incorporated wildlife recommendations into the subdivision's Covenants, Restrictions & Conditions to enable awareness and enforceability. Impacts from development activity are possible to big game wintering range and migration routes because dispersed housing development where homes, roads, driveways can limit wildlife movement. This subdivision is situated adjacent to HWY 200, Blue Creek Road, and tracts of lands with established homes and driveways to the north and east of the subject property. Therefore, the proposed development is situated in an area where houses, roads and driveways already exist on established tracts of land 5- to 20-acres. This proposed division does not seem to create a "fragmented" area as existing homes are adjacent on all sides. Impacts are possible due to the proposed improvements in this area containing "dispersed housing" within the valley and foothills of Sanders County where big game utilize their winter range. Although the subdivision has potential to affect these species the application packet as proposed reasonably mitigates adverse negative impacts.

The subdivision design "clusters" infrastructure as close to existing road infrastructure and utilities as possible. Proposed Lots 4, 5-9 are proposed to be around 1-acre in size directly adjacent to HWY 200 while leaving larger open spaces along the northern portion of the property which abut rural residential tracts. Proposed Lots 1-3 contain steeper slopes and consist of natural vegetation that may limit the line of sight distances and alleviate noise between wildlife, development activity, and HWY 200. FWP recommendations to minimize wintering wildlife include keeping dogs away from wintering wildlife, clustering lots and maintaining open areas in which this proposed subdivision provides. The recommended Living with Wildlife covenants aim to educate property owners about co-existence with wildlife, particularly regarding animal attractants and garbage. The applicant has included these covenants, which cannot be amended or deleted without governing body approval. The proposed project reasonably mitigates impacts on wildlife and wildlife habitat which is inhabited by birds, small and large mammals within this mixed rural residential and timbered area through proposing larger tracts of land that will preserve habitat for those species that may visit or pass through the site.

The following bullet points provide a summary addressing each of the recommendations provided within the FWP Letter and reflected in the revised EA, CIR and SOPI.

Findings of the Fact

IMEG Corp. has recently undergone a major subdivision with similar circumstances of topography, proximity to public road infrastructure and wildlife or wildlife habitat through the approved Elk Valley Ranch Subdivision in Missoula County. A summary of findings is provided below and the Staff Report is provided within Section E of the subdivision packet. Further, IMEG has included the applicable portion of meeting minutes from the Missoula County Board of Commissioners meeting as it pertains to the example subdivision because FWP representative, Ryan Klimstra, was present and provided agency public comment during the hearing.

- Much of the area around the subdivision is considered elk winter range. Montana Fish, Wildlife & Parks (FWP) reports that elk and deer have used this agricultural field in past years, but linkage-wise, the property is on the lower end of importance due to the lack of open space south of the interstate. (FWP, 8/28/23; Property Information System)
- Montana FWP is supportive of the plans for high-density residential development of this area to accommodate the large and growing need for housing in the greater Missoula area while avoiding areas of intact wildlife habitat, development of relatively large lots, and perpetuation of urban sprawl. (FWP, 6/28/23)
- Montana FWP reports that one of the most prominent threats to the remaining wildlife habitat in the Missoula Valley is properties being subdivided and sold as larger lots. This leads to relatively few new homes and properties for people to occupy relative to the amount of wildlife habitat fragmentation.

Building housing in high densities and close to existing population centers is a good way to conserve the remaining open space and wildlife habitats in the Missoula Valley while still accommodating the housing needs of a burgeoning population. (FWP, 6/28/23)

- Montana FWP comments that residents should expect wildlife to use habitats around and within their property boundaries. They recommend Living with Wildlife covenants to educate property owners about co-existence with wildlife, particularly regarding animal attractants and garbage. The applicant has included these covenants, which cannot be amended or deleted without governing body approval. (FWP, 6/28/23

MDT Agency Comments & Application Revisions Summarized

The subdivision was unable to obtain reasonable access from Blue Creek Rd., being of a lower road classification, and was granted Permit (#8851) for one direct approach to MT-200. The proposed approach would be constructed of two 12' travel lanes, 2' gravel shoulders, will include signage and aligns with the approach adjacent to the south providing safe access into the development. This approach has been designed in conjunction with an internal road network which avoids the steep grades, therefore, providing gradual access unto HWY 200, as reflected in the MDOT Approach Application and throughout the Preliminary Plat Application. Traffic control on the highway and approaches is under the jurisdiction of MDT, although Sanders County has been present for site visits to discuss reasonable access, highway safety concerns is under the jurisdiction of MDT.

Public health and safety due to an increase in traffic has been reviewed by MDT as it pertains to the proposed approach standards, sight distance requirements and proposed construction plans for the approach unto Hwy 200. MDT issues permit in accordance with Administrative Rules of Montana Title 18, Chapter 5, Sub-Chapter 1, "Highway Approaches." MDT's general authority over highways and its rulemaking authority is set forth in Montana Code Annotated § 60-2-201, the new access as proposed has been issued a permit and is not required to generate a Traffic Impact Study to determine mitigation of the additional vehicle trips proposed to be generated. According to communication with MDT the amount of traffic generated does not meet volume warrants for turn lane mitigation, please see the MDT Email Correspondence has been provided within Section E of the subdivision packet. Responses within the revised EA, CIR, and SOPI reflect this additional correspondence.

Broadwater Court Case

Considering the "Upper 2 Missouri Waterkeepers v. Broadwater County" court decision and public testimony during the governing body hearing for this project the EA, CIR, and SOPI application materials have been revised. The County has been provided guidance by the Montana Association of Counties (MACo) on how to analyze surface and groundwater within subdivision applications among other "best practices", but the guidance remains fluid as the situation is complex. The EA provided during the Preliminary Plat Application process has been updated using the Broadwater County court decision as guidance to better consider the impacts of the subdivision on water rights holders, water quantity and quality, wildlife, agriculture, and public safety. Given the complexity of updates in light of this court decision a summary has not been provided within this cover letter. The CIR and SOPI have been updated to reflect the changes made within the EA now providing a detailed analysis of both on-site and off-site impacts to water quantity and quality, wildlife, wildlife habitat, and public health and safety.

Sincerely,
IMEG Corp.

Prepared By:

Tamara R. Ross
Civil Designer / Planning Technician
P: (406) 272-0253
Tamara.R.Ross@imegcorp.com

TRANSMITTAL LETTER

TO:	Sanders County	**DATE:**	September 9, 2024
	Attn: Land Services	**FROM:**	Tamara R. Ross
	PO Box 519	**JOB NAME:**	Blue Creek Subdivision
	Thompson Falls, MT 59873	**LOCATION:**	Sanders County
Delivery Method:	1st Class Mail / Email	**IMEG #:**	22003448.00

WE ARE TRANSMITTING THE FOLLOWING TO YOU:

1 – Updated transmittal, table of contents, and associated materials to reflect the Governing Body Continuance submittal.
1 – Thumb Drive to provide PDF versions of the subdivision proposal.

□ For Your Information	□ As Requested	□ Shop Drawings
■ For Review/Comment	□ For Distribution	□ For Your Use
□ For Signature		

REMARKS:

Please find enclosed with this transmittal one (1) hard copy of the revised Governing Body application packet and one (1) electronic PDF version loaded into a thumb drive, for your review, in preparation for a Governing Body Continuance hearing submittal.

Should you need anything, please feel free to contact me at (406) 272-0253 or via email at Tamara.R.Ross@imegcorp.com and copy Daniel.D.Fultz@imegcorp.com.

TRR/
"\\files\Active\Projects\2022\22003448.00\Design\Civil\CC07 PLANNING\2 Preplat"

Tamara R. Ross

From: Chris McComas <cmccomas@co.sanders.mt.us>
Sent: Monday, August 5, 2024 11:05 AM
To: Daniel D. Fultz
Cc: Tamara R. Ross; Projects@tungstenholdings.com; Joel Nelson
Subject: RE: Blue Creek Subdivision - suspension of review agreement

Follow Up Flag: Follow up
Flag Status: Flagged

Dan,

This is to follow up on addressing the issues brought up at the July 23 public hearing on the Blue Creek Subdivision. The primary concerns that should be further addressed are those regarding water availability, potential groundwater depletion, and impacts to area water resources. As we discussed, the revised Environmental Assessment (EA) and Water & Sanitation report, both dated July 26, 2024, provided corrections regarding reference to an erroneous GWIC well number, and provided additional information to support water availability for the Blue Creek Subdivision. These revisions are very helpful for the review, but the comments by members of the public, including adjacent and nearby landowners, included concerns expressed regarding potential impacts on their wells' productivity. With that public testimony, along with our review of area well logs, there are concerns with water availability for the subject subdivision and potential groundwater depletion. And as you know, the Upper Missouri Waterkeepers v. Broadwater County Court decision has had implications on how closely counties must look at water availability and various aspects of aquifers, the current health of the water bodies, whether the aquifer(s) and nearby surface waters interact, and the impacts the wells and wastewater systems will have on the aquifers and nearby surface waters. Advice from the Montana Association of Counties (MACo) to Sanders County is that the County must analyze how the waters (both surface and groundwater) will be affected, i.e. dewatered, flooded, impacts from sewage, pesticides, sediment, wastewater discharge, all beyond the 1,000 feet that DEQ looks at under their requirements.

The County's need to deal with the implications of the Broadwater County decision is part of where we're coming from with why these issues need to be addressed. However, the issues raised during the hearing and our findings since would have prompted the need to further address water availability and potential impacts on water resources regardless of the court decision and associated MACo guidance, which do result in the need for the County to take a "hard look" at these issues per our knowledge of the case and following this important guidance.

Regarding what we'll need for the continued review, the place to start is with the EA and Water & Sanitation Report, to properly address the queries, particularly regarding water availability and depletion. For instance, in response to Section 2.b of the EA, which asks the preparer to "Describe any steps necessary to avoid depletion or degradation of groundwater recharge areas.", the response is: "Please reference the Water and Sanitation Report (Section I.2. Description) providing further information pertaining to the steps necessary to avoid depletion or degradation of groundwater recharge areas." But 1.2 of the Water & Sanitation Report does not address depletion or degradation of groundwater recharge areas.

As we've discussed, it seems it would be very helpful to do some testing of nearby wells to determine groundwater recharge rates. We're not hydrologists, but it's our understanding that testing nearby wells would give information to help analyze potential groundwater depletion. During DEQ review, they allow test wells in subdivisions to demonstrate quality, quantity, and dependability. We're not sure if that will happen with the DEQ review of the subdivision, and they don't necessarily review subdivisions for impacts on area wells, but it seems as though a test well on the property in combination with testing area wells could help determine whether pumping an onsite well results in drawdown of area

wells. That's one idea that seems to make sense to determine whether the subdivision may influence area groundwater resources and potential depletion.

We also recommend expanding the EA discussions to address the MACo guidance discussed above regarding water availability, the current health of the water bodies, whether the aquifer(s) and nearby surface waters interact, and the impact the wells and wastewater systems will have on the aquifers and nearby surface waters. There should be fact-based discussion about how surface waters and groundwater will be affected, i.e. dewatered, impacts from sewage, pesticides, sediment, wastewater discharge, etc., beyond the 1,000 feet that DEQ looks at.

A hydrological study by a hydrologist or hydrogeologist is another option to address the above. We understand that may not be realistic, but perhaps there's some way of providing a limited hydrological analysis to address potential depletion and impacts on groundwater resources in the area, as well as the other items discussed above.

Also, regarding the backup "cistern" plan, we should point out that if, through DEQ review the plans change to include cisterns, and no plans that include cisterns are included with the planning application regarding the locations and types of cisterns and everything else that would be needed for the DEQ review of cisterns, the change would require additional review by the County as an amendment. So if cisterns are likely, you may wish to revise the application at this time to include the cisterns as part of the plans.

Chris McComas
Director of Land Services
Sanders County
PO Box 519
Thompson Falls, MT 59873-0519
406-827-6965(Office)
406-499-6573(Cell)
https://co.sanders.mt.us/206/Land-Services

From: Daniel D. Fultz <Daniel.D.Fultz@imegcorp.com>
Sent: Tuesday, July 30, 2024 10:15 AM
To: Chris McComas <cmccomas@co.sanders.mt.us>
Cc: Tamara R. Ross <Tamara.R.Ross@imegcorp.com>; Projects@tungstenholdings.com
Subject: RE: Blue Creek Subdivision - suspension of review agreement

Chris,

Thanks for the phone call today and we look forward to further discussion regarding this project and application. We also agree to the suspension of the review period. I have discussed this on the phone today with Crawford Dinning of Tungsten Holdings Inc, and he is in agreement with this.

Thanks.

Dan Fultz, Registered Sanitarian
IMEG | Senior Civil Designer

1817 South Ave West | Suite A | Missoula, MT 59801

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Daniel.D.Fultz@imegcorp.com

website | vCard | map | regional news

Learn more about us and the IMEG story!

From: Chris McComas <cmccomas@co.sanders.mt.us>
Sent: Tuesday, July 30, 2024 9:58 AM
To: Daniel D. Fultz <Daniel.D.Fultz@imegcorp.com>
Cc: Tamara R. Ross <Tamara.R.Ross@imegcorp.com>; Projects@tungstenholdings.com
Subject: Blue Creek Subdivision - suspension of review agreement

Dan,

Thank you for your time this morning to discuss the questions of potential groundwater depletion and water availability for the Blue Creek Major Subdivision. After discussion, we agreed that the best option to address the questions that remain after review of the information submitted yesterday is to agree to suspend the review period so that we can work through the issues.

According to 76-3-604(4), MCA, *"After the reviewing agent or agency has notified the subdivider or the subdivider's agent that an application contains sufficient information as provided in subsection (2), the governing body shall approve, conditionally approve, or deny the proposed subdivision within 60 working days or 80 working days if the proposed subdivision contains 50 or more lots, based on its determination of whether the application conforms to the provisions of this chapter and to the local regulations adopted pursuant to this chapter, unless: (a) the subdivider and the reviewing agent or agency agree to an extension or suspension of the review period, not to exceed 1 year;"*.

During today's discussion, we agreed to suspend the review period so that I, as subdivision administrator, can review and respond to the July 29 submittal from IMEG, similar to a sufficiency review. Then, IMEG can submit additional supporting information in response. Once it is determined the additional information is sufficient for review, a 60 calendar day review period will commence, during which time a new public hearing will be scheduled and noticed.

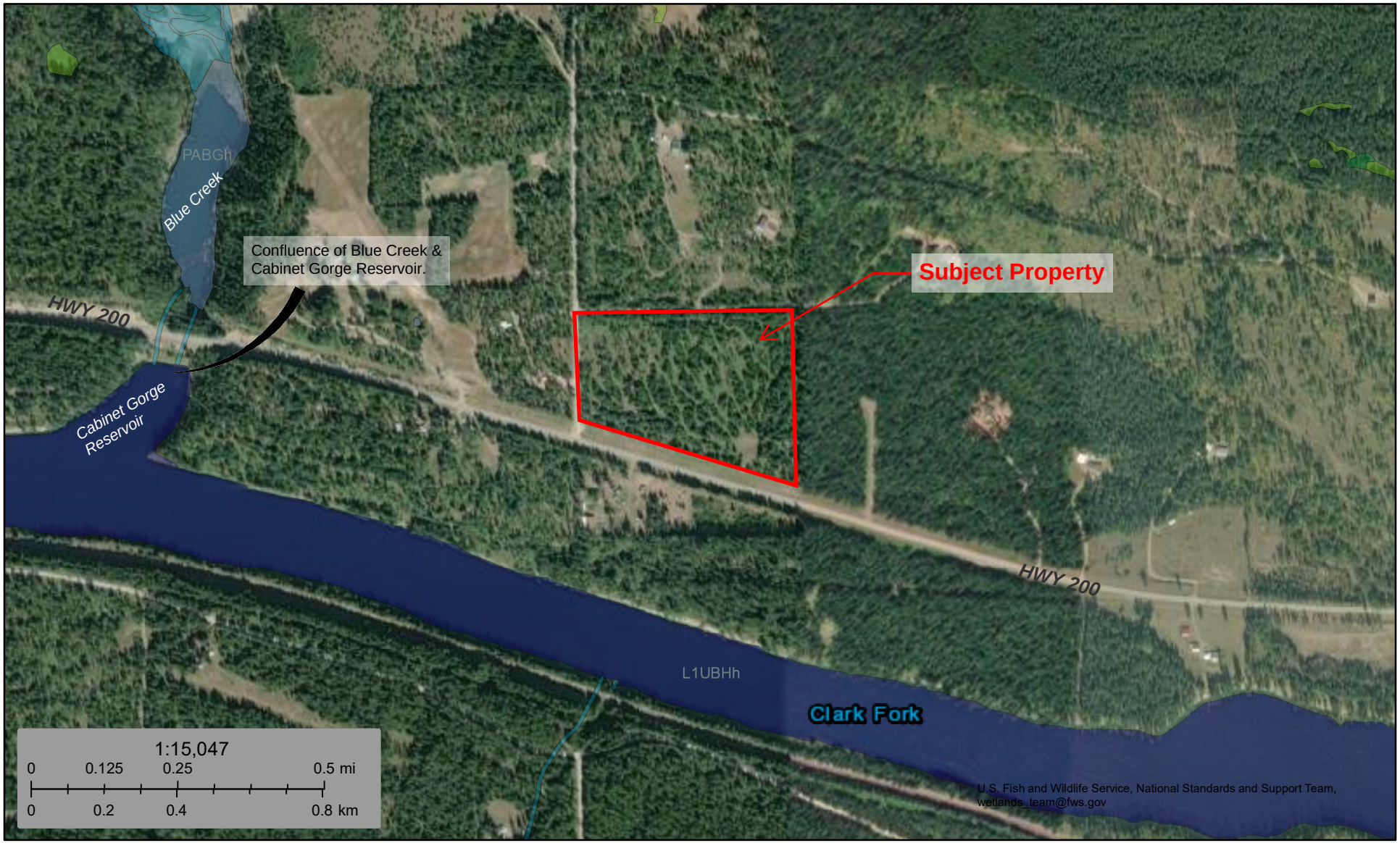
The Commissioners have cancelled today's continuation of the public hearing based on our agreement. Please respond to this email acknowledging your agreement to the suspension of the review period as the authorized agent for the Subdivider, Tungsten Holdings, Inc., and/or provide an email from Crawford Dinning agreeing to the above. As the reviewing agent, I hereby agree to a suspension of the review period as described above.

Thank you for your attention to this matter, and I look forward to working with you through the remaining process.

Chris McComas
Director of Land Services
Sanders County
PO Box 519
Thompson Falls, MT 59873-0519
406-827-6965(Office)
406-499-6573(Cell)
https://co.sanders.mt.us/206/Land-Services

U.S. Fish and Wildlife Service
National Wetlands Inventory

National Wetlands Inventory



November 15, 2023

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

Return after recording to:

_____

_____

_____

_____

DECLARATION OF CONDITIONS, COVENANTS AND RESTRICTIONS

BLUE CREEK SUBDIVISION

This Declaration is made this ____ day of _____, 202___, by Tungsten Holdings, Inc., of 809 Mineral Ave, Libby, MT 59923, hereinafter referred to as "Declarant," who is the owner of certain real property referred to as the "Real Property". The undersigned Declarant holds legal title to the following described real property located in Sanders County, Montana:

The Southwest One-Quarter of the Northwest One-Quarter (SW1/4NW1/4) of Section 20 Lying North of Montana Highway 200, Township 27 North, Range 34 West, Principal Meridian Montana, Sanders County, Montana. Containing a total of 25.94 Acres, more or less.

DECLARATION

Now, therefore, the Declarants do hereby declare that the property above described shall be sold and conveyed subject to the following easements, restrictions, covenants, and conditions, all of which are for the purpose of enhancing and protecting the value, desirability and attractiveness of the real property. These easements, covenants, restrictions and conditions shall run with the real property, and shall be binding on all parties having or acquiring any right, title or interest in the described properties or any part thereof and shall inure to the benefit of each owner thereof. The word "lot" as used herein shall refer to each numbered lot of Blue Creek Subdivision.

1. The lots can be used recreationally or as single-family residence, or residential with home business.

    a) There is no restriction on the type of residence that can be parked, placed, or built on each lot. Residences can be recreational vehicles, campers, yurts, mobile homes, manufactured homes, or permanent houses, and shall be connected to the appropriate septic system if used as a permanent residence. If the home is a mobile or manufactured home, it must be skirted. All residential structures must be well maintained.
    b) Home based businesses are allowed as long as they operate no earlier than 7:00 a.m. and no later than 7:00 p.m., and do not cause excessive noise, odor, excessive traffic, or disturbances to neighboring properties.
    c) The lots may be used recreationally as weekend camping, or longer term stays in recreational vehicles.

2. Driveways within this subdivision must be maintained to at least a 16 feet driving surface and a 13.5 feet vertical clearance to allow for emergency services.

3. Lot owners should maintain 10 feet of separation between residential structures and property lines.

4. No portion of a tree or any other vegetation should extend to within 10 feet of the outlet of a stovepipe or chimney.

5. No abandoned, inoperative, or non-running vehicles to be stored outside of an enclosed building. Vehicles may not be stored on the property outside of an enclosed building for the purpose of being repaired for longer than 30 days. Vehicles may not be store outside of an enclosed building for the purpose of demolition, spare parts, or wrecking. Vehicles may be kept for landscaping decoration or displayed for historic purposes (i.e. antique tractors, plows, buggies, etc.).

6. No trash, garbage, refuse, waste, scrap material or other items shall be thrown or dumped on any property in the Subdivision.

7. No excessive noise, traffic, dust, odors, etc.

8. The keeping of animal(s) shall not disturb the enjoyment of neighboring properties (i.e. no aggressive behavior, excessive noise, dust or odors, etc.). Domestic animals such as dogs and/or cats may be permitted as long as lot owners provide necessary restraints to prevent those animals from becoming an annoyance or nuisance. Peafowl, hound dogs, pit bull-type dog breeds, and pigs are not permitted. Any animal breeding and/or husbandry is not allowed.

9. Utilities, Sanitation, & Water. The electrical power, telephone, water, and septic system shall be the individual parcel owner's expense. Any new electrical power and telephone lines shall be underground.

10. Each Lot Owner shall be responsible for filing a "Notice of Completion of Ground Water Development" form with the State prior to the completion or placement of improvements on their Lot.

11. If a Lot Owner constructs an improvement which impedes an easement (utility, road, drainage, etc.) the Lot Owner shall be liable for any/all damages therein.

12. All Lots are subject to the approved Weed Plan attached and made a part herein. Noxious weeds and seeds are a public nuisance under Montana law and it is unlawful to permit their propagation within the subdivision. For additional information contact the Sanders County Weed District at 36 Old Airport Road, Plains, MT 59859, (406) 826-3487.

13. All structures that will generate wastewater flows must receive approval from the County Health Department for location in conformance with the subdivision's DEQ approval and for final sizing before construction commences.

14. No Access Strip. Residential driveways must not have direct access to primary highways unless approved and permitted by the Montana Department of Transportation.

15. The internal road system is not maintained by Sanders County, the State of Montana, or any other governmental entity. Neither the County, nor the State, assumes any liability for lacking or

improper maintenance. The Road Maintenance Agreement was filed with this subdivision and outlines which parties are responsible for maintenance, and under what conditions.

16. Notification of Living with Wildlife. Owners and/or renters of lots in this residential subdivision (hereafter, "residents") must accept the responsibility of living with wildlife and must be responsible for protecting their vegetation from damage, confining their pets, and properly storing garbage, livestock feed, and other potential attractants. Residents must be aware of potential problems associated with the presence of wildlife such as deer, black bear, coyote, fox, raccoon, skunk, wild turkey, magpie, and other species. Please contact the Montana Fish, Wildlife & Parks office in Missoula (3201 Spurgin Road, Missoula, MT 59804) for brochures that can help owners "live with wildlife." Alternatively, see FWP's web site at http://fwp.mt.gov.

The following covenants are designed to help minimize problems that residents could have with wildlife, as well as helping residents protect themselves, their property, and the wildlife that Montanans value.

a) Homeowners must be aware of the potential for vegetation damage by wildlife, particularly from deer feeding on landscaping such as green lawns, gardens, flowers, ornamental shrubs and trees in this subdivision. Homeowners should be prepared to take the responsibility to plant non-palatable vegetation or protect their vegetation (fencing, netting, repellents) in order to avoid problems. Also, consider landscaping with native vegetation that is less likely to suffer extensive feeding damage by deer.

b) Gardens, fruit trees or orchards can attract wildlife, such as bear and deer. Keep produce and fruit picked and off the ground, because ripe or rotting fruit or organic material can attract bears, skunks, and other wildlife. To help keep wildlife, such as deer, out of gardens, fences should be 8 feet or taller. The top rail should be made of something other than wire to prevent wildlife from entanglement. Netting over gardens can help deter birds from eating berries. To keep wildlife, such as bears, out of gardens and/or away from fruit trees, use properly constructed electric fences, and maintain these constantly. (Contact FWP for information on “all-species electric fencing designed to exclude wildlife from gardens and/or home areas.)

c) Garbage should be stored in secure, animal-resistant containers, or indoors to avoid attracting wildlife such as raccoon and black bear. If stored indoors, it is best not to set garbage cans out until the morning of garbage pickup; bring cans back indoors by the end of the day.

d) Do not feed wildlife or offer supplements (such as salt blocks), attractants, or bait for deer, wild turkey, or other wildlife, including during the winter. Feeding wildlife results in unnatural concentrations of animals that can lead to overuse of vegetation and disease transmission. Such actions unnecessarily accustom wild animals to humans, which can be dangerous for both. It is against state law (M.C.A. 87-3-130) to purposely or knowingly attract any ungulates (deer, elk, etc.), bears, or mountain lions with supplemental food attractants (any food, garbage, or other attractant for game animals) or to provide supplemental feed attractants in a manner that results in “an artificial concentration of game animals that may potentially contribute to the transmission of disease or that constitutes a threat to public safety.” Also, homeowners must be aware that deer and wild turkey can attract mountain lions to the area.

e) Bears can be attracted to food smells associated with outdoor food storage; therefore, freezers and refrigerators should not be placed outdoors on porches or in open garages or buildings. If a freezer/refrigerator must be located outdoors, attempt to secure it against potential bear entry by using a stout chain and padlock around the girth of the freezer.

f) Birdseed in bird feeders is an attractant to bears. If used, bird feeders should: a) be suspended a minimum of 20 feet above ground level, b) be at least 4 feet from any support poles or points and c) should be designed with a catch plate located below the feeder and fixed such that it collects the seed knocked off the feeder by feeding birds.

g) Pets must be confined to the house, in a fenced yard, or in an outdoor kennel area when not under the immediate control of the owner, and not be allowed to roam as they can chase and/or kill big game and small birds and mammals. Keeping pets confined also helps protect them from predatory wildlife. Under current state law, it is illegal for dogs to chase hoofed game animals, and the owner may be held liable (§ 87-3-124, MCA)

h) Pet food and livestock feed should be stored indoors, in closed sheds, or in bear-resistant containers in order to avoid attracting wildlife such as bears, mountain lions, skunks, and raccoons. When feeding pets and livestock, do not leave food out overnight. Consider feeding pets indoors, so that wild animals do not learn to associate food with your home.

i) Barbecue grills should be stored indoors. Keep all portions of the barbecues clean. Food spills and smells on and near the grill attract bears and other wildlife. (Due to the potential hazard of fire and explosion, propane cylinders for gas-fueled grills should be disconnected and kept outdoors. Under no circumstances should propane cylinders be stored indoors.)

j) Consider boundary fencing that is no higher than 3 ½ feet (at the top rail or wire) and no lower than 18 inches (at the bottom rail or wire) in order to facilitate wildlife movement. Contact FWP for information, and/or a brochure, on building fences with wildlife in mind.

k) Compost piles can attract skunks and bears. If used, they should be kept in wildlife-resistant containers or structures. Compost piles should be limited to grass, leaves, and garden clippings, and piles should be turned regularly. Adding lime can reduce smells and help decomposition. Do not add food scraps. (Due to the potential fire hazard associated with decomposition of organic materials, compost piles should be kept at least 10 feet from structures.)

l) Apiaries (bee hives) could attract bears in this area. (If used, consult Montana Fish, Wildlife & Parks or the U.S. Fish & Wildlife Service for help in planning and constructing an apiary system that will help deter bears.)

m) These “living with wildlife” covenants cannot be altered or eliminated without the concurrence of the governing body (County Commissioners).

TERM OF DECLARATION

The provisions of this Declaration shall run with the land and be binding from the date of this Declaration unless there shall be recorded an instrument signed by 6 out of 9 owners of the lots who agree to amend these covenants.

Enforcement of the DECLARATION OF CONDITIONS, COVENANTS AND RESTRICTIONS of the BLUE CREEK SUBDIVISION shall be by proceedings at law or in equity against any person or persons violating or attempting to violate any of the restrictions, either to restrain violation or to recover damages.

Invalidation of any one of these conditions, covenants, or restrictions, by judgment, or by court order, shall in no way affect any of the other provisions hereof which shall remain in full force and effect. Any future amendments or changes to these covenants and restrictions must include approval of Tungsten Holdings, unless Tungsten Holdings no longer owns any parcels in the subdivision.

_____ _____

(Declarant) (Date)

STATE OF MONTANA)
) ss.
County of)

On this _____ day of _____, 20____, before me, a notary public in and for said State, personally appeared _____ known to me to be the person whose name is subscribed to the within instrument, and acknowledged to me that he executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and seal the day and year first above written.

(SEAL)

_____
Notary Public for the State of Montana
Residing at _____, Montana
My commission expires _____

WATER & SANITATION REPORT

for

BLUE CREEK SUBDIVISION

On Property Legally Described as: The Southwest One-Quarter of the Northwest One-Quarter (SW1/4NW1/4) of Section 20 Lying North of Montana Highway 200, Township 27 North, Range 34 West, Principal Meridian Montana, Sanders County, Montana. Containing a total of 25.94 Acres, more or less.

Published: August 16, 2023
Revised: July 27, and
September 6th, 2024

Prepared For:
Tungsten Holdings
PO Box 1213,
Libby, Montana 59923

Prepared By:
IMEG Corp.
1817 South Avenue West, Suite A
Missoula, MT 59801

REVISION NOTE: Based on the July 23rd, 2024, Sanders County Commissioner meeting, and public comments provided during this meeting it has been determined that the information submitted in the previous water and sanitation report in regards to available water quantity for the proposed individual wells was not sufficient. During our re-review of the previously provided report and supporting materials we found errors in the reference to the well log GWIC number used in the original report and agree that not enough information was provided for a thorough review of the information. The revisions made to this report and supporting materials is intended to provide information specific to the availability in groundwater quantity from the proposed wells in accordance to 76-3-622(G)(e). We apologize for not providing adequate information in the previous version that was reviewed during the preliminary plat review process. Thank you for the opportunity to correct this and speak on the matter at the next hearing scheduled for July 30, 2024.

A Suspension Agreement between Sanders County, the subdivider and representative has been made on August 5th, 2024, to suspend the Governing Body Review process until further information is obtained. The Preliminary Plat Application materials and responses herein are revised to further address public comments received during the Governing Body Public Hearing, additional agency comments, and narratives associated with surface and groundwater due to the implications of the Upper Missouri Waterkeepers v. Broadwater County Court decision.

I.1. **Map.** A vicinity map or plan that shows:

a. The location, within 100 feet outside of the exterior property line of the subdivision and on the proposed Lots, of flood plains; surface water features; springs; irrigation ditches;
A vicinity map is included showing the location of the property in relation to the surrounding area. A more detailed and extensive MDEQ Lot Layout Exhibit is attached (Attachment I.3) showing all the required information outlined in section I.1 of the subdivision application and section I.3 of the subdivision application. There are no known springs or irrigation ditches within 100 feet of the property.

b. Existing, previously approved, and, for parcels fewer than 20 acres, proposed water wells and wastewater treatment systems; for parcels less than 20 acres, mixing zones;
Individual wells and individual drainfields along with their mixing zones for the proposed subdivision are all shown on the MDEQ Lot Layout.

c. The representative drainfield site used for the soil profile description; and
The representative drainfield site used for the soil profile descriptions are shown on the MDEQ Lot Layout. A total of ten (10) soil profiles have been conducted on the site in 2022 by IMEG.

d. The location, within 500 feet outside of the exterior property line of the subdivision, of public water and sewer facilities.
There are no public water or sewer facilities within 500' of the property lines of the subdivision.

I.2. Description. A description of the proposed subdivision's water supply systems, storm water systems, solid waste disposal systems, and wastewater treatment systems, including whether the water supply and wastewater treatment systems are individual, shared, multiple user, or public as those systems are defined in rules published by the Montana Department of Environmental Quality (DEQ).

Water Supply
Lots 1 through 9 of the proposed subdivision will all have proposed individual wells. All proposed wells will supply both domestic and lawn and garden irrigation. Cisterns may be necessary to be connected to the individual wells if it is found during the DEQ review process that there is a chance some of the wells are insufficient in meeting the required water quantity as required in DEQ Circular 20. There are no existing wells in the proposed subdivision.

Wastewater Treatment System
Proposed individual wastewater systems are to serve all nine (9) lots. All proposed systems have been designed using 4 bedrooms and a design flow of 350 GPD each and will consist of a 1500-gallon septic tank.

For Lot 1 and 2, based on soil profiles excavated near the area of the proposed drainfield and 100% replacement area are Clay Loam and Gravelly Clay Loam, respectively. The system will consist of a minimum of 300 lineal feet of pressurized drainfield for the primary locations and a minimum of 195 lineal feet for the replacement areas.

For Lots 3-8, based on soil profiles excavated near the area of the proposed drainfield and 100% replacement area are Gravelly Sandy Loam and Very Gravelly Sandy Loam. The system will consist of a minimum of 150 lineal feet of pressurized drainfield for the primary locations and a minimum of 195 lineal feet for the replacement areas.

For Lot 9, based on soil profiles excavated near the area of the proposed drainfield and 100% replacement area are Very Gravelly Fine Sandy Loam. The system will consist of a minimum of 180 lineal feet of pressurized drainfield for the primary locations and a minimum of 240 lineal feet for the replacement areas.

Stormwater
Increase in storm drainage runoff will be mitigated per Sanders County Subdivision Regulations and DEQ Circular 8. Proposed swales and retention ponds are designed to capture the increase in storm drainage runoff.

Solid Waste
Heron has a refuse site to control storage, collection, and the disposal of solid waste from this proposed development. Further, if a lot owner wishes to be served by a private contractor for Solid Waste Disposal it is up to each lot owner to arrange collection.

I.3. Lot Layout. A drawing of the conceptual Lot layout at a scale no smaller than 1 inch equal to 200 feet that shows all information required for a Lot layout document in rules adopted by the Montana Department of Environmental Quality pursuant to 76-4-104, MCA.
A drawing of the MDEQ Lot layout at an acceptable scale of no smaller than 1 inch equal to 200 feet that shows all the information required pursuant to 76-4-104, MCA is included.

I.4. Suitability. Evidence of suitability for new on-site wastewater treatment systems that, at a minimum, include:

a. A soil profile description from a representative drain-field site identified on the vicinity map that complies with standards published by the Montana Department of Environmental Quality;
A total of ten (10) soil profiles have been conducted across the property and primarily demonstrated textures of Clay Loam and Sandy Loam across the site. These soil profile locations are marked on the attached MDEQ Lot Layout Exhibit (Attachment I.3). The soil profile results are attached as Appendix A of this report and demonstrate the site's soil characteristics in further detail. This type of soil has been found to be suitable for new on-site wastewater treatment systems and provide treatment for wastewater effluent.

b. Demonstration that the soil profile contains a minimum of 4 feet of vertical separation distance between the bottom of the permeable surface of the proposed wastewater treatment system and a limiting layer; and
Soil profiles for all but one location show that there is no limiting layer on-site. Soil profiles were dug down to a depth of 120" with no indication showing a potential limiting layer within 4 feet of the proposed drainfield trenches.

c. In cases in which the soil profile or other information indicates that ground water is within 7 feet of the natural ground surface, evidence that the ground water will not exceed the minimum vertical separation distance of 4 feet.
Groundwater monitoring was completed in 2022. The approved groundwater monitoring results are enclosed in Appendix A.

I.5. Water Quantity. For new water supply systems, unless cisterns are proposed, evidence of adequate water availability:

a. obtained from well logs or testing of onsite or nearby wells;
According to ARM 17.36.332, in order to show sufficient quantity, individual wells must provide a sustained yield of at least ten gallons per minute over a one-hour period and six gallons per minute over a two-hour period.
There are no onsite wells. A review of the surrounding well logs that were available on the GWIC website have been included in Appendix B of this report, please refer to the Well Log Vicinity Map herein. Across Highway 200, is an existing well (GWIC Id: 257791). The well log

from this well shows a 20-gpm yield over a 1-hour period. This is also the well in which water quality samples were collected.

A total of eight (8) well logs were located per the GWIC website in the vicinity of the property. Five (5) out of the eight (8) well logs meet the requirements for water quantity for individual wells per DEQ Circular 20. While reviewing the lithology of the well logs it shows a pattern of an alluvial aquifer located approximately at a depth of 63-197 feet below ground surface that provides adequate water quantity. The wells that are not meeting the required quantity in DEQ Circular 20 generally appear to be all drilled and finished in a bedrock or shale formation that is hit or miss for water quantity.

The subject property lies at the elevation of Hwy 200 and slopes up towards Fatman Road to the north. The proposed well locations are generally located at the base of this slope and below the apparent ridge to the north. It is our opinion, that the surrounding well logs to the west and south of the site, GWIC Id's 14337, 286136, and 257791, are the most accurate representation of the expected lithology and aquifer conditions for this site. Furthermore, the most recently drilled well (GWIC Id: 330589) is located to the east and is finished in the top 20 feet of the bedrock aquifer and produced a 20-gpm yield over a 1-hour period.

A summary report of the GWIC database for the Township, Range, and Section was pulled from the GWIC website. This summary shows that the average well yield is 11- gpm. This meets the requirement for yield pursuant to DEQ Circular 20.

This matter will be reviewed in more detailed under the purview and requirements to MT DEQ during the Sanitation in Subdivision review process. If it is determined by DEQ that this well log comparison is not sufficient evidence of adequate water quantity to meet the regulation, then either a test well with an associated pump test will be completed, or cisterns for low producing wells will be proposed per the requirements in ARM 17.36 and DEQ Circular 20.

