

August 18, 2026

Lucia Olivera, Division Administrator
Federal Highway Administration
585 Shepard Way
Helena, MT 59601-9785

Subject: SF 179 Eagle Pass Trail Safety and US 93 Wildlife Overpass
Reevaluated Final Supplemental Environmental Impact Statement and
Final Section 4(f) Evaluation
Project Nos. SF 179 Eagle Pass Trail Safety, HSIP STWD(762), 9614001
Project Nos. US 93 Wildlife Overpass, SSS 5-2(204)41, 10567000
Control Nos. 9614001 and 10567000

Dear Ms. Olivera:

The U.S. Route 93 (US 93) corridor from Evaro to Polson was evaluated for environmental impacts in the 1996 *U.S. Highway 93-Evaro to Polson-Missoula and Lake Counties, Montana: FEIS* with the Record of Decision (ROD) signed by your agency on August 12, 1996. The ROD, however, deferred making a decision on the lane configurations, mitigation measures, and a Section 4(f) determination until an agreement was reached by the Federal Highway Administration (FHWA) and Montana Department of Transportation (MDT), along with their cooperating agency, the Confederated Salish and Kootenai Tribes (CSKT).

Representatives from MDT, FHWA and CSKT then negotiated and signed a *Memorandum of Agreement – US 93 Evaro to Polson* (referred to as the US 93 Corridor MOA) on December 20, 2000. The US 93 Corridor MOA excluded a section between the Dublin Gulch/Red Horn Road intersection (Reference Post [RP] 37.1) and just north of the Baptiste/Spring Creek Road intersection (RP 48.7) that is referred to as the US 93 Ninepipe/Ronan project corridor. The *Final Supplemental Environmental Impact Statement (SEIS) for the US Highway 93 Ninepipe/Ronan Improvement Project* was signed by your agency on February 14, 2008, and the ROD was signed by your agency on May 21, 2008.

The purpose of this letter is to request FHWA's concurrence that the following proposed design changes, changed conditions, and the updated environmental information do not result in significant changes that would require preparation of an additional Supplemental Environmental Impact Statement (SEIS). Due to project timing and complexity, the request for FHWA action pertains only to the SF 179 Eagle Pass Trail Safety project and the US 93 Wildlife Overpass project (RP 40.8 to RP 41.57) within US 93 Ninepipe/Ronan corridor.

Reevaluation of the approved SEIS is required for FHWA action. Pursuant to Section 771.129(c) of Title 23 of the *Code of Federal Regulations* (23 CFR § 771.129(c)), this reevaluation is intended to (a) identify and analyze changes that have occurred as a result of design and (b) consider any new information available regarding the project and the study area, including changes in the design and scope, new or modified laws and regulations, or changes in circumstances of the affected environment.

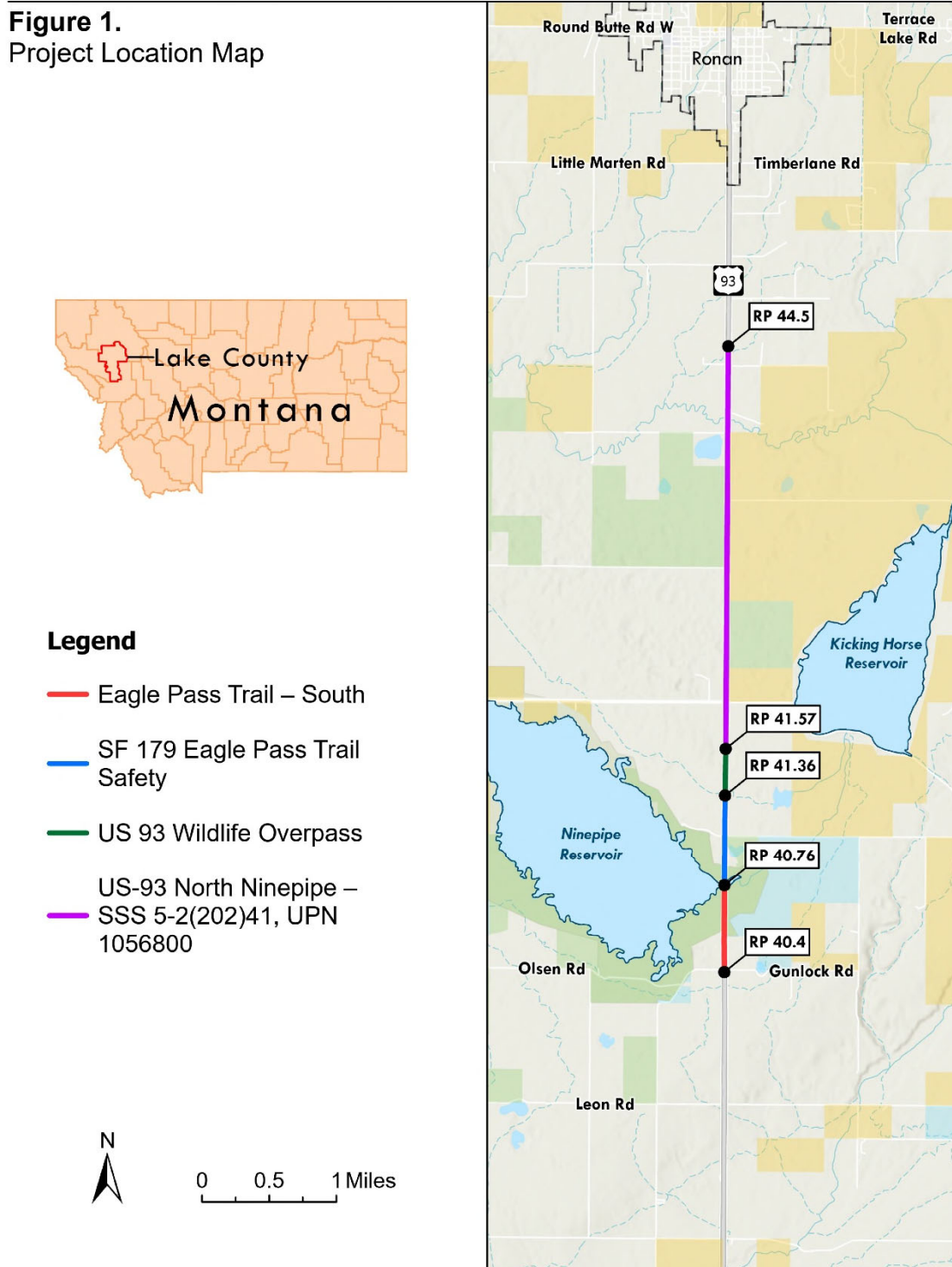
The purpose and need for the entire US 93 Ninepipe/Ronan corridor, including the SF 179 Eagle Pass Trail Safety and the US 93 Wildlife Overpass projects (RP 40.8 to RP 41.57), have not changed.

UPDATED PROJECT INFORMATION

The US 93 Ninepipe/Ronan corridor will be constructed in multiple phases based upon available funding. **Figure 1** is a project location map showing the project segments described below:

- The proposed tied SF 179 Eagle Pass Trail Safety and the US 93 Wildlife Overpass projects begin approximately 6.2 miles south of Ronan, just south of the Ninepipes Lodge. The SF 179 Eagle Pass Trail Safety project extends from RP 40.76 to RP 41.36. The US 93 Wildlife Overpass project extends from RP 41.36 to RP 41.57. Additional wildlife exclusionary fencing outside these defined project areas will extend north from RP 41.57 to RP 42.05 and south from RP 40.76 to RP 40.70, for a total fenced roadway corridor of approximately 1.35 miles on both sides of US 93.
- Both projects are located in Lake County, in Sections 1 and 2 of Township 19 North, Range 20 West and Sections 35 and 36 of Township 20 North, Range 20 West, Principal Meridian. Construction is tentatively planned to begin in 2027.
- The remaining segments, generally referred to as the Ninepipe Segment, are between RP 40.4 to 40.8 and RP 41.7 to 44.5.
 - RP 40.4 to 40.8 – SF 179 Eagle Pass Trail – South project: this portion of the Ninepipe segment is currently unfunded, with the construction date to be determined.
 - RP 41.7 to 44.5 – US 93 North Ninepipe - SSS 5-2(202)41, UPN 10568000: This extends from north of the US 93 Wildlife Overpass to Brooke Lane. A progressive design-build team has been selected for this project. The project is currently unfunded.

Figure 1. Project Location Map



Updated Design Year

Due to the passage of time, MDT has changed the project design year to 2045. Daily traffic projections have been revised for the SF 179 Eagle Pass Trail Safety and US 93 Wildlife Overpass segments, as shown in **Table 1**.

Table 1. Updated Traffic Volumes

Land Use	RP	Daily Traffic Volumes by Year (vehicles per day)		
		2025	2026	2045
Rural	40.8 to 41.4 41.4 to 41.7	9,240	9,340	11,280

Threatened Species Update

A Biological Assessment (BA) for the SF 179 Eagle Pass Trail Safety project and US 93 Wildlife Overpass project was prepared by Jacobs in June 2026. Previous consultations have occurred throughout this section of the US 93 corridor. A previous BA was drafted by RESPEC in 2017, and the associated Biological Opinion was issued in 2020. The intent of the BA is to identify the differences between previous consultations and the proposed project. Since 2020, no additional species in the project areas have been listed. However, since 2020, the monarch butterfly has been proposed as threatened and Suckley's cuckoo bumble bee has been proposed as endangered.

Consistent with the 2020 Biological Opinion, the proposed project will likely adversely affect the threatened grizzly bear. The BA (**Attachment 1**) has determined that the proposed project is not likely to jeopardize the continued existence of the monarch butterfly or Suckley's cuckoo bumble bee.

One active bald eagle nest was documented within 0.5 mile of the southern portion of the project (southwest of Ninepipes Lodge). The nest is not within 0.25 mile of the project limits, and the proposed work within the area of the 0.5-mile buffer is primarily fencing, a portion of the shared-use path, and potentially a small segment of road construction.

Wetland Delineation Update

The primary delineation for these projects was conducted by Jacobs and DJ&A biologists in May 2025 with a second delineation conducted on June 2, 2026. The Biological Resources Report with the Preliminary BA is provided in **Attachment 4**.

Table 2 and **Table 3** provide a summary of irrigation canals and wetlands, respectively, within the investigation area. No surface water was identified.

Table 2. Irrigation Canals Located in the Project Area

System	Approximate Location (RP)	Relation to US 93	Description
Post A Canal	41.4	Crossing	5-foot by 140-foot reinforced concrete pipe arch (approximate)

Table 3. Approximate Wetland Area in the Project Area

Wetland Type	Wetland Area (acres)
Palustrine Emergent	10.80
Open Water and Palustrine Emergent	14.33
Open Water, Palustrine Aquatic Bed, and Palustrine Scrub-Shrub	1.16
Open Water, Palustrine Emergent, and Palustrine Scrub-Shrub	0.36
TOTAL	26.65

For more details, the Aquatic Resource Technical Memos for the SF 179 Eagle Pass Trail Safety and the US 93 Wildlife Overpass projects are included as attachments in **Attachment 4**. Updated Wetland Determination Data Forms and MDT's Montana Wetland Assessment Method forms are included as attachments to the memos.

Cultural Resources Update

A Class III Cultural Resource Inventory to identify and evaluate archaeological and cultural resources within the project area of potential effect was completed in 2026. Two new cultural resources: an Isolated Find, Site MF1 (Historic Material Concentration), and Site KS1 (Historic US 93 Segment) were determined to be Not Eligible. A Historic Irrigation Canal (segment of Post A Canal previously documented as Post F Canal) was not evaluated. The proposed project was determined to have No Effect on the Post A Canal property.

The previously identified Ninepipe Cultural Property (SKP-LA-284) is within the project area of potential effect. The CSKT Tribal Preservation Office (THPO) was notified on June 4, 2026, of the FHWA's intent to make a de minimis impact finding on the Ninepipe Cultural Property, for the purposes of compliance with Section 4(f) of the U.S. Department of Transportation Act of 1966. MDT received documentation of project concurrence of the No Adverse Effect determination on July 27, 2026, from CSKT THPO. Correspondence between MDT and THPO is provided in **Attachment 2**.

Section 4(f) Evaluation

The 2008 SEIS determined the preferred alternative would have unavoidable impacts to Section 4(f) properties. Pursuant to Section 6009 of the Safe, Accountable, Flexible, Efficient

Transportation Equity Act: A Legacy for Users (SAFETEA-LU), FHWA determined the project would result in de minimis impacts on Section 4(f) resources. Ongoing discussions between MDT, CSKT, and the Montana Department of Fish, Wildlife & Parks (FWP) were held to discuss potential impacts to Section 4(f) properties. These meetings are documented in Section 4(f) de minimis determination letters provided in **Attachment 3**.

A letter requesting concurrence with the MDT's de minimis determination was sent on March 15, 2019, to representatives of FWP. The FWP's Section 4(f) de minimis determination letter was signed on April 11, 2019. The letter stated the following:

- Acquisition of up to approximately 6.54 acres of the Ninepipe Wildlife Management Area (WMA) for the highway right-of-way. This includes estimated right-of-way needed to complete the Post Creek Hill segment and projects in the Ninepipe segment.
- Required approximately 1.21 acres of Ninepipe WMA acquisition on Parcel 203.
- Required approximately 2.10 acres of Ninepipe WMA acquisition on Parcel 204.
- Required approximately 1.79 acres of Ninepipe WMA acquisition on Parcel 207.

Project design development for the SF 179 Eagle Pass Trail Safety project and the US 93 Wildlife Overpass project has resulted in a new acquisition total of 0.640 acres of parcel 203, 0.173 acres of parcel 204 and 0.408 acres of parcel 207. Impacts on Section 4(f) properties have been minimized where feasible. The designed wildlife overpass structure will stay within the existing roadway easement.

Therefore, acquisition of FWP 4(f) properties (parcels 203, 204 and 207) is consistent with the 2008 SEIS.

No Section 4(f) land owned by the U.S. Fish and Wildlife Service or CSKT will be acquired as part of the SF 179 Eagle Pass Trail Safety project or the US 93 Wildlife Overpass project. The signed Section 4(f) de minimis determination letter from FWP is provided in **Attachment 4**.

CHANGED CONDITIONS AND REEVALUATION

Design changes and environmental conditions that are the subject of this reevaluation are described below. Evaluation of potential impacts to all resource areas is provided in this section. Careful consideration was given to meeting the intent of the SEIS/ROD while proposing these changes. **Figure 2** shows the locations of the design changes described below.

Design Change 1: Changes to Wildlife Structures – Wildlife Overpass

While the SEIS described many wildlife structures, it did not identify a wildlife overcrossing structure. Design Change 1 provides a wildlife overpass structure on the US 93 Ninepipe corridor. The wildlife overpass project extends from RP 41.36 to RP 41.57 and will construct a wildlife overpass spanning US 93 in an area with an elevated risk of wildlife-vehicle collisions due to its

proximity to important wildlife habitat, high traffic volumes, and current deficient road conditions. This is funded by the FHWA competitive Wildlife Crossings Pilot Program grant obtained in 2023 by the CSKT.

The wildlife overpass structure provides two 12-foot lanes, 8-foot shoulders, a shared-use path and associated wildlife exclusion fencing along US 93. By lowering the roadway profile and taking advantage of the higher ground adjacent to the roadway; the wildlife overpass will blend into the existing natural terrain with less wetland and right-of-way impacts.

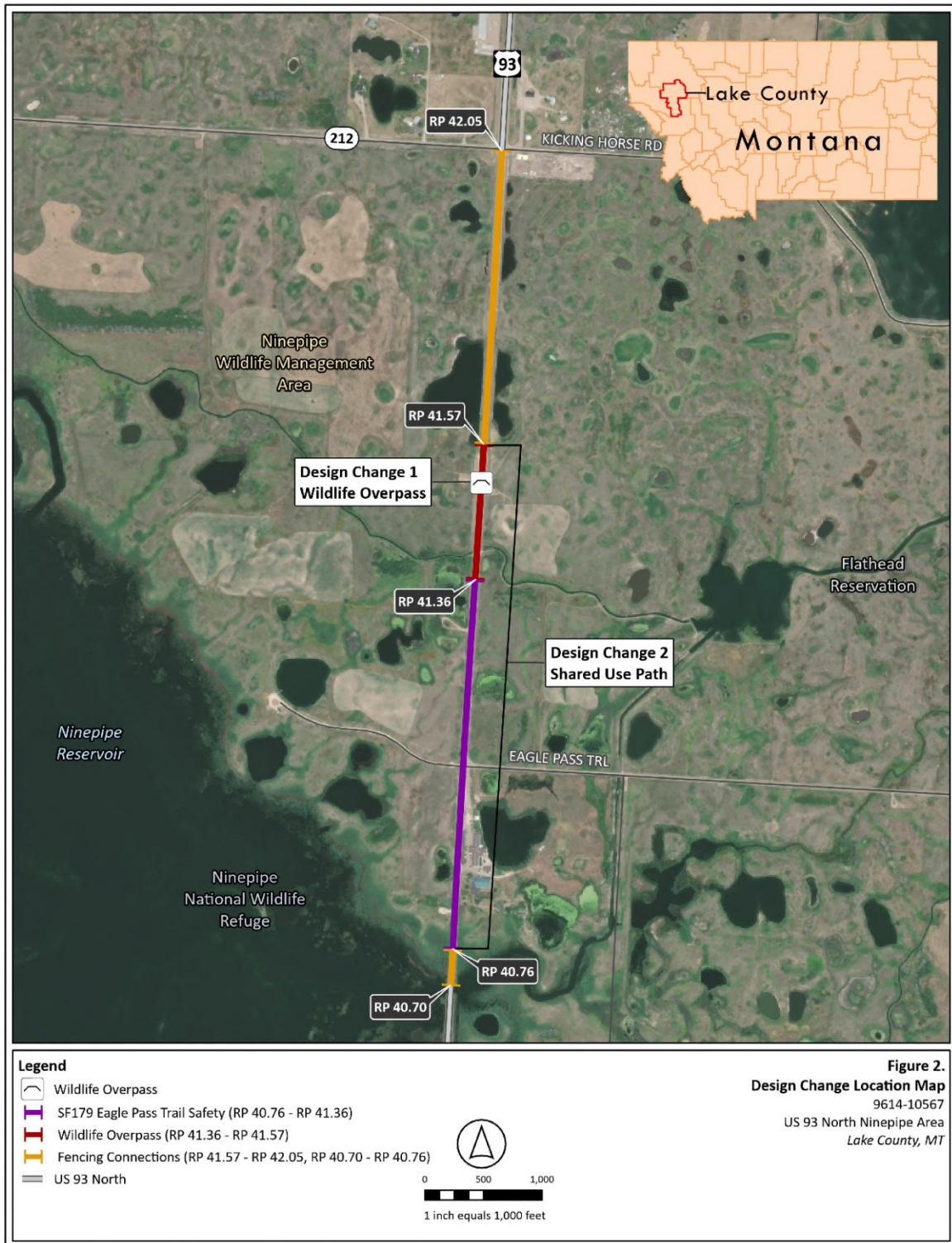
This improvement will result in safer passage for humans and wildlife and improve habitat connectivity throughout the Mission Valley, particularly for special status species, such as federally threatened grizzly bears. This wildlife accommodation structure is consistent with the intent of the SEIS to improve wildlife habitat connectivity and wildlife passage. Wildlife exclusionary fencing will extend north from RP 41.57 to RP 42.05 and south from RP 40.76 to RP 40.70, for a total fenced roadway corridor of approximately 1.35 miles on both sides of US 93.

Design Change 2: Separated Bicycle/Pedestrian Path – Shared-Use Path

The May 28, 2025, Post Creek Hill Re-Evaluated SEIS discussed Design Change 3 in which the shared-use path was relocated to the east side of the highway throughout the corridor. The proposed safety project and wildlife overpass project are located between currently unfunded segments of US 93, identified in the Updated Project Information section of this letter. The shared-use path location has not changed; however, due to a lack of logical termini for the shared-use path and fiscal constraints, the path included in the proposed projects will not have final surfacing.

The projects will build subgrade for the path, allowing for regrading and paving of the path in the future when a connecting project is developed and constructed. A short segment of the path inside the wildlife overpass will be paved. The projects actions do not preclude completing a shared-use path in the future, meeting the intent of the SEIS.

Figure 2. Design Change Location Map



PAST, PRESENT, AND REASONABLY FORESEEABLE FUTURE ACTIONS

To evaluate potential cumulative effects, research was conducted to identify other known or programmed projects in the vicinity of the project area.

- SF 179 Eagle Pass Trail Safety - South, RP 40.4 to 40.8. This portion of the Ninepipe segment is currently unfunded, with the construction date to be determined.
- US 93 North Ninepipe - SSS 5-2(202)41, UPN 10568000, RP 41.7 to 44.5. This segment extends from north of the US 93 Wildlife Overpass to Brooke Lane and is currently unfunded.
- UPN 1744000, US 93 Ronan (Urban), RP 44.6 to 48.7. Reconstruction is expected to occur in 2028 or later.
- The Flathead Reservation Transportation Improvement Program did not have any upcoming projects planned that would tie into US 93 within the Post Creek Hill project corridor.

The SF 179 Eagle Pass Trail Safety - South, North Ninepipe, and Ronan (Urban) segments were all evaluated in the original SEIS. This reevaluation of the SEIS does not change the cumulative impacts analysis provided in the SEIS, as impacts are not significantly different. Cumulative impacts from these projects are largely expected to be beneficial, as the projects are meant to increase traveler safety and wildlife passage.

These identified projects would each undergo a separate re-evaluation, as necessary, to identify any additional cumulative impacts.

SUMMARY OF IMPACTS, MITIGATION, AND SIGNIFICANCE

Table 4 summarizes the changed impacts and proposed mitigation for the SR 179 Eagle Pass Trail Safety and US 93 Wildlife Overpass projects as currently designed, compared with the 2008 SEIS/ROD. **Table 4** also provides MDT's, FHWA's, and CSKT's determination of whether the proposed changes are "significant" in terms of National Environmental Policy Act (NEPA) and Montana Environmental Policy Act (MEPA) compliance. Significance determinations were made based on the criteria specified in 40 CFR 1508.27 and Administrative Rules of Montana (ARM) 18.2.238.

Table 4. Summary of Changed Potential Impacts and Proposed Mitigation for the SF 179 Eagle Pass Trail Safety and US 93 Wildlife Overpass Segment Only

Resource	Change in Potential Direct and Indirect Impact Compared to SEIS	Change in Proposed Mitigation Compared to SEIS	Significance Determination
TRAFFIC OPERATIONS AND SAFETY	Design Change 1: Short-term impacts to the traveling public during construction. Reducing the risk of wildlife-vehicle collisions will provide long-term benefits to the traveling public. Design Change 2: No change in impact. The proposed project, when combined with other road and shared-use path projects that are planned, would have positive effects on safety for the traveling public and mobility for nonmotorized users.	No mitigation changes proposed.	The change in potential impacts from the findings of the SEIS/ROD is not significant as defined in NEPA and MEPA. The proposed project changes will improve traffic operations and safety.
LAND USE	Design Change 1: The wildlife overpass with associated wildlife exclusion fencing will improve habitat connectivity to the adjacent FWP Ninepipe WMA. Design Change 2: No change in impact. No reasonably foreseeable impact changes are anticipated due to the design changes, as impacts are consistent with the SEIS and ROD.	No mitigation changes proposed.	The minor change in potential impacts on land use from the findings of the SEIS/ROD is not significant, as defined in NEPA and MEPA. The land use changes will benefit the community and are considered minor in nature.
PRIME AND UNIQUE FARMLAND	No change in impacts. No reasonably foreseeable impact changes anticipated.	No mitigation changes proposed.	Not significant. No change in impacts.

Resource	Change in Potential Direct and Indirect Impact Compared to SEIS	Change in Proposed Mitigation Compared to SEIS	Significance Determination
SOCIAL	No change in impacts. No reasonably foreseeable impact changes anticipated.	No mitigation changes proposed.	Not significant. No change in impacts.
ECONOMICS	No change in impacts. No reasonably foreseeable impact changes anticipated	No mitigation changes proposed.	Not significant. No change in impacts.
PEDESTRIANS AND BICYCLISTS	Design Change 1: No change in impacts. Design Change 2: No change in impacts. The path subgrade will facilitate the future construction of the shared-use path. MDT concludes that the impacts of the proposed project changes on non-motorized users are consistent with the findings of the SEIS and ROD.	No mitigation changes proposed.	Not significant. No change in impacts.
AIR QUALITY	No change in impacts. No reasonably foreseeable impact changes anticipated.	No mitigation changes proposed.	Not significant. No change in impacts.
NOISE	No change in impacts. No reasonably foreseeable impact changes anticipated.	No mitigation changes proposed.	Not significant. No change in impacts.
WATER QUALITY	No change in impacts. No reasonably foreseeable impact changes anticipated.	No mitigation changes proposed.	Not significant. No change in impacts.

Resource	Change in Potential Direct and Indirect Impact Compared to SEIS	Change in Proposed Mitigation Compared to SEIS	Significance Determination
WETLANDS	Wetland impacts associated with the project are anticipated to be less than that identified in the 2008 SEIS. No reasonably foreseeable impact changes anticipated.	No mitigation changes proposed.	Not significant. No change in impacts.
FLOODPLAINS AND STREAMS	No changes in impact. No reasonably foreseeable impact changes anticipated.	No mitigation changes proposed.	Not significant. No change in impacts.
FISH AND WILDLIFE	Design Change 1: The wildlife structure is consistent with the intent of the SEIS to improve wildlife habitat connectivity and wildlife passage. Design Change 2: No change in impacts. No reasonably foreseeable impact changes anticipated.	No mitigation changes proposed.	Not significant. No change in impacts.
THREATENED AND ENDANGERED SPECIES	Since 2020, the monarch butterfly and Suckley's cuckoo bumble bee have been proposed for listing. The proposed project is not likely to jeopardize the continued existence of the monarch butterfly or Suckley's cuckoo bumble bee. No reasonably foreseeable impact changes anticipated.	No mitigation changes proposed.	Not significant. No change in impacts.

Resource	Change in Potential Direct and Indirect Impact Compared to SEIS	Change in Proposed Mitigation Compared to SEIS	Significance Determination
CULTURAL RESOURCES	Design Change 1: No Effect on cultural resources. Design Change 1: No Effect on cultural resources. No reasonably foreseeable impact changes anticipated.	No mitigation changes proposed.	Not significant. No change in impacts.
PARKS AND RECREATION	No change in impacts. No reasonably foreseeable impact changes anticipated.	No mitigation changes proposed.	Not significant. No change in impacts.
HAZARDOUS MATERIALS	No change in impacts. No reasonably foreseeable impact changes anticipated.	No mitigation changes proposed.	Not significant. No change in impacts.
VISUAL	Design Change 1: The location and design of the overpass was developed to minimize visual impacts by blending the structure in the existing natural landscape. MDT concluded that the impacts of the proposed changes are consistent with the findings of the SEIS and ROD. No reasonably foreseeable impact changes anticipated.	No mitigation changes proposed.	Not significant. No change in impacts.
RIGHT OF WAY AND RELOCATIONS	No change in impacts. No reasonably foreseeable impact changes anticipated.	No mitigation changes proposed.	Not significant. No change in impacts.

Resource	Change in Potential Direct and Indirect Impact Compared to SEIS	Change in Proposed Mitigation Compared to SEIS	Significance Determination
GEOLOGY AND SOILS	Design Change 1: The design change will result in a minor change in excavation and fill quantities for the project. Design change 2: No change in impacts. No reasonably foreseeable impact changes anticipated	No mitigation changes proposed.	The change in potential impacts from the findings of the SEIS/ROD is not significant, as defined in NEPA and MEPA. The changes in fill and excavation quantities are consistent with the findings of the SEIS and ROD.

PERMITS

There are no additional permits or authorizations to add to the ones identified in the SEIS.

PUBLIC AND AGENCY INVOLVEMENT

The US 93 corridor has a number of long-term committees developed as part of the early process that are still active and serve as one method of public outreach. Big Sky Public Relations is subcontracted to manage public involvement through project design and construction. There have been several public outreach opportunities, including public newspaper notices, public forums, and landowner meetings, between 2014 and present day. Recent events are summarized below.

In February 2025, a joint MDT webpage was created with the US 93 Post Creek Hill project. An open house public meeting was held on May 1, 2025, at the Ninepipes Lodge (joint with US 93 Post Creek Hill). A summary of stakeholder questions from the open house was prepared. MDT provides quarterly updates to the CSKT Tribal Council.

CONCLUSION

The SEIS/ROD for the US Highway 93 Ninepipe/Ronan Improvement Project has been reevaluated, as required by 23 CFR 771.129(b) with respect to the proposed SF 179 Eagle Pass Trail Safety (UPN 9614001) project and the US 93 Wildlife Overpass (UPN 10567000) project.

Based upon the reevaluation, MDT determined that the SF 179 Eagle Pass Trail Safety project and the US 93 Wildlife Overpass project are not substantially different or changed from the original SEIS/ROD. The design changes and environmental updates described in this reevaluation would not affect the ability of the Preferred Alternative to meet the project's stated purpose, as described in the SEIS and ROD.

MDT has determined that the impacts of these changes are not individually or cumulatively significant or significantly different from those described in the SEIS and ROD. Therefore, MDT has determined that the proposed design changes would have no effect on the ultimate decision documented in the ROD and that approving these design changes would be consistent with 23 CFR Part 771 for the proposed SF 179 Eagle Pass Trail Safety (UPN 9614001) and US 93 Wildlife Overpass (UPN 10567000) portion of the US Highway 93 Ninepipe/Ronan Improvement Project.

CONCURRENCE

Tom Martin, P.E.
Bureau Chief-Environmental Services

Date _____

Montana Department of Transportation

Federal Highway Administration

Date _____

Confederated Salish and Kootenai Tribes

Date _____

Electronic copies:

John Schmidt, P.E.	Missoula District Administrator
Wade Salyards	Construction Contracting Bureau Chief
Kelly Williams	MDT Consultant Design Engineer
Ellen Hinshaw	MDT Alternative Contracting Engineer
Bob Heiser	MDT Right-of-Way Bureau Chief
Amber Jensen	MDT Missoula Right-of-Way
Thomas Burnett	MDT Federal Funds Management
Shane Pegram	MDT Construction Engineering Service Bureau Chief
Tom Martin	MDT Environmental Services Bureau Chief
Tom Gocksch	MDT Environmental Engineering Section Supervisor
John Heinley	MDT Environmental Project Engineer

List of Attachments:

1. Biological Assessment
2. Tribal Historic Preservation Office Correspondence
3. Section 4(f) De Minimis Determination Letters
4. Biological Resources Report and Preliminary Biological Assessment including:
Aquatic Resources Technical Memo for the SF 179 Eagle Pass Trail Safety
Aquatic Resources Technical Memo for the US 93 Wildlife Overpass

Signatures on File:

X_____

8/19/2026

Tom S. Martin, P.E.

Bureau Chief, Environmental Services

X_____

8/27/2026

Lucia Haydee Olivera

Federal Highway Administration

X_____

8/27/2026

Michael Dolson

Chairman, Tribal Council

ATTACHMENT 1
BIOLOGICAL ASSESSMENT



United States Department of the Interior

Fish and Wildlife Service

Montana Ecological Services Office

585 Shephard Way, Suite 1

Helena, Montana 59601-6287

Phone: (406) 449-5225; Fax: (406) 449-5339



In Reply Refer To:

File: M17 FHWA (F)
2026-0109740

August 17, 2026

Joseph Weigand
Federal Highway Administration
585 Shephard Way, Suite 2
Helena, Montana 59601

Dear Mr. Weigand:

The U.S. Fish and Wildlife Service (Service) has reviewed the Biological Assessment (BA) regarding the effects of the Montana Department of Transportation (Department) US 93 Wildlife Overpass, SSS 5-2(204)41, UPN 10567000 – SF 179 Eagle Pass Trail Safety, HSIP STWD (762), UPN 9614001 Project (Project). The BA analyzed the effects of the proposed action on the threatened grizzly bear (*Ursus arctos horribilis*), the proposed threatened monarch butterfly (*Danaus plexippus*), and the proposed endangered Suckley's cuckoo bumble bee (*Bombus suckleyi*). Analysis of project effects on species proposed for listing is limited to whether the project jeopardizes the continued existence of the species or results in destruction or adverse modification of proposed critical habitat (50 Code of Federal Regulations (CFR) § 402.10). Formal consultation began with receipt of your letter on June 26, 2026. Additional information was received throughout the consultation process.

The Project would enhance safety and address an identified crash trend (angle and rear end crashes related to left-turning vehicles) by reconstructing US 93 to install a center left-turn lane near Reference Post 41.0 at the intersection with Eagle Pass Trail Road, including the approaches into the Ninepipes Lodge and the Ninepipes Museum of Early Montana.

The Project will also construct a wildlife overpass spanning US 93 near RP 41.5, an area with an elevated risk of wildlife-vehicle collisions due to its proximity to important wildlife habitat, high traffic volumes, and current deficient road conditions. Associated with the overpass, the culvert at Post A Canal will be replaced and wildlife exclusion fencing with wildlife jump-outs will be installed. The fencing will extend approximately 0.80-mile south and 0.55-mile north of the crossing along the east and west sides of US 93. These improvements will result in safer passage for wildlife and improve habitat connectivity while reducing wildlife-vehicle collisions within the project area, particularly for special status species, such as federally threatened grizzly bears. The Federal Highway Administration (Administration) concluded the project *may affect, is likely to adversely affect* the grizzly bear.

Pursuant to the requirements of section 7(a)(4) of the Act and 50 CFR § 402.10, the Administration also assessed the effects of the project on the proposed threatened monarch butterfly and the proposed endangered Suckley's cuckoo bumble bee. The Administration determined that the project will *not likely jeopardize the continued existence of* either species. Pursuant to language at 50 CFR § 402.12(k)(1), we reviewed the BA and concur with the Administration's determination. As such, a conference is not required.

The attached Biological Opinion (BO) is based on the BA (Jacobs 2026), additional information received during the consultation process, communication with the action agency and project proponents, and information in our files. The BO was prepared in accordance with section 7 of the Endangered Species Act of 1973, as amended (Act) (16 U.S.C. 1531 et seq.). A complete project file of this consultation is on file at the Service's Montana Ecological Services Office.

The Service appreciates your efforts toward conservation of threatened and endangered species as part of our joint responsibility under the Act. If you have questions or comments related to this consultation, please contact Chris Downs of my staff at (406) 499-5396 or at christopher_downs@fws.gov.

Sincerely,



for Amity Bass
Office Supervisor

Enclosure

cc: Bill Semmens and Shane Talley, Montana Department of Transportation, Helena, Montana

ENDANGERED SPECIES ACT SECTION 7 CONSULTATION

BIOLOGICAL OPINION

on the

**US 93 Wildlife Overpass, SSS 5-2(204)41, UPN 10567000 – SF 179 Eagle Pass Trail Safety,
HSIP STWD (762), UPN 9614001 Project**

on

the Grizzly Bear (*Ursus arctos horribilis*)



Action Agency:

Federal Highway Administration
Montana Division
Helena, Montana

Consultation Conducted by:

U.S. Fish and Wildlife Service
Montana Ecological Services Office
Helena, Montana

Date Issued:

August 17, 2026

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INTRODUCTION

This biological opinion (BO) was prepared by the U.S. Fish and Wildlife Service (Service) and analyzes the effects of the Federal Highway Administration (Administration) and Montana Department of Transportation's (Department) proposed US 93 Wildlife Overpass, SSS 5-2(204)41, UPN 10567000 – SF 179 Eagle Pass Trail Safety, HSIP STWD (762), UPN 9614001 Project (Project) on the threatened grizzly bear (*Ursus arctos horribilis*) in accordance with the Endangered Species Act of 1973, as amended (Act), (16 U.S.C. 1531 et seq.). The Service received the Biological Assessment (BA) and a request to initiate consultation from the Administration on June 26, 2026.

The submitted BA determined that the proposed project *may affect, is likely to adversely affect* the grizzly bear. As described in this BO and based on the BA, as well as other information collected during the consultation process, the Service has concluded that the project, as proposed, is not likely to jeopardize the continued existence of grizzly bears.

Section 7 of the Endangered Species Act (Act) requires Federal agencies to use their authorities to carry out conservation programs to benefit endangered and threatened species. There is also an explicit requirement for Federal agencies to ensure, in consultation with the Service or the National Marine Fisheries Service, that any action they authorize, fund, or carry out will not be likely to jeopardize the continued existence of a listed species, or destroy or adversely modify designated critical habitat. As a result, Federal agencies have a unique opportunity and obligation to assist in recovery of listed species by addressing threats that result from their programs and actions.

Section 7(b)(3)(A) of the Act requires that the Secretary issue biological opinions on Federal agency actions that “may affect” listed species or critical habitat. A BO determines if the action proposed by the action agency is likely to jeopardize the continued existence of listed species or destroy or adversely modify critical habitat. Section 7(b)(3)(A) of the Act also requires the Secretary to suggest reasonable and prudent alternatives to any action that is found likely to jeopardize the continued existence of listed species or result in an adverse modification of critical habitat, if any has been designated. If the Secretary determines “no jeopardy,” then regulations implementing the Act (50 C.F.R. § 402.14) further require the Secretary to specify “reasonable and prudent measures” and “terms and conditions” necessary or appropriate to minimize the impact of any “incidental take” resulting from the action(s).

This BO is based on information provided in the BA (Jacobs 2026) for the proposed action, scientific literature, unpublished reports and data, and other sources of information cited herein.

Consultation History

On May 20, 2026, the Department requested a review of a draft BA for the Project by the Service.

On May 21, 2026, the Service provided the requested BA review and comments to the Department.

On June 25, 2026, the Department provided the Service with a final BA for the Project.

On June 26, 2026, the Administration, on behalf of the Department, requested the initiation of formal consultation on the Project.

CONTEXT OF THE PROPOSED ACTION FOR GRIZZLY BEARS

This section describes the proposed Federal action, including any measures that may avoid, minimize, or mitigate adverse effects to listed species or critical habitat, and the extent of the geographic area affected by the action (i.e., the action area). The term “action” is defined in the implementing regulations for section 7 as “all activities or programs of any kind authorized, funded, or carried out, in whole or in part, by Federal agencies in the United States or upon the high seas. Examples include but are not limited to: (a) actions intended to conserve listed species or their habitat; (b) the promulgation of regulations; (c) the granting of licenses, contracts, leases, easements, rights-of-way, permits, or grants-in-aid; or (d) actions directly or indirectly causing modifications to the land, water, or air.” (50 CFR 402.02).

Through an iterative assessment and consultation process, the Department and Administration determined in their BA that the proposed action would be likely to adversely affect grizzly bears (Jacobs 2026).

This section describes the spatial context in which the Service conducts its Section 7 consultation and jeopardy analysis under the Act as well as the relationship of the project area to grizzly bear occurrence.

This BO considers the effects of implementation of the proposed project, addresses only the impacts to the federally listed grizzly bear resulting from the proposed action, and does not address the overall environmental acceptability of the proposed action.

Action Area

The Project occurs along an approximately 1.35-mile linear corridor of US 93 from south of Eagle Pass Trail to Montana State Highway 212 (MT 212) (RP 40.7–RP 42.05) in Lake County within the Flathead Indian Reservation. This area is within the Mission Creek watershed (10th field Hydrologic Unit Code 1701021205) in Sections 1 and 2 of Township 19 North, Range 20 West and Sections 35 and 36 of Township 20 North, Range 20 West, Principal Meridian.

The Project corridor is separated into two project areas from south to north:

- SF 179 Eagle Pass Trail Safety: RP 40.76 to RP 41.36.
- US 93 Wildlife Overpass: RP 41.36 to RP 41.57 with the wildlife overpass located at approximately RP 41.5.
- Additional wildlife exclusionary fencing outside these defined project areas will extend north from RP 41.57 to RP 42.05 and south from RP 40.76 to RP 40.70 for a total fenced roadway corridor of approximately 1.35 miles on both sides of US 93.

The “action area” is defined as “all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action” (50 CFR 402.02). Noise and disturbance from construction activities have the potential to extend beyond the construction limits. Previous consultation (RESPEC 2017, Service 2020) for similar construction activities in this location on US 93 used an action area of one mile in all directions from the project footprint (based on the distance construction noise would be expected to travel), and the BA for this project adopted the same size action area, consistent with the earlier consultation.

The Grizzly Bear Recovery Plan (Recovery Plan) prompted the identification of six grizzly bear recovery zones, defined as areas within which the criteria for achievement of recovery would be measured (Service 1993). The action area for this project lies immediately west of the Mission Range Grizzly Bear Management Unit within the Northern Continental Divide Ecosystem (NCDE) Grizzly Bear Recovery Zone.

Description of the Proposed Action

The Project will improve roadway safety and wildlife connectivity along a critical segment of US 93. The Project addresses longstanding safety concerns for Confederated Salish and Kootenai Tribal members, local residents, visitors, and other corridor users while improving habitat connectivity in an area of high cultural and environmental significance.

Improvements include roadway reconstruction with new surfacing, widened shoulders, upgraded roadside drainage, slope flattening, enhanced intersections, and expanded traffic signage. At RP 41.5, a wildlife overpass will span US 93 to improve habitat connectivity, particularly for sensitive species such as the federally threatened grizzly bear (*Ursus arctos horribilis*). Associated with the overpass, corridor-wide wildlife exclusion fencing, jump-outs or escape ramps, wildlife guards and wildlife gates (at access points or approaches to US 93) will reduce wildlife-vehicle collisions (WVCs) and guide animals toward the overpass. Construction activities are anticipated to occur during both daylight hours and at night. A paved trail approximately 10’ wide will be constructed adjacent to the highway for the length of the project. The trail will pass under the overpass and be constructed on the highway side of the wildlife fencing.

At RP 40.76 to RP 41.36, the Project would add a dedicated southbound left-turn lane at Eagle Pass Trail Road and transition to a two-way center turn lane through the Ninepipes Lodge and Museum area to address documented crash patterns (angle and rear end crashes related to left-turning vehicles).

Additional measures include turtle-exclusion fencing throughout the corridor, temporary detours during construction to maintain safe and efficient traffic flow, and replacement of the Post A Canal culvert. Detours would occur directly adjacent to the wildlife overpass, either along the east or west sides of the overpass dependent on the stage of construction and will occur within the overpass disturbance limits. Traffic would not be routed to secondary or local roads. Collectively, these improvements will create safer conditions for motorists, provide safe passage for wildlife, while reducing WVCs throughout the Project corridor.

Conservation Measures

The following conservation measures and construction Best Management Practices (BMPs) will be implemented for the project (Jacobs 2025):

- Promptly clean up any project related spills, litter, garbage and debris.
- Store all food, food related items, petroleum products, antifreeze, garbage, and personal hygiene items inside a closed, hard-sided vehicle or commercially manufactured bear resistant container.
- Remove garbage from the project site daily and dispose of it in accordance with all applicable regulations.
- Notify the Project Manager of any animal carcasses found in the area. The Project Manager will contact Department maintenance staff to promptly remove and dispose of any carcasses.
- Notify the Project Manager of any bears observed in the vicinity of the project. The Project Manager will promptly inform the Department District Biologist of bear observations.
- Conduct project-related activities outside of construction limits in accordance with the above requirements.

STATUS OF THE SPECIES

Critical habitat has not been designated for grizzly bears. For information on the status of grizzly bears, including regulatory history, species description, life history, and status and distribution, refer to the Grizzly Bear Recovery Plan (Service 1993), the grizzly bear 5-year status review (Service 2021), the species status assessment (SSA) for grizzly bears (Service 2022), the grizzly bear recovery program 2024 annual report (Service 2026), the conservation strategy for the grizzly bear in the Northern Continental Divide Ecosystem (NCDE; NCDE subcommittee 2021), grizzly bear demographics in the NCDE (Costello et al. 2016), NCDE grizzly bear population monitoring team 2024 annual report (Costello et al. 2025), the GYE grizzly bear conservation strategy (IGBST; Interagency Grizzly Bear Study Team 2016), the Yellowstone Grizzly Bear Investigations 2024 Report (IGBST 2026), the Cabinet-Yaak (CYE) Grizzly Bear Recovery Area 2024 Research and Monitoring Progress Report (Kasworm et al. 2025a), Density, distribution, and genetic structure of grizzly bears in the CYE (Kendall et al. 2016), and the Selkirk Mountains Grizzly Bear Recovery Area (SE) 2024 Research and Monitoring Progress Report (Kasworm et al. 2025b). These documents include the best available science regarding the status and distribution of grizzly bears and are incorporated by reference.

In summary of these documents cited above, grizzly bear populations within the lower 48 States currently exist primarily within and around four ecosystems (GYE, NCDE, CYE, and SE) including portions of four States (Wyoming, Montana, Idaho, and Washington). Grizzly bear range has been expanding in these areas and multiple grizzly bear sightings have been confirmed

in potential linkage areas between the existing ecosystems and within the Bitterroot Ecosystem (BE); however, no known population occurs in the BE or between these ecosystems. No known population occurs in the North Cascades Ecosystem (NCE). While the range of grizzly bears in some ecosystems has significantly expanded since 1975, the overall range and distribution of grizzly bears in the lower 48 States remain below historical levels at approximately six percent of historical range (Service 2022). The estimated population size and distribution in both the GYE (1,050 individuals) and NCDE (1,163 individuals) have more than doubled since listing (Costello et al. 2023, Service 2024, Service 2026). All recovery criteria have been met for at least 10 years in both the GYE and NCDE recovery zones, with some individual criteria being met even longer (Service 2023, Service 2026). The CYE and SE recovery zones support much smaller populations, with the number of individual bears estimated at 64 (Kasworm et al. 2025a) and 56, respectively (Kasworm et al. 2025b). However, each of these populations has experienced positive population growth rates and increases in population sizes in recent years, with the CYE increasing with an annual growth rate of 1.7 percent (Kasworm et al. 2025a) and the SE increasing with an annual growth rate of 2.9 percent (Kasworm et al. 2025b). However, the CYE is not meeting the minimum number of females with cubs, females with cubs distribution, or total bear and female specific survival criteria (Service 2025a). Although the SE is meeting two of three recovery criteria (Kasworm et al. 2025b), it continues to fall short of the 6-year average annual target of 6 females with cubs. From 2018-2024, the SE averaged 3.2 females with cubs/year (Ibid.). Although no known population occurs within the BE, multiple verified sightings have occurred in and close to the BE recovery zone. Grizzly bears have been documented moving back and forth across I-90 between the NCDE and the Sapphire Mountains (located to the east of the Bitterroot Mountains). The North Cascades Ecosystem (NCE) is also currently unoccupied by a grizzly bear population (Service 2026). The grizzly bear SSA (Service 2022) documents the results of a comprehensive review of the life history, ecology, threats, and viability for the grizzly bear and provides more detailed summaries and information for each ecosystem, as well as the listed entity of grizzly bears in the lower 48 States, including information incorporated from the documents referenced in the paragraph above, among many additional references.

Genetic diversity in species consisting of disjunct populations is typically maintained through genetic connectivity between populations and as few as one to two effective migrants per generation can maintain or enhance genetic diversity (Mills and Allendorf 1996; Newman and Tallmon 2001; Miller and Waits 2003). An effective migrant is an individual that immigrates into an isolated population from a separate area, survives, breeds, and whose offspring survive. There is evidence of gene flow between the adjacent SE, CYE, and NCDE grizzly bear populations but none with the GYE. However, based on the 2018 estimates of occupied range for grizzly bears in the GYE and NCDE, and verified outlier observations, the likelihood of genetic connectivity through natural bear movement is better now than at any other time since listing in 1975. The Euclidean distance between GYE and NCDE grizzly bear occupied range is approximately 45 miles, a decrease of about 30 miles since 2006. In addition, there have been numerous confirmed sightings outside of occupied range between the two ecosystems, such as Big Hole Valley, and the Big Belt, Little Belt, Elkhorn, Deer Lodge, and Pioneer Mountains. Nonetheless, successful immigration events will likely remain rare unless current distributions continue to expand (Peck et al. 2017). Peck et al. (2017) and Sells et al. (2023) modeled potential dispersal paths between the NCDE and GYE. As the modeled paths are verified, they could be used to identify and prioritize conservation efforts to foster connectivity.

Analysis of the Species/Critical Habitat Likely to be Affected

It has been determined that the project is likely to adversely affect grizzly bears (Jacobs 2026). Therefore, formal consultation with the Service was initiated and this BO has been developed to determine whether activities associated with this action are likely to jeopardize the continued existence of grizzly bears. Grizzly bears are listed as threatened under the Act. Critical habitat has not been designated for this species; therefore, none would be affected by the proposed action.

ENVIRONMENTAL BASELINE

Under the provisions of section 7(a)(2), when considering the “effects of the action” on listed species, the Service is required to consider the environmental baseline. This section assesses the effects of past and ongoing human and natural factors that have led to the current status of the species, its habitat, and ecosystem in the action area. Environmental baseline is defined as “... the past and present impacts of all Federal, State, or private actions and other human activities in the action area, the anticipated impacts of all proposed Federal projects in an action area that have already undergone formal or early Section 7 consultation, and the impact of State or private actions which are contemporaneous with the consultation in process. The consequences to listed species or designated critical habitat from ongoing agency activities or existing agency facilities that are not within the agency’s discretion to modify are part of the environmental baseline.” (50 CFR 402.02).

The Project occurs within the Mission Valley with the Mission Mountains to the east and Flathead River to the west within the Flathead Indian Reservation, home to the Confederated Salish and Kootenai Tribes (CSKT). The US 93 corridor in the action area traverses a wide variety of wildlife habitat communities, including coniferous forest, agricultural lands, riparian areas, native grasslands, wetlands, and roadside habitats. Limited residential and commercial use occurs in the action area.

Land Use

Land use in the Project area is predominantly state wildlife management and national wildlife refuge lands. At the southern end of the Project, the privately owned Ninepipes Lodge and adjacent Ninepipes Museum of Early Montana occur.

Vegetation Types

Vegetation throughout the Project area is predominantly open grasslands with thin bands of shrub and forested riparian areas surrounding wetland complexes and along the Post A Canal.

Wetlands and Aquatic Resources

Throughout the Mission Valley, numerous glacial potholes and wetland complexes occur. Within the Project area, the Post A irrigation canal is the only flowing water source and does not maintain perennial flow.

Wildlife Resources

The Mission Valley supports a wide variety of wildlife species, including big game species such as elk (*Cervus canadensis*), mule deer (*Odocoileus hemionus*), white-tailed deer (*Odocoileus virginianus*), American black bear (*Ursus americanus*), mountain lion (*Puma concolor*), and grizzly bear; mesocarnivores such as red fox (*Vulpes vulpes*), coyote (*Canis latrans*), raccoon (*Procyon lotor*), and striped skunk (*Mephitis mephitis*); a wide variety of song birds, raptors, waterfowl, shore birds, and game birds; and a variety of amphibians and reptiles, especially painted turtles (*Chrysemys picta*) in the Ninepipe pothole region (RESPEC 2017).

The Project stems from the US 93 Evaro to Polson Reconstruction Project and additional information on the Environmental Baseline for the area may be found in the US 93 Evaro to Polson Reconstruction Project BA (RESPEC 2017).

Status of the Species within the Action Area

To the east of the action area is the Mission Mountain Range, which is part of the NCDE. This includes the Mission Mountain Tribal Wilderness Area, a second wilderness area that includes an 11,495-acre Grizzly Bear Conservation Area, where grizzly bears congregate in late summer and fall to feed on army cutworm moths, and the South Fork Primitive Area. Together, these areas encompass over 150,000 acres of tribally protected and managed habitat immediately east of the action area that is used by grizzly bears (RESPEC 2017).

The estimated occupied range of grizzly bears in the NCDE for the period 2010-2024 encompassed 62,608 square kilometers, a 12% increase over the timeframe 2008-2022 (Costello et al. 2025). Grizzly bears are increasing their range outside of the Mission Mountain Bear Management Unit, expanding westward to the Flathead River (K. Kingery, CSKT, personal communication). CSKT has conducted grizzly bear movement studies using GPS collars on the reservation (CSKT 2014). Data collected in the movement studies indicate that grizzly bears freely move about the action area, particularly at night. Concentrated use occurs along the Post Creek riparian corridor, within the foothills habitat east of Kicking Horse Reservoir, and on the Ninepipe National Wildlife Refuge (Ibid.). Grizzly bear activity has also been documented around St. Ignatius, the National Bison Range and the Moiese Valley, along Mud Creek, and in the action area along US 93 itself. The Post Creek riparian corridor provides security cover, as well as feeding opportunities, for grizzly bears, while the Ninepipe/Kicking Horse area provides large tracts of relatively undeveloped habitat for grizzly bears to use.

Factors Affecting Species Environment within the Action Area

Grizzly bears in the NCDE experience both natural and human-caused mortality, with the latter being the driving force behind grizzly bear survival rates. Of 417 grizzly bear mortalities documented in the NCDE, between 2013 and 2023, 90 percent (377 of 417) were human caused (Montana Fish, Wildlife, and Parks, unpublished data). The top two sources of human-caused mortality during this time period are management removals (46%) and automobile collisions (17%). The remaining sources of human-caused mortality include train collisions, poaching, mistaken identification during hunting season, orphaned cubs, and capture mortalities. Despite these mortalities, the survival rate for independent females, the single-most important cohort

affecting population trend, remains high. The average annual survival rate for female grizzly bears from 2017-2022 in the NCDE was 0.935 (Costello et al. 2023).

Management removals of individual bears following grizzly bear/human conflicts are sometimes necessary. Most management removals result from conflicts at sites associated with frequent or permanent human presence. Unsecured attractants such as garbage, human foods, pet/livestock foods, animal carcasses, etc., are significant factors that create grizzly bear-human conflicts and the resulting agency removals. Predation on livestock is also a significant factor resulting in agency removals.

There have been five grizzly bears struck and killed by vehicles in the action area since 2010 (Service unpublished data). In 2018, the year with the highest number of grizzly bear vehicle-related mortalities on US 93 between Evaro and Polson, eight grizzly bears were struck by vehicles, six of which were cubs (Ibid.). Between 2020 and 2025 there has been an average of 0.8 grizzly bear-vehicle related mortalities/year (Ibid.) which is higher than the 0.36 grizzly bear-vehicle related mortalities/year for the period from 2000-2010 (Ibid.). The grizzly bear population in the Mission Range BMU is likely experiencing similar population growth as the rest of the NCDE (estimated at approximately 2.3%/year (Costello et al. 2016)) and increased abundance and range expansion, along with increasing traffic volumes over the past 15 years on US 93 (Department [Transportation Data Management System](#) accessed on 7/21/2025), are likely major contributors driving the observed increase. Thus far in 2026, a sub-adult female grizzly bear was struck and killed by a vehicle on US 93 north of the action area.

The Department maintains a network of vehicle counters on highways across the state. The closest year-round traffic counter location on US 93 to the action area is located to the south, near Ravalli. Traffic volume at the Ravalli site was 8,155 average annual daily traffic (AADT) in 2025 ([Montana Traffic Data](#), accessed on 7/14/2026). Peak traffic through the action area in the summer months generally occurs between 6:00AM and 8:00PM. Hourly traffic counts during summer months decline substantially after 8:00PM, with average hourly traffic volumes generally falling below approximately 60 vehicles/hour between midnight and 4:00AM. Traffic volume at the levels measured on US 93 has the potential to not only result in injury or mortality to individual grizzly bears but may also reduce access to key habitat on the west side of the highway if grizzly bears become reluctant to cross the busy highway.

EFFECTS OF THE ACTION

Effects of the action refers to the direct and indirect effects of an action on the species or critical habitat, together with the effects of other activities that are interrelated or interdependent with that action, that will be added to the environmental baseline. The environmental baseline includes the past and present impacts of all Federal, State, or private actions and other human activities in the action area, the anticipated impacts of all proposed Federal projects in the action area that have already undergone formal or early section 7 consultation, and the impact of State or private actions which are contemporaneous with the consultation in process. Indirect effects are those that are caused by the proposed action and are later in time but still are reasonably certain to occur. Interrelated actions are those that are part of a larger action and depend on the larger action for their justification. Interdependent actions are those that have no independent utility apart from the action under consideration.

General Effects of Roads on Grizzly Bears

This section provides a general discussion of direct and indirect effects of motorized access management on grizzly bears as affected by road densities. The Service acknowledges that it is difficult to quantitatively separate the effects of the presence and use of the existing highway from the incremental additional effects of the proposed project. The Service further acknowledges that much of the existing research on the effects of roads on grizzly bears was conducted on smaller roads such as those managed by the USFS, rather than on interstate highways such as that within the action area. This general discussion is included here for context and the expected additional/specific effects of the proposed project are identified where possible.

Research has confirmed adverse impacts of roads on grizzly bears (Mace et al. 1996, Mace et al. 1999). Negative impacts associated with roads and excessive road densities influence grizzly bear population and habitat use patterns in numerous, widespread areas. The Grizzly Bear Compendium (IGBC 1987) summarized impacts reported in the literature including:

- Avoidance/displacement of grizzly bears away from roads and road activity.
- Habitat loss, modification, and fragmentation due to roads and road construction, including vegetative and topographic disturbances.
- Changes in grizzly bear behavior, especially habituation to humans, due to ongoing contact with roads and human activities conducted along roads.
- Direct mortality from vehicle strike, legal and illegal harvest, and other factors resulting from increased human-bear encounters.

The IGBC provided standardized definitions for roads and standardized methods to measure road densities and define analysis areas within the recovery zones resulting from grizzly bear research on open and total road densities and grizzly bear core areas (IGBC 1998). The Service considers the management of roads in the recovery zones one of the most important factors in grizzly bear habitat conservation and the IGBC guidelines as the best direction with which to manage roads within the recovery zones.

Displacement and security

Some grizzly bears, particularly subadults, readily habituate to humans and consequently suffer increased mortality risk. However, many grizzly bears under-use or avoid otherwise preferred habitats that are frequented by people. Such under-use of preferred habitat represents modification of normal grizzly bear behavior. Negative association with roads arises from the grizzly bears' response to vehicles, vehicle noise and other human-related noise around roads, human scent along roads, and hunting and shooting along or from roads. Grizzly bears that experience these negative consequences may learn to avoid the disturbance generated by roads. The avoidance behavior may last long after a road is closed to vehicle travel.

All factors contributing to direct links between roads and displacement from habitat have not been quantified. The level of road-use by people is likely an important factor in assessing the potential displacement caused by any road. Contemporary research, however, indicates that

grizzly bears consistently were displaced from roads and habitat surrounding roads, often despite relatively low levels of human use (Mattson et al. 1987; McLellan and Shackleton 1988; Aune and Kasworm 1989; Kasworm and Manley 1990; Mace and Manley 1993; Mace et al. 1996).

Avoidance behavior is often strongest in adult grizzly bears, with males selecting for high quality habitats and absence of humans (Gibeau et al. 2002). Males that were found using high quality habitat near roads, did so during the night where hiding cover was available (Ibid). However, adult females were more likely to avoid humans all together, rather than seek out the highest quality habitats. Mueller et al. (2004) reported all age and sex classes used habitats closer to high-use roads (i.e., >100 vehicles or people per month during May-October) and development during periods of lower human use. All bears showed a considerably greater avoidance of high-use roads and development during periods of high human activity. They did show however, that regardless of the time of day, subadult bears were found closer to high-use roads than adult bears. Gibeau et al. (2002) also demonstrated that subadults were almost always closer to human activity than adults. In an analysis of GPS collar data from 23 grizzly bears in Alberta, Canada. Parsons et al. (2022) found that grizzly bears that were active during the day, moved more, and spent more time in high-risk areas near humans had lower survival rates. All mortalities of the radio-collared bears were related to human interactions (including vehicle collisions) (Ibid.).

In Montana, Aune and Stivers (1982) reported that grizzly bears avoided roads and adjacent corridors even when the area contained preferred habitat for breeding, feeding, shelter and reproduction. McLellan and Shackleton (1988) found that grizzly bears used areas near roads less than expected in southeastern British Columbia and estimated that 8.7 percent of the total area was rendered incompatible for grizzly bear use because of roads. In Montana, Mace and Manley (1993) reported use of habitat by all sex and age classes of grizzly bears was less than expected in habitats where total road densities exceeded two miles per square mile. Twenty-two percent of the South Fork Study area exceeded two miles per square mile. Adult grizzly bears used habitats less than expected when open motorized access density exceeded one mile per square mile. Further, female grizzly bears in the South Fork Study area tended to use habitat more than 0.5 mile from roads or trails greater than expected. As traffic levels on roads increased, grizzly bear use of adjacent habitat decreased (Mace et al. 1996). In Yellowstone National Park, Mattson et al. (1992) reported wary grizzly bears avoided areas within 2 kilometers (1.2 miles) of major roads and 4 kilometers (2.4 miles) of major developments or town sites.

Mace et al. (1996) and other researchers have used 500 meters as the zone of influence around roads. Waller and Servheen (2005) also demonstrated avoidance of areas within 500 meters of U.S. Highway 2. Benn and Herrero (2002) set zones of influence of 500 meters and 200 meters around roads and trails, respectively. They reported that all 95 human-caused grizzly bear mortalities with accurate or reasonable locations that occurred in Banff and Yoho National Parks between 1971 and 1998 occurred within these zones of influence along roads and trails or around human settlements. Gibeau and Stevens (2005) also documented grizzly bear road-avoidance behavior.

Research suggests that grizzly bears benefit from forest road closures aimed at minimizing traffic on roads within important seasonal habitat, especially in low elevation habitats during the spring (Mace et al. 1999). When roads are in important habitats such as riparian zones, snow chutes and shrub fields, habitat loss through avoidance behavior can be significant. Mace et al. (1996)

found that most of the forest roads within grizzly bear seasonal ranges were either closed to vehicles or used infrequently by humans. Some grizzly bears avoided areas with high total road densities even when the roads were closed to public travel. If human-related disturbances such as high levels of road use continue in preferred habitats for extended periods of time, grizzly bear use of the area may be significantly limited, particularly use by female grizzly bears. In the Swan Mountains study (Mace et al. 1996), female grizzly bear home range selection of unroaded cover types was greatest as road densities increased. Zager (1980) reported the underuse of areas near roads by females with cubs. Aune and Kasworm (1989) and McLellan (1989) found that female cubs generally established their home range within or overlapping with their mother's home range, whereas males generally dispersed from their mother's home range. Long-term displacement of a female from a portion of her home range may result in long-term under-use of that area by female grizzly bears because cubs have limited potential to learn to use the area. In this way, learned avoidance behavior could persist for more than one generation of grizzly bears before grizzly bears again utilize habitat associated with closed roads. Thus, displacement from preferred habitats may significantly modify normal grizzly bear behavioral patterns.

Conversely, grizzly bears can become conditioned to human activity and show a high level of tolerance especially if the location and nature of human use are predictable and do not result in overtly negative impacts for grizzly bears (Mattson 1993). Jope (1985) suggested grizzly bears in parks habituate to high human use and showed less displacement, even in open habitats. Yonge (2001) found that grizzly bears near Cooke City, Montana, were willing to consistently forage in very close proximity to high levels of human use if cover was sufficient and energetically efficient feeding opportunities were present. Both Mattson (1993) and Yonge (2001) postulated that areas with higher levels of human activity might have a positive effect for bears by serving as a kind of refugia for weaker population cohorts (subadults and females with cubs) seeking to avoid intra-specific competition (adult males). However, Mattson (1993) qualified this observation by adding that the beneficial effects vary as to whether hunting is allowed, and how closely the human population is regulated. Further, food conditioned grizzly bears were much more likely to be killed by humans.

Both Yonge (2001) and Mattson (1993) indicated that increases in human use levels can be deleterious if some human activities are unregulated, such as use of firearms, presence of attractants, as well as the nature and duration of human uses. Conversely, a level of coexistence between humans and grizzly bears can be achieved if such activities are controlled. Near Cooke City, Montana, the New World Mine reclamation project had minimal effects on grizzly bears, in part because reclamation activities were temporally and spatially predictable and people associated with the work were carefully regulated against carrying firearms or having attractants available to grizzly bears (Tyers 2006).

Low-elevation riparian habitats are of significant seasonal importance to grizzly bears. Grizzly bears typically use the lowest elevations possible for foraging during spring. Craighead et al. (1982) described the value of low-elevation habitats to grizzly bears. MFWP concluded that maximum numbers of grizzly bears can be maintained only if the species continues to have the opportunity to use both the temperate and subalpine climatic zones (Dood et al. 1986).

Research identified the following individual home-range selection patterns in local grizzly bear population segments: (1) some individual animals live almost exclusively (except for denning) in low elevation habitats; (2) other individuals maintain home ranges in more mountainous or

remote locations; and (3) some individuals migrate between high and low elevations on a seasonal basis (Servheen 1981; Aune and Stivers 1982).

Specific causes or factors involved in the selection or preferences for certain home ranges by grizzly bears are not well understood. Mace and Manley (1993) found that grizzly bear home ranges in the South Fork Study area included remote areas in high elevations. South Fork Study grizzly bear habitat-use data, road density analyses of the South Fork Study area, previous studies and other analysis (USFS 1994; Mace et al. 1999) suggested that low-elevation habitats were not freely available to grizzly bears because of high road densities and associated human use in these areas. High road densities in low-elevation habitats may result in avoidance of or displacement from important spring seasonal habitat for some grizzly bears or high mortality risk for those individuals that venture into and attempt to exploit resources contained in these low-elevation areas.

The Service considers significant declines in expected use of habitat by grizzly bears a serious consequence of high road densities. Significant declines in grizzly bear use of MS-1 habitat (habitat areas key to the survival of the grizzly bear where seasonal or year-long activity, under natural, free-ranging conditions is common), especially those habitat components with high seasonal values, indicate that habitat needed for survival and recovery is less available. Ideal grizzly bear habitat provides some areas isolated from excessive levels of human impact. Because grizzly bears can conflict with humans and their land uses, grizzly bear populations require a level of safety from direct human-caused mortality and competitive use of habitat such as settlement, roading, recreation, excessive logging, mining, and livestock grazing.

Analysis in the South Fork Study area (Mace and Manley 1993; Mace et al. 1996) indicated the importance of unroaded habitat, especially for females with cubs. Mace and Manley (1993) reported adult females used habitat further than 0.5 mile from roads or trails more than expected; 21% of the composite home range had no trails or roads, and 46% was unroaded (greater than 0.5 mile from a road). Substantive blocks of unroaded habitat were components of all adult female home ranges. Based on grizzly bear habitat use data from the GYE, Mattson (1993) recommended that micro scale security areas in that region be an absolute minimum of 6 kilometers (3.6 miles) in diameter or 28 square kilometers (10 square miles) and should be secure for a minimum period of 5, but preferably 10 years.

The IGBC (1998) recognized the importance of secure areas to grizzly bears. They defined "core areas" as those areas with no motorized access (during the non-denning period) or heavily used foot/livestock trails, providing some level of secure habitat for grizzly bears. Motorized use, such as snowmobiling or that associated with timber harvest, could occur within core areas during the denning (winter) period. They further recommended the establishment of core areas in all subunits, the size of which should depend on ecosystem-specific habitat conditions. Each core area should remain intact on the landscape for at least 10 years.

Conditioning to Human Attractants

Continued exposure to human presence, activity, noise, and other elements can result in habituation, which is essentially the loss of a grizzly bear's natural wariness of humans. High road densities and associated increases in human access into grizzly bear habitat can lead to the habituation of grizzly bears to humans. Habituation in turn increases the potential for conflicts

between people and grizzly bears. Habituated grizzly bears often obtain human food or garbage and become involved in nuisance bear incidences, and/or threaten human life or property. Such grizzly bears generally experience high mortality rates as they are eventually destroyed or removed from the population through management actions. Habituated grizzly bears are also more vulnerable to illegal killing because of their increased exposure to people. In the GYE, humans killed habituated grizzly bears over three times as often as non-habituated grizzly bears (Mattson et al. 1992). In the NCDE between 2015-2024, an average of six grizzly bears were removed by management agencies per year for displaying habituated behaviors (Service, file data).

Subadult grizzly bears are more vulnerable to habituation and illegal killing, and they conflict more often with people and are removed through management action. Subadult grizzly bears frequently traverse long distances of unknown territory, increasing the likelihood of encountering roads, human residences or other developments where human food or other attractants are available, increasing the potential for habituation and/or conflicts with people.

Grizzly Bear Mortality

Grizzly bears are regularly struck and killed by vehicles. An average of nine grizzly bears were hit and killed by vehicles per year on Montana roadways between 2015-2024. Eighty-three percent were from the NCDE while the remainder came primarily from the GYE (Service, file data).

The specific relationship between roads and the mortality risk to grizzly bears is difficult to quantify. The level of human use of roads is one of several factors influencing the mortality risk associated with any road. Research supports the premise that forest roads facilitate human access into grizzly bear habitat, which directly or indirectly increases the risk of mortality to grizzly bears. Grizzly bears were increasingly vulnerable to illegal and legal harvest as a consequence of increased road access by humans in Montana (Mace et al. 1987) and in the GYE itself (Mattson et al. 1992). In southeastern British Columbia, McLellan and Shackleton (1988) reported roads increased access for legal hunters and poachers, the major source of adult grizzly mortality. In the GYE, Mattson et al. (1992) reported that areas influenced by secondary roads and major developments were most lethal to grizzly bears. Aune and Kasworm (1989) reported 63 percent of known, human-caused grizzly bear deaths on the east front of the Rocky Mountains occurred within one kilometer (0.6 mile) of roads, including 10 of 11 known female grizzly bear deaths. In Montana, Dood et al. (1986) reported that 48 percent of all known, non-hunting mortalities during the period of 1967 through 1986 occurred within one mile of roads. Grizzly bears are also killed by vehicle collision, the most direct form of road-related mortality (Montana Fish, Wildlife, and Parks unpublished data).

The presence of roads alone does not necessarily result in direct mortality of grizzly bears, but the proximity of the roads to human population centers, resulting in high numbers of people using roads, and dispersed recreation in habitat around roads can pose considerable risks to grizzly bears. Social values and attitudes also contribute to the level of mortality risk to grizzly bears. Incidental or accidental human-caused grizzly bear mortality, combined with a few individuals intent on illegally shooting grizzly bears, can collectively result in serious, detrimental effects to grizzly bear populations. Access management can be instrumental to

reducing mortality risk to grizzly bears by managing the present and anticipated future road use-levels resulting from the increasing human population in western Montana.

Traffic Volume

The effect of traffic on habitat connectivity for wildlife is difficult to determine because several factors affect the specific thresholds at which traffic becomes a barrier to wildlife. Species vary in their sensitivity to traffic levels, and in their responses to it. Studies have documented diurnal to nocturnal shifts for grizzly bears, with disproportionate use of roads during the night, and have attributed these patterns to differences in human use (Adams et al. 2023; McLellan and Shackelton 1988; Mueller et al. 2004; Waller and Servheen 2005; Northrup et al. 2012). In 2024, the AADT count was 9,221 vehicles passing through the action area ([Montana Traffic Data](#), accessed on 12/22/2025). Waller and Servheen (2005), in a study of the effects of U.S. Highway 2 (approximate AADT of 2,000 vehicles per day) in northwest Montana on grizzly bears, found that bears were much more likely to cross the road at night when traffic volumes were approximately 30 vehicles per hour (95% CI = 20–40 vehicles/hour). According to Waller and Servheen (2005), most road crossings in occurred between 11:00 PM and 7:00 AM. Waller and Servheen (2005) showed an inverse relationship between the number of grizzly bear crossings of U.S. Highway 2 and traffic counts. Crossings decreased substantially once traffic counts reached 60 vehicles/hour. No bears were documented crossing the highway when traffic counts exceeded 100 vehicles/hour. In a study of grizzly bear use of roads in Banff National Park in Canada, Chruszcz et al. (2003) found that female bears were located further from roads with traffic volumes between 2,000 and 3,000 vehicles per day but were more likely to cross such roads than male grizzly bears, particularly during the berry season. However, data suggested that grizzly bears avoided crossing an unmitigated section of the Trans-Canada Highway that had an AADT volume of 14,600 vehicles per day. Thus, while grizzly bears are willing to cross roads with fairly high AADT counts, it is difficult at this point to determine the specific traffic volume at which roads become a barrier to movement for grizzly bears. Many factors including AADT likely influence grizzly bear willingness to cross roads and highways including individual bear behavior (i.e. seeking mates or forage), localized habitat features like proximity of cover, road width, the presence of road features such as guardrails and median structures, and habituation to vehicles/vehicle noise.

Effects of the Project on Grizzly Bears in the Action Area

The project, in the Service's opinion, would result in direct effects to grizzly bears during construction due to avoidance of areas adjacent to the construction area due to increased human activity and sight/sound associated with construction.

Effects to grizzly bears would occur as a result of road widening, development and use of contractor staging areas, borrow sites and associated fill placement, and new paved surfaces (including the paved trail along US93). The trail would be located within the fenced corridor and although human use may increase adjacent to the highway, the fencing will minimize contact between trail users and grizzly bears. Trail use would be anticipated to occur primarily during daylight hours when bears are less likely to be attempting to cross the highway. Due to the large volume of traffic on the highway, the additional human activity from the trail would likely only have small additional impacts to grizzly bears.

Temporary detours would be constructed directly adjacent to the wildlife overpass, either along the east or west sides of the overpass dependent on the stage of construction and would occur within the overpass final design disturbance limits. No traffic would be routed to smaller roads. Road widening will be limited to a 0.60-mile section of roadway and will increase the roadway width by 84 percent (24 feet wider). Most of the habitat that would be impacted along the roadway fringes has been previously disturbed by the original construction of the roadway and long-term operation and maintenance activities and is low to moderate quality habitat for grizzly bears. Adjacent lands that will not be impacted on the Ninepipe Wildlife Management Area and Ninepipe National Wildlife Refuge are of moderate to high quality and are used by grizzly bears in the Project corridor.

Conservation measures such as managing attractants will be in place so grizzly bear habituation is unlikely to occur during construction. Construction-related noise and increased human presence on the landscape is a direct, but short-term impact of highway construction. During construction, the presence of heavy equipment as well as construction personnel would likely deter wildlife, including grizzly bears, from using habitat adjacent to construction activities. Bears may leave the action area entirely for the duration of project implementation or use the action area when construction activities are not occurring. Additionally, wildlife fencing and other wildlife accommodation installations would result in temporarily increased human activity and construction-related noise throughout the Project corridor. However, as stated in the 2020 BO (USFWS 2020), direct effects during construction would likely be insignificant and discountable due to the implementation of conservation measures that will manage attractants and locate high-activity sites (e.g., staging areas, field offices, and sleeping quarters) away from high use grizzly bear areas.

The exact locations of staging areas and borrow sources are not finalized but the borrow source is expected to be approximately 11 miles north of the action area directly adjacent to US 93, east of Pablo Reservoir. There are currently six potential staging areas, all directly adjacent to US 93, three occurring within the action area and three occurring approximately 1.1 to 1.6 miles north of the action area as outlined in the Project BA. These borrow locations and staging areas are not anticipated to result in long-term increased traffic volumes on US 93.

Potential direct effects are anticipated due to temporary construction disturbance during nightwork, particularly noise from equipment operation, lights for illuminating work zones, and human presence at hours when there is typically little human activity. Such an effect could influence how grizzly bears use nearby habitat while work is occurring, especially in spring when bears use these low elevation habitats. Due to the need for traffic control, work sites will be restricted to short sections rather than continuously across the entire project corridor. Even though local disturbance due to night work would be discontinuous and occur in small, isolated sections spread across the action area, resident individuals accustomed to crossing the highway or using nearby habitats at night when human disturbance is typically less may avoid the area while work is occurring.

The proposed action would widen the road shoulders and add an additional lane over a 0.6-mile-long section of roadway. The wider road would increase the crossing time for bears, resulting in increased risk of vehicle strike. Similarly, the turning lanes would allow non-turning traffic to travel faster, increasing the risk of vehicles striking grizzly bears. Although the intent of the wildlife fencing and jump-outs is to prevent vehicle-wildlife collisions, grizzly bears may climb

in through the jumpouts or enter the fenced section at the road ends and become temporarily trapped on the roadway, increasing the risk of vehicle strike. Gates intended to keep grizzly bears from entering the fenced section at driveways or road intersections may be left open or not function as intended and allow grizzly bears to enter the fenced section and become temporarily trapped, resulting in an increased risk of vehicle collision. A grizzly bear was struck within a fenced section of US 93 south of the action area several years ago, likely due to a highway access gate left open. The wildlife fencing portion of the project would have both short and long-term adverse effects as well as long-term beneficial effects.

The overpass and fencing are intended to benefit grizzly bears by providing safe passage over US 93 to important seasonal habitats on the west side of US 93 and those beneficial actions were given appropriate consideration in the development of this BO. Bears move out of the Mission Range Bear Management Unit (BMU) and cross US 93 to access low elevation seasonal forage in the spring and summer. An overpass was selected as the crossing structure as opposed to an underpass as studies have shown that grizzly bears, particularly females with cubs, selected for overpasses rather than underpasses in Banff National Park (Clevinger and Barrueto 2014). Although some grizzly bears may initially refuse to use the crossing structure and have a more difficult time finding their way across the highway due to the fencing, the Service anticipates net-beneficial short and long-term effects to grizzly bears resulting from reduced grizzly bear-vehicle collisions in the action area.

Modification of upland habitat associated with the Project includes clearing and grubbing vegetation within the previously disturbed road prism of US 93. All impacts to areas that are not converted to roadway or trail are anticipated to be short term and temporary. All disturbed areas outside the paved surface areas will be seeded with desirable plant species as soon as practicable after construction to reduce the spread and establishment of noxious weeds and to re-establish permanent vegetation.

The Project will not increase access to adjacent lands or result in any changes to land use. Additionally, the Project will not result in habitat alterations that would affect grizzly bear prey or forage abundance or availability. This Project is not expected to increase long-term ambient noise levels in the action area in a way that would render occupied habitat less suitable. The presence of humans could deter grizzly bears from using areas adjacent to the shared use path, but human presence on the path is more likely to occur during daylight hours when grizzly bears would not be expected to be using the crossing or near US 93.

Other Effects

Other activities that would be associated with the project include development of borrow material sites, staging areas for equipment, gravel stockpiles, and the continued operation and maintenance of equipment and/or construction-related facilities. The combination of activities necessary at such sites often results in large and loud undertakings that operate continuously for long periods of time. Contracts for the proposed project will contain special provisions stating that the contractor is to conduct project-related activities outside of construction limits in a manner which will not adversely affect federally listed species and/or designated critical habitat. Such actions include but are not limited to those listed in the *Conservation Measures* section of this BO. The contractor is required to maintain clean sites that are free of spills, litter, garbage,

debris, etc., and store all attractants inside a closed, hard-sided vehicle or bear-resistant container.

CUMULATIVE EFFECTS

The implementing regulations for Section 7 define cumulative effects as “...those effects of future State or private activities, not involving Federal activities that are reasonably certain to occur within the action area of the Federal action subject to consultation.” (50 CFR 402.02). Future Federal actions that are unrelated to the proposed action are not considered in this section because they require separate consultation pursuant to Section 7 of the Act. It is important to note that the Section 7 definition (related to the Act) is not the same as the definition of “cumulative effects” under the National Environmental Policy Act.

Domestic livestock grazing will continue to persist on private lands within the action area. In the past, two grizzly bear family groups were removed for depredation on chickens. Additional grizzly bears have been removed for depredations on cattle and sheep. Grizzly bear removal due to depredations is likely to continue in the future.

The CSKT Kerr Dam Fish and Wildlife Mitigation Settlement with Pacific Power and Light (PPL) Montana establishes both a mitigation framework and financial agreement to address impacts from Seli’s Ksanka Qlispe’ (Kerr Dam) between 1985 and 2035. Although PPL no longer owns the dam (it is now owned by a CSKT corporation) the settlement remains focused on long-term ecological mitigation. A central element of the settlement is the acquisition of approximately 3,398 acres of wildlife habitat, much of it located around Ninepipe National Wildlife Refuge and Kicking Horse Reservoir. These lands are intended to be restored and enhanced to support wildlife populations, including grizzly bears and may be acquired within the action area addressed in this biological opinion. In acquiring other lands under the settlement, priority is given to acquiring parcels that adjoin or complement lands managed by Montana Fish, Wildlife and Parks and/or the Service, thereby improving habitat connectivity. Such areas are particularly valuable for species like grizzly bears, providing important foraging, breeding, and movement habitat.

The project considered in this BO, along with the cumulative impacts from the activities identified above, will have long-term beneficial, as well as short and long-term adverse impacts on grizzly bears.

CONCLUSION

After reviewing the current status of the grizzly bear, the environmental baseline, the effects of the action, and the cumulative effects, it is the Service’s opinion that the effects of the project on grizzly bears are not likely to jeopardize the continued existence of the grizzly bear. Critical habitat has not been designated for this species; therefore, none will be affected. Implementing regulations for section 7 (50 C.F.R. § 402) define “jeopardize the continued existence of” as to “engage in an action that reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species”. Our conclusion is based on but not limited to the information presented in the BA (Jacobs 2026), the Grizzly Bear Recovery Plan (Service 1993), the 2024 Grizzly Bear Recovery Program Annual Report (Service 2026),

the Grizzly Bear Species Status Assessment (Service 2022), relevant published and unpublished data and literature, information in our files, and informal discussions among the Service, the Administration, and the Department.

As determined earlier in this BO, the project would result in direct adverse effects to individual grizzly bears due to disturbance of foraging, migrating, and resting habitats during construction. Direct and indirect adverse effects could also occur as a result of vehicle strikes of grizzly bears. Based on the best available scientific information reviewed in this consultation, such adverse effects will not negatively impact the recovery of the NCDE grizzly bear population. It is the Service's opinion that the proposed actions would not appreciably reduce the likelihood of both the survival and recovery of the grizzly bear. Below we summarize key factors of our rationale for our non-jeopardy conclusion as detailed and analyzed in this BO.

Factors related to the Project:

- The population of grizzly bears in the NCDE is estimated at over 1,100 animals and the loss of an average of one bear approximately every three years (the average number of grizzly bears killed by vehicles over the last 16 years in the action area) in the action area will not have population-level effects at the recovery zone scale.
- The project will not increase traffic volume on US 93.
- The project includes wildlife fencing and a wildlife overpass which will reduce the potential for grizzly bear – vehicle collisions in the action area.
- The conservation measures outlined in this BO will reduce potential impacts to grizzly bears and grizzly bear habitat.
- The disturbance effects from construction activities are temporary, ceasing when the project is completed.

Although we expect some individual grizzly bears may be adversely affected within the action area, the survival and recovery of the NCDE grizzly bear population would not be negatively affected.

Factors related to the NCDE grizzly bear population:

- The best available information demonstrates that the NCDE grizzly bear population has expanded its range into areas outside the recovery zone. Female grizzly bears with young have been observed outside of the recovery zone, indicating that a number of females are able to establish home ranges and find the resources needed to survive and reproduce outside the recovery zone despite the lack of mandatory habitat protections.
- The grizzly bear population exceeds 1,100 individuals and is expanding its range within the NCDE (Service 2023). The population has an estimated annual growth rate of 2.3% (Costello et al. 2016).
- All 23 BMU's had females with young during the most recent 6-year period.

- As of 2024, grizzly bears occupied 93 percent of the NCDE Demographic Monitoring Area (DMA) as well as areas outside of the DMA (Service 2026). The DMA includes the recovery zone and an approximately 20,000 km² buffer zone (Service 2023).
- The distance between the NCDE and GYE population has continued to decline over time and as of 2024 the estimated occupied ranges of the two populations were about 45 miles apart (Service unpublished data), with additional verified locations between the two distributions. However, genetic exchange between the NCDE and GYE remains undocumented (Service 2024).
- The most recent species status assessment described the NCDE grizzly bear population as having high resiliency (Service 2022)
- MFWP's bear specialist program is expected to continue to work with the public to reduce risks to grizzly bears on private and public lands, both inside and outside the boundaries of the recovery zone. In cooperation with other agencies, this program has made notable strides toward an informed public and reduced the availability of attractants to grizzly bears on private and public lands.
- The NCDE recovery zone encompasses 5.7 million acres, of which 1.7 million acres is wilderness and 962,000 acres is Glacier National Park, which contains highest quality grizzly bear habitat. Considering these lands only, nearly half (47%) of the NCDE is essentially roadless or free of motorized use. Further, the Flathead National Forest, which makes up 40 percent of the NCDE recovery zone, currently contributes approximately 1.5 million acres of additional grizzly bear core area. The four other National Forests in the NCDE also provide additional substantial core areas.
- The majority of the NCDE recovery zone is managed by the U.S. Forest Service and National Park Service, whose access management outside of wilderness areas or otherwise protected areas is directly based on IGBC Guidelines. The current access management conditions on Federal lands across the ecosystem have contributed to the recovery of grizzly bears in the NCDE.
- Loss of an individual grizzly bear or single family group (in the case of a female with young) from a population of over 1,100 individuals due to vehicle collision in the action area would not affect the recovery potential of the species.

Recovery zones are established to identify areas necessary for the recovery of a species and are defined as the area in each grizzly bear ecosystem within which the population and habitat criteria for recovery are measured. Recovery zones are areas adequate for managing and promoting the recovery and survival of grizzly bear populations (Service 1993). Areas within the recovery zones are managed to provide and conserve grizzly bear habitat. The recovery zones contain large portions of wilderness and in some cases national park lands, which are protected from the influence of many types of human uses occurring on lands elsewhere. Multiple use lands are managed with grizzly bear recovery as a primary factor. As anticipated in the Recovery Plan, grizzly bear populations have responded to these conditions; the recovery plan strategy has been successful and has resulted in growth of grizzly bear populations. Based

on the best available information, the NCDE grizzly bear population is increasing, expanding its distribution and meets all recovery goals (Service 2026).

As grizzly bears continue to expand their existing range outside of the recovery zones, opportunity for genetic connectivity between ecosystems is increasing. Gene flow is already occurring between the NCDE, SE, and CYE. Grizzly bears outside the recovery zones probably experience a higher level of adverse impacts due to land management actions than grizzly bears inside the recovery zones. As anticipated in the recovery plan, we expect more grizzly bears will inhabit areas outside of the recovery zones in the future. We expect grizzly bears will occur outside of the recovery zones at lower densities than within the recovery zones as a result of suboptimal habitat conditions, which include higher road densities, fewer areas secure from motorized access, and more human presence. In our recent 5-Year Review, the Service states that the “effects of stressors in the areas between ecosystems would only impact individual bears and could not have any impacts at the level of a population or the entire entity” (Service 2021). While this project would likely result in adverse effects to some individual grizzly bears using the action area, considering: the large size of the NCDE recovery zone, favorable land management within the recovery zone, and the robust status of the NCDE grizzly bear population; adverse effects on grizzly bears as a result of implementing the project would not have negative effects on the status of the NCDE grizzly bear population. The population is robust, the recovery zone is large, and the management of grizzly bears within the recovery zone favors the needs of grizzly bears; these results signal successful Federal land management related to grizzly bear recovery under the strategy detailed in the 1993 recovery plan. Therefore, we conclude that the project is not likely to reduce the numbers, distribution, or reproduction of grizzly bears in the NCDE recovery zone and accordingly is not likely to reduce the numbers, distribution, or reproduction of grizzly bears in the lower 48 States listed entity of grizzly bears.

INCIDENTAL TAKE STATEMENT

Section 9 of the Act, and Federal regulations pursuant to section 4(d) of the Act, prohibit the take of endangered and threatened species, respectively without special exemption. *Take* is defined as harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct. *Harm* is further defined by the Service to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing behavioral patterns, including breeding, feeding, or sheltering. *Harass* is defined by the Service as an intentional or negligent act or omission that creates the likelihood of injury to listed wildlife by annoying it to such an extent as to significantly disrupt normal behavior patterns which include, but are not limited to, breeding, feeding, or sheltering. *Incidental take* is defined as take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity. Under the terms of section 7(b)(4) and section 7(o)(2), taking that is incidental to and not intended as part of the agency action is not considered to be prohibited taking under the Act provided that such taking is in compliance with this Incidental Take Statement.

The measures described below are non-discretionary and must be undertaken by the Administration and Department so that they become binding conditions of any contract issued, as appropriate, for the exemption in section 7(o)(2) to apply. The Administration and Department have a continuing duty to regulate the activity that is covered by this incidental take statement. If the Administration and Department (1) fail to assume and implement the terms and conditions or (2) fail to require a contractor to adhere to the terms and conditions of the incidental take

statement through enforceable terms that are added to the permit or grant document, the protective coverage of section 7(o)(2) may lapse. To monitor the impact of incidental take, the Administration and Department must report the progress of the action and its impact on the species to the Service as specified in the incidental take statement (50 C.F.R. § 402.14(i)(3)).

Amount or Extent of Take Anticipated

Roads affect wildlife at both the individual and population levels, including species such as grizzly bears that have large home ranges that include many roads. Individuals may be directly affected through traffic mortality and/or indirectly by the behavioral or physical barrier presented by the continued presence of the road on the landscape. Local effects occur through reductions in the local population size because of traffic mortality and through reduced landscape connectivity because of the barrier effect of the road. Ultimately, regional effects may then occur in the form of reduced regional population size and persistence resulting from this combination of mortality and reduced connectivity. However, it is difficult to differentiate between the effects of increased mortality and the effects of decreased landscape connectivity at the regional population scale (Forman et al. 2003). Effects at the population level may not be as apparent, at least not for several generations. This is especially true for carnivore species with long life spans that allow individuals to exist for some time without persisting as a population (Evink et al. 1998). However, a positive population growth trend and continued demographic monitoring in the NCDE lends a degree of confidence in assuming that any decrease in connectivity and/or associated mortality due specifically to roads and highways, has not had population level impacts on the NCDE grizzly bear population.

The potential Project effects, particularly the inclusion of night work, could restrict access to key habitats, access to mates, or other resources necessary for survival or reproduction of grizzly bears. Similarly, the ongoing operation of a wider roadway where drivers can be reasonably expected to drive faster, increases the risk of vehicle strike of grizzly bears should they enter the fenced roadway.

The project would result in direct adverse effects to individual grizzly bears due to disturbance of foraging, migrating, breeding, and resting habitats during construction. Individual grizzly bears react differently to roads. Dispersing individuals (most often males) may travel hundreds of miles, crossing major highways in the process. Many have large home ranges that include a network of roads, including highways. These ranges are traversed on a regular basis and would include ranges used by females with young. Roads may act as a more substantial deterrent to crossing for females and young, and only a partial obstacle for solitary males.

Little is known about the movement behavior of animals crossing roads. The few studies carried out indicate varied responses between species and between individuals of the same species. Response to traffic volumes, road surface composition, use of highway crossing structures, and types of terrain used for crossing sites all varied among and between the mid to large-sized carnivore species studied (Forman et al. 2003).

The Service considers mortality or injury of grizzly bears struck by vehicles a result of, but not the purpose of, the proposed Project. Such events are therefore considered incidental to the completion of the project and the ongoing use of the highway. Therefore, we anticipate some level of incidental take of grizzly bears resulting from the Project in the form of injury or

mortality as a result of vehicle strikes, refusal of grizzly bears to use the overpass, and/or harm and harassment from displacement of bears in the action area during construction.

In order to estimate the amount of incidental take anticipated as a result of the proposed action, we examine the past history of grizzly bear mortalities associated with the roadway, the effects of the proposed action, and the status of grizzly bears in the area. From 2010 through 2025, there have been a total of five grizzly bears struck and killed by vehicles on US 93 in the action area (Service file data). One of these mortalities occurred within the action area in 2021. Other lethal or non-lethal collisions may have occurred between grizzly bears and highway vehicles in this area that were not reported.

Based on the number of known grizzly bear mortalities (5 over 16 years) associated with vehicle strikes in the action area in the past and the nature of the project (wildlife fencing and a wildlife overpass which should reduce grizzly bear-vehicle collisions), the Service anticipates that **no more than two grizzly bear-project related vehicle collision incidents over six consecutive calendar years will occur (involving an individual bear or a single family group) in the action area going forward in time. Should more than two grizzly bear-vehicle collision incidents occur over any six consecutive calendar years in the action area, such additional incidental take represents new information requiring reinitiation of consultation and review of the incidental take statement. The Administration must immediately provide an explanation of the causes of the additional taking and review with the Service the need for possible modification of this consultation.** Additionally, should this level of incidental take be reached, but not exceed, the Administration should informally consult with the Service regarding the adequacy of existing mechanisms to minimize potential take.

The BA used an action area of a 1-mile radius around the project footprint to account for the distance construction noise is expected to extend (Jacobs 2026) with construction noise occurring during both day and night. To estimate the amount of habitat temporarily impacted by the project, we multiplied the length of the project (1.35 miles) by the width of the action area (2 miles) as the estimated area of the disturbance polygon (2.7 square-miles). Through this process, approximately 1,728 acres of potential grizzly bear foraging, migrating, breeding, and resting habitat were identified where grizzly bears could be temporarily impacted by the project through displacement or avoidance resulting in harm and/or harassment due to construction activities (e.g. noise).

Effect of the take

Through the development of this BO, the Service determined that the level of anticipated take is not likely to result in jeopardy to the species. The amount of incidental take described above is low. Further, considering the grizzly bear recovery strategies (Service 2013; Service 1993), the NCDE grizzly bear conservation strategy (NCDE Subcommittee 2021), as well as the size, status, and distribution of the NCDE grizzly bear population (Service 2022; Sells et al. 2023; Service 2024, Service 2026), incidental take of grizzly bears associated with the Project in the action area would not affect the recovery of the NCDE grizzly bear population.

Reasonable and Prudent Measures

Biological opinions provide *reasonable and prudent measures* (RPMs) that are expected to reduce the amount of incidental take. Reasonable and prudent measures are those measures necessary and appropriate to minimize incidental take of listed species resulting from proposed actions. Reasonable and prudent measures are nondiscretionary and must be implemented by the agency in order for the exemption in section 7(o)(2) to apply.

1. The Administration and the Department shall ensure that project design elements are implemented to minimize the potential for adverse effects and take on grizzly bears; specifically, the grizzly bear conservation measures outlined in the project BA (Jacobs 2026).
2. The Administration and the Department shall ensure the effectiveness of crossing design features through monitoring, maintenance, and adaptive management so as to minimize the potential for vehicle collisions and reduced linkage (validation and effectiveness monitoring; adaptive management).

Terms and Conditions

In order to be exempt from the prohibitions of section 9 of the Act, the Administration and Department must comply with the following terms and conditions that implement the reasonable and prudent measures described above and outline reporting and monitoring requirements. These terms and conditions are non-discretionary:

To implement Reasonable and Prudent Measure #1:

- a) Incorporate conservation measures identified in the BA (Jacobs 2026) into contracting documents for the project.
- b) Conduct regular site inspections to ensure compliance with project conservation measures.
- c) Encourage personnel to have, and know how to use, bear spray while working on the project.

To implement Reasonable and Prudent Measure #2:

- a) The Administration and Department shall monitor the wildlife crossing structure to evaluate grizzly bear utilization of the crossing for six years, beginning with the year in which construction of the crossing structure is completed. A sufficient number of cameras shall be used to document successful use as well as approaches by bears, on both sides of the structure.

Reporting requirements

To monitor the impacts of incidental take, the Federal agency or any applicant must report the progress of the action and its impact on the species to the Service as specified in the incidental

take statement (50 CFR 402.14 (i)(3)). To demonstrate the project is adequately reducing the potential for and minimizing the effect of any incidental take that may result, and that the assumptions made in this consultation are valid, the Administration and Department shall report by May 1, annually for a period of six years following completion of the project, the following:

1. The number of (a) individual grizzly bear, and (b) grizzly bear family group approaches to the crossing structure, and the number of successful crossings by (a) and (b) over the structure.
2. The number of grizzly bears observed during construction (year one reporting requirement only).
3. The number of vehicle-grizzly bear vehicle collisions occurring during the previous year in the action area.

As the wildlife overpass monitoring is likely to be an interagency effort potentially involving the Department, the Confederated Salish and Kootenai Tribes, and Montana Fish, Wildlife, and Parks, the annual reporting may be most efficiently accomplished through an annual meeting (virtual or in person) where monitoring information can be shared.

Closing Statement

As stated earlier, the Service will use the number of grizzly bear-vehicle collisions in the action area over time as a direct measure of take. Reasonable and prudent measures, with their implementing terms and conditions, are typically designed to minimize the impact of incidental take that might otherwise result from the proposed action. If the level of take occurring exceeds that anticipated in this incidental take statement, such incidental take represents new information requiring reinitiation of consultation and review of the incidental take statement. The Federal agency must immediately provide an explanation of the causes of the taking and review with the Service the need for possible modification of the reasonable and prudent measures.

CONSERVATION RECOMMENDATIONS

Sections 7(a)(1) of the Act directs Federal agencies to use their authorities to further the purposes of the Act by carrying out conservation programs for the benefit of endangered and threatened species. Conservation recommendations are discretionary agency activities that serve to help implement recovery plans or to develop information useful in conservation of the listed species.

1. Participate in ongoing interagency efforts to identify, map, and manage linkage habitats essential to grizzly bear movement. Please contact the Service's Grizzly Bear Recovery Coordinator or Montana Fish, Wildlife, and Parks for information.
2. The Service strongly encourages the Administration and the Department to search for and implement innovative approaches to increase the permeability of Montana's highway corridors to wildlife, especially for mid- to large-sized forest carnivore species as well as ways to reduce potential collisions. There is growing awareness of the serious additive effects of highways on wildlife through habitat fragmentation, wildlife mortality, loss of habitat, avoidance of otherwise suitable habitat by wildlife, and related increases in human activity in proximity to highway corridors. The development of trials of various techniques and structures, along with modifications to existing structures, would provide

valuable information on the efficacy of these strategies in a range of locations. Such information would be indispensable when planning future highway projects, allowing decisions regarding potential crossing applications to be based on actual data rather than on assumptions or estimates. This would focus and prioritize limited construction and conservation budgets and facilitate using the best technology at the most appropriate locations, maximizing benefits to wildlife as efficiently as possible.

3. Continue work with CSKT biologists to identify and implement additional wildlife protection measures such as additional wildlife fencing and crossing structures for the benefit of grizzly bears.

REINITIATION NOTICE

This concludes consultation on the effects of the Project on grizzly bears. As provided in 50 C.F.R. § 402.16, reinitiation of consultation is required and shall be requested by the Federal agency or by the Service where discretionary Federal involvement or control over the action has been retained or is authorized by law and: (1) if the amount or extent of taking specified in the incidental take statement is exceeded; (2) if new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered; (3) if the identified action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in the BO or written concurrence; or (4) if a new species is listed or critical habitat designated that may be affected by the identified action.

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ATTACHMENT 2

TRIBAL HISTORIC PRESERVATION OFFICE CORRESPONDENCE



**Preservation Department
Confederated Salish and Kootenai Tribes
P.O. Box 278
Pablo, MT 59855
(406) 675-2700 Ext. 1075**

File Code: 051

July 27, 2026

**Tribal Historic Preservation Department
Confederated Salish & Kootenai Tribes
P.O. Box 278
Pablo, MT 59855**

**Laura Evilsizer
Montana Department of Transportation
P.O. Box 201001
Helena, MT 59620-1001**

RE: US 93 Wildlife Overpass Concurrence

Laura,

The Confederated Salish and Kootenai Tribes (CSKT) Tribal Historic Preservation Department (THPD) appreciates the opportunity to review and research the proposal to complete construction on Highway 93 near the Ninepipes Lodge. This project involves the construction of a wildlife overpass. The CSKT THPD manages the Section 106 review process to ensure cultural and historical considerations are thoroughly addressed.

After a comprehensive review, including research from the Montana State Historic Preservation Office (MT SHPO), CSKT THPD databases, and the cultural resource inventory conducted by Jacobs Engineering. The CSKT THPD concurs with the determination of No Adverse effect with



Preservation Department
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File Code: 051

the special provisions that CSKT THPD staff be present for monitoring during ground-disturbing activities within the APE.

Thank you for your attention to this matter. If you have any questions or require further assistance, please do not hesitate to reach out to our office.

Respectfully,

Madeline Caye

Historic Preservation Officer (THPO)

Confederated Salish and Kootenai Tribes

Tribal Historic Preservation Office

Kilcrease, Susan

From: Evilsizer, Laura <levilsizer@mt.gov>
Sent: Monday, August 3, 2026 10:24 AM
To: Hinshaw, Ellen; Heinley, John
Cc: Kilcrease, Susan
Subject: [EXTERNAL] FW: MDT US-93 Ninepipes Consultation
Attachments: 2026_08_03_09_52_44.pdf

This Message Is From an External Sender

This message came from outside your organization.