Attached in Appendix B of this report is a well log vicinity map which shows the tracts of land the well logs are associated with, a depiction of which wells meet water quantity requirements, copies of the well logs, and a summary report of the GWIC database which shows the average yield of the wells in this Township, Range, and Section is 11- gpm.

b. obtained from information contained in published hydro-geological reports; or
Section is not applicable as Section (a) above sufficiently provides evidence of an ample quantity of water.

c. as otherwise specified by rules adopted by the Montana Department of Environmental Quality pursuant to 76-4-104, MCA.
Section is not applicable as Section (a) above sufficiently provides evidence of an ample quantity of water.

I.6. Water Quality. Evidence of sufficient water quality in accordance with rules adopted by the Montana Department of Environmental Quality pursuant to 76-4-104, MCA.
Water Quality results have been included in Appendix B of this report. This information includes Water sample results and existing well logs.

I.7. Impacts to groundwater quality. Preliminary analysis of potential impacts to ground water quality from new wastewater treatment systems, using as guidance rules adopted by the board of environmental review pursuant to 75-5-301, MCA and 75-5-303, MCA related to standard mixing zones for ground water, source specific mixing zones, and non-significant changes in water quality. The preliminary analysis may be based on currently available information and must consider the effects of overlapping mixing zones from proposed and existing wastewater treatment systems within and directly adjacent to the subdivision. Instead of performing the preliminary analysis, the sub-divider may perform a complete non-degradation analysis in the same manner as is required for an application that is reviewed under Title 76, Chapter 4.

Non-degradation analysis of impacts to groundwater quality from the proposed wastewater treatment systems show there will be no significant changes to water quality. The supporting information is included in Appendix B of this report.

Sincerely,
IMEG. Corp

Reviewed By:

Dan Fultz, R.S.
Senior Civil Designer II

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APPENDIX A

1. Soil Profile Logs
2. Groundwater Monitoring Results

Project Name: Blue Creek Subdivision Feasibility | Project No.: 22003448.00

Client Name: Tungsten Holdings Inc | Lot No.: N/A

Site Evaluator: Dan Fultz | County: Sanders | Date: 10/4/2022

Soil Profile - SP No: SP- 1A

Depth (in)	Thick (in)	Structure	Stoniness	Texture	Color	Moisture	Length of Ribbon	Other Comments*
0 - 2	2	Forest Duff	N/A	N/A	N/A	N/A	N/A	
2 - 81	79	Subangular Blocky	10% Gravel	Clay Loam	Tan	Dry	1-2"	
81 - 98	17	Structureless	30% Gravel	Gravelly Loam	Dark Brown	Moist	<1"	
								No Limiting Layer Observed

* Include information such as roots present, apparent high ground water level, actual water level, bedrock, layer consistency, color variations, or any other information as appropriate.

Site Factors and Setback Distances

Vegetation: Forested | Slope: | Flooding Risk:

Notes: Partly Cobbly | SP Application Rate: gpd/ft2

	Water Supply Wells		Sealed(1)/Other(2) Components		Drainfields Sand Mounds		Notes
Public or Multi-use Wells	-	NA	100	X	100	X	
Other Wells	-	NA	50	X	100	X	
Suction Lines	-	NA	50	X	100	X	
Cisterns	-	NA	25	X	50	X	
Roadcuts/Escarpments	-	NA	10 (3)	X	25	X	
Slopes > 25% (4)	-	NA	10 (3)	X	25	X	
Property Boundaries	10	10	10	X	10	X	
Subsurface Drains	-	NA	10	X	10	X	
Water Lines	-	NA	10	X	10	X	
Drainfields / Sand Mounds	100	100	10	X	-	NA	
Foundation Walls	-	NA	10	X	10	X	
Surface Water, Springs	100	100	50	X	100	X	
Floodplains	10	10	0(1)/100(2)	X	100	X	

(1) Sealed Components include sewer lines, sewer mains, septic tanks, grease traps, dosing tanks, and pumping chambers.
(2) Other components include intermittent and recirculating sand filters, package plants and evapotranspiration systems
(3) Sewer lines and mains may be located in roadways and on steep slopes if they are safeguarded against damage.
(4) Down-gradient of the sealed component, other component, or drainfield/sand mound.

Project Name: Blue Creek Subdivision Feasibility | Project No.: 22003448.00

Client Name: Tungsten Holdings Inc | Lot No.: N/A

Site Evaluator: Dan Fultz | County: Sanders | Date: 10/4/2022

Soil Profile - SP No: SP- 2

Depth (in)	Thick (in)	Structure	Stoniness	Texture	Color	Moisture	Length of Ribbon	Other Comments*
0 - 1	1	Forest Duff	N/A	N/A	N/A	N/A	N/A	
1 - 22	21	Granular	5% Rock	Loam	Light Brown	Dry	<1"	
22 - 89	67	Subangular Blocky	15-20% Gravel/Cobbles	Gravelly Clay Loam	Tan	Dry	1-2"	
89 - 110	21	Structureless	30% Gravel	Gravelly Loam	Dark Brown	Moist	<1"	
								No Limiting Layer Observed

* Include information such as roots present, apparent high ground water level, actual water level, bedrock, layer consistency, color variations, or any other information as appropriate.

Site Factors and Setback Distances

Vegetation: Forested | Slope: | Flooding Risk:

Notes: Partly Cobbly | SP Application Rate: gpd/ft2

	Water Supply Wells		Sealed(1)/Other(2) Components		Drainfields Sand Mounds		Notes
Public or Multi-use Wells	-	NA	100	X	100	X	
Other Wells	-	NA	50	X	100	X	
Suction Lines	-	NA	50	X	100	X	
Cisterns	-	NA	25	X	50	X	
Roadcuts/Escarpments	-	NA	10 (3)	X	25	X	
Slopes > 25% (4)	-	NA	10 (3)	X	25	X	
Property Boundaries	10	10	10	X	10	X	
Subsurface Drains	-	NA	10	X	10	X	
Water Lines	-	NA	10	X	10	X	
Drainfields / Sand Mounds	100	100	10	X	-	NA	
Foundation Walls	-	NA	10	X	10	X	
Surface Water, Springs	100	100	50	X	100	X	
Floodplains	10	10	0(1)/100(2)	X	100	X	

(1) Sealed Components include sewer lines, sewer mains, septic tanks, grease traps, dosing tanks, and pumping chambers.
(2) Other components include intermittent and recirculating sand filters, package plants and evapotranspiration systems
(3) Sewer lines and mains may be located in roadways and on steep slopes if they are safeguarded against damage.
(4) Down-gradient of the sealed component, other component, or drainfield/sand mound.

Project Name: Blue Creek Subdivision Feasibility | Project No.: 22003448.00

Client Name: Tungsten Holdings Inc | Lot No.: N/A

Site Evaluator: Dan Fultz | County: Sanders | Date: 10/4/2022

Soil Profile - SP No: SP- 3

Depth (in)	Thick (in)	Structure	Stoniness	Texture	Color	Moisture	Length of Ribbon	Other Comments*
0 - 4	4	Forest Duff	N/A	N/A	N/A	N/A	N/A	
4 - 28	24	Granular	5% Gravel	Loam	Light Brown	Dry	<1"	
28 - 75	47	Structureless	25-30% Gravel/Cobbles	Gravelly Sandy Loam	Tan	Dry	<1"	
75 - 106	31	Structureless	30% Gravel	Gravelly Loam	Dark Brown	Moist	<1"	
								No Limiting Layer Observed

* Include information such as roots present, apparent high ground water level, actual water level, bedrock, layer consistency, color variations, or any other information as appropriate.

Site Factors and Setback Distances

Vegetation: Forested | Slope: | Flooding Risk:

Notes: Partly Cobbly | SP Application Rate: gpd/ft2

	Water Supply Wells		Sealed(1)/Other(2) Components		Drainfields Sand Mounds		Notes
Public or Multi-use Wells	-	NA	100	X	100	X	
Other Wells	-	NA	50	X	100	X	
Suction Lines	-	NA	50	X	100	X	
Cisterns	-	NA	25	X	50	X	
Roadcuts/Escarpments	-	NA	10 (3)	X	25	X	
Slopes > 25% (4)	-	NA	10 (3)	X	25	X	
Property Boundaries	10	10	10	X	10	X	
Subsurface Drains	-	NA	10	X	10	X	
Water Lines	-	NA	10	X	10	X	
Drainfields / Sand Mounds	100	100	10	X	-	NA	
Foundation Walls	-	NA	10	X	10	X	
Surface Water, Springs	100	100	50	X	100	X	
Floodplains	10	10	0(1)/100(2)	X	100	X	

(1) Sealed Components include sewer lines, sewer mains, septic tanks, grease traps, dosing tanks, and pumping chambers.
(2) Other components include intermittent and recirculating sand filters, package plants and evapotranspiration systems
(3) Sewer lines and mains may be located in roadways and on steep slopes if they are safeguarded against damage.
(4) Down-gradient of the sealed component, other component, or drainfield/sand mound.

Project Name: Blue Creek Subdivision Feasibility | Project No.: 22003448.00

Client Name: Tungsten Holdings Inc | Lot No.: N/A

Site Evaluator: Dan Fultz | County: Sanders | Date: 10/4/2022

Soil Profile - SP No: SP- 4

Depth (in)	Thick (in)	Structure	Stoniness	Texture	Color	Moisture	Length of Ribbon	Other Comments*
0 - 2	2	Forest Duff	N/A	N/A	N/A	N/A	N/A	
2 - 37	35	Granular	5% Cobbles	Fine Sandy Loam	Light Brown	Dry	<1"	
37 - 82	45	Structureless	20-25% Gravel	Gravelly Sandy Loam	Tan	Dry	<1"	
82 - 100	18	Structureless	30% Gravel	Gravelly Loam	Dark Brown	Moist	<1"	
								No Limiting Layer Observed

* Include information such as roots present, apparent high ground water level, actual water level, bedrock, layer consistency, color variations, or any other information as appropriate.

Site Factors and Setback Distances

Vegetation: Forested | Slope: | Flooding Risk:

Notes: Partly Cobbly | SP Application Rate: gpd/ft2

	Water Supply Wells		Sealed(1)/Other(2) Components		Drainfields Sand Mounds		Notes
Public or Multi-use Wells	-	NA	100	X	100	X	
Other Wells	-	NA	50	X	100	X	
Suction Lines	-	NA	50	X	100	X	
Cisterns	-	NA	25	X	50	X	
Roadcuts/Escarpments	-	NA	10 (3)	X	25	X	
Slopes > 25% (4)	-	NA	10 (3)	X	25	X	
Property Boundaries	10	10	10	X	10	X	
Subsurface Drains	-	NA	10	X	10	X	
Water Lines	-	NA	10	X	10	X	
Drainfields / Sand Mounds	100	100	10	X	-	NA	
Foundation Walls	-	NA	10	X	10	X	
Surface Water, Springs	100	100	50	X	100	X	
Floodplains	10	10	0(1)/100(2)	X	100	X	

(1) Sealed Components include sewer lines, sewer mains, septic tanks, grease traps, dosing tanks, and pumping chambers.
(2) Other components include intermittent and recirculating sand filters, package plants and evapotranspiration systems
(3) Sewer lines and mains may be located in roadways and on steep slopes if they are safeguarded against damage.
(4) Down-gradient of the sealed component, other component, or drainfield/sand mound.

Project Name: Blue Creek Subdivision Feasibility | Project No.: 22003448.00

Client Name: Tungsten Holdings Inc | Lot No.: N/A

Site Evaluator: Dan Fultz | County: Sanders | Date: 10/4/2022

Soil Profile - SP No: SP- 5

Depth (in)	Thick (in)	Structure	Stoniness	Texture	Color	Moisture	Length of Ribbon	Other Comments*
0 - 6	6	Forest Duff	N/A	N/A	N/A	N/A	N/A	
6 - 22	16	Granular	5% Gravel	Fine Sandy Loam	Light Brown	Dry	<1"	
22 - 92	70	Structureless	25-30% Gravel	Gravelly Sandy Loam	Tan	Dry	<1"	Roots extend to 92"
92 - 109	17	Structureless	30% Gravel	Gravelly Loam	Dark Brown	Moist	<1"	
								No Limiting Layer Observed

* Include information such as roots present, apparent high ground water level, actual water level, bedrock, layer consistency, color variations, or any other information as appropriate.

Site Factors and Setback Distances

Vegetation: Forested | Slope: | Flooding Risk:

Notes: Partly Cobbly | SP Application Rate: gpd/ft2

	Water Supply Wells		Sealed(1)/Other(2) Components		Drainfields Sand Mounds		Notes
Public or Multi-use Wells	-	NA	100	X	100	X	
Other Wells	-	NA	50	X	100	X	
Suction Lines	-	NA	50	X	100	X	
Cisterns	-	NA	25	X	50	X	
Roadcuts/Escarpments	-	NA	10 (3)	X	25	X	
Slopes > 25% (4)	-	NA	10 (3)	X	25	X	
Property Boundaries	10	10	10	X	10	X	
Subsurface Drains	-	NA	10	X	10	X	
Water Lines	-	NA	10	X	10	X	
Drainfields / Sand Mounds	100	100	10	X	-	NA	
Foundation Walls	-	NA	10	X	10	X	
Surface Water, Springs	100	100	50	X	100	X	
Floodplains	10	10	0(1)/100(2)	X	100	X	

(1) Sealed Components include sewer lines, sewer mains, septic tanks, grease traps, dosing tanks, and pumping chambers.
(2) Other components include intermittent and recirculating sand filters, package plants and evapotranspiration systems
(3) Sewer lines and mains may be located in roadways and on steep slopes if they are safeguarded against damage.
(4) Down-gradient of the sealed component, other component, or drainfield/sand mound.

Project Name: Blue Creek Subdivision Feasibility | Project No.: 22003448.00

Client Name: Tungsten Holdings Inc | Lot No.: N/A

Site Evaluator: Dan Fultz | County: Sanders | Date: 10/4/2022

Soil Profile - SP No: SP- 6

Depth (in)	Thick (in)	Structure	Stoniness	Texture	Color	Moisture	Length of Ribbon	Other Comments*
0 - 5	5	Forest Duff & Log Litter	N/A	N/A	N/A	N/A	N/A	
5 - 26	21	Granular	5% Rock	Fine Sandy Loam	Light Brown	Dry	<1"	
26 81	55	Structureless	25-30% Gravel	Gravelly Sandy Loam	Tan	Dry	<1"	Roots extend to 81"
81 - 110	29	Granular	30% Gravel	Gravelly Loam	Dark Brown	Moist	<1"	
								No Limiting Layer Observed

* Include information such as roots present, apparent high ground water level, actual water level, bedrock, layer consistency, color variations, or any other information as appropriate.

Site Factors and Setback Distances

Vegetation: Forested | Slope: | Flooding Risk:

Notes: Partly Cobbly | SP Application Rate: gpd/ft2

	Water Supply Wells		Sealed(1)/Other(2) Components		Drainfields Sand Mounds		Notes
Public or Multi-use Wells	-	NA	100	X	100	X	
Other Wells	-	NA	50	X	100	X	
Suction Lines	-	NA	50	X	100	X	
Cisterns	-	NA	25	X	50	X	
Roadcuts/Escarpments	-	NA	10 (3)	X	25	X	
Slopes > 25% (4)	-	NA	10 (3)	X	25	X	
Property Boundaries	10	10	10	X	10	X	
Subsurface Drains	-	NA	10	X	10	X	
Water Lines	-	NA	10	X	10	X	
Drainfields / Sand Mounds	100	100	10	X	-	NA	
Foundation Walls	-	NA	10	X	10	X	
Surface Water, Springs	100	100	50	X	100	X	
Floodplains	10	10	0(1)/100(2)	X	100	X	

(1) Sealed Components include sewer lines, sewer mains, septic tanks, grease traps, dosing tanks, and pumping chambers.
(2) Other components include intermittent and recirculating sand filters, package plants and evapotranspiration systems
(3) Sewer lines and mains may be located in roadways and on steep slopes if they are safeguarded against damage.
(4) Down-gradient of the sealed component, other component, or drainfield/sand mound.

Project Name: Blue Creek Subdivision Feasibility | Project No.: 22003448.00

Client Name: Tungsten Holdings Inc | Lot No.: N/A

Site Evaluator: Dan Fultz | County: Sanders | Date: 10/4/2022

Soil Profile - SP No: SP- 7

Depth (in)	Thick (in)	Structure	Stoniness	Texture	Color	Moisture	Length of Ribbon	Other Comments*
0 - 5	5	Forest Duff & Log Litter	N/A	N/A	N/A	N/A	N/A	
5 - 18	13	Granular	5% Gravel	Loam	Light Brown	Dry	<1"	
18 - 75	57	Structureless	55-60% Gravel	Very Gravelly Sandy Loam	Tan	Dry	<1"	Some Boulders
75 - 110	35	Structureless	30% Gravel	Gravelly Loam	Dark Brown	Moist	<1"	
								No Limiting Layer Observed

* Include information such as roots present, apparent high ground water level, actual water level, bedrock, layer consistency, color variations, or any other information as appropriate.

Site Factors and Setback Distances

Vegetation: Forested | Slope: | Flooding Risk:

Notes: Partly Cobbly | SP Application Rate: gpd/ft2

	Water Supply Wells		Sealed(1)/Other(2) Components		Drainfields Sand Mounds		Notes
Public or Multi-use Wells	-	NA	100	X	100	X	
Other Wells	-	NA	50	X	100	X	
Suction Lines	-	NA	50	X	100	X	
Cisterns	-	NA	25	X	50	X	
Roadcuts/Escarpments	-	NA	10 (3)	X	25	X	
Slopes > 25% (4)	-	NA	10 (3)	X	25	X	
Property Boundaries	10	10	10	X	10	X	
Subsurface Drains	-	NA	10	X	10	X	
Water Lines	-	NA	10	X	10	X	
Drainfields / Sand Mounds	100	100	10	X	-	NA	
Foundation Walls	-	NA	10	X	10	X	
Surface Water, Springs	100	100	50	X	100	X	
Floodplains	10	10	0(1)/100(2)	X	100	X	

(1) Sealed Components include sewer lines, sewer mains, septic tanks, grease traps, dosing tanks, and pumping chambers.
(2) Other components include intermittent and recirculating sand filters, package plants and evapotranspiration systems
(3) Sewer lines and mains may be located in roadways and on steep slopes if they are safeguarded against damage.
(4) Down-gradient of the sealed component, other component, or drainfield/sand mound.

Project Name: Blue Creek Subdivision Feasibility | Project No.: 22003448.00

Client Name: Tungsten Holdings Inc | Lot No.: N/A

Site Evaluator: Dan Fultz | County: Sanders | Date: 10/4/2022

Soil Profile - SP No: SP- 8

Depth (in)	Thick (in)	Structure	Stoniness	Texture	Color	Moisture	Length of Ribbon	Other Comments*
0 - 8	8	Forest Duff & Log Litter	N/A	N/A	N/A	N/A	N/A	
8 - 22	14	Granular	5% Gravel	Loam	Light Brown	Dry	<1"	
22 - 75	53	Structureless	55-60% Gravel	Very Gravelly Sandy Loam	Tan	Dry	<1"	
75 - 116	41	Massive	N/A	Silt Loam	Dark Brown	Somewhat Moist	2"	Extent of Roots; Potential Limiting Layer

* Include information such as roots present, apparent high ground water level, actual water level, bedrock, layer consistency, color variations, or any other information as appropriate.

Site Factors and Setback Distances

Vegetation: Forested | Slope: | Flooding Risk:

Notes: Partly Cobbly | SP Application Rate: gpd/ft2

	Water Supply Wells		Sealed(1)/Other(2) Components		Drainfields Sand Mounds		Notes
Public or Multi-use Wells	-	NA	100	X	100	X	
Other Wells	-	NA	50	X	100	X	
Suction Lines	-	NA	50	X	100	X	
Cisterns	-	NA	25	X	50	X	
Roadcuts/Escarpments	-	NA	10 (3)	X	25	X	
Slopes > 25% (4)	-	NA	10 (3)	X	25	X	
Property Boundaries	10	10	10	X	10	X	
Subsurface Drains	-	NA	10	X	10	X	
Water Lines	-	NA	10	X	10	X	
Drainfields / Sand Mounds	100	100	10	X	-	NA	
Foundation Walls	-	NA	10	X	10	X	
Surface Water, Springs	100	100	50	X	100	X	
Floodplains	10	10	0(1)/100(2)	X	100	X	

(1) Sealed Components include sewer lines, sewer mains, septic tanks, grease traps, dosing tanks, and pumping chambers.
(2) Other components include intermittent and recirculating sand filters, package plants and evapotranspiration systems
(3) Sewer lines and mains may be located in roadways and on steep slopes if they are safeguarded against damage.
(4) Down-gradient of the sealed component, other component, or drainfield/sand mound.

Project Name: Blue Creek Subdivision Feasibility | Project No.: 22003448.00

Client Name: Tungsten Holdings Inc | Lot No.: N/A

Site Evaluator: Dan Fultz | County: Sanders | Date: 10/4/2022

Soil Profile - SP No: SP- 9

Depth (in)	Thick (in)	Structure	Stoniness	Texture	Color	Moisture	Length of Ribbon	Other Comments*
0 - 5	5	Forest Duff	N/A	N/A	N/A	N/A	N/A	
5 - 14	9	Granular	5% Gravel	Loam	Light Brown	Dry	<1"	
14 - 67	53	Structureless	55-60% Gravel	Very Gravelly Fine Sandy Loam	Tan	Dry	<1"	
67 - 102	35	Structureless	Some Boulders/ Clay clumps	Loamy Sand	Dark Brown	Somewhat Moist	<1"	Moist from GW monitor
								No Limiting Layer Observed

* Include information such as roots present, apparent high ground water level, actual water level, bedrock, layer consistency, color variations, or any other information as appropriate.

Site Factors and Setback Distances

Vegetation: Forested | Slope: | Flooding Risk:

Notes: Partly Cobbly | SP Application Rate: gpd/ft2

	Water Supply Wells		Sealed(1)/Other(2) Components		Drainfields Sand Mounds		Notes
Public or Multi-use Wells	-	NA	100	X	100	X	
Other Wells	-	NA	50	X	100	X	
Suction Lines	-	NA	50	X	100	X	
Cisterns	-	NA	25	X	50	X	
Roadcuts/Escarpments	-	NA	10 (3)	X	25	X	
Slopes > 25% (4)	-	NA	10 (3)	X	25	X	
Property Boundaries	10	10	10	X	10	X	
Subsurface Drains	-	NA	10	X	10	X	
Water Lines	-	NA	10	X	10	X	
Drainfields / Sand Mounds	100	100	10	X	-	NA	
Foundation Walls	-	NA	10	X	10	X	
Surface Water, Springs	100	100	50	X	100	X	
Floodplains	10	10	0(1)/100(2)	X	100	X	

(1) Sealed Components include sewer lines, sewer mains, septic tanks, grease traps, dosing tanks, and pumping chambers.
(2) Other components include intermittent and recirculating sand filters, package plants and evapotranspiration systems
(3) Sewer lines and mains may be located in roadways and on steep slopes if they are safeguarded against damage.
(4) Down-gradient of the sealed component, other component, or drainfield/sand mound.

Daniel D. Fultz

From: Shawn Sorenson <ssorenson@co.sanders.mt.us>
Sent: Monday, July 31, 2023 8:29 AM
To: Daniel D. Fultz
Subject: RE: Blue Creek Subdivision - Groundwater Monitoring Results

I agree with your conclusion. This happens frequently in areas with high precip and the pipe sits over-winter.

From: Daniel D. Fultz <Daniel.D.Fultz@imegcorp.com>
Sent: Monday, July 31, 2023 8:13 AM
To: Shawn Sorenson <ssorenson@co.sanders.mt.us>; projects@tungstenholdings.com
Cc: Bradley Fitchett <Brad.Fitchett@elkcreekcontracting.com>
Subject: RE: Blue Creek Subdivision - Groundwater Monitoring Results

Shawn,

I think from Brad and Crawfords' first hand accounts, that the settling around the pipe combined with the snow melt and rain runoff going into this depression, were a contributing factor of seeing water in the hole. With all other holes being dry it seems like this may not be groundwater. Either way, the hole had passing results for a shallow capped system. I think that is how we will proceed unless you feel strongly about this.

Dan Fultz, Registered Sanitarian
IMEG | Civil Designer

1817 South Ave West | Suite A | Missoula, MT 59801

(406) 721-0142 | phone
(406) 532-0246 | single reach
(814) 720-9312 | mobile
(406) 721-5224 | fax
Daniel.D.Fultz@imegcorp.com

website | vCard | map | regional news

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From: Shawn Sorenson <ssorenson@co.sanders.mt.us>
Sent: Friday, July 28, 2023 7:13 AM
To: Daniel D. Fultz <Daniel.D.Fultz@imegcorp.com>; projects@tungstenholdings.com
Cc: Bradley Fitchett <Brad.Fitchett@elkcreekcontracting.com>
Subject: RE: Blue Creek Subdivision - Groundwater Monitoring Results

Hello Dan,
Thank you for the data. The results look acceptable.

Regarding your last sentence, are you saying the rain and snow melt was the cause of settling and the possible groundwater reading, as opposed to actual groundwater?

Thanks,

Shawn

Shawn Sorenson
Sanders County Environmental Health
PO Box 519
Thompson Falls, MT 59873
(406) 827-6909 (w)
(907) 738-4268 (c)

From: Daniel D. Fultz <Daniel.D.Fultz@imegcorp.com>
Sent: Thursday, July 27, 2023 7:28 PM
To: Shawn Sorenson <ssorenson@co.sanders.mt.us>; projects@tungstenholdings.com
Cc: Bradley Fitchett <Brad.Fitchett@elkcreekcontracting.com>
Subject: RE: Blue Creek Subdivision - Groundwater Monitoring Results

Shawn,

Attached are the groundwater monitoring results recorded by Brad Fitchett for the Blue Creek Subdivision site. Also attached is a photo of SP8. This is the only hole that showed any type of water and this photo was taken on the first day of readings. As you can see this hole settled quite a bit with snow melt going directly into the hole. We believe this was the direct result of the groundwater found in this hole.

Please confirm these are acceptable results.

Dan Fultz, Registered Sanitarian
IMEG | Civil Designer

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(814) 720-9312 | mobile
(406) 721-5224 | fax
Daniel.D.Fultz@imegcorp.com

website | vCard | map | regional news

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From: Shawn Sorenson <ssorenson@co.sanders.mt.us>
Sent: Tuesday, March 7, 2023 7:12 AM
To: projects@tungstenholdings.com
Cc: Daniel D. Fultz <Daniel.D.Fultz@imegcorp.com>
Subject: RE: Blue Creek Subdivision - Groundwater Monitoring

Hello Crawford,
May – June is typical, but varies by location. Our groundwater potential definitely varies by site, and whether potential for ground water is influenced by the Clark Fork River, more local sources, or a combination. We normally try to get monitoring tubes in the ground by April and determine testing frequency by what we are seeing (hopefully not seeing) in the pipe.

For example, we saw an April 16th peek in groundwater in three test holes on Wendell and Lisa Beachy's property up Whitepine Creek last year. Not related to the creek or the river.

Thanks,

Shawn

Shawn Sorenson
Sanders County Environmental Health
PO Box 519
Thompson Falls, MT 59873
(406) 827-6909 (w)
(907) 738-4268 (c)

From: projects@tungstenholdings.com <projects@tungstenholdings.com>
Sent: Friday, March 3, 2023 4:46 PM
To: Shawn Sorenson <ssorenson@co.sanders.mt.us>
Cc: Daniel.D.Fultz@imegcorp.com
Subject: Blue Creek Subdivision - Groundwater Monitoring

Hello Shawn,

I'm following up on our Blue Creek Subdivision project. Last fall when soil profiles were done, it was determined that groundwater monitoring is needed for the property. We want to be sure to record 2 weeks before and after ground water peak, and would like to get those visits on our schedule. To be certain that we are following all procedures completely, could you clarify when ground water peak is?

Thanks!

Crawford Dinning
Tungsten Holdings
406-293-3714

22003448.00 Tungsten Holdings Blue Creek
Groundwater Monitoring - IMEG 2023

PASSING
Passsing with 4' = 48"

		Mon. Well #1a			Mon. Well #2		
	Height from EG to Top of Pipe (ft)	20" from Existy Grad to top of pipe			0" from EG to top of Pipe "Flush"		
	Total Pipe (ft)	10.00			10.00		
Initials	Date	GW to top of pipe (ft)	GW to EG (ft)	Soil Condition	GW to top of pipe (ft)	GW to EG (ft)	Soil Condition
BF	4/3/23	No Water	0.00	Snow on Sur.	No Water	0.00	Snow on Sur.
BF	4/12/23	No Water	0.00	Slightly Damp	No Water	0.00	Slightly Damp
BF	4/18/23	No Water	0.00	Rain/Saturated	"	0.00	Rain/Saturated
BF	4/26/23	No Water	0.00	Dry	"	0.00	Dry
BF	5/1/23	No water	0.00	Dry	"	0.00	Dry
BF	5/7/23	"	0.00	Rain/Saturated	"	0.00	Rain/Saturated
BF	5/15/23	"	0.00	Dry	"	0.00	Dry
BF	5/23/23	"	0.00	Dry	"	0.00	Dry
BF	5/29/23	"	0.00	Dry	"	0.00	Dry
BF	6/19/23	No Water	0.00	Dry	No Water	0.00	Dry
			0.00			0.00	

22003448.00 Tungsten Holdings Blue Creek
Groundwater Monitoring - IMEG 2023

PASSING
Passsing with 4' = 48"

		Mon. Well #3			Mon. Well #4		
	Height from EG to Top of Pipe (ft)	11" from EG to top of pipe			11" from EG to top of Pipe		
	Total Pipe (ft)	10.00			10.00		
Initials	Date	GW to top of pipe (ft)	GW to EG (ft)	Soil Condition	GW to top of pipe (ft)	GW to EG (ft)	Soil Condition
BF	4/3/23	No Water	0.00	Snow on Sur.	No Water	0.00	Snow on Sur
BF	4/12/23	No Water	0.00	Slightly Damp	No Water	0.00	Slightly Damp
BF	4/18/23	No Water	0.00	Rain/Saturated	No Water	0.00	Rain/Saturated
BF	4/26/23	No Water	0.00	Dry	No Water	0.00	Dry
BF	5/1/23	No Water	0.00	Dry	No Water	0.00	Dry
BF	5/7/23	"	0.00	Rain/Saturated	"	0.00	Rain/Saturated
BF	5/15/23	"	0.00	Dry	"	0.00	Dry
BF	5/23/23	"	0.00	Dry	"	0.00	Dry
BF	5/29/23	"	0.00	Dry	"	0.00	Dry
BF	6/19/23	No Water	0.00	Dry	No Water	0.00	Dry
			0.00			0.00	

22003448.00 Tungsten Holdings Blue Creek
Groundwater Monitoring - IMEG 2023

PASSING
Passsing with 4' = 48"

		Mon. Well #5			Mon. Well #6		
	Height from EG to Top of Pipe (ft)	13" from Existg Ground to top of pipe.			17" from Existg Ground to top of pipe		
	Total Pipe (ft)	10.00			10.00		
Initials	Date	GW to top of pipe (ft)	GW to EG (ft)	Soil Condition	GW to top of pipe (ft)	GW to EG (ft)	Soil Condition
BF	4/3/23	No Water	0.00	Snow on Sur.	No Water	0.00	Snow on Sur.
BF	4/12/23	No Water	0.00	Slightly Damp	No Water	0.00	Slightly Damp
BF	4/18/23	"	0.00	Rain/Saturated	"	0.00	Rain/Saturated
BF	4/26/23	"	0.00	Dry	"	0.00	Dry
BF	5/1/23	"	0.00	Dry	"	0.00	Dry
BF	5/7/23	"	0.00	Rain/Saturated	"	0.00	Rain/Saturated
BF	5/15/23	"	0.00	Dry	"	0.00	Dry
BF	5/23/23	"	0.00	Dry	"	0.00	Dry
BF	5/29/23	"	0.00	Dry	"	0.00	Dry
BF	6/19/23	No Water	0.00	Dry	No Water	0.00	Dry
			0.00			0.00	

22003448.00 Tungsten Holdings Blue Creek
Groundwater Monitoring - IMEG 2023

PASSING
Passsing with 4' = 48"

		Mon. Well #7			Mon. Well #8		
	Height from EG to Top of Pipe (ft)	6" From Existing Groud to top of Pipe			0" Flush		
	Total Pipe (ft)	10.00			10.00		
Initials	Date	GW to top of pipe (ft)	GW to EG (ft)	Soil Condition	GW to top of pipe (ft)	GW to EG (ft)	Soil Condition
BF	4/3/23	No Water	0.00	Snow on Sur	65" GW to top	0.00	Snow on Sur.
BF	4/12/23	No Water	0.00	Slightly Damp	74" GW to top	0.00	Slightly Damp
BF	4/18/23	"	0.00	Rain/Saturated	81" GW to Top	0.00	Rain/Saturated
BF	4/24/23	"	0.00	Dry	96" GW to Top	0.00	Dry
BF	5/1/23	"	0.00	Dry	109" GW to Top	0.00	Dry
BF	5/7/23	"	0.00	Rain/Saturated	No Water	0.00	Rain/Saturated
BF	5/15/23	"	0.00	Dry	No Water	0.00	Dry
BF	5/23/23	"	0.00	Dry	No Water	0.00	Dry
BF	5/29/23	"	0.00	Dry	"	0.00	Dry
BF	6/19/23	No Water	0.00	Dry	No Water	0.00	Dry
			0.00			0.00	

22003448.00 Tungsten Holdings Blue Creek
Groundwater Monitoring - IMEG 2023

PASSING
Passsing with 4' = 48"

		Mon. Well #9					
	Height from EG to Top of Pipe (ft)	12" EG to Top of Pipe					
	Total Pipe (ft)	10.00			10.00		
Initials	Date	GW to top of pipe (ft)	GW to EG (ft)	Soil Condition	GW to top of pipe (ft)	GW to EG (ft)	Soil Condition
BF	4/3/23	No Water	0.00	Snow on Sur	[redacted]	0.00	[redacted]
BF	4/12/23	No Water	0.00	Slight Damp		0.00	
BF	4/19/23	"	0.00	Rain/Saturated		0.00	
BF	4/26/23	"	0.00	Dry		0.00	
BF	5/1/23	"	0.00	Dry		0.00	
BF	5/7/23	"	0.00	Rain/Saturated		0.00	
BF	5/15/23	"	0.00	Dry		0.00	
BF	5/23/23	"	0.00	Dry		0.00	
BF	5/29/23	"	0.00	Dry		0.00	
BF	6/19/23	No Water	0.00	Dry		0.00	
			0.00			0.00	

APPENDIX B

1. Sampled Well Log
2. Well Log Vicinity Map
3. Well Logs in Vicinity
4. GWIC Summary Report
5. Water Sample Results
6. Well Location Exhibit
7. Non-Degradation Analysis

MONTANA WELL LOG REPORT

This well log reports the activities of a licensed Montana well driller, serves as the official record of work done within the borehole and casing, and describes the amount of water encountered. This report is compiled electronically from the contents of the Ground Water Information Center (GWIC) database for this site. Acquiring water rights is the well owner's responsibility and is NOT accomplished by the filing of this report.

Other Options

Go to GWIC website
Plot this site in State Library Digital Atlas
Plot this site in Google Maps

Site Name: WELCHER ALICIA & CHRISTOPHER
GWIC Id: 257791

Section 1: Well Owner(s)

1) WELCHER, ALICIA AND CHRISTOPHER (MAIL)
15920 VONSASTEN RD.
TRACY CA 95304 [08/31/2010]
2) WELCHER, ALICIA AND CHRISTOPHER (WELL)
150 HWY 200
HERON MT 59844 [08/31/2010]

Section 2: Location

Township	Range	Section	Quarter Sections
27N	34W	20	

County: SANDERS
Geocode:

Latitude	Longitude	Geomethod	Datum
48.088162	-116.007028	TRS-SEC	NAD83

Ground Surface Altitude: **Ground Surface Method:** **Datum:** **Date:**

Addition: **Block:** **Lot:**

Section 3: Proposed Use of Water

DOMESTIC (1)

Section 4: Type of Work

Drilling Method: ROTARY
Status: NEW WELL

Section 5: Well Completion Date

Date well completed: Tuesday, August 31, 2010

Section 6: Well Construction Details

Borehole dimensions

From	To	Diameter
0	25	10
25	160	6

Casing

From	To	Diameter	Wall Thickness	Pressure Rating	Joint	Type
2	160	6	0.25		WELDED	STEEL

Completion (Perf/Screen)

From	To	Diameter	# of Openings	Size of Openings	Description
160	160	6			OPEN BOTTOM

Annular Space (Seal/Grout/Packer)

From	To	Description	Cont. Fed?
0	25	BENTONITE	

Section 7: Well Test Data

Total Depth: 160
Static Water Level: 130
Water Temperature:

Air Test *

20 gpm with drill stem set at 155 feet for 1 hours.
Time of recovery 0.08 hours.
Recovery water level 130 feet.
Pumping water level _ feet.

** 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.*

Section 8: Remarks

Section 9: Well Log

Geologic Source

Unassigned

From	To	Description
0	30	GRAVEL, BOULDERS CLAY
30	135	GRAVEL, DIRT
135	160	GRAVEL, WATER

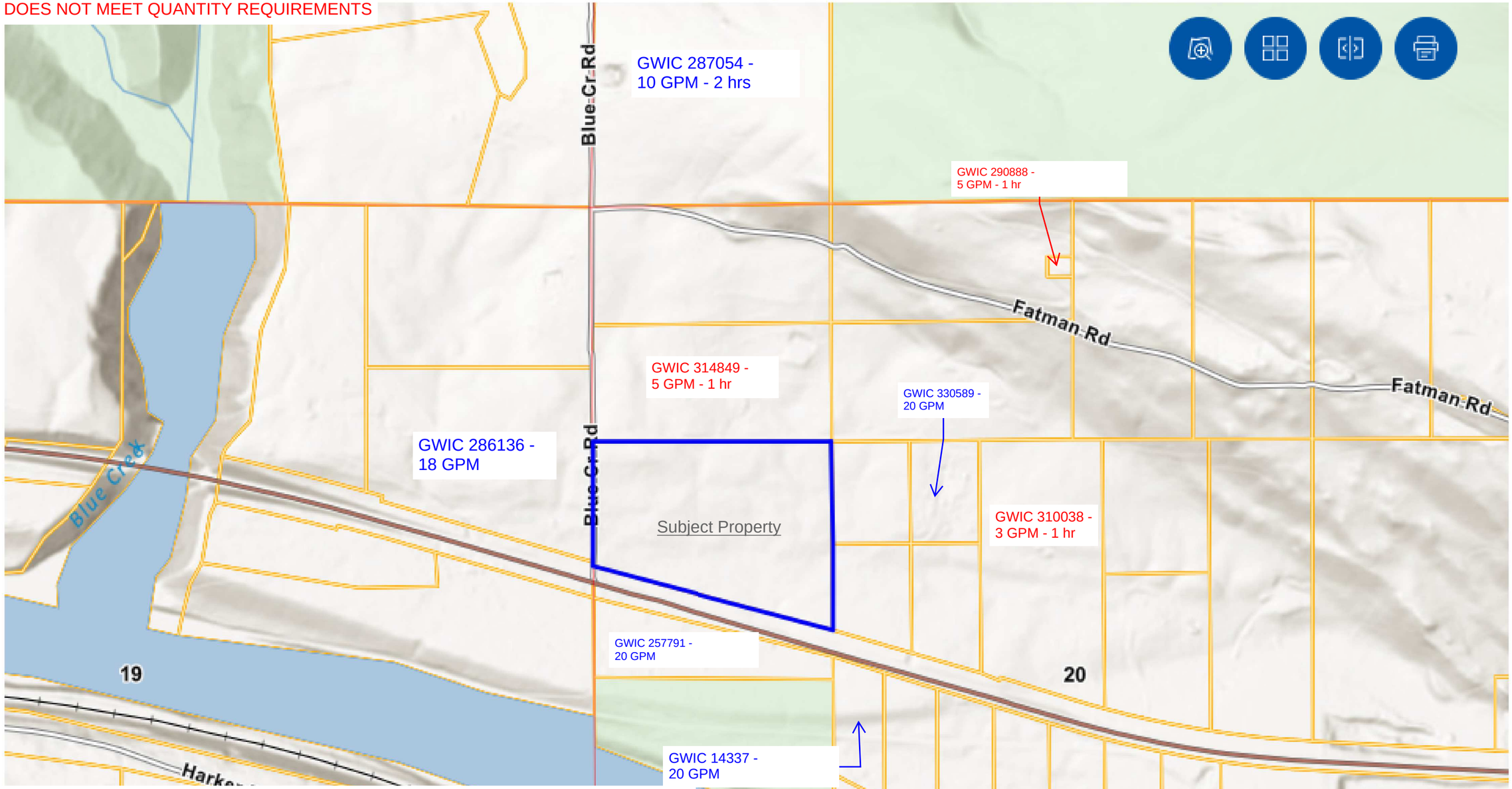
Driller Certification

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: EDWARD A. MINDEN
Company:
License No: WWC-561
Date Completed: 8/31/2010

WELL LOG VICINITY MAP
CREATED 7/25/2024
BY: IMEG - DAN FULTZ, R.S.
MEETS QUANTITY REQUIREMENTS
DOES NOT MEET QUANTITY REQUIREMENTS

35-3819-20-2-01-20-0000
MT HIGHWAY 200 HERON, MT 59844



DEQ Circular 20 - Reference per 2.1.1

a. Minimum Flows
   i. For each individual water system, the applicant must provide evidence of a sustained yield of at least:
      a. Ten (10) gallons per minute over a one-hour period; or
      b. Six (6) gallons per minute over a two-hour period; or
      c. Four (4) gallons per minute over a four-hour period.

MONTANA WELL LOG REPORT

This well log reports the activities of a licensed Montana well driller, serves as the official record of work done within the borehole and casing, and describes the amount of water encountered. This report is compiled electronically from the contents of the Ground Water Information Center (GWIC) database for this site. Acquiring water rights is the well owner's responsibility and is NOT accomplished by the filing of this report.

Other Options

Return to menu
Plot this site in State Library Digital Atlas
Plot this site in Google Maps
View scanned well log (7/9/2008 4:32:32 PM)

Site Name: ROYLANCE BILL
GWIC Id: 143307

Section 1: Well Owner(s)

1) ROYLANCE, BILL (MAIL)
267 MILLCREEK RD
SHERIDAN MT 59749 [05/31/1994]

Section 2: Location

Township	Range	Section	Quarter Sections
27N	34W	20	NE¼ SW¼

County
SANDERS

Geocode

Latitude	Longitude	Geomethod	Datum
48.086325	-116.009786	TRS-SEC	NAD83

Ground Surface Altitude **Ground Surface Method** **Datum** **Date**

Addition	Block	Lot
ELK TERRACE		1

Section 3: Proposed Use of Water

DOMESTIC (1)

Section 4: Type of Work

Drilling Method: CABLE
Status: NEW WELL

Section 5: Well Completion Date

Date well completed: Tuesday, May 31, 1994

Section 6: Well Construction Details

Borehole dimensions

From	To	Diameter
0	100	6

Casing

From	To	Diameter	Wall Thickness	Pressure Rating	Joint	Type
0	100	6				STEEL

Completion (Perf/Screen)

From	To	Diameter	# of Openings	Size of Openings	Description
100	100	6	1	6	OPEN BOTTOM

Annular Space (Seal/Grout/Packer)

From	To	Description	Cont. Fed?
0	100	BENTONITE	Y

Section 7: Well Test Data

Total Depth: 100
Static Water Level: 72
Water Temperature:

Pump Test *

Depth pump set for test _ feet.
20 gpm pump rate with _ feet of drawdown after 5 hours of pumping.
Time of recovery _ hours.
Recovery water level _ feet.
Pumping water level 72 feet.

** 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.*

Section 8: Remarks

Section 9: Well Log

Geologic Source
Unassigned

From	To	Description
0	1	TOPSOIL
1	63	BOULDER GRAVEL CLAY
63	100	GRAVEL

Driller 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: ROBERT L. VETTER
Company: RL VETTER CONTRACTING
License No: WWC-549
Date Completed: 5/31/1994

MONTANA WELL LOG REPORT

This well log reports the activities of a licensed Montana well driller, serves as the official record of work done within the borehole and casing, and describes the amount of water encountered. This report is compiled electronically from the contents of the Ground Water Information Center (GWIC) database for this site. Acquiring water rights is the well owner's responsibility and is NOT accomplished by the filing of this report.

Other Options

Return to menu
Plot this site in State Library Digital Atlas
Plot this site in Google Maps
View hydrograph for this site
View field visits for this site
View water quality for this site

Site Name: COMPTON, CHRIS
GWIC Id: 286136

Section 1: Well Owner(s)

1) COMPTON, CHRIS (MAIL)
127 HWY 200
HERON MONTANA 59844 [08/12/2015]
2) COMPTON, CHRIS (WELL)
127 MT HWY 200
HERON MONTANA 59844 [08/12/2015]

Section 2: Location

Township	Range	Section	Quarter Sections
27N	34W	19	NW¼ NE¼ SE¼ NE¼

County
SANDERS

Geocode

Latitude	Longitude	Geomethod	Datum
48.091052	-116.020002	DIGITALMAP	WGS84

Ground Surface Altitude	Ground Surface Method	Datum	Date
2361.52	LIDAR	NAVD88	8/4/2023

Measuring Point Altitude	MP Method	Datum	Date Applies
2362.77	LIDAR	NAVD88	11/1/2021 2:37:00 PM

Addition **Block** **Lot**

Section 3: Proposed Use of Water

DOMESTIC (1)

Section 4: Type of Work

Drilling Method: ROTARY
Status: NEW WELL

Section 5: Well Completion Date

Date well completed: Wednesday, August 12, 2015

Section 6: Well Construction Details

Borehole dimensions

From	To	Diameter
0	197	6

Casing

From	To	Diameter	Wall Thickness	Pressure Rating	Joint	Type
-2	197	6	0.25		WELDED	A53B STEEL

Completion (Perf/Screen)

From	To	Diameter	# of Openings	Size of Openings	Description
197	197	6			OPEN BOTTOM

Annular Space (Seal/Grout/Packer)

From	To	Description	Cont. Fed?
0	18	BENTONITE	Y

Section 7: Well Test Data

Total Depth: 197
Static Water Level: 158
Water Temperature:

Air Test *

18 gpm with drill stem set at 195 feet for 2 hours.
Time of recovery 0.08 hours.
Recovery water level 158 feet.
Pumping water level _ feet.

** 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.*

Section 8: Remarks

Section 9: Well Log

Geologic Source
112DRFT - GLACIAL DRIFT

From	To	Description
0	30	DIRT, CLAY, GRAVEL
30	160	DRY GRAVEL, COBBLE
160	197	GRAVEL, SAND, WATER

Driller 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: SCOTT HITTLE
Company: UNIVERSAL DRILLING
License No: WWC-645
Date Completed: 8/12/2015

MONTANA WELL LOG REPORT

This well log reports the activities of a licensed Montana well driller, serves as the official record of work done within the borehole and casing, and describes the amount of water encountered. This report is compiled electronically from the contents of the Ground Water Information Center (GWIC) database for this site. Acquiring water rights is the well owner's responsibility and is NOT accomplished by the filing of this report.

Other Options

Go to GWIC website
Plot this site in State Library Digital Atlas
Plot this site in Google Maps
View scanned well log (5/12/2016 9:41:50 AM)

Site Name: WILLIAMS, CLARK
GWIC Id: 287054

Section 1: Well Owner(s)

1) WILLIAMS, CLARK (MAIL)
56 BLUE CREEK RD.
HERON MT 59844 [03/15/2016]

Section 2: Location

Township	Range	Section	Quarter Sections
27N	34W	20	NW¼ NW¼ NW¼ NW¼

County
SANDERS

Geocode

Latitude	Longitude	Geomethod	Datum
48.09504886945	-116.017369803	TRS-SEC	NAD83

Ground Surface Altitude **Ground Surface Method** **Datum** **Date**

Addition **Block** **Lot**

Section 3: Proposed Use of Water

DOMESTIC (1)

Section 4: Type of Work

Drilling Method:
Status: NEW WELL

Section 5: Well Completion Date

Date well completed: N/A

Section 6: Well Construction Details

Borehole dimensions

From	To	Diameter
0	0	6

Casing

From	To	Diameter	Wall Thickness	Pressure Rating	Joint	Type
0	0	6	0.25			STEEL

There are no completion records assigned to this well.

Annular Space (Seal/Grout/Packer)

There are no annular space records assigned to this well.

Section 7: Well Test Data

Total Depth:
Static Water Level: 78
Water Temperature:

Pump Test *

Depth pump set for test 180 feet.
10 gpm pump rate with 58 feet of drawdown after 2 hours of pumping.
Time of recovery 0.25 hours.
Recovery water level 78 feet.
Pumping water level _ feet.

** 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.*

Section 8: Remarks

ORIGINAL DRILLER NOT KNOWN. THIS LOG IS FROM A CERTIFICATION DONE 3/15/2016.

Section 9: Well Log

Geologic Source

Unassigned

Lithology Data

There are no lithologic details assigned to this well.

Driller 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: PHILIP LEWIS
Company: LEWIS DRILLING
License No: WWC-453
Date Completed:

MONTANA WELL LOG REPORT

This well log reports the activities of a licensed Montana well driller, serves as the official record of work done within the borehole and casing, and describes the amount of water encountered. This report is compiled electronically from the contents of the Ground Water Information Center (GWIC) database for this site. Acquiring water rights is the well owner's responsibility and is NOT accomplished by the filing of this report.

Other Options

Go to GWIC website
Plot this site in State Library Digital Atlas
Plot this site in Google Maps

Site Name: HAYDEN, CHARLES
GWIC Id: 290888

Section 1: Well Owner(s)

1) HAYDEN, CHARLES (WELL)
27 HILLSIDE LANE
HERON MT 59844 [04/26/2016]

Section 2: Location

Township	Range	Section	Quarter Sections
27N	34W	20	SW¼ SW¼

County

SANDERS

Geocode

Latitude	Longitude	Geomethod	Datum
48.094444	-116.006944	NAV-GPS	NAD27

Ground Surface Altitude **Ground Surface Method** **Datum** **Date**

Addition **Block** **Lot**

Section 3: Proposed Use of Water

DOMESTIC (1)

Section 4: Type of Work

Drilling Method: ROTARY
Status: NEW WELL

Section 5: Well Completion Date

Date well completed: Tuesday, April 26, 2016

Section 6: Well Construction Details

Borehole dimensions

From	To	Diameter
0	400	6

Casing

From	To	Diameter	Wall Thickness	Pressure Rating	Joint	Type
-2	40	6	0.25		WELDED	A53A STEEL
20	400	4		200.0	GLUED	PVC-SCHED 40

Completion (Perf/Screen)

From	To	Diameter	# of Openings	Size of Openings	Description
380	400	4	20	1/8	SAW SLOTS

Annular Space (Seal/Grout/Packer)

From	To	Description	Cont. Fed?
0	25	BENTONITE	Y

Section 7: Well Test Data

Total Depth: 400
Static Water Level: 40
Water Temperature:

Air Test *

5 gpm with drill stem set at 400 feet for 1 hours.
Time of recovery 3 hours.
Recovery water level 40 feet.
Pumping water level _ feet.

** 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.*

Section 8: Remarks

Section 9: Well Log

Geologic Source

Unassigned

From	To	Description
0	20	SOFT SHALE
20	40	MEDIUM SHALE
40	200	SHALE WITH CRACKS 3GPM
200	400	SHALE WITH CRACKS 5GPM

Driller 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: SCOTT HITTLE
Company: UNIVERSAL DRILLING
License No: WWC-645
Date Completed: 4/26/2016

MONTANA WELL LOG REPORT

This well log reports the activities of a licensed Montana well driller, serves as the official record of work done within the borehole and casing, and describes the amount of water encountered. This report is compiled electronically from the contents of the Ground Water Information Center (GWIC) database for this site. Acquiring water rights is the well owner's responsibility and is NOT accomplished by the filing of this report.

Other Options

Return to menu
Plot this site in State Library Digital Atlas
Plot this site in Google Maps
View hydrograph for this site
View field visits for this site
View scanned well log (10/15/2020 3:07:36 PM)

Site Name: BURGESS, ANDREW
GWIC Id: 310038

Section 1: Well Owner(s)

1) BURGESS, ANDREW (MAIL)
201 MT HWY 200
HERON MT 59844 [04/04/2020]

Section 2: Location

Township	Range	Section	Quarter Sections
27N	34W	20	NE¼ SE¼ SE¼ NW¼

County: SANDERS
Geocode:

Latitude	Longitude	Geomethod	Datum
48.089402	-116.007398	DIGITALMAP	WGS84

Ground Surface Altitude	Ground Surface Method	Datum	Date
2316.89	LIDAR	NAVD88	8/4/2023

Measuring Point Altitude	MP Method	Datum	Date Applies
2318.89	LIDAR	NAVD88	10/5/2021 5:00:00 PM

Addition: **Block:** **Lot:**

Section 3: Proposed Use of Water

DOMESTIC (1)

Section 4: Type of Work

Drilling Method: ROTARY
Status: DEEPENED

Section 5: Well Completion Date

Date well completed: Saturday, April 4, 2020

Section 6: Well Construction Details

Borehole dimensions

From	To	Diameter
222	425	5.5

Casing

From	To	Diameter	Wall Thickness	Pressure Rating	Joint	Type
-5	420	4		200.0		PVC

Completion (Perf/Screen)

From	To	Diameter	# of Openings	Size of Openings	Description
400	420	4	30	1/4"X4"	SAW SLOTS

Annular Space (Seal/Grout/Packer)

There are no annular space records assigned to this well.

Section 7: Well Test Data

Total Depth: 420
Static Water Level: 128
Water Temperature:

Air Test *

3 gpm with drill stem set at 415 feet for 1 hours.
Time of recovery _ hours.
Recovery water level _ feet.
Pumping water level _ feet.

** 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.*

Section 8: Remarks

Section 9: Well Log

Geologic Source

400BELT - BELT SUPERGROUP

From	To	Description
222	420	GRAY SHALE

Driller 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: THOMAS RICHARDSON
Company: H2O WELL SERVICE INC
License No: WWC-580
Date Completed: 4/4/2020

MONTANA WELL LOG REPORT

This well log reports the activities of a licensed Montana well driller, serves as the official record of work done within the borehole and casing, and describes the amount of water encountered. This report is compiled electronically from the contents of the Ground Water Information Center (GWIC) database for this site. Acquiring water rights is the well owner's responsibility and is NOT accomplished by the filing of this report.

Other Options

Go to GWIC website
Plot this site in State Library Digital Atlas
Plot this site in Google Maps

Site Name: RATZLAFF, KALVIN AND SHELBY
GWIC Id: 314849

Section 1: Well Owner(s)

1) RATZLAFF, KALVIN AND SHELBY (MAIL)
16 BLUE CREEK RD
HERON MT 59844 [08/17/2020]

Section 2: Location

Township	Range	Section	Quarter Sections
27N	34W	20	SW¼ SW¼

County

LINCOLN

Latitude	Longitude	Geomethod	Datum
48.093056	-116.013333	NAV-GPS	NAD27

Ground Surface Altitude **Ground Surface Method** **Datum** **Date**

Addition **Block** **Lot**

Section 3: Proposed Use of Water

DOMESTIC (1)

Section 4: Type of Work

Drilling Method: ROTARY
Status: NEW WELL

Section 5: Well Completion Date

Date well completed: Monday, August 17, 2020

Section 6: Well Construction Details

Borehole dimensions

From	To	Diameter
0	400	6

Casing

From	To	Diameter	Wall Thickness	Pressure Rating	Joint	Type
-2	140	6.3	0.25		WELDED	A53A STEEL
120	400	4		200.0	BELL	PVC-SCHED 40

Completion (Perf/Screen)

From	To	Diameter	# of Openings	Size of Openings	Description
380	400	4	20	1/8	SAW SLOTS

Annular Space (Seal/Grout/Packer)

From	To	Description	Cont. Fed?
0	25	BE	Y

Section 7: Well Test Data

Total Depth: 400
Static Water Level: 100
Water Temperature: 7.22 °C

Air Test *

5 gpm with drill stem set at 400 feet for 1 hours.
Time of recovery 1 hours.
Recovery water level 100 feet.
Pumping water level _ feet.

** 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.*

Section 8: Remarks

Section 9: Well Log

Geologic Source

Unassigned

From	To	Description
0	130	CLAY WITH SOME GRAVEL
130	140	SOFT SHALE
140	400	SHALE WITH CRACKS 5GPM

Driller 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: SCOTT HITTLE
Company: UNIVERSAL DRILLING
License No: WWC-645
Date Completed: 8/17/2020

MONTANA WELL LOG REPORT

This well log reports the activities of a licensed Montana well driller, serves as the official record of work done within the borehole and casing, and describes the amount of water encountered. This report is compiled electronically from the contents of the Ground Water Information Center (GWIC) database for this site. Acquiring water rights is the well owner's responsibility and is NOT accomplished by the filing of this report.

Other Options

Return to menu
Plot this site in State Library Digital Atlas
Plot this site in Google Maps

Site Name: DOWNING, MEASHA
GWIC Id: 330589

Section 1: Well Owner(s)

1) DOWNING, MEASHA (MAIL)
PO BOX 623
CLARK FORK IDAHO 83811 [04/04/2023]
2) DOWNING, MEASHA (WELL)
14 ELK HEIGHTS LANE
HERON MT 59844 [04/04/2023]

Section 2: Location

Township	Range	Section	Quarter Sections
27N	34W	20	

County: SANDERS
Geocode:

Latitude	Longitude	Geomethod	Datum
48.090278	-116.01	NAV-GPS	NAD27

Ground Surface Altitude: **Ground Surface Method**: **Datum**: **Date**:

Addition: **Block**: **Lot**:

Section 3: Proposed Use of Water

DOMESTIC (1)

Section 4: Type of Work

Drilling Method: ROTARY
Status: NEW WELL

Section 5: Well Completion Date

Date well completed: Tuesday, April 4, 2023

Section 6: Well Construction Details

Borehole dimensions

From	To	Diameter
0	140	6

Casing

From	To	Diameter	Wall Thickness	Pressure Rating	Joint	Type
-2	120	6.6	0.25	200.0	WELDED	A53A STEEL
100	140	4		200.0	GLUED	PVC

Completion (Perf/Screen)

From	To	Diameter	# of Openings	Size of Openings	Description
120	140	4	20	6"X1/8"	SAW SLOTS

Annular Space (Seal/Grout/Packer)

From	To	Description	Cont. Fed?
0	25	BENTONITE	Y

Section 7: Well Test Data

Total Depth: 140
Static Water Level: 90
Water Temperature:

Air Test *

20 gpm with drill stem set at 140 feet for 1 hours.
Time of recovery 0.17 hours.
Recovery water level 90 feet.
Pumping water level _ feet.

** 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.*

Section 8: Remarks

Section 9: Well Log

Geologic Source
Unassigned

From	To	Description
0	60	GRAVEL, COBBLE
60	110	GRAVEL, SILT, COBBLE
110	120	WET, GRAVEL
120	140	BEDROCK, FRACTURES WITH WATER

Driller 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: SCOTT HITTLE
Company: UNIVERSAL DRILLING
License No: WWC-645
Date Completed: 4/4/2023

GWIC Summary Report

Ground Water Information Center | **MBMG Data Center**
Montana Bureau of Mines and Geology
Montana Technological University
1300 West Park Street - Natural Resources Building Room 329
Butte Montana 59701-8997
Ph: (406) 496-4336 Fx: (406) 496-4343

GWIC Data > Well Construction Data > Township: 27N Range: 34W Sec: 20

The following data were returned from the GWIC databases for the area you requested. For a more detailed description of the data view the GWIC Metadata report. If you notice data entry errors or have questions please let us know by sending us an Email at **GWIC@mtech.edu**. If you wish to view a one page report for a particular site, click the hyperlinked **Gwic Id** for that well. Scroll to the right of your screen to view all the data. All data displayed on the screen may not show up when printed.

Retrieval Statistics*

Field	Max	Min	Avg
Total Depth (ft)	420.00	100.00	277.36
Static Water Level (ft)	278.00	40.00	111.18
Yield (gpm)	20.00	2.00	11.00

* These statistics do not take any geographic, topographic, or geologic factors into consideration. Negative swl values are reported for water levels that are above land surface.

Did you know about...

Other GWIC data

GWIC has 2 field visit(s) for this request area.
GWIC has 2 water level(s) for this request area.

Thanks, Just take me back to the menu.

Other MBMG data

MBMG has 423 publications available for LINCOLN county.
MBMG has 429 publications available for SANDERS county.
MBMG has 9 abandoned mine record(s) for this request area.

Gwic Id	PDF	DNRC WR	Site Name	Twn	Rng	Sec	Q Sec	Ver?	Type	Td	Swl	Pwl	Rwl	Yield	Test	Date	Use
330589			DOWNING, MEASHA	27N	34W	20		No	WELL	140.00	90.00		90.00	20.00	AIR	4/4/2023	DOMESTIC
257791			WELCHER ALICIA & CHRISTOPHER	27N	34W	20		No	WELL	160.00	130.00		130.00	20.00	AIR	8/31/2010	DOMESTIC
287054			WILLIAMS, CLARK	27N	34W	20	BBBB	No	WELL		78.00		78.00	10.00	PUMP		DOMESTIC
310038			BURGESS, ANDREW	27N	34W	20	BDDA	Yes	WELL	420.00	128.00			3.00	AIR	4/4/2020	DOMESTIC
143307			ROYLANCE BILL	27N	34W	20	CA	No	WELL	100.00	72.00	72.00		20.00	PUMP	5/31/1994	DOMESTIC
290888			HAYDEN, CHARLES	27N	34W	20	CC	No	WELL	400.00	40.00		40.00	5.00	AIR	4/26/2016	DOMESTIC
314849			RATZLAFF, KALVIN AND SHELBY	27N	34W	20	CC	No	WELL	400.00	100.00		100.00	5.00	AIR	8/17/2020	DOMESTIC
256585			LINZMAIER, PETER	27N	34W	20	DA	No	WELL	320.00				2.00	AIR	6/9/2010	DOMESTIC
143308			IDA INC	27N	34W	20	DAAD	Yes	WELL	405.00	90.00	390.00		7.00	AIR	6/20/1994	DOMESTIC

152909	BUSH JACK	27N	34W	20	DB	No	WELL	184.00	95.00		10.00	AIR	11/14/1995	DOMESTIC
143309	LANCE, BILL ROY	27N	34W	20	DB	No	WELL	300.00	278.00	278.00	20.00	BAILER	5/25/1994	DOMESTIC
160646	WIERENGA DAVID	27N	34W	20	DB	No	WELL	222.00	122.00		10.00	AIR	4/23/1996	DOMESTIC

End of Report.
12 record(s) listed.

Items of Note:

[1]This report is restricted to site types of **WELL, BOREHOLE, SPRING, COAL BED METHANE WELL, PETWELL, PIEZOMETER**.

[2]A single well record (a distinct GWIC Id) may be represented by more than one line in this report if more than one performance test was conducted on the well at the time of drilling.

Explanation of Columns:
GWIC Id = Key field for the GWIC database. Links to one page reports.
PDF = Are scanned documents available through the Document Manager?

- = Yes, click on the icon to download the PDF file.
- = No, well was submitted electronically. No paper record exists.
- = No, record does have a known well log but it is not scanned yet.
- = No, record may or may not have a document to scan. Metadata is unclear.
- = No, record was created from a source other than a well log. No paper record exists.

DNRC WR = Water right number assigned to this site by Department of Natural Resources and Conservation.
Site Name = Current owner name assigned to GWIC record.
Location = Location of site in Montana township, range, section, and quarter-section coordinates.
Ver? = Has this location been verified by field staff?
Type = Type of site assigned to GWIC record.
Td = **T**otal **d**epth of well in feet below ground.
Swl = **S**tatic **w**ater **l**evel in feet above/below ground - Negative values are reported for water levels that are above land surface.
Pwl = **P**umping **w**ater **l**evel in feet below ground.
Rwl = **R**ecovery **w**ater **l**evel in feet below ground.
Yield = Yield in gallons per minute.
Test = Type of performance test reported.
Date = Completion date of well/borehole.
Use = Reported use of water.

Disclaimer:
The preceding materials represent the contents of the GWIC databases at the Montana Bureau of Mines and Geology at the time and date of the retrieval. The information is considered unpublished and is subject to correction and review on a daily basis. The Bureau warrants the accurate transmission of the data to the original end user at the time and date of the retrieval [7/25/2024 8:44:37 PM]. Retransmission of the data to other users is discouraged and the Bureau claims no responsibility if the material is retransmitted. There may be wells in the request area that are not recorded at the Information Center.

ANALYTICAL REPORT

Montana Environmental Laboratory LLC
1170 N. Meridian Rd., P.O. Box 8900, Kalispell, MT 59904-1900
Phone: 406-755-2131 Fax: 406-257-5359 www.melab.us

IMEG - Missoula
IMEG - Missoula
1817 South Ave West, Ste A
Missoula, MT 59801

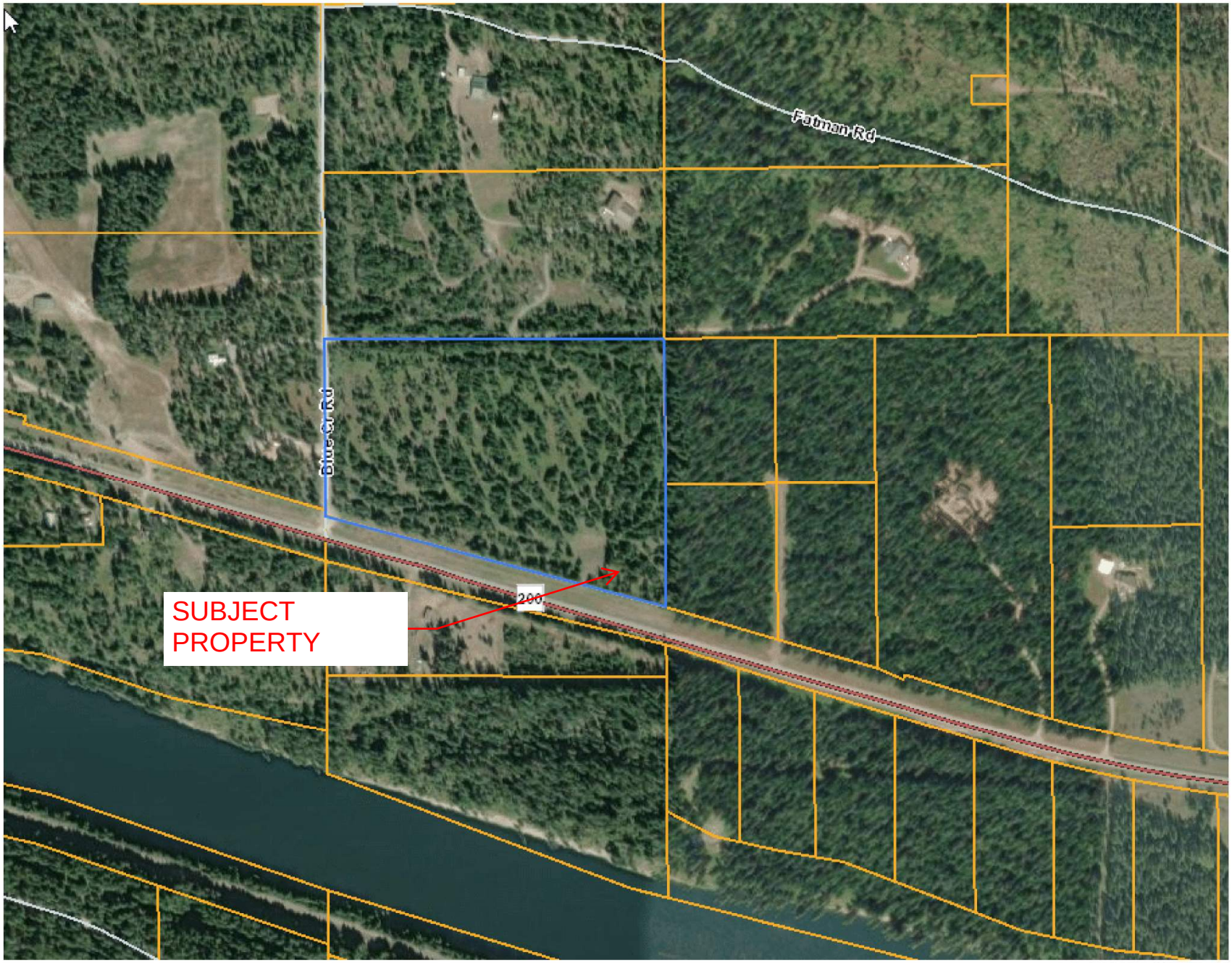
PWS ID:
Project: E of Blue Cr Rd & S of MT 200

Client Sample ID: Yard Hydrant **Lab ID:** 2307806-01
Matrix: DRINKING WATER **Collected:** 07/28/2023 7:30 **Received:** 08/04/2023 9:00

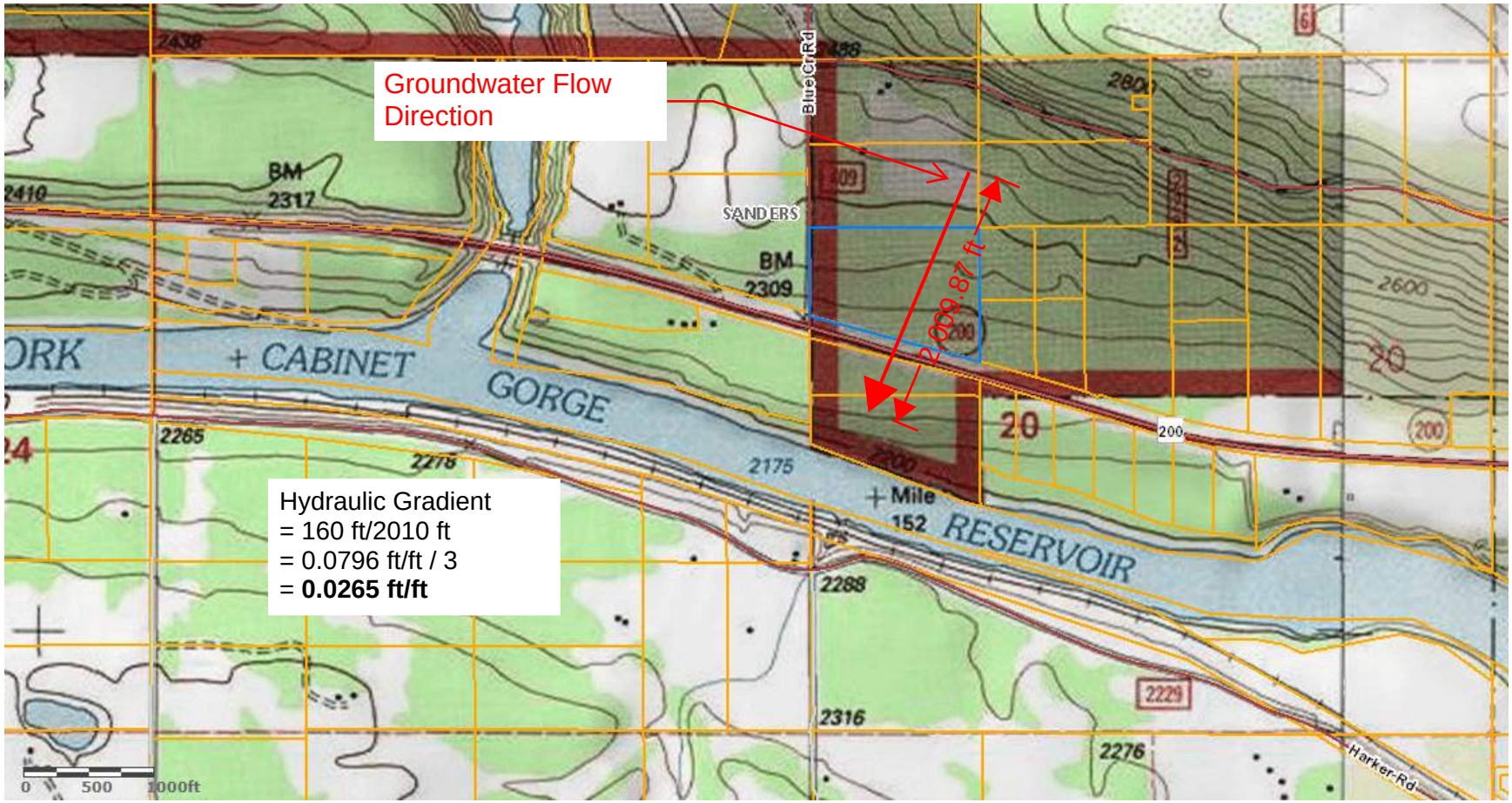
Analyses	Result	Units	RL	MCL	Method	Prepared	Analyzed	Analyst
Conductivity	**223**	umho/cm	0.1		SM2510B		08/04/2023 14:24	BLW
Nitrate + Nitrite, Total	**ND**	mg/L	0.01	10	E353.2		08/08/2023 10:20	BLW

MCL = Maximum Contaminant Limit ND = Not Detected
RL = Reporting Limit

MEL REVIEW:


Fabman Rd
Blue Cr Rd
206
SUBJECT
PROPERTY

Hydraulic Gradient Map



Items in yellow are calculated for you

Using Modified Cooper-Jacob equation (Unconfined)

Well #	GWIC ID	Pump Rate gpm	Pump Level	Static Level	Length of perfs-enter 10 for open hole	Specific Capacity	Transmissivity	Hyd Conductivity (K)
1						#DIV/0!	#DIV/0!	#DIV/0!
2						#DIV/0!	#DIV/0!	#DIV/0!
3						#DIV/0!	#DIV/0!	#DIV/0!
4						#DIV/0!	#DIV/0!	#DIV/0!
5						#DIV/0!	#DIV/0!	#DIV/0!
							Average K	**#DIV/0!**

Using Modified Cooper-Jacob equation (Confined)

Well #	GWIC ID	Pump Rate gpm	Pump Level	Static Level	Length of perfs-enter 10 for open hole	Specific Capacity	Transmissivity	Hyd Conductivity (K)
1						#DIV/0!	#DIV/0!	#DIV/0!
2						#DIV/0!	#DIV/0!	#DIV/0!
3						#DIV/0!	#DIV/0!	#DIV/0!
4						#DIV/0!	#DIV/0!	#DIV/0!
5						#DIV/0!	#DIV/0!	#DIV/0!
							Average K	**#DIV/0!**

Using Razack and Huntley equation (Fetter 1994)

Well #	GWIC ID	Pump Rate gpm	Pump Level	Static Level	Length of perfs-enter 10 for open hole	Specific Capacity	Transmissivity	Hyd Conductivity (K)
1	257971	20	155	130	10	0.80	981.70	98.17
2	168748	7	155	78	10	0.09	228.65	22.87
3	286136	18	195	158	10	0.49	703.47	70.35
4						#DIV/0!	#DIV/0!	#DIV/0!
5						#DIV/0!	#DIV/0!	#DIV/0!
							Average K	**63.79**

MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY

NITRATE SENSITIVITY ANALYSIS

SITE NAME: Tungsten Blue Creek Subdivision
COUNTY: Sanders County
LOT #:
NOTES: Drainfields are sized for a 4-bedroom home
Condcutivity and Gradient derived from regional topographic slope.