Ellen and John,

I got the THPO's concurrence on the ninepipes project. See the attached letter and the below email.



Laura Evilsizer

Archaeologist
Environmental Services Bureau
2701 Prospect Ave.
Helena, MT 59620
406-444-0455 | mdt.mt.gov

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From: Madeline Caye <madeline.caye@cskt.org>
Sent: Monday, August 3, 2026 10:10 AM
To: Evilsizer, Laura <levilsizer@mt.gov>
Cc: Kevin Askan <kevin.askan@cskt.org>
Subject: [EXTERNAL] RE: MDT US-93 Ninepipes Consultation

Good morning, Laura,

Attached is the concurrence for the MDT US-93 Ninepipes project. Our office will require MDOT or the contractor to contact myself or Kevin Askan at least two weeks prior to construction for project monitoring. If you have any questions or concerns, please reach out to our office.

Thank you,

Madeline Caye

Tribal Historic Preservation Officer
CSKT Tribal Historic Preservation Department
(406) 675-2700 ext. 1215
(406) 214-4787
madeline.caye@cskt.org

From: Evilsizer, Laura <levilsizer@mt.gov>
Sent: Wednesday, July 22, 2026 12:08 PM
To: Madeline Caye <madeline.caye@cskt.org>
Cc: 'Kilcrease, Susan' <susan.kilcrease@jacobs.com>; Heinley, John <jheinley@mt.gov>; Hinshaw, Ellen <ehinshaw@mt.gov>
Subject: RE: MDT US-93 Ninepipes Consultation

Madeline,

For the MDT Ninepipes project section 4(f) requires that MDT receives a written response, I mentioned this on the phone message I recently left you. Any idea when you will have a chance to take a look and respond to this?

Ellen Hinshaw is managing this project and may be stopping by your office next week to follow-up as well.



Laura Evilsizer
Archaeologist
Environmental Services Bureau
2701 Prospect Ave.
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From: Evilsizer, Laura
Sent: Wednesday, July 8, 2026 11:04 AM
To: 'madeline.caye@cskt.org' <madeline.caye@cskt.org>

Cc: 'Kilcrease, Susan' <susan.kilcrease@jacobs.com>; Heinley, John <jheinley@mt.gov>

Subject: RE: MDT US-93 Ninepipes Consultation

Madeline,

I'm following up on the consultation letter I sent last month on the Ninepipes area. Did you have any concerns? Do you concur on the No Adverse Effect determination?



Laura Evilsizer

Archaeologist

Environmental Services Bureau

2701 Prospect Ave.

Helena, MT 59620

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[How Are We Doing? \[arcg.is\]](https://arcg.is)

From: Evilsizer, Laura

Sent: Thursday, June 4, 2026 1:23 PM

To: 'madeline.caye@cskt.org' <madeline.caye@cskt.org>

Cc: 'Kilcrease, Susan' <susan.kilcrease@jacobs.com>; Semmens, Bill <bsemmens@mt.gov>

Subject: MDT US-93 Ninepipes Consultation

Madeline,

Attached is MDT's consultation letter for the project along US-93 near Ninepipes. We briefly spoke about this on the phone earlier this week. The Cultural Report is attached, but the associated site forms and GIS were sent via the Montana State File Transfer Service. It was too large to include in one email.

Let me know if you have any questions, and if you concur.



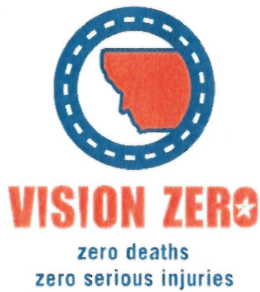
Laura Evilsizer
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ATTACHMENT 3

SECTION 4(F) DE MINIMIS DETERMINATION LETTERS



Montana Department of Transportation

2701 Prospect
PO Box 201001
Helena MT 59602-1001

Steve Bullock, Governor
Michael T. Tooley, Director

March 15, 2019

CSKT Tribal Council
Attn: Ronald Trahan, Chairman
P.O. Box 278
Pablo, MT 59855

Subject: US 93 N Post Creek Hill and Ninepipe Section
Section 4(f) *De minimis* Determination
Project Number: NH 5-2(159)37
Control Number: 8008000

Dear Chairman Trahan and Council Members:

This letter is intended as a follow up to ongoing discussions that have occurred between representatives of the Confederated Salish & Kootenai Tribes (CSKT), the Montana Department of Transportation (MDT), MDT's consultant, and the Federal Highway Administration (FHWA). MDT has been in periodic communication with the CSKT since our first meeting on this topic on March 29, 2017. Most recently we had a conference call discussing CSKT's owned and managed property on September 17, 2018, which clarified and confirmed CSKT's role as the "official with jurisdiction" of the Ninepipe Reservoir parcels being evaluated as part of the Section 4(f) process.

As you are aware, MDT is proposing to reconstruct US Highway 93 from reference post (RP) 36.8, just south of Redhorn Road, to RP 40.4, which is approximately 2000 feet north of Gunlock Road as part of the Post Creek Hill project (Control Number 8008000). Please refer to the attached Figure 1 for the Post Creek Hill project design limits.

The portion of US 93 from the northern end of the Post Creek Hill project to Brooke Lane (RP 44.5) that has not been reconstructed is referred to as the Ninepipe Section. This segment of US 93 is currently in the environmental analysis and planning stage and therefore is also being included with this Section 4(f) analysis.

Section 4(f) of USDOT Act of 1966

Section 4(f) of the U.S. Department of Transportation (USDOT) Act of 1966 prohibits USDOT agencies (including FHWA) from using land from publicly owned parks, recreation areas, and wildlife and water fowl refuges, unless there is no feasible and prudent alternative to that use and the action includes all possible planning to minimize harm to the property resulting from such a use. In 2005 existing Section 4(f) legislation was amended to simplify the Section 4(f) process and approval for projects that have *de minimis* impacts on lands subject to protection under Section 4(f). A *de minimis* determination may be made by FHWA when all three of the following criteria are satisfied:

- 1) The transportation use of the Section 4(f) resource, together with any impact avoidance, minimization, and mitigation or enhancement measures incorporated into

March 15, 2019

CSKT Tribal Council
Attn: Ronald Trahan, Chairman
Page 2 of 4

the project, does not adversely affect the activities, features, and attributes that qualify the resource for protection under Section 4(f);

- 2) The public has been afforded an opportunity to review and comment on the effects of the project on the protected activities, features, and attributes of the Section 4(f) resource; and
- 3) The official(s) with jurisdiction over the property, after being informed of the public comments and MDT's/FHWA's intent to make the *de minimis* impact finding, concur in writing that the project will not adversely affect the activities, features, and attributes that qualify the property for protection under Section 4(f).

In this case, team members from CSKT, MDT, and FHWA have had many discussions regarding the potential impacts to CSKT lands that are also Section 4(f) lands. Based on those discussions, we have preliminarily concluded that the potential impacts are *de minimis* in nature. With this letter, we are seeking written concurrence from the CSKT, as the officials with jurisdiction over the properties in question. The potential impacts are described below.

4(f) Permanent Impacts/Occupancy – CSKT Tribal Lands

Based on current project design it is anticipated that Right of Way (ROW) acquisition will be necessary on specific CSKT owned properties that are protected under Section 4(f). These properties are Kerr Mitigation lands and the Ninepipe Reservoir National Wildlife Refuge (NWR). Enclosed are two exhibits that illustrate the proposed permanent grading impacts and associated ROW acquisition that would result from the proposed project. Specific impacts are located on Kerr Mitigation lands (parcels 123, 127) and NWR lands (parcels 201 and 202). For your reference, 100 series parcels are adjacent to the Post Creek Hill project and 200 series parcels are located adjacent to the Ninepipe Section planning area. Exhibits 1a through 1d show the areas of grading impact associated with road improvements, the bicycle/pedestrian path, and the Post Creek bridge/wildlife undercrossing on the Kerr Mitigation Lower Post Creek Management Units PSC2 and PSC2F and NWR lands. Exhibits 2a through 2d show the anticipated ROW acquisition from these parcels. A summary of impacts to these lands are:

- Acquisition of approximately 1.17 acres of Kerr Mitigation Land on parcels 123 and 127, and
- 0.75 acres of NWR land on parcels 201 and 202 for a total ROW acquisition of 1.92 acres for new highway*.

Refer to Table 1 for a summary of these impacts by parcel.

These permanent impacts are considered minor and do not appear to materially affect the use and function of the CSKT Tribal Mitigation and Ninepipe Reservoir NWR Lands. ROW would be acquired at fair market value by MDT in order to complete this project. Other actions such as new fencing, revegetation, grading, and wetland fill within the acquired ROW would be mitigated

* Completion of the FHWA 4(f) process does not automatically obligate the property for ROW acquisition or constitute any specific ROW agreement. ROW acquisition will be formalized and completed after final design is complete and actual impacts and ROW requirements are determined. Actual ROW acquisition may be equal to or lower than this value.

March 15, 2019

CSKT Tribal Council
Attn: Ronald Trahan, Chairman
Page 3 of 4

in consultation with the CSKT by restoring vegetation, employing weed control methods, and replacing fencing as part of this project.

4(f) Temporary Occupancy – CSKT Tribal Lands

In addition to the above described permanent impacts, the following temporary impacts are also anticipated. Section 23 CFR 774.13(d) provides guidance on the conditions under which “temporary occupancies of land...are so minimal as to not constitute a “use” within the meaning of Section 4(f).” Those conditions are as follows:

- (1) Duration must be temporary, i.e., less than the time needed for construction of the project, and there should be no change in ownership of the land;
- (2) Scope of the work must be minor, i.e., both the nature and the magnitude of the changes to the Section 4(f) property are minimal;
- (3) There are no anticipated permanent adverse physical impacts, nor will there be interference with the protected activities, features, or attributes of the property, on either a temporary or permanent basis;
- (4) The land being used must be fully restored, i.e., the property must be returned to a condition which is at least as good as that which existed prior to the project; and
- (5) There must be documented agreement of the official(s) with jurisdiction over the Section 4(f) resource regarding the above conditions.

Temporary construction easements are anticipated for a detour bridge over Post Creek and equipment access during construction totaling approximately 1.79 acres on Parcel 127. There may also be minor temporary occupancies associated with placement or adjustment of approaches and culverts. As construction plans and negotiations with property owners are finalized, additional Section 4(f) properties may be similarly temporarily impacted.

In this case, team members from CSKT, MDT, and FHWA have had many discussions regarding the potential temporary impacts to CSKT lands that are also Section 4(f) lands. Based on those discussions, we have preliminarily concluded that the potential temporary impacts meet criteria 1 through 4 above and therefore would not constitute a “use” under Section 4(f). With this letter, we are seeking written concurrence from the CSKT, as the officials with jurisdiction over the properties in question. CSKT signature will satisfy condition 5 above.

Determination of a De Minimis Impact to a Section 4(f) Property

Public notice was given via ads in Ronan Valley Journal on January 16, 2019 and Char-koosta on January 17, 2019. Additionally, the public notice news release was issued on January 9 and 22, 2019. The public notice comment period was open from January 9, 2019, through February 20, 2019. Eleven comments were received from the public during this period. Seven of these letters were related to traffic and safety concerns associated with the Post Creek Hill Project, one letter concerned ownership of the NWR lands, one commenter wanted to know the total amount of ROW being acquired and project limits, one letter was from an adjacent business owner requesting information on the design and highway access planning, and one letter contained a list of three questions and one offer for sale of land but no specific comments. With the exception of the comment regarding ownership of the NWR lands, none of the written public

March 15, 2019

CSKT Tribal Council
Attn: Ronald Trahan, Chairman
Page 4 of 4

comment received contained comments or statements relevant to the Section 4(f) process and therefore do not provide any substantive new information that would alter MDT's evaluation of the impacts to these Section 4(f) parcels. These letters and emails are available to the CSKT upon request.

Request for Concurrence

We are respectfully requesting your concurrence that the proposed use of Section 4(f) resources will not adversely affect the viability of the CSKT Tribal Mitigation and Ninepipe Reservoir NWR Lands and your agreement with the proposed *de minimis* determination.

We would appreciate your prompt response since CSKT's concurrence is needed before we can complete the Final Section 4(f) Evaluation and the environmental document for this project. If you need additional information concerning the proposed project in the meantime, please contact me at 523-5842. Thank you for your continued cooperation and assistance.

Susan Kilcrease

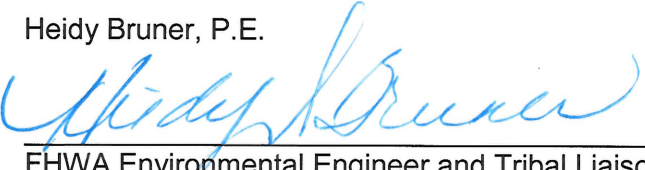

Missoula District Project Development Engineer
MDT Environmental Services Bureau

Date: March 15, 2019

Concur:  for:
Ronald Trahan, Chairman, CSKT Tribal Council

Date: 3-21-19

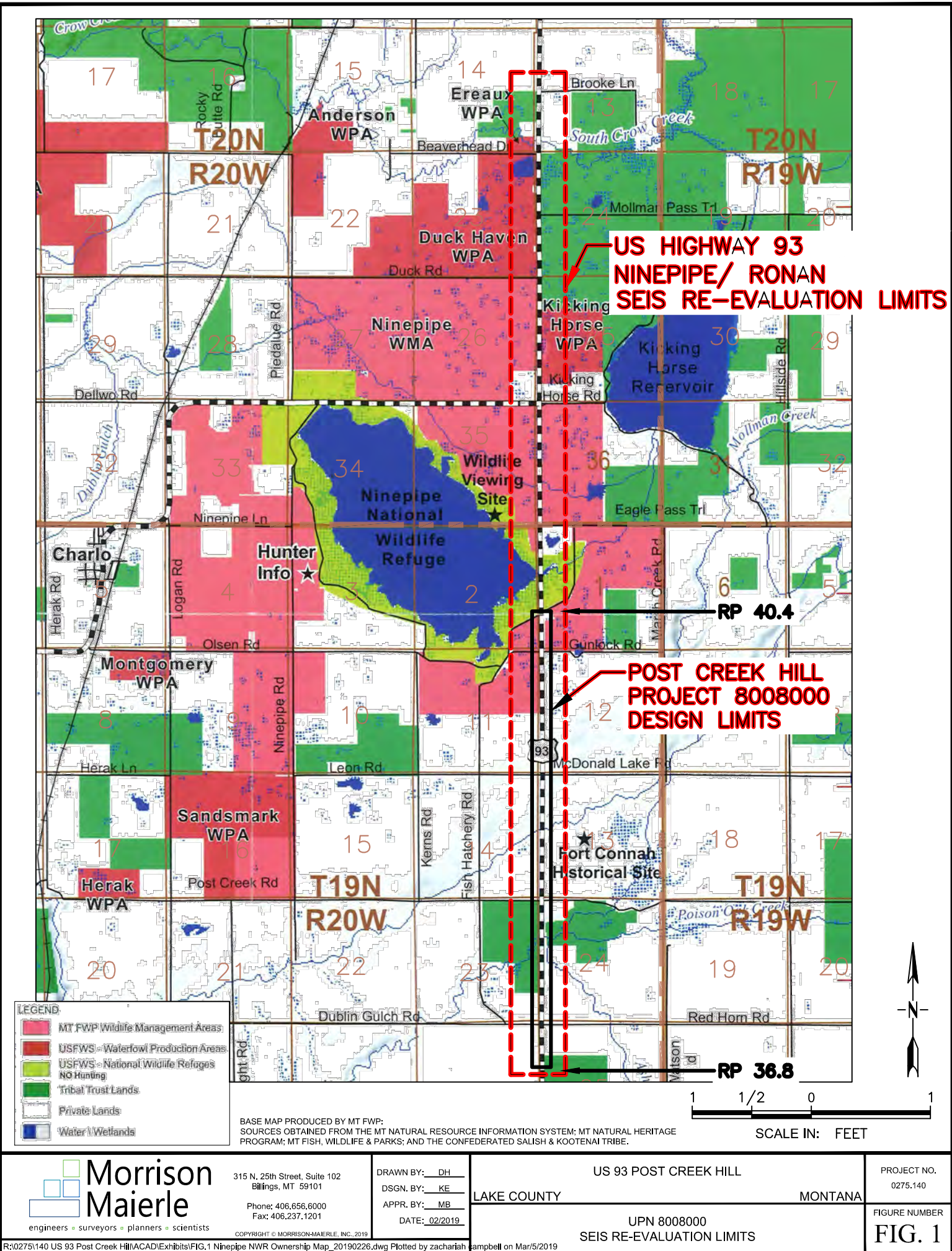
Heidy Bruner, P.E.


FHWA Environmental Engineer and Tribal Liaison

Date: 3/26/19

Enclosures: Figure 1. FSEIS Re-evaluation Limits
Exhibits 1a through 1d. Grading Impacts to CSKT Parcels
Exhibits 2a through 2d. ROW Impacts to CSKT Parcels
Table 1. Post Creek Hill and Ninepipe Section 4(f) Summary of Impacts

copies: Miki Lloyd, P.E. MDT, Consultant Design Bureau Project Manager (w/encl.)
Susan Kilcrease, Missoula District Project Development Engineer (w/encl.)
Mark Brooke, P.E., Morrison-Maierle, Consulting Environmental Engineer (w/encl.)



Parcel 123



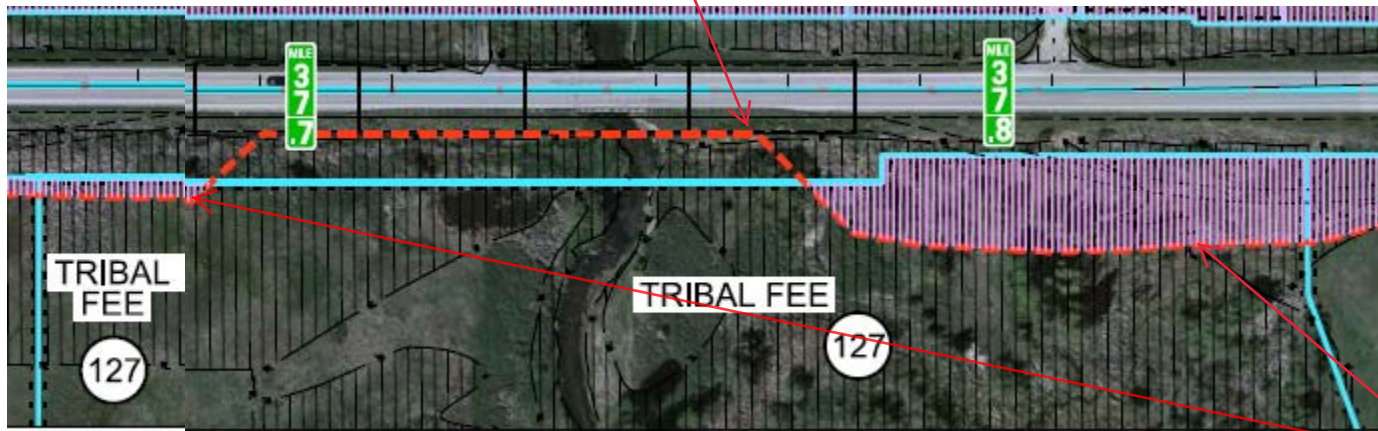
Exhibit 1a. Grading Impacts

Kerr Mitigation Lower Post Creek Management Unit PSC2

Section 23, Township 19 N, Range 20 W

Parcel 127

dashed red line is the additional grading limits resulting from 10' bicycle/pedestrian path



Grading impact on parcel 127

Exhibit 1b. Grading Impacts

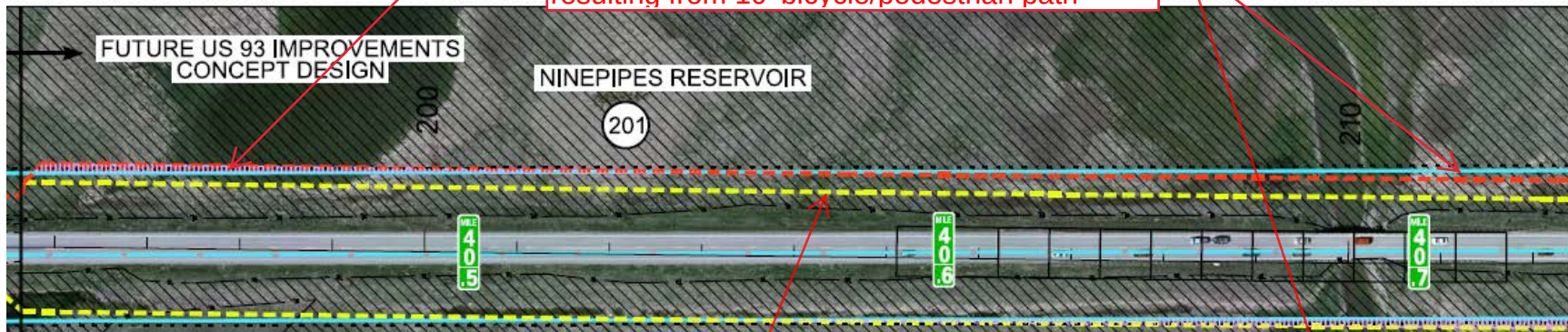
Kerr Mitigation Lower Post Creek Management Unit PSC2F

Section 24, Township 19 N, Range 20 W

Parcel 201

Minor grading
impact on parcel
201

dashed red line is the additional grading limits
resulting from 10' bicycle/pedestrian path



dashed yellow line
is the grading limits
for roadway only



Exhibit 1c. Grading Impacts Ninepipe Reservoir Section 2, Township 19 N, Range 20 W

Parcel 202

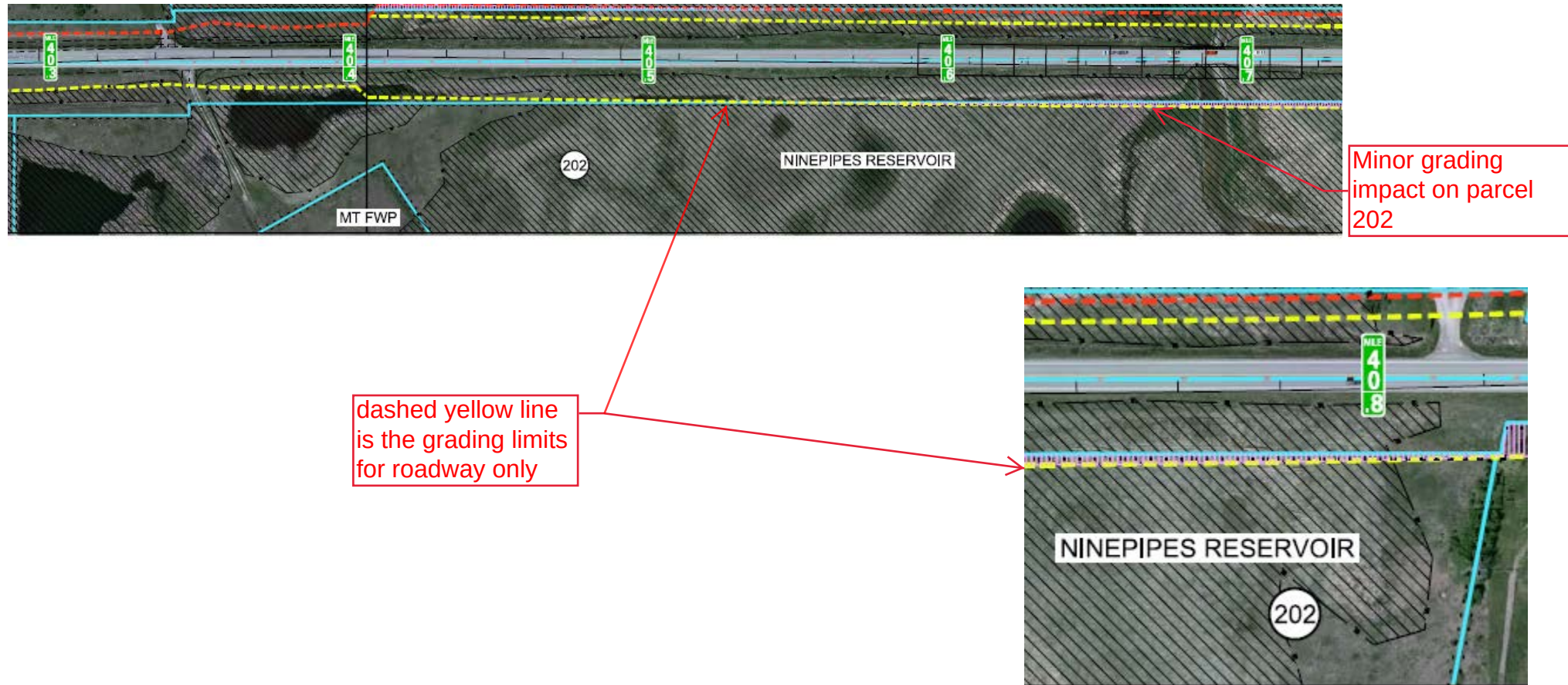
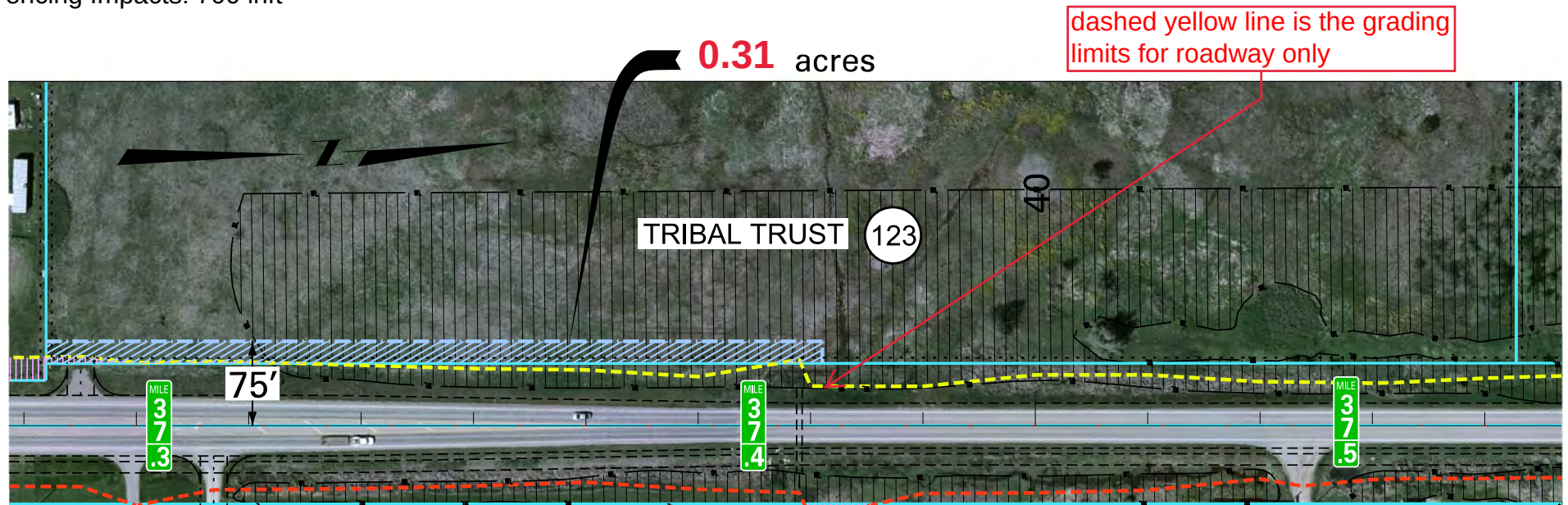


Exhibit 1d. Grading Impacts Ninepipe Reservoir Section 1, Township 19 N, Range 20 W

CSKT
Parcel 123
Wetland Impacts: 0.001 ac
Fencing Impacts: 700 Inft



 PROPOSED ROW

Exhibit 2a. ROW Impacts

Kerr Mitigation Lower Post Creek Management Unit PSC2

Section 23, Township 19 N, Range 20 W

CSKT

Parcel 127

Wetland Impacts: 0.588 ac (perm.) 1.300 ac (temp.)

Fencing Impacts: 0 Inft

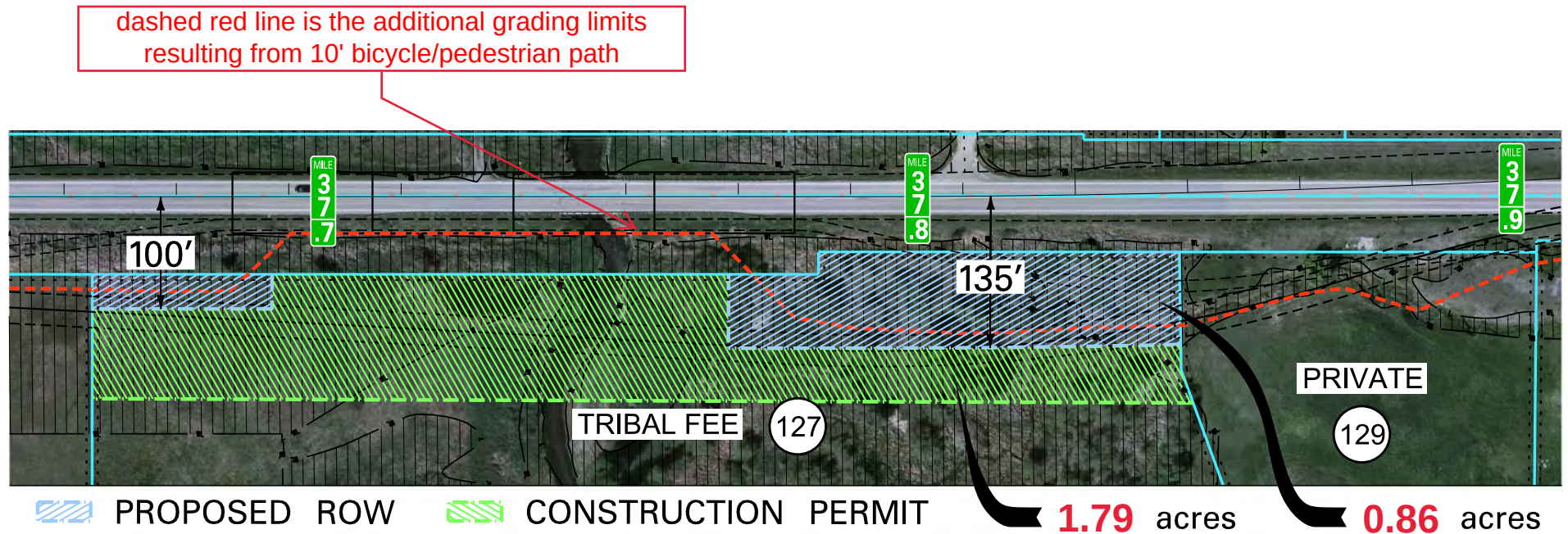


Exhibit 2b. ROW Impacts

Kerr Mitigation Lower Post Creek Management Unit PSC2F
Section 24, Township 19 N, Range 20 W

CSKT

Parcel 201

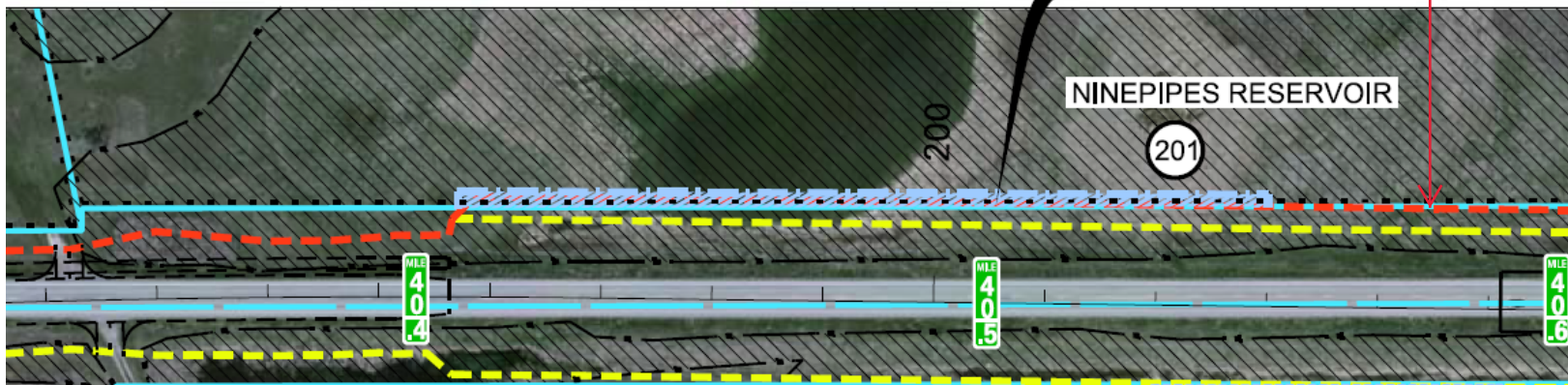
Wetland Impacts: 0.083 ac*

Fencing Impacts: 730 Inft*

**Final design will avoid or minimize impacts*

dashed red line is the additional
grading limits resulting from 10'
bicycle/pedestrian path

0.22 acres



PROPOSED ROW

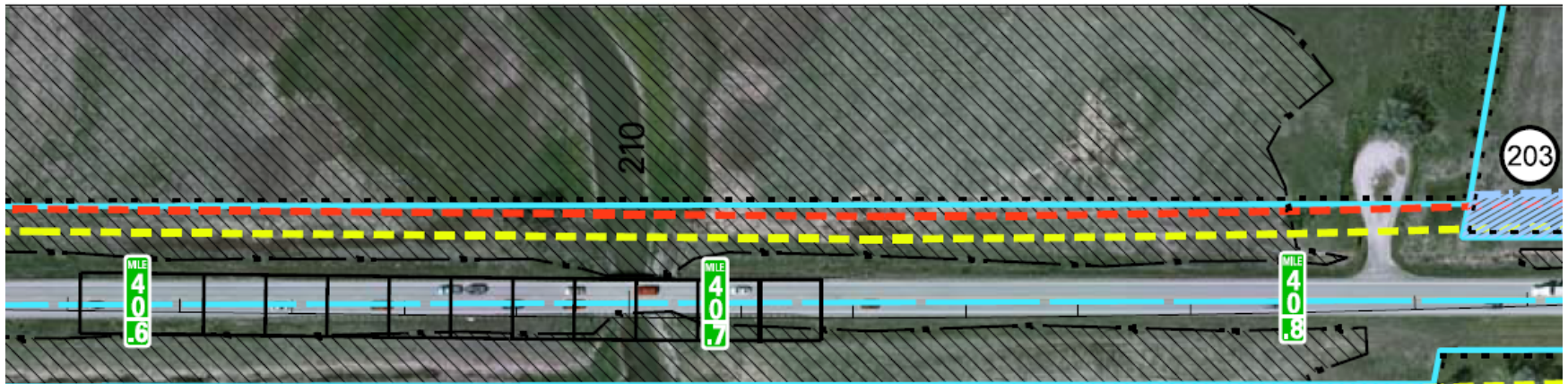


Exhibit 2c. ROW Impacts Ninepipe Reservoir Section 2, Township 19 N, Range 20 W

CSKT

Parcel 202

Wetland Impacts: 0.087 ac*

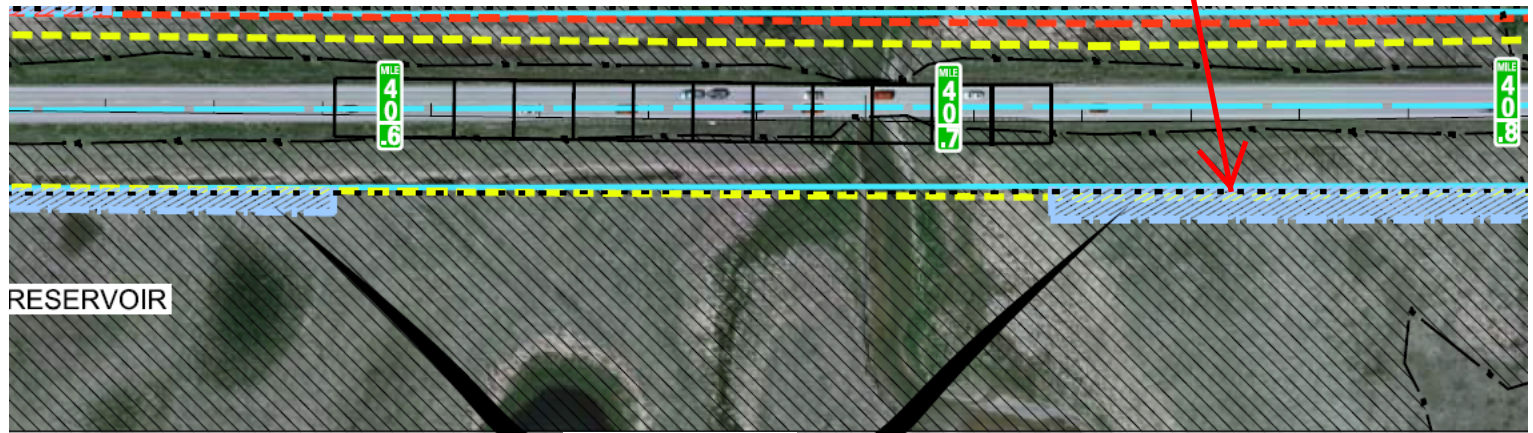
Fencing Impacts: 850 Inft*

**Final design will avoid or minimize impacts*

dashed yellow line is the
grading limits for roadway only



PROPOSED ROW



0.53 acres
(total for
parcel)

Exhibit 2d. ROW Impacts Ninepipe Reservoir Section 1, Township 19 N, Range 20 W

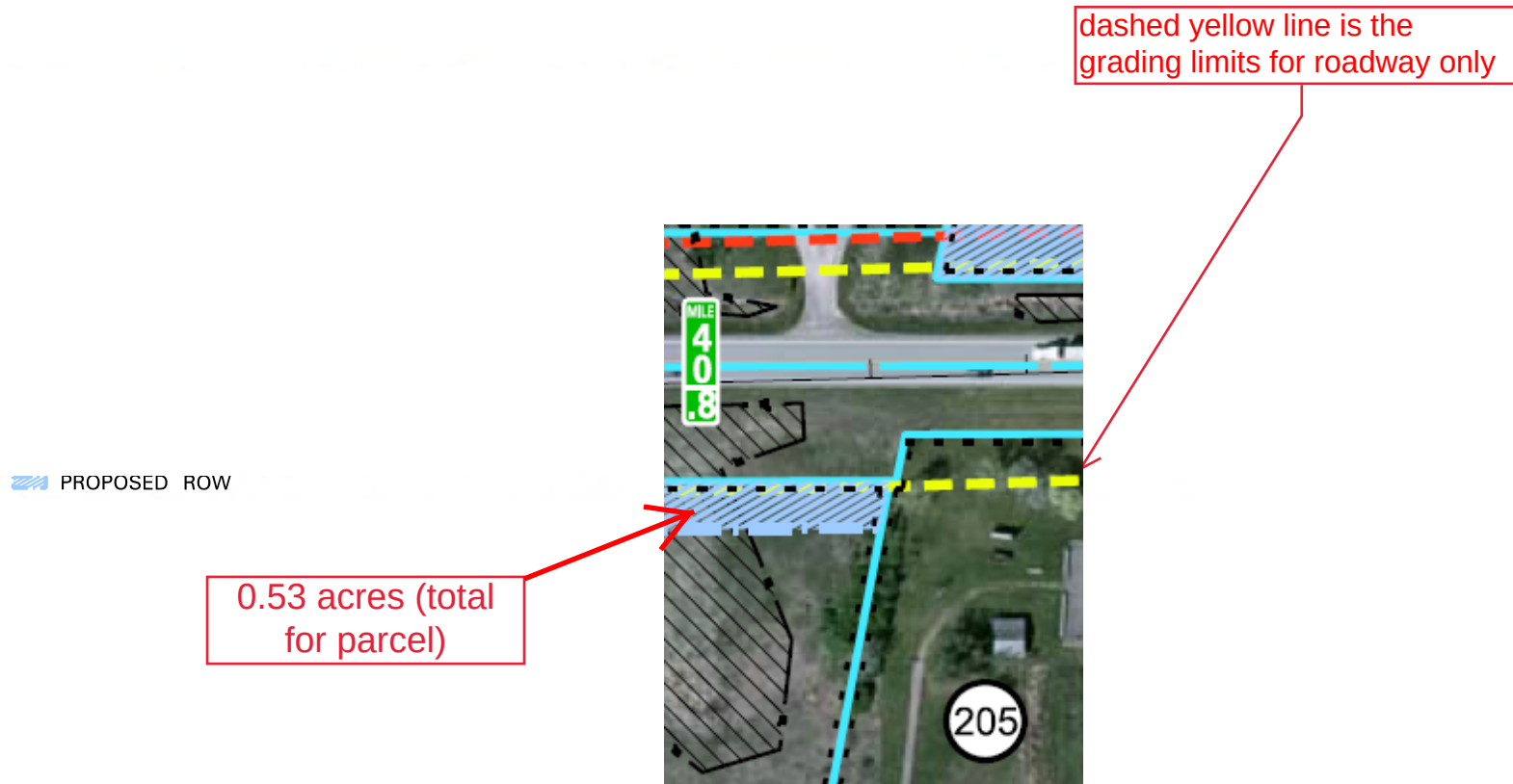
CSKT

Parcel 202

Wetland Impacts: 0.087 ac*

Fencing Impacts: 850 Inft*

**Final design will avoid or minimize impacts*



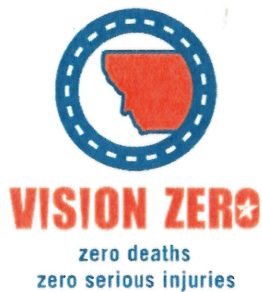
**Exhibit 2d (continued). ROW Impacts
Ninepipe Reservoir
Section 1, Township 19 N, Range 20 W**

Table 1. Post Creek Hill and Ninepipe Section 4(f) Summary of Impacts

3/14/2019

Parcel	Name of Owner	Type of Property	Type of Transportation Use	Total Area (Acres)	Grading Impact Area (Acres)	Proposed ROW (Acres)	Construction Easement Area (Acres)	Geocode	Temporary Occupancy ¹	Wetland Impacts (Acres)	Fence (Feet)
123	USA in Trust (CSKT)	PSC2	Cross Drain	40.00	0.01	0.31		15-2868-23-1-02-01-0000	Approach	0.001	700
127	USA in Trust CSKT	PSC2F	Bike/Ped Path and Bridge Fill	35.58	0.57	0.86	1.79	15-2868-24-2-01-05-0000	Bridge Detour	0.588 (perm.), 1.30 (temp.)	
201	Ninepipe Reservoir (CSKT TR 6023)	Ninepipe NWR	Bike/Ped Path	153.00	0.08	0.22		15-2868-02-1-01-03-0000	Approach	0.083	730
202	Ninepipe Reservoir (CSKT TR 6023)	Ninepipe NWR	US 93	137.54	0.21	0.53		15-2868-01-1-01-08-0000	None	0.087	850

Notes: 1) Not all parcels with Temporary Occupancy Impacts listed in this table. This table only summarizes parcels with permanent impacts and then also identifies any anticipated temporary impacts for those parcels as well.



Montana Department of Transportation

2701 Prospect
PO Box 201001
Helena MT 59602-1001

Steve Bullock, Governor

Michael T. Tooley, Director

March 27, 2019

Montana Department of Fish Wildlife & Parks
Attn: Jim Williams, FWP Region 1 Supervisor
490 North Meridian Road
Kalispell, MT 59901

Subject: US 93 N Post Creek Hill and Ninepipe Section
Section 4(f) *De minimis* Determination
Project Number: NH 5-2(159)37
Control Number: 8008000

Dear Mr. Williams:

This letter is intended as a follow up to ongoing discussions that have occurred between representatives of the Montana Fish Wildlife and Parks (FWP), the Montana Department of Transportation (MDT), MDT's consultant, and the Federal Highway Administration (FHWA). MDT has been in periodic communication with the FWP since our first meeting on this topic on November 2, 2016. Most recently we had a conference call discussing potential impacts to FWP property on March 21, 2018 clarifying specific impacts to a portion of the Ninepipe Wildlife Management Area (WMA) resulting from the addition of a separated bicycle/pedestrian path and associated undercrossing.

As you are aware, MDT is proposing to reconstruct US Highway 93 from reference post (RP) 36.8, just south of Redhorn Road, to RP 40.4, which is approximately 2000 feet north of Gunlock Road as part of the Post Creek Hill project (Control Number 8008000). Please refer to the attached Figure 1 for the Post Creek Hill project design limits.

The portion of US 93 from the northern end of the Post Creek Hill project to Brooke Lane (RP 44.5) that has not been reconstructed is referred to as the Ninepipe Section. This segment of US 93 is currently in the environmental analysis and planning stage and therefore is also being included with this Section 4(f) analysis.

Section 4(f) of USDOT Act of 1966

Section 4(f) of the U.S. Department of Transportation (USDOT) Act of 1966 prohibits USDOT agencies (including FHWA) from using land from publicly owned parks, recreation areas, and wildlife and water fowl refuges, unless there is no feasible and prudent alternative to that use and the action includes all possible planning to minimize harm to the property resulting from such a use. In 2005 existing Section 4(f) legislation was amended to simplify the Section 4(f) process and approval for projects that have *de minimis* impacts on lands subject to protection under Section 4(f). A *de minimis* determination may be made by FHWA when all three of the following criteria are satisfied:

- 1) The transportation use of the Section 4(f) resource, together with any impact avoidance, minimization, and mitigation or enhancement measures incorporated into

March 27, 2019

Montana Fish Wildlife & Parks
Jim Williams, FWP Region 1 Supervisor
Page 2 of 4

the project, does not adversely affect the activities, features, and attributes that qualify the resource for protection under Section 4(f);

- 2) The public has been afforded an opportunity to review and comment on the effects of the project on the protected activities, features, and attributes of the Section 4(f) resource; and
- 3) The official(s) with jurisdiction over the property, after being informed of the public comments and MDT's/FHWA's intent to make the *de minimis* impact finding, concur in writing that the project will not adversely affect the activities, features, and attributes that qualify the property for protection under Section 4(f).

In this case, team members from FWP, MDT, and FHWA have had many discussions regarding the potential impacts to the Ninepipe WMA that are considered Section 4(f) lands. Based on those discussions, we have preliminarily concluded that the potential impacts are *de minimis* in nature. With this letter, we are seeking written concurrence from FWP, as the officials with jurisdiction over the properties in question. The potential impacts are described below.

4(f) Permanent Impacts/Occupancy – Ninepipe WMA

Based on current project design it is anticipated that Right of Way (ROW) acquisition will be necessary on specific FWP owned properties that are part of the Ninepipe WMA which are protected under Section 4(f). Enclosed are two exhibits that illustrate the proposed permanent grading impacts and associated ROW acquisition that would result from the proposed project. Specific impacts are located on parcels 146, 147, 152, 203, 204, 207, and 214. For your reference, 100 series parcels are adjacent to the Post Creek Hill project and 200 series parcels are located adjacent to the Ninepipe Section planning area. Exhibits 1a through 1g show the areas of grading impact associated with road improvements and the bicycle/pedestrian path on the Ninepipe WMA. Exhibits 2a through 2g show the anticipated ROW acquisition from these parcels. A summary of impacts to these lands are:

- Acquisition up to approximately 6.54 acres of the Ninepipe WMA for highway ROW¹,

Refer to Table 1 for a summary of these impacts by parcel.

These permanent impacts are considered minor and do not appear to materially affect the use and function of the Ninepipe WMA. ROW would be acquired at fair market value by MDT in order to complete this project. Other actions such as new fencing, revegetation, grading, and wetland fill within the acquired ROW would be mitigated in consultation with FWP by restoring vegetation, employing weed control methods, and replacing fencing as part of this project.

4(f) Temporary Occupancy – Ninepipe WMA

In addition to the above described permanent impacts, the following temporary impacts are also anticipated. Section 23 CFR 774.13(d) provides guidance on the conditions under which

¹ Completion of the FHWA 4(f) process does not automatically obligate the property for ROW acquisition or constitute any specific ROW agreement. ROW acquisition will be formalized and completed after final design is complete and actual impacts and ROW requirements are determined. Actual ROW acquisition may be equal to or lower than this value.

March 27, 2019

Montana Fish Wildlife & Parks
Jim Williams, FWP Region 1 Supervisor
Page 3 of 4

“temporary occupancies of land...are so minimal as to not constitute a “use” within the meaning of Section 4(f).” Those conditions are as follows:

- (1) Duration must be temporary, i.e., less than the time needed for construction of the project, and there should be no change in ownership of the land;
- (2) Scope of the work must be minor, i.e., both the nature and the magnitude of the changes to the Section 4(f) property are minimal;
- (3) There are no anticipated permanent adverse physical impacts, nor will there be interference with the protected activities, features, or attributes of the property, on either a temporary or permanent basis;
- (4) The land being used must be fully restored, i.e., the property must be returned to a condition which is at least as good as that which existed prior to the project; and
- (5) There must be documented agreement of the official(s) with jurisdiction over the Section 4(f) resource regarding the above conditions.

There may be minor temporary occupancies associated with placement or adjustment of approaches and culverts on FWP Section 4(f) parcels. As construction plans and negotiations with property owners are finalized, additional Section 4(f) properties may be similarly temporarily impacted.

In this case, team members from FWP, MDT, and FHWA have had many discussions regarding the potential temporary impacts to the Ninepipe WMA. Based on those discussions, we have preliminarily concluded that the potential temporary impacts meet criteria 1 through 4 above and therefore would not constitute a “use” under Section 4(f). With this letter, we are seeking written concurrence from FWP, as the officials with jurisdiction over the properties in question. FWP’s signature will satisfy condition 5 above.

Determination of a De Minimis Impact to a Section 4(f) Property

Public notice was given via ads in Ronan Valley Journal on January 16, 2019 and Char-koosta on January 17, 2019. Additionally, the public notice news release was issued on January 9 and 22, 2019. The public notice comment period was open from January 9, 2019, through February 20, 2019. Eleven comments were received from the public during this period. Seven of these letters were related to traffic and safety concerns associated with the Post Creek Hill Project, one letter concerned ownership of Ninepipe National Wildlife Refuge (NWR) lands, one commenter wanted to know the total amount of ROW being acquired and project limits, one letter was from an adjacent business owner requesting information on the design and highway access planning, and one letter contained a list of three questions and one offer for sale of land but no specific comments. With the exception of the comment regarding ownership of the NWR lands, none of the written public comment received contained comments or statements relevant to the Section 4(f) process and therefore do not provide any substantive new information that would alter MDT’s evaluation of the impacts to these Section 4(f) parcels. These letters and emails are available to FWP upon request.