VARIABLES	DESCRIPTION	VALUE	UNITS
K	Hydraulic Conductivity	63.79	ft/day
I	Hydraulic Gradient	0.0265	ft/ft
D	Mixing Zone Thickness (usually constant)	15.0	ft
L	Mixing Zone Length (see ARM 17.30.517(1)(d)(viii)	100	ft
Y	Width of Drainfield Perpendicular to Ground Water Flow	60	ft
Ng	Background Nitrate (as Nitrogen) Concentration	0.01	mg/L
Nr	Nitrate (as Nitrogen) Concentration in Precipitation (usually constant)	1.0	mg/L
Ne	Nitrate (as Nitrogen) Concentration in Effluent	50.00	mg/L
#I	Number of Single Family Homes on the Drainfield	1.0	
Ql	Quantity of Effluent per Single Family Home	26.70	ft3/day
P	Precipitation	34.2	in/year
V	Percent of Precipitation Recharging Ground Water (usually constant)	0.20	
EQUATIONS			
W	Width of Mixing Zone Perpendicular to Ground Water Flow = (0.175)(L)+(Y)	77.50	ft
Am	Cross Sectional Area of Aquifer Mixing Zone = (D)(W)	1162.50	ft2
As	Surface Area of Mixing Zone = (L)(W)	7750.00	ft2
Qg	Ground Water Flow Rate = (K)(I)(Am)	1965.13	ft3/day
Qr	Recharge Flow Rate = (As)(P/12/365)(V)	12.11	ft3/day
Qe	Effluent Flow Rate = (#I)(Ql)	26.70	ft3/day
SOLUTION			
Nt	**Nitrate (as Nitrogen) Concentration at End of Mixing Zone =((Ng)(Qg)+(Nr)(Qr)+(Ne)(Qe)) / ((Qg)+(Qr)+(Qe))**	**0.68**	**mg/L**

BY: Adam Krick
DATE: November 21, 2023

REV. 03/2005

MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY

NITRATE SENSITIVITY ANALYSIS

SITE NAME: Tungsten Blue Creek Subdivision
COUNTY: Sanders County
NOTES: Drainfields are sized for a 3-bedroom home

BY:
DATE: 11/21/23

Nitrate at end of mixing zone(s) with no cumulative effects

Variable	(K)	(I)	(D)	(L)	(Y)	(Ng)	(Nr)	(Ne)	(#I)	(Ql)	(P)	(V)	(W)	(Am)	(As)	(Qg)	(Qr)	(Qe)	Nt
LOT #	Hydr. cond. (ft/day)	Hydr. grad. (ft/ft)	Mix zone thick (feet)	Down grad. distance (feet)	Drain-field width (feet)	Back-ground nitrate (mg/l)	Nitrate in precip (mg/l)	Effluent Nitrate conc. (mg/l)	# of single family homes	Effluent per drain. (ft3/day)	Annual precip. (in/yr)	Percent precip. recharge	Down-grad. width (feet)	Mix zone area (ft^2)	Mix. zone surface area (ft^2)	Ground water flow (ft3/day)	Recharge flow (ft3/day)	Effluent flow (ft3/day)	Resulting nitrate (N) (mg/l)
1	140.90	0.020	15.0	100	28	0.01	1.0	50.0	1.0	26.70	14.2	0.2	45.50	682.50	4550.00	1923.29	2.95	26.70	**0.69**
													0.00	0.00	0.00	0.00	0.00	0.00	
													0.00	0.00	0.00	0.00	0.00	0.00	
													0.00	0.00	0.00	0.00	0.00	0.00	
													0.00	0.00	0.00	0.00	0.00	0.00	
													0.00	0.00	0.00	0.00	0.00	0.00	
													0.00	0.00	0.00	0.00	0.00	0.00	
													0.00	0.00	0.00	0.00	0.00	0.00	
													0.00	0.00	0.00	0.00	0.00	0.00	
													0.00	0.00	0.00	0.00	0.00	0.00	
													0.00	0.00	0.00	0.00	0.00	0.00	

Nitrate at end of mixing zones with cumulative effects

LOT #	(K)	(I)	(D)	(L)	(Y)	(Ng)	(Nr)	(Ne)	(#I)	(Ql)	(P)	(V)	(W)	(Am)	(As)	(Qg)	(Qr)	(Qe)	Nt
1	140.90	0.020	15.0	35	28.0	0.01	1.0	50.0	1.0	26.70	14.2	0.2	34.13	511.88	1194.38	1442.46	0.77	26.70	**0.92**
2	140.90	0.020	15.0	100	20.0	0.92	1.0	50.0	1.0	26.70	12.0	0.2	37.50	562.50	3750.00	1585.13	2.05	26.70	**1.73**
3	25.00	0.010	15.0	100	100.0	1.73	1.0	50.0	1.0	26.70	12.0	0.2	117.50	1762.50	11750.00	440.63	6.44	26.70	**4.44**
						4.44							0.00	0.00	0.00	0.00	0.00	0.00	
													0.00	0.00	0.00	0.00	0.00	0.00	
													0.00	0.00	0.00	0.00	0.00	0.00	
													0.00	0.00	0.00	0.00	0.00	0.00	
													0.00	0.00	0.00	0.00	0.00	0.00	
													0.00	0.00	0.00	0.00	0.00	0.00	
													0.00	0.00	0.00	0.00	0.00	0.00	

REV. 03/20005

NOTES:

= fill in values in these cells

= these cells are calculated for you

Hydr. cond. =	*K*	Hydraulic Conductivity
Hydr. grad. =	*I*	Hydraulic Gradient
Mix zone thick =	*D*	Thickness of Mixing Zone up to a Maximum of 15 feet (usually constant at 15 feet)
Down grad. distance =	*L*	Mixing Zone Length (see ARM 17.30.517(1)(d)(viii), or this may also be the distance to end of last mixing zone when calculating cumulative effects.
Drainfield width =	*Y*	Width of Drainfield Perpendicular to Ground Water Flow
Background nitrate =	*Ng*	Background Nitrate (as Nitrogen) Concentration
Nitrate in precip. =	*Nr*	Nitrate (as Nitrogen) Concentration in Precipitation (usually constant at 1.0 mg/L)
Effluent Nitrate conc. =	*Ne*	Nitrate (as Nitrogen) Concentration in Effluent (50 for conventional; 24 for level II; 30 for level 1a; 40 for level 1b)
# single family homes =	*#l*	Number of Single Family Homes on the Drainfield (leave as 1 if effluent volume in next column is adjusted to equal total effluent from drainfield)
Effluent per drain. =	*Ql*	Quantity of Effluent from drainfield (average rate varies depending on number of bedrooms)
Annual precip. =	*P*	Annual local Precipitation
Percent precip recharge =	*V*	Percent of Precipitation Recharging Ground Water (usually constant at 0.2)
Down grad. width =	*W*	Width of Mixing Zone Perpendicular to Ground Water Flow = (0.175)(L) + (Y)
Mix zone area =	*Am*	Cross Sectional Area of Aquifer Mixing Zone = (D)(W)
Mix zone surface area =	*As*	Surface Area of Mixing Zone = (L)(W)
Ground water flow =	*Qg*	Ground Water Flow Rate = (K)(I)(Am)
Recharge flow =	*Qr*	Recharge Flow Rate = (As)(P/12/365)(V)
Effluent flow =	*Qe*	Effluent Flow Rate = (#l)(Ql)
Resulting nitrate (N) =	*Nt*	Nitrate (as Nitrogen) Concentration at End of Mixing Zone = ((Ng)(Qg) + (Nr)(Qr) + (Ne)(Qe)) / ((Qg) + (Qr) + (Qe)) (or nitrate concentration to use as background nitrate for next downgradient drainfield when determining cumulative effects)

MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY

PHOSPHOROUS BREAKTHROUGH ANALYSIS

SITE NAME: Tungsten Blue Creek Subdivision
COUNTY: Sanders County
LOT #: 0
NOTES: Drainfields are sized for a 3-bedroom home
No surface water is located within 500' so 500' is used.

VARIABLES	DESCRIPTION	VALUE	UNITS
Lg	Length of Primary Drainfield as Measured Perpendicular to Ground Water Flow	100.0	ft
L	Length of Primary Drainfield's Long Axis	100.0	ft
W	Width of Primary Drainfield's Short Axis	52.0	ft
B	Depth to Limiting Layer from Bottom of Drainfield Laterals*	4.0	ft
D	Distance from Drainfield to Surface Water	500.0	ft
T	Phosphorous Mixing Depth in Ground Water (0.5 ft for coarse soils,	1.0	ft
Ne	1.0 ft for fine soils)**		
Sw	Soil Weight (usually constant)	100.0	lb/ft3
Pa	Phosphorous Adsorption Capacity of Soil (usually constant)	200.0	ppm
#l	Number of Single Family Homes on the Drainfield	1.0	
CONSTANTS			
Pl	Phosphorous Load per Single Family Home (constant)	6.44	lbs/yr
X	Conversion Factor for ppm to percentage (constant)	1.0E+06	
EQUATIONS			
Pt	Total Phosphorous Load = (Pl)(#l)	6.44	lbs/yr
W1	Soil Weight under Drainfield = (L)(W)(B)(Sw)	2080000.0	lbs
W2	Soil Weight from Drainfield to Surface Water = [(Lg)(D) + (0.0875)(D)(D)] (T)(Sw)	7187500.0	lbs
P	Total Phosphorous Adsorption by Soils = (W1 + W2)[(Pa)/(X)]	1853.5	lbs
SOLUTION			
BT	**Breakthrough Time to Surface Water = P / Pt**	287.8	years

BY: Adam Krick
DATE: November 21, 2023

*****Must be shallow capped system so 4' to GW used to be conservative*****

NOTES: ** Depth to limiting layer is typically based on depth to water in a test pit or bottom of a dry test pit minus two feet to account for burial depth of standard drainfield laterals.*
*** Material type is usually based on test pit. A soil that can be described as loam (e.g. gravelly loam, sandy loam, etc.) or finer according to the USDA soil texture classification system is considered a "fine" soil.*

REV. 12/2004

Appendix Q

TRIGGER VALUE CALCULATION FOR ADJACENT TO SURFACE WATER DILUTION ANALYSIS

"An analysis of the effect of the proposed drainfield system on the quality of any adjacent surface water is required by ARM 17.36.312 and 17.30.715(1c). The increase in the nutrient concentration in the surface water cannot exceed the trigger value (T.V. of 0.01 mg/L nitrate and 0.001 mg/L phosphorous as set forth in Circular DEQ 7."

DILUTION EQUATION: $\frac{(QD)(CD) + (QL)(CL)}{QD + QL} < T.V. = \text{non-significant}$

Note: Effluent flow rate (QD) must be multiplied by the number of drainfields in the subdivision.

NITRATE CALCULATION:

	9.00		Number of drainfields in subdivision
QD =	26.70	ft^3/d	Effluent flow rate from drainfield in cubic feet per day (commonly 200 gpd or 26.7 ft^3/d for a 2 - 5 bedroom home)
CD =	50.00	mg/L	Nitrate concentration in mg/L (50 mg/L nitrate-N for standard drainfield, 24 mg/L for Level 2 wastewater treatment system)
QL =	3260.00	ft^3/s	Flow rate in ft^3/s into (or out of) surface water determined by stream gauge (usually the 14-day, 5-year low flow or 14Q5)
CL =	0.00	mg/L	Nitrate concentration (in mg/L) in surface water; can typically assume zero since increase, not total, is important

0.0000427 mg/L = final result, must be < 0.01 mg/L to be considered nonsignificant nitrate increase

PHOSPHOROUS CALCULATION:

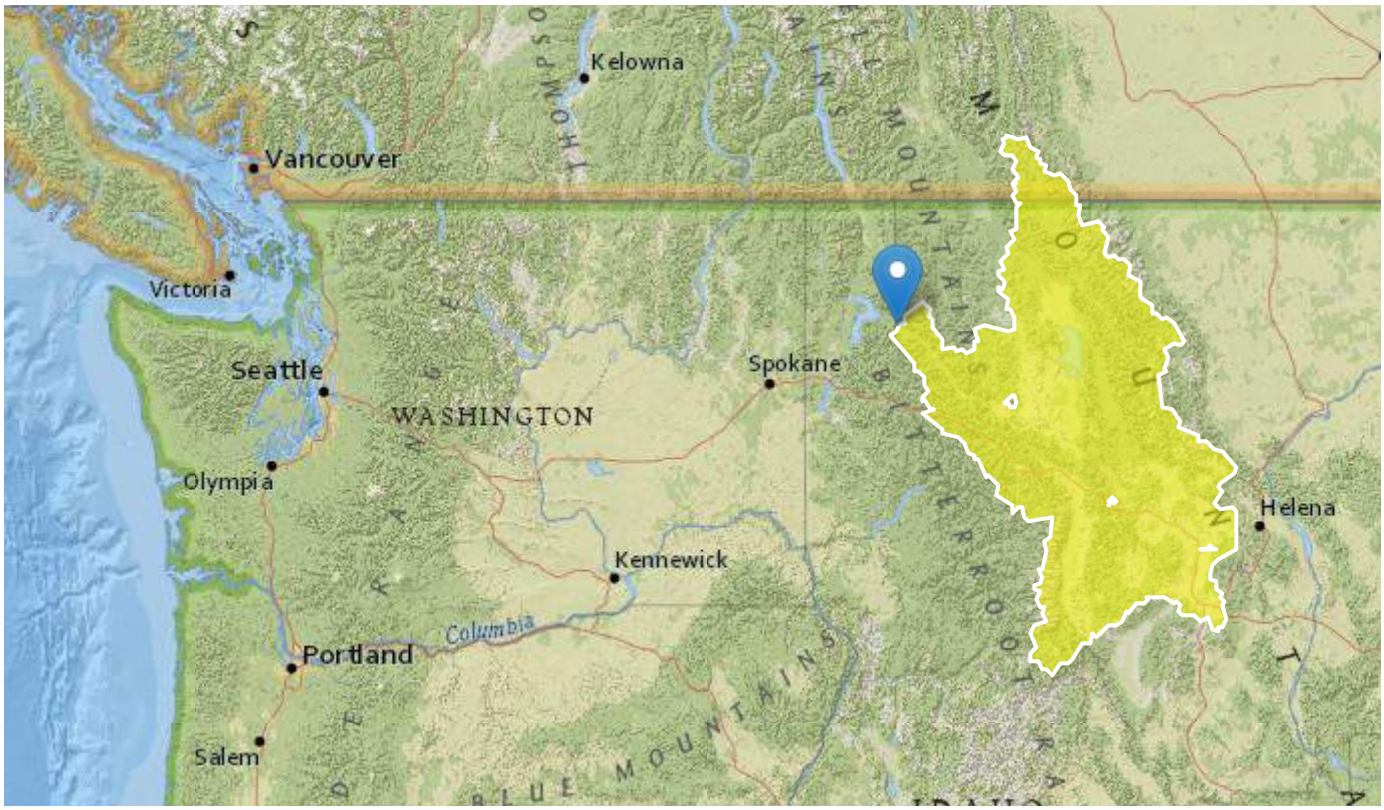
	9		Number of drainfields in subdivision
QD =	26.7	ft^3/d	Effluent flow rate from drainfield in cubic feet per day, (commonly 200 gpd or 26.7 ft^3/d for a 2 - 5 bedroom home)
CD =	10.6	mg/L	Phosphorous concentration in mg/L (commonly 10.6 mg/L) in effluent
QL =	3260.00	ft^3/s	Flow rate in ft^3/s into (or out of) surface water determined by stream gauge (usually the 14-day, 5-year low flow or 14Q5)
CL =	0	mg/L	Phosphorous concentration (in mg/L) in surface water; can typically assume zero since increase, not total, is important

0.0000090 mg/L = final result, must be < 0.001 mg/L to be considered nonsignificant for phosphorous increase

****Flow Rate based on StreamStats 14Q5, see attached**

StreamStats Report

Region ID: MT
Workspace ID: MT20220714201625121000
Clicked Point (Latitude, Longitude): 48.08803, -116.02678
Time: 2022-07-14 14:16:53 -0600



Collapse All

Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
CONTDA	Area that contributes flow to a point on a stream	21991.8	square miles
PRECIP	Mean Annual Precipitation	32.34	inches
SLOP50_30M	Percent area with slopes greater than 50 percent from 30-meter DEM.	20.7	percent

Low-Flow Statistics

Low-Flow Statistics Parameters [81.7 Percent (18000 square miles) W Region LowFlow GLS 2015 5019G]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
CONTDA	Contributing Drainage Area	21991.8	square miles	6.4	2520
SLOP50_30M	Slopes_gt_50pct_from_30m_DEM	20.7	percent	1.87	67.5

Low-Flow Statistics Parameters [18.3 Percent (4030 square miles) NW Region LowFlow GLS 2015 5019G]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
CONTDA	Contributing Drainage Area	21991.8	square miles	7.74	1560
SLOP50_30M	Slopes_gt_50pct_from_30m_DEM	20.7	percent	0.06	66

Low-Flow Statistics Disclaimers [81.7 Percent (18000 square miles) W Region LowFlow GLS 2015 5019G]

One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors.

Low-Flow Statistics Flow Report [81.7 Percent (18000 square miles) W Region LowFlow GLS 2015 5019G]

Statistic	Value	Unit
7 Day 10 Year Low Flow	2580	ft^3/s

Low-Flow Statistics Disclaimers [18.3 Percent (4030 square miles) NW Region LowFlow GLS 2015 5019G]

One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors.

Low-Flow Statistics Flow Report [18.3 Percent (4030 square miles) NW Region LowFlow GLS 2015 5019G]

Statistic	Value	Unit
7 Day 10 Year Low Flow	2420	ft^3/s

Low-Flow Statistics Flow Report [Area-Averaged]

Statistic	Value	Unit
7 Day 10 Year Low Flow	2550	ft^3/s

Low-Flow Statistics Citations

McCarthy, P.M., Sando, Roy, Sando, S.K., and Dutton, D.M.,2016, Methods for estimating streamflow characteristics at ungaged sites in western Montana based on data through water year 2009: U.S. Geological Survey Scientific Investigations Report 2015–5019–G, 19 p. (https://doi.org/10.3133/sir20155019)

Seasonal Flow Statistics

Seasonal Flow Statistics Parameters [81.7 Percent (18000 square miles) W Region LowFlow GLS 2015 5019G]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
CONTDA	Contributing Drainage Area	21991.8	square miles	6.4	2520
SLOP50_30M	Slopes_gt_50pct_from_30m_DEM	20.7	percent	1.87	67.5

Seasonal Flow Statistics Parameters [18.3 Percent (4030 square miles) NW Region LowFlow GLS 2015 5019G]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
CONTDA	Contributing Drainage Area	21991.8	square miles	7.74	1560
PRECIP	Mean Annual Precipitation	32.34	inches	20.7	83.2

Seasonal Flow Statistics Disclaimers [81.7 Percent (18000 square miles) W Region LowFlow GLS 2015 5019G]

One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors.

Seasonal Flow Statistics Flow Report [81.7 Percent (18000 square miles) W Region LowFlow GLS 2015 5019G]

Statistic	Value	Unit
Jul_to_Oct_14_Day_5_Yr_Low_Flow	3260	ft^3/s

Seasonal Flow Statistics Disclaimers [18.3 Percent (4030 square miles) NW Region LowFlow GLS 2015 5019G]

One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors.

Seasonal Flow Statistics Flow Report [18.3 Percent (4030 square miles) NW Region LowFlow GLS 2015 5019G]

Statistic	Value	Unit
Jul_to_Oct_14_Day_5_Yr_Low_Flow	4890	ft^3/s

Seasonal Flow Statistics Flow Report [Area-Averaged]

Statistic	Value	Unit
Jul_to_Oct_14_Day_5_Yr_Low_Flow	3560	ft^3/s

Seasonal Flow Statistics Citations

McCarthy, P.M., Sando, Roy, Sando, S.K., and Dutton, D.M.,2016, Methods for estimating streamflow characteristics at ungaged sites in western Montana based on data through water year 2009: U.S. Geological Survey Scientific Investigations Report 2015–5019–G, 19 p. (https://doi.org/10.3133/sir20155019)

Channel-width Methods Weighting

No method weighting results returned.

Application Version: 4.10.0
StreamStats Services Version: 1.2.22
NSS Services Version: 2.2.1

ENVIRONMENTAL SUMMARY

PREPARED IN ACCORDANCE WITH SANDERS COUNTY SUBDIVISION REGULATIONS

for

BLUE CREEK SUBDIVISION

On Property Legally Described as: The Southwest One-Quarter of the Northwest One-Quarter (SW1/4 NW1/4) of Section 20 Lying North of Montana Highway 200, Township 27 North, Range 34 West, Principal Meridian Montana, Sanders County, Montana. Containing a total of 25.94 Acres, more or less.

Dated: January 15th, 2023
Revised: September 6th, 2024

Prepared For:
Tungsten Holdings, Inc.
809 Mineral Ave.
Libby, MT 59923

Prepared By:
IMEG Corp
1817 South Ave West, Suite A
Missoula, MT 59801

REVISION NOTE: Based on the July 23rd, 2024, Sanders County Commissioner meeting, and public comments provided during this meeting it has been determined that the information submitted in the previous water and sanitation report in regards to available water quantity for the proposed individual wells was not sufficient. During our re-review of the previously provided report and supporting materials we found errors in the reference to the well log GWIC number used in the original report and agree that not enough information was provided for a thorough review of the information. As a result, the Environmental Assessment has been updated to reflect GWIC references and updates to the Water & Sanitation Report as discussed with the county after the conclusion of the July 23rd Public Hearing. Please refer to the "Groundwater Section", herein, that better reflects the updated groundwater materials. We apologize for not providing adequate information in the previous version that was reviewed during the preliminary plat review process.

A Suspension Agreement between Sanders County, the subdivider and representative has been made on August 5th, 2024, to suspend the Governing Body Review process until further information is obtained. The Preliminary Plat Application materials and responses herein are revised to further address public comments received during the Governing Body Public Hearing, additional agency comments, and narratives associated with surface and groundwater due to the implications of the Upper Missouri Waterkeepers v. Broadwater County Court decision.

ENVIRONMENTAL ASSESSMENT

Information specified in this Part must be provided in addition to that required in parts I and II of this application form, unless the proposed subdivision qualifies for an exemption under Section IV-A-1.b of the subdivision regulations. Describe the following environmental features, provide responses to each of the following questions and provide reference materials as required.

1. Surface Water

Locate on a plat overlay or sketch map:

a. Any natural water systems such as streams, rivers, intermittent streams, lakes or marshes (also indicate the names and sizes of each).

b. Any artificial water systems such as canals, ditches, aqueducts, reservoirs, and irrigation systems (also indicate the names, sizes and present uses of each).

c. Time when water is present (seasonally or all year).

d. Any areas subject to flood hazard, or in delineated 100-year floodplain.

e. Describe any existing or proposed streambank alteration from any proposed construction or modification of lake beds or stream channels. Provide information on location, extent, type and purpose of alteration, and permits applied for.

The Clark Fork River is a natural water system south of HWY 200, approximately 950-feet south of the proposed subdivision. The project is not directly adjacent to the Clark Fork River, therefore, proposed streambank alteration from any proposed construction or modification of lake beds or stream channels is not applicable. The river can generally be described as a complex river system of the Northern Rockies with year-round flow known for various recreational opportunities and attractions along its entire corridor. The Clark Fork River is known to be divided into three main river descriptions (the Upper, Middle, and Lower Clark Fork). The subject property is within the lower Clark Fork River drainage which begins at the confluence of the Flathead River and ends at the inlet to Lake Pend Oreille in Bonner County, Idaho. The Clark Fork River does have a FEMA regulated and delineated floodplain. This floodplain or flood prone area is not located on the subject Subdivision property. Another natural water system in the project's vicinity is the east fork of Blue Creek. This creek is approximately one half mile west of the subject property, meandering through portions of the Cabinet Mountain Range, having multiple channels throughout the valley before it flows into the Lower Clark Fork River below the Cabinet Gorge Dam, southwest of the proposed subdivision. The east Fork of Blue Creek flows year-round and is not anticipated to have any streambank alteration or proposed construction that would modify its channel as a result of this division. No streams within the Blue Creek watershed are currently listed by DEQ as impaired (Bowman, S., and B. Olson. 2019). Historical impacts to the east fork of Blue Creek were due to timber harvest, large forest fires, and mining activities within the watershed. The Blue Creek Watershed includes both the East Fork Blue Creek and West Fork Blue Creek which have completely separate channels and due to larger snow melt events and flooding that have helped shape the valley floor and recharge the Clark Fork River. No regulatory floodplain is established on Blue Creek and any flood prone area is outside of the subject Subdivision property as Blue Creek is not located on the subject property.

A National Wetlands Inventory Map and FEMA Floodplain Map (Map #30089C0175D) are provided in Section B of this application packet. These maps support that there are no streams, rivers, creeks, streams, lakes, ponds, marshes, natural drainages, artificial water systems or wetlands located on the subject property or directly adjacent to the development. Therefore, the Preliminary Plat, surveyed by a PLS licensed in the state of Montana does not

show the requirements as provided above. A description on how surface water and groundwater generally flow in this area is further described in Sections 2.a-b below.

2. Groundwater

Using available data, provide the following information:

a. The minimum depth to water table and identify dates when depths were determined. What is the location and depth of all aquifers which may be affected by the proposed subdivision? Describe the location of known aquifer recharge areas which may be affected.

There are no readily available references specific to the hydrology of the Clark Fork River Valley for the project area. Due to limited studies, reports, and field work in the area a wide range of information such as well logs, ground water monitoring, public water system reports and regional data related to geology has been used to provide an established depth to the water table and groundwater information for this proposed subdivision.

Based on the eight (8) adjacent well logs that were determined, per the GWIC database, to be in the vicinity of the subdivision, the minimum depth to water table is shown per the well logs to be approximately 40 feet below ground surface. The GWIC Summary report for the subject *Township, Range, and Section* shows an average static water level of approximately 111 feet below ground surface. All well logs and the supporting GWIC Summary Report pulled from the GWIC Website can be found in Appendix B of the Water and Sanitation Report located in Section D of the subdivision submittal packet. The eight (8) adjacent well logs used are approximately within ¼ mile of the division.

Based on lithology information from the driller's logs for the Heron Community well (PWSID MT0000247) and other publicly available GWIC wells in the vicinity, the alluvium and the glacial deposits are in the range of 220 to more than 400 feet thick (MT DEQ, Heron Community Water System SWDA2006). The aquifer is understood to be unconfined with some clay layers being documented from multiple driller's logs for wells in the Heron Area. Further, the subject property is within Western Mountain Ranges meaning the "Mountains contain thin soils over fractured rocks, alternating with narrow alluvial and, in part, glaciated valleys" (Clark, W. P. and Peck, D. L. (1982)). The subject property is at a lower elevation and consists of course, bouldery alluvium which is supported through the soil profiles sampled by IMEG Corp. on October 4th, 2022, from the property. The seven (7) soil profiles consist primarily of gravel and sand along with some cobbles that are typical of the Western Mountain Ranges. Seasonal snowmelt and rainfall recharge the aquifer in the high mountainous terrain. Groundwater flow direction is interpreted to be primarily from upland areas of a higher elevation to the valley floor, toward the Clark Fork River.

IMEG was unable to find any published maps or exhibits showing specific aquifer recharge areas near or on the proposed subdivision property. Typically, seasonal snowmelt and rainfall recharge the aquifer in the high mountainous terrain in Western Montana. Area wetlands, beaver dams, and slow meandering surface waters slow the runoff from precipitation and snowmelt and this surface water infiltrates into the ground recharging the alluvial, basin fill,

and bedrock aquifers below. It should be noted that depths to the aquifer vary greatly depending upon elevation in which a property is situated in relationship to the valley floor. Therefore, the GWIC database for the Township, Range, and Section was pulled to get a broad view of depths to groundwater for the project area.

A summary report of the GWIC database for the Township, Range, and Section was pulled from the GWIC website and is included within the Water & Sanitation Report (Section D, of the Subdivision Packet). The subject property lies at the elevation of Hwy 200 and slopes up towards Fatman Road to the north. The proposed well locations are generally located at the base of this slope and below the apparent ridge to the north. It is our opinion, that the surrounding well logs to the west and south of the site, GWIC Id's 14337, 286136, and 257791, are the most accurate representation of the expected lithology and aquifer conditions for this site. This is because the position of the water table can be generally indicated by the position of the water level in shallow wells. Furthermore, the most recently drilled well (GWIC Id: 330589) is located to the east and is finished in the top 20 feet of the bedrock aquifer and produced a 20-gpm yield over a 1-hour period. A summary report of the GWIC database for the Township, Range, and Section was pulled from the GWIC website. This summary shows that the average well yield is 11-gpm. This meets the requirement for yield pursuant to DEQ Circular 20.

b. Describe any steps necessary to avoid depletion or degradation of groundwater recharge areas.

As described above, no site-specific locations of groundwater recharge areas were found or identified based on onsite features or published literature during our search. The section below talks in general about infiltration from surface water and precipitation over the general landscape that provides some contribution to aquifer recharge.

Unconfined aquifers are typically locally recharged from surface waters. Recharge within Western Mountain Range typically come from a combination of rainfall, snowmelt, irrigation flows and leakage from streams or irrigation canals (Clark, W. P. and Peck, D. L., pg.20). The proposal is intended for rural residential development and is adjacent to HWY 200, therefore, it is not anticipated the subject properties will be completely cleared of existing vegetation and canopy cover. Vegetation not only reduces surface runoff but will provide privacy between each proposed lot, the adjacent existing tracts and has the potential to provide privacy from the highway When mature trees and vegetation are present, filtration of run-off from snowmelt and precipitation will aid in groundwater recharge for the area and reduce sediment from being carried to roadside ditches and ultimately further down the drainageways and to the Clark Fork River. Please refer to Section 3.A-B herein which provides a description of the topography and Section 4.A-B below which provides a general description of vegetation supported by exhibits and additional reports within the Subdivision Application Packet. Residential pesticides could enter the Clark Fork River if not probably disposed of or applied to each lot. Property owners should generally avoid using fertilizers, pesticides, or herbicides related to weed control efforts near the well locations and should refer to the Weed

Management Plan for recommendations on control methods of invasive weeds. The Weed Management Plan is required to be recorded in conjunction with a subdivision in an effort to educate future property owners.

The aquifer may be in connection with surface water, the Clark Fork River, as ground water flow generally follows the topographic gradient towards the river. Therefore, proper installation and maintenance of onsite septic systems and storm drainage infrastructure is necessary to protect adjacent surface waters. Another source of potential contamination are existing roadways, HWY 200 and Blue Creek Road, and the proposed internal subdivision roads as provided on the preliminary plat. The proposed wells and wastewater systems could have some acceptable impacts to groundwater recharge but will be reviewed and permitted by the Department of Environmental Quality (DEQ) and local Sanders County Health Department reducing significant adverse impacts to groundwater.

Please note, this is a rural residential development that does not include commercial or industrial uses that would result in logging activities or mining practices which could negatively affect the groundwater recharge areas with harsh chemicals or large removal of vegetation reducing the likelihood of runoff filtering into the water table. The proposal does not include larger agricultural land and is not adjacent to lands in which farming practices or agricultural operations could be considered a contaminant source due to fertilizers, pesticides and/or herbicides. Rather, the proposed subdivision contains three larger tracts, proposed Lots 1-3, which are proposed at a similar size to those adjacent to the west and will have limited buildable space due to steep slopes along the northern property line. Therefore, these larger tracts would remain forested and reduce the potential of contaminant sources through catching run off and absorbing snow melt on the subject property. Proposed swales and retention ponds are designed to capture the increase in storm drainage runoff. The preliminary designs, subject to DEQ review and approval, include roadside swales which convey water to the proposed retention ponds in each of the four (4) road basins which have enough capacity to convey and retain the 100-year 24-hour post-development peak flows. Therefore, potential residential containments will be captured on site and storm drainage runoff will be mitigated per Sanders County Subdivision Regulations and DEQ Circular 8, responsibly avoiding degradation of potential groundwater recharge areas.

The proposed subdivision includes nine (9) individual wells and on-site wastewater systems. A common practice in urban or semi-urban environments is to utilize onsite wells to pump water from the aquifer and utilize centralized wastewater systems to treat and dispose of the wastewater in nearby surface water, therefore depleting the aquifer. It has been found that utilization of on-site wastewater treatment and disposal systems where the water is pumped from the aquifer via a well, treated with a septic tank and disposed of via a drainfield, results in 85 percent of water discharged from drainfields percolating through the vadose zone of the receiving soil and into the shallow aquifer (McQuillan, D. and Bassett.E. (2009)). This return flow from the on-site wastewater treatment and disposal systems recharges the site-specific aquifer and reasonably mitigates some of the concerns of additional water use.

All on-site wastewater treatment and disposal systems will be designed in accordance with DEQ regulations and comply with the State of Montana's non-degradation requirements. Further, a non-degradation analysis of impacts to groundwater quality from the proposed wastewater treatment systems shows there will be no significant changes to water quality. Please reference the Water and Sanitation Report (Section I.2. Description) providing further information pertaining to the steps necessary to avoid degradation of potential groundwater recharge areas and adjacent surface waters.

If it is determined by DEQ that this well log comparison is not sufficient evidence of adequate water quantity to meet the regulation for individual wells, then either a test well with an associated pump test will be completed, or cisterns for low producing wells will be proposed per the requirements in ARM 17.36 and DEQ Circular 20

3. Topography, Geology and Soils

a. Provide a map of the topography of the area to be subdivided, and an evaluation of suitability for the proposed land uses. On the map identify any areas with highly erodible soils or slopes in excess of 15% grade. Identify the lots or areas affected. Address conditions such as:

i Shallow bedrock
ii Unstable slopes
iii Unstable or expansive soils
iv Excessive slope

A USGS Topographic Map is provided of the site and adjacent areas within the Cabinet Mountain Range near Highway 200, and the confluence of Blue Creek and Cabinet Gorge Reservoir, part of the Clark Fork River. Please see the Slope Analysis, within the Supplemental Data Sheets (Section A), which provides an evaluation of slope categories found on the site. Areas in excess of 15% grade have been shown. Areas containing slopes 25% or greater have been designated as "No Build-Zone" on the face of the Preliminary Plat.

b. Locate on an overlay or sketch map:

i Any known hazards affecting the development which could result in property damage or personal injury due to:

A. Falls, slides or slumps -- soil, rock, mud, snow.
B. Rock outcroppings
C. Seismic activity.
D. High water table

The extent of the property lies within an area that is largely made up of less than 15% slopes and is timbered. Please see both the Aerial Map and USGS Topographic Map in Section B supporting this analysis of the topography. Portions within proposed Lots 1 and 2 and along Blue Creek Road will be designated as "No Build-Zone" due to slopes of 25% or greater as provided on the Preliminary Plat. This is intended to mitigate potentially adverse impacts to future development to avoid unstable or expansive slopes and soils. The applicant does not foresee any geological issues arising from the development of these lots. There are no other

known geologic hazards such as slumping, land slide, seismic activity, shallow bedrock etc. on or directly adjacent to the proposed development.

c. Describe measures proposed to prevent or reduce these dangers.
The subject property contains steep slopes along areas of Blue Creek Road and proposed Lots 1 and 2 while the remainder of the subject property consists of slopes that are less than 15%. These areas can be reviewed within the Slope Analysis, within the Supplemental Data Sheets, provided in Section A of this submittal packet. The property has been historically timbered where 25% or greater slopes exist on the site and are proposed to be a "No Build-Zone". This is intended to mitigate potentially adverse impacts to future development to avoid unstable or expansive slopes and soils. Further, stormwater infrastructure and associated easements have been designed to provide suitable drainage and stormwater management for surface water or runoff that may be generated and detained on the subject property.

Development of future home sites is anticipated to occur towards the newly proposed roadway due to the construction of driveways and future utility connections. All other areas, not identified with an "No Build-Zone" are not intended to restrict development but would be costly to remove topsoil, cobbles, and rocks for future construction. The subdivision design and development conforms to the general landforms and topography to minimize alteration to the natural landscape.

d. Describe the location and amount of any cut or fill more than three feet in depth. Indicate these cuts or fills on a plat overlay or sketch map. Where cuts or fills are necessary, describe plans to prevent erosion and to promote vegetation such as replacement of topsoil and grading.
The graded areas of the road surface will not result in slopes steeper than 3:1 (horizontal to vertical). The provided cross sections propose a 4:1 side slope off the roadway into the stormwater catch basins. A large portion of the grade changes occur along the southern property line of proposed Lot 2 at approximately 2,321' elevation but does not result in more than 4-feet of cut and fill. This is supported within the Grading, Drainage, and Road Construction Plans (Section D). Silt fences will be installed before excavation takes place and filter fabric will be used to avoid ponding or trenching. Grading and Drainage Engineering Design Report (Section D) offers design aspects and calculations of stormwater facilities to mitigate storm water for each of the lots and proposed access roads. The stormwater retention facilities will be in accordance with MDEQ requirements mitigating pre- and post-development 100-year storm and any potential erosion due to grading during and after construction.

This project is required to establish a Noxious Weed Management Application and Plan, which has been prepared in accordance with the Sanders County Subdivision Regulations and Montana County Noxious Weed Control Act. The plan details the current conditions of the site, the weed management goals for the subdivision, and it specifies specific weed management techniques (control actions) that will be followed to ensure noxious weeds are actively managed on the property indefinitely. A copy of the Noxious Weed Management Application and Plan can be reviewed in Section C.

4. Vegetation

a. On a plat overlay or sketch map:

(i) Indicate the distribution of the major vegetation types, such as marsh, grassland, shrub, coniferous forest, deciduous forest, mixed forest.

The provided Montana Natural Heritage Program (MTNHP) summarizes vegetation types that may be located on the project site. Specifically, please see the map on page 6 of Environmental Summary Report in Section E which supports the property is largely coniferous forest based on IMEG site visit and photos. This is further supported by the Environmental Summary Report on page 17 that provides the subject property would classify largely as Rocky Mountain Mesic Montane Mixed Conifer Forest. There are no other major vegetation types as listed in this criterion.

(ii) Identify the location of critical plant communities such as:

A. Stream bank or shoreline vegetation
B. Vegetation on steep, unstable slopes
C. Vegetation on soils highly susceptible to wind or water erosion
D. Type and extent of noxious weeds

An Environmental Summary Report has been provided by Montana Natural Heritage Program (MTNHP) and can be reviewed in Section D of this submittal. No critical plant communities have been identified on the property based upon the data provided.

The established Noxious Weed Management Application and Plan (Section C) provides details of type and extent of noxious weeds that may exist on the site.

b. Describe measures to:

(i) Preserve trees and other natural vegetation (e.g. locating roads and lot boundaries, planning construction to avoid damaging tree cover).

Although portions of this site will be thinned or cleared for infrastructure (roadways, utilities, drainfields, home sites etc.,) it is anticipated each proposed lot will not be cleared or logged completely. The larger rural tracts proposed will further support the preservation of trees and natural vegetation where infrastructure is not proposed. The applicant is not aware of any unstable slopes or soils highly susceptible to wind or water erosion. There are no stream banks or shoreline vegetation on the project site.

(ii) Protect critical plant communities (e.g. keeping structural development away from these areas), setting areas aside for open space.

No critical plant communities have been identified on the property.

(iii) Prevent and control grass, brush or forest fires (e.g. green strips, water supply, access.)

The proposed development is located in the WUI, therefore, this application packet includes a Fire Risk Rating Form evaluating the risk of wildfire hazards. This will be reviewed by the subdivision administrator and local fire protection district for adequate fire protection measures. The applicant intends to implement maintenance provisions for any infrastructure such as water supplies, subdivision road signs and roadways. The Fire Risk Rating Form is provided in Section E of the submittal packet.

(iv) Control and prevent growth of noxious weeds

The plant communities can be reviewed within the Noxious Weed Management Application and Plan has can be reviewed in Section C.

5. Wildlife

a. Identify species of fish and wildlife use the area affected by the proposed subdivision.

An Environmental Summary Report has been provided by Montana Natural Heritage Program (MTNHP) and can be reviewed in Section D of this submittal. Each of the species known to occur on this property has been outlined in the Environmental Summary Report (pages 3 and 6-7). This exhibit identifies the wildlife that Montana FWP's database lists as being "known to utilize all or a portion of" the section, township, and range that this project is located within. The wildlife includes Bald Eagle, Fisher, Wolverine, and a variety of plant species anticipated to be in the area. The report highlights the presence of Bald Eagles. The Wildlife Exhibit located in Section B provides the possibility of White-Tail Deer, Mule Deer, and Elk to using this site. Further, Westslope Cutthroat Trout and other non-native fish species such as Rainbow Trout, Brown Trout and Brook Trout may exist within the east fork of Blue Creek. Blue Creek aquatic life could be impacted by the proposed subdivisions sediment run off or if pesticides are heavily used by future residents. The impacts of wildlife, major snow events and flooding can also affect species within the nearby surface water systems previously described herein. The residential subdivision proposes onsite stormwater retention and is required to manage invasive weeds according to the Weed Management Plan. This will be reviewed by the subdivision administrator and county weed district which provides guidance for reseeding during and after construction of roadway improvements reducing runoff into nearby surface waters. Although the subdivision has potential to affect these species the application packet as proposed reasonably mitigates adverse negative impacts as provided below.

An agency contact letter has been sent to the Montana Fish, Wildlife & Parks Department for an opportunity to provide comments on the subdivision proposal which will be considered during the subdivision administrators review, no comments were received prior to the Governing Body Hearing. However, an agency comment has been received by Montana Fish, Wildlife & Parks (FWP) on August 15th, 2024, recommending clustering lots, maintaining open areas, and providing incorporated wildlife recommendations into the subdivision's Covenants, Restrictions & Conditions to enable awareness and enforceability. This Agency Comment was received during the extended Governing Body review period and is now included in the revised Adjacent Ownership & Agency Comments (Section E, of the Subdivision Packet). This comment identified large game species that could be affected by the proposed subdivision. FWP has stated that, "GPS collared elk in the same hunting district as the proposed subdivision (121) have displayed primarily elevational migration, using lower elevations in the winter and higher elevations in the summer rather than long distance migrations seen in some other parts of the state. Currently, FWP's primary concern in relation to this proposed development, outlined in our comment letter, is the loss of winter range for big game and the potential to increase negative human-wildlife interactions." The proposed project reasonably mitigates impacts on wildlife and wildlife habitat which is inhabited by birds, small and large mammals within this mixed rural residential and timbered area through proposing larger tracts of land

that will preserve habitat for those species that may visit or pass through the site, please refer to Section 5.C below for mitigation details

b. On a copy of the preliminary plat or overlay, identify known critical wildlife areas, such as big game winter range, calving areas and migration routes; riparian habitat and waterfowl nesting areas; habitat for rare or endangered species and wetlands.
Please reference the Environmental Summary Report (Section E) which supports the subject site is not known to have critical wildlife areas as provided above. The ranges for Elk, Mule Deer and White-Tailed Deer Distribution Maps can be reviewed within the Wildlife Exhibit in Section B. These maps show the area intersects Winter/General range types for Elk, Mule Deer, and White-tailed Deer. These species occur in the area and show suitable habitats within the distribution maps, however, not all areas will always have animals or sign of animals every year. Not all populations concentrate on specific ranges during the winter season. In areas where no winter distribution is delineated animals depend upon and occur across their General Distribution area during the winter season. The specific areas occupied may expand or contract through time as seasons, population levels and habitat conditions change. There are no other known wildlife migration corridors, waterfowl nesting areas, or wetlands located on the subject property.

c. Describe proposed measures to protect or enhance wildlife habitat or to minimize degradation (e.g. keeping buildings and roads back from shorelines; setting aside wetlands as undeveloped open space).
The proposed project reasonably mitigates impacts on wildlife and wildlife habitat which is inhabited by birds, small and large mammals within this mixed rural residential and timbered area as much of the existing vegetation will remain. This development considers the surrounding character of neighboring properties which are generally rural residential developments mixed with larger tracts of vacant land. It should be noted that the intent of the subdivider is to propose cash-in-lieu instead of proposing open space or a parkland dedication. This option will support other desirable locations throughout the county to be improved and provide easier connectivity and public access than the subject parcel.

Montana Fish, Wildlife & Parks (FWP) has provided an agency comment which recommends clustering lots, maintaining open areas, and providing incorporated wildlife recommendations into the subdivision's Covenants, Restrictions & Conditions to enable awareness and enforceability. Areas around the proposed development consist of rural residential tracts, vacant timbered lands, rural road infrastructure to the west, HWY 200 to the south and the Clark Fork River south of the highway. In summary, properties adjacent to the north are rural residential tracts generally consisting of 20-acres, properties to the east are roughly 5-acres and to the west of Blue Creek Road are tracts 20-acres or larger in size. Therefore, the subject property is +/- 25.94 acres in an area that could be described as containing existing rural developments mixed with vacant timber lands. The project area consists of steeper topography along the northern portions, with no known natural drainages, ponds, marshes, or wetlands located on the subject property or directly adjacent to the development.

The subdivision contains areas of slopes of at least 25% or greater within the northern portion which is timbered. As a result of the existing steep slopes the development avoids the potentially hazardous areas, as provided on the face of the plat within Lots 1 and 2, through the designation as "No-Build Zones" for areas consisting of 25% or greater. Given this natural topographic feature the proposed development contains larger lots on the north side of the proposed internal roadways, Blue Sky Court and Blue Sky Drive, and smaller clustered lots towards HWY 200. As a result, a portion of the development is left undisturbed, adjacent to the exiting 20-acre rural residential tracts to the north. Further, a "1' No Access Strip" is proposed along the entirety of Blue Creek Road limiting access that would reduce the ability of constructing a driveway or future buildings near the northern portions of Lot 1. Proposed Lots 1 -3 are larger tracts allowing a portion of the acreage to remain open and allow wildlife to move through the property. Although these lots contain steeper slopes, they consist of natural vegetation that may limit the line of sight distances and alleviate noise between wildlife, development activity, and HWY 200.

The proposed development "clusters" subdivision design elements as close to existing road infrastructure and utilities as possible. Proposed Lots 4-9 are proposed to be around 1-acre in size directly adjacent to HWY 200 while leaving larger open spaces along the northern portion of the property which abut rural residential tracts. Proposed Lots 1-3 contain steeper slopes and consist of natural vegetation that may limit the line of sight distances and alleviate noise between wildlife, development activity, and HWY 200. FWP recommendations to minimize wintering wildlife conflicts include keeping dogs away from wintering wildlife, clustering lots and maintaining open areas in which this proposed subdivision provides.

Further, FWP recommends providing future residents with information regarding living with wildlife is important, and we recommend the guidelines discussed below be incorporated into the subdivision's Covenants, Restrictions & Conditions to enable awareness and enforceability. These recommendations and guidelines have been conditioned in the Staff Report provided by the Land Services Department and will be incorporated into the subdivisions CC&R's. The recommended Living with Wildlife covenants aim to educate property owners about co-existence with wildlife, particularly regarding animal attractants and garbage. The applicant has included these covenants, which cannot be amended or deleted without governing body approval.

References:

Bowman, S., and B. Olson. 2019. Lower Clark Fork Tributary Watershed Restoration Plan (LCFTWRP), Section 4.2 Blue Creek Watershed, pages 48-52.

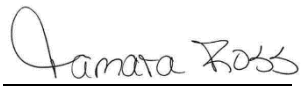
Clark, W. P. and Peck, D. L. (1982). Ground-Water Regions of the United States. United States Geological Survey Water-Supply Paper 2242, pages 20–23.

Knodle, G. 2006. Heron Community Water System. PWSID MT0000247, pages 5, 10, & 21.

McQuillan, E. and Bassett, E. (2009) Return Flow to Ground Water from Onsite Wastewater Systems. Presentation Paper, 18th Annual NOWRA Technical Conference and Expo, Milwaukee, WI.

Sincerely,
IMEG, Corp.

Prepared by:



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SUMMARY OF PROBABLE IMPACTS

PREPARED IN ACCORDANCE WITH SANDERS COUNTY SUBDIVISION REGULATIONS
for

BLUE CREEK SUBDIVISION

On Property Legally Described as: The Southwest One-Quarter of the Northwest One-Quarter (SW1/4 NW1/4) of Section 20 Lying North of Montana Highway 200, Township 27 North, Range 34 West, Principal Meridian Montana, Sanders County, Montana. Containing a total of 25.94 Acres, more or less.

Dated: January 15th, 2024
Revised: March 5th, April 25th,
and September 6th, 2024

Prepared For:
Tungsten Holdings, Inc.
809 Mineral Ave.
Libby, MT 59923

Prepared By:
IMEG Corp
1817 South Ave West, Suite A
Missoula, MT 59801

REVISION NOTE: Based on the July 23rd, 2024, Sanders County Commissioner meeting, and public comments provided during the public hearing it has been determined that the information submitted in the previous Water and Sanitation Report, Environmental Assessment and Summary of Probable Impacts Report in regard to available water quantity for the proposed individual wells was not sufficient and upon further county review the surface water and groundwater sections needed to be expanded. Public Comments during the hearing held on July 23rd, 2024, also raised concerns regarding traffic safety and wildlife corridors and observations on the subject property. Therefore, additional-agency comments have been requested by Sanders County from Montana Fish, Wildlife & Parks (FWP) and Montana Department of Transportation (MDT) which has affected responses herein.

A Suspension Agreement between Sanders County, the subdivider and representative has been made on August 5th, 2024, to suspend the Governing Body Review process until further information is obtained. The Preliminary Plat Application materials and responses herein are revised to further address public comments received during the Governing Body Public Hearing, additional agency comments, and narratives associated with surface and groundwater due to the implications of the Upper Missouri Waterkeepers v. Broadwater County Court decision.

SUMMARY OF PROBABLE IMPACTS

Summarize the effects of the proposed subdivision on each topic below. Provide responses to the following questions and provide reference materials as required:

1. Effects on Agriculture

a. Is the proposed subdivision or associated improvements located on or near prime farmland or farmland of statewide importance as defined by the Natural Resource Conservation Service? If so, identify each area on a copy of the preliminary plat.

The NRCS Soils & Farmland Classification Exhibit shows two separate classifications within the proposed subdivision: "Dewberry ashy silt loam, 2 to 8 percent slopes" and "Fernline-Cabinet ashy silt loams, 4 to 15 percent". The USDA soil map indicates the property as a mix of "Farmland of Statewide Importance" and "Farmland of Local Importance" soils. The Preliminary Plat contains the required information showing both "Prime Farmland if Irrigated" and "Farmland of Local Importance" which can be reviewed within Section A. Further, a NRCS Soils & Farmland Classification Exhibit is in Section D.

b. Describe whether the subdivision would remove from production any agricultural or timber land.

The subdivision does propose to remove some timber land from the subject property for residential homesites and associated infrastructure. The property was not historically used for commercial timber processing or agricultural production; therefore, the applicant does not foresee potentially significant adverse impacts resulting from the subdivision.

c. Describe possible conflicts with nearby agricultural operations (e.g., residential development creating problems for moving livestock, operating farm machinery, maintaining water supplies, controlling weeds or applying pesticides; agricultural operations suffering from vandalism, uncontrolled pets or damaged fences).

The applicant is not aware of adjacent agricultural production or operations. Further, there are no facilities or irrigated lands adjacent to or on site. However, the applicant may be required to adopt protective covenants pertaining to Living Adjacent to Agricultural Operations providing mitigation and guidance to future homeowners on how to reduce impacts to agricultural operations by confining pets and avoiding trespass.

d. Describe possible nuisance problems which may arise from locating a subdivision near agricultural or timber lands.

Due to the similar uses in the vicinity of this proposal, similar lot sizes and individual infrastructure (well and septic) on each site the subdivision will not remove any agriculture land or timber land used for commercial production. Larger tracts of land to the north may be used for timber lands and commercial thinning but are not adjacent to the subject property and impacts are not foreseen to these lands.

e. Describe effects the subdivision would have on the value of nearby agricultural lands.

The primary use for adjacent properties is residential, large tracts of open space, and public infrastructure (roadways). The proposal continues to support residential uses similar to those found within the vicinity, therefore, no adverse impacts are anticipated as a result of this proposed development.

2. Effects on Agricultural Water User Facilities

a. Describe conflicts the subdivision would create with agricultural water user facilities (e.g., residential development creating problems for operating and maintaining irrigation systems) and

whether agricultural water user facilities would be more subject to vandalism or damage because of the subdivision.

There are no known agricultural water user facilities on or adjacent to the subject property. As a result, no mitigation is proposed to offset the project impacts to agricultural water users because no potentially adverse impacts to agriculture water users have been identified.

b. Describe possible nuisance problems which the subdivision would generate with regard to agricultural water user facilities (e.g., safety hazards to residents or water problems from irrigation ditches, headgates, siphons, sprinkler systems, or other agricultural water user facilities).

There are no known agricultural water user facilities on or adjacent to the subject property. As a result, no mitigation is proposed to offset the project impacts to agricultural water users because no potentially adverse impacts to agriculture water users have been identified.

3. Effects on Local Services

a. Indicate the proposed use and number of lots or spaces in each:

___9__ Residential, multiple family
_____ Types of multiple family structures and number of each (e.g., duplex, 4-plex)
_____ Planned unit development (No. of units)
_____ Condominium (No. of units)
_____ Mobile Home Park
_____ Recreational Vehicle Park
_____ Commercial or Industrial
_____ Other (Please describe _____)

This subdivision proposes nine (9) residential single-family lots.

b. Describe the additional or expanded public services and facilities that would be demanded of local government or special districts to serve the subdivision.

i. Describe additional costs which would result for services such as roads, bridges, law enforcement, parks and recreation, fire protection, water, sewer and solid waste systems, schools or busing, (including additional personnel, construction, and maintenance costs).

Emergency services are available from the Sanders County Sheriff's Office. Fire Protection will be provided for the subdivision by the Heron Rural Fire District. Hospital and ambulance services will be provided by Community Ambulance of Western. The development is within the Noxon School District. The general increase in the tax base is expected to offset any impacts that are made to existing services as listed that would serve the proposed subdivision. Garbage pick-up is not anticipated for this development. Therefore, solid waste will need to be taken to one of the Sanders County Refuse Districts and each future lot owner would be responsible for disposal costs.

Parkland is not proposed; therefore, the applicant proposes to provide payment in lieu of parkland. This option will support other desirable locations throughout the county to be improved and provide easier connectivity and public access than the

subject property. Impacts to parks and recreation will be mitigated through providing cash-in-lieu.

An agency contact letter has been sent to each agency to provide comments on the subdivision proposal which will be considered during the subdivision administrators review. In summary, the landowner intends to provide evidence that a contribution has been made to Heron Rural Fire District as requested by the district for cash in lieu of a water supply for fire suppression. As it pertains to the comment received by Community Ambulance Services of Western Sanders County, Inc. the subdivision will abide by the Sanders County Subdivision Regulations and design standards which will satisfy the concerns as provided in their comment which is the responsibility of the developer.

Please refer to for review of comments received by both the Heron Rural Fire District and the Community Ambulance of Western Sanders County, Inc. as provided in Agency Notice Letter and Comments exhibit (Section D). We have not received comments from the Sanders County Sheriff's Office or the Noxon School District.

ii. Who would bear these costs (e.g. all taxpayers within the jurisdiction, people within special taxing districts, or users of a service)?
The newly proposed approach and internal roadways will be constructed prior to final plat approval and costs will be a burden of the developer. This infrastructure will support year-round access. The internal roadway is intended to be constructed to the Sanders County Road Design Standards and support access to each lot for busing, emergency services or fire protection needs for future lot owners. This submittal packet has included a proposed Road Maintenance Agreement, provided in Section C, ensuring costs for maintenance and repair of the roadway is the responsibility of each lot owner.

The developer does not anticipate a park dedication will be required for proposed Lots 1-3 as they are proposed to be larger than 5 acres. As a result, the developer anticipates 0.45 acres (0.14 ac + 0.31 ac = 0.45 ac) will be required for a cash-in-lieu of parkland dedication. A tax assessment or appraisal report dated no less than 6 months from the date of submittal for calculating cash-in-lieu of parkland dedication along with a receipt from the County Treasures Office will be provided by the applicant prior to final plat approval.

Each lot will be responsible for the permitting and construction of each well, septic and drainfield. The general increase in the tax base is expected to offset any impacts that are made to existing facilities that serve the proposed subdivision.

iii. Can the service providers meet the additional costs given legal or other constraints (e.g. statutory ceilings on mill levies or bonded indebtedness)?
Yes, the service providers can meet the additional cost at this time. Agency contact letters have been sent to each agency to provide comments on the subdivision proposal which will be considered during the subdivision administrators' review.

On January 11th, 2024, Northern Lights, Inc. provided a new underground line would likely be located within the new internal road network and each residential lot would establish a transformer. Please see the Agency Notice Letter and Comments packet in Section E of the submittal packet

iv. Describe off-site costs or costs to other jurisdictions may be incurred (e.g. development of water sources or construction of a sewage treatment plant; costs borne by a nearby municipality).
Public wastewater treatment facilities and public water supply is not within the vicinity or available to this development. The MDEQ Lot Layout planning submittal, within Section A, provides details for the proposed approximate locations of wells. Further, this layout provides locations anticipated size of subsurface wastewater treatment systems and replacement areas. Each individual future lot owner will be responsible for the construction and permitting of septic, drainfields, and well locations as provided. Please reference the Water and Sanitation Report (Section D, of the Subdivision Packet) providing further information on how each lot will be provided well and septic infrastructure to serve each lot.

c. Describe how the subdivision allows existing services, through expanded use, to operate more efficiently, or makes the installation or improvement of services feasible (e.g. allow installation of a central water system or upgrading a country road).
The newly proposed Blue Sky Drive and Blue Sky Court will both be unobstructed for maintenance of any future utilities; therefore, these roadways will be subject to a proposed Road Maintenance Agreement. These planned private improvements will aid in mitigating impacts anticipated from the proposed subdivision. The general increase in the tax base is expected to offset any impacts that are made to existing facilities that serve the proposed subdivision.

d. What are the present tax revenues received from the unsubdivided land?
   i. By the County $ _____60.00_____
   ii. By the municipality if applicable ____N/A_____
   iii. By the school(s)$ ___26.00_____

4. Effects on the Historic or Natural Environment
   a. Describe and locate on a plat overlay or sketch map known or possible historic, paleontological, archaeological or cultural sites, structures, or objects which may be affected by the proposed subdivision.
   There are no known historical, paleontological, archeological, or cultural sites located within a half-mile of the proposed subdivision, therefore, a site map has not been provided.

   According to the Sanders County Subdivision Regulations the "Natural Environment" is defined as, "physical conditions which exist within a given area, including land, air, water, mineral, flora, fauna, noise, and objects of historic or aesthetic significance." The subsections provided below address effects on the natural environment. It should be noted,

any existing mineral rights are planned to remain and are not planned to be used in connection with this subdivision. The title report and current ownership deeds do not specify the severance of mineral rights. Further, proposed development and associated construction activities are not anticipated to interfere (explore for, drill for or extract mineral) with existing mineral rights that pertain to the property.

b. How would the subdivision affect surface and groundwater, soils, slopes, vegetation, historical or archaeological features within the subdivision or on adjacent land? Describe plans to protect these sites.

i. Would any stream banks or lake shorelines be altered, streams rechanneled, or any surface water contaminated from sewage treatment systems, run-off carrying sedimentation, or concentration of pesticides or fertilizers?

The groundwater flow direction is provided as an exhibit within the Water and Sanitation Report (Section D, of the Subdivision Packet) providing groundwater generally follows the topographic gradient towards the Clark Fork River. The east fork of Blue Creek is west of the subject property which is formed by the Cabinet Mountain Range having multiple channels throughout the valleys before it flows into the Lower Clark Fork River below the Cabinet Gorge Dam. The east Fork of Blue Creek flows year round and is not anticipated to have any streambank alteration or proposed construction that would modify its channel as a result of this division. The Clark Fork River is south of HWY 200, therefore, its shoreline is not proposed to be altered or rechanneled.

Regarding surface water contamination from sewage treatment system the proposed subdivision requires a 100-foot radius around each proposed well to avoid degradation of groundwater recharge areas. The aquifer may be in connection with surface water, the Clark Fork River, as ground water flow generally follows the topographic gradient towards the river. Therefore, these buffer zones help avoid contamination from the on-site treatment systems. Given the rural residential nature of this development, well logs, soil profiles and other supporting information provided within this report the Cabinet Gorge Reservoir to the south is not anticipated to be significantly impacted from sewage treatment systems. The proposed wells and wastewater systems could have some acceptable impacts to groundwater recharge but will be reviewed and permitted by the Department of Environmental Quality (DEQ) and local Sanders County Health Department reducing significant adverse impacts to groundwater.

Run-off carrying sedimentation, or concentration of pesticides or fertilizers as a result of this division could be possible during heavy rain events or spring runoff. Effects from sedimentation or pesticides affect the Clark Fork River given the surface water and groundwater flows would move south, down gradient, and into the river (Clark, W. P. and Peck, D. L. (1982)). The proposal is intended for rural residential development and adjacent to HWY 200, therefore, it is not anticipated the subject properties will be completely cleared of existing vegetation and canopy cover which provides privacy between each proposed lot and adjacent tracts and has the potential to provide

privacy from the HWY. When mature trees and vegetation are present filtration of run-off from snowmelt and precipitation will aid in groundwater recharge for the area and reduce sediment from being carried into the Clark Fork River. Residential pesticides could enter the Clark Fork River if not properly disposed of or applied to each lot. Property owners should generally avoid using fertilizers, pesticides, or herbicides related to weed control efforts near the well locations and should refer to the Weed Management Plan for recommendations on control methods of invasive weeds. The Weed Management Plan is required to be recorded in conjunction with a subdivision in an effort to educate future property owners. The subdivision could have some impacts to groundwater recharge but will be reviewed and permitted by the Department of Environmental Quality (DEQ) and local Sanders County Health Department reducing significant adverse impacts to groundwater.

ii. Would groundwater supply likely be contaminated or depleted as a result of the subdivision? **As described within the Environmental Assessment (Section 2.A-B), no site specific locations of groundwater recharge areas were found or identified based on onsite features or published literature during our search. The section talks in general about infiltration from surface water and precipitation over the general landscape that provides some contribution to groundwater supply. The aquifer may be in connection with surface water, the Clark Fork River, as ground water flow generally follows the topographic gradient towards the river. Therefore, proper installation and maintenance of onsite septic systems and storm drainage infrastructure is necessary to protect adjacent surface waters and the groundwater supply. Another source of potential contamination to groundwater supplies is runoff from vehicle oil spills or gas from motorized users on the existing roadways, HWY 200 and Blue Creek Road, and the proposed internal subdivision roads as provided on the preliminary plat. The proposed wells and wastewater systems could have some acceptable impacts to groundwater recharge but will be reviewed and permitted by the Department of Environmental Quality (DEQ) and local Sanders County Health Department reducing significant adverse impacts to groundwater.**

Please note, this is a rural residential development that does not include commercial or industrial uses that would result in logging activities or mining practices which could negatively affect the groundwater recharge areas with harsh chemicals or large removal of vegetation reducing the likelihood of runoff filtering into the water table. The proposal does not include larger agricultural land and is not adjacent to lands in which farming practices or agricultural operations could be considered a contaminant source due to fertilizers, pesticides and/or herbicides. Rather, the proposed subdivision contains three larger tracts, proposed Lot 1-3, being a similar size to those adjacent to the west and have limited buildable space due to steep slopes along the northern property line. Therefore, these larger tracts would remain forested and reduce the potential of contaminant sources through catching run off and absorbing snow melt on the subject property. Proposed swales and retention ponds are designed to capture the increase in storm drainage runoff. The preliminary designs include

roadside swales which convey water to the proposed retention ponds in each of the four (4) road basins have enough capacity to convey and retain the 100-year 24-hour post-development peak flows subject to DEQ review and approval. Therefore, potential residential containments will be captured on site and storm drainage runoff will be mitigated per Sanders County Subdivision Regulations and DEQ Circular 8 responsibly avoiding degradation of potential groundwater recharge areas.

The proposed subdivision includes nine (9) individual wells and on-site wastewater systems. A common practice in urban or semi-urban environments is to utilize onsite wells to pump water from the aquifer and utilize centralized wastewater systems to treat and dispose of the wastewater in a nearby surface water, therefore depleting the aquifer. It has been found that utilization of on-site wastewater treatment and disposal systems where the water is pumped from the aquifer via a well, treated with a septic tank and disposed of via a drainfield, that 85 percent of water discharged from drainfields percolates through the vadose zone of the receiving soil and into the shallow aquifer (McQuillan, D. and Bassett.E. (2009)). This return flow from the on-site wastewater treatment and disposal systems recharges the site specific aquifer and reasonably mitigates some of the concerns of additional water use.

All on-site wastewater treatment and disposal systems will be designed in accordance with DEQ regulations and comply with the State of Montana's non-degradation requirements. Further, a non-degradation analysis of impacts to groundwater quality from the proposed wastewater treatment systems show there will be no significant changes to water quality. Please reference the Water and Sanitation Report (Section I.2. Description) providing further information pertaining to the steps necessary to avoid degradation of potential groundwater recharge areas and adjacent surface waters.

If it is determined by DEQ that this well log comparison is not sufficient evidence of adequate water quantity to meet the regulation for individual wells, then either a test well with an associated pump test will be completed, or cisterns for low producing wells will be proposed per the requirements in ARM 17.36 and DEQ Circular 20.

iii. Would construction of roads or building sites require cuts and fills on steep slopes or cause erosion on unstable, erodible soils? Would soils be contaminated by sewage treatment systems?

The newly approach and internal roadways will not result in graded areas that would result in slopes steeper than 3:1 (horizontal to vertical). The provided cross sections propose a 4:1 side slope off the roadway into the stormwater catch basins. A large portion of the grade changes occur along the southern property line of proposed Lot 2 at approximately 2321 elevation but does not result in more than 4-feet of cut and fill. The applicant does not foresee the grading of this roadway and associated stormwater infrastructure would cause erosion on unstable or erodible soils nor would it result in

contamination by sewage treatment systems. Please see the Grading, Drainage, and Road Construction Plans for profiles of road segments in Section D.

It should be noted that a site visit was conducted with IMEG staff, Katherine Maudrone, and the District 3 Road Foreman in September of 2022 which concluded that an approach off of Blue Creek Road would not be supported due to heavy truck traffic and slopes along the existing roadway. Further, the Preliminary Plat Application Requirements checklist received by IMEG Staff on August 16th does not require a legal or physical access off of the local roadway, Blue Creek Road, or a variance request for proposing access unto a higher road classification. A second formal site visit has occurred on April 16, 2024, with MDT, Sanders County, the current property titleholder, and an IMEG representative to discuss possible hazardous conditions due to the proposed approach unto the adjacent HWY and why Blue Creek Road would not provide adequate access to the division. Therefore, this development has proceeded with an approach permit unto HWY 200 as provided in MDOT Approach Application (section D, of the Subdivision Packet) avoiding cuts and fills on steep slopes for access. Sanders County will provide a formal letter providing support of the proposed access unto HWY 200 subject to review and approval by MDT.

Both the proposed Weed Management Plan and cause erosion on unstable, erodible soils Weed Management Plan guides the use of herbicide treats, requires portions of a project's disturbed roadside slopes will be seeded to establish suitable competitive vegetation at the first suitable season. Requires the landowner to seed all easements to edge of road and manage invasive weeds and provide notice to property owners regarding best seeding practices as provided in the Weed Management Plan. Therefore, this guidance for reseeding during and after construction of roadway improvements will avoid runoff into nearby surface waters.

The standards of MDEQ pertaining to water supply quality, quantity and construction criteria are intended to be met. This includes 100' well isolation zones and review of subsurface treatment systems and replacement areas by MDEQ to avoid the contamination or depletion of groundwater supply. Soils are not anticipated to be contaminated by sewage treatment systems, please refer to the previous response within this section of the application for further clarification.

iv. Describe the impacts that removal of vegetation would have on soil erosion, bank, or shoreline instability.

The Clark Fork River is a natural water system south of HWY 200, approximately 950-feet south of the proposed subdivision. The project is not directly adjacent to the Clark Fork River, therefore, proposed vegetation removal for infrastructure improvements and future home sites will not cause soil erosion, bank or shoreline instability to the Clark Fork River. Another natural water system in the project's vicinity is the east fork of Blue Creek. This creek is approximately one half mile west of the subject property,

therefore, impacts of vegetation removal for building sites and internal roadway infrastructure will not cause soil erosion, bank or shoreline instability to this creek.

The proposal is intended for rural residential development and is adjacent to HWY 200, therefore, it is not anticipated the subject properties will be completely cleared of existing vegetation and canopy cover. Vegetation not only reduces surface runoff but will provide privacy between each proposed lot, the adjacent existing tracts and has the potential to provide privacy from the HWY. When mature trees and vegetation are present filtration of run-off from snowmelt and precipitation will aid in groundwater recharge for the area and reduce sediment from being carried the Clark Fork River. Please refer to Section 3.A-B herein which provides a description of the topography and Section 4.A-B below which provides a general description of vegetation supported by exhibits and additional reports within the Subdivision Application Packet.

Further, his project is required to establish a Noxious Weed Management Application and Plan, which has been prepared in accordance with the Sanders County Subdivision Regulations and Montana County Noxious Weed Control Act. The plan details the current conditions of the site, the weed management goals for the subdivision, and it specifies specific weed management techniques (control actions) that will be followed to ensure noxious weeds are actively managed on the property indefinitely. A copy of the Noxious Weed Management Application and Plan can be reviewed in Section C.

Please see the Grading, Drainage, and Road Construction Plans in Section D of the Subdivision Submittal packet which show where soils are 25% or greater a no-build zone has been established to further minimize impacts or possibility of soil erosion for the subject development. Please refer to the Preliminary Plat, provided in Section A, to review these areas.

v. Would the value of significant historical, visual, or open space features be reduced or eliminated?

A Montana State Historic Preservation Office (SHPO) Report has been generated to include within Section 20, Township 27 North, and Range 34 West which did not include historic structures or objects within a half-mile of the proposed subdivision. Typically, a file search is completed by the SHPO for the proposed project area and a summary of historical structures, features, and sites are provided. Based on the results of this report a total of three historical objects or sites exist within the same township, section, and range but none are on or adjacent to the proposed development. Therefore, approval of this subdivision will not destroy, adversely affect, or damage significant historical features. Please see the SHPO Report and Letter included in Section E.

The adjacent lands are timbered; therefore, it is not anticipated open spaces or visual features would be eliminated. It should be noted that the intent of the subdivider is to propose cash-in-lieu instead of proposing open space or a parkland dedication. This

option will support other desirable locations throughout the county to be improved and provide easier connectivity and public access than the subject parcel.

vi. Describe possible natural hazards the subdivision be could subject to (e.g., natural hazards such as flooding, rock, snow or landslides, high winds, severe wildfires, or difficulties such as shallow bedrock, high water table, unstable or expansive soils, or excessive slopes).
The subject property contains steep slopes in the northern portion of the site and along areas of Blue Creek Road while the remainder of the subject property consists of soils less than 15% slopes. The steep sloped areas restrict development and structures and will likely remain timbered. Please refer to the Preliminary Plat, provided in Section A, to review these areas. All other areas, not identified with an "No-Build Zone" are not intended to restrict development.

The proposed development is located in the Wildland Urban Interface (WUI); therefore, this application packet includes a fire assessment of the risk of wildfire hazards. Therefore, mitigation strategies to reduce the negative impacts of wildfire on the community are considered. A Fire Risk Rating Form and Fire Prevention and Control Plan has been provided in Section E considers road grade, emergency access routes, road surface conditions, vehicle clearance, etc. outlining the possible natural hazard and possible mitigation to reduce wildfire hazard in the new subdivision.

c. How would the subdivision affect visual features within the subdivision or on adjacent land? Describe efforts to visually blend the proposed development with the existing environment (e.g. use of appropriate building materials, colors, road design, underground utilities, and revegetation of earthworks).
The primary use for adjacent properties is residential, large tracts of open space, and public infrastructure (roadways). The proposal continues to support residential uses similar to those found within the vicinity. As mentioned previously, a Noxious Weed Management Application and Plan can be reviewed in Section C. This plan will be used to reduce the impact of noxious weeds on the disturbed sites, mitigating negative visual impacts during and after the construction of the roadway and installation of utilities.

5. Effects on Wildlife and Wildlife Habitat

a. Describe what impacts the subdivision or associated improvements would have on wildlife areas such as big game wintering range, migration routes, nesting areas, wetlands, or important habitat for rare or endangered species.
The proposed development and surrounding area could be described as consisting of rural residential tracts, vacant timbered lands, rural road infrastructure to the west, HWY 200 to the south. In summary, properties adjacent to the north are rural residential tracts generally consisting of 20-acres, properties to the east are roughly 5-acres and to the west of Blue Creek Road are tracts 20-acres or larger in size. Therefore, the subject property is +/- 25.94 acres in an area that could be described as containing existing rural developments mixed with vacant timber lands. Given the proposed division is within unincorporated Sanders County and away from city limits ranges for Elk, Mule Deer and White-Tailed Deer Distribution Maps have been provided

within the Wildlife Exhibit in Section B. These species occur in the area and show suitable habitats within the distribution maps, however, not all areas will always have animals or sign of animals every year. An agency comment has been received by Montana Fish, Wildlife & Parks (FWP) on August 15th, 2024, recommending clustering lots and maintaining open areas. This Agency Comment was received during the extended Governing Body review period and is now included in the revised Adjacent Ownership & Agency Comments (Section E, of the Subdivision Packet). FWP recommendations to minimize wintering wildlife include keeping dogs away from wintering wildlife, clustering lots and maintaining open areas in which this proposed subdivision provides and further described below.

Impacts from development activity are possible to big game wintering range and migration routes because dispersed housing development where homes, roads, driveways can limit wildlife movement. This subdivision is situated adjacent to HWY 200, Blue Creek Road, and tracts of lands with established homes and driveways to the north and east of the subject property. Therefore, the proposed development is situated in an area where houses, roads and driveways already exist on established tracts of land 5- to 20-acres. This proposed division does not seem to create a "fragmented" area as existing homes are adjacent on all sides. Impacts are possible due to the proposed improvements in this area containing "dispersed housing" within the valley and foothills of Sanders County where big game utilize their winter range. Although the subdivision has potential to affect these species the application packet as proposed reasonably mitigates adverse negative impacts as provided below.

The subdivision contains areas of slopes of at least 25% or greater within the northern portion which is timbered. As a result of the existing steep slopes the development avoids the potentially hazardous areas, as provided on the face of the plat within Lots 1 and 2, through the designated "No-Build Zones". Given this natural topographic feature the proposed development contains larger lots on the north side of the proposed internal roadways, Blue Sky Court and Blue Sky Drive, and smaller clustered lots towards HWY 200. As a result, a small portion of the development is left undisturbed, adjacent to the existing 20-acre rural residential tracts to the north. Further, a "1' No Access Strip" is proposed along the entirety of Blue Creek Road limiting access that would reduce the ability of construction a driveway or future buildings near the northern portions of Lot 1. Lots 1 -3 are larger tracts allowing a portion of the acreage to remain open and allow wildlife to move through the property. Although these lots contain steeper slopes, they consist of natural vegetation that may limit the line of sight distances and alleviate noise between wildlife, development activity, and HWY 200. According to FWP's *Big Game Winter Range Recommendations for Subdivision Development in Montana*, "functional winter range requires large undeveloped blocks of land and associated movement corridors" in which this development provides (Vore, John (2012), pg. 12). Further, the professional paper provides "the best option for wildlife is to build the houses and roads on a small portion of the landscape near and adjacent to existing development and leave as much land as possible undisturbed, unfragmented, and protected" therefore, reasonably mitigated impacts of the subdivision on big game winter range through its clustered design and being placed near existing development and adjacent road infrastructure Vore, John (2012), pg. 12).

The project area does not contain any known natural drainages, ponds, marshes, or wetlands located on the subject property or directly adjacent to the development, however, the Clark Fork River is south of the highway. An Environmental Summary Report has been provided by Montana Natural Heritage Program (MTNHP), provided in Section D of this submittal. This report provides Westslope Cutthroat Trout and other non-native fish species such as Rainbow Trout, Brown Trout and Brook Trout may exist within the east fork of Blue Creek. Blue Creek aquatic life could be impacted by the proposed subdivisions sediment run off or if pesticides are heavily used by future residents. The impacts of wildlife, major snow events and flooding can also affect species within the nearby surface water systems. A number of plans and engineering design will aid in reducing sediment run off or heavily used herbicide to treat noxious weeds for this project. The residential subdivision proposes onsite stormwater retention, which will be subject to an approved Weed Management Plan (Section C, of the Subdivision Packet) reseeding guidelines and the Grading and Drainage Engineering Design Report (Section D, of the Subdivision Packet) for maintenance of these facilities. Furthermore, all proposed onsite septic systems and wastewater treatment is subject to review and approved by the Department of Environmental Quality.