March 27, 2019

Montana Fish Wildlife & Parks
Jim Williams, FWP Region 1 Supervisor
Page 4 of 4

Request for Concurrence

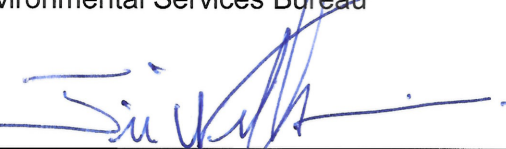
We are respectfully requesting your concurrence that the proposed use of Section 4(f) resources will not adversely affect the viability of the Ninepipe WMA and your agreement with the proposed *de minimis* determination.

We would appreciate your prompt response since FWP's concurrence is needed before we can complete the Final Section 4(f) Evaluation and the environmental document for this project. If you need additional information concerning the proposed project in the meantime, please contact me at 523-5842. Thank you for your continued cooperation and assistance.

Susan Kilcrease


Missoula District Project Development Engineer
MDT Environmental Services Bureau

Date: March 27, 2019

Concur: 

Date: March 28, 2019

Montana Department of Fish, Wildlife & Parks


Jim Williams, R1 Regional Supervisor

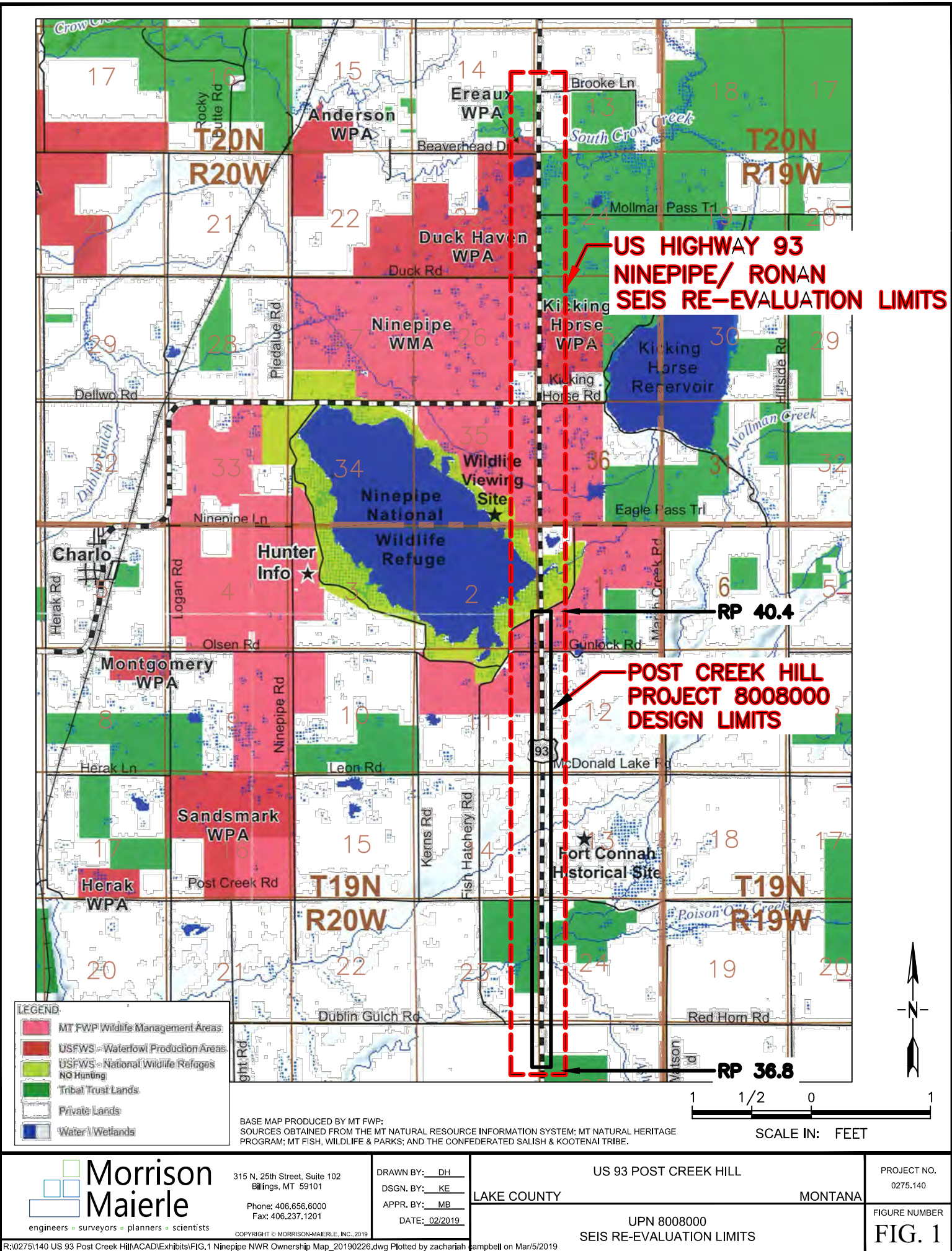
Heidy Bruner, P.E.


FHWA Environmental Engineer and Tribal Liaison

Date: April 11, 2019

Enclosures: Figure 1. FSEIS Re-evaluation Limits
Exhibits 1a through 1g. Grading Impacts to FWP Parcels
Exhibits 2a through 2g. ROW Impacts to FWP Parcels
Table 1. Post Creek Hill and Ninepipe Section 4(f) Summary of Impacts

copies: Miki Lloyd, P.E. MDT, Consultant Design Bureau Project Manager (w/encl.)
Susan Kilcrease, Missoula District Project Development Engineer (w/encl.)
Mark Brooke, P.E., Morrison-Maierle, Consulting Environmental Engineer (w/encl.)



Parcel 146

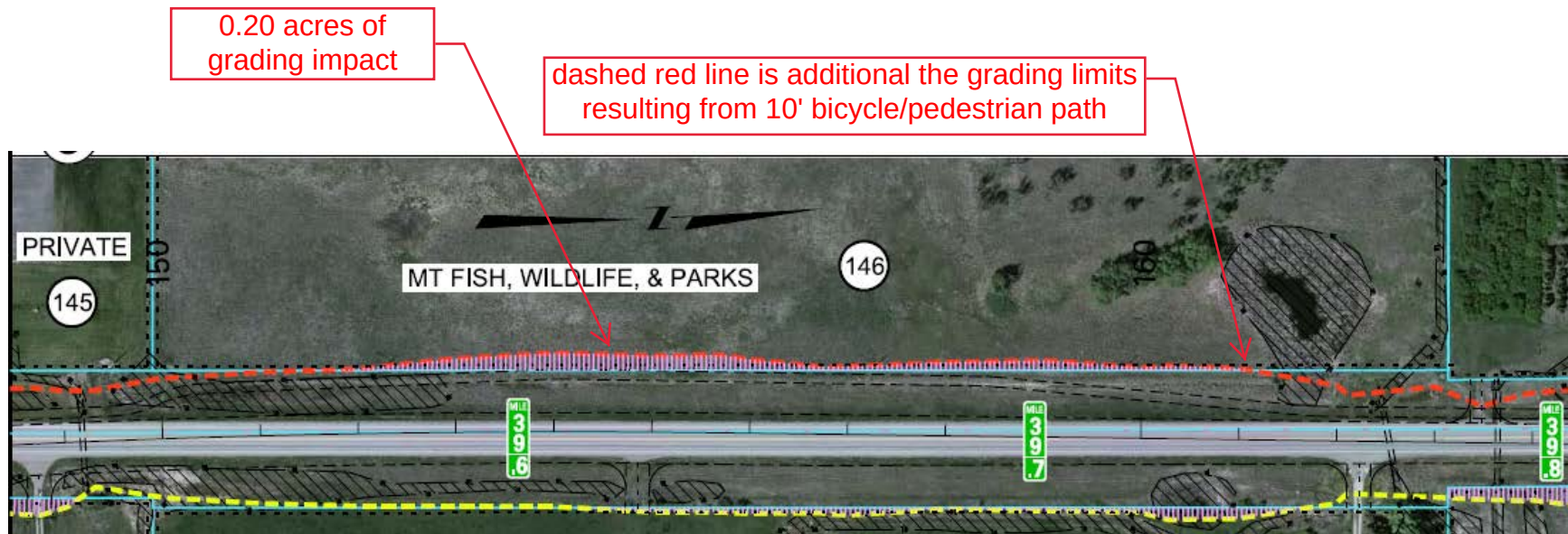


Exhibit 1a. Grading Impacts Ninepipe WMA Section 11, Township 19 N, Range 20 W

Parcel 147

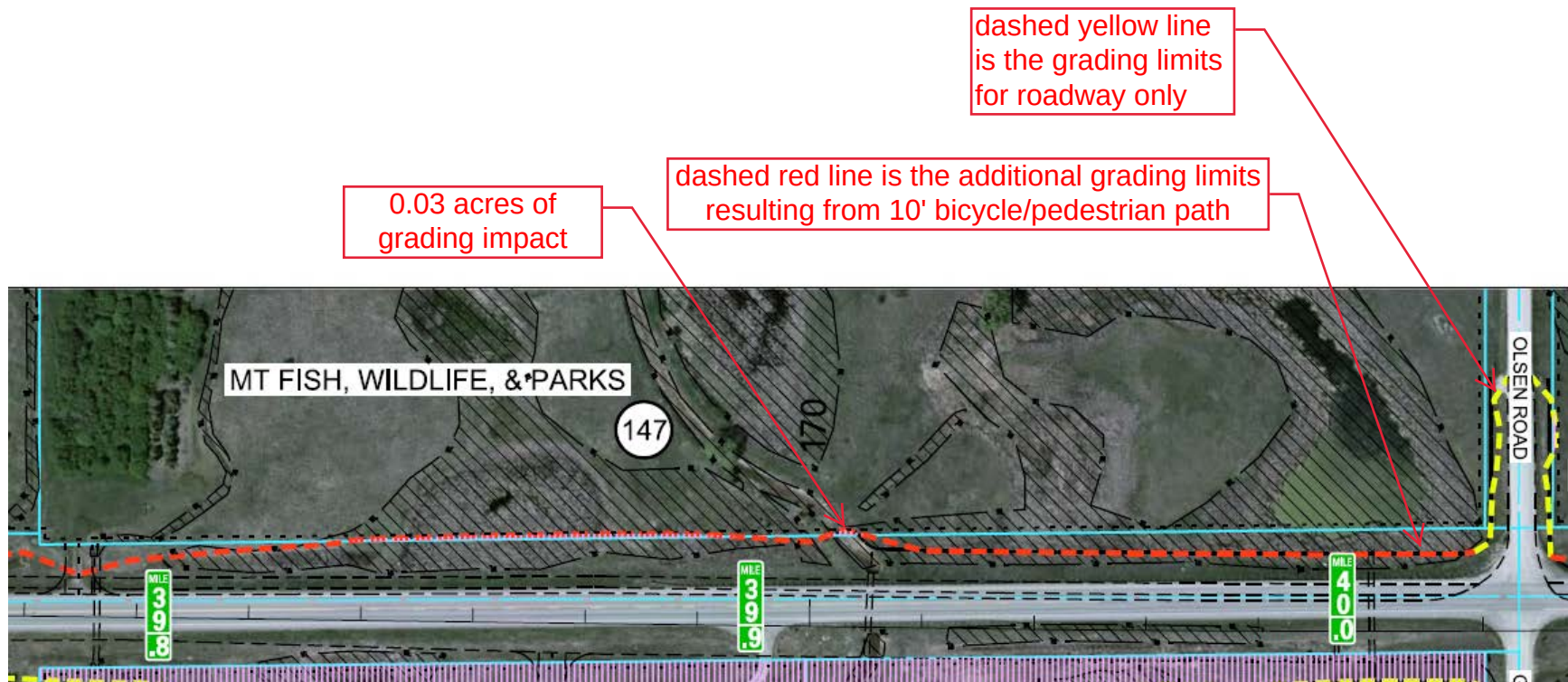


Exhibit 1b. Grading Impacts Ninepipe WMA Section 11, Township 19 N, Range 20 W

Parcel 152



dashed yellow line
is the grading limits
for roadway only



0.01 acres of
grading impacts
related to turtle
crossing culvert
grading

Exhibit 1c. Grading Impacts Ninepipe WMA Section 1, Township 19 N, Range 20 W

Parcel 203

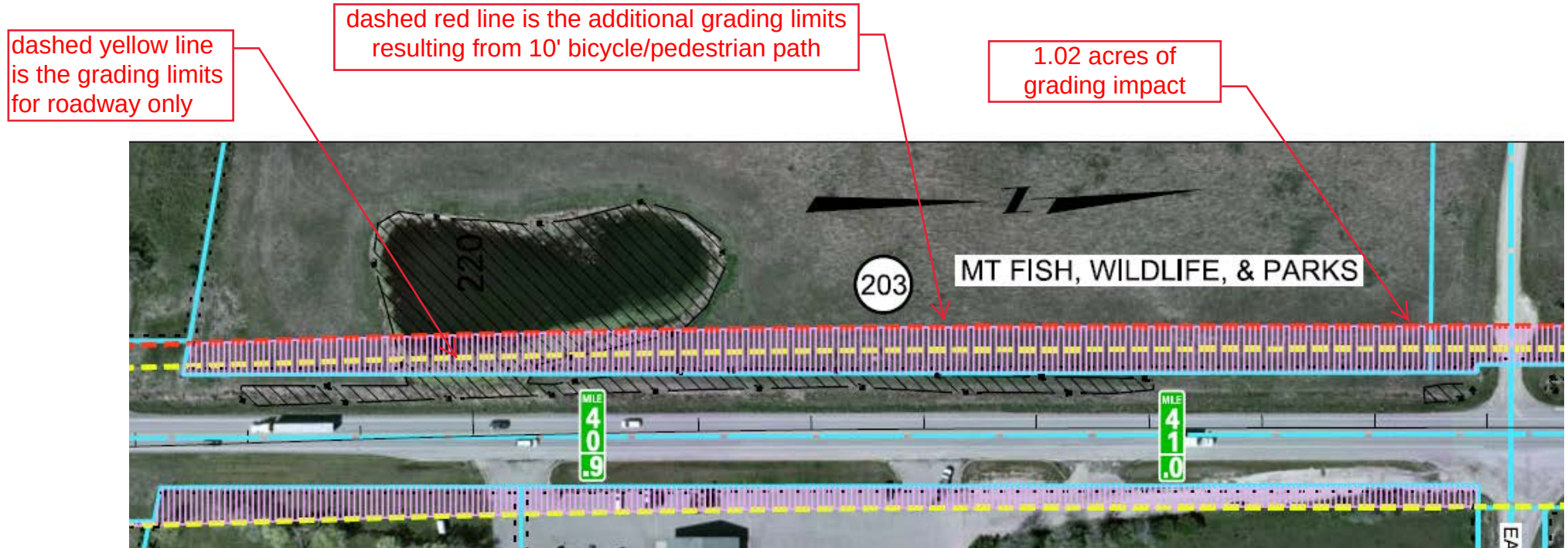


Exhibit 1d. Grading Impacts Ninepipe WMA Section 35, Township 20 N, Range 20 W

Parcel 204

1.54 acres of
grading impact
(total for parcel)

dashed yellow line
is the grading limits
for roadway only

dashed red line is the additional grading limits
resulting from 10' bicycle/pedestrian path



1.54 acres of
grading impact
(total for parcel)



Exhibit 1e. Grading Impacts Ninepipe WMA Section 35, Township 20 N, Range 20 W

Parcel 204-continued

dashed yellow line
is the grading limits
for roadway only

dashed red line is the additional grading limits
resulting from 10' bicycle/pedestrian path

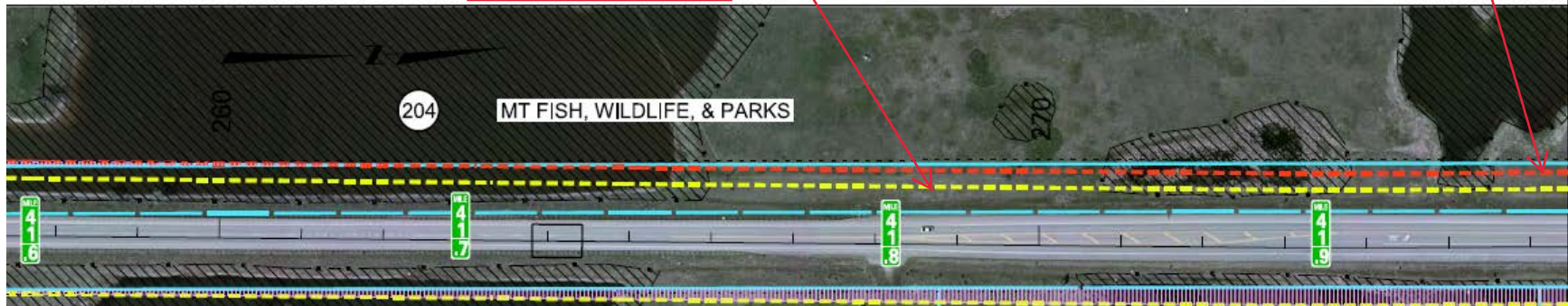


Exhibit 1e (continued). Grading Impacts Ninepipe WMA Section 35, Township 20 N, Range 20 W

Parcel 207

dashed yellow line
is the grading limits
for roadway only



0.90 acres of
grading impact
(total for parcel)

0.90 acres of
grading impact
(total for parcel)



Exhibit 1f. Grading Impacts Ninepipe WMA Section 36, Township 20 N, Range 20 W

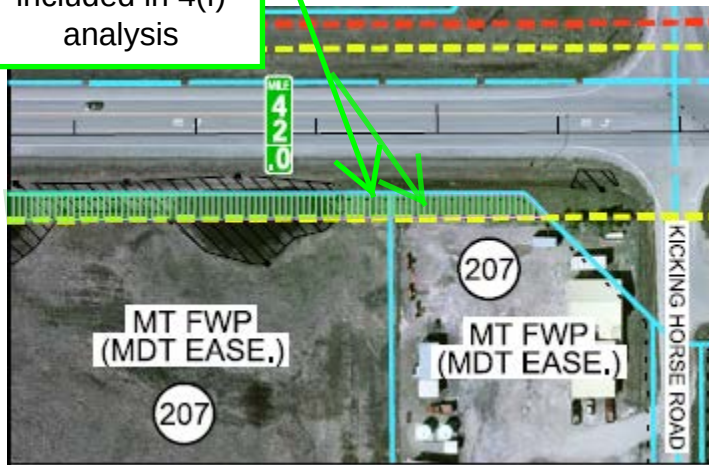
Parcel 207-continued

 Grading impacts that are not
4f impacts

dashed yellow line
is the grading limits
for roadway only



these impacts not
included in 4(f)
analysis



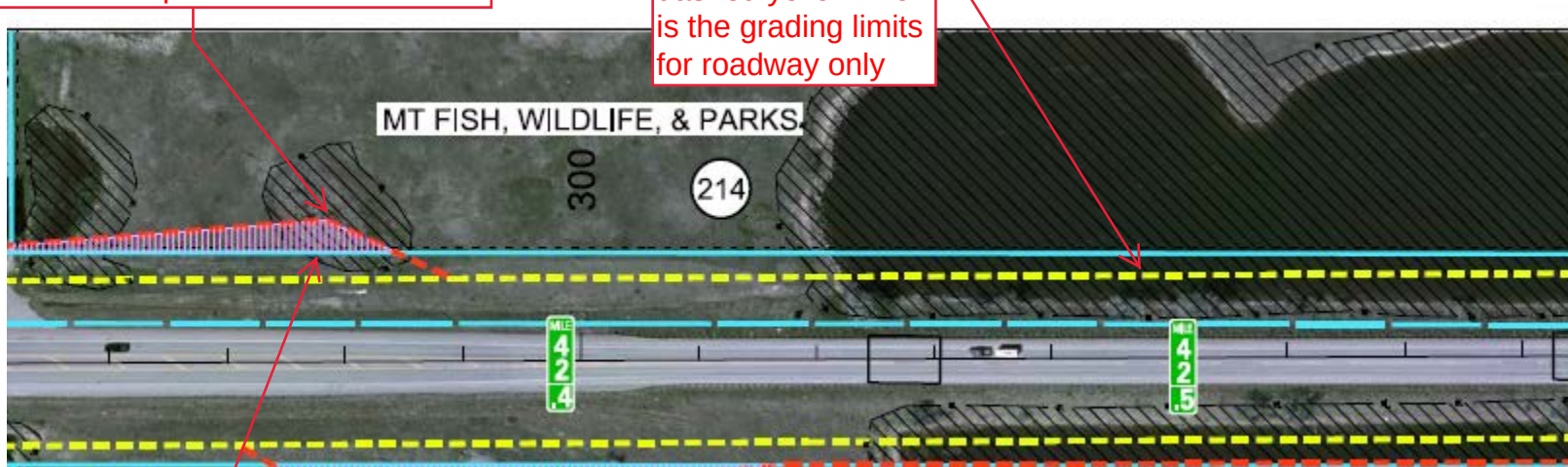
0.90 acres of
grading impact
(total for parcel)

Exhibit 1f (continued). Grading Impacts Ninepipe WMA Section 36, Township 20 N, Range 20 W

Parcel 214

dashed red line is the additional grading limits resulting from 10' bicycle/pedestrian path

dashed yellow line is the grading limits for roadway only



0.12 acres of grading impact



Exhibit 1g. Grading Impacts Ninepipe WMA Section 26 Township 20 N, Range 20 W

Parcel 214-continued

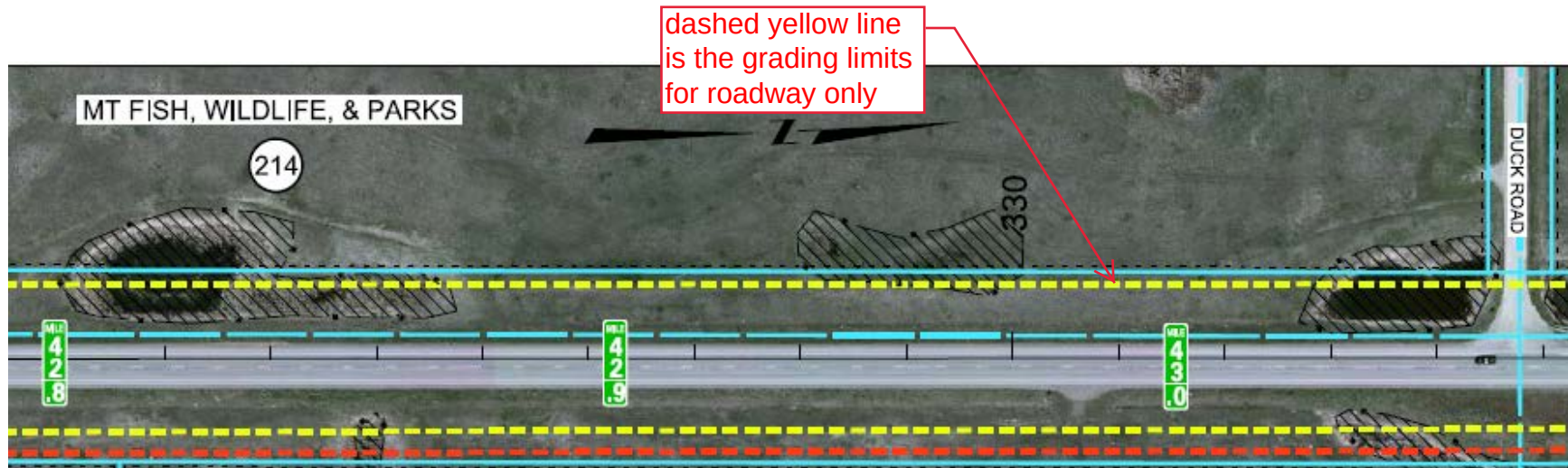


Exhibit 1g (continued). Grading Impacts Ninepipe WMA Section 26, Township 20 N, Range 20 W

FWP

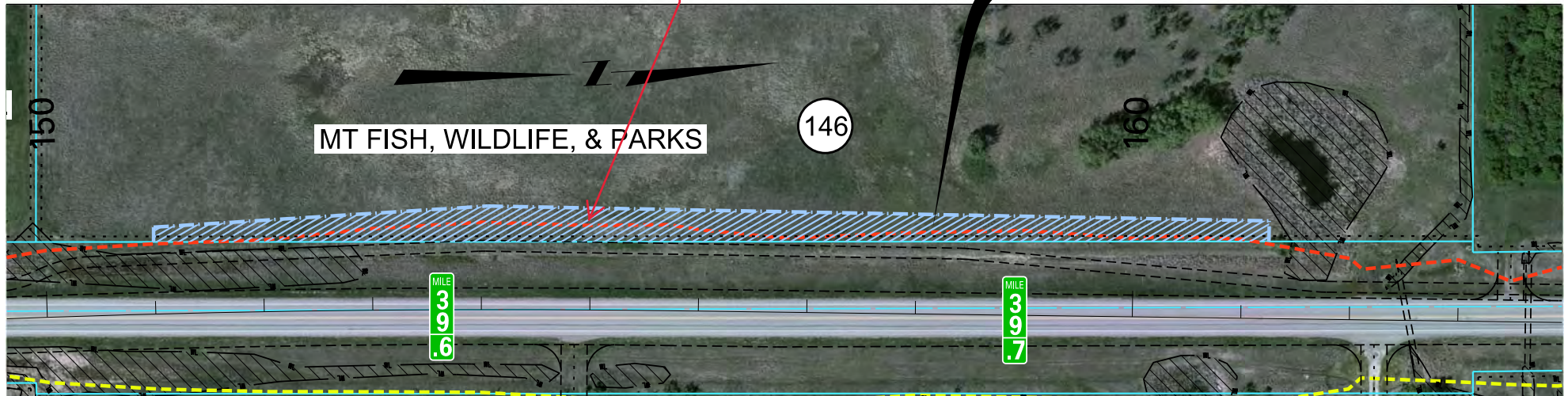
Parcel 146

Wetland Impacts: 0.000 ac

Fencing Impacts: 1,050 lft

dashed red line is the additional grading limits
resulting from 10' bicycle/pedestrian path

0.59 acres



 PROPOSED ROW

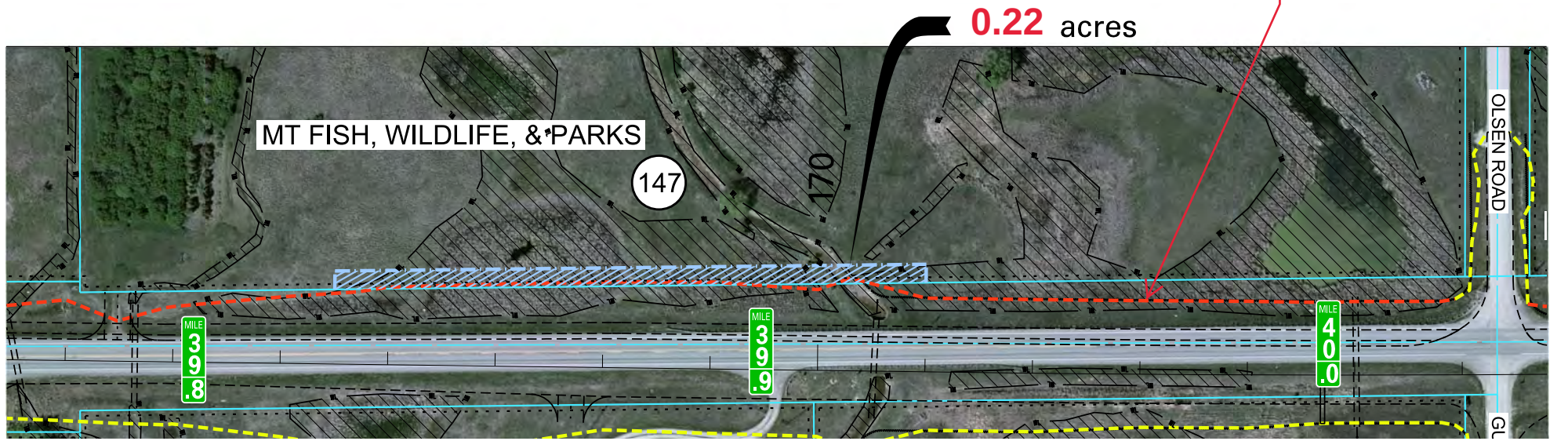
**Exhibit 2a. ROW Impacts
Ninepipe WMA Parcels
Section 11, Township 19 N, Range 20 W**

FWP

Parcel 147

Wetland Impacts: 0.025 ac

Fencing Impacts: 360 lnft



 PROPOSED ROW

**Exhibit 2b. ROW Impacts
Ninepipe WMA Parcels
Section 11, Township 19 N, Range 20 W**

FWP

Parcel 152

Wetland Impacts: 0.000 ac

Fencing Impacts: 530 Inft

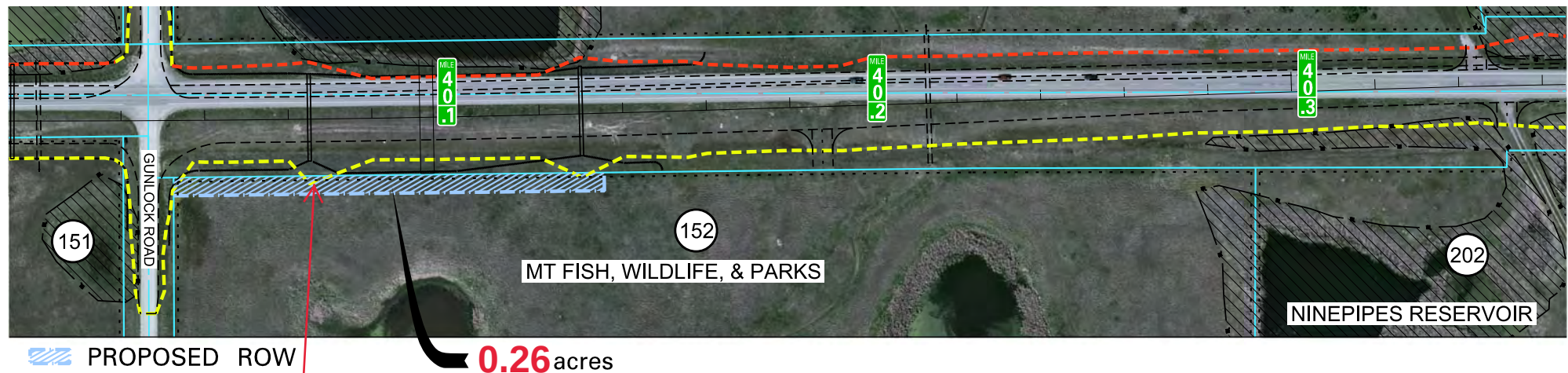


Exhibit 2c. ROW Impacts Ninepipe WMA Parcels Section 1, Township 19 N, Range 20 W

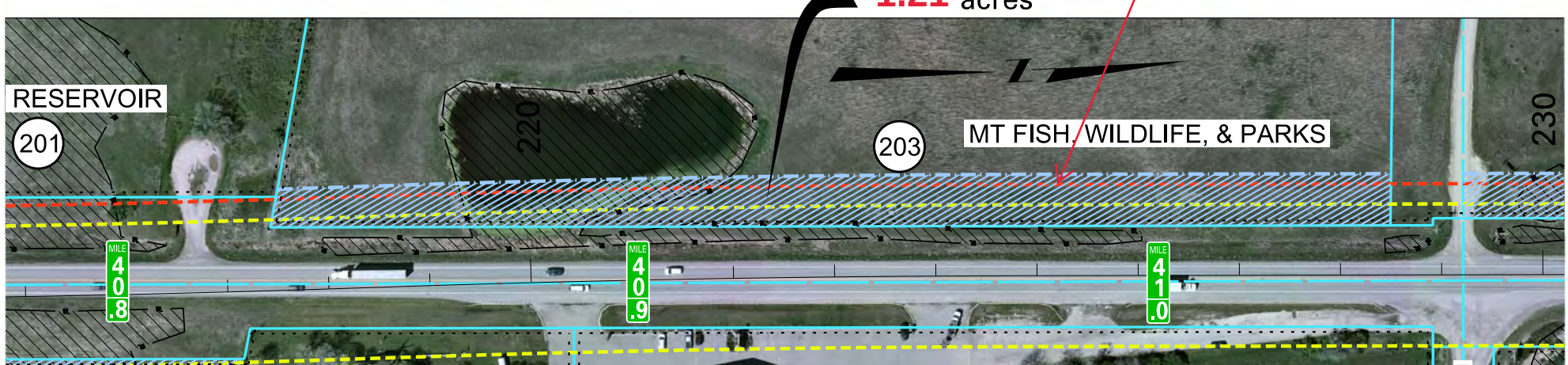
FWP

Parcel 203

Wetland Impacts: 0.142 ac*

Fencing Impacts: 820 Inft*

**Final design will avoid or minimize impacts*



 PROPOSED ROW

Exhibit 2d. ROW Impacts Ninepipe WMA Parcels Section 35, Township 20 N, Range 20 W

FWP

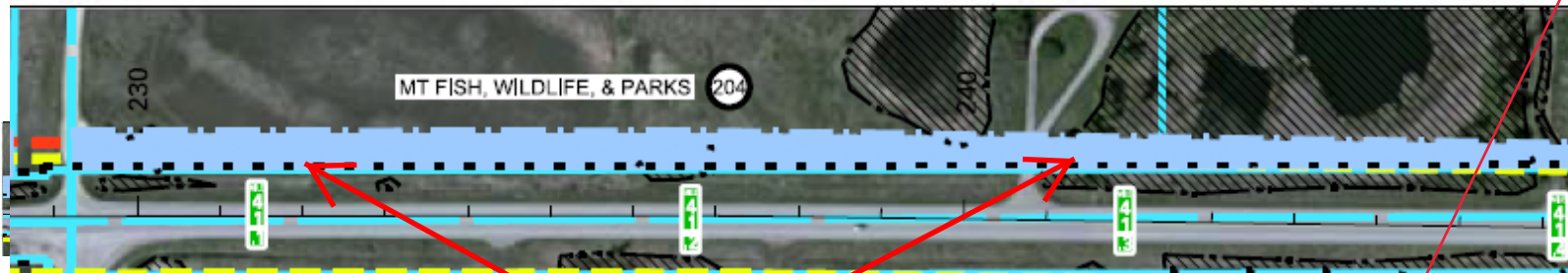
Parcel 204

Wetland Impacts: 0.468 ac*

Fencing Impacts: 2,700 lnft*

**Final design will avoid or minimize impacts*

dashed red line is the additional grading limits resulting from 10' bicycle/pedestrian path



PROPOSED ROW

2.10 acres (total for parcel)

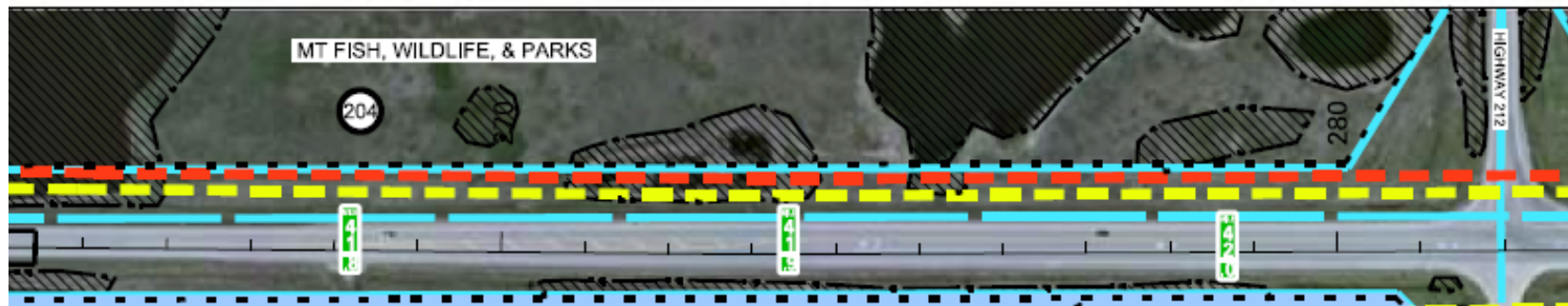


Exhibit 2e. ROW Impacts Ninepipe WMA Parcels Section 35, Township 20 N, Range 20 W

FWP

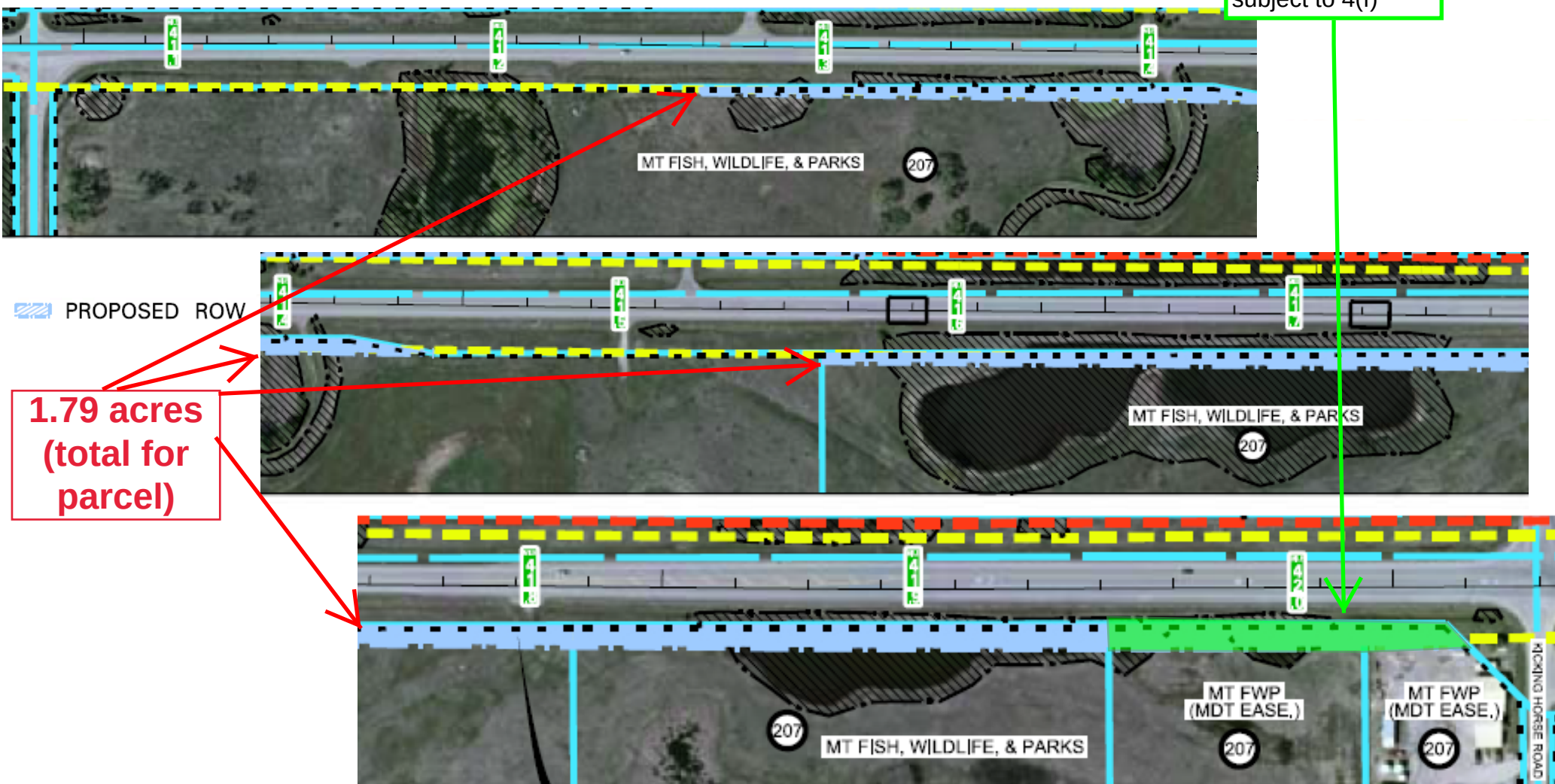
Parcel 207

Wetland Impacts: 0.650 ac*

Fencing Impacts: 2,250 lnft*

**Final design will avoid or minimize impacts*

ROW acquisition
acres do not
include on these
easement parcels
since these
parcels are not
subject to 4(f)



**Exhibit 2f. ROW Impacts
Ninepipe WMA Parcels
Section 36, Township 20 N, Range 20 W**

FWP

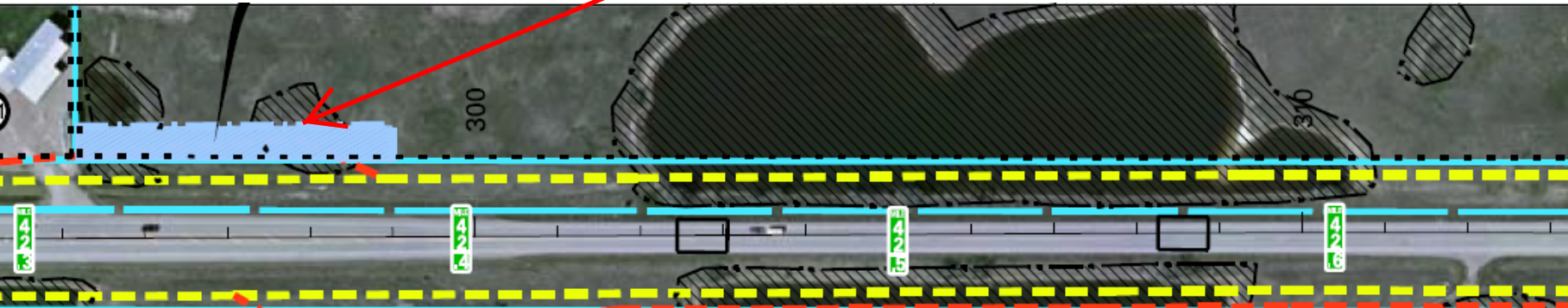
Parcel 214

Wetland Impacts: 0.056 ac*

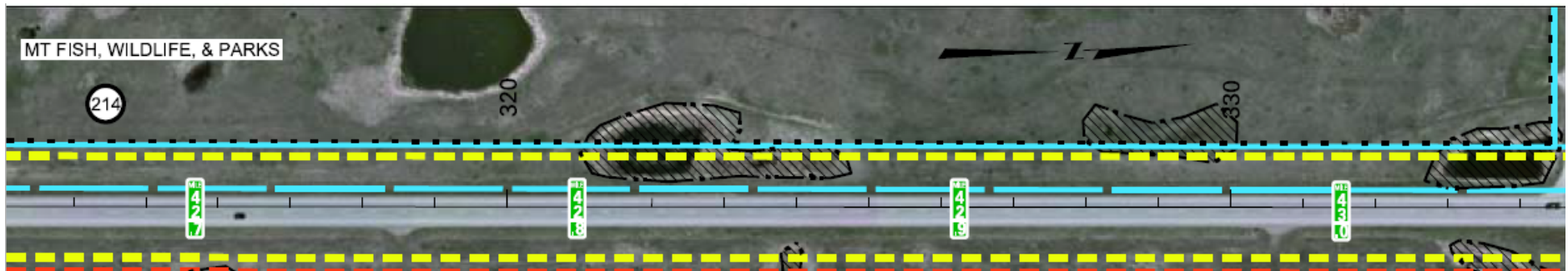
Fencing Impacts: 430 Inft*

**Final design will avoid or minimize impacts*

0.37 acres



 PROPOSED ROW

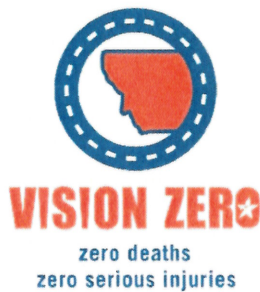


**Exhibit 2g. ROW Impacts
Ninepipe WMA Parcels
Section 26, Township 20 N, Range 20 W**

Table 1. Post Creek Hill and Ninepipe Section 4(f) Summary of Impacts

3/14/2019

Parcel	Name of Owner	Type of Property	Type of Transportation Use	Total Area (Acres)	Grading Impact Area (Acres)	Proposed ROW Area	Geocode	Temporary Occupancy ¹	Wetland Impacts (Acres)	Fencing (Feet)
146	MT FWP	Ninepipe WMA	Bike/Ped Path	77.87	0.20	0.59	15-2868-11-1-02-04-0000	Approach & Irrigation Drainage	0.000	1050
147	MT FWP	Ninepipe WMA	Bike/Ped Path	49.67	0.03	0.22	15-2868-11-1-02-03-0000	Approach & 2 Irrigation Drainages	0.025	360
152	MT FWP	Ninepipe WMA	Gunlock Road & Turtle Culvert	137.54	0.01	0.26	15-2868-01-1-01-08-0000	Approaches (3)	0.000	530
203	MT FWP	Ninepipe WMA	US93 and Bike/Ped Path	12.49	1.02	1.21	15-2868-02-1-01-01-0000	None	0.142	820
204	MT FWP	Ninepipe WMA	US93 and Bike/Ped Path	295.46	1.54	2.10	15-2987-35-1-01-03-0000	Approaches (3) & Irrigation Drainage/Culvert	0.468	2700
207	MT FWP	Ninepipe WMA	US 93	310.99	0.90	1.79	15-2987-36-1-01-01-0000	Approach & Irrigation Drainage/Culvert	0.650	2250
214	MT FWP	Ninepipe WMA	Bike/Ped Path Undercrossing	266.56	0.12	0.37	15-2987-26-1-01-02-0000	None	0.056	430
Notes:	1) Not all parcels with Temporary Occupancy Impacts listed in this table. This table only summarizes parcels with permanent impacts and then also identifies any anticipated temporary impacts for those parcels as well.									



Montana Department of Transportation

2701 Prospect
PO Box 201001
Helena MT 59602-1001

Steve Bullock, Governor

Michael T. Tooley, Director

March 15, 2019

USFWS National Bison Range
Vanessa Fields, Acting Manager
58355 Bison Range Road
Moiese, MT 59824

Received

MAR 18 2019

US Fish & Wildlife Service
National Bison Range

Subject: US 93 N Post Creek Hill and Ninepipe Section
Section 4(f) *De minimis* Determination
Project Number: NH 5-2(159)37
Control Number: 8008000

Dear Ms. Fields:

This letter is intended as a follow up to ongoing discussions that have occurred between representatives of the United States Fish and Wildlife Service (USFWS), the Montana Department of Transportation (MDT), MDT's consultant, and the Federal Highway Administration (FHWA). MDT has been in periodic communication with the USFWS since our first meeting on this topic on November 2, 2016. Most recently we had a conference call discussing potential impacts to USFWS property on February 28, 2018 clarifying specific impacts to a portion of the Kicking Horse Waterfowl Production Area (WPA) resulting from the addition of a separated bicycle/pedestrian path and associated undercrossing.

As you are aware, MDT is proposing to reconstruct US Highway 93 from reference post (RP) 36.8, just south of Redhorn Road, to RP 40.4, which is approximately 2000 feet north of Gunlock Road as part of the Post Creek Hill project (Control Number 8008000). Please refer to the attached Figure 1 for the Post Creek Hill project design limits.

The portion of US 93 from the northern end of the Post Creek Hill project to Brooke Lane (RP 44.5) that has not been reconstructed is referred to as the Ninepipe Section. This segment of US 93 is currently in the environmental analysis and planning stage and therefore is also being included with this Section 4(f) analysis.

Section 4(f) of USDOT Act of 1966

Section 4(f) of the U.S. Department of Transportation (USDOT) Act of 1966 prohibits USDOT agencies (including FHWA) from using land from publicly owned parks, recreation areas, and wildlife and water fowl refuges, unless there is no feasible and prudent alternative to that use and the action includes all possible planning to minimize harm to the property resulting from such a use. In 2005 existing Section 4(f) legislation was amended to simplify the Section 4(f) process and approval for projects that have *de minimis* impacts on lands subject to protection under Section 4(f). A *de minimis* determination may be made by FHWA when all three of the following criteria are satisfied:

- 1) The transportation use of the Section 4(f) resource, together with any impact avoidance, minimization, and mitigation or enhancement measures incorporated into

March 15, 2019

USFWS National Bison Range
Vanessa Fields, Acting Manager
Page 2 of 4

the project, does not adversely affect the activities, features, and attributes that qualify the resource for protection under Section 4(f);

- 2) The public has been afforded an opportunity to review and comment on the effects of the project on the protected activities, features, and attributes of the Section 4(f) resource; and
- 3) The official(s) with jurisdiction over the property, after being informed of the public comments and MDT's/FHWA's intent to make the *de minimis* impact finding, concur in writing that the project will not adversely affect the activities, features, and attributes that qualify the property for protection under Section 4(f).

In this case, team members from USFWS, MDT, and FHWA have had many discussions regarding the potential impacts to the Kicking Horse WPA that are considered Section 4(f) lands. Based on those discussions, we have preliminarily concluded that the potential impacts are *de minimis* in nature. With this letter, we are seeking written concurrence from USFWS, as the officials with jurisdiction over the properties in question. The potential impacts are described below.

4(f) Permanent Impacts/Occupancy – Kicking Horse WPA

Based on current project design it is anticipated that Right of Way (ROW) acquisition will be necessary on a specific USFWS owned property that is part of the Kicking Horse WPA which is protected under Section 4(f). Enclosed are two exhibits that illustrate the proposed permanent grading impacts and associated ROW acquisition that would result from the proposed project. Specific impacts are located on parcel 213. For your reference, 100 series parcels are adjacent to the Post Creek Hill project and 200 series parcels are located adjacent to the Ninepipe Section planning area. Exhibit 1 shows the areas of grading impact associated with the bicycle/pedestrian path on the Kicking Horse WPA. Exhibit 2 shows the anticipated ROW acquisition from this parcel. A summary of impacts to this land is:

- Acquisition up to approximately 0.54 acres of the Kicking Horse WPA for highway ROW¹,

Refer to Table 1 for a summary of these impacts by parcel.

These permanent impacts are considered minor and do not appear to materially affect the use and function of the Kicking Horse WPA. ROW would be acquired at fair market value by MDT in order to complete this project. Other actions such as new fencing, revegetation, and grading within the acquired ROW would be mitigated in consultation with USFWS by restoring vegetation, employing weed control methods, and replacing fencing as part of this project.