To provide a summary, the Weed Management Plan guides the use of herbicide treatment and requires that the project's disturbed roadside slopes be seeded to establish suitable competitive vegetation at the first suitable season. Further the developer is to seed all easements to the edge of road and manage invasive weeds and provide notice to property owners regarding best seeding practices as provided in the Weed Management Plan. Therefore, this guidance for reseeding during and after construction of roadway improvements will avoid runoff into nearby surface waters. The Grading Drainage Engineering Design Report (Section D, of the Subdivision Packet) provides an Operation and Maintenance Plan for to manage the storm drainage to insure they are functioning probably. The road retention ponds and swales shall be inspected by the Homeowners Association for debris or blockage as well as blockage of the conveyance surrounding the facility once a month as provided on the Preliminary Plat. The proposed onsite septic systems and wastewater systems could have some acceptable impacts to surface waters and aquatic species habitat but will be reviewed and permitted by the Department of Environmental Quality (DEQ) and local Sanders County Health Department reducing significant adverse impacts to surface waters and important habitat for aquatic species. The applicant is not aware of any endangered aquatic species that could be impacted by the division. Although the subdivision has potential to affect these species the application packet as proposed reasonably mitigates adverse negative impacts.

Please note, this is a rural residential development that does not include commercial or industrial uses that would result in logging activities or mining practices which could negatively affect surface waters with harsh chemicals or large removal of vegetation reducing the likelihood of runoff filtering into the surface waters. The proposal does not include larger agricultural land and is not adjacent to lands in which farming practices or agricultural operations could be considered a contaminant source due to fertilizers, pesticides and/or herbicides. Rather, the proposed subdivision contains three larger tracts, proposed Lot 1-3, being a similar size to those adjacent to the west and have limited buildable space due to steep slopes along the northern property line. Therefore, these larger tracts would remain forested and reduce the potential of

contaminant sources through catching run off and absorbing snow melt on the subject property. Proposed swales and retention ponds are designed to capture the increase in storm drainage runoff. The preliminary designs include roadside swales which convey water to the proposed retention ponds in each of the four (4) road basins have enough capacity to convey and retain the 100-year 24-hour post-development peak flows subject to DEQ review and approval. Therefore, potential residential containments will be captured on site and storm drainage runoff will be mitigated per Sanders County Subdivision Regulations and DEQ Circular 8 responsibly avoiding degradation of potential surface waters reasonably mitigating negative adverse impacts of the provided subdivision.

A National Wetlands Inventory Map is provided in Section B of this application packet. The map supports that there are no wetlands on or adjacent to the site, therefore, no adverse impacts will occur as a result of this subdivision. The provided Environmental Summary Report provides the site is not known to have nesting areas or important habitat for rare or endangered species. Therefore, no adverse impacts will occur to nesting areas or endangered species as a result of this subdivision. The Environmental Summary Report has been provided by Montana Natural Heritage Program (MTNHP) and can be reviewed in Section D of this submittal.

The proposed project reasonably mitigates impacts on wildlife and wildlife habitat which is inhabited by birds, small and large mammals within this mixed rural residential and timbered area through proposing larger tracts of land that will preserve habitat for those species that may visit or pass through the site.

b. Describe the effect that pets or human activity would have on wildlife.

In summary, access to rural residential lots with nearby recreational amenities continues to be sought after therefore, residents must accept responsibility for maintaining their property in a manner which minimizes conflicts and does not restrict free transit of wildlife across the land. The proposal includes recommendations from FWP as it pertains to Wildlife Attractants/Wildlife Conflicts/Living with Wildlife. The provides division could affect wildlife if domestic garbage, unfenced gardens, birdseed or domestic animals feed is not stored properly. These recommendations have been incorporated wildlife recommendations into the subdivision's Covenants, Restrictions & Conditions to enable awareness and enforceability. Based on the FWP recommendations most wildlife conflict can be resolved by making simple changes such as removing attractants. Understanding wildlife behavior can help you appreciate and coexist while reducing negative impacts. Therefore, understanding the feeding habits, seasonal movements, reproduction and other behavioral patterns will help future homeowners coexist with wildlife and prevent negative impacts on wildlife in the area. An agency contact letter has been sent to the Montana Fish, Wildlife & Parks Department for an opportunity to provide comments on the subdivision proposal which will be considered during the subdivision administrators review no comments were received prior to the Governing Body Hearing. However, an agency comment has been received by Montana Fish, Wildlife & Parks (FWP) on August 15th, 2024, recommending the developer incorporate wildlife recommendations into the subdivision's Covenants, Restrictions & Conditions to enable awareness and enforceability. This Agency Comment was received during the extended Governing Body review period and is now

included in the revised Adjacent Ownership & Agency Comments (Section E, of the Subdivision Packet).

6. Effects on the Public Health and Safety

a. Describe any health or safety hazards on or near the subdivision, such as: natural hazards, lack of water, drainage problems, heavy traffic, dilapidated structures, high pressure gas lines, high voltage power lines, or irrigation ditches. These conditions proposed or existing should be accurately described with their origin and location identified on a copy of the preliminary plat.

There are no known health or safety hazards on or near the subdivision related to: natural hazards, lack of water, drainage problems, dilapidated structures, high voltage power lines, irrigation canals, airports, floodplains, railroads, high fire hazard areas, or adjacent industrial or mining uses. Public health and safety due to an increase in traffic have been reviewed by MDT as it pertains to the proposed approach standards, sight distance requirements and proposed construction plans for the approach unto Hwy 200 and has conducted two site visits with Sanders County, IMEG Corp., and the property owner. The subdivision was unable to obtain reasonable access from Blue Creek Rd., being of a lower road classification, and was granted a permit for one direct approach to MT-200. Due to public comments during the public hearing held on Tuesday, July 23rd, 2024, for Blue Creek Subdivision additional communication with MDT has been provided in the Agency Comments – Hearing Continuation Exhibit (Section E, of the Subdivision Packet). Based on this additional agency communication MDT issues permit in accordance with Administrative Rules of Montana Title 18, Chapter 5, Sub-Chapter 1, "Highway Approaches." MDT's general authority over highways and its rulemaking authority is set forth in Montana Code Annotated § 60-2-201, the new access as proposed has been issued a permit and is not required to generate a Traffic Impact Study to determine mitigation of the additional vehicle trips proposed to be generated. According to communication with MDT the amount of traffic generated does not meet volume warrants for turn lane mitigation.

Further, agency contact letters have been sent for an opportunity to provide comments on the subdivision proposal which will be considered during the subdivision administrators review. Please see Section E of the submittal packet to review comments received that do not provide additional health or safety hazards on or near the subdivision to address at this time.

b. Describe how the subdivision would be subject to hazardous conditions due to high voltage lines, airports, highways, railroads, dilapidated structures, high pressure gas lines, irrigation ditches, and adjacent industrial or mining uses.

It should be noted that a site visit was conducted with IMEG staff, Katherine Maudrone, and the District 3 Road Foreman in September of 2022 which concluded that an approach off of Blue Creek Road would not be supported due to heavy truck traffic and slopes along the existing roadway. A second formal site visit has occurred on April 16, 2024, with MDT, Sanders County, the current property titleholder, and an IMEG representative to discuss possible hazardous conditions due to the proposed approach unto the adjacent HWY and why Blue Creek Road would not provide adequate access to the division.

Blue Creek Road contains steep slopes with a gradient of 25% or greater and topography that does not provide safe access unto HWY 200. About 950' from the Blue Creek Road and HWY 200 intersection a flat bench exists reducing travel lane visibility from this point the entire slope length is downhill until vehicles reach the intersection. This flat bench and slope length is especially a concern during winter months given the travel distance for vehicles to come to a full stop at the intersection of the two roadways. Environmental conditions on Blue Creek Road, such as weather (e.g., snow, heavy rainfall), water, and the possibility of flash floods (e.g., storm runoff) all reduce the ability for vehicles to come to a full stop and additional traffic from this division would deteriorate the underlying material at a much faster rate given the rural nature of the area. Further, the likely priority of the public roadway to be maintained compared to those closer to civic services or within closure proximity to town limits should be considered.

Therefore, this development will proceed with an approach permit unto HWY 200 as provided in MDOT Approach Application (Section D, of the Subdivision Packet) avoiding cuts and fills on steep slopes for access. This approach has been designed in conjunction with an internal road network which avoids the steep grades, therefore, providing gradual access unto HWY 200. All residential homesites including individual well and septic locations are pushed towards this internal road network given the steep slopes along the northern portion of this property which have been dedicated as "No Build Zones". Please see the Preliminary Plat (Section A, of the Subdivision Packet) for a reference of subdivision design and layout. Sanders County will provide a formal letter providing support of the proposed access unto HWY 200 subject to review and approval by MDT.

The remaining hazards listed are not applicable, please see the previous response within this section.

c. Describe land uses adjacent to the subdivision and how the subdivision will affect the adjacent land uses. Identify existing uses such as feed lots, processing plants, airports or industrial firms which could be subject to lawsuits or complaints from residents of the subdivision.
The proposed development is not adjacent to feed lots, processing plants, airports, or industrial firms, therefore, no lawsuits or complaints are anticipated. The primary use for adjacent properties is residential, large tracts of open space, and public infrastructure (roadways). The proposal continues to support residential uses similar to those found within the vicinity.

d. Describe public health or safety hazards, such as dangerous traffic, fire conditions, or contamination of water supplies which would be created by the subdivision.
Please refer to Section 6.A Effects on Public Health and Safety as it pertains to the discussion around proposed access into the subdivision. The proposed approach unto HWY 200 is subject to review by MDT to reduce public safety hazards for the proposed development. The proposed approach is made up of two 12' travel lanes, 2' gravel shoulders, will include signage and aligns with the approach adjacent to the south providing safe access into the development.

Further, the general increase in the tax base is expected to offset any impacts that are made to existing facilities that serve the proposed subdivision. Further, the existing emergency services personnel, vehicles, and facilities described throughout this application packet are anticipated to meet the likely needs of the proposed subdivision.

References:

Bowman, S., and B. Olson. 2019. Lower Clark Fork Tributary Watershed Restoration Plan (LCFTWRP), Section 4.2 Blue Creek Watershed, pages 48-52.

Clark, W. P. and Peck, D. L. (1982). Ground-Water Regions of the United States. United States Geological Survey Water-Supply Paper 2242, pages 20–23.

Vore, John (2012). Big Game Winter Range Recommendations for Subdivision Development in Montana: Justification and Rationale. A Professional Paper, pages 5-6.

McQuillan, E. and Bassett, E. (2009) Return Flow to Ground Water from Onsite Wastewater Systems. Presentation Paper, 18th Annual NOWRA Technical Conference and Expo, Milwaukee, WI.

Sincerely,
IMEG, Corp.

Prepared by:

Tamara Ross

IMEG | Civil Designer / Planning Technician
"\\files\Active\Projects\2022\22003448.00\Design\Civil\CC07 PLANNING"

COMMUNITY IMPACT REPORT

PREPARED IN ACCORDANCE WITH SANDERS COUNTY SUBDIVISION REGULATIONS
for

BLUE CREEK SUBDIVISION

On Property Legally Described as: The Southwest One-Quarter of the Northwest One-Quarter (SW1/4NW1/4) of Section 20 Lying North of Montana Highway 200, Township 27 North, Range 34 West, Principal Meridian Montana, Sanders County, Montana. Containing a total of 25.94 Acres, more or less.

Dated: January 15th, 2024
Revised: March 5th, April 25th,
and September 6th, 2024

Prepared For:
Tungsten Holdings, Inc.
809 Mineral Ave.
Libby, MT 59923

Prepared By:
IMEG Corp
1817 South Ave West, Suite A
Missoula, MT 59801

REVISION NOTE: Based on the July 23rd, 2024, Sanders County Commissioner meeting, and public comments provided during the public hearing it has been determined that the information submitted in the previous Water and Sanitation Report, Environmental Assessment and Summary of Probable Impacts Report in regard to available water quantity for the proposed individual wells was not sufficient and upon further county review the surface water and groundwater sections needed to be expanded. Public Comments during the hearing held on July 23rd, 2024, also raised concerns regarding traffic safety which has affected responses herein.

A Suspension Agreement between Sanders County, the subdivider and representative has been made on August 5th, 2024, to suspend the Governing Body Review process until further information is obtained. The Preliminary Plat Application materials and responses herein are revised to further address public comments received during the Governing Body Public Hearing, additional agency comments, and narratives associated with surface and groundwater due to the implications of the Upper Missouri Waterkeepers v. Broadwater County Court decision.

COMMUNITY IMPACT REPORT

Provide a community impact report containing a statement of estimated number of people coming into the area as a result of the subdivision, anticipated needs of the proposed subdivision for public facilities and services, the increased capital and operating cost to each affected unit of local government. Provide responses to each of the following questions and provide reference materials as required.

1. Education and Busing

a. Describe the available educational facilities which would serve this subdivision.

This proposed subdivision is located within the Noxon School District.

b. Estimate the number of school children that will be added by the proposed subdivision. Provide a statement from the administrator of the affected school system indicating whether the increased enrollment can be accommodated by the present personnel and facilities and by the existing school bus system. If not, estimate the increased expenditures that would be necessary to do so.

According to census information gathered and analyzed by Statista between 1960 and 2020 the average number of children under 18 in families with children in the United States grows at a maximum of .5 children per year (assuming a household has two parents). As the exact number of families with children cannot be determined at this time it is anticipated that the proposed development will align with the average trend and families that move to the proposed subdivision would contribute a maximum of .5 annual growth to children under the age of 18 in this area (www.statista.com)

Based on this information, assuming 9 future single-family homes would adhere to the estimated average, the proposed development could add 5 school aged children at full build out. A letter was sent to the Noxon School District for comment, but no response was received at this time. The additional cost coming from the increase in students would be covered by the increase in taxes.

2. Roads and Maintenance

a. Estimate how much daily traffic the subdivision, when fully occupied will generate on existing streets and arterials.

The conservative number used to estimate vehicle trips per day for the proposed use of Single-Family Detached Housing is 10 trips per day for each lot proposed. As a result, the subdivision may generate an average of 90 vehicle trips per day at full build out. This has been found through using the current edition Trip Generation published by the Institute of Transportation Engineers. This publication includes rates and equations for use in estimating traffic generation by land use of the type proposed for the subdivision which is Single Family Detached Housing.

b. Describe the capability of existing and proposed roads to safely accommodate this increased traffic.

A proposed 1' No-Access Strip is located along the entire southern property boundary along the HWY 200; excluding the proposed approach. All lots will be accessed by the newly proposed Blue Sky Drive or Blue Sky Court to be constructed of a 24-foot-wide gravel road surface with 2-foot shoulders contained within the 60-foot Private Access and Utility Easement (P.A.U.E.). In addition, two hammerhead turnarounds are proposed to be included within this development and will comply with emergency service access requirements. The easement will be unobstructed for maintenance of any future utilities; therefore, each roadway will be subject to a proposed Road Maintenance Agreement, provided in Section C. These planned private improvements will aid in mitigating impacts anticipated from the

proposed subdivision. These proposed improvements can be observed in the Grading, Drainage, and Road Construction Plans and approval of the Private Subdivision Road Register in Section D of this submittal.

It should be noted that a site visit was conducted with IMEG staff, Katherine Maudrone, and the District 3 Road Foreman in September of 2022 which concluded that an approach off of Blue Creek Road would not be supported due to heavy truck traffic and slopes along the existing roadway. Further, the Preliminary Plat Application Requirements checklist received by IMEG Staff on August 16th does not require a legal or physical access off of the local roadway, Blue Creek Road, or a variance request for proposing access unto a higher road classification. A second formal site visit has occurred on April 16, 2024, with MDT, Sanders County, the current property titleholder, and an IMEG representative to discuss possible hazardous conditions due to the proposed approach unto the adjacent HWY and why Blue Creek Road would not provide adequate access to the division. This development has proceeded with an approach permit up to HWY 200 as provided in MDOT Approach Application (section D) avoiding cuts and fills on steep slopes for access.

Due to public comments during the public hearing held on Tuesday, July 23rd, 2024, for Blue Creek Subdivision additional communication with MDT has been provided in the Agency Comments – Hearing Continuation Exhibit (Section E, of the Subdivision Packet). Based on this additional agency communication MDT issues approach permits in accordance with Administrative Rules of Montana Title 18, Chapter 5, Sub-Chapter 1, "Highway Approaches." MDT's general authority over highways and its rulemaking authority is set forth in Montana Code Annotated § 60-2-201, the new access as proposed has been issued a permit and is not required to generate a Traffic Impact Study to determine mitigation of the additional vehicle trips proposed to be generated. According to communication with MDT the amount of traffic generated does not meet volume warrants for turn lane mitigation. Therefore, this development would continue to proceed with an approach permit unto HWY 200 as provided in MDOT Approach Application (section D) avoiding cuts and fills on steep slopes for access.

The proposed approach onto HWY 200 will be used for a newly proposed roadway, internal to the subdivision, providing access to the 9 proposed lots. Impacts to HWY 200 are not anticipated as the highway is sufficiently sized to handle the traffic from the proposed lots. Further, due to the expected increase of 90 vehicle trips per day does not require a traffic impact study unless otherwise requested from the county.

Blue Creek Road egress/ingress to the subdivision is not proposed along this roadway and would likely be used for passive recreation by future property owners. The roadway would be able to safely accommodate any increased traffic as a result of this subdivision.

c. Describe increased maintenance problems and increased cost due to this increase in volume.
The increase in tax revenue from the subdivision will be able to cover the increase in road maintenance to roadways in the vicinity. An increase of maintenance costs to HWY 200 are not anticipated as the highway is sufficiently sized to handle the traffic from the proposed lots.

d. Describe proposed new public or private access roads including:

i. Measures for disposing of storm run-off from streets and roads.

Stormwater retention facilities in accordance with MDEQ requirements are provided within this planning submittal to further mitigate potential erosion due to grading during and after construction. Silt fences will be installed prior to excavation taking place and filter fabrics will be used to avoid ponding or trenching during construction. The Grading and Drainage Engineering Design Report (Section D, of the Subdivision Packet) offers design aspects and calculations of stormwater facilities to mitigate storm water for each of the lots and proposed access roads. The Drainage Basin Exhibit included within the report illustrates each lot will consist of its own Post Development Basin and the development's internal roads will be broken out into four (4) Road Basins. The Grading Drainage Engineering Design Report provides an Operation and Maintenance Plan for to manage the storm drainage to insure they are functioning probably. The road retention ponds and swales shall be inspected by the Homeowners Association for debris or blockage as well as blockage of the conveyance surrounding the facility once a month as provided on the Preliminary Plat.

The stormwater retention facilities will be in accordance with MDEQ requirements mitigating pre- and post-development 2-year storm and any potential erosion due to grading during and after construction. Please see the Grading, Drainage, and Road Construction Plans and associated report in Section D.

ii. Type of road surface and provisions to be made for dust.

The proposed subdivision intends to access directly from HWY 200 and each individual lot owner will use the newly constructed roadway subject to a roadway maintenance agreement. The Road Maintenance Agreement will address dust control which will be included in the Proposed Covenants, Conditions, and Restrictions prior to final plat approval. Please reference Section C for these documents.

iii. Facilities for streams or drainage crossing (e.g. culverts, bridges).

The applicant is not aware of streams or drainage crossings that would be impacted by this project.

iv. Seeding of disturbed areas.

The proposed subdivision will be required to submit and follow a Sanders County Subdivision Noxious Weed Management Form and Agreement. During construction, noxious weeds will be controlled by adherence to the Noxious Weed Management Plan as required by the county. After construction of infrastructure, noxious weed growth will be controlled via requirements, covenants and oversight by the lot owners as indicated in the Noxious Weed Management Form and Agreement which is subject to future lot owners.

e. Describe the closing or modification of any existing roads.

The applicant does not anticipate the closing or modification of existing roads as a result of this division.

f. Explain why road access was not provided within the subdivision, if access to any individual lot is directly from arterial streets or roads.
All lots will be accessed by the newly proposed Blue Sky Drive or Blue Sky Court both proposed to be constructed of a 24-foot-wide gravel road surface with 2-foot shoulders contained within the 60-foot Private Access and Utility Easement (P.A.U.E.). Each lot will construct its own driveway unto these newly constructed roadways.

g. Is year-round access by conventional automobile over legal rights-of-way available to the subdivision and to all lots and common facilities within the subdivision? Identify the owners of any private property over which access to the subdivision will be provided.
Year-round access to all lots within the subdivision will be provided.

h. Estimate the cost and completion date of the system, and indicate who will pay the cost of installation, maintenance and snow removal.
Estimated time for completion of this roadway is 2025. The cost of installation, maintenance and snow removal is at the expense of the developer until each lot is sold. Once a lot is sold the individual landowner will be subject to a Road Maintenance Agreement which will be included in the Proposed Covenants, Conditions, and Restrictions prior to final plat approval.

3. Water, Sewage, and Solid Waste Facilities

a. Briefly describe the water supply and sewage treatment systems to be used in serving the proposed subdivision (e.g. methods, capacities, locations).
The proposed subdivision includes nine (9) individual wells and on-site wastewater systems. The location of allowable build zones for proposed systems and drainfields are shown on the MDEQ Lot Layout pursuant to 76-4-104, MCA (Section A, of the Subdivision Packet).

All proposed wells will supply both domestic and lawn and garden irrigation. Cisterns may be necessary to be connected to the individual wells if it is found during the DEQ review process that there is a chance some of the wells are insufficient in meeting the required water quantity as required in DEQ Circular 20. There are no existing wells in the proposed subdivision.

Proposed individual wastewater systems are to serve all nine (9) lots. All proposed systems have been designed using 4 bedrooms and a design flow of 350 GPD each and will consist of a 1500-gallon septic tank.

Please refer to the Water & Sanitation Report (Section D, of the Subdivision Packet) for further descriptions of these individual systems and the MDEQ Lot Layout for the proposed locations. The MDEQ Lot layout is subject to changes as it continues through the MDEQ review process.

b. Provide information on estimated cost of the system, who will bear the costs, and how the system will be financed.

Septic systems will be constructed at the time of building and the cost of such systems will be at the expense of the individual lot owner. The wells would also be at the expense of the individual lot owners. Solid waste is also at the expense of each individual lot owner.

c. Where hook-up to an existing system is proposed, describe estimated impacts on the existing system, and show evidence that permission has been granted to hook up to the existing system.
Public wastewater treatment facilities are not within the vicinity or available to this development. Therefore, this criterion is not applicable.

d. All water supply and sewage treatment plans and specifications will be reviewed and approved by the Department of Environmental Quality (DEQ) and should be submitted using the appropriate DEQ application form.
The proposed development will adhere to the rules published by the Montana Department of Environmental Quality (DEQ). If it is determined by DEQ that the well log comparison provided within the Water & Sanitation Report (Section D, of the Subdivision Packet) is not sufficient evidence of adequate water quantity to meet the regulation for individual wells, then either a test well with an associated pump test will be completed, or cisterns for low producing wells will be proposed per the requirements in ARM 17.36 and DEQ Circular 20.

The MDEQ Lot Layout planning submittal (Section A, of the Subdivision Packet) provides details for the proposed approximate locations and size of subsurface treatment systems and replacement areas. This lot layout includes the approximate location, size and depth of proposed wells and the 100' isolation zones. The standards of MDEQ pertaining to water supply quality, quantity and construction criteria are intended to be met. See Section D which includes well logs, the Water and Sanitation Report, and exhibits to support this criterion will be satisfied.

e. Describe the proposed method of collecting and disposing of solid waste from the development.
Garbage pick-up is not anticipated for this development. Therefore, solid waste will need to be taken to one of the Sanders County Refuse Districts by each individual lot owner. Heron has a refuse site to control storage, collection, and the disposal of solid waste from this proposed development. Further, if a lot owner wishes to be served by a private contractor for Solid Waste Disposal it is up to each lot owner to arrange collection.

f. If use of an existing collection system or disposal facility is proposed indicate the name and location of the facility.
The applicant believes the Heron disposal facility is the closest garbage collection system to the development. The address is 249 HWY 200, Heron, MT 59844. The site is approximately 2-miles from the project site.

4. Fire and Police Protection

a. Describe the fire and police protection services available to the residents of the proposed subdivision including number of personnel and number of vehicles or type of facilities for:

i Fire protection -- is the proposed subdivision in an existing fire district? If not, will one be formed or extended? Describe what fire protection procedures are planned?

Yes, the proposed subdivision is located within the Heron Rural Fire District.

An agency contact letter has been sent to each agency to provide comments on the subdivision proposal which will be considered during the subdivision administrators review. In summary, the landowner intends to provide evidence that a contribution has been made to Heron Rural Fire District as requested by the district for cash in lieu of a water supply for fire suppression. Please refer to the Agency Notice Letter and Comments (Section D) to review all agency comments received by the applicant.

ii Law --Enforcement protection – Which of --is the proposed subdivision within the jurisdiction of a County Sheriff or municipal police department.
The site would be under the protection of the Sanders County Sheriff's Office. A contact letter was sent out for input to the respective agency but no comment has been received at this time.

b. Can the fire and police protection service needs of the proposed subdivision be met by present personnel and facilities? If not, describe the additional expenses that would be necessary to make these services adequate, and who would pay the costs?
An agency contact letter has been sent to each agency to provide comments on the subdivision proposal which will be considered during the subdivision administrators review. Comments from the local Sheriff's Office have not been provided, therefore, there is no indication that existing facilities and personnel would be negatively affected as a result of this division. The Herson Rural Fire District has requested cash in lieu of a water supply for fire suppression and reviewed and approved the Fire Risk Rating Form provided in Section E. Please review all agency as provided in Agency Notice Letter and Comments exhibit (Section D).

There are no potentially significant adverse impacts identified based on the criteria outlined within this section of the application.

5. Payment for extension of Capital Facilities

Indicate how the subdivider will pay for the cost of extending capital facilities resulting from expected impacts directly attributable to the subdivision.
N/A.

Sincerely,
IMEG, Corp.

Prepared by:

Tamara Ross

IMEG | Civil Designer / Planning Technician
"\\files\Active\Projects\2022\22003448.00\Design\Civil\CC07 PLANNING"

Agency Comments – Hearing Continuation

A continuation hearing planned for July 30th, 2024, has been suspended and an agreement has been formed between all parties until the Environmental Assessment, Sanitation Report and supporting documentation have been revised. Agency Comments herein have been used to update the application materials.

Region One
490 North Meridian Road
Kalispell, MT 59901
(406) 752-5501
REF # LA24-24
March 16, 2024

IMEG Corp.

RE: Blue River Subdivision

Dear: Tamara Ross,

Thank you for the opportunity to comment on the proposed Blue Creek subdivision Which would create six residential lots <2-acres and three lots ~6 acres located at Blue Creek Rd and MT-200 in Sanders County, Montana. Montana's population is growing and rural areas along Blue Creek are no exception. Increased development in rural areas has the potential to increase human-wildlife conflicts and negatively impact local wildlife populations, which are economically, culturally, and socially important both locally and across our region.

If this subdivision is approved, we offer the following recommendations to help mitigate wildlife impacts and reduce wildlife-human conflicts:

Cumulative Effects:

The impact of any single subdivision or commercial development proposal can be small. However, the effects of subdivisions over time or the eventual cumulative effects of additional future developments can have significant impacts on wildlife use and movement. These cumulative effects should be considered in the design of the development, should it occur.

Big Game Winter Range Impacts:
This subdivision falls within the winter range of elk, mule, and white-tailed deer, which may have a significant impact on the population. Winter range is one of the most limiting habitat types for ungulates in NW Montana and vital to ungulate survival. Minimizing impacts to winter range to the extent possible, which includes keeping dogs away from wintering wildlife, is an important part of maintaining wildlife on the landscape. We address the rationale and science behind ungulate winter range concerns in our Big Game Range Recommendations for Subdivision Development (https://fwp.mt.gov/binaries/content/assets/fwp/conservation/subdivisions-and-big-game-winter-

range.final.pdf) and propose IMEG Corp. and Sanders County Planning Department review and implement these recommendations to the extent possible.

Development Considerations:

We recommend clustering lots and maintaining open "common areas" that are undeveloped. These undeveloped areas can both serve as wildlife habitat and maintain travel routes for wildlife moving through the area. Open areas not only provide benefits to wildlife, but also to the residents of the subdivision who can continue to enjoy the open space and wildlife it attracts. FWP's Subdivision Recommendations (https://fwp.mt.gov/conservation/living-with-wildlife/subdivision-recommendations) provides additional information on how to minimize the impacts developments have on wildlife.

Wildlife Attractants/Wildlife Conflicts/Living with Wildlife

Providing residents with information regarding living with wildlife is important, and we recommend the guidelines discussed below be incorporated into the subdivision's Covenants, Restrictions & Conditions to enable awareness and enforceability.

Mountain lions, bears, deer, elk, and other wildlife occupy all of northwestern Montana. Attractants often bring wildlife into conflict with people, possibly resulting in death of the animal, damage to property or endangering people living in the area. Future homeowners need to be aware that FWP cannot respond to all wildlife conflicts, and it is part of the homeowner's responsibility to avoid such problems. The following recommendations will help minimize conflicts and, to the extent possible, be incorporated into Covenants, Restrictions and Conditions should the development move forward:

a. Homeowners should be aware of the potential for vegetation damage by wildlife, particularly from deer feeding on lawns, gardens, flowers, ornamental shrubs, and trees. If planting vegetation occurs, we recommend protecting vegetation through the use of fencing, netting and repellents in order to avoid problems. Landscape plantings of certain species of native vegetation are less likely to suffer extensive damage by deer and elk. We recommend the informative publication, Minimizing Deer Damage to Residential Plantings, by the Montana State University Animal & Range Sciences Extension Service and available online at: http://animalrange.montana.edu/documents/extension/minimizingdeerdamage.pdf.

b. Fruit-producing trees and shrubs should not be allowed as they attract bears. If present, they should be fenced with electric fencing to deter bears. All produce and fruit should be picked as soon as ripe and kept off the ground. Ripe or rotting fruit and vegetables attracts bears, deer, skunks, and other wildlife. To help keep wildlife such as deer and elk out of gardens, fences should be 8 feet or taller. Electric fencing for deer and elk should be a minimum of 8 feet, as well. An excellent guide on building and maintaining electric fence can be found on the FWP web site (https://fwp.mt.gov/conservation/wildlife-management/bear/be-bear-aware).

c. Garbage should be stored either in secure, bear-resistant containers or indoors, preferably both, to avoid attracting wildlife such as bears and raccoons. If stored indoors, garbage cans may not be set out until the morning of garbage pickup and must be brought in no later than that same evening. If home sites are occupied seasonally or if the occupants are to be away from the household for 7 days or more, garbage from the home, other buildings, or containers must be removed from the property prior to their departure.

d. Do not feed wildlife or offer supplements such as salt or mineral blocks, attractants, or bait for deer, elk, turkeys, or other wildlife. Feeding wildlife results in unnatural concentrations of animals that can lead to overuse of vegetation, disease transmission, property damage and other adverse effects. Such actions unnecessarily habituate wild animals to humans, which can be dangerous for both. It is against state law (MCA 87-6-216) to purposely or knowingly attract ungulates, bears, mountain lions or wild turkeys with supplemental food attractants (any food, garbage, salt block, hay, grain, or other attractant for game animals) or to provide supplemental feed attractants in a manner that results in "an artificial concentration of game animals that may potentially contribute to the transmission of disease or that constitutes a threat to public safety." Also, homeowners should be aware that deer, elk and turkeys may attract mountain lions and/or wolves to the area.

e. Birdseed is an attractant to bears, deer, and turkeys. Use of bird feeders is not recommended from April 1 through November 30 for bears and not recommended year-long if turkeys are in the area. If used, bird feeders must be suspended a minimum of 10 feet above ground level (measured from bottom of catch plate), be at least 4 feet from any support poles or points and be designed with a catch plate located below the feeder and fixed such that it collects the seed knocked off the feeder by feeding birds. Hummingbird feeders should follow the same criteria.

f. Pets at large, particularly dogs and cats, are a real threat to wildlife. Pets should be confined to the house, a fenced yard, or an outdoor kennel when not under the immediate control of the owner, and not allowed to roam. Under state law it is illegal for dogs to chase hoofed game animals (MCA 87-6-404). Keeping pets confined also helps protect them from predatory wildlife.

g. Pet food should be stored indoors, in closed sheds, or in bear-resistant containers to avoid attracting wildlife such as bears, mountain lions, skunks, and other wildlife. When feeding pets, do not leave food outside overnight.

h. Barbecue grills should be stored indoors. Keep all portions of the barbecues routinely clean. Food spills and smells on and near the grill attract bears and other wildlife.

i. Fencing of lot boundaries is discouraged. If used, rail or smooth wire fences should not be higher than 40" at the top rail/wire and no lower than 18" at the bottom rail/wire in order to facilitate wildlife movement and help avoid animals becoming ensnared and killed by the fence or injuring themselves when trying to jump the fence. Please refer to the helpful booklet on wildlife-friendly fences available from FWP and online at:

https://fwp.mt.gov/binaries/content/assets/fwp/conservation/land-owner-wildlife-resources/a_landowners_guide_to_wildlife_friendly_fences.pdf.

j. Compost piles and beehives can attract bears and should be fenced with electric fencing to prevent access or not allowed in the subdivision.

k. Domestic animals such as horses, cattle, pigs, sheep, goats, llama, poultry, etc. (including those kept as 4H projects), can attract wolves, bears, mountain lions, and coyotes. Animals should be housed with this in mind, and livestock feeds, especially grain-related, must be fed in a manner that does not allow deer, elk or bears to have access to them.

There are additional suggestions for ways to minimize wildlife/human conflicts, including conflicts with bears in FWP's Fish and Wildlife Recommendations for Subdivision Development in Montana (link above).

Helpful Literature

FWP has valuable information on our website, and prints several brochures that can be useful in preventing or reducing human-wildlife conflicts. This information can be found on the FWP website at https://fwp.mt.gov/conservation/living-with-wildlife. We recommend IMEG Corp. and Sanders County Planning Department review these documents and incorporate their recommendations to the extent possible in the covenants for the subdivision. These documents should also be provided to anyone who purchases property.

We appreciate the chance to review this proposal. If you have any questions, please feel free to contact Zack Farley Thompson Falls area wildlife biologist at zachary.farley@mt.gov.

Sincerely,

Lee Anderson

Lee Anderson
Region 1 Supervisor
Montana Fish, Wildlife & Parks

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Tamara R. Ross

From: Farley, Zachary <Zachary.Farley@mt.gov>
Sent: Thursday, August 15, 2024 2:24 PM
To: Chris McComas
Cc: Tamara R. Ross; Joel Nelson
Subject: RE: Elk Migration Route in Subdivision
Attachments: Blue_Creek_Subdivision_FWP_Comments.pdf

Hi Chris,

The normal process for FWP is that the local biologist writes a comment letter, which then needs approval by upper management. Once approved, upper management sends the letter to the appropriate parties. I reached out to upper management to inquire if my letter had been sent and found out it had not. I have attached it here. I can also send a copy to IMEG.

Thank you for checking in to see if it had been sent,

Zack Farley | *Wildlife Biologist*
Wildlife Division
Thompson Falls, MT
Montana Fish, Wildlife & Parks
Office: (406) 382-3031 | Cell: (406) 250-5490

Montana FWP | Montana Outdoors Magazine

From: Chris McComas <cmccomas@sanderscounty.gov>
Sent: Wednesday, August 14, 2024 4:09 PM
To: Farley, Zachary <Zachary.Farley@mt.gov>
Cc: Tamara R. Ross <Tamara.R.Ross@imegcorp.com>; Joel Nelson <joel@geopland.com>
Subject: [EXTERNAL] RE: Elk Migration Route in Subdivision

Zack,

Thank you for your response. In your response below, you state, “Currently, FWP’s primary concern in relation to this proposed development, outlined in our comment letter, is the loss of winter range for big game and the potential to increase negative human-wildlife interactions.” Did your agency send a letter to the Land Services Office or IMEG regarding this or is that related to the FWP Recommendations for Subdivision Development that can be found on the FWP website?

Chris McComas
Director of Land Services
Sanders County
PO Box 519
Thompson Falls, MT 59873-0519
406-827-6965(Office)
406-499-6573(Cell)
Email: cmccomas@sanderscounty.gov
https://co.sanders.mt.us/206/Land-Services [co.sanders.mt.us]

From: Farley, Zachary <Zachary.Farley@mt.gov>
Sent: Tuesday, August 13, 2024 6:01 PM
To: Chris McComas <cmccomas@sanderscounty.gov>
Cc: Tamara R. Ross <Tamara.R.Ross@imegcorp.com>; Joel Nelson <joel@geopland.com>
Subject: RE: Elk Migration Route in Subdivision

Chris,

I spoke with both the former biologist and my supervisor. Just east of the proposed subdivision (Fatman Mountain) is known historic elk winter range. We have also historically had elk frequenting the area just west of the proposed subdivision along the state border during the spring. It is possible that the proposed subdivision is within a migration corridor between these areas but we do not have any conclusive evidence (GPS or camera data) verifying that possibility at this time. Thus far, GPS collared elk in the same hunting district as the proposed subdivision (121) have displayed primarily elevational migration, using lower elevations in the winter and higher elevations in the summer rather than long distance migrations seen in some other parts of the state. Currently, FWP's primary concern in relation to this proposed development, outlined in our comment letter, is the loss of winter range for big game and the potential to increase negative human-wildlife interactions.

Please let me know if you have any additional questions and thank you for your patience,

Zack Farley | *Wildlife Biologist*
Wildlife Division
Thompson Falls, MT
Montana Fish, Wildlife & Parks
Office: (406) 382-3031 | Cell: (406) 250-5490

From: Chris McComas <cmccomas@co.sanders.mt.us>
Sent: Monday, August 5, 2024 10:52 AM
To: Farley, Zachary <Zachary.Farley@mt.gov>
Cc: Tamara R. Ross <Tamara.R.Ross@imegcorp.com>; Joel Nelson <joel@geopland.com>
Subject: [EXTERNAL] RE: Elk Migration Route in Subdivision

Zack,

We are still looking to hear back related to this. The public hearing has been canceled, and we are extending the review period. Your comments are welcome to address this claim related to an elk migration route through this proposed development.