¹ Completion of the FHWA 4(f) process does not automatically obligate the property for ROW acquisition or constitute any specific ROW agreement. ROW acquisition will be formalized and completed after final design is complete and actual impacts and ROW requirements are determined. Actual ROW acquisition may be equal to or lower than this value.

March 15, 2019

USFWS National Bison Range
Vanessa Fields, Acting Manager
Page 3 of 4

4(f) Temporary Occupancy – Kicking Horse WPA

In addition to the above described permanent impacts, the following temporary impacts are also anticipated. Section 23 CFR 774.13(d) provides guidance on the conditions under which “temporary occupancies of land...are so minimal as to not constitute a “use” within the meaning of Section 4(f).” Those conditions are as follows:

- (1) Duration must be temporary, i.e., less than the time needed for construction of the project, and there should be no change in ownership of the land;
- (2) Scope of the work must be minor, i.e., both the nature and the magnitude of the changes to the Section 4(f) property are minimal;
- (3) There are no anticipated permanent adverse physical impacts, nor will there be interference with the protected activities, features, or attributes of the property, on either a temporary or permanent basis;
- (4) The land being used must be fully restored, i.e., the property must be returned to a condition which is at least as good as that which existed prior to the project; and
- (5) There must be documented agreement of the official(s) with jurisdiction over the Section 4(f) resource regarding the above conditions.

There may be minor temporary occupancies associated with placement or adjustment of approaches on USFWS Section 4(f) parcels. As construction plans and negotiations with property owners are finalized, additional Section 4(f) properties may be similarly temporarily impacted.

In this case, team members from USFWS, MDT, and FHWA have had many discussions regarding the potential temporary impacts to the Kicking Horse WPA. Based on those discussions, we have preliminarily concluded that the potential temporary impacts meet criteria 1 through 4 above and therefore would not constitute a “use” under Section 4(f). With this letter, we are seeking written concurrence from USFWS, as the officials with jurisdiction over the properties in question. USFWS’s signature will satisfy condition 5 above.

Determination of a De Minimis Impact to a Section 4(f) Property

Public notice was given via ads in Ronan Valley Journal on January 16, 2019 and Char-koosta on January 17, 2019. Additionally, the public notice news release was issued on January 9 and 22, 2019. The public notice comment period was open from January 9, 2019, through February 20, 2019. Eleven comments were received from the public during this period. Seven of these letters were related to traffic and safety concerns associated with the Post Creek Hill Project, one letter concerned ownership of Ninepipe National Wildlife Refuge (NWR) lands, one commenter wanted to know the total amount of ROW being acquired and project limits, one letter was from an adjacent business owner requesting information on the design and highway access planning, and one letter contained a list of three questions and one offer for sale of land but no specific comments. With the exception of the comment regarding ownership of the NWR lands, none of the written public comment received contained comments or statements relevant to the Section 4(f) process and therefore do not provide any substantive new information that would alter MDT’s evaluation of the impacts to these Section 4(f) parcels. These letters and emails are available to USFWS upon request.

March 15, 2019

USFWS National Bison Range
Vanessa Fields, Acting Manager
Page 4 of 4

Request for Concurrence

We are respectfully requesting your concurrence that the proposed use of Section 4(f) resources will not adversely affect the viability of the Kicking Horse WPA and your agreement with the proposed *de minimis* determination.

We would appreciate your prompt response since USFWS's concurrence is needed before we can complete the Final Section 4(f) Evaluation and the environmental document for this project. If you need additional information concerning the proposed project in the meantime, please contact me at 523-5842. Thank you for your continued cooperation and assistance.

Susan Kilcrease



Missoula District Project Development Engineer
MDT Environmental Services Bureau

Date: March 15, 2019

Concur: 

United States Fish and Wildlife Service

Date: 3/29/19

Heidy Bruner, P.E.

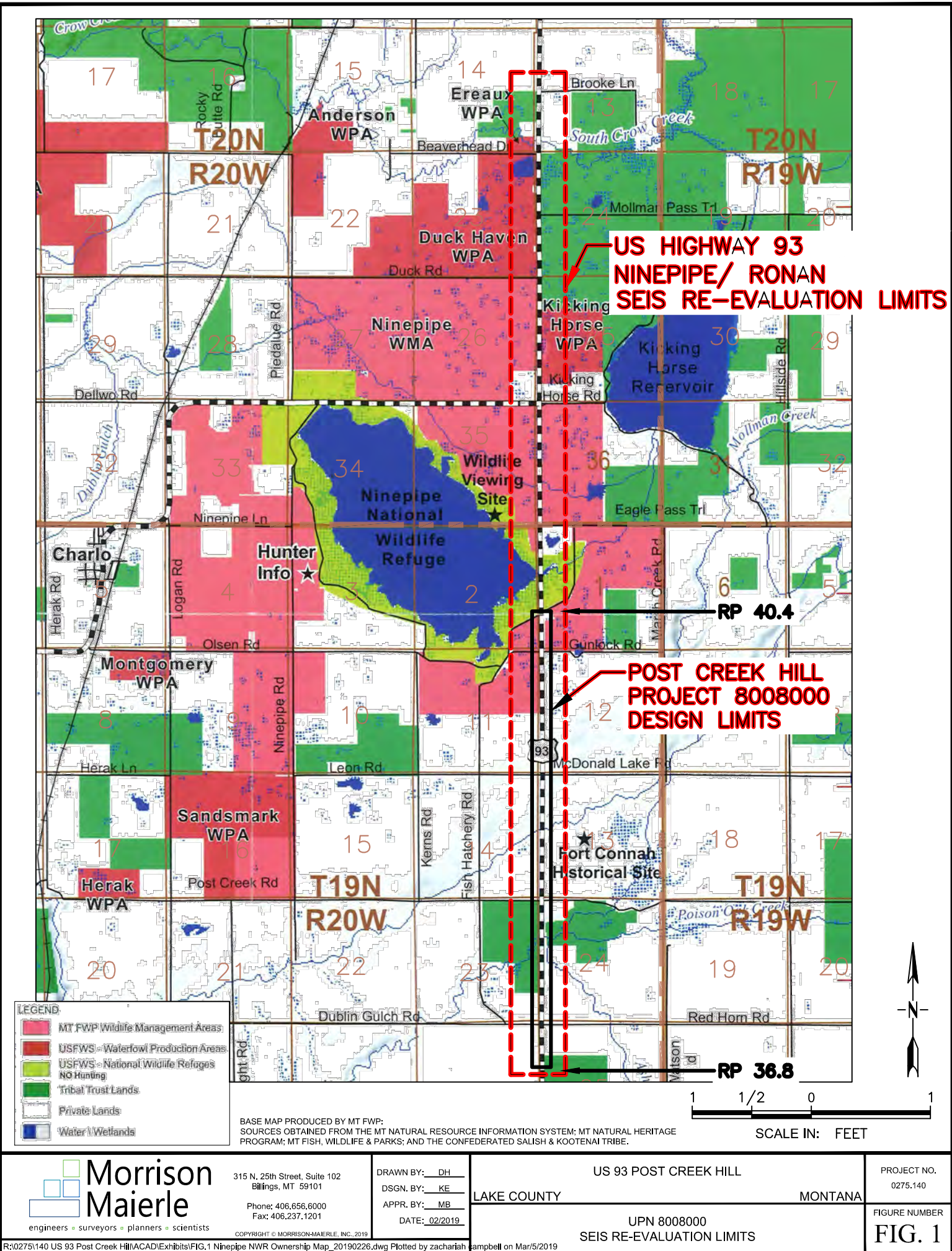


FHWA Environmental Engineer and Tribal Liaison

Date: 4/17/19

Enclosures: Figure 1. FSEIS Re-evaluation Limits
Exhibit 1. Grading Impacts to USFWS Parcels
Exhibit 2. ROW Impacts to USFWS Parcels
Table 1. Post Creek Hill and Ninepipe Section 4(f) Summary of Impacts

copies: Miki Lloyd, P.E. MDT, Consultant Design Bureau Project Manager (w/encl.)
Susan Kilcrease, Missoula District Project Development Engineer (w/encl.)
Mark Brooke, P.E., Morrison-Maierle, Consulting Environmental Engineer (w/encl.)



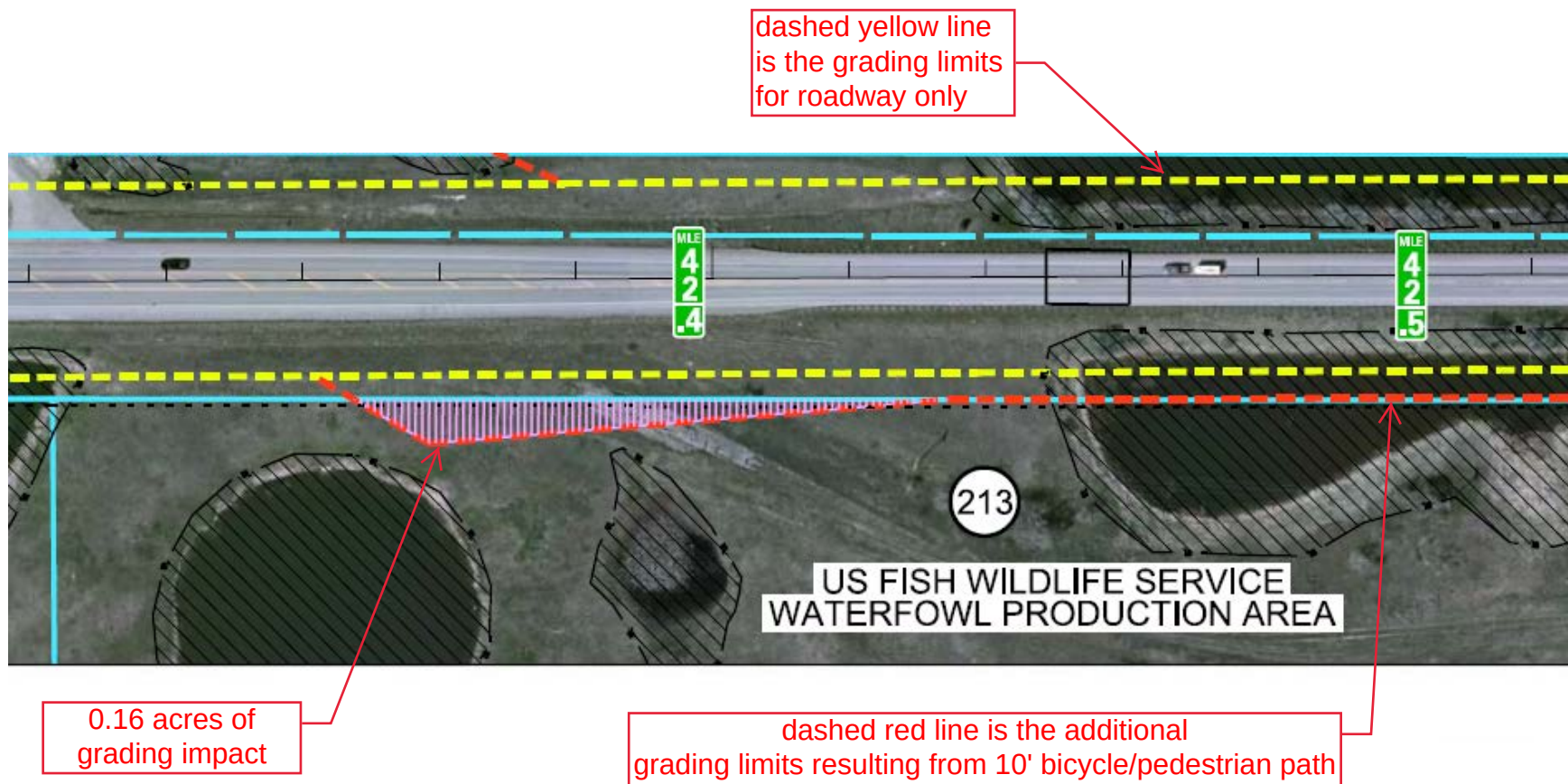


Exhibit 1. Grading Impacts

Kicking Horse WPA

Section 25, Township 20 N, Range 20 W

USFWS

Parcel 213

Wetland Impacts: 0.000 ac*

Fencing Impacts: 600 Inft*

**Final design will avoid or minimize impacts*

dashed red line is the additional grading limits
resulting from 10' bicycle/pedestrian path



Exhibit 2. ROW Impacts
Kicking Horse WPA
Section 25, Township 20 N, Range 20 W

Table 1. Post Creek Hill and Ninepipe Section 4(f) Summary of Impacts

3/14/2019

Parcel	Name of Owner	Official w/Mgmt Jurisdiction	Type of Property	Type of Transportation Use	Total Area (Acres)	Grading Impact Area (Acres)	Proposed ROW Area	Geocode	Temporary Occupancy ¹	Wetland Impacts (Acres)	Fencing (Feet)
213	USA in Trust for Eugene	USFWS	Kicking Horse WPA	Bike/Ped Path Undercrossing	154.00	0.16	0.54	15-2987-25-2-01-09-0000	Existing Approach (likely no access b/c of Kicking Horse Native Prairie)	0.00	600
Notes:	1) Not all parcels with Temporary Occupancy Impacts listed in this table. This table only summarizes parcels with permanent impacts and then also identifies any anticipated temporary impacts for those parcels as well.										

Hinshaw, Ellen

From: Steed, Amber
Sent: Monday, June 29, 2026 4:45 PM
To: Hinshaw, Ellen
Cc: Yerger, Aubrey; Schenk, Bill; Brooks, Adam
Subject: Re: 9614-10567 4(f) Concurrence

Ellen,

Thanks for sending the 4(f) letter and exhibits for the US 93 Eagle Pass Trail and Wildlife Overpass project. We concur that the proposed permanent and temporary easements on FWP 4(f) parcels 203, 204, and 207 are consistent with the March 27, 2019 Section 4(f) de minimis Determination for the Ninepipe WMA.

From the Federal Aid and FWP perspectives, the easements as described present no issues and will improve public access and safety at Ninepipes. A MEPA review may still be required, and it would be helpful for MDT's MEPA document (likely a cat-ex) to explicitly include FWP property/easement acquisition so FWP can tier to that document.

Best,
Amber

Amber Steed | *Region 1 Supervisor*
Administrative Division
Montana Fish, Wildlife & Parks
Office: (406) 751-4566 | Cell: (406) 405-0092



THE **OUTSIDE** IS IN US ALL.

[Montana FWP](#) | [Montana Outdoors Magazine](#)



From: Hinshaw, Ellen <ehinshaw@mt.gov>
Sent: Monday, June 22, 2026 9:45 AM
To: Steed, Amber <ASteed@mt.gov>
Cc: Yerger, Aubrey <ayerger@mt.gov>
Subject: 9614-10567 4(f) Concurrence

Good morning Amber,

Please see attached is the 4(f) letter and exhibits for the US 93 Eagle Pass Trail and Wildlife Overpass Progressive Design-Build project. MDT and the team are looking for concurrence on the determination in

the letter that the anticipated acquisition of permanent and temporary easements from FWP 4(f) properties (parcels 203, 204 and 207) is consistent with the March 27, 2019 Section 4(f) de minimis Determination letter regarding the Ninepipe Wildlife Management Area (WMA).

Please let me know if you have any questions, or would like any meeting scheduled to chat through any of the team's findings.

If you could please respond by July 6th.

Thank you!

Ellen



Ellen Hinshaw, P.E., Assoc. DBIA
Alternative Projects Engineer
Consultant Design Bureau
8350 US Highway 10
Missoula, MT 59808
ehinshaw@mt.gov

Project Development & Delivery

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ATTACHMENT 4

BIOLOGICAL RESOURCES REPORT AND PRELIMINARY BIOLOGICAL ASSESSMENT

Montana Department of Transportation

Biological Resources Report and Preliminary Biological Assessment

Firm Name: DJ&A

Date: 6/15/2026

Prepared By: Allison Hendryx

Position Title of Preparer: Environmental Scientist/Wildlife Biologist

Projects (Name, Number, UPN):

SF 179 Eagle Pass Trail Safety, HSIP STWD(762), 9614001

US 93 Wildlife Overpass, SSS 5-2(204)41, 10567000

Watershed: Lower Clark Fork #3

Project Description:

SF 179 Eagle Pass Trail Safety (RP 40.76 – RP 41.36)

The purpose of this Project is to enhance safety and address an identified crash trend by reconstructing US Highway 93 (US 93) to install a center left-turn lane near RP 41.0 at the intersection with Eagle Pass Trail Road, including the approaches into the Ninepipes Lodge and Museum of Early Montana. The proposed improvements will address angle and rear-end crashes related to left-turning vehicles. A dedicated southbound left-turn lane would be installed for the Eagle Pass Trail intersection and then transition to a center two-way left-turn lane through the Ninepipes Lodge and Museum area.

US 93 will be reconstructed to install a center left-turn lane near RP 41.0 at the intersection with Eagle Pass Trail Road, including the approaches into the Ninepipes Lodge and Museum of Early Montana. A dedicated southbound left-turn lane would be installed for the Eagle Pass Trail intersection and then transition to a center two-way left-turn lane through the Ninepipes Lodge and Museum area. The addition of the turn lane will result in widening a section of roadway. A shared used path will also be installed along the east side of US 93. Wildlife exclusion fencing 8-feet tall will be installed through the Project limits between RPs 40.76 and 41.36 on both the east and west sides of US 93. Wildlife fencing connections will extend beyond the Project limits to the south from RP 40.76 to RP 40.70. If appropriate and feasible, selected approaches within the Project area may have cattle/wildlife guards installed. Turtle exclusion fencing may be installed in all areas wildlife exclusionary fencing is installed. Prior to construction, staging areas and borrow sites will be identified, with associated evaluation and/or permitting addressed as appropriate.

Wildlife Overpass (RP 41.36 – RP 41.57)

The purpose of this Project is to construct a wildlife overpass spanning US 93 near RP 41.5, an area with an elevated risk of wildlife vehicle collisions (WVC) due to its proximity to important wildlife habitat. The proposed Project would also include associated WVC reduction infrastructure and reconstructing the deficient roadway. These improvements would result in safer travel for motorists and non-motorized users of US 93 while also enhancing wildlife habitat connectivity in the Project(s) limits particularly for special status species such as federally threatened grizzly bear. Prior to

construction, staging areas and borrow sites will be identified, with associated evaluation and/or permitting addressed as appropriate.

Overpass structure type, and associated wildlife features (e.g., approach slopes, noise, and light reduction measures) will be determined by the design team. Wildlife exclusion fencing 8-feet tall will be installed within the Project on both the east and west sides of US 93 between RP 41.36 and 41.57 and integrated with the overpass structure. Wildlife fencing connections will extend from RP 41.57 to approximately RP 42.05 (i.e., the intersection of US 93 and MT-212) on both sides of US 93. If appropriate and feasible, selected approaches within the Project area may have cattle/wildlife guards installed. Turtle exclusion fencing may be installed in all areas where wildlife exclusionary fencing is installed. Additional mainline roadway work includes replacing the Post A Canal culvert. The roadway transition work will extend from RP 41.57 to RP 41.65. A temporary detour may be implemented during construction within the Project limits.

Project Location:

County: Lake County

Route/Highway: US Highway 93

From RP¹: 40.70 to RP: 42.05

Nearest Town: Ronan, MT

Location Description: The Project area consists of all areas within the SF 179 Eagle Pass Trail Safety and the Wildlife Overpass Project limits, and any fencing lengths accepted outside these Project limits. The Project area spans approximately 1.35 miles of US 93 from south of Eagle Pass Trail at approximately RP 40.70 to the junction of US 93 and MT 212 at RP 42.05, approximately 4.50 miles south of Ronan, MT. The Project area includes right-of-way (ROW) managed by MDT and occurs entirely within the Flathead Indian Reservation boundary. Adjacent land ownership/management consists of the U.S. Fish and Wildlife Service (USFWS) Ninepipe National Wildlife Refuge (NWR), Montana Fish, Wildlife & Parks (MT FWP) Ninepipe Wildlife Management Area (WMA), Confederated Salish and Kootenai Tribes (CSKT) Tribal lands, and privately-owned parcels (see Attachment A).

An Environmental Summary Report was obtained from the Montana Natural Heritage Program (MTNHP) on June 30, 2025 (Attachment B), providing information on species and biological communities present within the 6-square-mile custom Area of Interest (AOI)². The AOI is centered on the Project area, consisting of all areas within the SF 179 Eagle Pass Trail Safety and the Wildlife Overpass Project limits, and any fencing lengths accepted outside these Project limits, (MTNHP 2025). Within the AOI, the dominant land cover types consist of montane grassland, wet meadow, deciduous shrubland, and open water. See Table 1 for a summary of all land cover types present within the AOI. Land use within the AOI largely relates to wildlife conservation and waterfowl

¹ Including fencing connections and temporary detours associated with project implementation.

² Information contained with the Environmental Summary Report includes summaries corresponding to the extent of the custom AOI (see Attachment A). The custom AOI is defined by the extent of intersection of the Project area with a layer of hexagons, each one square mile in area, used to facilitate consistent and rapid delivery of summaries based on a uniform grid used for planning efforts across America (MTNHP 2025).

production, specifically associated with NWR, WMA, and CSKT tribal lands. Privately-owned parcels occur along US 93, consisting of residences, cropland, pastureland, and businesses. A network of irrigation features traverses the AOI, originating from nearby reservoirs and isolated depressional aquatic features.

Table 1 MTNHP ESR Land Cover Types within the custom AOI (>1% Percent of AOI)

Level 1	Level 2	Level 3	Acres	Percent of AOI
Grassland Systems	Montane Grassland	Rocky Mountain Lower Montane, Foothill, and Valley Grassland	2071.2	24.92%
Wetland and Riparian Systems*	Open Water	Open Water	1948.6	23.45%
Wetland and Riparian Systems*	Wet meadow	Alpine-Montane Wet Meadow	1133.8	13.64%
Shrubland, Steppe and Savanna Systems	Deciduous Shrubland	Rocky Mountain Montane-Foothill Deciduous Shrubland	1124.6	13.53%
Human Land Use	Agriculture	Cultivated Crops	472.4	5.68%
Wetland and Riparian Systems*	Herbaceous Marsh	Emergent Marsh	468.4	5.64%
Wetland and Riparian Systems*	Floodplain and Riparian	Northern Rocky Mountain Lower Montane Riparian Woodland and Shrubland	316.2	3.80%
Human Land Use	Developed	Other Roads	219.1	2.64%
Human Land Use	Agriculture	Pasture/Hay	121.6	1.46%
Human Land Use	Developed	Developed, Open Space	103.2	1.24%

*See attached *Aquatic Resources Technical Memo* (Attachment C) for field-verified wetland and riparian information.

Source: (MTNHP 2025)

Aquatic Resources

The attached *Aquatic Resource Technical Memo* includes additional details regarding aquatic resources present within the surveyed area (Attachment C). Attachment C includes data collected for a survey area extending beyond the analysis area for this BRR/PBA. This BRR/PBA has only included and assessed those aquatic resources which occur within the defined Project area for this BRR/PBA (Table 4), as described in Project Location.

The field survey was limited to the 167.35-acre study area (Attachment C). This consisted of a 150-foot buffer off the US 93 centerline and a 30-foot buffer off the centerline of smaller arterial roads. A 350-foot buffer off centerline to the east was included at Kettle Pond 1 to accommodate potential detours.

The primary delineation for this project was conducted by Jacobs biologists Rachel Newton and John Mulligan and DJ&A biologists Brian Stockowitz and Allison Hendryx from May 19 through 22, 2025. John Mulligan and Allison Hendryx delineated the area from approximate station 483+00 south to the Ninepipes Feeder Canal Bridge at approximate station 476+83 on May 11, 2026 and from approximate station 488+50 south to 483+00 on June 2, 2026.

Before the field survey, the following sources were reviewed for information on soils, hydrology, and existing wetlands:

- U.S. Geological Survey topographic maps
- National Wetland Inventory (USFWS 2025)
- National Hydrography Dataset (USGS 2025)
- U.S. Department of Agriculture Natural Resources Conservation Service Web Soil Survey (2025)
- Satellite imagery (ESRI 2021)

The aquatic resource delineation and assessment followed:

- *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987)
- *Ordinary High Water Mark (OHWM) Identification Regulatory Guidance Letter No. 05-05* (USACE 2005)
- *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region, Version 2.0* (USACE 2010)
- *National Ordinary High Water Mark Field Delineation Manual for Rivers and Streams: Final Version* (David et al. 2025)
- National Wetland Plant List, version 3.6 (USACE 2022)
- *Montana Wetland Assessment Method (MWAM)* (Berglund and McEldowney 2008)
- *MDT Wetland and Stream Delineation Process* (MDT 2020)
- *Montana Stream Mitigation Procedure* (USACE 2013)

Where aquatic resources were identified, feature boundaries were mapped using a handheld global positioning system (GPS) unit with submeter accuracy set to collect points at 2-second intervals. Data were collected in WGS 84. Geographic information system (GIS) data were post-processed using ArcPRO 3.4.4. See the attached *Aquatic Resource Technical Memo* for additional details (Attachment C).

Wetlands

Do wetlands exist on or adjacent to the project? **Yes**

Are wetland impacts anticipated? **Yes**

Wetland Discussion:

SF 179 Eagle Pass Trail Safety (RP 40.76 – RP 41.36)

A total of 11 palustrine wetlands were delineated during field surveys within the Eagle Pass Trail Safety Project limits, amounting to approximately 5.61 acres. Per MDT guidance, wetland areas separated by non-wetland features (e.g., culvert) are labelled alpha-numerically (e.g., WL-1a, WL-1b), resulting in a total of 16 wetland areas associated with 11 discrete wetlands. Of these wetland areas, there were 12 Palustrine Emergent (PEM), three (3) Open Water and PEM, and one (1) Palustrine Aquatic Bed (PAB)/Palustrine Scrub-shrub (PSS). One (1) wetland area, WL-1a, is potentially federally jurisdictional. See Table 2 for a summary of delineated wetlands within the Eagle Pass Trail Safety Project limits. Additional details can be found in the attached *Aquatic Resource Technical Memo* (Attachment C).

Proposed Project activities have the potential to result in both temporary and permanent impacts to wetlands within the Project area. Wetland impacts will be avoided and minimized to the greatest extent practicable through Project design. Where wetland impacts are unavoidable, impacts will be mitigated, see the *Aquatic Resource Technical Memo* for details (Attachment C). The need for a Clean Water Act 404 permit will be determined as design progresses.

Wildlife Overpass (RP 41.36 – RP 41.57)

A total of 12 palustrine wetlands were delineated during field surveys within the Wildlife Overpass Project limits, amounting to approximately 7.67 acres. Wetland areas separated by non-wetland features (e.g., culvert) are labelled alpha-numerically (e.g., WL-14a, WL-14b), resulting in a total of 13 wetland areas associated with 12 discrete wetlands. Of these wetland areas, there were six (6) Palustrine Emergent (PEM), five (5) Open Water and PEM, and one (1) Open Water, Palustrine Aquatic Bed (PAB), and Palustrine Scrub-shrub (PSS), and one (1) Open Water, PEM, and PSS. See Table 3 for a summary of delineated wetlands within the Wildlife Overpass Project limits. Additional details can be found in the attached *Aquatic Resource Technical Memo* (Attachment C).

Proposed Project activities have the potential to result in both temporary and permanent impacts to wetlands within the Project area. Wetland impacts will be avoided and minimized to the greatest extent practicable through Project design. Where wetland impacts are unavoidable, impacts will be mitigated, see the *Aquatic Resource Technical Memo* for details (Attachment C). The need for a Clean Water Act 404 permit will be determined as design progresses.

**Table 2 Summary of Delineated Wetland Areas within SF 179 Eagle Pass Trail Safety Project Limits
(RP 40.76 – RP 41.36)**

Wetland ID #	Project Stationing	Latitude**	Longitude**	Delineated Acres	MWAM Category ^[a]	Cowardin Class/ Modifier ^[b]	HGM Class
WL-1a*	476+83 to 482+82 LT	47.438246	-114.097344	1.39	III	PEM	depressional
WL-1b1	483+36 to 495+29 LT	47.440171	-114.09732	0.38	IV	PEM	depressional
WL-1b2	485+49 to 488+70 LT	47.440264	-114.097332	0.59	III	Open Water and PEM	depressional
WL-1c	495+89 to 502+58 LT	47.443618	-114.097162	0.08	IV	PEM	depressional
WL-2a*	476+83 to 486+31 RT	47.438869	-114.096679	1.39	III	PEM	depressional
WL-2b	487+22 to 490+04 RT	47.44071	-114.096854	0.02	IV	PEM	depressional
WL-3	494+44 to 495+18 RT	47.442407	-114.096391	0.02	III	Open Water and PEM	depressional
WL-4a	495+33 to 495+40 RT	47.442562	-114.09621	0.02	IV	PEM	depressional
WL-4b	495+80 to 498+31 RT	47.442897	-114.096609	0.14	IV	PEM	depressional
WL-5	496+01 to 496+93 LT	47.442865	-114.097321	0.09	III	PEM	depressional
WL-6	501+46 to 503+69 RT	47.444533	-114.096561	0.42	III	Open Water and PEM	depressional
WL-7	504+46 to 505+30 RT	47.445204	-114.09677	0.02	IV	PEM	depressional
WL-8	505+70 to 505+81 RT	47.445405	-114.096781	<0.01	IV	PEM	depressional
WL-9	505+33 to 506+60 LT	47.445516	-114.097508	0.09	III	PEM	depressional
WL-10	506+86 to 507+66 RT	47.445808	-114.096578	0.08	III	PEM	depressional
WL-11**	507+35 to 512+79 LT	47.445976	-114.097345	0.92	II	Open Water, PAB, and PSS	depressional

*Potentially Federally Jurisdictional, see the Aquatic Resource Technical Memo for details (Attachment C)

**Coordinates represent wetland polygon centroid

***WL-11 spans portions of both the Eagle Pass Trail Safety Project and the Wildlife Overpass Project

^[a] Categories defined by the Montana Wetland Assessment Method (MWAM) (Berglund, J., and R. McEldowney 2008)

^[b] Class defined by Cowardin L.M., V.C. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of Wetlands and Deepwater Habitats of the United States. U.S. Fish and Wildlife Service. FWS/OBS 79/31. Washington, D.C.

Table 3 Summary of Delineated Wetland Areas within Wildlife Overpass Project Limits (RP 41.36 – RP 41.57)

Wetland ID #	Project Stationing	Latitude**	Longitude**	Delineated Acres****	MWAM Category ^[a]	Cowardin Class/ Modifier ^[b]	HGM Class
WL-11***	507+35 to 512+79 LT	47.445976	-114.097345	0.24	II	Open Water, PAB, and PSS	depressional
WL-12	511+64 to 511+92 RT	47.447058	-114.096765	0.01	IV	PEM	depressional
WL-13	511+98 to 513+94 RT	47.447389	-114.096572	0.36	III	Open Water, PEM, and PSS	depressional
WL-14a	518+57 to 518+70 RT	47.448938	-114.096776	< 0.01	IV	PEM	depressional
WL-14b	519+17 to 520+53 RT	47.449272	-114.09678	0.02	IV	PEM	depressional
WL-15	522+81 to 532+12 LT	47.451411	-114.097338	2.11	III	Open Water and PEM	depressional
WL-16	523+43 to 531+41 RT	47.451345	-114.096383	2.59	III	Open Water and PEM	depressional
WL-17	533+91 to 534+25 RT	47.453173	-114.096743	< 0.01	IV	PEM	depressional
WL-18	536+44 to 540+28 LT	47.454465	-114.097265	0.48	III	PEM	depressional
WL-19	536+71 to 543+15 RT	47.454746	-114.09653	1.12	III	Open Water and PEM	depressional
WL-20	541+11 to 542+85 LT	47.455311	-114.097401	0.17	III	Open Water and PEM	depressional
WL-21	543+96 to 545+99 RT	47.456154	-114.096574	0.18	III	Open Water and PEM	depressional
WL-22a	545+83 to 548+12 LT	47.456946	-114.09852	0.37	IV	PEM	depressional

*Potentially Federally Jurisdictional, see the Aquatic Resource Technical Memo for details (Attachment C)

**Coordinates represent wetland polygon centroid

***WL-11 spans portions of both the Eagle Pass Trail Safety Project and the Wildlife Overpass Project

****Values rounded to the 100th decimal place

^[a] Categories defined by the Montana Wetland Assessment Method (MWAM) (Berglund, J., and R. McEldowney 2008)

^[b] Class defined by Cowardin L.M., V.C. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of Wetlands and Deepwater Habitats of the United States. U.S. Fish and Wildlife Service. FWS/OBS 79/31. Washington, D.C.

Streams

Do streams exist adjacent to the project? **No**

Are stream impacts anticipated? **No**

Stream Discussion: **No natural streams occur within the Project limits.**

Avoidance and Minimization: **N/A**

Other Regulated Aquatic Resources

Do other regulated aquatic resources exist on or adjacent to the project? **Yes**

Are other aquatic resource impacts anticipated? **Yes**

Other Aquatic Resources Discussion: **See the attached *Aquatic Resource Technical Memo* for additional details regarding potential impacts to other aquatic resources (Attachment C). Standard Specification 208.03.3 Aquatic Resource Protection applies to this Project.**

Table 4 Summary of Watercourses within Project Limits for the Eagle Pass Trail Safety and Wildlife Overpass Projects

Project	Watercourse ID	Feature Name	Acreage (linear feet)
Eagle Pass Trail Safety Project	ID-1	Ninepipe Feeder Canal	0.51 (886)
Wildlife Overpass Project	ID-2a	Post A Canal	0.03 (121)
	ID-2b	Post A Canal	0.05 (176)
Total			0.59 (1,183)

Biological Resources

Candidate, Proposed, Threatened, and Endangered Species (Endangered Species Act)

Are there Federally listed species or designated critical habitat in the project vicinity? **Yes**

T&E Species or critical habitat determination of effect:

No Effect: ☒ Species: Canada lynx, North American wolverine, yellow-billed cuckoo

May Affect: ☒ Species: Grizzly bear

Note: Determinations are based upon the Project as described at this time. The determination(s) may change based upon additional Project details. A formal Biological Assessment is forthcoming, following the completion of 90% design for this Project in order to initiate formal consultation with the USFWS.

Proposed and Candidate Species determination of effect:

Not likely to Jeopardize the Continued Existence: ☒ Species: Monarch butterfly, Suckley's cuckoo bumble bee

Likely to Jeopardize the Continued Existence: ☐ Species: None

An official species list was obtained from the USFWS' Information for Planning and Consultation (IPaC) system website in December 2025, along with consultation of the National Marine Fisheries Service (NMFS) listed resources webpage (Attachment D). Table 5 provides a summary of species with the potential to be impacted by activities occurring within the Project area and their effect determinations. No designated critical habitat occurs within the action area.

Table 5 Summary of Effects Determinations for Federally Listed Species within the Action Area

Common Name (Scientific Name)	Listing Status	Official IPaC Species List	Potential Presence (Action Area)	Effect Determination
Grizzly bear (<i>Ursus arctos horribilis</i>)	Threatened	Yes	Yes	May affect
Monarch butterfly (<i>Danaus plexippus</i>)	Proposed Threatened	Yes	Yes	Not likely to jeopardize the continued existence of the species
Suckley's cuckoo bumble bee (<i>Bombus suckleyi</i>)	Proposed Endangered	Yes	No	Not likely to jeopardize the continued existence of the species
Canada lynx (<i>Lynx canadensis</i>)	Threatened	Yes	No	No effect
North American wolverine (<i>Gulo gulo luscus</i>)	Threatened	Yes	No	No effect
Yellow-billed cuckoo (<i>Coccyzus americanus</i>)	Threatened	Yes	No	No effect

Action Area

The action area for the proposed Project is defined as “all areas to be affected directly or indirectly by the proposed action and not merely the immediate area directly adjacent to the action” (50 CFR §402.02). No aquatic federally listed species nor designated critical habitat occur within the Project area vicinity, precluding the need for an aquatic zone of impact. For terrestrial federally listed species, the action area consists of a 1-mile buffer based on the Project area as defined in Project Location in this BRR/PBA. This 1-mile buffer is consistent with the action area defined in the 2017 *Revised Biological Assessment for Montana Department of Transportation and Federal Highway Administration*, NH 5-2(159)37; UPN: 8008000 US 93 Evaro to Polson (RP 6.8 to 59.0) (2017 BA) (RESPEC 2017).

Avoidance and Minimization Measures

In addition to Section 208 of MDT's *Standard and Supplemental Specifications for Road and Bridge Construction*, the following avoidance and minimization measures are recommended to avoid and reduce potential impacts to federally listed species. Species-specific measures are outlined in the following sections.

General Construction

- Follow all sub-sections under MDT Standard Specification 208.03 Construction
- To the greatest extent possible, US 93 will remain on its current alignment to minimize impacts to wetlands, riparian areas, and other important wildlife habitat.
- All contractor and subcontractor employees are required to attend an environmental orientation session before commencing work. Orientation sessions will include information about the Mission Valley, regulations, and appropriate housekeeping.
- The contractor will follow all standard specifications as applicable stated in Section 208 – Environmental Protection within the Standard Specifications for Road and Bridge Construction, January 2025 edition.
- Equipment will be refueled and serviced at least 150 feet from waterbodies or wetlands.
- Conduct project-related activities outside of construction limits in accordance with the requirements above and Subsection 208.03.4(E).

Grizzly bear

Status: Threatened

Grizzly bears were listed as a threatened species under the ESA on July 28, 1975. Grizzly bears are wide-ranging, generalist mammals requiring large tracts of undisturbed habitat to fulfill life cycle requirements such as food, water, mates, cover, security, and den sites (USFWS 2024). Home range size varies widely according to habitat productivity (USFWS 2024; Reel 1989). Individual grizzly bears exhibit a high degree of variation in habitat selection (Sells et al. 2022). In the Mission Mountains, during the summer, early fall, and winter, grizzlies often occur in higher-elevation habitats such as subalpine forests and alpine slabrock (Servheen 1983; White, Kendall, and Picton 1998). Denning occurs from early fall until spring, when grizzlies emerge from their dens and move to lower elevations to capitalize on early-emergent food sources such as winter-killed carrion and succulent forbs (Leach, Contreras, and Evans 1986; Mattson 1997). The breeding season occurs from spring to mid-summer, with cubs typically born in the den during late winter. Cubs remain with their mothers for up to two years before dispersing (RESPEC 2017). Grizzly sows with cubs tend to avoid solitary boars, which pose a threat to the young (Sells et al. 2022). As a result, sows tend to have a negative response to riparian habitats, which boars prefer due to high productivity and availability of food resources, water, and cover (Adams, Huijser, and Getty 2023; Sells et al. 2022).

Potential Impact Analysis:

Grizzlies occur throughout the Project area and the surrounding Mission Valley, occupying both sides of US 93. The Project area overlaps permanently occupied grizzly bear range (USFWS 2024). Grizzlies present within the area are active throughout the Mission Valley and undertake frequent crossings to access the high-quality habitats on either side and fulfill life cycle requirements.

Primary threats to grizzly bears consist of habitat loss and fragmentation and human encroachment, with the top three sources of mortality attributed to WVCs, lethal removal, and defense of life. Currently, US 93 represents a significant barrier to grizzly movements, particularly during the day

when traffic volume is high enough to constitute a near-complete barrier (approx. 100 vehicles per hour) (Adams, Huijser, and Getty 2023). A study conducted by CSKT reported that six grizzly bear mortalities occurred within the Project area from 1998–2022, consisting of 2 adult males, 1 adult female, 2 subadult females, and 1 cub of the year (unknown sex) (Adams, Huijser, and Getty 2023). The same study identified the Ninepipes area as a priority location for implementation of wildlife crossing infrastructure to facilitate safe passage for grizzly bears. Additional analysis conducted by FWP and CSKT also found that grizzly bear mortalities along US 93 between St. Ignatius and Ronan represented a significant proportion of all highway mortalities within the entire Northern Continental Divide Demographic Monitoring Area (Costello, Roberts, and Courville 2020), though WVCs comprise a small portion of total mortalities within the NCDE (USFWS 2024).

It is anticipated that Project activities will result in both direct and indirect impacts to grizzlies. Direct impacts would consist of short-term disturbance and displacement associated with construction, which is likely to deter grizzlies from using habitat adjacent to construction activities. Human activity associated with the shared-use path may also deter some bears from using the area or result in human-grizzly conflicts. Implementation of conservation measures will manage attractants and locate high-activity sites away from high-use grizzly bear areas. Direct modification of habitat will be limited to short-term, temporary impacts of areas not converted to roadway or shared-use path and negligible habitat loss and fragmentation associated with previously undeveloped areas converted to roadway or shared-use path. Habitat loss and fragmentation associated with roadway improvements will be ameliorated by the construction of the wildlife overpass and enhanced habitat connectivity. Long-term benefits associated with the proposed Project include enhanced habitat connectivity and reduced risk of WVCs, which has the potential to facilitate increased grizzly movement and dispersal throughout suitable habitat and enhance genetic diversity.

Avoidance and Minimization Measures:

- Promptly clean up any Project-related spills, litter, garbage, and debris.
- Store all food, food-related items, petroleum products, antifreeze, garbage, and personal hygiene items inside a closed, hard-sided vehicle or commercially manufactured bear-resistant containers.
- Remove garbage from the Project site daily and dispose of it in accordance with all applicable regulations.
- Notify the project manager of any animal carcasses found in the area. The project manager will contact MDT maintenance to promptly remove and dispose of carcasses.
- Notify the project manager of any bears observed in the vicinity of the Project. The project manager will promptly inform the MDT district biologist of bear observations.
- Personnel are encouraged to have pepper spray available in case bears are encountered during Project construction. Personnel are encouraged to receive training in the proper use of pepper spray for bear encounters.
- Conduct Project-related activities outside of construction limits in accordance with the requirements above, including but not limited to staging areas and borrow sites.

Determination of Effect:

Due to anticipated habitat loss and short-term disturbance and displacement from the action area, it is anticipated that the proposed Project **May Affect** grizzly bear.

Monarch butterfly

Status: Proposed Threatened

The USFWS IPaC official species list shows potential presence of monarch butterfly in all areas on Montana. This species is a migratory species that depends on milkweed for larval development and a variety of nectar producing plants for adult foraging. Monarchs are typically found in riparian corridors, wet meadows, and disturbed areas where milkweed and nectar plants are present. The Project does not involve large-scale vegetation removal, pesticide application, or permanent conversion of habitat. No designated critical habitat is proposed for this species in Montana; therefore, none could be impacted.

Due to limited suitable habitat in the action area, minimal documented monarch occurrences across Montana (Montana Field Guide 2026), and the limited scale of the Project; this Project is **not likely to jeopardize the continued existence** of the monarch butterfly.

If a final rule listing the species is published before construction is completed, and if there are no scope changes or new information that could change these findings, then a no effect determination would be justified.

Suckley's cuckoo bumble bee

Status: Proposed Endangered

The USFWS IPaC official species list shows potential presence of Suckley's cuckoo bumble bee in all areas on Montana. This species is an obligate social parasite of other bumble bees, especially Western bumble bee (*Bombus occidentalis*). Females invade host nests, kill the queen, and rely on host workers to rear their offspring. Queens are active April–August; males June–October. Habitat includes montane and subalpine meadows, grasslands, and forest edges with abundant native flowering plants and host species. This species was once found across much of Montana. Despite recent bumble bee surveys conducted across Montana (Bumble Bee Atlas and Conservation 2024; Gustilo et al. 2023) the species has not been observed in Montana since 2015 and may be extirpated in the state (Montana Field Guide 2025a). No designated critical habitat is proposed for this species; therefore, none could be impacted.

Because the species is either extremely rare or no longer present in Montana and the amount of ground disturbance associated with the Project will be limited, this Project is **not likely to jeopardize the continued existence** of the Suckley's cuckoo bumble bee.

If a final rule listing the species is published before construction is completed, and if there are no scope changes or new information that could change these findings, then a no effect determination would be justified.

Canada lynx

Status: Threatened

The USFWS listed Canada lynx as a threatened species in March 2000. Lynx are boreal forest carnivores preying primarily upon snowshoe hare (*Lepus americanus*). Both species occur across boreal spruce-fir forests from Canada to Alaska and into the northern United States. Lynx life history characteristics are strongly influenced by snowshoe hares, with lynx populations displaying fluctuations concurrent with the decadal cycling of hare populations. General habitat includes mid- and late-successional subalpine forests (Ulev 2007; USDA 2007; Squires et al. 2008) that support high snowshoe hare abundance. These areas typically receive relatively uniform and deep snowfall (Ruediger et al. 2000). Lynx often hunt along habitat edges with dense cover providing concealment for snowshoe hares such as old growth stands and early successional habitat. Denning females select for old-growth stands with a high degree of horizontal structure and coarse woody debris in close proximity to foraging habitat (Squires et al. 2008). Lynx tend to avoid open areas when traveling (Ulev 2007), but are highly mobile and occupy large home ranges in a variety of habitats.

Potential Impact Analysis:

The action area does not contain any mapped habitat for Canada lynx, with the closest suitable habitat occurring in the Mission Mountains to the east. There are no recorded occurrences of lynx within the action area. Suitable lynx habitat is divided into Lynx Analysis Units (LAUs) that represent the approximate home range of a female lynx across the Northern Region. The action area is not located within a LAU or designated lynx critical habitat and does not include suitable denning, foraging, or travel habitat as described in Ulev (Ulev 2007), Squires et al. (Squires et al. 2008), or USFS (USFS 2007).

Though the likelihood of a lynx occurring within the action area is exceedingly low, transient lynx can be highly mobile and occupy large home ranges encompassing a variety of habitats. If a lynx were to occur within the action area in the course of transitory movements, it is not anticipated that Project activities would create greater disturbance than ongoing baseline levels associated with high traffic volume of US 93 and recreational activity. Over the long-term, the successful implementation of the Project will facilitate safer passage for dispersing transient lynx across US 93 via the wildlife overcrossing or culverts and bridges.

Avoidance and Minimization Measures:

No measurable adverse impacts to Canada lynx are anticipated to occur as a result of Project activities, precluding the need for Project-specific Avoidance and Minimization Measures.

Determination of Effect:

Due to the occurrence of this species in the action area being highly unlikely and anticipated lack of potential effects, it is anticipated that the proposed Project will have **No Effect** on Canada lynx nor designated Canada Lynx Critical Habitat.

North American wolverine

Status: Threatened

The North American wolverine was listed as threatened under the ESA in November 2023. This solitary and wide-ranging species' habitat requirements consist of large tracts of undeveloped lands with cold, snowy conditions and deep, persistent, and reliable spring snow cover (April 15 through May 14) greater than 5 feet deep (Copeland et al. 2010; Magoun and Copeland 1998; Aubry, McKelvey, and Copeland 2007; Banci 1994; NatureServe 2025; Inman et al. 2007). Food availability and distribution is a key factor in determining wolverine distribution, movements, and home range size and configuration. Wolverines are known to make long-distance transitory movements across a variety of atypical habitat types to meet life history requirements (Inman et al. 2007). As opportunistic feeders, wolverines feed upon a variety of roots, berries, birds, eggs, fish, small animals, and carrion. Larger prey such as ungulates may be taken when mired by deep snow (NatureServe 2025). Breeding occurs from April through October, with young born in natal dens excavated in snow from January through April and dispersing from the mother in the following fall (NatureServe 2025).

The primary threat to wolverines is habitat loss due to climate warming (USFWS 2025). In the contiguous United States, wolverines persist as small and isolated populations which are vulnerable to demographic stochasticity and loss of genetic diversity. Secondary threats to this species include habitat loss, fragmentation, and degradation due to timber harvest, ski area and recreational development, road construction, climate change, overharvest via trapping, and general human disturbance associated with backcountry recreation and commercial activities (NatureServe 2025). Activities which affect key food resources such as ungulates may also adversely impact wolverines. These secondary threats have the potential exacerbate ongoing stress due to climate warming (USFWS 2025).

Potential Impact Analysis:

Wolverines are known to occur in the Mission Mountains to the east of the action area, but the potential for an individual to occur within the action area is extremely low. The entirety of the action area is not considered suitable habitat for wolverines due to a lack life cycle requirements and proximity to high levels of baseline human disturbance. However, due to the wide-ranging nature of wolverine movements, it is possible that a dispersing individual could pass through the action area en route to suitable habitat. There have been no documented occurrences of wolverines within the action area and the area is not mapped as habitat by MTNHP.

Given consistently high traffic volume along US 93, short-term impacts associated with construction and work crews within the Project limits are not anticipated to result in an appreciable nor meaningful increase in human disturbance. Baseline levels of traffic volume and human presence associated with residences, recreational areas, and commercial structures are expected to displace and deter wolverines from the area until nocturnal hours, when human activity is minimal (Balkenhol et al. 2020; Heinemeyer et al. 2019; Barrueto et al. 2022; Scrafford et al. 2025; Sawaya, Clevenger, and

Schwartz 2019). Long-term, it is anticipated that enhanced habitat connectivity may have minimal beneficial impacts to wolverines travelling between disjunct suitable habitats.

Avoidance and Minimization Measures:

No measurable adverse impacts to North American wolverines are anticipated to occur as a result of Project activities, precluding the need for Project-specific Avoidance and Minimization Measures.

Determination of Effect:

Due to the occurrence of this species in the action area being highly unlikely and minimal potential for any measurable impacts through the course of Project activities (i.e., construction, work crews) and the absence of denning or maternal habitat within the action area, it is anticipated that the proposed Project will have **No Effect** on North American wolverine.

Yellow-billed cuckoo

Status: Threatened

Yellow-billed cuckoo was listed as federally threatened in October 2014. Throughout their range, preferred breeding habitat includes open woodland with thick undergrowth, parks, and deciduous riparian woodland (Halterman et al. 2015). In the west, they nest in tall cottonwood riparian stands with willow understory, typically requiring patches of at least 25 acres of dense, riparian forest with a canopy cover of at least 50% in both the understory and overstory (Biosystems Analysis 1989; Montana Field Guide 2025b). Migration and wintering habitat needs are not well known, although they appear to include a relatively wide variety of conditions. Migrating yellow-billed cuckoos have been found in coastal scrub, second-growth forests and woodlands, hedgerows, forest edges, and in smaller riparian patches than those used for breeding.

Potential Impact Analysis:

No records exist indicating direct evidence of breeding yellow-billed cuckoo in Montana and there are no recorded occurrences of yellow-billed cuckoo in the action area (Montana Field Guide 2025b). This species is considered an eruptive migrant in western Montana, and potential occurrences would be considered extremely rare.