Chris McComas
Director of Land Services
Sanders County
PO Box 519
Thompson Falls, MT 59873-0519
406-827-6965(Office)
406-499-6573(Cell)
https://co.sanders.mt.us/206/Land-Services [co.sanders.mt.us]

From: Farley, Zachary <Zachary.Farley@mt.gov>
Sent: Friday, July 26, 2024 10:47 AM
To: Chris McComas <cmccomas@co.sanders.mt.us>
Cc: Tamara R. Ross <Tamara.R.Ross@imegcorp.com>; Joel Nelson <joel@geopland.com>
Subject: Re: Elk Migration Route in Subdivision

Hi Chris,

Thank you for reaching out. Unfortunately I am out of state until August 6th with limited access to email. I will try to get you the information you requested before the 30th but I may not be able to. I will pass this request to my supervisor to see if he can help in the event I can't in time.

Thanks,

Zack Farley

Wildlife Biologist
Wildlife Division
Montana Fish, Wildlife & Parks, Region 1

Thompson Falls, MT 59873
Office: (406)-382-3031
Cell: (406)-250-5490

THE **OUTSIDE** IS IN US ALL.

From: Chris McComas <cmccomas@co.sanders.mt.us>
Sent: Wednesday, July 24, 2024 11:59:55 AM
To: Farley, Zachary <Zachary.Farley@mt.gov>
Cc: Tamara R. Ross <Tamara.R.Ross@imegcorp.com>; Joel Nelson <joel@geopland.com>
Subject: [EXTERNAL] Elk Migration Route in Subdivision

Zackary,

I am reaching out to obtain comments on a possible elk migration route and the impacts of a subdivision to the elk population.

The subdivision that is being proposed is for a 9 single family residential lots on a tract of land that is approximately 25 acres. Please take a look at the attached preliminary plat and lot layout for reference.

In our public hearing, we received comments that stated this property has an elk migration route through it. Do you happen to have any information that would support or dismiss this statement? There was concern from the public related to the impacts on elk or other wildlife related to the number of homes proposed. Do you have information that speaks to how this subdivision would meet or not meet FWP recommendations for developments like this?

The continuation of this public hearing is on July 30, 2024, at 2:30 p.m.

Thank you for your help in this matter.

Chris McComas
Director of Land Services
Sanders County
PO Box 519
Thompson Falls, MT 59873-0519
406-827-6965(Office)
406-449-6573(Cell)
https://co.sanders.mt.us/206/Land-Services [co.sanders.mt.us]

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Tamara R. Ross

From: Chris McComas <cmccomas@co.sanders.mt.us>
Sent: Thursday, July 25, 2024 4:14 PM
To: Tamara R. Ross
Cc: Joel Nelson
Subject: FW: Blue Creek Major Subdivision- MDT Review (#8851)

Tamara,

Please see the comments below from MDT related to the Blue Creek Subdivision approach permit.

Chris McComas
Director of Land Services
Sanders County
PO Box 519
Thompson Falls, MT 59873-0519
406-827-6965(Office)
406-449-6573(Cell)
https://co.sanders.mt.us/206/Land-Services

From: Anderson, Rebecca <randerson@mt.gov>
Sent: Thursday, July 25, 2024 4:08 PM
To: Chris McComas <cmccomas@co.sanders.mt.us>
Cc: Gascon, Jesse <jgascon@mt.gov>
Subject: RE: Blue Creek Major Subdivision- MDT Review (#8851)

Good catch. I've had US 2 on the brain a lot today!

I've fixed it below. Please use the edited version of my comments.

Thanks!

Rebecca F Anderson
District Traffic Engineer- Kalispell
406-751-2066

From: Chris McComas <cmccomas@co.sanders.mt.us>
Sent: Thursday, July 25, 2024 4:05 PM
To: Anderson, Rebecca <randerson@mt.gov>

Cc: Gascon, Jesse <jgascon@mt.gov>
Subject: [EXTERNAL] RE: Blue Creek Major Subdivision- MDT Review (#8851)

Rebecca,

To clarify, this approach permit is for an approach to Hwy 200 and not to Hwy 2?

Chris McComas
Director of Land Services
Sanders County
PO Box 519
Thompson Falls, MT 59873-0519
406-827-6965(Office)
406-449-6573(Cell)
https://co.sanders.mt.us/206/Land-Services [co.sanders.mt.us]

From: Anderson, Rebecca <randerson@mt.gov>
Sent: Thursday, July 25, 2024 4:00 PM
To: Chris McComas <cmccomas@co.sanders.mt.us>
Cc: Gascon, Jesse <jgascon@mt.gov>
Subject: Blue Creek Major Subdivision- MDT Review (#8851)

Hi Chris,

Thanks for reaching out to the Montana Department of Transportation (MDT) regarding the approach review for the subject project.

MDT issues approach permits pursuant to rules published in Administrative Rules of Montana Title 18, Chapter 5, Sub-Chapter 1, "Highway Approaches." MDT's general authority over highways and its rulemaking authority is set forth in Montana Code Annotated § 60-2-201. Any new access or change in use of an existing access typically requires an approach permit to be approved by the MDT. General guidance for the review process is outlined in MDT's Approach Manual for Landowners and Developers.

Approaches need to be constructed to MDT's approach standards and meet sight distance requirements. If a significant volume of additional vehicle trips is being generated, then a Traffic Impact Study may be required to determine if mitigation is needed for traffic impacts to adjacent highways, including volume warrant analysis for dedicated right or left turn lanes. The subject project did not meet volume warrants for turn lane mitigation.

Sight distance requirements for approaches are primarily determined by the speed of the roadway. The sight distance measurement is the distance a driver can see before an obstruction blocks their view. The distance required accounts for the time it takes for a driver to execute the decision to pull into the travelled way and navigate into their desired lane. Other factors considered include the size of the vehicle. The proposed approach for the subject project satisfies all sight distance requirements for a 70 mph roadway.

Each access to the highway creates an additional point of conflict between vehicles and should be kept to a minimum to preserve the safety and operations of the roadway. Areas being subdivided should include internal

and/or frontage roads in order to reduce access points to the highway network. Access to the highway may not be granted when reasonable access can be obtained from a lower classified roadway. The subject project was not able to gain reasonable access from Blue Creek Rd and was granted a permit for one direct approach to MT-200.

Thank you for the opportunity to review. Let me know if you have any additional questions or concerns.

Sincerely,

Rebecca F Anderson, PE
District Traffic Engineer | Kalispell
85 5th Ave E N
P.O. Box 7308
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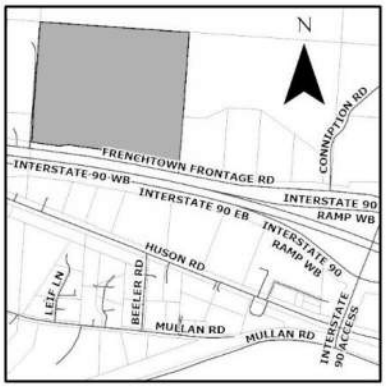
Elk Valley Ranch Staff Report Example
Related to FWP Agency Comments

EXECUTIVE SUMMARY



CASE PLANNER: Jennie Dixon, Planner IV

REVIEWED AND APPROVED BY: Tim Worley, Senior Planner

PUBLIC HEARING DATE: PB: September 19, 2023
BCC: October 5, 2023

60-DAY LIMIT: October 4, 2023
The applicant has granted a one-day extension to Oct. 5, 2023

AGENDA ITEM: **Elk Valley Ranch Subdivision**

APPLICANT/ FEE OWNER: JLL Investments, LLC
20880 Whitetail Ridge Rd.
Huson, MT 59846

REPRESENTATIVE: IMEG Corp.
c/o Tamara Ross and Danny Oberweiser
1817 South Ave W., Suite A
Missoula, MT 59802

LOCATION: Utility (billboard) address is 23968 Frenchtown Frontage Road, approximately a third of a mile west of the Huson-Interstate 90 interchange

LEGAL DESCRIPTION: Tract 1, COS 6673, located in Section 25, T15N, R22W, Principal Meridian, Missoula County, Montana.

LEGAL NOTICE: The legal ad was published on August 26 and September 3, 2023 (Missoulian). Adjacent Property owners were notified by certified mail on August 23, 2023.

ZONING DESIGNATION: Unzoned

GROWTH POLICY: The Regional Land Use Guide (2002), an amendment to the Missoula County Growth Policy (2016) and based on land uses from the Comprehensive Plan (1975), designates the subject property as Open and Resource. It is also within the Huson Activity Circle.

SURROUNDING LAND USES	SURROUNDING ZONING
North: Open Land, Vacant	Unzoned
South: Frenchtown Frontage Road, Interstate 90, Small-Scale Agriculture, Vacant	ZD #42-R (Residential)
East: Agriculture, Vacant	Unzoned
West: Rural Residential	Unzoned

PROPOSAL	STAFF RECOMMENDATION	PLANNING BOARD RECOMMENDATION
1. **Elk Valley Ranch Subdivision**	1. **Approval** of the subdivision, subject to conditions.	1. To be determined

MISSOULA CONSOLIDATED PLANNING BOARD
Agenda Item #6.1
September 19, 2023

ELK VALLEY RANCH SUBDIVISION

I. BACKGROUND

Elk Valley Ranch is a major 14-lot residential subdivision proposed at 23968 Frenchtown Frontage Road, roughly a third of a mile west of the Huson-Interstate 90 interchange. The 32.32-acre tract is owned by JLL Investments, LLC, and represented by IMEG. The property is currently a vacant tract of land with some agricultural use and a billboard site. Development surrounding the property is residential and agricultural, with Frenchtown Frontage Road and Interstate 90 bordering the property to the south.

The property is unzoned and not within any regulatory floodplain. The northeast and northwest corners of the property include land with slopes greater than 25%. These areas have been designated as "No-Build." The lots in this subdivision are proposed to be served by individual septic systems and private wells.

Subdivision lot sizes are proposed from 1.24 acres to 1.78 acres for eleven of the fourteen lots. The other three lots situated on the north side of the tract range from 5.02 to 5.77 acres and are intended to provide for wildlife movement and agricultural opportunities. The road design creates through lots adjacent to Frenchtown Frontage Road, and the applicant proposes a setback to provide separation of the homes from the frontage road.

Access to the lots will be from a looped public road connecting to Frenchtown Frontage Road, and a private cul-de-sac road providing access to Lots 13 and 14. An 8' wide asphalt trail is proposed along one side of Road "A" (the loop road). No trail is required along Frenchtown Frontage Road; however, a condition of approval requires a statement on the plat and in the covenants that lot owners waive their right to protest an RSID for road and pedestrian facilities improvements. A condition of approval requires a private road maintenance agreement for "Road B" serving Lots 13 and 14.

The building envelope and no-build designations on Lots 12, 13, and 14 are clarified by conditions of approval, along with defining the type of wildlife-friendly fencing permitted in the Agricultural/No-Build Zones. Other subdivision conditions include a maintenance agreement for the stormwater detention areas, a weed management plan, fire sprinklers and Class A roofing. Irrigation infrastructure is required to be installed in accordance with the irrigation improvements plan. Water use restrictions are also subject to conditions of subdivision approval, and the utility easement on the western boundary of Lot 7 must meet the required 20' width. Bear-resistant garbage disposal is required. These conditions of approval are supported by the findings and conclusions contained in this staff report, agency comments, public testimony, and the information provided in the subdivision application and accompanying submittal materials.

II. SUBDIVISION FINDINGS OF FACT AND CONCLUSIONS OF LAW

A.) ZONING AND GROWTH POLICY COMPLIANCE

Findings of Fact:

1. Elk Valley Ranch Subdivision is a proposal for fourteen residential lots on 32.32 acres. The residential density of this subdivision is 1 dwelling per 2.3 acres. *(Preliminary Plat)*
2. The parent parcel was established as the remaining tract of a family transfer approved and filed in 2018. *(Property Information System, Preliminary Plat)*

3. Eleven of the fourteen lots are proposed between 1.24 acres and 1.78 acres in size. The three largest lots (12, 13, and 14) range between 5.02 and 5.77 acres. *(Preliminary Plat)*
4. The three large lots are proposed with "allowable build zones" to maintain a wildlife corridor and provide agricultural opportunities. *(Preliminary Plat, Project Summary)*
5. The subdivision property is adjacent to 480 acres of undivided, undeveloped land. While in separate ownerships, the land is essentially three-quarters of a section. The applicant proposes the largest subdivision lots adjacent to this land. Structures are limited to the southern ends of these lots, with the remaining portions of these lots proposed as no-build areas, including "No-Build/No-Alteration Zones" on slopes over 25%. No road connections are proposed to the north. *(Property Information System)*
6. The property is unzoned. The applicable growth policy documents include the Regional Land Use Guide ("Guide"), which summarizes land uses based on the Comprehensive Plan (1975), and the 2016 Missoula County Growth Policy ("Growth Policy"). *(Regional Land Use Guide; Missoula County Growth Policy; Property Information System)*
7. The Guide recommends a land use designation of Open and Resource; the property is also located within the Huson Activity Center. *(Regional Land Use Guide; Property Information System)*
8. The Guide includes objectives that promote ownership in residential development, continuation of agriculture, and minimizing adverse impacts of residential development on adjacent agricultural areas. *(Regional Land Use Guide)*
9. The Guide recommends that new development in the Huson and Frenchtown areas occur within the designated Activity Center. Residential development up to two dwelling units per acre was considered to strengthen communities and provide a base to support commercial use which should also be located adjacent to Frenchtown. *(Regional Land Use Guide)*
10. Both Huson and Frenchtown have commercial uses. Huson, while more limited, has a café and land available for further commercial use as zoned. Frenchtown has a post office, a small grocery store, medical and dental offices, cafés/restaurants, a convenience store, and a pharmacy. *(Property Information System)*
11. The Huson Activity Circle is centered on the Huson exit, roughly 0.4 miles east of the subdivision. In contrast to the Frenchtown Activity Center, which is about 4 miles in diameter, the Huson Activity Center is roughly 2 miles in diameter.
12. Approximately one-third of the land within the Huson Activity Center is large-tract agricultural land south of Mullan Road. It has limited road access and is comprised of old Clark Fork River sloughs, river terraces, and river forest galleries. Most of this area is designated floodplain. *(Property Information System)*
13. Goal #8 from the *Growth Policy* is to "Proactively plan and provide for the logical growth of communities while protecting rural character and sustaining county resources by guiding development to areas most suited for it."
14. Two objectives of the *Growth Policy* Goal #8 are: (8.1) to protect and enhance the rural character that exists in much of the County, maintaining a clear distinction between urban and rural areas, and (8.3) guide new subdivisions and development to areas that have the least impact on natural resources and are most suited for development.
15. A Part 1 Zoning District known as ZD #42 was adopted in Huson in 1997. The district includes three subdistricts: a commercial subdistrict near the Huson interchange, a residential subdistrict, and an open and resource subdistrict further west, between the Interstate and the Clark Fork River. *(Property Information System)*
16. The residential subdistrict is across the frontage road and Interstate from the proposed subdivision or roughly 500 feet. The commercial subdistrict is 0.6 drive miles from the

subdivision, and the residential subdistrict is 0.8 drive miles from the subdivision. *(Property Information System)*

17. The open and resource subdistrict in ZD #42 is largely floodplain with limited development potential. Aerial photography confirms a small number of structures outside the floodplain. *(Property Information System)*
18. The subdivision shares underground irrigation facilities with the subdivision across the frontage road and Interstate.
19. The subdivision is about 0.35 miles from the AJ Memorial Trail, a paved non-motorized pathway that continues east to the Wye and Highway 93. The trail begins at the Huson Interchange. The interchange provides commuters access to Interstate 90. *(Property Information System)*
20. A governing body may not withhold, deny, or impose conditions on any land use approval or other authority to act based solely on compliance with a growth policy. *(76-1-605(2)(b), MCA)*

Review of Resources, Local Services, and Public Health and Safety

21. State Law requires review for the specific, documentable, and clearly defined impact on agriculture, agricultural water user facilities, local services, the natural environment, wildlife, wildlife habitat, and public health and safety, excluding any consideration of whether the proposed subdivision will result in a loss of agricultural soils. *(76-3-608(3)(a), MCA)*
22. The subdivision has been reviewed for impacts to agriculture and agricultural water user facilities. Findings indicate that some degree of agriculture could occur on the three biggest subdivision lots. Structures are confined to limited areas on the southern end of the three largest lots, partially to facilitate the possibility of agriculture. Water delivery to each lot is planned and required with the platting of the subdivision (see Agricultural and Agricultural Water User Facilities findings and conclusions).
23. The subdivision has been reviewed for impacts to local services. Findings indicate improved access by the reconstruction of Frenchtown Frontage Road and nearby pedestrian facilities, plus County-standard onsite roads and pedestrian connections. Findings also confirm acceptable water and wastewater disposal facilities, residential fire sprinkler firefighting water supply, and contributions to parkland through cash-in-lieu (see findings and conclusions under Local Services).
24. The subdivision was reviewed for impacts to the natural environment, wildlife, and wildlife habitat. Though wildlife, including mountain lions, bears, and elk have been confirmed on nearby properties, mitigations are provided for impacts. These include wildlife-friendly fencing on the three largest lots to facilitate animal movement, building envelopes that contain structures on the southern end of these lots, Living with Wildlife covenants, and the requirement for bear-resistant garbage cans. With these mitigations, which are required with the platting of the subdivision, staff concludes that no adverse impacts remain (see findings and conclusions under Natural Environment, Wildlife, and Wildlife Habitat).
25. The subdivision has been reviewed for impacts to public health and safety. Areas exceeding 25% slope are restricted from development. Despite limited evidence of high groundwater, basements are prohibited as part of the development. Class A roofing is required due to elevated wildfire hazard (see findings and conclusions under Public Health and Safety).

Conclusions of Law:

1. The subdivision is not in substantial compliance with the Regional Land Use Guide (2002) or the Missoula County Growth Policy (2016).

2. No condition of subdivision approval is based solely on Growth Policy compliance.

B.) PRIMARY CRITERIA COMPLIANCE

CRITERION 1: EFFECTS ON AGRICULTURE AND AGRICULTURAL WATER USER FACILITIES -

Findings of Fact:

1. Subdivisions are required to reasonably mitigate potentially significant adverse impacts to agriculture and agricultural water user facilities resulting from the subdivision. *(Subdivision Regulations Section 3.1.4.2.A)*
2. The property has been used for alfalfa production and grazing in the past. *(Subdivision Application, Pages 8-9; Property Information System)*
3. Missoula County Subdivision Regulations Section 3.1.4, Agricultural Lands, has a purpose and intent described as balancing the interests, needs, and patterns of development and agricultural preservation between landowners and the community's collective interests.
4. The Purpose and Intent of the Agricultural Lands review in subdivision includes implementation of goals of the Missoula County Growth Policy. *(Subdivision Regulations Section 3.1.4.1)*
5. One of the principles guiding the *Growth Policy* is Agriculture. The policy notes that it is important due to benefits such as food security, open space, wildlife habitat, economic activity, health promotion, and quality of life. *(Missoula County Growth Policy)*
6. The covenants include a section addressing living next to agricultural operations. These provisions alert landowners to agricultural nuisances such as odors and noise, as well as hazards including ditches, ponds, and fencing. *(Missoula County Subdivision Regulations Section 3.1.4.2.B.1; Covenants)*
7. The subdivision includes three larger lots that range in size from 5.02 to 5.77 acres (Lots 12 - 14) intended to promote a mix of residential and small-scale agricultural uses. *(Preliminary Plat)*
8. A Huson farm operates on 10 acres south of Mullan Road and Interstate 90. This farm started on 2 acres and sells flowers and vegetables at Missoula's Clark Fork Market. *(County Rail Farm)*
9. Soils on the property include Alberton very fine sandy loam, 0 to 2 percent slopes, and Grassvalley silty clay loam, 0 to 4 percent slopes and 8 to 15 percent slopes.
10. The Alberton soil found on Lots 1 and 5-11, roughly 39% of the property closest to Frenchtown Frontage Road, is prime farmland if irrigated. *(Soils Resource Report, Section D)*
11. The Grassvalley silty clay loam covers roughly 61% of the property, generally the northern two-thirds. *(Soils Resource Report, Section D)*
12. The more productive soil map unit (Alberton very fine sandy loam) does not coincide with the larger lots but rather with the smaller residential lots proposed for the southern one-third of the property. *(Soils; Preliminary Plat)*
13. According to §76-3-608(3)(a), MCA, a subdivision proposal must undergo review for the following primary criteria: "except when the governing body has established an exemption pursuant to subsection (6) or except as provided in §76-3-509, 76-3-609(2) or (4), or §76-3-616, the specific, documentable, and clearly defined impact on agriculture, agricultural water user facilities**,** local services, the natural environment, wildlife, wildlife habitat, and public health and safety, excluding any consideration of whether the proposed subdivision will result in a loss of agricultural soils;" (emphasis added) *(Montana Code Annotated* §76-3-608(3)(a)*)*

14. The plat shows an allowable build zone boundary on Lots 12-14 that appears to function as a building envelope. This area is compact, having a form and size that compares to the smaller Lots 1-11. *(Preliminary Plat)*
15. A condition of approval requires the "Allowable Build Zone" to be re-labeled as "Building Envelope." The condition requires the Building Envelope dimensions to be shown in bearings and distances. Building Envelope provisions are required to be added to the covenants. All structures shall be contained within the Building Envelopes; development outside of the building envelopes shall be subject to the "Agricultural/No-Build Zones" on these lots. The "Building Envelopes" shall be described on the face of the plat or on a Conditions of Approval sheet, with language subject to Planning Office review and approval. *(Missoula County Subdivision Regulations Section 3.1.4.2.A)*
16. A contiguous swath of open area approximately 350' wide is shown across the northern portion of Lots 12, 13, and 14 between the "Building Envelopes" and the "No-Build/No-Alteration Zones" encompassing slopes over 25%. This area is intended for agricultural use and a wildlife buffer. A condition of approval requires labeling this area as an "Agricultural/No-Build Zone." The covenants shall be amended to clarify the location of the "Agricultural/No-Build Zone" and the activities permitted within this area are utilities and non-structural agricultural uses not requiring a building permit and utilizing only wildlife-friendly fencing. *(Preliminary Plat)*
17. Missoula County seeks to conserve agricultural lands, preserve options for local agriculture, accommodate a growing population, provide for the co-existence of agriculture and development, and preserve agricultural infrastructure. *(Growth Policy)*

Agricultural Water User Facilities

18. Water will be available to all fourteen lots within the subdivision for irrigation purposes from the 20' wide Frenchtown Irrigation Canal easement which runs along the east boundary of the property. The plat also shows easements for the distribution of water to each lot. *(Subdivision Application, Page 12; Preliminary Plat; Property Information System)*
19. The ditch is piped, and its facilities may be historic in nature. (*Preliminary Plat; SHPO, 2/10/23)*
20. The Irrigation Improvements Plan clarifies that irrigation water will be made available to all lots on a per-acre basis. Irrigation water will be made available by installing irrigation infrastructure to all lots within the subdivision. This infrastructure includes a pump house, pump, irrigation main line, and irrigation service line. *(Irrigation Improvements Plan)*
21. The ability to irrigate lawn and garden areas, or more expansive agriculture on the three largest lots is limited by exempt wells in the subdivision. Assuming equal non-domestic irrigation water use, less than 7,500 square feet of lawn/garden/agricultural areas could be irrigated without being supplemented by the Frenchtown Irrigation District. *(Irrigation Improvements Plan; DNRC, 6/9/23)*
22. A condition of approval requires installation of irrigation infrastructure in accordance with the Irrigation Improvements Plan, prior to final plat approval. *(Missoula County Subdivision Regulations Section 3.1.5.6)*
23. A condition of approval requires the information conveyed in the Irrigation Improvements Plan and related Irrigation Exhibit to be recorded with the covenants. (*Preliminary Plat; Irrigation Improvements Plan)*

Conclusions of Law:

1. Impacts to agriculture and agricultural water user facilities as defined in Montana Code Annotated and the Missoula County Subdivision Regulations are mitigated with the required conditions of approval.

CRITERION 2: EFFECTS ON LOCAL SERVICES --
Roads

Findings of Fact

1. The property is located roughly five road miles west of Frenchtown on the Frenchtown Frontage Road near the I-90 interchange. Frenchtown Frontage Road is a 24' wide county-maintained paved roadway within a 60' right-of-way. A condition of approval requires a waiver of the right to protest inclusion in an SID/RSID that includes improvements and maintenance for Frenchtown Frontage Road. *(Property Information System)*
2. Frenchtown Frontage Road is an offsite road not uniquely attributable to the subdivision. It is required to maintain a 20' unobstructed drivable width and sufficient vertical clearance. *(Missoula County Subdivision Regulations Section 3.4.7.5.C)*
3. Except for the approved access points for "Road A" to connect to the Frenchtown Frontage Road, the plat includes a 1' No-Access Strip. The strip extends into an approved access easement for the benefit of Lots 1, 2, and 3, COS #6673 to the east. A condition of approval requires removal of the 1' No-Access Strip on the west half of this easement to allow continued access. *(Preliminary Plat)*
4. "Road A" is an onsite public loop road serving the majority of lots in this subdivision connecting to Frenchtown Frontage Road at two connection points. "Road A" is proposed to have a 24' wide gravel surface, as well as a 12' wide drainage swale and an 8' wide asphalt pedestrian trail along the outer edge of this loop road. At 24' wide, the Missoula County Subdivision Regulations prohibit on-street parking. *(Preliminary Plat, Subdivision Application, Page 25)*
5. "Road B" is an onsite private road with a "T" hammerhead turnaround proposed to serve Lots 13 and 14. "Road B" is proposed to have a 24' wide gravel surface within a 40' right-of-way and a drainage swale on the west side of this road. *(Preliminary Plat; Subdivision Application, Page 25)*
6. Major subdivisions with roads serving 6 to 39 lots are required to have 24' road widths with 2' shoulders ("Road A"); roads serving 2 to 5 lots must have an 18' road width with 2' shoulders ("Road B"). The application indicates "Road B" will be constructed to 24' width with 2' shoulders. A condition of approval requires plans for and construction of Roads A and B to be reviewed and approved by Public Works prior to final plat approval. *(Preliminary Plat; Missoula County Subdivision Regulations Table 3.4.7 and Section 3.4.7.2)*
7. As a public road, "Road A" is proposed for public road maintenance. A condition of approval requires a waiver of the right to protest inclusion in an SID/RSID that includes improvements and maintenance for "Road A" and Frenchtown Frontage Road *(Subdivision Application, Page 25; Missoula County Subdivision Regulations Section 7.7.8.2)*
8. The applicant proposes a homeowner's association, plus private maintenance of "Road B." Maintenance includes filling potholes, maintaining drainage ditches, and snow removal. *(Road Maintenance Agreement)*
9. The grading and drainage plan shows three stormwater retention drainage area within the area to be developed. *(Preliminary Plat; Grading and Drainage Report)*
10. A condition of approval requires final plans for grading, drainage, and erosion control, subject to the review and approval of County Public Works. A separate condition requires

maintenance of the stormwater retention areas on Lots 1, 7, and 9. *(Missoula County Subdivision Regulations Sections 3.4.8.1 and 3.7.2.1)*

11. The Missoula County Subdivision Regulations prohibit through lots, except when they are essential to overcome disadvantages of topography or orientation. *(Missoula County Subdivision Regulations Section 3.3.2.4.A)*
12. Lots 8-11 are through lots, meaning the front and rear lot lines abut a street other than an alley. These lots will have homes that face "Road A" and backyards that face Frenchtown Frontage Road. *(Supplemental Data Sheet)*
13. Design elements are required that minimize impacts, including separation from vehicular traffic and visual impacts. Visual impacts include the side/rear portions of properties viewed from roads or other public areas. Design elements include easement areas designated for screening by landscaping buffers. *(Missoula County Subdivision Regulations Section 3.3.2.4.A)*
14. To mitigate the through lots, the plat reflects a 1' No-Access strip along Frenchtown Frontage Road. A 5'+ elevation change between Frenchtown Frontage Road and the site provides some mitigation of the impacts of through lots at this location.
15. The covenants propose a 185-foot setback on Lots 8-11 from Frenchtown Frontage Road; that means homes on these lots must be constructed within 135' of "Road A." This is not shown on any plans or supplemental data sheets, and a condition of approval requires this setback to be shown on the final plat or Conditions of Approval Sheet in addition to its inclusion in the covenants, which cannot be amended without governing body approval. *(Preliminary Plat)*

Conclusions of Law

1. The subdivision will meet the road standards in the Missoula County Subdivision Regulations and impacts will be mitigated with recommended conditions of approval.

Pedestrian Facilities

Findings of Fact:

1. The Missoula County Subdivision Regulations do not require trails along offsite roads. A connection would be required along Frenchtown Frontage Road if a facility existed adjacent to the property. *(Missoula County Subdivision Regulations Section 3.4.9.2.B.3)*
2. The subdivision is in the Rural Area, requiring a trail on at least one side of all internal roads. *(Missoula County Subdivision Regulations Section 3.4.9.2.B.1.b)*
3. The subdivision is required to have 8' wide non-motorized facilities on one side of onsite roads. Five-foot (5') walkways may also be installed on both sides as an alternative. *(Missoula County Subdivision Regulations Table 3.4.9.4)*
4. The applicant proposes an 8' wide asphalt trail on the outer side of the loop road ("Road A"). *(Supplemental Data Sheet)*
5. A condition of approval requires Public Works review and approval of the proposed 8' wide asphalt trail. *(Missoula County Subdivision Regulations Table 3.4.9.4)*
6. A condition of approval requires a waiver of the right to protest inclusion in an SID/RSID that includes non-motorized facilities. *(Missoula County Subdivision Regulations Section 7.7.8.2)*

Conclusions of Law:

1. The proposal complies with the Missoula County Subdivision Regulations with the required conditions of approval.

Water & Sanitation Systems

Findings of Fact:

1. Individual wells and septic systems are proposed for the subdivision. *(Grading and Drainage Report; Water and Sanitation Report)*
2. Missoula County Subdivision Regulations Section 3.6.2.5 requires a subdivision application and/or preliminary plat to include either proof of a water right, or a letter from DNRC stating that the water supply is exempt from water rights permitting requirements.
3. Per state law, this proposal is considered a combined appropriation. Well outputs must remain below 10 acre-feet per year for all wells, with a maximum output of 35 gallons per minute. *(Missoula County Subdivision Regulations Section 3.6.2.5; 85-2-306(3)(a)(iii), MCA)*
4. The applicant proposes individual wells for each of the 14 lots. The application to DNRC assumes 0.28 acre-feet of domestic usage per lot. The remaining 2.35 acre-feet, divided by 14 lots, is 0.17 acre-feet, or enough water to irrigate 7,405 square feet of lawn/garden per lot. *(DNRC 6/9/23)*
5. Considering the limited irrigation proposed from wells, the subdivision will rely on existing water rights through the Frenchtown Irrigation District. Water is proposed to be distributed to each lot within the subdivision. Water distribution through irrigation infrastructure is described in the application and required to be installed as a condition of approval (see Agricultural and Agricultural Water User Facilities findings and conclusions). *(Irrigation Improvements Plan)*
6. A relatively small amount of additional well irrigation could lead to more than 10 acre-feet of water usage throughout the subdivision. A condition of approval requires installation of individual water meters on private well supply lines. The usage of each well is required to be read by the homeowner's association annually. Reports on usage are required to be sent to the DNRC and the Planning Office in an annual report. *(Missoula County Subdivision Regulations Section 3.6.2.5)*

Conclusions of Law:

1. The water and sanitation information complies with Subdivision Regulations with the condition of approval.
2. Review of water and sanitation systems is under the jurisdiction of state and local health authorities under the Montana Sanitation in Subdivision Act.

Solid Waste

Findings of Fact:

1. Republic Services provides solid waste disposal services to this area of Missoula County. *(Subdivision Application, Page 29)*.
2. Missoula County Subdivision Regulations Section 3.9.6 requires bear-resistant garbage disposal in bear-prone areas. This is required as a condition of approval.

Conclusion of Law:

1. Review of solid waste disposal is under the jurisdiction of state and local health authorities under the Montana Sanitation in Subdivision Act.

Parks and Recreation

Findings of Fact:

1. Missoula County Subdivision Regulations Sections 3.10.2 requires major residential subdivisions to dedicate or set aside area for parks or open space as common area held by a property owners' association or the governing body. *(Missoula County Subdivision Regulations Section 3.10.4)*

2. Based on subdivision lot sizes, the parkland dedication requirement is 0.79 acre. *(Missoula County Subdivision Regulations Section 3.10.4; Subdivision Application, Page 34)*
3. The applicant proposes cash-in-lieu of parkland, which is a required condition of approval.

Conclusion of Law:

1. The proposed subdivision will comply with the parkland dedication requirement in the Subdivision Regulations with the required condition of approval.

Schools

Findings of Fact:

1. School-aged children in the subdivision would attend Frenchtown Elementary and Middle Schools, as well as Frenchtown High School. *(Subdivision Application, Page 32)*
2. No school district comments were received for the subdivision.

Conclusions of Law*:*

1. No adverse impacts to schools requiring mitigation have been identified.

Fire Department

Findings of Fact:

1. The subdivision will be served by the Frenchtown Fire District. Subdivision review is overseen by the County Fire Inspector. *(Property Information System)*
2. Missoula County Subdivision Regulations Section 3.5.3 requires a water supply for firefighting. The fire suppression plan confirms residential fire sprinklers in each new home. *(Missoula County Subdivision Regulations Section 3.5.3)*
3. The covenants confirm residential fire sprinklers for homes in the subdivision. A condition of approval requires amended covenant language. The amended language is required to be placed on the subdivision plat or a Conditions of Approval Sheet. *(Covenants; Missoula County Subdivision Regulations Section 3.5.9)*
4. A majority of the subdivision is in the Wildland Urban Interface (WUI). The areas of steep slope on the northwest and northeast corners of the tract are within the Wildland Urban Interface (WUI) Intermix. The property is in an area of animal grazing and irrigated agriculture, with rural residential land uses of varying densities. *(Property Information System; CWPP)*
5. The integrated wildfire hazard level for the western two-thirds of the property is considered high; the eastern third is considered moderate. *(Property Information System; CWPP)*
6. The fire hazard assessment for the property indicates less than a moderate hazard for the subdivision. Since the assessment relies on Class A fire-rated roofing, this mitigation is required in a condition of approval as indicated in the covenants. *(Fire Hazard Assessment; Missoula County Subdivision Regulations Section 3.1.3.3.A)*
7. Subdivisions in the WUI are required to have more than one point of ingress/egress. The subdivision has two points of egress onto Frenchtown Frontage Road as permitted by Missoula County Public Works. *(Missoula County Subdivision Regulations Section 3.4.6.5)*
8. The Fire Suppression Plan includes information about defending home ignition zones in the subdivision. *(Missoula County Subdivision Regulations Section 3.1.3.5; Fire Suppression Plan)*
9. The covenants address dead-end driveways exceeding 150’ in length, prescribing a 16’ width, appropriate turnarounds, pullouts as needed, etc. *(Covenants; Missoula County Subdivision Regulations Section 3.5.7.1)*

10. Since the subdivision lacks a firefighting water supply capable of municipal fire flows, a condition of approval requires a waiver of the right to protest connection to a municipal water system at such time as a system is available to the subdivision. *(Missoula County Subdivision Regulations Section 3.5.11)*

Conclusions of Law:

1. This subdivision will meet the fire protection requirements of the Subdivision Regulations with the conditions of approval.

Sheriff Department

Findings of Fact:

1. The subdivision is located within the jurisdiction of Missoula County Sheriff's Department. The travel distance for law enforcement is roughly 15 miles if dispatched from Missoula. *(Property Information System)*
2. The Missoula County Sheriff's Office did not comment on the subdivision.

Conclusion of Law:

1. This subdivision has been reviewed for adequate police protection per Missoula County Subdivision Regulations. Missoula County law enforcement services will be available to the subdivision in a manner consistent with its distance from services and ease of access.

CRITERIA 3 AND 4: EFFECTS ON THE NATURAL ENVIRONMENT AND WILDLIFE AND WILDLIFE HABITAT--

Findings of Fact:

1. The property represents a transitional landscape between lowland areas closer to the Clark Fork River, and steeper, moderately forested topography. Properties adjacent to the frontage road have largely been converted from agriculture to rural residential uses. The subject property has involved grazing and raising alfalfa. *(Subdivision Application, Pages 8-9; Property Information System)*
2. The *Growth Policy* notes that unique or important wildlife habitats may be considered when evaluating a subdivision's impact on the natural environment. *(Missoula County Growth Policy)*
3. Five Valleys Audubon Society (FVAS) commented that the property was once a part of a rich grassland environment. Agricultural use has compromised grassland habitat, but prey species such as Meadow Voles could attract wintering raptors. Conversion of the property to residential uses would lead to a loss of this prey resource on the property. *(FVAS, 6/28/23)*
4. The proposed development represents the westward expansion of residential development in the Greater Missoula area. When viewed in context of developing lowlands adjacent to Missoula, the subdivision represents the persistent shrinking of remaining open space habitat. *(FVAS, 6/28/23)*
5. The proposed subdivision could benefit bird species despite habitat loss. Trees and shrubs could benefit bird species moving through the area. The value of planted trees and shrubs increases with native species, and as the plantings mature. *(FVAS, 6/28/23)*
6. Much of the area around the subdivision is considered elk winter range. Montana Fish, Wildlife & Parks (FWP) reports that elk and deer have used this agricultural field in past years, but linkage-wise, the property is on the lower end of importance due to the lack of open space south of the interstate. *(FWP, 8/28/23; Property Information System)*
7. Montana FWP is supportive of the plans for high-density residential development of this area to accommodate the large and growing need for housing in the greater Missoula

area while avoiding areas of intact wildlife habitat, development of relatively large lots, and perpetuation of urban sprawl. *(FWP, 6/28/23)*

8. Montana FWP reports that one of the most prominent threats to the remaining wildlife habitat in the Missoula Valley is properties being subdivided and sold as larger lots. This leads to relatively few new homes and properties for people to occupy relative to the amount of wildlife habitat fragmentation. Building housing in high densities and close to existing population centers is a good way to conserve the remaining open space and wildlife habitats in the Missoula Valley while still accommodating the housing needs of a burgeoning population. *(FWP, 6/28/23)*
9. The *Growth Policy* recommends avoiding animal attractants in subdivisions, in the form of educational covenants, and concrete steps to reduce or avoid attractants. *(Growth Policy)*
10. Montana FWP confirmed mountain lion and black bear conflicts on properties adjacent to the subdivision, especially against the bench where timbered ridgelines meet the flatter slopes. Fruit trees can draw in bears, and livestock could attract wild predators unless protected by a predator-resistant electric fence. *(FWP, 8/28/23)*
11. Montana FWP comments that residents should expect wildlife to use habitats around and within their property boundaries. They recommend Living with Wildlife covenants to educate property owners about co-existence with wildlife, particularly regarding animal attractants and garbage. The applicant has included these covenants, which cannot be amended or deleted without governing body approval. *(FWP, 6/28/23)*
12. Missoula County Subdivision Regulations Section 3.9.6 requires bear-proof containers or solid waste to be kept indoors until the day of pickup. This applies to areas of high bear activity. A condition of approval requires bear-resistant garbage collection to be used in the subdivision. *(Missoula County Subdivision Regulations Section 3.9.6 and Appendix E.6,7)*
13. Lots 12, 13, and 14 contain development with building envelopes, allowing a portion of the acreage to remain open and allowing wildlife to move through the property. In addition to Living with Wildlife covenants, a condition restricts fencing for these lots to wildlife-friendly varieties. *(Preliminary Plat)*
14. The submittal includes a weed management and revegetation plan aimed at long-term weed management, plus shorter-term revegetation of disturbed sites. This has been approved by the County Weed District. A condition of approval requires this document to be recorded with the covenants. *(Weed Management and Revegetation Plan; Missoula County Subdivision Regulations Sections 3.7.11 to 3.7.12)*

Conclusion of Law:

1. With the required conditions of approval, the subdivision complies with the Missoula County Subdivision Regulations and mitigates for the subdivision's impacts to the natural environment, wildlife, and wildlife habitat.