The negligible vegetation disturbance associated with the Project would not result in a change to yellow-billed cuckoo travel patterns. Additionally, Project activities would not cause a greater disturbance to potential transient individuals than baseline levels of disturbance associated with US 93 and recreational activity within the action area.

Avoidance and Minimization Measures:

No measurable adverse impacts to yellow-billed cuckoo are anticipated to occur as a result of Project activities, precluding the need for Project-specific Avoidance and Minimization Measures.

Determination of Effect:

Due to the occurrence of this species in the action area being highly unlikely and minimal scope of potential impacts, it is anticipated that the proposed Project will have **No Effect** on yellow-billed cuckoo.

Montana Species of Concern (SOC)

Are there recorded occurrences within a maximum of 2.0-miles of the project's limits? **Yes**

If Yes, identify which SOC species elemental occurrences occur within a maximum of 2.0-miles of the project limits? **S1 and S2 SOC species in the Project area are listed in Table 6.**

SOC Discussion:

For all Montana S1 and S2 SOC discussed below, the Project area or Project is defined as the disturbance limits described in Project Location.

DJ&A requested species occurrence data (previously called elemental occurrence) from MTNHP for an analysis area consisting of the anticipated disturbance limits associated with proposed Project activities with a 150-foot buffer from the US 93 centerline and a 30-foot buffer from the centerline of smaller arterial roads. A 350-foot buffer off centerline to the east was included at Kettle Pond 1 to accommodate potential detours. The resulting Environmental Summary Report (ESR) provided by MTNHP includes data for the submitted analysis area as well as an additional one-mile buffer, including data from summarizing hexagons (1 square mile) that intersect any part of the buffered analysis area (i.e., the custom AOI) (MTNHP 2025). Species occurrence data consists of direct observations with a defined level of spatial precision, resulting in data points with varying buffers. Due to the varied degrees of spatial precision associated with species occurrences as well as species mobility, these data are interpreted as general locations that do not confirm species occurrences or potential impacts within the Project limits.

Table 6 Montana S1 and S2 SOC within the custom AOI

Common Name	Scientific Name	Habitat	Distribution	MT State Rank ¹
Birds				
Caspian Tern	<i>Hydroprogne caspia</i>	Large rivers, lakes	Migratory Summer Breeder	S2B
Gray-crowned Rosy-Finch	<i>Leucosticte tephrocotis</i>	Alpine	Resident Year Round	S2
Solitary Sandpiper	<i>Tringa solitaria</i>	Wetlands	Migratory Rare Summer Breeder	S2B
Plants				
Chaffweed	<i>Centunculus minimus</i>	Wetland/ Riparian	Present	S2
Columbia Water-meal	<i>Wolffia columbiana</i>	Aquatic	Present	S2S3
Delicate Spikerush	<i>Eleocharis bella</i>	Vernally wet soils along ponds and streams from valleys to montane	Present	S1
Flowering Quillwort	<i>Lilaea scilloides</i>	Wetland/ Riparian	Present	S1S2
Guadalupe Water-nymph	<i>Najas guadalupensis</i>	Aquatic	Present	S2S3
Oregon Checker-mallow	<i>Sidalcea oregana</i>	Grasslands (low-elevation)	Present	S2S3
Pepperwort	<i>Marsilea oligospora</i>	Wetlands with wet shallow water and dry seasonal periods	Present	S2
Slender Bulrush	<i>Schoenoplectus heterochaetus</i>	Wetland/ Riparian	Present	S1S2
Toothcup	<i>Rotala ramosior</i>	Wetland/ Riparian	Present	S1S2
¹ State Conservation Status: S1= Critically Imperiled — At very high risk of collapse or global extinction or state extirpation due to a very restricted range, very few populations or occurrences, very steep declines, severe threats, or other factors; S2 = Imperiled — At high risk of collapse or global extinction or state extirpation due to a restricted range, few populations or occurrences, steep declines, severe threats, or other factors Source: (MTNHP 2025)				

General Aquatic Species

Suitable habitat for aquatic species within the Project area is constrained to isolated depressional features (Kettle Pond 1). Kettle Pond 1 has reliable water availability which provides higher quality habitat for species such as painted turtle (*Chrysemys picta*), Northern leopard frog (*Lithobates pipiens*), and aquatic invertebrates. Aquatic habitat within the Project vicinity has been degraded by stormwater runoff, irrigation water use and withdrawals, drought, and hydrologic regime alterations as a result of undersized crossing structures and development. Fish species are known to occur in nearby Ninepipes Reservoir, including largemouth bass (*Micropterus salmoides*), yellow and black bullhead (*Ameiurus natalis*, *Ameiurus melas*), pumpkinseed sunfish (*Lepomis gibbosus*), yellow perch (*Perca flavescens*), and rainbow trout (*Oncorhynchus mykiss*). Ninepipes Reservoir will not be impacted by this Project.

General Terrestrial Species

A variety of wildlife species occur throughout the Project vicinity and larger Mission Valley due to the mosaic of diverse habitat types and large tracts of undeveloped, protected lands characteristic of the area.

Ungulate species are prevalent throughout the Project vicinity, including white-tailed deer (*Odocoileus virginianus*) and elk (*Cervus canadensis*) primarily. White-tailed deer are common throughout riparian areas and upland grasslands and agricultural fields whereas elk typically occur to the east in the timbered foothills of the Mission Mountains. Other species such as pronghorn (*Antilocapra americana*) and mule deer (*Odocoileus hemionus*) may occur infrequently amidst transitory movements between suitable habitat.

Other species known to occur within the Project vicinity include coyote (*Canis latrans*), black bear (*Ursus americanus*), muskrat (*Ondatra zibethicus*), badger (*Taxidea taxus*), beaver (*Castor canadensis*), striped skunk (*Mephitis mephitis*), raccoon (*Procyon lotor*), mink (*Neogale vison*), Northern river otter (*Lontra canadensis*), red fox (*Vulpes vulpes*), bobcat (*Lynx rufus*), weasels, mice, shrews, voles, and bats.

Potential Impacts

Project activities are likely to result in minimal short-term disturbance associated with construction. Over the long-term, the proposed Project will improve wildlife crossing opportunities via wildlife exclusion fencing and associated infrastructure as well as the wildlife overcrossing. This infrastructure will reduce the occurrence of WVCs, resulting in beneficial effects to a number of species vulnerable to vehicle collisions. Enhanced habitat connectivity is similarly expected to result in beneficial impacts for species which were previously deterred or prevented from crossing US 93 freely to access suitable habitat and fulfill life cycle requirements such as foraging, cover, and breeding.

Avoidance and Minimization Recommendations

No additional minimization or avoidance measures are recommended that are not already outlined in Section 208 of MDT's *Standard and Supplemental Specifications for Road and Bridge Construction*.

Wildlife Accommodation (WA) Needs and Opportunities

The Project area is situated within the larger “Ninepipe corridor” (i.e., Gunlock Road (RP 40.0) to Brooke Lane (RP 44.5), which is known for a high rate of WVCs caused by the presence of high-quality wildlife habitat for a variety of species and high traffic volumes. The supporting feasibility study developed for the Ninepipe corridor highlights WVCs as a focal issue regarding both public safety and habitat connectivity from RP 39.4 to RP 44.1, which contains the Project area (MDT and Robert Peccia and Associates 2023). Completed segments of the Ninepipe corridor have constructed numerous wildlife underpasses and sections of wildlife exclusion fencing to significantly reduce the rate of WVCs and facilitate wildlife movements and habitat connectivity (Huijser et al. 2016).

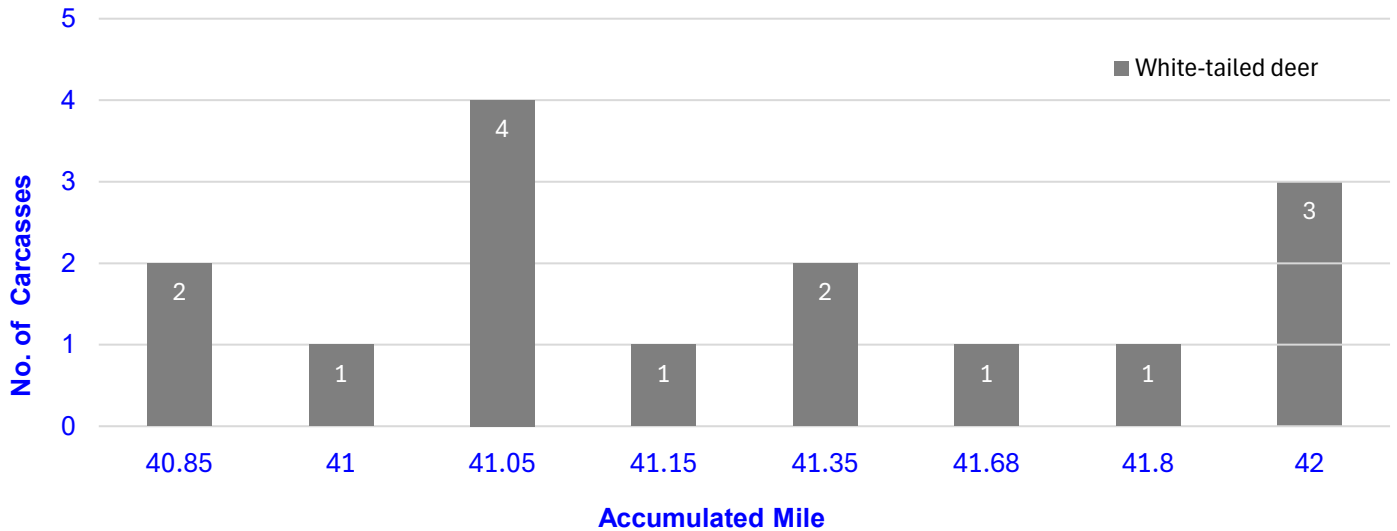
Within the Project area, carcass data provided by MDT from 2019 through June 2025 illustrates white-tailed deer accounting for all 15 documented carcasses collected along the roadway (Figure 1). Federally threatened grizzly bears have also been struck at high rates within the Project area, which is described in detail in the Candidate, Proposed, Threatened, and Endangered Species section of this report as well as in the supporting Biological Assessment. Anecdotal observations of road-killed carcasses within the MDT ROW were documented throughout the course of surveys conducted in May 2025, accounting for eight (8) painted turtles, one (1) coyote, one (1) Northern river otter, one (1) ring-necked pheasant (*Phasianus colchicus*), and seven (7) deer (*Odocoileus* spp.). Of these 18 carcasses, nine (9) were clustered within the Wildlife Overpass Project area between Eagle Pass Trail and Kettle Pond 1, indicating an area of relatively high wildlife use.

These data also highlight the numerous other wildlife species that are frequently struck and killed along US 93, including reptiles, amphibians, small mammals, and birds. Painted turtles are often struck by vehicles, which has been the subject of studies conducted in 1996 (Fowle 1996) and 2006 (Griffin and Pletscher 2006) within the Project area. These studies documented a total of 337 – 368 road-killed painted turtles between RP 40.8 and RP 42.0. Frequent crossings by painted turtles can also present a safety concern due to concerned motorists stopping in the roadway to assist the turtles in crossing (MDT and Robert Peccia and Associates 2023).

Collected Wildlife Carcasses along US 93

MDT Corridor: C000005, RP 40.76 – 42.05

January 2019 – June 2025*



MDT Data Use Disclaimer: The Montana Department of Transportation (MDT) has access to two databases containing information on wild animal vehicle collisions. The MDT Carcass Database contains information on carcasses collected by MDT and County maintenance personnel; however, not all carcass collection is reported consistently or on a regular schedule. This makes the information provided by the Carcass Database useful for pattern identification over space and time, but not statistically valid. It also is difficult to match a carcass report to a crash report to ensure the carcass is not counted twice in a detailed study.

*Unpublished data provided by MDT for 2024 through June 2025

Note: Grizzly bear carcass data were not available in this dataset and are not reflected in this figure.

Source: MDT Carcass Database (Montana Department of Transportation 2025)

Figure 1 Collected Wildlife Carcasses within the Project Area

As described above, wildlife accommodations are intrinsic to the proposed Project and will be addressed through the implementation of proposed Project activities including the construction of the wildlife overpass and associated wildlife exclusion fencing, turtle exclusion fencing, jumpouts, and approach treatments. As a result, a Wildlife Accommodations Recommendations Memo (WARM) is not required for this Project. A summary of wildlife accommodations will be provided in the Scope of Work for this Project.

Eagles (Bald and Golden Eagle Protection Act)

Are eagle nests documented within ½ mile of the project? Yes

Eagle Discussion:

Active bald eagle nests have been documented within 0.5 mile of the Project area and have a likelihood of occurring during Project implementation, according to data provided by MDT and coordination with FWP, USFWS, and CSKT biologists familiar with the Project area. There are no known occurrences of golden eagle nesting within the BRR analysis area and suitable nesting habitat does not occur.

MDT staff conducted an eagle nest survey on March 19, 2026 to document any active eagle nests within ½ mile of the Project limits. One active bald eagle nest was documented within ½ mile of the southern portion of the Project (southwest of Ninepipes Lodge) and no other non-active eagle nests. The nest is not within ¼ mile of the Project limits and the proposed work within the area of the ½ mile buffer is primarily fencing, a portion of the shared-use path and potentially a small segment of road construction. The nesting pair is likely to have a high tolerance for auditory and visual disturbance associated with roadway traffic and the presence of humans and domestic animals associated with US 93 as well as recreational use of surrounding public lands and commercial facilities.

- No extreme loud noise producing activities (blasting, pile driving, etc.) are anticipated that would disturb nesting eagles within the ½ mile buffer from the nest and eagles nesting in this area are likely to be habituated to the existing heavy traffic volume and other human activities in this area – no timing restrictions are recommended.

Migratory Birds (Migratory Bird Treaty Act)

Are migratory birds/nests anticipated to be impacted by this project? Yes

Migratory Bird Discussion:

The BRR action area was surveyed by DJ&A wildlife biologist Allison Hendryx and Jacobs wildlife biologist John Mulligan in May 2025. Waterfowl are particularly prolific throughout the area due to the extensive availability of isolated kettle ponds as well as the larger reservoirs (i.e., Ninepipe Reservoir, Kicking Horse Reservoir), irrigation features, and perennial streams. Migrating bird species capitalize on these abundant resources during the spring and fall, and the area provides suitable breeding habitat for many species. Surrounding grasslands and open range provides foraging and nesting opportunities for additional avian species such as raptors, upland birds, and passerines.

Observed nests were documented, along with type, species, and activity status. These surveys resulted in twelve nest structures observed within the BRR analysis area, including ground, cup, and platform nests occupied by a variety of waterfowl, passerines, corvids, and shorebirds. Confirmed nesting species include: Canada goose (*Branta canadensis*), mallard (*Anas platyrhynchos*), red-winged blackbird (*Agelaius phoeniceus*), black-billed magpie (*Pica hudsonia*), American robin (*Turdus migratorius*), and killdeer (*Charadrius vociferus*). Nests were observed in both active and inactive states in close proximity to the ROW throughout the analysis area as well as concentrated along the

elevated kettle pond embankments and kettle pond shorelines. The analysis area contains suitable nesting and foraging habitat for a wide variety of waterfowl, raptors, and passerines, and there is a high likelihood of active nests occurring within the analysis area during Project implementation.

Short-term impacts associated with auditory and visual disturbance during construction have the potential to disturb nesting birds, which can result in nest abandonment or fatality of chicks and eggs (i.e., 'take' as defined by the Migratory Bird Treaty Act [MBTA]). Project activities will include tree and shrub removal.

Avoidance and Minimization Recommendations:

Any tree or shrub removal necessary for completing Project activities within the construction limits must be conducted in compliance with the MBTA and removed outside the typical nesting season (April 15 – August 15) or when no active nests are present. In the event that construction must occur within the active nesting season for migratory birds, proactive measures such as pre-construction clearance surveys and installing nesting deterrents outside the nesting season will be taken to prevent migratory birds from establishing active nests within the Project disturbance limits. With proper implementation of minimization or avoidance measures as recommended in Section 208.03.04 of MDT's *Standard and Supplemental Specifications for Road and Bridge Construction*, any impacts to migratory birds are anticipated to be minor and short-term and will not result in take.

Greater Sage-Grouse (MT Executive Order 12-2015)

Does the project occur in designated Sage-Grouse habitat? **No**

If Yes, identify designated habitat type: **Choose an item.**

Sage-Grouse discussion:

Based on review of USGS and Bureau of Land Management greater sage-grouse (*Centrocercus urophasianus*) distribution and habitat management areas, the Project area is not within designated sage-grouse habitat (Montana Sage Grouse Habitat Conservation Program 2025). There would be no impacts to greater sage-grouse. Coordination with the Montana Sage Grouse Program is not required.

Vegetation and Noxious Weeds

Any disturbed areas shall be seeded with desirable plant species as soon as practicable after construction to reduce the spread and establishment of noxious weeds and to re-establish permanent vegetation. Table 7 provides a summary of aquatic invasive species and noxious weeds observed within the analysis area.

Table 7 Aquatic Invasive Species and Noxious Weeds Observed within the Analysis Area

Invasive Group	Species Group	Common Name	Scientific Name	MT Status
Aquatic Invasive Species	Vascular Plants	Curly-leaf Pondweed	<i>Potamogeton crispus</i>	N2B/AIS
Aquatic Invasive Species	Invertebrates	Virile Crayfish	<i>Faxonius virilis</i>	AIS
Aquatic Invasive Species	Vascular Plants	Yellowflag Iris	<i>Iris pseudacorus</i>	N2A/AIS
Noxious Weeds: Priority 1A	Vascular Plants	Yellow Starthistle	<i>Centaurea solstitialis</i>	N1A
Noxious Weeds: Priority 1B	Vascular Plants	Purple Loosestrife	<i>Lythrum salicaria</i>	N1B
Noxious Weeds: Priority 2A	Vascular Plants	Meadow Hawkweed	<i>Hieracium caespitosum</i>	N2A
Noxious Weeds: Priority 2A	Vascular Plants	Ventenata	<i>Ventenata dubia</i>	N2A
Noxious Weeds: Priority 2A	Vascular Plants	Yellowflag Iris	<i>Iris pseudacorus</i>	N2A/AIS
Noxious Weeds: Priority 2B	Vascular Plants	Canada Thistle	<i>Cirsium arvense</i>	N2B
Noxious Weeds: Priority 2B	Vascular Plants	Common Hound's-tongue	<i>Cynoglossum officinale</i>	N2B
Noxious Weeds: Priority 2B	Vascular Plants	Common St. John's-wort	<i>Hypericum perforatum</i>	N2B
Noxious Weeds: Priority 2B	Vascular Plants	Curly-leaf Pondweed	<i>Potamogeton crispus</i>	N2B/AIS
Noxious Weeds: Priority 2B	Vascular Plants	Dalmatian Toadflax	<i>Linaria dalmatica</i>	N2B
Noxious Weeds: Priority 2B	Vascular Plants	Field Bindweed	<i>Convolvulus arvensis</i>	N2B
Noxious Weeds: Priority 2B	Vascular Plants	Leafy Spurge	<i>Euphorbia virgata</i>	N2B
Noxious Weeds: Priority 2B	Vascular Plants	Oxeye Daisy	<i>Leucanthemum vulgare</i>	N2B
Noxious Weeds: Priority 2B	Vascular Plants	Spotted Knapweed	<i>Centaurea stoebe</i>	N2B
Noxious Weeds: Priority 2B	Vascular Plants	Sulphur Cinquefoil	<i>Potentilla recta</i>	N2B
Noxious Weeds: Priority 2B	Vascular Plants	Whitetop	<i>Lepidium draba</i>	N2B
Noxious Weeds: Priority 2B	Vascular Plants	Yellow Toadflax	<i>Linaria vulgaris</i>	N2B

Source: (MTNHP 2025)

Other Resource Considerations

No additional minimization or avoidance measures are recommended that are not already outlined in Section 208 of MDT's *Standard and Supplemental Specifications for Road and Bridge Construction*.

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Attachments

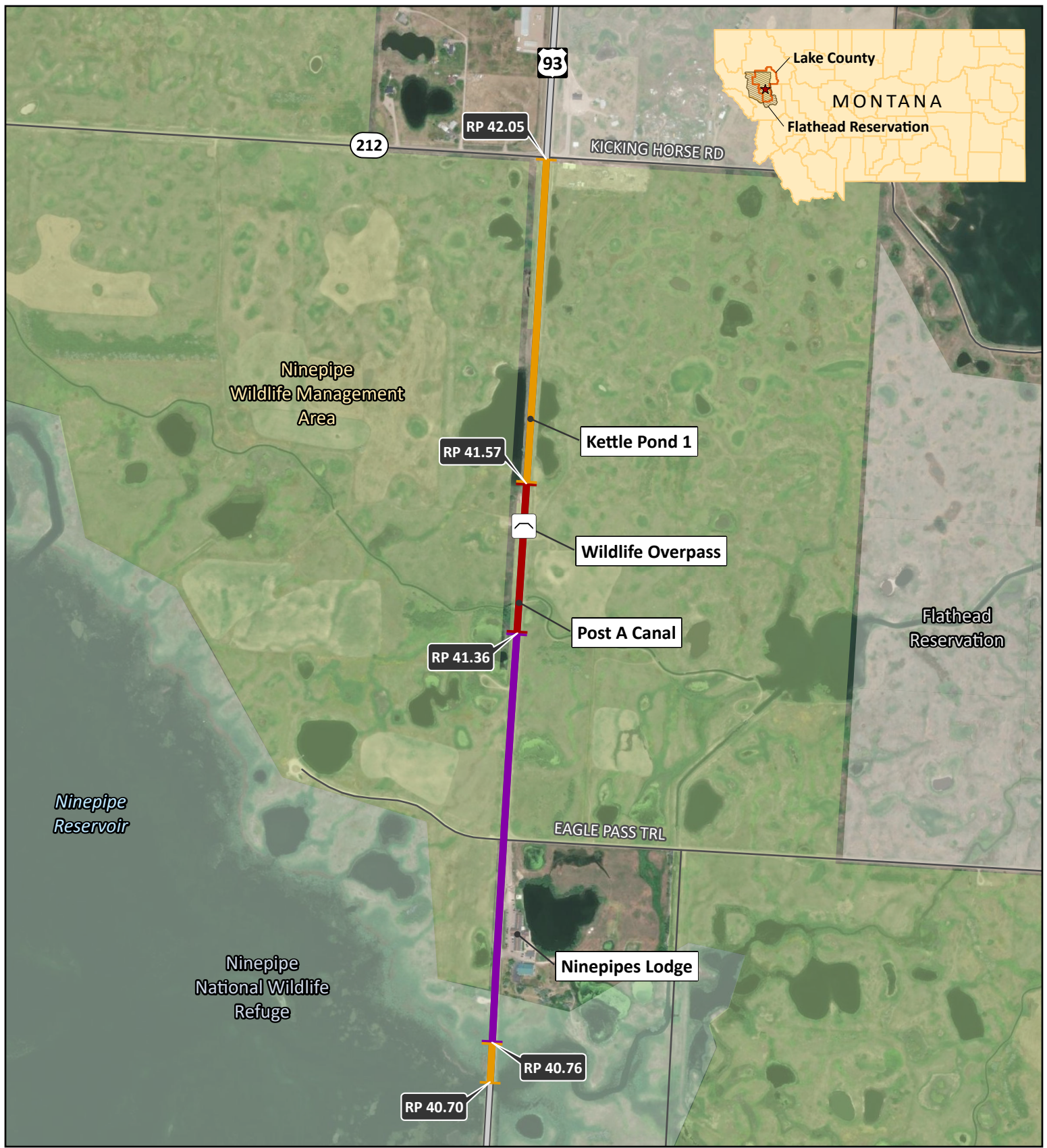
Attachment A: Project Location Map

Attachment B: MTNHP Report – SOC Occurrences Map (MapViewr)

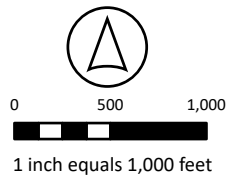
~~Attachment C: Aquatic Resource Technical Memo~~

Attachment D: IPaC Official Species List

Attachment A: Project Location Map



- Legend**
- Wildlife Overpass
 - SF179 Eagle Pass Trail Safety (RP 40.76 - RP 41.36)
 - Wildlife Overpass (RP 41.36 - RP 41.57)
 - Fencing Connections (RP 41.57 - RP 42.05, RP 40.70 - RP 40.76)
 - US 93 North
 - Ninepipe National Wildlife Refuge
 - Ninepipe Wildlife Management Area
 - Flathead Reservation Land



Project Vicinity
9614-10567
US 93 North Ninepipe Area
Lake County, MT

Basemap Source: Maxar
Imagery Date: 7/12/2025
Map Created: 3/6/2026

Attachment B: MTNHP Report – SOC Occurrences Map

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



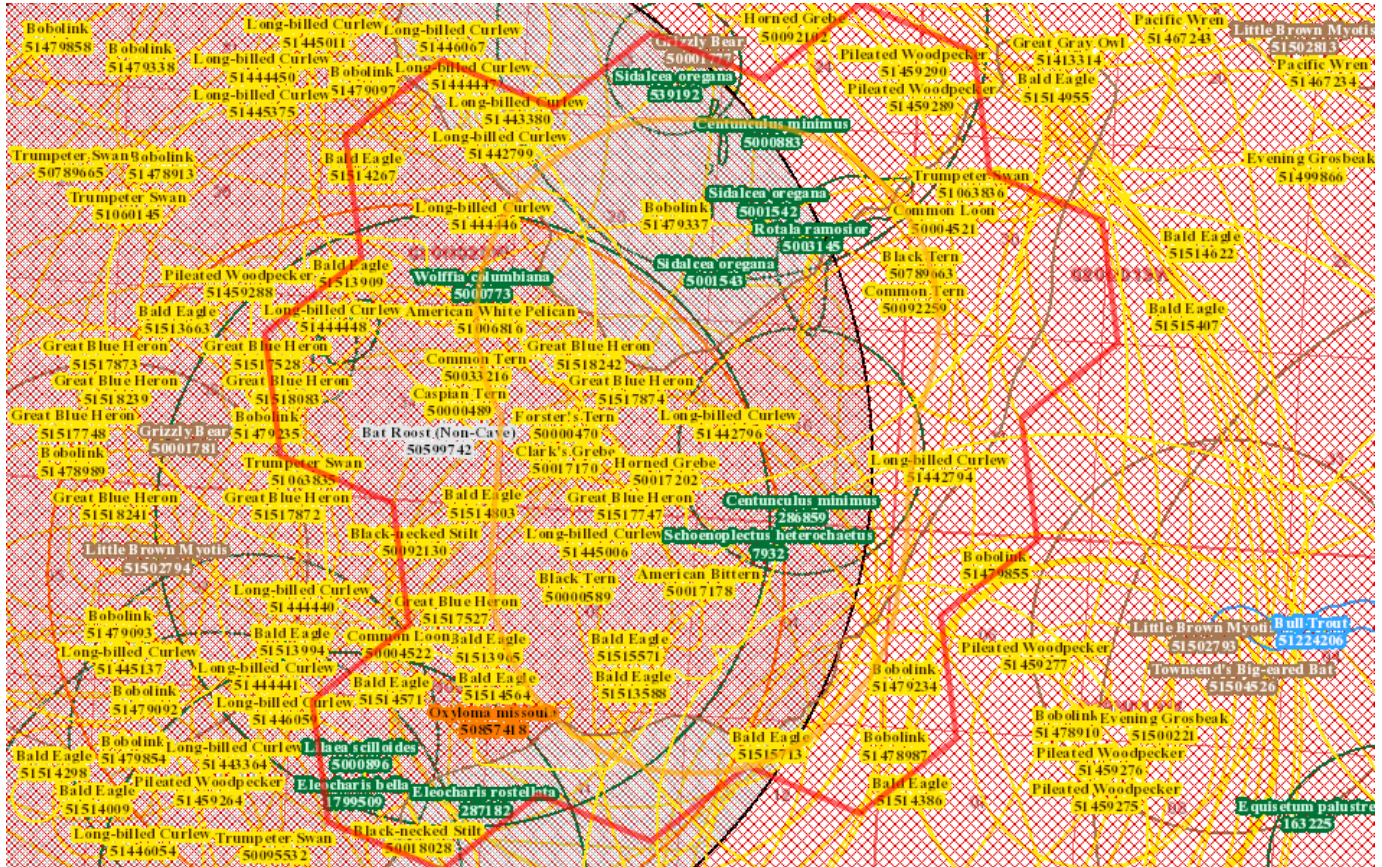
Latitude 47.41506
Longitude -114.05497
47.48200 -114.14142

Native Species

Summarized by: **CS0738039** (*Custom Area of Interest*)

Filtered by:

Native Species reports are filtered for Species with MT Status = Species of Concern, Special Status, Important Animal Habitat, Potential SOC



Original document modified on 10/20/2025 per MDT instruction to solely display occurrence map provided with standard MTNHP Environmental Summary Report as an attachment to the associated Biological Resource Report/Preliminary Biological Assessment.

Attachment C: Aquatic Resource Technical Memo



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Montana Ecological Services Field Office
585 Shephard Way, Suite 1
Helena, MT 59601-6287
Phone: (406) 449-5225 Fax: (406) 449-5339



In Reply Refer To:

12/03/2025 15:46:50 UTC

Project Code: 2025-0143543

Project Name: SF 179 Eagle Pass Trail Safety and US 93 Wildlife Overpass

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological

evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf>

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts, see <https://www.fws.gov/program/migratory-bird-permit/what-we-do>.

It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures, see <https://www.fws.gov/library/collections/threats-birds>.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit <https://www.fws.gov/partner/council-conservation-migratory-birds>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

- USFWS National Wildlife Refuges and Fish Hatcheries
- Bald & Golden Eagles
- Migratory Birds
- Wetlands

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Montana Ecological Services Field Office

585 Shephard Way, Suite 1

Helena, MT 59601-6287

(406) 449-5225

PROJECT SUMMARY

Project Code: 2025-0143543
Project Name: SF 179 Eagle Pass Trail Safety and US 93 Wildlife Overpass
Project Type: Road/Hwy - Maintenance/Modification
Project Description: The Montana Department of Transportation in conjunction with the Federal Highway Administration and the Confederated Salish and Kootenai Tribes, is proposing to construct the SF 179 Eagle Pass Trail Safety and US Highway 93 (US 93) Wildlife Overpass tied project. The Project will include construction of a wildlife overpass spanning US 93 near RP 41.5, shared-use path facility, wildlife fencing and other wildlife accommodation features, intersection improvements at Eagle Pass Trail, a widened typical section and drainage upgrades. The Project is intended to improve wildlife connectivity and safety in a culturally and environmentally significant area.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@47.44816445,-114.09696639427031,14z>



Counties: Lake County, Montana

ENDANGERED SPECIES ACT SPECIES

There is a total of 6 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Canada Lynx <i>Lynx canadensis</i> Population: Wherever Found in Contiguous U.S. There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/3652	Threatened
Grizzly Bear <i>Ursus arctos horribilis</i> Population: U.S.A., conterminous (lower 48) States, except where listed as an experimental population There is proposed critical habitat for this species. Species profile: https://ecos.fws.gov/ecp/species/7642	Threatened
North American Wolverine <i>Gulo gulo luscus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/5123	Threatened

BIRDS

NAME	STATUS
Yellow-billed Cuckoo <i>Coccyzus americanus</i> Population: Western U.S. DPS There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/3911	Threatened

INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> There is proposed critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/9743	Proposed Threatened
Suckley's Cuckoo Bumble Bee <i>Bombus suckleyi</i> Population: No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10885	Proposed Endangered

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

The following FWS National Wildlife Refuge Lands and Fish Hatcheries lie fully or partially within your project area:

FACILITY NAME	ACRES
LAKE COUNTY WATERFOWL PRODUCTION AREA OF MT https://www.fws.gov/our-facilities?keywords=%5C%22LAKE+COUNTY+WATERFOWL+PRODUCTION+AREA+OF+MT%5C%22	174.487

BALD & GOLDEN EAGLES

Bald and Golden Eagles are protected under the Bald and Golden Eagle Protection Act ² and the Migratory Bird Treaty Act (MBTA) ¹. Any person or organization who plans or conducts activities that may result in impacts to Bald or Golden Eagles, or their habitats, should follow appropriate regulations and consider implementing appropriate avoidance and minimization measures, as described in the various links on this page.

-
1. The [Bald and Golden Eagle Protection Act](#) of 1940.
 2. The [Migratory Birds Treaty Act](#) of 1918.
 3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

There are Bald Eagles and/or Golden Eagles in your [project](#) area.

Measures for Proactively Minimizing Eagle Impacts

For information on how to best avoid and minimize disturbance to nesting bald eagles, please review the [National Bald Eagle Management Guidelines](#). You may employ the timing and activity-specific distance recommendations in this document when designing your project/activity to avoid and minimize eagle impacts. For bald eagle information specific to Alaska, please refer to [Bald Eagle Nesting and Sensitivity to Human Activity](#).

The FWS does not currently have guidelines for avoiding and minimizing disturbance to nesting Golden Eagles. For site-specific recommendations regarding nesting Golden Eagles, please consult with the appropriate Regional [Migratory Bird Office](#) or [Ecological Services Field Office](#).

If disturbance or take of eagles cannot be avoided, an [incidental take permit](#) may be available to authorize any take that results from, but is not the purpose of, an otherwise lawful activity. For assistance making this determination for Bald Eagles, visit the [Do I Need A Permit Tool](#). For

assistance making this determination for golden eagles, please consult with the appropriate Regional [Migratory Bird Office](#) or [Ecological Services Field Office](#).

Ensure Your Eagle List is Accurate and Complete

If your project area is in a poorly surveyed area in IPaC, your list may not be complete and you may need to rely on other resources to determine what species may be present (e.g. your local FWS field office, state surveys, your own surveys). Please review the [Supplemental Information on Migratory Birds and Eagles](#), to help you properly interpret the report for your specified location, including determining if there is sufficient data to ensure your list is accurate.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to bald or golden eagles on your list, see the "Probability of Presence Summary" below to see when these bald or golden eagles are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Jan 1 to Aug 31
Golden Eagle <i>Aquila chrysaetos</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680	Breeds Jan 1 to Aug 31

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read ["Supplemental Information on Migratory Birds and Eagles"](#), specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)

Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)

Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Jan 1 to Aug 31
Black Swift <i>Cypseloides niger</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8878	Breeds Jun 15 to Sep 10
Black Tern <i>Chlidonias niger surinamenis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3093	Breeds May 15 to Aug 20
Bobolink <i>Dolichonyx oryzivorus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9454	Breeds May 20 to Jul 31
California Gull <i>Larus californicus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/10955	Breeds Mar 1 to Jul 31
Calliope Hummingbird <i>Selasphorus calliope</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9526	Breeds May 1 to Aug 15
Cassin's Finch <i>Haemorhous cassinii</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9462	Breeds May 15 to Jul 15
Clark's Grebe <i>Aechmophorus clarkii</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/10575	Breeds Jun 1 to Aug 31
Evening Grosbeak <i>Coccothraustes vespertinus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9465	Breeds May 15 to Aug 10
Franklin's Gull <i>Leucophaeus pipixcan</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/10567	Breeds May 1 to Jul 31

NAME	BREEDING SEASON
Golden Eagle <i>Aquila chrysaetos</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680	Breeds Jan 1 to Aug 31
Lesser Yellowlegs <i>Tringa flavipes</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9679	Breeds elsewhere
Lewis's Woodpecker <i>Melanerpes lewis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9408	Breeds Apr 20 to Sep 30
Long-eared Owl <i>asio otus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3631	Breeds Mar 1 to Jul 15
Olive-sided Flycatcher <i>Contopus cooperi</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3914	Breeds May 20 to Aug 31
Rufous Hummingbird <i>Selasphorus rufus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8002	Breeds Apr 15 to Jul 15
Western Grebe <i>aechmophorus occidentalis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/6743	Breeds Jun 1 to Aug 31
Willet <i>Tringa semipalmata</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/10669	Breeds Apr 20 to Aug 5

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "[Supplemental Information on Migratory Birds and Eagles](#)", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.



Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide avoidance and minimization measures for birds
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

WETLANDS

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

FRESHWATER EMERGENT WETLAND

- PEM1C
- PEM1Cx
- PEM1Fx
- PEM1A
- PEM1Ch
- PEM1Ah
- PEM1Fh
- PEM1F

RIVERINE

- R5UBFx
- R4SBC
- R5UBH
- R3UBH
- R3UBHx
- R3UBFx

LAKE

- L2US1Ch
- L2AB3Hh
- L1UBHh

FRESHWATER POND

- PAB3G
- PAB3H
- PUBF
- PUBHh
- PAB4Hh
- PAB3Hh

- PUS1C
- PAB4H
- PUBH

FRESHWATER FORESTED/SHRUB WETLAND

- PFO1A
- PSS1Ah
- PSS1C
- PSS1A
- PFO1C

IPAC USER CONTACT INFORMATION

Agency: Private Entity
Name: John Mulligan
Address: 1604 Hancock Ave
City: Butte
State: MT
Zip: 59701
Email: john.mulligan@jacobs.com
Phone: 5183218640

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Department of Transportation

Montana Department of Transportation

Aquatic Resources Finding Report

Agency/Firm Name: [Jacobs](#)

Date: [August 3, 2026](#)

Prepared By: [Rachel Newton](#)

Position Title of Preparer: [Senior Wetland Scientist](#)

Project (Name, Number, UPN): [SF 179 Eagle Pass Trail Safety Project HSIP
STWD\(762\), 9614001](#)

Watershed: [Lower Clark Fork #3](#)

Project Description

The SF 179 Eagle Pass Trail Safety Project (project) will reconstruct US Highway 93 (US 93) to install a center left-turn lane near reference post (RP) 41.0 at the intersection with Eagle Pass Trail Road, including the approaches into the Ninepipes Lodge and Museum of Early Montana. A dedicated southbound left-turn lane would be installed for the Eagle Pass Trail intersection and then transition to a center two-way left-turn lane through the Ninepipes Lodge and Museum area. The addition of the turn lane will result in widening a section of roadway. Associated roadway reconstruction includes new surfacing, shoulder widening, drainage upgrades, slope flattening, and increased traffic signage. A shared used path will also be installed along the east side of US 93. Wildlife exclusion fencing 8 feet tall will be installed through the project limits between RP 40.76 and RP 41.36 on both the east and west sides of US 93. Wildlife fencing connections will extend beyond the project limits to the south from RP 40.76 to RP 40.70. Turtle exclusion fencing will be installed throughout portions of the project where warranted and appropriate.

Project Location

County: [Lake County](#)

Route/Highway: [US Highway 93](#)

From RP: [40.70](#) to RP: [41.36](#)

Nearest Town: [Ronan, MT](#)

Methods

Before the field survey, the following sources were reviewed for information on soils, hydrology, and existing wetlands:

- U.S. Geological Survey topographic maps
- National Wetland Inventory (USFWS 2025)
- National Hydrography Dataset (USGS 2025)

- U.S. Department of Agriculture Natural Resources Conservation Service Web Soil Survey (2025)
- Satellite imagery (ESRI 2021)

The aquatic resource delineation and assessment followed:

- *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987)
- *Ordinary High Water Mark (OHWM) Identification* Regulatory Guidance Letter No. 05-05 (USACE 2005)
- *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region*, Version 2.0 (USACE 2010)
- *National Ordinary High Water Mark Field Delineation Manual for Rivers and Streams*: Final Version (David et al. 2025)
- National Wetland Plant List, version 3.6 (USACE 2022)
- *Montana Wetland Assessment Method (MWAM)* (Berglund and McEldowney 2008)
- *MDT Wetland and Stream Delineation Process* (MDT 2020)
- *Montana Stream Mitigation Procedure* (USACE 2013)

Where aquatic resources were identified, feature boundaries were mapped using a handheld global positioning system (GPS) unit with submeter accuracy set to collect points at 2-second intervals. Data were collected in WGS 84. Geographic information system (GIS) data were post-processed using ArcPRO 3.4.4.

The primary delineation for the project was conducted by Jacobs biologists Rachel Newton and John Mulligan and DJ&A biologists Brian Stockowitz and Allison Hendryx from May 19 through 22, 2025. A second delineation was conducted by John Mulligan and Allison Hendryx on May 11 and June 2, 2026. The study area consisted of a 150-foot buffer off the US 93 centerline and a 30-foot buffer off the centerline of smaller arterial roads. The project limits encompass 24.52 acres within the larger aquatic resource study area. Delineated aquatic resources total 5.604 acres across 15 features (Table 1). No natural drainage systems with a defined bed and bank were identified during the delineation. Figures presenting the delineated aquatic resources are included in Attachment A. U.S. Army Corps of Engineers (USACE) datasheets are included in Attachment B. Photographic documentation is presented in Attachment C, and MWAM forms are in Attachment D.

Table 1. Characteristics of Wetlands within the SF 179 Eagle Pass Trail Safety Project

Wetland ID #	Latitude ^[a]	Longitude ^[a]	MWAM Category ^[b]	Water Regime	Cowardin Class/ Modifier ^[c]	HGM Class	Dominant Vegetation
WL-1a	47.438246	-114.097344	III	SI	PEM	depressional	reed canarygrass, broadleaf cattail
WL-1b1	47.440171	-114.09732	IV	SI	PEM	depressional	reed canarygrass
WL-1b2	47.440264	-114.097332	III	PP	Open Water and PEM	depressional	reed canarygrass, broadleaf cattail
WL-1c	47.443618	-114.097162	IV	SI	PEM	depressional	reed canarygrass
WL-2a	47.438391	-114.096630	III	SI	PEM	depressional	reed canarygrass
WL-2b	47.44071	-114.096854	IV	SI	PEM	depressional	common spikerush, broadleaf cattail
WL-3	47.442407	-114.096391	III	PP	Open Water and PEM	depressional	reed canarygrass, bog yellowcress
WL-4a	47.442562	-114.09621	IV	SI	PEM	depressional	reed canarygrass
WL-4b	47.442897	-114.096609	IV	SI	PEM	depressional	reed canarygrass, bog yellowcress, needle spikerush
WL-5	47.442865	-114.097321	III	SI	PEM	depressional	reed canarygrass
WL-6	47.444533	-114.096561	III	PP	Open Water and PEM	depressional	duckweed, broadleaf cattail, reed canary grass, longroot snakeweed
WL-7	47.445204	-114.09677	IV	SI	PEM	depressional	broadleaf cattail, needle spikerush, Kentucky bluegrass
WL-8	47.445405	-114.096781	IV	SI	PEM	depressional	broadleaf cattail, Kentucky bluegrass
WL-9	47.445516	-114.097508	III	PP	PEM	depressional	reed canarygrass, broadleaf cattail
WL-10	47.445808	-114.096578	III	SI	PEM	depressional	hardstem bulrush, reed canarygrass, broadleaf cattail

Aquatic Resources Finding Report
SF 179 Eagle Pass Trail Safety Project HSIP STWD(762), 9614001

Wetland ID #	Latitude^[a]	Longitude^[a]	MWAM Category^[b]	Water Regime	Cowardin Class/ Modifier^[c]	HGM Class	Dominant Vegetation
WL-11	47.445976	-114.097345	II	PP	Open Water, PAB, and PSS	depressional	black hawthorn, redosier dogwood, Nebraska sedge, water sedge, broadleaf cattail, duckweed

^[a] Latitudes and longitudes reflect wetland centroids.

^[b] Categories defined by the Montana Wetland Assessment Method (MWAM) (Berglund, J., and R. McEldowney 2008)

^[c] Class defined by Cowardin L.M., V.C. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of Wetlands and Deepwater Habitats of the United States. U.S. Fish and Wildlife Service. FWS/OBS 79/31. Washington, D.C.

Wetlands Discussion

A total of 0.96 acre of permanent wetland impacts is anticipated from the project. Table 2 lists impacts by acreage and functional points for each wetland. A description of each impacted wetland is presented below.

Wetlands (WL-) 1a, WL-1b1, and WL-1c are palustrine emergent (PEM) wetlands occupying the roadside ditch on the western side of US 93. WL-1a appears to have a continuous surface connection with the Ninepipe Feeder Canal at the southern end of the project area. No impacts to the Ninepipe Feeder Canal will occur. WL-1a and WL-1b1 are separated from each other by approach road fill material with a roadside drainage ditch culvert. WL-1b1 and WL 1c are also separated from each other by approach road fill material with a roadside drainage ditch culvert. WL-1b2 is a prairie pothole wetland with PEM and open water components and is connected to WL-1b1 through a localized depression at the fenceline but otherwise appears to function separately. WL-1a occurs at approximate project stationing (STA) 476+83 to 482+82 LT, WL-1b1 at STA 483+36 to 495+29 LT, WL-1b2 at STA 485+64 to 488+29 LT, and WL-1c at STA 495+89 to 502+58 LT. Wetland vegetation consists of reed canarygrass (*Phalaris arundinacea*, facultative wetland [FACW]), and broadleaf cattail (*Typha latifolia*, obligate [OBL]). Hydric soils met the depleted matrix and redox dark surface indicators. Wetland hydrology indicators included a high water table, saturation, and a positive FAC-neutral test. Upland vegetation is dominated by smooth brome (*Bromus inermis*, upland [UPL]). WL-1a received a Category III MWAM rating because of its connection to ID-1 Ninepipe Feeder Canal. WL-1b1 and WL-1c received Category IV MWAM ratings. WL-1b2 received Category III MWAM rating.

WL-2a and WL-2b are PEM wetlands found in the roadside ditch on the eastern side of US 93. WL-2a appears to have a continuous surface connection with ID-1 Ninepipe Feeder Canal at the southern end of the project area. WL-2b is connected to WL-2a through a roadside drainage ditch culvert underneath driveway road fill material at the Ninepipes Lodge but otherwise appears to be isolated. WL-2a occurs at STA 476+83 to 486+31 RT and WL-2b occurs at STA 487+22 to 490+04 RT. Wetland vegetation is dominated by reed canarygrass, common spikerush, and broadleaf cattail. Observed hydric soil indicators included hydrogen sulfide odor and depleted dark surface. Wetland hydrology indicators present included high water table, saturation, and hydrogen sulfide odor. Neighboring upland vegetation consists of smooth brome. WL-2a received a Category III MWAM rating because of its connection to ID-1 Ninepipe Feeder Canal, and WL-2b received a Category IV MWAM rating.

WL-4a and WL-4b are PEM wetlands connected via a culvert in the eastern ditch of US 93. These wetlands appear to be isolated. WL-4a occurs at STA 495+33 to 495+40 RT and WL-4b occurs at STA 495+80 to 498+31 RT. Dominant wetland vegetation consisted of reed canarygrass, bog yellowcress (*Rorippa palustris*, OBL), and needle spikerush (*Eleocharis acicularis*, OBL). Two hydric soil indicators, depleted below dark surface and depleted matrix, were observed. Wetland hydrology indicators included

surface water, high water table, saturation, and algal mat. Upland vegetation is dominated by smooth brome. WL-4a and WL-4b received Category IV MWAM ratings.

WL-5 is a depressional prairie pothole wetland composed of open water with a PEM fringe on the western side of US 93 at STA 496+01 to 496+93 LT. WL-5 appears to be isolated. Dominant wetland vegetation consists of reed canarygrass. Observed hydric soil indicators included depleted matrix and depleted below dark surface. Wetland hydrology indicators onsite included geomorphic position, and a positive FAC-neutral test. Surrounding uplands are dominated by hairy whitetop (*Cardaria pubescens*, no indicator [NI]) with reed canarygrass and Fullers teasel (*Dipsacus fullonum*, FAC). WL-5 received a Category III MWAM rating.

WL-6 is a depressional prairie pothole wetland composed of open water with a PEM fringe on the eastern side of US-93 at STA 501+46 to 503+69 RT. WL-6 appears to be isolated. Dominant wetland vegetation includes broadleaf cattail, longroot smartweed (*Persicaria amphibia*, OBL), and reed canarygrass. Observed hydric soil indicators included depleted matrix and depleted below dark surface. Wetland hydrology indicators onsite included surface water, saturation, dry season water table, geomorphic position, and a positive FAC-neutral test. Surrounding uplands are dominated by smooth brome. WL-6 received a Category III MWAM rating.

WL-7 is a PEM wetland in the eastern ditch of US 93 at STA 504+46 to 505+30 RT. WL-7 appears to be isolated. Dominant hydrophytic vegetation includes broadleaf cattail, needle spikerush, and Kentucky bluegrass (*Poa pratensis*, FAC). Observed hydric soil indicators included depleted below dark surface and depleted matrix. Wetland hydrology indicators present were high water table, saturation, geomorphic position, and a positive FAC-neutral test. Surrounding uplands are dominated by smooth brome and bristly stickseed (*Lappula squarrosa*, NI). WL-7 received a Category IV MWAM rating.

WL-8 is a PEM wetland in the eastern ditch of US 93 at STA 505+70 to 505+81 RT. WL-8 appears to be isolated. Dominant hydrophytic vegetation includes broadleaf cattail and Kentucky bluegrass. Two hydric soil indicators, depleted below dark surface and depleted matrix, were observed. Wetland hydrology indicator included geomorphic position and a positive FAC-neutral test. Adjacent uplands are dominated by smooth brome and Kentucky bluegrass. WL-8 received a Category IV MWAM rating.

Table 2. Permanent Wetland Impacts from the SF 179 Eagle Pass Trail Safety Project

Wetland #	Delineated Acres	Impacted Acres	Actual MWAM Functional Points	Impacted Functional Units (Impacted Acres x Functional Points)	Connection to a WOTUS
WL-1a	1.372	0.069	2.2	0.152	Yes
WL-1b1	0.380	0.326	1.7	0.554	No
WL-1b2	0.590	0.000	3.7	0.000	No
WL-1c	0.078	0.078	1.7	0.133	No
WL-2a	1.357	0.282	2.2	0.620	Yes
WL-2b	0.022	0.022	1.7	0.037	No
WL-3	0.020	0.000	3.7	0.000	No
WL-4a	0.019	0.005	1.7	0.009	No
WL-4b	0.144	0.067	1.7	0.114	No
WL-5	0.086	0.006	2.6	0.016	No
WL-6	0.423	0.081	3.7	0.300	No
WL-7	0.020	0.020	1.7	0.034	No
WL-8	0.001	0.001	1.7	0.002	No
WL-9	0.090	0.000	3.7	0.000	No
WL-10	0.079	0.000	2.6	0.000	No
WL-11*	0.923	0.000	6.15	0.000	No
Total	5.60	0.96	-----	1.97	-----

* WL-11 extends north outside the SF179 Eagle Pass Trail Project study area with a total delineated area of 1.161 acres.