CRITERION 5: EFFECTS ON PUBLIC HEALTH AND SAFETY--

Findings of Fact:

1. The subdivision does not contain FEMA-designated floodplain. *(Property Information System)*
2. Septic test hole information confirms a limited number of locations where groundwater is present within 10 feet of the ground's surface. Groundwater within 10 feet of the natural ground surface is considered a hazard. *(Groundwater Monitoring Results; Missoula County Subdivision Regulations Section 3.1.3.3.H)*
3. Ongoing groundwater monitoring is occurring on Lots 1, 2, and 3 to determine seasonal fluctuations in groundwater. In July 2022, groundwater peaked at 96 inches at test hole

GW1 on Lot 1. Further study is intended to determine if redox is the result of "multi-decade long irrigation" or groundwater saturation. *(Subdivision Application, Page 15)*

4. The covenants include a prohibition against basements. This section may not be amended or deleted without prior approval of the governing body per a condition of approval. *(Missoula County Subdivision Regulations Section 3.1.3.3.H)*
5. The property encompasses hillsides with slopes exceeding 25% located on the northeast and northwest corners of the property. These areas have been designated as "No-Build Zones" and defined in the covenants as prohibiting all buildings, structures, utilities, parking, roads, motorized vehicle access, storage, or any other development. A condition of approval requires the plat and the covenants to label these areas as "No-Build/No Alteration Zones." *(Preliminary Plat; Covenants)*
6. The covenants include language noting the potential for high radon gas potential and encouraging construction with radon-resistant construction features. *(Covenants)*

Conclusions of Law:

1. The subdivision complies with public health and safety standards in the Missoula County Subdivision Regulations with the required condition of approval.

C) COMPLIANCE: This subdivision complies with:

1) SURVEY REQUIREMENTS

Findings of Fact:

1. The Seal of a Professional Land Surveyor or Engineer is required on all final plats, which states that the subdivision complies with part 4 of M.C.A. 76-3.

Conclusion of Law:

1. This proposal meets the survey requirements.

2) SUBDIVISION REGULATIONS

Findings of Fact:

1. Subdivisions are required to comply with the local subdivision regulations provided for in part 5 of M.C.A. 76-3.

Conclusion of Law:

1. The developer has submitted a plat that complies with the requirements of local subdivision regulations or conditions have been required that will bring the plat into compliance.

3) REVIEW PROCEDURE AND NOTICE OF APPEAL PROCESS

Findings of Fact:

1. Subdivisions are required to comply with the local subdivision review procedure provided for in Section 5 of the Missoula County Subdivision Regulations.
2. The applicant held the required neighborhood meeting on March 21, 2023. Eight local residents attended the neighborhood meeting.
3. The public hearing notification for this subdivision was mailed to notice recipients by certified mail on August 22, 2023, per Missoula County Subdivision Regulations Section 5.7.11.
4. A legal notice was placed in the *Missoulian* on August 26 and September 3, 2023.
5. A decision of the governing body rejecting or approving a proposed subdivision may be appealed to the district court within thirty (30) days of such decision. The application shall specify the grounds upon which the appeal is made. An appeal may be made by the subdivider, a contiguous landowner, an owner of land within Missoula County who can establish a likelihood of material injury to property or its material value, or the Missoula County Board of County Commissioners. To file an appeal, the plaintiff must be aggrieved

by the decision, demonstrating that a specific personal and legal interest, as opposed to a general interest, has been or is likely to be specifically and injuriously affected by the decision.

Conclusion of Law:

1. This subdivision proposal has followed the necessary application procedure and has been reviewed within the procedures provided in Missoula County Subdivision Regulations.

D) PROVISION OF EASEMENTS FOR UTILITIES:

Findings of Fact:

1. "Road A" is within a 60' wide public road and utility easement. *(Preliminary Plat)*
2. "Road B" is within a 40' wide private access and utility easement. *(Preliminary Plat)*
3. The proposed subdivision will be served by Missoula Electric Cooperative, Northwestern Energy, and a variety of providers for phone, tv, and internet. *(Subdivision Application, Page 29)*
4. The preliminary plat shows an overhead powerline along the western edge of the subdivision. A condition of approval requires a 20' wide utility easement for this line. *(Preliminary Plat; Missoula County Subdivision Regulations Section 3.8.3)*

Conclusions of Law:

1. Utility services will be available to this subdivision.
2. The subdivision will comply with utility easement requirements, with the required condition of approval.

E) PROVISION OF LEGAL AND PHYSICAL ACCESS:

Findings of Fact:

1. Frenchtown Frontage Road is the state highway that provides access to the property. It is considered an off-site road not uniquely attributable to this subdivision. The plat indicates a 1' No-Access strip along the Frenchtown Frontage Road property line, with the exception of the two access points for "Road A." A condition of approval requires the 1' No-Access strip to be removed from the access easement on the east end of the property serving the adjacent properties. *(Preliminary Plat)*
2. "Road A," a public loop road, and "Road B," a private cul-de-sac road with a hammerhead turnaround, will provide access to subdivision lots at platting. *(Preliminary Plat)*
3. "Road A" is proposed as a publicly maintained road. A condition of approval requires a waiver of the right to protest inclusion in an SID/RSID that includes road maintenance. *(Missoula County Subdivision Regulations Section 7.7.8.2)*
4. "Road B" is proposed to be privately maintained. The road maintenance agreement is included in the proposed covenants. *(Preliminary Plat; Covenants)*

Conclusion of Law:

1. The subdivision meets legal and physical access requirements.

MOTIONS AND CONDITIONS

V. RECOMMENDED MOTIONS FOR SUBDIVISION

1. THAT Elk Valley Ranch Subdivision be approved, based on the findings of fact and conclusions of law in the staff report, and subject to the recommended conditions of approval in the staff report.

VI. RECOMMENDED CONDITIONS OF SUBDIVISION APPROVAL

Compliance

1. The subdivision shall be in substantial conformance with the preliminary plat and governing body subdivision application approved by the Board of County Commissioners, as amended by these conditions. *(Missoula County Subdivision Regulations Section 6.2.4)*

Plat

Building Envelopes

2. The final plat or related Conditions of Approval Sheet shall relabel the "Allowable Build Zones" as "Building Envelopes" for Lots 12, 13, and 14, subject to Planning Office review and approval. The boundaries of the building envelopes shall be depicted in bearings and distances. All structures shall be contained within the Building Envelopes; development outside of the building envelopes shall be subject to the "Agricultural No-Build Zones" on these lots. The "Building Envelopes" shall be described on the face of the plat or on a Conditions of Approval sheet, with language subject to Planning Office review and approval. The approved language shall be included in the covenants, along with a reduced-sized depiction of the "Building Envelopes." *(Missoula County Subdivision Regulations Section 3.1.3.4.B)*

No-Build/No-Alteration Zones

3. The plat or related Conditions of Approval Sheet and the covenants shall be revised to label the areas with slopes 25% and greater as "No-Build/No Alteration Zones." *(Missoula County Subdivision Regulations Section 3.1.3.4.B)*

Agricultural/No-Build Zones

4. The portion of Lots 12, 13, and 14 north of the Building Envelopes and south of the No-Build/No-Alteration Zones encompassing slopes over 25% shall be shown on the plat or Conditions of Approval sheet as an "Agricultural/No-Build Zone." The covenants shall be amended to clarify the location of the "Agricultural/No-Build Zone" and that the only permitted uses or activities in the "Agricultural/No-Build Zone" are utilities and non-structural agricultural uses not requiring a building permit utilizing only wildlife-friendly fencing. *(Missoula County Subdivision Regulations Section 5.9.2.10)*

Utility Easement

5. The plat shall be revised to include a minimum 20' wide utility easement for the overhead powerline along the west property boundary, subject to Planning Office review and approval. *(Preliminary Plat; Missoula County Subdivision Regulations Section 3.8.3)*

Fire Sprinkler Statement on Plat

6. Notification shall be placed on the face of the plat or a Conditions of Approval Sheet to notify future lot owners of the requirement for residential fire sprinklers that comply with NFPA 1142, 13 and/or 13D, as applicable. The language on the plat will be reviewed and approved by PDS prior to final plat approval. *(Missoula County Subdivision Regulations Section 3.5.9)*

SID/RSID Waiver for Road Improvements

7. The following statement shall be shown on the face of the plat, subject to Planning Office review and approval prior to final plat approval:

   "Acceptance of a deed for a lot within the subdivision shall constitute the assent of the owners to any future SID/RSID, based on benefit, for specified future improvements and maintenance, including but not limited to paving, curbs and gutters, the installation of non-motorized facilities, street widening and drainage facilities for "Road A" and Frenchtown Frontage Road and may be used in lieu of their signatures on an SID/RSID petition." *(Missoula County Subdivision Regulations Section 7.7.8.2)*

SID/RSID Waiver for Community Water System

8. The following statement shall be shown on the face of the plat, subject to Planning Office review and approval prior to final plat approval:

   "Acceptance of a deed for a lot within this subdivision shall constitute a waiver of the right to protest a future RSID/SID for a community or municipal water system for fire protection purposes." *(Missoula County Subdivision Regulations Section 3.5.11)*

Plat Statement

9. The following statement shall be shown on the face of the plat, subject to Planning Office review and approval prior to final plat approval:

   "The undersigned hereby grants unto each and every person, firm, or corporation, whether public or private, providing or offering to provide telephone, telegraph, electric power, gas, cable television, water, or sewer service to the public, the right to the joint use of an easement for the construction, maintenance, repair, and removal of their lines and other facilities, in, over, under, and across each area designated on this plat as 'Utility Easement' and 'Public Access and Utility Easement' to have and to hold forever." *(Missoula County Subdivision Regulations Section 7.7.1)*

Roads and Pedestrian Facilities

Road A

10. Plans for and construction of a "Road A" as a 24' wide gravel roadway with 2' shoulders shall be reviewed and approved by Missoula County Public Works prior to final plat approval. *(Missoula County Subdivision Regulations Table 3.4.7 and Section 3.1.2.3.B)*

Road B

11. Plans for and construction of a "Road B" shall be reviewed and approved by Missoula County Public Works prior to final plat approval. *(Missoula County Subdivision Regulations Table 3.4.7 and Section 3.1.2.3.B)*

Grading, Drainage, and Erosion Control

12. Plans for grading, drainage, and erosion control shall be reviewed and approved by County Public Works prior to final plat approval. *(Missoula County Subdivision Regulations Section 3.7.2)*

Drainage Facilities Maintenance Agreement

13. A detention pond maintenance agreement shall be added to the covenants or recorded as a separate agreement, subject to Planning Office review and approval. Provisions shall include, at minimum, the means of maintaining year-round functionality, the responsible party performing maintenance before formation of the homeowner's association, and the method by which the developer will transfer maintenance responsibilities to the homeowner's association. *(Missoula County Subdivision Regulations Appendix B)*

Pedestrian Facilities

14. Plans for and construction of an 8' wide concrete or asphalt pathway along Road A shall be reviewed and approved by County Public Works prior to final plat approval. *(Missoula County Subdivision Regulations Table 3.4.9.4)*

Covenants – Amendments and Mitigation of Impacts

Class A Roofing

15. Plans for Class A roofing shall be reviewed and approved by the County Fire Inspector at the time of building permit review. This provision shall be included in a section of the covenants that may not be amended or deleted without prior approval of the governing body. *(Missoula County Subdivision Regulations Section 3.1.3.4.C)*

Wildlife-Friendly Fencing

16. *The covenants shall be amended to allow only wildlife-friendly fencing in the "Agricultural/No-Build Zone," according to the following specifications. The language in the covenants shall be subject to review and approval by PDS prior to final plat approval.*
    Wildlife-Friendly Fencing Requirements
    a. The top rail may either be of solid material or smooth wire, separated by a minimum of 12 inches from the rail or wire below.
    b. The top rail or wire shall be no taller than 42 inches above grade.
    c. The bottom rail may either be of solid material or smooth wire and must be at least 18 inches above the ground.
    d. The spacing of fence posts shall be on 16.5-foot centers unless topography prevents this spacing.
    e. The top level of a newly constructed fence shall be flagged with white flagging immediately after construction which shall remain in place for at least one year.
    f. Gates, drop-downs, or other passages are encouraged where wildlife concentrate and cross.
    g. Where fencing does not meet the specifications above, wildlife-friendly fencing prescribed by Montana Fish, Wildlife & Parks, may be approved in the "Agricultural/No-Build Zone."

Irrigation Improvements Plan

17. The Irrigation Improvements Plan and related Irrigation Exhibit shall be recorded with the subdivision covenants, subject to Planning Office review and approval. The Plan shall be updated to reflect details of the subdivision as conditionally approved, including details and timing of irrigation infrastructure. *(Missoula County Subdivision Regulations Section 3.1.5.6)*

Fire Sprinklers

18. Section 15 of the covenants ("Fire Sprinklers") shall be amended as follows:
    ~~Future buildings on all Lots will be required to install fire sprinkler systems that comply with NFPA 1142, 13 and/or 13D, as applicable. The sprinkler plans shall be certified by a fire protection engineer with a NICET Level 3 certification and licensed to practice in Montana. Sprinkler plans shall be reviewed for approval under the County Land Use Zoning Compliance Permitting System. This language has been included in the proposed covenants~~. "Installation of interior residential fire sprinklers that meet NFPA 1142, 13, and/or NFPA 13D standards (as applicable) is required in each new home for the purpose of fire protection. Plans for installation of interior residential fire sprinklers shall be approved by the County Fire Inspector prior to Building Permit approval. Fire sprinkler installations shall be inspected and approved by the County Fire Inspector. Failure to install residential fire sprinklers in any new home may subject the entire subdivision to the cost of installation of a shared water source for fire-fighting purposes. This requirement shall not be changed or deleted without governing body approval." The approved language shall be included on the final plat or a Conditions of Approval Sheet. *(Missoula County Subdivision Regulations Sections 3.5.3.4 and 3.5.9.1)*

Water Use Restrictions

19. Water use restrictions from individual wells in the subdivision shall be included in the covenants as follows:

    "Water Use Restrictions. For water conservation purposes, and in maintaining consistency with the exemption from water rights permitting requirements (85-2-306(3)(a)(iii), MCA), Owners of each Lot shall install individual water meters on their private well supply lines before the first point of use. The meter must register well usage before any potable or irrigation water is used. The usage of each well will be read and recorded by the Association annually and the records shall be maintained by the secretary of the Association. The secretary shall report the usage to the Department of Natural Resources and Conservation and to Missoula County Planning, Development, and Sustainability (PDS) annually. Each Lot is allocated a specific Acre-Foot (AF) volume of groundwater per year and the subdivision use as a whole shall not exceed a volume of 10 AF per year extracted from the combined wells. In order to avoid exceeding 10 AF per year as a subdivision, lawn and garden areas are limited to 0.17 acres (7,405 square feet) in accordance with the subdivision approval. Owners may have landscaped areas larger than suggested only if they use water supplied by the Frenchtown Irrigation District through the subdivision's approved irrigation system." *(Missoula County Subdivision Regulations Section 3.6.2.5)*

Bear-Resistant Garbage Containers

20. Lots in the subdivision shall utilize fully automatic, bear-resistant garbage containers, subject to Planning Office review and approval. Plans for fully automatic bear-resistant garbage containers, consistent with the operational capabilities of the garbage service provider, shall be included in the covenants, subject to Planning Office review and approval prior to final plat approval. Directions for use shall be included. This section of the covenants may not be amended or deleted without prior approval of the governing body. *(Missoula County Subdivision Regulations Section 3.9.6 and Appendix E.6,7)*

Amendments to Covenants

21. The covenants shall include an Amendments section of the covenants containing the following sections that cannot be amended or deleted without governing body approval. The sections shall include Revegetation and Weed Management, Address Signage, Fire Sprinklers, Living Adjacent to Agricultural Operations, Living with Wildlife, No Basements, Water Use Restrictions, Building Envelopes, No-Build/No Alteration Zones, Agricultural No-Build Zones, Wildlife-Friendly Fencing, Through Lot Setbacks, Road Maintenance Agreement, Drainage Facilities Maintenance, Irrigation Improvements Plan/Exhibit and Class A Roofing." *(Missoula County Subdivision Regulations Appendix B)*

Weed Management

22. The Weed Management and Revegetation Plan that has been approved shall be included as an exhibit in the Development Covenants. *(Missoula County Subdivision Regulations Sections 3.7.12.3, 3.7.11 and 3.1.2.4)*

Irrigation Improvements

23. Irrigation Improvements, including the pumphouse and mainline, shall be installed substantially as depicted in the Irrigation Improvements Plan, subject to Planning Office review and approval prior to final plat approval. Any improvements not installed by final plat approval shall be included as part of an alternative installation schedule with appropriate bonding, subject to review and approval of the Frenchtown Irrigation District. *(Missoula County Subdivision Regulations Section 3.1.5.6)*

Parkland

24. Cash-in-lieu of 0.79 acres of dedicated parkland shall be provided at final plat, subject to review and approval of County Parks, Trails and Open Lands (PTOL). *(Missoula County Subdivision Regulations Sections 3.10.4 & 3.10.5.2)*

REFERENCES CITED

The following materials are referenced throughout this document. For ease of reading, short versions of the citations (shown in bold) are used in-text, and full citations are included here.

Plans, Resources & Regulations

Community Wildfire Protection Plan (CWPP): *Adopted by the Board of County Commissioners in 2018.*
https://www.missoulacounty.us/home/showpublisheddocument/30120/636704419371870000

County Rail Farm: *Accessed August 2023.*
https://countyrailfarm.com/

Missoula County Growth Policy: *Adopted by the Board of County Commissioners in 2016*.
http://www.missoulacounty.us/home/showdocument?id=15085

Missoula County Property Information System:
http://gis.missoulacounty.us/propertyinformation/

Regional Land Use Guide (2002): *Missoula County Regional Land Use Guide adopted by the Board of County Commissioners in 2002.*
https://www.missoulacounty.us/Home/ShowDocument?id=28110

Subdivision Regulations: *Adopted by the Board of County Commissioners of Missoula County and amended February 6, 2020.*
https://www.missoulacounty.us/Home/ShowDocument?id=28809

Montana Code Annotated
https://leg.mt.gov/bills/mca/title_0760/chapter_0030/part_0060/sections_index.html

Elements of the Elk Valley Ranch Subdivision governing body review packet:

Covenants: *Covenants, Section C*
Fire Hazard Assessment: *Fire Hazard Assessment, Section E*
Fire Suppression Plan: *Fire Suppression Plan, Section E*
Grading and Drainage Report: *Grading and Drainage Report, Section D*
Groundwater Monitoring Results: *Groundwater Monitoring Results, Section D*
Irrigation Improvements Plan: *Irrigation Improvements Plan, Section C*
Preliminary Plat: *Preliminary Plat, Section A*
Preliminary Road Plan and Profile: *Preliminary Road Plan and Profile, Section D*
Road Maintenance Agreement: *Road Maintenance Agreement, Section C*
Soils: *Soils, Section D*
Subdivision Application: *Subdivision Application, Section A*
Supplemental Data Sheet: *Supplemental Data Sheet, Section A*
Water and Sanitation Report: *Water and Sanitation Report, Section D*
Weed Management and Revegetation Plan: *Weed Management and Revegetation Plan, Section C*

Agency Comment Letters and Other Cited References (hard copy documents are included in the application packet or attached to this staff report):

DNRC, 6/9/2023: *Department of Natural Resources and Conservation, dated June 16, 2022.*
Five Valleys Audubon Society (FVAS), 8/28/2023: *Five Valleys Audubon Society, dated July 26, 2022.*
State Historic Preservation Office (SHPO), 2/10/2023: *SHPO, dated February 10, 2023.*
Transportation Division (Metropolitan Planning Organization), 8/2/2022: *Transportation Division (MPO), dated August 2, 2022.*

Montana Department of Fish, Wildlife & Parks (FWP), 6/28/23: *Fish, Wildlife & Parks, dated June 28, 2023.*
Montana Department of Fish, Wildlife & Parks (FWP), 8/28/23: *Fish, Wildlife & Parks, follow-up email dated August 28, 2023.*

VII. ATTACHMENTS

A. Subdivision Project History
B. FWP Email

ATTACHMENT A
SUBDIVISION PROJECT HISTORY

Project: Elk Valley Ranch Subdivision

Applicant/ Representative: JLL Investments/IMEG c/o Tamara Ross and Danny Oberweiser

	Dates		
Scoping/ Pre-application Meetings	Scoping: 8/2/2022 Preapplication: 12/6/2022		
Element	Submitted 1st: 5/17/2023 2nd: 6/12/2023	Response 5/23/2023 6/19/2023	Complete – Y/N N Y
Sufficiency	Submitted 1st: 6/19/2022	Response 7/11/2023	Sufficient-Y/N Y
Submittal copies	Received 7/13/2023	Accepted 7/13/2023	60 Day Deadline 10/4/2023
Planning Board	9/19/2023		
BCC	10/5/2023		
Public Notice		Legal Ad 8/26/2023 & 9/2/2023 (Missoulian)	APO letters 8/23/2023
Plat Approval Expiration Date	10/5/2026		
Extension	Requested	Granted	New Proj. App. Exp. Date
Planning Office Plat Sign Off			

ATTACHMENT B
FWP COMMENT

From: Jonkel, James <JaJonkel@mt.gov>
Sent: Monday, August 28, 2023 1:33 PM
To: Tim Worley <tworley@missoulacounty.us>; Klimstra, Ryan <Ryan.Klimstra@mt.gov>
Cc: Arnold, Randy <rarnold@mt.gov>; Bradley, Liz <LBradley@mt.gov>
Subject: RE: Huson property

Tim, thank you for asking me about bear and lion activity for the proposed subdivision at this parcel: https://goo.gl/maps/PAgokgqmoGPS66GT8

FWP has responded to both lion and black bear conflicts at the adjacent properties, especially those houses against the bench where the timbered ridgeline comes down to the flats. For the houses against the hillside I would recommend that all garbage be contained and that folks refrain from growing fruit trees or raising small livestock unless contained behind predator resistant electric fence. Elk and deer have used that agricultural field in past years, but linkage-wise, the property is on the lower end of importance due to the lack of open space south of the interstate. Everything down stream, however, between this pin drop down to the county line is important habitat for the Six Mile/ Nine Mile Wildlife Movement Zone. What is left of the wildlife movement zone in this lower stretch should be maintained for wildlife passage.

https://goo.gl/maps/M2hRV4N1mSuL5FX6A

James J. Jonkel
Montana Fish, Wildlife and Parks
Region 2 Bear Management Team
3201 Spurgin Road
Missoula, MT 59804
406-544-1447

Prevention is the key
Teach bears to keep away
Not to come and stay!

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Tamara R. Ross

From: Cozad, Desiree <Desiree.Cozad@mt.gov>
Sent: Monday, July 3, 2023 8:19 AM
To: Tamara R. Ross; Danny Oberweiser
Cc: tworley@missoulacounty.us
Subject: RE: Elk Valley Ranch Subdivision - Agency Sufficiency Notice
Attachments: Elk Valley Ranch Subdivision draft.pdf

Please see attachment for our comment letter on this subdivision. Thank you.

Have a happy and safe 4th of July!

Desiree Cozad
Region 2 Admin Support
Montana Fish, Wildlife & Parks

3201 Spurgin Rd
Missoula, MT 59804
O: (406) 542-5525
C: (406) 546-4216
Montana FWP

THE **OUTSIDE** IS IN US ALL.

Elk Valley Ranch Subdivision Agency Comment Letter from FWP Representative.

FWP.MT.GOV

THE **OUTSIDE** IS IN US ALL.

Montana Fish, Wildlife and Parks - Region 2
3201 Spurgin Road
Missoula, MT 59804
(406) 542-5500
06/28/2023

IMEG Corp
Attn: Tamara Ross & Daniel Oberweiser
CC: Tim Worley
1817 South Ave W Suite A
Missoula, MT 59801
(406)721-0142

RE: Elk Valley Ranch Subdivision

Dear IMEG Corp,

Thank you for the opportunity for Montana Fish, Wildlife & Parks (FWP) to provide input on the proposed Elk Valley Ranch Subdivision. FWP is supportive of the plans for high-density residential development of this area to accommodate the large and growing need for housing in the greater Missoula area while avoiding areas of intact wildlife habitat, development of relatively large lots, and perpetuation of urban sprawl. One of the most prominent threats to the remaining wildlife habitat in the Missoula Valley is properties being subdivided and sold as larger lots. This leads to relatively few new homes and properties for people to occupy relative to the amount of wildlife habitat fragmentation. Building housing in high densities and close to existing population centers is a good way to conserve the remaining open space and wildlife habitats in the Missoula Valley while still accommodating the housing needs of a burgeoning population.

The proposed project is in an area where residents should expect to have wildlife using habitats around and within their property boundaries. Therefore, FWP recommends Living with Wildlife Covenants be put in place as part of the project development. These types of covenants are critical to responsible development of natural areas. FWP requests that you review the covenants in Section A at the end of this letter and adopt these as official covenants for the project area, including adequate enforcement mechanisms that assure the covenants are followed by the eventual residents.

Thank you again for providing FWP the opportunity to comment on the proposed Elk Valley Ranch Subdivision. Ryan Klimstra of FWP's Region 2 wildlife team will be the primary contact for this project. He can be reached at 406-542-5516 or Ryan.Klimstra@mt.gov.

Sincerely,

Randy Arnold
Regional Supervisor, Region 2

Section A. Living with Wildlife

Homeowners must accept the responsibility of living with wildlife and must be responsible for protecting their vegetation from damage, confining their pets, and properly storing garbage, pet food, livestock feed, and other potential attractants. Homeowners must be aware of potential problems associated with the occasional presence of wildlife such as deer, elk, moose, black bear, grizzly bear, mountain lion, wolf, coyote, fox, skunk, and raccoon. Please contact the Montana Fish, Wildlife & Parks office in Missoula (3201 Spurgin Road, Missoula, MT 59804) for brochures that can help homeowners "live with wildlife." Alternatively, see FWP's web site at www.fwp.mt.gov.

The following covenants are designed to help minimize problems that homeowners could have with wildlife, as well as helping homeowners protect themselves, their property, and the wildlife that Montanans value.

a. Homeowners must be aware of the potential for **vegetation damage by wildlife,** particularly from deer feeding on green lawns, gardens, flowers, ornamental shrubs, and trees in this subdivision. Homeowners should be prepared to take the responsibility to plant non-palatable vegetation or protect their vegetation (fencing, netting, repellents) in order to avoid problems. Also, consider landscaping with native vegetation that is less likely to suffer extensive feeding damage by deer. Native vegetation also protects wildlife, as there are many non-native shrubs and other plants that are poisonous to Montana's wildlife species.

b. **Gardens**, fruit trees, or orchards can attract wildlife such as bear and deer. Fruit-bearing trees and shrubs are **not allowed** in this subdivision because they can regularly attract bears in the fall. Keep produce and any fruit such as strawberries picked and off the ground, because ripe or rotting fruit or vegetable material can attract bears, skunks, and other wildlife. To help keep wildlife such as deer out of gardens, fences should be 8 feet or taller. Netting over gardens can help deter birds from eating berries, but netting should be kept taught and highly visible to prevent entanglement of birds and other wildlife.

c. **Garbage** must be stored either in secure, bear-resistant containers or indoors to avoid attracting wildlife such as bears and raccoon. If stored indoors, garbage cans may not be set out until the morning of garbage pickup and must be brought in no later than that same evening. Consult Montana Fish, Wildlife & Parks for information on purchasing or constructing bear-resistant trash containers. If home sites are occupied seasonally, all garbage from the home and other buildings must be removed from the property before closing up for the season.

d. **Do not feed wildlife** or offer supplements (such as salt blocks), attractants, or bait for deer or other wildlife. Feeding wildlife results in unnatural concentrations of animals that could lead to overuse of vegetation and disease transmission. Such actions unnecessarily accustom wild animals to humans, which can be dangerous for both. It is against state law (MCA 87-6-216; Unlawful supplemental feeding) to purposely or knowingly attract bears, deer, elk, or turkeys with supplemental food attractants (any food, garbage, or other attractant for game animals). Also, homeowners must be aware that deer might occasionally attract mountain lions to the area.

e. **Birdseed** is an attractant to bears. Use of bird feeders is not recommended from April 1st through the end of November. If used, bird feeders must: a) be suspended a minimum of 20 feet above ground level, b) be at least 4 feet from any support poles or points, and c) should be designed with a catch plate located below the feeder and fixed such that it collects the seed knocked off the feeder by feeding birds.

f. **Pets** must be confined to the house, in a fenced yard, or in an outdoor kennel area when not under the immediate control of the owner and must not be allowed to roam freely as they can chase and kill big game and small birds and mammals. Under current state law it is illegal for dogs to chase hoofed game animals (MCA 87-6-404). Keeping pets confined also helps protect them from predatory wildlife.

g. **Pet food** must be stored indoors, in closed sheds, or in animal-resistant containers in order to avoid attracting wildlife such bears, mountain lions, skunks, raccoons, and other wildlife. **When feeding pets,** do not leave food out overnight. Pets must be fed indoors or inside kennels so wild animals do not learn to associate food with your home.

h. **Barbecue grills** must be stored indoors and permanent outdoor barbecue grills shall not be allowed in this subdivision. Keep all portions of the barbecues clean. Food spills and smells on and near the grill can attract bears and other wildlife.

i. **Fencing** lot boundaries is discouraged. If used, fences should be no higher than 3-1/2 feet (at the top rail or wire) and no lower than 18 inches (at the bottom rail or wire) in order to facilitate wildlife movement and help avoid animals such as deer, elk, and/or moose becoming entangled in the fence or injuring themselves when trying to jump the fence.

j. **Compost piles** can attract skunks and bears and may not be used.

k. **Apiaries (beehives)** could attract bears in this area and are not allowed in this subdivision.

l. **Livestock or domestic animals** such as cattle, pigs, sheep, goats, llama, poultry, etc. (including those kept as 4H projects) are not allowed in this subdivision because they can attract bears, coyotes, and mountain lions.

m. These "living with wildlife" covenants cannot be altered or eliminated without consent of the governing body (subdivision applicants to insert here for their individual HOA or other governing body).

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Missoula Board of County Commissioners

PUBLIC MEETING MINUTES COVER SHEET

THURSDAY, OCTOBER 05, 2023 – 2 PM

Hybrid meeting – Missoula County Courthouse Annex Sophie Moiese Room/Microsoft Teams

Click here to view the meeting recording.

Time stamps (in green) correspond to meeting recording above. Please click to the time stamps listed to view a particular item in the meeting.

ATTENDANCE:

Commissioners Present:
Chair Josh Slotnick
Commissioner David Strohmaier
Commissioner Juanita Vero

Staff Present:
Cheryl Hartman, Administrative Assistant, Commissioners' Office
Kyla Lehnerz, Administrative Assistant, Commissioners' Office
John Hart, Civil County Attorney, County Attorney's Office
Jennie Dixon, Planner, Planning, Development, and Sustainability
Tm Worley, Senior Planner, Planning, Development, and Sustainability
Carey Powers, Communications Coordinator, Commissioners' Office
Allison Franz, Communications Manager, Commissioners' Office
Emmie Bristow, Community Engagement Coordinator, Commissioners' Office

1. **CALL TO ORDER** *[Time stamp – 0:09]*

2. **PLEDGE OF ALLEGIANCE** *[Time stamp – 0:11]*

3. **LAND ACKNOWLEDGEMENT** *[Time stamp – 0:26]*
   Missoula County acknowledges that this event takes place in the aboriginal territories of the Salish and Kalispel people.

4. **PUBLIC ANNOUNCEMENTS** *[Time stamp – 0:35]*
   a. Closed Captioning

5. **PUBLIC COMMENT ON ITEMS NOT ON THE AGENDA** *[Time stamp – 9:11]*

6. **CURRENT CLAIMS LIST** *[Time stamp – 11:10]*
   Claims received as of May 25, 2022 to June 1, 2022 by the Commissioners' Office total $2,978,165.27.

7. **HEARINGS**

a. **Elk Valley Ranch Subdivision** *[Time stamp – 11:27]*
Tim Worley, Senior Planner, Community and Planning Services

Commissioner Strohmaier made the motion that the Board of County Commissioners of Missoula County hereby adopt Resolution 2022-062 to amend the 2019 Missoula Area Land Use Element, an element of the Missoula County Growth Policy, with any necessary editorial and formatting corrections.

Commissioner Slotnick seconded.

[Motion Passed 3-0.]

[Letter 2023-185 electronically sent 10/25/2023 to JLL Investments]

b. **OTHER BUSINESS** *[Time stamp –01:16:12]*
[None]

8. **ADJOURN**
Chair Slotnick – Called the meeting to adjourn at 3:16 p.m.

1:10:10.230 --> 1:10:23.970
Joe M. Dehnert
You know it the actual specific operations that are contemplated or or or the potential for operations aren't really fully baked at this point.
1:10:24.320 --> 1:10:49.180
Joe M. Dehnert
You know if if the future lot owners on on those larger lots do wanna have collaboration on operations, there's nothing precluding and if they wanted to lease that space for someone else to have an operation and that individual wanted the least two of the spaces because the land owners didn't want to do anything with a G, There's a host of possibilities there.
1:10:49.690 --> 1:10:50.110
Joe M. Dehnert
Umm.
1:10:50.770 --> 1:11:8.970
Joe M. Dehnert
But you know when it when it came down to the design, instead of completely removing the potential for at least three lots to be up there and just have the one larger ag lot, it made sense from the land owners preference to at least have those three individual lots with the larger agricultural land preserved.
1:11:14.740 --> 1:11:16.190
Sophie Moiese Room
You have any comments Sir?
1:11:21.60 --> 1:11:27.890
Sophie Moiese Room
Hi, my name is Ryan Klimstra and I'm the area biologist for fish, wildlife and parks based in Missoula.
1:11:27.900 --> 1:11:37.560
Sophie Moiese Room
Here and and this area is part of my management, so I you know I I fly elk surveys and do deer surveys and things like that in this area in particular and.
1:11:39.690 --> 1:11:42.100
Sophie Moiese Room
Overall, I think this area is just fine.
1:11:42.110 --> 1:11:49.440
Sophie Moiese Room
You know, in terms of, we're not gonna see any huge issues of displacing of elk or deer.
1:11:49.570 --> 1:11:52.860
Sophie Moiese Room
We've actually had the opposite problem in this area.
1:11:52.870 --> 1:11:59.920
Sophie Moiese Room
When they're when the when that parcel wasn't agriculture, we did have, you know, game damage issues.
1:12:0.230 --> 1:12:1.860
Sophie Moiese Room
And so that's the one thing that comes to mind.
1:12:1.870 --> 1:12:15.90
Sophie Moiese Room
When to me, when we're talking about agriculture on that northern portion, there is there are elk that are in the vicinity that are to the north there that we're coming down you know attracted to agriculture, alfalfa, things like that.

1:12:15.100 --> 1:12:19.910
Sophie Moiese Room
And you know, in turn you end up with vehicle strikes on I-90, things like that.
1:12:20.160 --> 1:12:21.630
Sophie Moiese Room
And so that would be my only concern.
1:12:21.640 --> 1:12:28.310
Sophie Moiese Room
I think talking about agriculture, but I think that can also be mitigated by what type of crop you're talking.
1:12:28.400 --> 1:12:31.630
Sophie Moiese Room
If you're going to plant alfalfa, you're going to have elk.
1:12:31.680 --> 1:12:36.710
Sophie Moiese Room
You know, they're they're going to come there, but if it's something else, you know, there's ways around that.
1:12:36.720 --> 1:12:37.870
Sophie Moiese Room
I would just be safe.
1:12:37.880 --> 1:12:55.840
Sophie Moiese Room
We should be cautious on that, just so we're not attracting L to these neighborhoods and turn creating a burden for agencies that have to respond to that or a potential, you know, human safety issue with uh, uh, with vehicle strikes.
1:12:57.100 --> 1:13:3.430
Sophie Moiese Room
And then in terms of, I think we've put in our letter just the living with wildlife covenants, I think is our main recommendation there.
1:13:3.440 --> 1:13:7.470
Sophie Moiese Room
And I think that's covered pretty well with the bear containers and all that.
1:13:7.480 --> 1:13:8.950
Sophie Moiese Room
So, OK.
1:13:9.0 --> 1:13:9.490
Sophie Moiese Room
Thank you.
1:13:9.650 --> 1:13:9.920
Sophie Moiese Room
Thank you.
1:13:11.910 --> 1:13:12.140
Sophie Moiese Room
OK.
1:13:12.150 --> 1:13:13.590
Sophie Moiese Room
Any public comment on this?
1:13:13.600 --> 1:13:14.990
Sophie Moiese Room
Anybody wanna speak to this?