Avoidance and Minimization

Permanent wetland impacts at the 30% milestone totaled 1.138 acre across 11 wetlands. Design progression to the 90% milestone reduced these impacts by 0.178 acre to 0.96 acre. These reductions were achieved through lowering the roadway and path profiles in select locations, steepening fill slopes, and removing segments of the shared-use path.

WL-11 was avoided by lowering the roadway profile, steepening the special borrow inslope to 5:1 at the northern end of the wetland, and adding a guardrail. This avoided 0.251 acre in potential impacts to this high quality wetland.

Impacts to WL-6 were substantially reduced by lowering the profile of the multi-use path and steepening fill slopes. Permanent impacts to WL-6 decreased by 0.021 acre to 0.081 acre by steepening the path fill slope from 4:1 to 2:1 in this location.

As part of project-wide drainage improvements, a V-ditch was added between the roadway and the shared-use path at WL-2a. The addition of the V-ditch increased

wetland impacts. However, to minimize the inevitable increase in impacts, path fill slopes were steepened from 6:1 to 4:1/3:1. The increase was limited from an initial 0.235 acre without the V-ditch at 30% to 0.301 acre with the V-ditch at 90%.

Compensatory Mitigation

Compensatory mitigation is anticipated for this project. Permanent impacts to federally jurisdictional wetlands will be mitigated at a minimum 1:1 ratio to satisfy USACE requirements at MDT's Finley Flats mitigation site. Permanent impacts to wetlands on CSKT lands will be mitigated at a minimum of 3:1 ratio and will occur at MDT's Bouchard wetland mitigation site.

Streams Discussion

No stream features were delineated within the project area. Therefore, no stream mitigation is required.

References

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Attachments

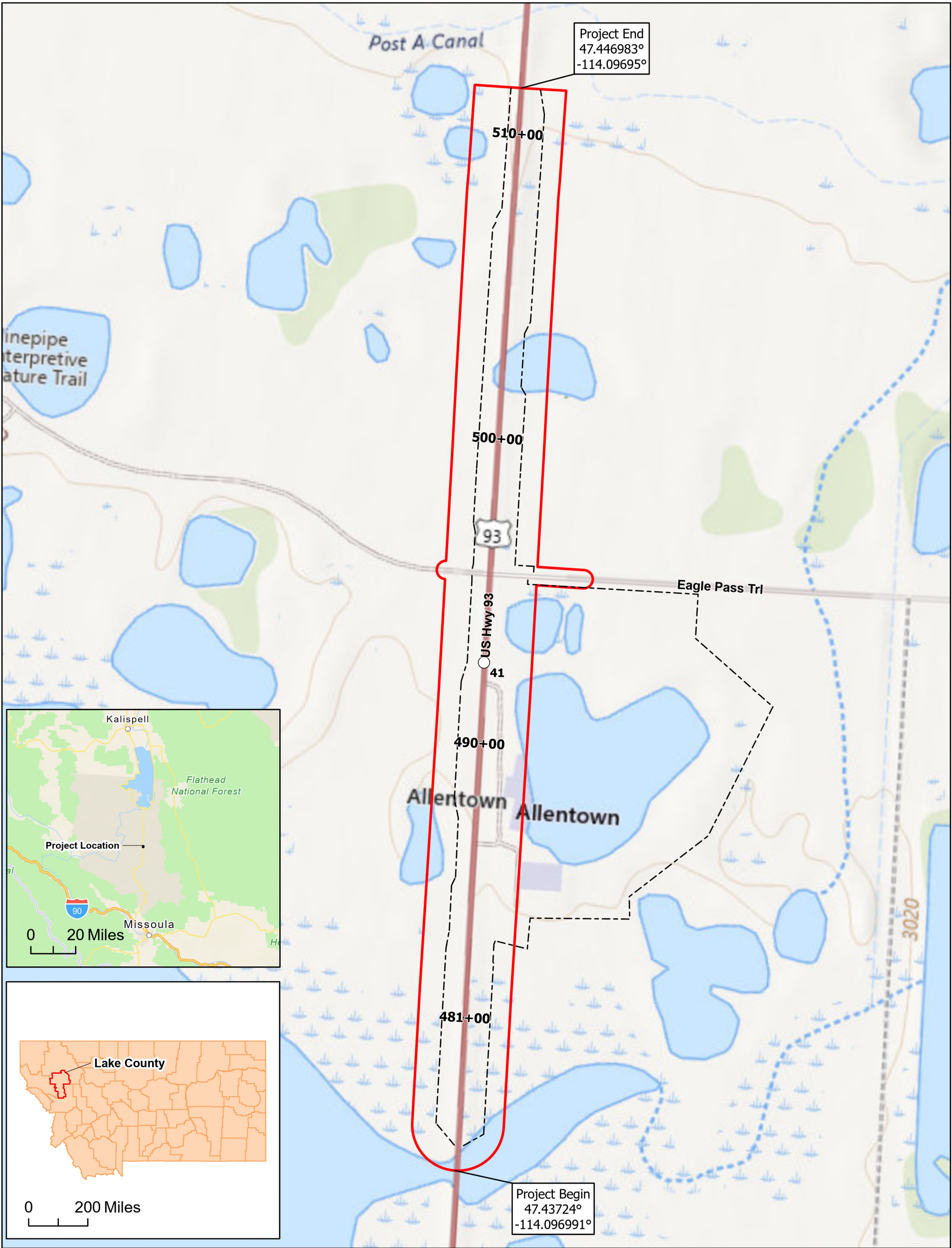
- A Figures
- B Photo Log
- C USACE Wetland Determination and Rapid OHWM Datasheets for Delineated Features
- D Montana Wetland Assessment Method Forms

Attachment A

Figures

1 Project Location

2 Potential Wetlands and Waters of the US



Legend

SF 179 Eagle Pass Trail Safety (24.52 ac.)

Mile Posts

--

Proposed Fencing

—

Stationing

NAD 1983 (2011) StatePlane Montana FIPS 2500 (Intl Feet)
Projection Lambert Conformal Conic
WKID 6515
Linear Unit Feet (0.3048)
False Easting 1968503.937007874
False Northing 0.0
Central Meridian -109.5
Standard Parallel 1 45.0
Standard Parallel 2 49.0
Latitude Of Origin 44.25
USGS Quads: Fort Connah, 2020

N

0

150

300

Feet

1:3,600

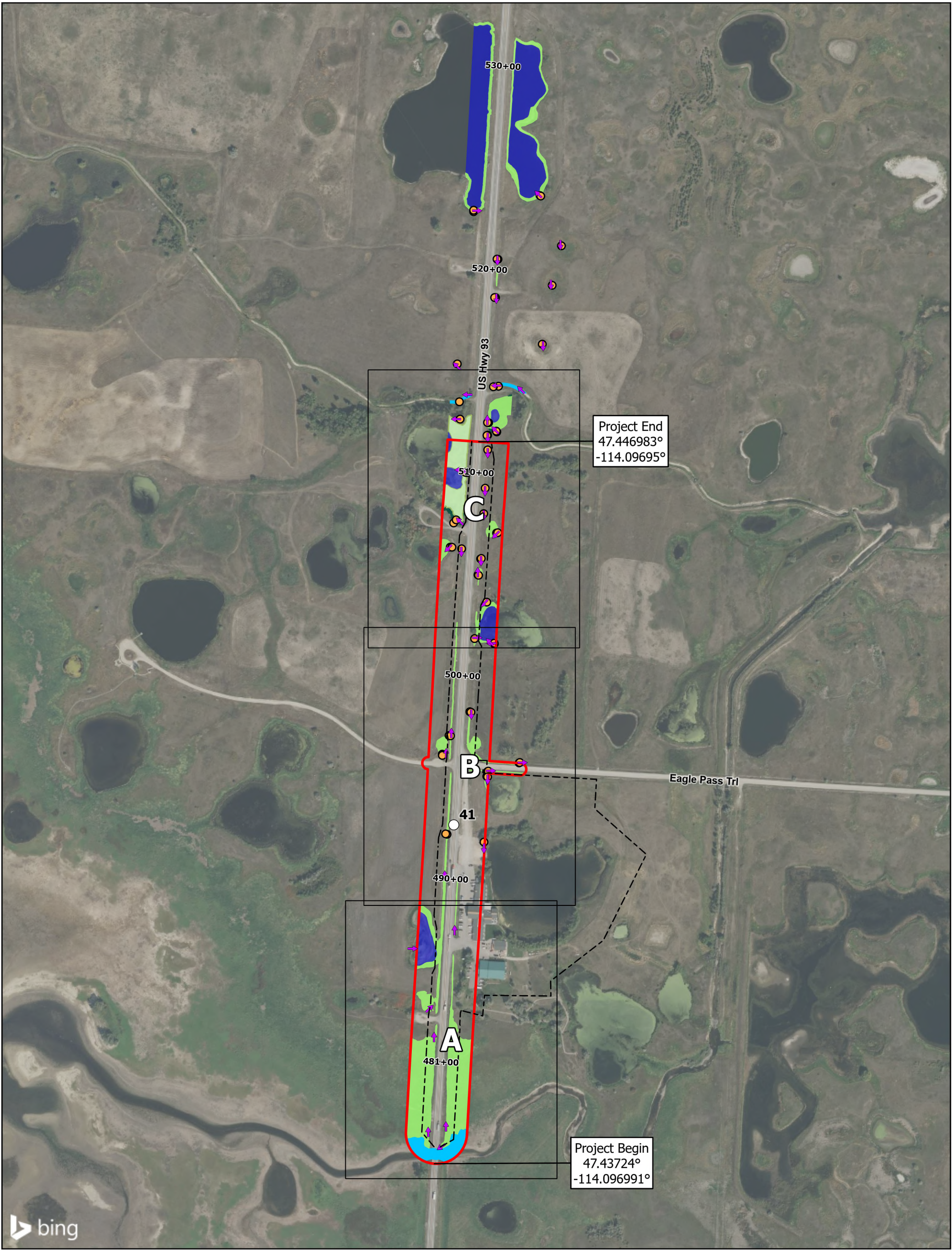
Figure 1

Regional Vicinity Map

Aquatic Resources Finding Report
SF 179 Eagle Pass Trail Safety Project
HSIP STWD(762), 9614001
Montana Department of Transportation
Lake County, MT

Image Source: USGS National Map
Figure created by Jill Rosenberger/JACOBS, revised 5/21/2026

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Legend

- SF 179 Eagle Pass Trail Safety Project Study Area (24.52 ac.)
- Proposed Fencing
- Mile Posts
- Sample Point
- Photo Point

Delineated Features

- PAB Wetland
- PEM Wetland
- PSS Wetland
- Open Water
- R4UBx Wetland (Irrigation Ditch)

Figure 2 Overview

Potential Wetlands and Waters of the US

Aquatic Resources Finding Report

SF 179 Eagle Pass Trail Safety Project

HSIP STWD(762), 9614001

Montana Department of Transportation

Lake County, MT



Legend

- SF 179 Eagle Pass Trail Safety (24.52 ac.)
- Proposed Fencing
- Stationing
- Mile Posts
- Sample Point
- Photo Point

Delineated Features

- PEM Wetland
- Open Water
- R4UBx Wetland (Irrigation Ditch)

Figure 2A
Potential Wetlands and Waters of the US
Aquatic Resources Finding Report
SF 179 Eagle Pass Trail Safety Project
HSIP STWD(762), 9614001
Montana Department of Transportation
Lake County, MT



- Legend**
- SF 179 Eagle Pass Trail Safety (24.52 ac.)

Proposed Fencing

Stationing

Mile Posts

Sample Point

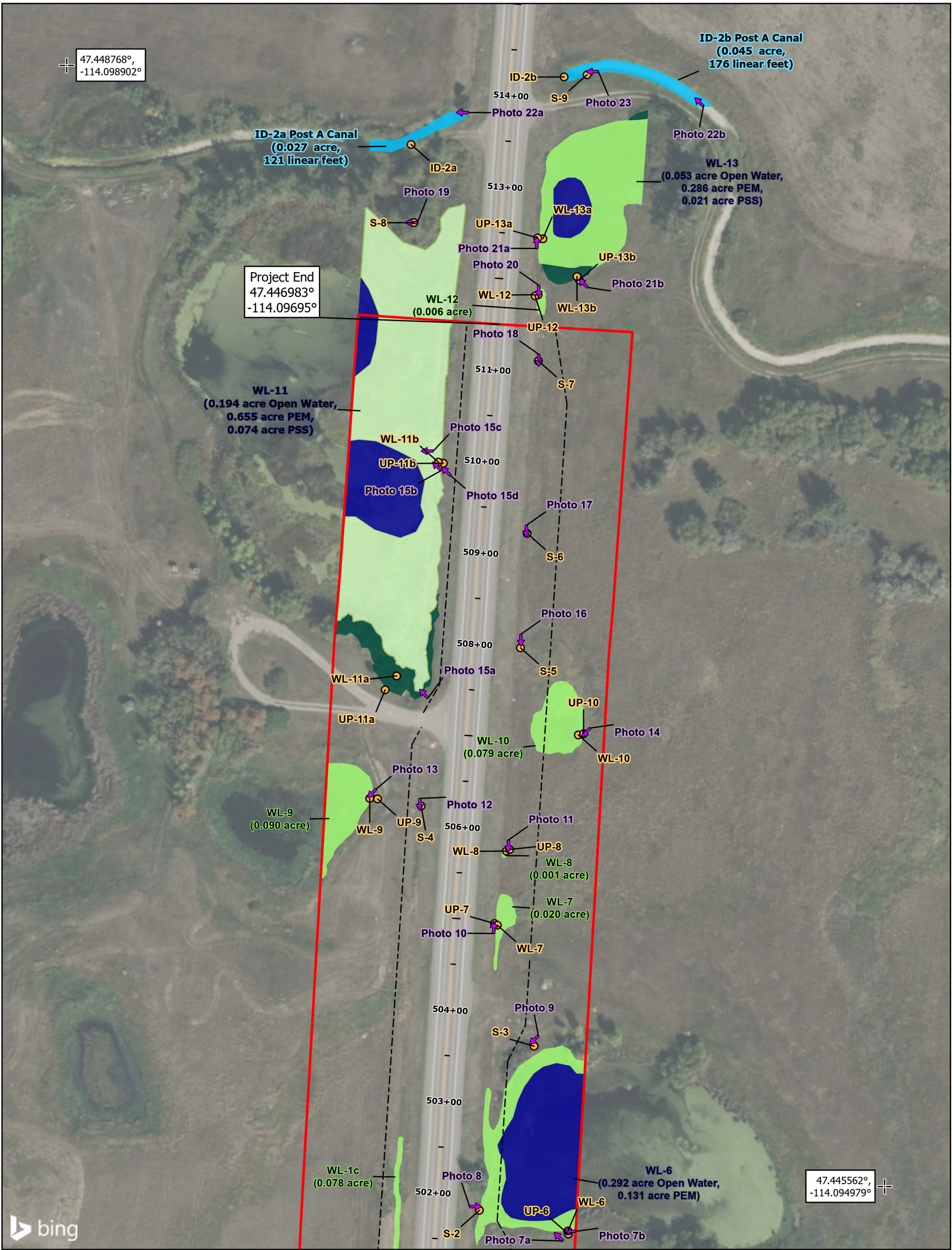
Photo Point

Potential Wetlands and Waters of the US

Delineated Features

PEM Wetland

Open Water
- Figure 2B**
Potential Wetlands and Waters of the US
Aquatic Resources Finding Report
SF 179 Eagle Pass Trail Safety Project
HSIP STWD(762), 9614001
Montana Department of Transportation
Lake County, MT
- Delineation completed by J. Mulligan/JACOBS
and A. Hendryx, 5/11/2026,
R. Newton and J. Mulligan/JACOBS
and B. Stockowitz and A. Hendryx/DJ&A, May 19 - 23, 2025.
-
- Image Source: Bing Aerial
Figure created by Jill Rosenberger/JACOBS, revised 6/10/2026
- \\dc1vs01\GISProj\MI\Montana_DOT\US93_Ninepipes\MapFiles\ReportFigures\US93_Ninepipes_ARDR_2025\US93_Ninepipes_ARDR_By_Project.aprx



Legend

- SF 179 Eagle Pass Trail Safety (24.52 ac.)

--

Proposed Fencing

—

Stationing

○

Mile Posts

●

Sample Point

➡

Photo Point
- PAB Wetland

PEM Wetland

PSS Wetland

Open Water

R4UBx Wetland (Irrigation Ditch)

Figure 2C
Potential Wetlands and Waters of the US
Aquatic Resources Finding Report
SF 179 Eagle Pass Trail Safety Project
HSIP STWD(762), 9614001
Montana Department of Transportation
Lake County, MT

Delineation completed by J. Mulligan/JACOBS
and A. Hendryx, 5/11/2026,
R. Newton and J. Mulligan/JACOBS
and B. Stockowitz and A. Hendryx/DJ&A, May 19 - 23, 2025.

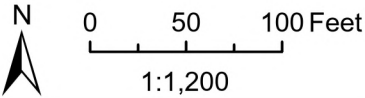


Image Source: Bing Aerial
Figure created by Jill Rosenberger/JACOBS, revised 5/22/2026

Attachment B
Photo Log



Photo 0: View to the southwest of the ID-1 Ninepipe Feeder Canal, flowing west under US 93.



Photo 1a: View to the north of depressional PEM wetland WL-1a on the western side of US 93.



Photo 1b1a: View to the northeast of depressional PEM wetland WL-1b1 on the western side of US 93.



Photo 1b1b: View to the north of depressional PEM wetland WL-1b1 occupying the roadside ditch on the eastern side of US 93.



Photo 1b2: View to the east of depressional prairie pothole wetland WL-1b2 on the western side of US 93.



Photo 1c: View to the north of depressional PEM wetland WL-1c in the roadside ditch.



Photo 2a: View to the north of depressional PEM wetland WL-2a on the eastern side of US 93.



Photo 2b: View to the north of depressional PEM wetland WL-2b occupying the roadside ditch on the eastern side of US 93.



Photo 3: View to the south of suspect area on aerial imagery (S-1). Aquatic resources are present just outside the study area boundary.



Photo 4: View to the southwest of depressional wetland WL-3, open water and fringing PEM, in a prairie pothole on the southeastern side of US 93 and Eagle Pass Trail intersection.



Photo 5a: View to the east of depressional PEM wetland WL-4a within roadside ditch, southeastern quadrant of US 93 and Eagle Pass Trail intersection.



Photo 5b: View to the east of depressional PEM wetland WL-4b in roadside ditch, northeastern quadrant of US 93 and Eagle Pass Trail intersection.



Photo 5c: View to the south of additional sample point for depressional PEM wetland WL-4b in roadside ditch, east of US 93.



Photo 6: View to the north of depressional PEM wetland WL-5 in a prairie pothole on the western side of US 93.



Photo 7a: View to the northwest of depressional wetland WL-6, open water and fringing PEM, in a prairie pothole on eastern side of US 93.



Photo 7b: View to the west of depressional wetland WL-6, open water and fringing PEM, in a prairie pothole on eastern side of US 93.



Photo 8: View to the northeast of suspect depressional area (S-2); no hydric soil or wetland hydrology indicators present.



Photo 9: View to the southwest of suspect depressional area (S-3); no wetland indicators present.



Photo 10: View to the north of depressional PEM wetland WL-7 within roadside ditch and paired upland point on the eastern side of US 93.



Photo 11: View to the south of depressional PEM wetland WL-8 within roadside ditch and paired upland point on the eastern side of US 93.



Photo 12: View to the south of suspect depressional area (S-4) found to be lacking hydric soils.



Photo 13: View to the southwest of depressional PEM wetland WL-9 in a prairie pothole on the western side of US 93.



Photo 14: View to the southwest of depressional PEM wetland WL-10 and paired upland point on the eastern side of US 93.



Photo 15a: View to the northwest of depressional WL-11 wetland, open water and fringing PSS components, on the western side of US 93.



Photo 15b: View to the north of depressional WL-11 wetland, palustrine floating vegetation mat PAB, on the western side of US 93.



Photo 15c: View to the west of depressional PAB wetland (right) and open water (left) components of WL-11 on the western side of US 93.



Photo 15d: View to the northwest of PAB (foreground) and open water (background) components of WL-11.

Attachment C
USACE Wetland Determination and Rapid OHWM Datasheets
for Delineated Features

**U.S. Army Corps of Engineers (USACE)
RAPID ORDINARY HIGH WATER MARK
(OHWM) FIELD IDENTIFICATION DATA SHEET**
The proponent agency is Headquarters USACE CECW-COR.

**Form Approved -
OMB No. 0710-0024
Expires: 2027-09-30**

The Agency Disclosure Notice (ADN)

The Public reporting burden for this collection of information, 0710-0024, is estimated to average 30 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or burden reduction suggestions to the Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Project Director (0710-0024), Washington, DC 20503. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.

Project ID #: I 1 Ninepipe Feeder C.

Site Name: Eagle Pass Trail

Date and Time: 5/11/26

Location (lat/long): 47.437398, -114.096870

Investigator(s): J. Mulligan, A. Hendryx

Step 1 Site overview from remote and online resources.

Check boxes for online resources used to evaluate site:

☐ Google Earth ☐ LiDAR ☐ geologic maps

☐ climatic data ☒ satellite imagery ☐ land use maps

☒ aerial photos ☐ topographic maps ☐ Other: _____

Describe land use and flow conditions from online resources.

Were there any recent extreme events (floods or drought)?

Ninepipe Feeder Canal is part of the Flathead Irrigation District, and flows west into Ninepipe Reservoir.

Step 2 Site conditions during field assessment. First look for changes in channel shape, deposition and erosion features, and changes in vegetation and sediment type, size, density, and distribution. Make note of natural or human-made disturbances that would affect flow and channel form, such as bridges, riprap, landslides, rockfalls, etc.

Flow constricted by US 93 bridge. This datasheet reflects the delineation of the regulated flow line for this feature.

Step 3 Mark the boxes next to the indicators used to help identify the location of the OHWM.

OHWM is the transition point, therefore some indicators used to identify the location of the OHWM may be just below or above the OHWM.

Make slashes in boxes next to indicators that are helpful in identifying the OHWM. After the initial assessment, those indicators identified at the OHWM elevation should be changed from slashes to x's. Note, it is not necessary to mark indicators that are present but do not help in identification of the OHWM.

Go to page 2 to describe overall condition for location of OHWM, write any additional observations, and attach photograph.

Geomorphic indicators

Sediment indicators

☒ **Break in slope**

☒ on the bank

☐ undercut bank

☐ valley bottom

☐ Other: _____

belving

shelf at top of bank

natural levee

human-made berms or levees

other berms: _____

secondary channels

☒ **Channel bar**

shelving (berms) on bar

unvegetated

☒ vegetation transition (go to veg. indicators)

☒ sediment transition (go to sed. indicators)

upper limit of deposition on bar

Instream bedforms and other bedload transport evidence

deposition bedload indicators (e.g., imbricated clasts, gravel sheets, etc.)

bedforms (e.g., pools, riffles, steps, etc.)

Weathered clasts or bedrock

erosional bedload indicators (e.g., obstacle marks, scour, smoothing, etc.)

oil development

☒ **Changes in character of soil**

Mudcracks

☒ **Changes in particle-sized distribution**

transition from finer to cobbles

upper limit of sand-sized particles

silt deposits

Vegetation indicators (Consider the vegetation transition looking from the middle of the channel, up the banks, and into the floodplain)

Other physical indicators

☒ **Change in vegetation type from** 0 **to** Phalaris

Change in density of vegetation

Exposed roots below intact soil layer

Vegetation matted down and/or bent

Other vegetation observations

Vegetation changes from Phalaris arundinacea above the OHW to bare soil the OHW.

sediment deposited on vegetation or structures

Wracking/presence of organic litter

Presence of large wood

Leaf litter disturbed or washed away

Water staining

Other observed indicators? Describe:

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Western Mountains, Valleys, and Coast Region See ERDC/EL TR-10-3; the proponent agency is CECW-CO-R		OMB Control #: 0710-0024, Exp: 9/30/2027 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)																			
Project/Site: <u>Eagle Pass Trail</u>		City/County: <u>Lake County</u>																			
Applicant/Owner: <u>Montana Department of Transportation</u>		State: <u>MT</u>																			
Investigator(s): <u>J. Mulligan and A. Hendryx</u>		Sampling Date: <u>5/11/2026</u>																			
Section, Township, Range: <u>S02 T19N R20W</u>		Sampling Point: <u>WL-1a</u>																			
Landform (hillside, terrace, etc.): <u>road prism</u>	Local relief (concave, convex, none): <u>none</u>	Slope (%): <u>1</u>																			
Subregion (LRR/MLRA): <u>LRR E, MLRA 44A</u>	Lat: <u>47.437627</u>	Long: <u>-114.09714</u>																			
Datum: <u>WGS 84</u>																					
Soil Map Unit Name: <u>Post silty clay loam, 2 to 4 percent slopes</u>		NWI classification: <u>PEM</u>																			
Are climatic / hydrologic conditions on the site typical for this time of year? Yes <u>X</u> No <u> </u> (If no, explain in Remarks.)																					
Are Vegetation <u> </u> , Soil <u> </u> , or Hydrology <u> </u> significantly disturbed? Are "Normal Circumstances" present? Yes <u>X</u> No <u> </u>																					
Are Vegetation <u> </u> , Soil <u> </u> , or Hydrology <u> </u> naturally problematic? (If needed, explain any answers in Remarks.)																					
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.																					
Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u> Hydric Soil Present? Yes <u>X</u> No <u> </u> Wetland Hydrology Present? Yes <u>X</u> No <u> </u>		Is the Sampled Area within a Wetland? Yes <u>X</u> No <u> </u>																			
Remarks: Depressional PEM wetland WL-1a in roadside ditch on western side of US 93. Connected to WL-1b via driveway culvert. Wetland boundary corresponds with grade break associated with US 93 road fill/prism. Fringes ID-1 Ninepipe Feeder Canal.																					
VEGETATION – Use scientific names of plants.																					
Tree Stratum	(Plot size: <u>r = 30 ft</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)																
1.																					
2.																					
3.																					
4.																					
=Total Cover																					
Sapling/Shrub Stratum	(Plot size: <u>r = 15 ft</u>)				Prevalence Index worksheet: <table style="width:100%; font-size: small;"> <tr> <th>Total % Cover of:</th> <th>Multiply by:</th> </tr> <tr> <td>OBL species <u>2</u></td> <td>x 1 = <u>2</u></td> </tr> <tr> <td>FACW species <u>98</u></td> <td>x 2 = <u>196</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>100</u> (A)</td> <td><u>198</u> (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = <u>1.98</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>2</u>	x 1 = <u>2</u>	FACW species <u>98</u>	x 2 = <u>196</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>100</u> (A)	<u>198</u> (B)	Prevalence Index = B/A = <u>1.98</u>	
Total % Cover of:	Multiply by:																				
OBL species <u>2</u>	x 1 = <u>2</u>																				
FACW species <u>98</u>	x 2 = <u>196</u>																				
FAC species <u>0</u>	x 3 = <u>0</u>																				
FACU species <u>0</u>	x 4 = <u>0</u>																				
UPL species <u>0</u>	x 5 = <u>0</u>																				
Column Totals: <u>100</u> (A)	<u>198</u> (B)																				
Prevalence Index = B/A = <u>1.98</u>																					
1.																					
2.																					
3.																					
4.																					
5.																					
=Total Cover																					
Herb Stratum	(Plot size: <u>r = 5 ft</u>)				Hydrophytic Vegetation Indicators: <u>X</u> 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% <u>X</u> 3 - Prevalence Index is ≤3.0 ¹ <u> </u> 4 -Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> 5 - Wetland Non-Vascular Plants ¹ <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
1.	<u>Phalaris arundinacea</u>	<u>98</u>	<u>Yes</u>	<u>FACW</u>																	
2.	<u>Typha latifolia</u>	<u>2</u>	<u>No</u>	<u>OBL</u>																	
3.																					
4.																					
5.																					
6.																					
7.																					
8.																					
9.																					
10.																					
11.																					
=Total Cover																					
Woody Vine Stratum	(Plot size: <u>n/a</u>)				Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>																
1.																					
2.																					
=Total Cover																					
% Bare Ground in Herb Stratum <u> </u>																					
Remarks:																					

SOIL

Sampling Point: WL-1a

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-4	10YR 3/2	100					Loamy/Clayey	
4-8	10YR 4/2	100					Loamy/Clayey	
8-18	10YR 5/2	90	7.5YR 5/6	10	C	M	Loamy/Clayey	Prominent redox concentrations

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)			Indicators for Problematic Hydric Soils ³ :	
☐ Histosol (A1)	☐ Sandy Gleyed Matrix (S4)	☐ 2 cm Muck (A10) (LRR A, E)		
☐ Histic Epipedon (A2)	☐ Sandy Redox (S5)	☐ Iron-Manganese Masses (F12) (LRR D)		
☐ Black Histic (A3)	☐ Stripped Matrix (S6)	☐ Red Parent Material (F21)		
☐ Hydrogen Sulfide (A4)	☐ Loamy Mucky Mineral (F1) (except MLRA 1)	☐ Very Shallow Dark Surface (F22)		
☐ 1 cm Muck (A9) (LRR D, G)	☐ Loamy Gleyed Matrix (F2)	☐ Other (Explain in Remarks)		
☐ Depleted Below Dark Surface (A11)	☒ Depleted Matrix (F3)			
☐ Thick Dark Surface (A12)	☐ Redox Dark Surface (F6)			
☐ Iron Monosulfide (A18)	☐ Depleted Dark Surface (F7)			
☐ Sandy Mucky Mineral (S1)	☐ Redox Depressions (F8)			
☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G)				

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes ☒ No ☐
---	---

Remarks: _____

HYDROLOGY

Wetland Hydrology Indicators:			
Primary Indicators (minimum of one is required; check all that apply)		Secondary Indicators (2 or more required)	
☐ Surface Water (A1)	☐ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	☐ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)	
☐ High Water Table (A2)	☐ Salt Crust (B11)	☐ Drainage Patterns (B10)	
☐ Saturation (A3)	☐ Aquatic Invertebrates (B13)	☐ Dry-Season Water Table (C2)	
☐ Water Marks (B1)	☐ Hydrogen Sulfide Odor (C1)	☐ Saturation Visible on Aerial Imagery (C9)	
☐ Sediment Deposits (B2)	☐ Oxidized Rhizospheres on Living Roots (C3)	☒ Geomorphic Position (D2)	
☐ Drift Deposits (B3)	☐ Presence of Reduced Iron (C4)	☐ Shallow Aquitard (D3)	
☐ Algal Mat or Crust (B4)	☐ Recent Iron Reduction in Tilled Soils (C6)	☒ FAC-Neutral Test (D5)	
☐ Iron Deposits (B5)	☐ Stunted or Stressed Plants (D1) (LRR A)	☐ Raised Ant Mounds (D6) (LRR A)	
☐ Surface Soil Cracks (B6)	☐ Other (Explain in Remarks)	☐ Frost-Heave Hummocks (D7)	
☐ Inundation Visible on Aerial Imagery (B7)			
☐ Sparsely Vegetated Concave Surface (B8)			

Field Observations: Surface Water Present? Yes ☐ No ☒ Depth (inches): _____ Water Table Present? Yes ☐ No ☒ Depth (inches): _____ Saturation Present? Yes ☒ No ☐ Depth (inches): 16 (includes capillary fringe)	Wetland Hydrology Present? Yes ☒ No ☐
---	---

Describe Recorded Data (stream gage, monitoring well, aerial photos, previous inspections), if available: _____

Remarks: _____

U.S. Army Corps of Engineers				OMB Control #: 0710-0024, Exp: 9/30/2027 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)	
WETLAND DETERMINATION DATA SHEET – Western Mountains, Valleys, and Coast Region See ERDC/EL TR-10-3; the proponent agency is CECW-CO-R					
Project/Site: Eagle Pass Trail		City/County: Lake County		Sampling Date: 5/11/2026	
Applicant/Owner: Montana Department of Transportation		State: MT		Sampling Point: UP-1a	
Investigator(s): J. Mulligan and A. Hendryx		Section, Township, Range: S02 T19N R20W			
Landform (hillside, terrace, etc.): road prism		Local relief (concave, convex, none): none		Slope (%): 3	
Subregion (LRR/MLRA): LRR E, MLRA 44A		Lat: 47.437629		Long: -114.097105 Datum: WGS 84	
Soil Map Unit Name: Post silty clay loam, 2 to 4 percent slopes		NW1 classification: UPL			
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)					
Are Vegetation ☐ , Soil ☐ , or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐					
Are Vegetation ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)					
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.					
Hydrophytic Vegetation Present? Yes ☒ No ☐			Is the Sampled Area within a Wetland? Yes ☐ No ☒		
Hydric Soil Present? Yes ☐ No ☒					
Wetland Hydrology Present? Yes ☐ No ☒					
Remarks: Paired upland point for wetland sample point WL-1a. Clear grade break associated with US 93 road prism that delineates wetland boundary.					
VEGETATION – Use scientific names of plants.					
Tree Stratum (Plot size: r = 30 ft)		Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A) Total Number of Dominant Species Across All Strata: 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)
1.					
2.					
3.					
4.					
		=Total Cover			
Sapling/Shrub Stratum (Plot size: r = 15 ft)					Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species 0 x 1 = 0 FACW species 95 x 2 = 190 FAC species 5 x 3 = 15 FACU species 0 x 4 = 0 UPL species 0 x 5 = 0 Column Totals: 100 (A) 205 (B) Prevalence Index = B/A = 2.05
1.					
2.					
3.					
4.					
5.					
		=Total Cover			
Herb Stratum (Plot size: r = 5 ft)					Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation ☒ 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 ¹ 4 -Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants ¹ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. Phalaris arundinacea		95	Yes	FACW	
2. Elymus repens		5	No	FAC	
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
		100 =Total Cover			
Woody Vine Stratum (Plot size: n/a)					Hydrophytic Vegetation Present? Yes ☒ No ☐
1.					
2.					
		=Total Cover			
% Bare Ground in Herb Stratum					
Remarks: Vegetation meets hydrophytic but no hydric soils present.					

SOIL

Sampling Point: UP-1a

[illegible]

HYDROLOGY

Wetland Hydrology Indicators:			
Primary Indicators (minimum of one is required; check all that apply)		Secondary Indicators (2 or more required)	
☐ Surface Water (A1)	☐ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	☐ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)	
☐ High Water Table (A2)	☐ Salt Crust (B11)	☐ Drainage Patterns (B10)	
☐ Saturation (A3)	☐ Aquatic Invertebrates (B13)	☐ Dry-Season Water Table (C2)	
☐ Water Marks (B1)	☐ Hydrogen Sulfide Odor (C1)	☐ Saturation Visible on Aerial Imagery (C9)	
☐ Sediment Deposits (B2)	☐ Oxidized Rhizospheres on Living Roots (C3)	☐ Geomorphic Position (D2)	
☐ Drift Deposits (B3)	☐ Presence of Reduced Iron (C4)	☐ Shallow Aquitard (D3)	
☐ Algal Mat or Crust (B4)	☐ Recent Iron Reduction in Tilled Soils (C6)	☒ FAC-Neutral Test (D5)	
☐ Iron Deposits (B5)	☐ Stunted or Stressed Plants (D1) (LRR A)	☐ Raised Ant Mounds (D6) (LRR A)	
☐ Surface Soil Cracks (B6)	☐ Other (Explain in Remarks)	☐ Frost-Heave Hummocks (D7)	
☐ Inundation Visible on Aerial Imagery (B7)			
☐ Sparsely Vegetated Concave Surface (B8)			
Field Observations:			
Surface Water Present?	Yes ☐ No ☒	Depth (inches):	
Water Table Present?	Yes ☐ No ☒	Depth (inches):	
Saturation Present?	Yes ☐ No ☒	Depth (inches):	
(includes capillary fringe)		Wetland Hydrology Present? Yes ☐ No ☒	
Describe Recorded Data (stream gage, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			
Hydrology in this location would be limited to precipitation events and roadway runoff.			

U.S. Army Corps of Engineers				OMB Control #: 0710-0024, Exp: 9/30/2027 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)	
WETLAND DETERMINATION DATA SHEET – Western Mountains, Valleys, and Coast Region See ERDC/EL TR-10-3; the proponent agency is CECW-CO-R					
Project/Site: Eagle Pass Trail		City/County: Lake County		Sampling Date: 6/2/26	
Applicant/Owner: Montana Department of Transportation		State: MT		Sampling Point: WL-1b1a	
Investigator(s): J. Mulligan and A. Hendryx		Section, Township, Range: S02 T19N R20W			
Landform (hillside, terrace, etc.): depression		Local relief (concave, convex, none): concave		Slope (%): 0	
Subregion (LRR/MLRA): LRR E, MLRA 44A		Lat: 47.439344		Long: -114.097417	
				Datum: WGS 84	
Soil Map Unit Name: Post silty clay loam, 2 to 4 percent slopes				NW1 classification: PEM	
Are climatic / hydrologic conditions on the site typical for this time of year? Yes No X (If no, explain in Remarks.)					
Are Vegetation, Soil, or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No					
Are Vegetation, Soil, or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)					
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.					
Hydrophytic Vegetation Present? Yes X No			Is the Sampled Area within a Wetland? Yes X No		
Hydric Soil Present? Yes X No					
Wetland Hydrology Present? Yes X No					
Remarks: Depressional palustrine emergent wetland WL-1b1 on the western side wetland on west side of US 93. The APT determined hydrologic conditions at the time of the survey were wetter than normal.					
VEGETATION – Use scientific names of plants.					
Tree Stratum (Plot size: r = 30 ft)		Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A) Total Number of Dominant Species Across All Strata: 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)
1.					
2.					
3.					
4.					
		=Total Cover			
Sapling/Shrub Stratum (Plot size: r = 15 ft)					Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species 0 x 1 = 0 FACW species 100 x 2 = 200 FAC species 0 x 3 = 0 FACU species 0 x 4 = 0 UPL species 0 x 5 = 0 Column Totals: 100 (A) 200 (B) Prevalence Index = B/A = 2.00
1.					
2.					
3.					
4.					
5.					
		=Total Cover			
Herb Stratum (Plot size: r = 5 ft)					Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is >50% X 3 - Prevalence Index is ≤3.0 ¹ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants ¹ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. Phalaris arundinacea		100	Yes	FACW	
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
		100	=Total Cover		
Woody Vine Stratum (Plot size: n/a)					Hydrophytic Vegetation Present? Yes X No
1.					
2.					
		=Total Cover			
% Bare Ground in Herb Stratum					
Remarks:					

SOIL

Sampling Point: WL-1b1a

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-6	10YR 2/1	100					Loamy/Clayey	
6-14	10YR 3/2	90	10YR 6/1	10	D	M	Loamy/Clayey	
14-18	10YR 4/2	100					Loamy/Clayey	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)			Indicators for Problematic Hydric Soils ³ :	
☐ Histosol (A1)	☐ Sandy Gleyed Matrix (S4)	☐ 2 cm Muck (A10) (LRR A, E)		
☐ Histic Epipedon (A2)	☐ Sandy Redox (S5)	☐ Iron-Manganese Masses (F12) (LRR D)		
☐ Black Histic (A3)	☐ Stripped Matrix (S6)	☐ Red Parent Material (F21)		
☐ Hydrogen Sulfide (A4)	☐ Loamy Mucky Mineral (F1) (except MLRA 1)	☐ Very Shallow Dark Surface (F22)		
☐ 1 cm Muck (A9) (LRR D, G)	☐ Loamy Gleyed Matrix (F2)	☐ Other (Explain in Remarks)		
☐ Depleted Below Dark Surface (A11)	☐ Depleted Matrix (F3)			
☐ Thick Dark Surface (A12)	☐ Redox Dark Surface (F6)			
☐ Iron Monosulfide (A18)	☒ Depleted Dark Surface (F7)			
☐ Sandy Mucky Mineral (S1)	☐ Redox Depressions (F8)			
☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G)				

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):		Hydric Soil Present?	
Type: _____		Yes	☒ No ☐
Depth (inches): _____			

Remarks: _____

HYDROLOGY

Wetland Hydrology Indicators:			
Primary Indicators (minimum of one is required; check all that apply)		Secondary Indicators (2 or more required)	
☐ Surface Water (A1)	☐ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	☐ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)	
☒ High Water Table (A2)	☐ Salt Crust (B11)	☐ Drainage Patterns (B10)	
☒ Saturation (A3)	☐ Aquatic Invertebrates (B13)	☐ Dry-Season Water Table (C2)	
☐ Water Marks (B1)	☐ Hydrogen Sulfide Odor (C1)	☐ Saturation Visible on Aerial Imagery (C9)	
☐ Sediment Deposits (B2)	☐ Oxidized Rhizospheres on Living Roots (C3)	☒ Geomorphic Position (D2)	
☐ Drift Deposits (B3)	☐ Presence of Reduced Iron (C4)	☐ Shallow Aquitard (D3)	
☐ Algal Mat or Crust (B4)	☐ Recent Iron Reduction in Tilled Soils (C6)	☒ FAC-Neutral Test (D5)	
☐ Iron Deposits (B5)	☐ Stunted or Stressed Plants (D1) (LRR A)	☐ Raised Ant Mounds (D6) (LRR A)	
☐ Surface Soil Cracks (B6)	☐ Other (Explain in Remarks)	☐ Frost-Heave Hummocks (D7)	
☐ Inundation Visible on Aerial Imagery (B7)			
☐ Sparsely Vegetated Concave Surface (B8)			

Field Observations:				Wetland Hydrology Present?	
Surface Water Present?	Yes ☐ No ☒	Depth (inches): _____		Yes	☒ No ☐
Water Table Present?	Yes ☒ No ☐	Depth (inches): 11			
Saturation Present?	Yes ☒ No ☐	Depth (inches): _____			
(includes capillary fringe)					

Describe Recorded Data (stream gage, monitoring well, aerial photos, previous inspections), if available: _____

Remarks: _____

Ponded water observed in majority of wetland within depression.

U.S. Army Corps of Engineers				OMB Control #: 0710-0024, Exp: 9/30/2027	
WETLAND DETERMINATION DATA SHEET – Western Mountains, Valleys, and Coast Region				Requirement Control Symbol EXEMPT:	
See ERDC/EL TR-10-3; the proponent agency is CECW-CO-R				(Authority: AR 335-15, paragraph 5-2a)	
Project/Site: Eagle Pass Trail		City/County: Lake County		Sampling Date: 6/2/26	
Applicant/Owner: Montana Department of Transportation		State: MT		Sampling Point: UP-1b1a	
Investigator(s): J. Mulligan and A. Hendryx		Section, Township, Range: S02 T19N R20W			
Landform (hillside, terrace, etc.): hillslope		Local relief (concave, convex, none): convex		Slope (%): 2	
Subregion (LRR/MLRA): LRR E, MLRA 44A		Lat: 47.439339		Long: -114.097449	
				Datum: WGS 84	
Soil Map Unit Name: Post silty clay loam, 2 to 4 percent slopes				NW1 classification: Upland	
Are climatic / hydrologic conditions on the site typical for this time of year? Yes No X (If no, explain in Remarks.)					
Are Vegetation, Soil, or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No					
Are Vegetation, Soil, or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)					
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.					
Hydrophytic Vegetation Present? Yes No X			Is the Sampled Area within a Wetland? Yes No X		
Hydric Soil Present? Yes No X					
Wetland Hydrology Present? Yes X No					
Remarks: Paired upland point for WL-1b1a on western side of US 93. The APT determined hydrologic conditions at the time of the survey were wetter than normal.					
VEGETATION – Use scientific names of plants.					
Tree Stratum (Plot size: r = 30 ft)		Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A) Total Number of Dominant Species Across All Strata: 3 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: 33.3% (A/B)
1.					
2.					
3.					
4.					
			=Total Cover		
Sapling/Shrub Stratum (Plot size: r = 15 ft)					Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species 0 x 1 = 0 FACW species 75 x 2 = 150 FAC species 0 x 3 = 0 FACU species 35 x 4 = 140 UPL species 0 x 5 = 0 Column Totals: 110 (A) 290 (B) Prevalence Index = B/A = 2.64
1. Rosa woodsii		10	Yes	FACU	
2.					
3.					
4.					
5.					
		10	=Total Cover		
Herb Stratum (Plot size: r = 5 ft)					Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 ¹ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants ¹ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. Phalaris arundinacea		75	Yes	FACW	
2. Lactuca serriola		20	Yes	FACU	
3. Galium aparine					
4. Galium aparine		5	No	FACU	
5.					
6.					
7.					
8.					
9.					
10.					
11.					
		100	=Total Cover		Hydrophytic Vegetation Present? Yes No X
Woody Vine Stratum (Plot size: n/a)					
1.					
2.					
			=Total Cover		
% Bare Ground in Herb Stratum					
Remarks:					

SOIL

Sampling Point: UP-1b1a

[illegible]

HYDROLOGY

Wetland Hydrology Indicators:			
Primary Indicators (minimum of one is required; check all that apply)		Secondary Indicators (2 or more required)	
☐ Surface Water (A1)	☐ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	☐ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)	
☐ High Water Table (A2)	☐ Salt Crust (B11)	☐ Drainage Patterns (B10)	
☒ Saturation (A3)	☐ Aquatic Invertebrates (B13)	☒ Dry-Season Water Table (C2)	
☐ Water Marks (B1)	☐ Hydrogen Sulfide Odor (C1)	☐ Saturation Visible on Aerial Imagery (C9)	
☐ Sediment Deposits (B2)	☐ Oxidized Rhizospheres on Living Roots (C3)	☐ Geomorphic Position (D2)	
☐ Drift Deposits (B3)	☐ Presence of Reduced Iron (C4)	☐ Shallow Aquitard (D3)	
☐ Algal Mat or Crust (B4)	☐ Recent Iron Reduction in Tilled Soils (C6)	☐ FAC-Neutral Test (D5)	
☐ Iron Deposits (B5)	☐ Stunted or Stressed Plants (D1) (LRR A)	☐ Raised Ant Mounds (D6) (LRR A)	
☐ Surface Soil Cracks (B6)	☐ Other (Explain in Remarks)	☐ Frost-Heave Hummocks (D7)	
☐ Inundation Visible on Aerial Imagery (B7)			
☐ Sparsely Vegetated Concave Surface (B8)			
Field Observations:			
Surface Water Present?	Yes ☐ No ☒	Depth (inches):	
Water Table Present?	Yes ☒ No ☐	Depth (inches):	16
Saturation Present?	Yes ☒ No ☐	Depth (inches):	15
(includes capillary fringe)		Wetland Hydrology Present? Yes ☒ No ☐	
Describe Recorded Data (stream gage, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			
Ponded water within wetland adjacent to upland sample plot resulted in water observed in soil pit. However, water table was high due to recent precipitation events. Ronan Mesonet Station recorded 2.68 inches of precipitation in the 10 days preceding sampling.			

Wetland Determination Data Form - Western Mountains, Valleys, and Coast Region

Project/Site: US93 Ninepipes City/County: Lake County Sampling Date: 5/19/2025
 Applicant/Owner: Montana Department of Transportation State: MT Sampling Point: WL-1b1b
 Investigator(s): B. Stockowitz and A. Hendryx Section, Township, Range: S2 T19N R20W
 Landform (*hillslope, terrace, etc.*): Ditch Local Relief (*concave, convex, none*): Concave Slope (%): 0-2
 Subregion (LRR): E - Rocky Mtn. Forests and Rangeland Lat. 47.441679 Long: -114.09712 Datum: WGS 84
 Soil Map Unit Name: Post silt loam, 0 to 2 percent slopes NWI Classification: PEM

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No X (If no, explain in Remarks)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes X No
 Hydric Soil Present? Yes X No Is the Sampled Area within a Wetland? Yes X No
 Wetland Hydrology Present? Yes X No

Remarks:

Additional sample point for depressional PEM wetland WL-1b in roadside ditch. Connected via culverts under side roads to WL-1a and WL-1c. The APT determined drought conditions. Approx. 1.34" precip recorded in the 10 days prior to survey and approx. 0.25" precip recorded during the four-day survey period (Ronan Mesonet station).

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: <u>r = 30 ft.</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:																																
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)																																
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
<u>0</u> = Total Cover																																				
Sapling/Shrub Stratum (Plot size: <u>r = 15 ft.</u>)				Prevalence Index Worksheet: <table style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="2">Total % Cover of:</th> <th colspan="2">Multiply by:</th> </tr> <tr> <td>OBL species</td> <td style="text-align: center;"><u>0</u></td> <td>x 1 =</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>90</u></td> <td>x 2 =</td> <td style="text-align: center;"><u>180</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>0</u></td> <td>x 3 =</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>0</u></td> <td>x 4 =</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>0</u></td> <td>x 5 =</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>Column Totals:</td> <td style="text-align: center;"><u>90</u> (A)</td> <td></td> <td style="text-align: center;"><u>180</u> (B)</td> </tr> <tr> <td colspan="4" style="text-align: center;">Prevalence Index = B/A = <u>2.0</u></td> </tr> </table>	Total % Cover of:		Multiply by:		OBL species	<u>0</u>	x 1 =	<u>0</u>	FACW species	<u>90</u>	x 2 =	<u>180</u>	FAC species	<u>0</u>	x 3 =	<u>0</u>	FACU species	<u>0</u>	x 4 =	<u>0</u>	UPL species	<u>0</u>	x 5 =	<u>0</u>	Column Totals:	<u>90</u> (A)		<u>180</u> (B)	Prevalence Index = B/A = <u>2.0</u>			
Total % Cover of:		Multiply by:																																		
OBL species	<u>0</u>	x 1 =	<u>0</u>																																	
FACW species	<u>90</u>	x 2 =	<u>180</u>																																	
FAC species	<u>0</u>	x 3 =	<u>0</u>																																	
FACU species	<u>0</u>	x 4 =	<u>0</u>																																	
UPL species	<u>0</u>	x 5 =	<u>0</u>																																	
Column Totals:	<u>90</u> (A)		<u>180</u> (B)																																	
Prevalence Index = B/A = <u>2.0</u>																																				
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
<u>0</u> = Total Cover																																				
Herb Stratum (Plot size: <u>r = 5 ft.</u>)				Hydrophytic Vegetation Indicators: <u> </u> 1. Rapid Test for Hydrophytic Vegetation <u>X</u> 2. Dominance Test is >50%. <u>X</u> 3. Prevalence Index is ≤3.0¹ <u> </u> 4. Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> 5. Wetland Non-Vascular Plants¹ <u> </u> Problematic Hydrophytic Vegetation (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																																
1. <u>Phalaris arundinacea</u>	<u>90</u>	<u>Y</u>	<u>FACW</u>																																	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
6. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
9. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
10. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
<u>90</u> = Total Cover																																				
Woody Vine Stratum (Plot size: <u>n/a</u>)																																				
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
<u>0</u> = Total Cover																																				
% Bare Ground in Herb Stratum <u>10</u> %																																				

Remarks: Typha latifolia scattered throughout delineated feature.

SOIL

Sampling Point: **WL-1b1b****Profile Description:** *(Describe to the depth needed to document the indicator or confirm the absence of indicators.)*

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0–5	10YR 3/1	100					Loam	
5–8	10YR 4/2	100					Clay Loam	Gravel/Cobble layer
8–16	10YR 4/2	60	10YR 4/6	40	C	M	Clay	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix**Hydric Soil Indicators**

☐ Histosol (A1)	☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G)
☐ Histic Epipedon (A2)	☐ Sandy Gleyed Matrix (S4)
☐ Black Histic (A3)	☐ Sandy Redox (S5)
☐ Hydrogen Sulfide (A4)	☐ Stripped Matrix (S6)
☐ 1 cm Muck (A9) (LRR D, G)	☐ Loamy Mucky Mineral (F1) (except MLRA 1)
☐ Depleted Below Dark Surface (A11)	☐ Loamy Gleyed Matrix (F2)
☐ Thick Dark Surface (A12)	☒ Depleted Matrix (F3)
☐ Iron Monosulfide (A18)	☐ Redox Dark Surface (F6)
☐ Sandy Mucky Mineral (S1)	☐ Depleted Dark Surface (F7)
	☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

☐ 2 cm Muck (A10) (LRRA, E)
☐ Iron-Manganese Masses (F12) (LRR D)
☐ Red Parent Material (F21)
☐ Very Shallow Dark Surface (F22)
☐ Other (Explain in Remarks)

³Indicators of hydrophylic vegetation and wetland hydrology must be present, unless disturbed or problematic.**Restrictive Layer:** *(if observed)*

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐**Remarks:****HYDROLOGY****Wetland Hydrology Indicators:**Primary Indicators *(minimum of one is required; check all that apply)*

☒ Surface Water (A1)
☐ High Water Table (A2)
☐ Saturation (A3)
☐ Water Marks (B1)
☐ Sediment Deposits (B2)
☐ Drift Deposits (B3)
☐ Algal Mat or Crust (B4)
☐ Iron Deposits (B5)
☐ Surface Soil Cracks (B6)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Sparsely Vegetated Concave Surface (B8)

Secondary Indicators *(minimum of two required)*

☐ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	☐ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
☐ Salt Crust (B11)	☐ Drainage Patterns (B10)
☐ Aquatic Invertebrates (B13)	☐ Dry-Season Water Table (C2)
☐ Hydrogen Sulfide Odor (C1)	☐ Saturation Visible on Aerial Imagery (C9)
☐ Oxidized Rhizospheres on Living Roots (C3)	☒ Geomorphic Position (D2)
☐ Presence of Reduced Iron (C4)	☐ Shallow Aquitard (D3)
☐ Recent Iron Reduction in Tilled Soils (C6)	☒ FAC-Neutral Test (D5)
☐ Stunted or Stressed Plants (D1) (LRR A)	☐ Raised Ant Mounds (D6) (LRR A)
☐ Other (Explain in Remarks)	☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes ☒ No ☐	Depth (inches)	<u>1</u>	Wetland Hydrology Present?
Water Table Present?	Yes ☐ No ☒	Depth (inches)	<u> </u>	
Saturation Present? <i>(includes capillary fringe)</i>	Yes ☒ No ☐	Depth (inches)	<u>surface</u>	

Remarks:

Wetland Determination Data Form - Western Mountains, Valleys, and Coast Region

Project/Site: US93 Ninepipes City/County: Lake County Sampling Date: 5/19/2025
 Applicant/Owner: Montana Department of Transportation State: MT Sampling Point: UP-1b1b
 Investigator(s): B. Stockowitz and A. Hendryx Section, Township, Range: S2 T19N R20W
 Landform (*hillslope, terrace, etc.*): 1st terrace out of ditch Local Relief (*concave, convex, none*): none/flat Slope (%): 0-2
 Subregion (LRR): E - Rocky Mtn. Forests and Rangeland Lat. 47.441684 Long: -114.097148 Datum: WGS 84
 Soil Map Unit Name: Post silt loam, 0 to 2 percent slopes NWI Classification: UPL

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No X (If no, explain in Remarks)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes No X
 Hydric Soil Present? Yes No X Is the Sampled Area within a Wetland? Yes No X
 Wetland Hydrology Present? Yes No X

Remarks:

Paired upland point for wetland sample point WL-1b1b. The APT determined drought conditions. Approx. 1.34" precip recorded in the 10 days prior to survey and approx. 0.25" precip recorded during the four-day survey period (Ronan Mesonet station).

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: <u>r = 30 ft.</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:																																
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)																																
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
<u>0</u> = Total Cover																																				
Sapling/Shrub Stratum (Plot size: <u>r = 15 ft.</u>)				Prevalence Index Worksheet: <table style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="2">Total % Cover of:</th> <th colspan="2">Multiply by:</th> </tr> <tr> <td>OBL species</td> <td><u>0</u></td> <td>x 1 =</td> <td><u>0</u></td> </tr> <tr> <td>FACW species</td> <td><u>0</u></td> <td>x 2 =</td> <td><u>0</u></td> </tr> <tr> <td>FAC species</td> <td><u>0</u></td> <td>x 3 =</td> <td><u>0</u></td> </tr> <tr> <td>FACU species</td> <td><u>0</u></td> <td>x 4 =</td> <td><u>0</u></td> </tr> <tr> <td>UPL species</td> <td><u>95</u></td> <td>x 5 =</td> <td><u>475</u></td> </tr> <tr> <td>Column Totals:</td> <td><u>95</u> (A)</td> <td></td> <td><u>475</u> (B)</td> </tr> <tr> <td colspan="4" style="text-align: center;">Prevalence Index = B/A = <u>5.0</u></td> </tr> </table>	Total % Cover of:		Multiply by:		OBL species	<u>0</u>	x 1 =	<u>0</u>	FACW species	<u>0</u>	x 2 =	<u>0</u>	FAC species	<u>0</u>	x 3 =	<u>0</u>	FACU species	<u>0</u>	x 4 =	<u>0</u>	UPL species	<u>95</u>	x 5 =	<u>475</u>	Column Totals:	<u>95</u> (A)		<u>475</u> (B)	Prevalence Index = B/A = <u>5.0</u>			
Total % Cover of:		Multiply by:																																		
OBL species	<u>0</u>	x 1 =	<u>0</u>																																	
FACW species	<u>0</u>	x 2 =	<u>0</u>																																	
FAC species	<u>0</u>	x 3 =	<u>0</u>																																	
FACU species	<u>0</u>	x 4 =	<u>0</u>																																	
UPL species	<u>95</u>	x 5 =	<u>475</u>																																	
Column Totals:	<u>95</u> (A)		<u>475</u> (B)																																	
Prevalence Index = B/A = <u>5.0</u>																																				
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
<u>0</u> = Total Cover																																				
Herb Stratum (Plot size: <u>r = 5 ft.</u>)				Hydrophytic Vegetation Indicators: 1. Rapid Test for Hydrophytic Vegetation <u> </u> 2. Dominance Test is >50%. <u> </u> 3. Prevalence Index is ≤3.0 ¹ <u> </u> 4. Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> 5. Wetland Non-Vascular Plants ¹ <u> </u> Problematic Hydrophytic Vegetation (Explain) <u> </u> ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? <u> </u> Yes <u>X</u> No																																
1. <u>Bromus inermis</u>	<u>90</u>	<u>Y</u>	<u>UPL</u>																																	
2. <u>Elymus lanceolatus</u>	<u>5</u>	<u>N</u>	<u>UPL</u>																																	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
6. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
9. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
10. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
<u>95</u> = Total Cover																																				
Woody Vine Stratum (Plot size: <u>n/a</u>)																																				
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
<u>0</u> = Total Cover																																				
% Bare Ground in Herb Stratum	<u>5</u> %																																			

Remarks:

SOIL

Sampling Point: **UP-1b1b****Profile Description:** *(Describe to the depth needed to document the indicator or confirm the absence of indicators.)*

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-6	10YR 3/2	100					Loam	
6-16	10YR 4/4	70					Clay Loam	Mixed horizon w/ gravel/road base
	10YR 3/2	30					Clay Loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix**Hydric Soil Indicators**

☐ Histosol (A1)	☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G)
☐ Histic Epipedon (A2)	☐ Sandy Gleyed Matrix (S4)
☐ Black Histic (A3)	☐ Sandy Redox (S5)
☐ Hydrogen Sulfide (A4)	☐ Stripped Matrix (S6)
☐ 1 cm Muck (A9) (LRR D, G)	☐ Loamy Mucky Mineral (F1) (except MLRA 1)
☐ Depleted Below Dark Surface (A11)	☐ Loamy Gleyed Matrix (F2)
☐ Thick Dark Surface (A12)	☐ Depleted Matrix (F3)
☐ Iron Monosulfide (A18)	☐ Redox Dark Surface (F6)
☐ Sandy Mucky Mineral (S1)	☐ Depleted Dark Surface (F7)
	☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

☐ 2 cm Muck (A10) (LRRA, E)
☐ Iron-Manganese Masses (F12) (LRR D)
☐ Red Parent Material (F21)
☐ Very Shallow Dark Surface (F22)
☐ Other (Explain in Remarks)

³Indicators of hydrophylic vegetation and wetland hydrology must be present, unless disturbed or problematic.**Restrictive Layer:** *(if observed)*

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☐ No ☒**Remarks:** Abrupt transition between horizons.

Soils subject to disturbance given proximity to borrow ditch and/or side cast material.

HYDROLOGY**Wetland Hydrology Indicators:**Primary Indicators *(minimum of one is required; check all that apply)*

☐ Surface Water (A1)
☐ High Water Table (A2)
☐ Saturation (A3)
☐ Water Marks (B1)
☐ Sediment Deposits (B2)
☐ Drift Deposits (B3)
☐ Algal Mat or Crust (B4)
☐ Iron Deposits (B5)
☐ Surface Soil Cracks (B6)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Sparsely Vegetated Concave Surface (B8)

Secondary Indicators *(minimum of two required)*

☐ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	☐ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
☐ Salt Crust (B11)	☐ Drainage Patterns (B10)
☐ Aquatic Invertebrates (B13)	☐ Dry-Season Water Table (C2)
☐ Hydrogen Sulfide Odor (C1)	☐ Saturation Visible on Aerial Imagery (C9)
☐ Oxidized Rhizospheres on Living Roots (C3)	☐ Geomorphic Position (D2)
☐ Presence of Reduced Iron (C4)	☐ Shallow Aquitard (D3)
☐ Recent Iron Reduction in Tilled Soils (C6)	☐ FAC-Neutral Test (D5)
☐ Stunted or Stressed Plants (D1) (LRR A)	☐ Raised Ant Mounds (D6) (LRR A)
☐ Other (Explain in Remarks)	☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes ☐ No ☒	Depth (inches)	_____	Wetland Hydrology Present?
Water Table Present?	Yes ☐ No ☒	Depth (inches)	_____	
Saturation Present? <i>(includes capillary fringe)</i>	Yes ☐ No ☒	Depth (inches)	_____	
				☐ Yes ☒ No

Remarks:

U.S. Army Corps of Engineers				OMB Control #: 0710-0024, Exp: 9/30/2027	
WETLAND DETERMINATION DATA SHEET – Western Mountains, Valleys, and Coast Region				Requirement Control Symbol EXEMPT:	
See ERDC/EL TR-10-3; the proponent agency is CECW-CO-R				(Authority: AR 335-15, paragraph 5-2a)	
Project/Site: Eagle Pass Trail		City/County: Lake County		Sampling Date: 6/2/26	
Applicant/Owner: Montana Department of Transportation		State: MT		Sampling Point: WL-1b2	
Investigator(s): J. Mulligan and A. Hendryx		Section, Township, Range: S02 T19N R20W			
Landform (hillside, terrace, etc.): pothole		Local relief (concave, convex, none): concave		Slope (%): 0	
Subregion (LRR/MLRA): LRR E, MLRA 44A		Lat: 47.440599		Long: -114.097349	
				Datum: WGS 84	
Soil Map Unit Name: Post silty clay loam, 2 to 4 percent slopes				NW1 classification: PEM	
Are climatic / hydrologic conditions on the site typical for this time of year? Yes No X (If no, explain in Remarks.)					
Are Vegetation, Soil, or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No					
Are Vegetation, Soil, or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)					
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.					
Hydrophytic Vegetation Present? Yes X No			Is the Sampled Area within a Wetland? Yes X No		
Hydric Soil Present? Yes X No					
Wetland Hydrology Present? Yes X No					
Remarks: Depressional prairie pothole wetland WL-1b2 on the western side of US 93. Fringing PEM component connects to roadside ditch wetland WL-1b1b. The APT determined hydrologic conditions at the time of the survey were wetter than normal.					
VEGETATION – Use scientific names of plants.					
Tree Stratum (Plot size: r = 30 ft)		Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A) Total Number of Dominant Species Across All Strata: 2 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)
1.					
2.					
3.					
4.					
		=Total Cover			Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species 70 x 1 = 70 FACW species 30 x 2 = 60 FAC species 0 x 3 = 0 FACU species 0 x 4 = 0 UPL species 0 x 5 = 0 Column Totals: 100 (A) 130 (B) Prevalence Index = B/A = 1.30
Sapling/Shrub Stratum (Plot size: r = 15 ft)					
1.					
2.					
3.					
4.					
5.					
		=Total Cover			Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is >50% X 3 - Prevalence Index is ≤3.0 ¹ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants ¹ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Herb Stratum (Plot size: r = 5 ft)					
1. Typha latifolia		70	Yes	OBL	
2. Phalaris arundinacea		30	Yes	FACW	
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
		100 =Total Cover			
Woody Vine Stratum (Plot size: n/a)					
1.					
2.					
		=Total Cover			
% Bare Ground in Herb Stratum					Hydrophytic Vegetation Present? Yes X No
Remarks:					

SOIL

Sampling Point: WL-1b2

[illegible]

HYDROLOGY

Wetland Hydrology Indicators:			
Primary Indicators (minimum of one is required; check all that apply)			
☐ Surface Water (A1)	☐ Water-Stained Leaves (B9) (except	Secondary Indicators (2 or more required)	
☒ High Water Table (A2)	MLRA 1, 2, 4A, and 4B)	☐ Water-Stained Leaves (B9) (MLRA 1, 2	
☒ Saturation (A3)	☐ Salt Crust (B11)	4A, and 4B)	
☐ Water Marks (B1)	☐ Aquatic Invertebrates (B13)	☐ Drainage Patterns (B10)	
☐ Sediment Deposits (B2)	☐ Hydrogen Sulfide Odor (C1)	☐ Dry-Season Water Table (C2)	
☐ Drift Deposits (B3)	☐ Oxidized Rhizospheres on Living Roots (C3)	☐ Saturation Visible on Aerial Imagery (C9)	
☐ Algal Mat or Crust (B4)	☐ Presence of Reduced Iron (C4)	☒ Geomorphic Position (D2)	
☐ Iron Deposits (B5)	☐ Recent Iron Reduction in Tilled Soils (C6)	☐ Shallow Aquitard (D3)	
☐ Surface Soil Cracks (B6)	☐ Stunted or Stressed Plants (D1) (LRR A)	☒ FAC-Neutral Test (D5)	
☐ Inundation Visible on Aerial Imagery (B7)	☐ Other (Explain in Remarks)	☐ Raised Ant Mounds (D6) (LRR A)	
☐ Sparsely Vegetated Concave Surface (B8)		☐ Frost-Heave Hummocks (D7)	
Field Observations:			
Surface Water Present?	Yes ☐ No ☒	Depth (inches):	
Water Table Present?	Yes ☒ No ☐	Depth (inches):	6
Saturation Present?	Yes ☒ No ☐	Depth (inches):	4
(includes capillary fringe)		Wetland Hydrology Present? Yes ☒ No ☐	
Describe Recorded Data (stream gage, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

U.S. Army Corps of Engineers				OMB Control #: 0710-0024, Exp: 9/30/2027 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)	
WETLAND DETERMINATION DATA SHEET – Western Mountains, Valleys, and Coast Region See ERDC/EL TR-10-3; the proponent agency is CECW-CO-R					
Project/Site: Eagle Pass Trail		City/County: Lake County		Sampling Date: 6/2/26	
Applicant/Owner: Montana Department of Transportation		State: MT		Sampling Point: UP-1b2	
Investigator(s): J. Mulligan and A. Hendryx		Section, Township, Range: S02 T19N R20W			
Landform (hillside, terrace, etc.): hillslope		Local relief (concave, convex, none): convex		Slope (%): 4	
Subregion (LRR/MLRA): LRR E, MLRA 44A		Lat: 47.440603		Long: -114.097315	
				Datum: WGS 84	
Soil Map Unit Name: Post silty clay loam, 2 to 4 percent slopes				NW1 classification: Upland	
Are climatic / hydrologic conditions on the site typical for this time of year? Yes No X (If no, explain in Remarks.)					
Are Vegetation, Soil, or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No					
Are Vegetation, Soil, or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)					
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.					
Hydrophytic Vegetation Present? Yes No X			Is the Sampled Area within a Wetland? Yes No X		
Hydric Soil Present? Yes No X					
Wetland Hydrology Present? Yes No X					
Remarks: Paired upland point for depressional prairie pothole wetland WL-1b2. The APT determined hydrologic conditions at the time of the survey were wetter than normal.					
VEGETATION – Use scientific names of plants.					
Tree Stratum (Plot size: r = 30 ft)		Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A) Total Number of Dominant Species Across All Strata: 2 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)
1.					
2.					
3.					
4.					
		=Total Cover			
Sapling/Shrub Stratum (Plot size: r = 15 ft)					Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species 0 x 1 = 0 FACW species 15 x 2 = 30 FAC species 22 x 3 = 66 FACU species 43 x 4 = 172 UPL species 10 x 5 = 50 Column Totals: 90 (A) 318 (B) Prevalence Index = B/A = 3.53
1.					
2.					
3.					
4.					
5.					
		=Total Cover			
Herb Stratum (Plot size: r = 5 ft)					Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 ¹ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants ¹ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. Lactuca serriola		40	Yes	FACU	
2. Phalaris arundinacea		15	No	FACW	
3. Dipsacus fullonum		2	No	FAC	
4. Cirsium arvense		20	Yes	FAC	
5. Bromus inermis		10	No	UPL	
6. Myosotis arvensis		2	No	FACU	
7. Galium aparine		1	No	FACU	
8.					
9.					
10.					
11.					
		90	=Total Cover		
Woody Vine Stratum (Plot size: n/a)					Hydrophytic Vegetation Present? Yes No X
1.					
2.					
		=Total Cover			
% Bare Ground in Herb Stratum 10					
Remarks:					

SOIL

Sampling Point: UP-1b2

[illegible]

HYDROLOGY

Wetland Hydrology Indicators:			
Primary Indicators (minimum of one is required; check all that apply)		Secondary Indicators (2 or more required)	
☐ Surface Water (A1)	☐ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	☐ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)	
☐ High Water Table (A2)	☐ Salt Crust (B11)	☐ Drainage Patterns (B10)	
☐ Saturation (A3)	☐ Aquatic Invertebrates (B13)	☐ Dry-Season Water Table (C2)	
☐ Water Marks (B1)	☐ Hydrogen Sulfide Odor (C1)	☐ Saturation Visible on Aerial Imagery (C9)	
☐ Sediment Deposits (B2)	☐ Oxidized Rhizospheres on Living Roots (C3)	☐ Geomorphic Position (D2)	
☐ Drift Deposits (B3)	☐ Presence of Reduced Iron (C4)	☐ Shallow Aquitard (D3)	
☐ Algal Mat or Crust (B4)	☐ Recent Iron Reduction in Tilled Soils (C6)	☐ FAC-Neutral Test (D5)	
☐ Iron Deposits (B5)	☐ Stunted or Stressed Plants (D1) (LRR A)	☐ Raised Ant Mounds (D6) (LRR A)	
☐ Surface Soil Cracks (B6)	☐ Other (Explain in Remarks)	☐ Frost-Heave Hummocks (D7)	
☐ Inundation Visible on Aerial Imagery (B7)			
☐ Sparsely Vegetated Concave Surface (B8)			
Field Observations:			
Surface Water Present?	Yes ☐ No ☒	Depth (inches):	
Water Table Present?	Yes ☐ No ☒	Depth (inches):	
Saturation Present?	Yes ☐ No ☒	Depth (inches):	
(includes capillary fringe)		Wetland Hydrology Present? Yes ☐ No ☒	
Describe Recorded Data (stream gage, monitoring well, aerial photos, previous inspections), if available:			
Remarks: Sloped area adjacent to pothole.			

Wetland Determination Data Form - Western Mountains, Valleys, and Coast Region

Project/Site: US93 Ninepipes City/County: Lake County Sampling Date: 5/19/2025
Applicant/Owner: Montana Department of Transportation State: MT Sampling Point: WL-1c
Investigator(s): B. Stockowitz and A. Hendryx Section, Township, Range: S35 T20N R20W
Landform (*hillslope, terrace, etc.*): Ditch Local Relief (*concave, convex, none*): Concave Slope (%): 0-2
Subregion (LRR): E - Rocky Mtn. Forests and Rangeland Lat. 47.443006 Long: -114.097166 Datum: WGS 84
Soil Map Unit Name: Post silt loam, 0 to 2 percent slopes NWI Classification: PEM

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No X (If no, explain in Remarks)

Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No

Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes X No

Hydric Soil Present? Yes X No

Is the Sampled Area within a Wetland? Yes X No

Wetland Hydrology Present? Yes X No

Remarks:

Depressional PEM wetland WL-1c in roadside ditch. Connected to WL-1b1 via culvert under Ninepipes Reservoir Access Road. The APT determined drought conditions. Approx. 1.34" precip recorded in the 10 days prior to survey and approx. 0.25" precip recorded during the four-day survey period (Ronan Mesonet station).

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: <u>r = 30 ft.</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>0</u> = Total Cover			

Sapling/Shrub Stratum (Plot size: <u>r = 15 ft.</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>0</u> = Total Cover			

Herb Stratum (Plot size: <u>r = 5 ft.</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Phalaris arundinacea</u>	<u>95</u>	<u>Y</u>	<u>FACW</u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>
6. <u> </u>	<u> </u>	<u> </u>	<u> </u>
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>
9. <u> </u>	<u> </u>	<u> </u>	<u> </u>
10. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>95</u> = Total Cover			

Woody Vine Stratum (Plot size: <u>n/a</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>0</u> = Total Cover			

% Bare Ground in Herb Stratum 5 %

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	<u>0</u>	x 1 =	<u>0</u>
FACW species	<u>95</u>	x 2 =	<u>190</u>
FAC species	<u>0</u>	x 3 =	<u>0</u>
FACU species	<u>0</u>	x 4 =	<u>0</u>
UPL species	<u>0</u>	x 5 =	<u>0</u>
Column Totals:	<u>95</u> (A)		<u>190</u> (B)
Prevalence Index = B/A =		<u>2.0</u>	

Hydrophytic Vegetation Indicators:

1. Rapid Test for Hydrophytic Vegetation
- X 2. Dominance Test is >50%.
- X 3. Prevalence Index is ≤3.0¹
4. Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
5. Wetland Non-Vascular Plants¹
- Problematic Hydrophytic Vegetation (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? X Yes No

Remarks: Dead broadleaf cattail (*Typha latifolia*) scattered throughout delineated feature and dense patch of Baltic rush (*Juncus balticus*) near sample pt.

SOIL

Sampling Point: **WL-1c****Profile Description:** *(Describe to the depth needed to document the indicator or confirm the absence of indicators.)*

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0–3	10YR 3/2	100					Loam	
3–10	10YR 3/2	90	10YR 5/6	10	C	M	Clay Loam	
10–20	10YR 4/4	95	10YR 5/6	3	C	M	Clay	CF scattered throughout
			N/2.5	2	C	M		

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix**Hydric Soil Indicators**

☐ Histosol (A1)	☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G)
☐ Histic Epipedon (A2)	☐ Sandy Gleyed Matrix (S4)
☐ Black Histic (A3)	☐ Sandy Redox (S5)
☐ Hydrogen Sulfide (A4)	☐ Stripped Matrix (S6)
☐ 1 cm Muck (A9) (LRR D, G)	☐ Loamy Mucky Mineral (F1) (except MLRA 1)
☐ Depleted Below Dark Surface (A11)	☐ Loamy Gleyed Matrix (F2)
☐ Thick Dark Surface (A12)	☐ Depleted Matrix (F3)
☐ Iron Monosulfide (A18)	☒ Redox Dark Surface (F6)
☐ Sandy Mucky Mineral (S1)	☐ Depleted Dark Surface (F7)
	☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

☐ 2 cm Muck (A10) (LRRA, E)
☐ Iron-Manganese Masses (F12) (LRR D)
☐ Red Parent Material (F21)
☐ Very Shallow Dark Surface (F22)
☐ Other (Explain in Remarks)

³Indicators of hydrophylic vegetation and wetland hydrology must be present, unless disturbed or problematic.**Restrictive Layer:** *(if observed)*

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐**Remarks:****HYDROLOGY****Wetland Hydrology Indicators:**Primary Indicators *(minimum of one is required; check all that apply)*

☐ Surface Water (A1)
☒ High Water Table (A2)
☒ Saturation (A3)
☐ Water Marks (B1)
☐ Sediment Deposits (B2)
☐ Drift Deposits (B3)
☐ Algal Mat or Crust (B4)
☐ Iron Deposits (B5)
☐ Surface Soil Cracks (B6)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Sparsely Vegetated Concave Surface (B8)

Secondary Indicators *(minimum of two required)*

☐ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	☐ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
☐ Salt Crust (B11)	☐ Drainage Patterns (B10)
☐ Aquatic Invertebrates (B13)	☐ Dry-Season Water Table (C2)
☐ Hydrogen Sulfide Odor (C1)	☐ Saturation Visible on Aerial Imagery (C9)
☐ Oxidized Rhizospheres on Living Roots (C3)	☒ Geomorphic Position (D2)
☐ Presence of Reduced Iron (C4)	☐ Shallow Aquitard (D3)
☐ Recent Iron Reduction in Tilled Soils (C6)	☒ FAC-Neutral Test (D5)
☐ Stunted or Stressed Plants (D1) (LRR A)	☐ Raised Ant Mounds (D6) (LRR A)
☐ Other (Explain in Remarks)	☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes ☐ No ☒	Depth (inches)	_____	Wetland Hydrology Present?
Water Table Present?	Yes ☒ No ☐	Depth (inches)	11	
Saturation Present? <i>(includes capillary fringe)</i>	Yes ☒ No ☐	Depth (inches)	surface	

Remarks:

Standing water up to 1" deep present within delineated feature.

Wetland Determination Data Form - Western Mountains, Valleys, and Coast Region

Project/Site: US93 Ninepipes City/County: Lake County Sampling Date: 5/19/2025
 Applicant/Owner: Montana Department of Transportation State: MT Sampling Point: UP-1c
 Investigator(s): B. Stockowitz and A. Hendryx Section, Township, Range: S35 T20N R20W
 Landform (*hillslope, terrace, etc.*): 1st "terrace" out of ditch Local Relief (*concave, convex, none*): none/flat Slope (%): 0-2
 Subregion (LRR): E - Rocky Mtn. Forests and Rangeland Lat. 47.443009 Long: -114.097196 Datum: WGS 84
 Soil Map Unit Name: Post silt loam, 0 to 2 percent slopes NWI Classification: UPL

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No X (If no, explain in Remarks)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes No X
 Hydric Soil Present? Yes No X Is the Sampled Area within a Wetland? Yes No X
 Wetland Hydrology Present? Yes No X

Remarks:

Paired upland point for wetland sample point WL-1c. The APT determined drought conditions. Approx. 1.34" precip recorded in the 10 days prior to survey and approx. 0.25" precip recorded during the four-day survey period (Ronan Mesonet station).

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: <u>r = 30 ft.</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Prevalence Index Worksheet: Total % Cover of: <u>0</u> Multiply by: OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>5</u> x 2 = <u>10</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>95</u> x 5 = <u>475</u> Column Totals: <u>100</u> (A) <u>485</u> (B) Prevalence Index = B/A = <u>4.9</u>
<u>0</u> = Total Cover				
Sapling/Shrub Stratum (Plot size: <u>r = 15 ft.</u>)				Hydrophytic Vegetation Indicators: 1. Rapid Test for Hydrophytic Vegetation <u> </u> 2. Dominance Test is >50%. <u> </u> 3. Prevalence Index is ≤3.0 ¹ <u> </u> 4. Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> 5. Wetland Non-Vascular Plants ¹ <u> </u> Problematic Hydrophytic Vegetation (Explain) <u> </u> ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Hydrophytic Vegetation Present? <u> </u> Yes <u>X</u> No <u> </u>
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Remarks:
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
<u>0</u> = Total Cover				
Herb Stratum (Plot size: <u>r = 5 ft.</u>)				
1. <u>Bromus inermis</u>	<u>95</u>	<u>Y</u>	<u>UPL</u>	
2. <u>Phalaris arundinacea</u>	<u>5</u>	<u>N</u>	<u>FACW</u>	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
6. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
9. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
10. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
<u>100</u> = Total Cover				
Woody Vine Stratum (Plot size: <u>n/a</u>)				
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
<u>0</u> = Total Cover				
% Bare Ground in Herb Stratum <u>0</u> %	<u>0</u> %			

SOIL

Sampling Point: **UP-1c****Profile Description:** *(Describe to the depth needed to document the indicator or confirm the absence of indicators.)*

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0–8	10YR 3/2	100					Loam	
8–16	10YR 4/3	100					Clay Loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix**Hydric Soil Indicators**

☐ Histosol (A1)	☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G)
☐ Histic Epipedon (A2)	☐ Sandy Gleyed Matrix (S4)
☐ Black Histic (A3)	☐ Sandy Redox (S5)
☐ Hydrogen Sulfide (A4)	☐ Stripped Matrix (S6)
☐ 1 cm Muck (A9) (LRR D, G)	☐ Loamy Mucky Mineral (F1) (except MLRA 1)
☐ Depleted Below Dark Surface (A11)	☐ Loamy Gleyed Matrix (F2)
☐ Thick Dark Surface (A12)	☐ Depleted Matrix (F3)
☐ Iron Monosulfide (A18)	☐ Redox Dark Surface (F6)
☐ Sandy Mucky Mineral (S1)	☐ Depleted Dark Surface (F7)
	☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

☐ 2 cm Muck (A10) (LRRA, E)
☐ Iron-Manganese Masses (F12) (LRR D)
☐ Red Parent Material (F21)
☐ Very Shallow Dark Surface (F22)
☐ Other (Explain in Remarks)

³Indicators of hydrophylic vegetation and wetland hydrology must be present, unless disturbed or problematic.**Restrictive Layer:** *(if observed)*

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☐ No ☒**Remarks:** Abrupt transition between horizons.

Soils subject to disturbance given proximity to borrow ditch and/or side cast material.

HYDROLOGY**Wetland Hydrology Indicators:**Primary Indicators *(minimum of one is required; check all that apply)*

☐ Surface Water (A1)
☐ High Water Table (A2)
☐ Saturation (A3)
☐ Water Marks (B1)
☐ Sediment Deposits (B2)
☐ Drift Deposits (B3)
☐ Algal Mat or Crust (B4)
☐ Iron Deposits (B5)
☐ Surface Soil Cracks (B6)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Sparsely Vegetated Concave Surface (B8)

Secondary Indicators *(minimum of two required)*

☐ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	☐ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
☐ Salt Crust (B11)	☐ Drainage Patterns (B10)
☐ Aquatic Invertebrates (B13)	☐ Dry-Season Water Table (C2)
☐ Hydrogen Sulfide Odor (C1)	☐ Saturation Visible on Aerial Imagery (C9)
☐ Oxidized Rhizospheres on Living Roots (C3)	☐ Geomorphic Position (D2)
☐ Presence of Reduced Iron (C4)	☐ Shallow Aquitard (D3)
☐ Recent Iron Reduction in Tilled Soils (C6)	☐ FAC-Neutral Test (D5)
☐ Stunted or Stressed Plants (D1) (LRR A)	☐ Raised Ant Mounds (D6) (LRR A)
☐ Other (Explain in Remarks)	☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes ☐ No ☒	Depth (inches)	_____	Wetland Hydrology Present?
Water Table Present?	Yes ☐ No ☒	Depth (inches)	_____	
Saturation Present? <i>(includes capillary fringe)</i>	Yes ☐ No ☒	Depth (inches)	_____	
				☐ Yes ☒ No

Remarks:

U.S. Army Corps of Engineers				OMB Control #: 0710-0024, Exp: 9/30/2027 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)	
WETLAND DETERMINATION DATA SHEET – Western Mountains, Valleys, and Coast Region					
See ERDC/EL TR-10-3; the proponent agency is CECW-CO-R					
Project/Site: Eagle Pass Trail		City/County: Lake County		Sampling Date: 5/11/2026	
Applicant/Owner: Montana Department of Transportation		State: MT		Sampling Point: WL-2a	
Investigator(s): J. Mulligan and A. Hendryx		Section, Township, Range: S01 T19N R20W			
Landform (hillside, terrace, etc.): depression		Local relief (concave, convex, none): none		Slope (%): 2	
Subregion (LRR/MLRA): LRR E, MLRA 44A		Lat: 47.437716		Long: -114.096786	
Datum: WGS 84					
Soil Map Unit Name: Post silty clay loam, 2 to 4 percent slopes		NW1 classification: PEM			
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)					
Are Vegetation, Soil, or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No					
Are Vegetation, Soil, or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)					
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.					
Hydrophytic Vegetation Present? Yes X No			Is the Sampled Area within a Wetland? Yes X No		
Hydric Soil Present? Yes X No					
Wetland Hydrology Present? Yes X No					
Remarks: Depressional PEM wetland WL-2 on the eastern side of US 93. Wetland boundary coincides with grade change in road prism and fringes ID-1 Ninepipe Feeder Canal.					
VEGETATION – Use scientific names of plants.					
Tree Stratum (Plot size: r = 30 ft)		Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A) Total Number of Dominant Species Across All Strata: 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)
1.					
2.					
3.					
4.					
		=Total Cover			
Sapling/Shrub Stratum (Plot size: r = 15 ft)					Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species 0 x 1 = 0 FACW species 100 x 2 = 200 FAC species 0 x 3 = 0 FACU species 0 x 4 = 0 UPL species 0 x 5 = 0 Column Totals: 100 (A) 200 (B) Prevalence Index = B/A = 2.00
1.					
2.					
3.					
4.					
5.					
		=Total Cover			
Herb Stratum (Plot size: r = 5 ft)					Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is >50% X 3 - Prevalence Index is ≤3.0 ¹ 4 -Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants ¹ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. Phalaris arundinacea		100	Yes	FACW	
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
		100 =Total Cover			
Woody Vine Stratum (Plot size: n/a)					Hydrophytic Vegetation Present? Yes X No
1.					
2.					
		=Total Cover			
% Bare Ground in Herb Stratum					
Remarks:					

SOIL

Sampling Point: WL-2a

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-6	10YR 2/2	100					Loamy/Clayey	
6-18	10YR 3/2	90	7.5YR 5/6	10	C	M	Loamy/Clayey	Prominent redox concentrations

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)			Indicators for Problematic Hydric Soils ³ :	
☐ Histosol (A1)	☐ Sandy Gleyed Matrix (S4)	☐ 2 cm Muck (A10) (LRR A, E)		
☐ Histic Epipedon (A2)	☐ Sandy Redox (S5)	☐ Iron-Manganese Masses (F12) (LRR D)		
☐ Black Histic (A3)	☐ Stripped Matrix (S6)	☐ Red Parent Material (F21)		
☐ Hydrogen Sulfide (A4)	☐ Loamy Mucky Mineral (F1) (except MLRA 1)	☐ Very Shallow Dark Surface (F22)		
☐ 1 cm Muck (A9) (LRR D, G)	☐ Loamy Gleyed Matrix (F2)	☐ Other (Explain in Remarks)		
☐ Depleted Below Dark Surface (A11)	☐ Depleted Matrix (F3)	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.		
☐ Thick Dark Surface (A12)	☒ Redox Dark Surface (F6)			
☐ Iron Monosulfide (A18)	☐ Depleted Dark Surface (F7)			
☐ Sandy Mucky Mineral (S1)	☐ Redox Depressions (F8)			
☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G)				

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes ☒ No _____
Remarks:	

HYDROLOGY

Wetland Hydrology Indicators:			
Primary Indicators (minimum of one is required; check all that apply)		Secondary Indicators (2 or more required)	
☐ Surface Water (A1)	☐ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	☐ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)	
☐ High Water Table (A2)	☐ Salt Crust (B11)	☐ Drainage Patterns (B10)	
☐ Saturation (A3)	☐ Aquatic Invertebrates (B13)	☐ Dry-Season Water Table (C2)	
☐ Water Marks (B1)	☐ Hydrogen Sulfide Odor (C1)	☐ Saturation Visible on Aerial Imagery (C9)	
☐ Sediment Deposits (B2)	☐ Oxidized Rhizospheres on Living Roots (C3)	☒ Geomorphic Position (D2)	
☐ Drift Deposits (B3)	☐ Presence of Reduced Iron (C4)	☐ Shallow Aquitard (D3)	
☐ Algal Mat or Crust (B4)	☐ Recent Iron Reduction in Tilled Soils (C6)	☒ FAC-Neutral Test (D5)	
☐ Iron Deposits (B5)	☐ Stunted or Stressed Plants (D1) (LRR A)	☐ Raised Ant Mounds (D6) (LRR A)	
☐ Surface Soil Cracks (B6)	☐ Other (Explain in Remarks)	☐ Frost-Heave Hummocks (D7)	
☐ Inundation Visible on Aerial Imagery (B7)			
☐ Sparsely Vegetated Concave Surface (B8)			

Field Observations: Surface Water Present? Yes _____ No ☒ Depth (inches): _____ Water Table Present? Yes _____ No ☒ Depth (inches): _____ Saturation Present? Yes ☒ No _____ Depth (inches): 16 (includes capillary fringe)	Wetland Hydrology Present? Yes ☒ No _____
Describe Recorded Data (stream gage, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Western Mountains, Valleys, and Coast Region See ERDC/EL TR-10-3; the proponent agency is CECW-CO-R		OMB Control #: 0710-0024, Exp: 9/30/2027 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: Eagle Pass Trail

City/County: Lake County

Sampling Date: 5/11/2026

Applicant/Owner: Montana Department of Transportation

State: MT

Sampling Point: UP-2a

Investigator(s): J. Mulligan and A. Hendryx

Section, Township, Range: S01 T19N R20W

Landform (hillside, terrace, etc.): road prism

Local relief (concave, convex, none): none

Slope (%): 3

Subregion (LRR/MLRA): LRR E, MLRA 44A

Lat: 47.437717

Long: -114.096824

Datum: WGS 84

Soil Map Unit Name: Post silty clay loam, 2 to 4 percent slopes

NWI classification: UPL

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u> Hydric Soil Present? Yes <u> </u> No <u>X</u> Wetland Hydrology Present? Yes <u> </u> No <u>X</u>	Is the Sampled Area within a Wetland? Yes <u> </u> No <u>X</u>
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Remarks:
 Paired upland point for depressional PEM wetland sample point WL-2. Sample point is located within US 93 road prism.

VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: <u>r = 30 ft</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)																
1.																					
2.																					
3.																					
4.																					
=Total Cover																					
Sapling/Shrub Stratum	(Plot size: <u>r = 15 ft</u>)				Prevalence Index worksheet: <table style="width:100%; font-size: small;"> <tr> <th>Total % Cover of:</th> <th>Multiply by:</th> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>80</u></td> <td>x 2 = <u>160</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>2</u></td> <td>x 5 = <u>10</u></td> </tr> <tr> <td>Column Totals: <u>82</u> (A)</td> <td><u>170</u> (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = <u>2.07</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>80</u>	x 2 = <u>160</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>2</u>	x 5 = <u>10</u>	Column Totals: <u>82</u> (A)	<u>170</u> (B)	Prevalence Index = B/A = <u>2.07</u>	
Total % Cover of:	Multiply by:																				
OBL species <u>0</u>	x 1 = <u>0</u>																				
FACW species <u>80</u>	x 2 = <u>160</u>																				
FAC species <u>0</u>	x 3 = <u>0</u>																				
FACU species <u>0</u>	x 4 = <u>0</u>																				
UPL species <u>2</u>	x 5 = <u>10</u>																				
Column Totals: <u>82</u> (A)	<u>170</u> (B)																				
Prevalence Index = B/A = <u>2.07</u>																					
1.																					
2.																					
3.																					
4.																					
5.																					
=Total Cover																					
Herb Stratum	(Plot size: <u>r = 5 ft</u>)				Hydrophytic Vegetation Indicators: <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>X</u> <u>2</u> - Dominance Test is >50% <u> </u> <u>3</u> - Prevalence Index is ≤3.0 ¹ <u> </u> <u>4</u> -Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> <u>5</u> - Wetland Non-Vascular Plants ¹ <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
1.	<u>Phalaris arundinacea</u>	<u>80</u>	<u>Yes</u>	<u>FACW</u>																	
2.	<u>Thlaspi arvense</u>	<u>2</u>	<u>No</u>	<u>UPL</u>																	
3.																					
4.																					
5.																					
6.																					
7.																					
8.																					
9.																					
10.																					
11.																					
<u>82</u> =Total Cover																					
Woody Vine Stratum	(Plot size: <u>n/a</u>)																				
1.																					
2.																					
=Total Cover																					
% Bare Ground in Herb Stratum <u>18</u>																					

Remarks:
 Hydrophytic vegetation present due to dominance by Phalaris arundinacea, however, soils do not meet hydric soils indicators.

SOIL

Sampling Point: UP-2a

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-8	7.5YR 3/2	100					Loamy/Clayey	
8-18	7.5YR 5/4	100					Loamy/Clayey	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)			Indicators for Problematic Hydric Soils ³ :	
☐ Histosol (A1)	☐ Sandy Gleyed Matrix (S4)	☐ 2 cm Muck (A10) (LRR A, E)		
☐ Histic Epipedon (A2)	☐ Sandy Redox (S5)	☐ Iron-Manganese Masses (F12) (LRR D)		
☐ Black Histic (A3)	☐ Stripped Matrix (S6)	☐ Red Parent Material (F21)		
☐ Hydrogen Sulfide (A4)	☐ Loamy Mucky Mineral (F1) (except MLRA 1)	☐ Very Shallow Dark Surface (F22)		
☐ 1 cm Muck (A9) (LRR D, G)	☐ Loamy Gleyed Matrix (F2)	☐ Other (Explain in Remarks)		
☐ Depleted Below Dark Surface (A11)	☐ Depleted Matrix (F3)			
☐ Thick Dark Surface (A12)	☐ Redox Dark Surface (F6)			
☐ Iron Monosulfide (A18)	☐ Depleted Dark Surface (F7)			
☐ Sandy Mucky Mineral (S1)	☐ Redox Depressions (F8)			
☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G)				

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No <u>X</u>
---	---

Remarks: _____

HYDROLOGY

Wetland Hydrology Indicators:			
Primary Indicators (minimum of one is required; check all that apply)		Secondary Indicators (2 or more required)	
☐ Surface Water (A1)	☐ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	☐ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)	
☐ High Water Table (A2)	☐ Salt Crust (B11)	☐ Drainage Patterns (B10)	
☐ Saturation (A3)	☐ Aquatic Invertebrates (B13)	☐ Dry-Season Water Table (C2)	
☐ Water Marks (B1)	☐ Hydrogen Sulfide Odor (C1)	☐ Saturation Visible on Aerial Imagery (C9)	
☐ Sediment Deposits (B2)	☐ Oxidized Rhizospheres on Living Roots (C3)	☐ Geomorphic Position (D2)	
☐ Drift Deposits (B3)	☐ Presence of Reduced Iron (C4)	☐ Shallow Aquitard (D3)	
☐ Algal Mat or Crust (B4)	☐ Recent Iron Reduction in Tilled Soils (C6)	☒ FAC-Neutral Test (D5)	
☐ Iron Deposits (B5)	☐ Stunted or Stressed Plants (D1) (LRR A)	☐ Raised Ant Mounds (D6) (LRR A)	
☐ Surface Soil Cracks (B6)	☐ Other (Explain in Remarks)	☐ Frost-Heave Hummocks (D7)	
☐ Inundation Visible on Aerial Imagery (B7)			
☐ Sparsely Vegetated Concave Surface (B8)			

Field Observations: Surface Water Present? Yes _____ No <u>x</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>x</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>x</u> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <u>X</u>
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Describe Recorded Data (stream gage, monitoring well, aerial photos, previous inspections), if available: _____

Remarks: _____

U.S. Army Corps of Engineers				OMB Control #: 0710-0024, Exp: 9/30/2027	
WETLAND DETERMINATION DATA SHEET – Western Mountains, Valleys, and Coast Region				Requirement Control Symbol EXEMPT:	
See ERDC/EL TR-10-3; the proponent agency is CECW-CO-R				(Authority: AR 335-15, paragraph 5-2a)	
Project/Site: Eagle Pass Trail		City/County: Lake County		Sampling Date: 6/2/26	
Applicant/Owner: Montana Department of Transportation		State: MT		Sampling Point: WL-2b	
Investigator(s): J. Mulligan and A. Hendryx		Section, Township, Range: S01 T19N R20W			
Landform (hillside, terrace, etc.): roadside ditch		Local relief (concave, convex, none): concave		Slope (%): 0	
Subregion (LRR/MLRA): LRR E, MLRA 44A		Lat: 47.440347		Long: -114.096856	
				Datum: WGS 84	
Soil Map Unit Name: Post silty clay loam, 2 to 4 percent slopes				NW1 classification: PEM	
Are climatic / hydrologic conditions on the site typical for this time of year? Yes No X (If no, explain in Remarks.)					
Are Vegetation X, Soil, or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No					
Are Vegetation, Soil, or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)					
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.					
Hydrophytic Vegetation Present? Yes X No			Is the Sampled Area within a Wetland? Yes X No		
Hydric Soil Present? Yes X No					
Wetland Hydrology Present? Yes X No					
Remarks: Depressional roadside ditch wetland WL-2B, connected via driveway culvert to WL-2A, in front of Ninepipes Lodge. All vegetation within and outside of wetland has been mowed. The APT determined hydrologic conditions at the time of the survey were wetter than normal.					
VEGETATION – Use scientific names of plants.					
Tree Stratum (Plot size: r = 30 ft)		Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A) Total Number of Dominant Species Across All Strata: 2 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)
1.					
2.					
3.					
4.					
		=Total Cover			Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species 75 x 1 = 75 FACW species 0 x 2 = 0 FAC species 0 x 3 = 0 FACU species 0 x 4 = 0 UPL species 0 x 5 = 0 Column Totals: 75 (A) 75 (B) Prevalence Index = B/A = 1.00
Sapling/Shrub Stratum (Plot size: r = 15 ft)					
1.					
2.					
3.					
4.					
5.					
		=Total Cover			Hydrophytic Vegetation Indicators: X 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is >50% X 3 - Prevalence Index is ≤3.0 ¹ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants ¹ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Herb Stratum (Plot size: r = 5 ft)					
1. Eleocharis palustris		45	Yes	OBL	
2. Typha latifolia		30	Yes	OBL	
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
		75	=Total Cover		
Woody Vine Stratum (Plot size: n/a)					Hydrophytic Vegetation Present? Yes X No
1.					
2.					
		=Total Cover			
% Bare Ground in Herb Stratum 25					
Remarks: Vegetation has been recently mowed.					

SOIL

Sampling Point: WL-2b

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-3	10YR 3/2	100					Loamy/Clayey	
3-16	10YR 5/1	80	10YR 5/8	20	C	M	Loamy/Clayey	60% cobbles and gravel

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)			Indicators for Problematic Hydric Soils ³ :	
☐ Histosol (A1)	☐ Sandy Gleyed Matrix (S4)	☐ 2 cm Muck (A10) (LRR A, E)		
☐ Histic Epipedon (A2)	☐ Sandy Redox (S5)	☐ Iron-Manganese Masses (F12) (LRR D)		
☐ Black Histic (A3)	☐ Stripped Matrix (S6)	☐ Red Parent Material (F21)		
☐ Hydrogen Sulfide (A4)	☐ Loamy Mucky Mineral (F1) (except MLRA 1)	☐ Very Shallow Dark Surface (F22)		
☐ 1 cm Muck (A9) (LRR D, G)	☐ Loamy Gleyed Matrix (F2)	☐ Other (Explain in Remarks)		
☐ Depleted Below Dark Surface (A11)	☒ Depleted Matrix (F3)			
☐ Thick Dark Surface (A12)	☐ Redox Dark Surface (F6)			
☐ Iron Monosulfide (A18)	☐ Depleted Dark Surface (F7)			
☐ Sandy Mucky Mineral (S1)	☐ Redox Depressions (F8)			
☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G)				

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):		Hydric Soil Present?	
Type: _____		Yes	☒
Depth (inches): _____		No	☐

Remarks:
Hydric soil present.

HYDROLOGY

Wetland Hydrology Indicators:			
Primary Indicators (minimum of one is required; check all that apply)		Secondary Indicators (2 or more required)	
☐ Surface Water (A1)	☐ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	☐ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)	
☒ High Water Table (A2)	☐ Salt Crust (B11)	☐ Drainage Patterns (B10)	
☒ Saturation (A3)	☐ Aquatic Invertebrates (B13)	☐ Dry-Season Water Table (C2)	
☐ Water Marks (B1)	☐ Hydrogen Sulfide Odor (C1)	☐ Saturation Visible on Aerial Imagery (C9)	
☐ Sediment Deposits (B2)	☐ Oxidized Rhizospheres on Living Roots (C3)	☒ Geomorphic Position (D2)	
☐ Drift Deposits (B3)	☐ Presence of Reduced Iron (C4)	☐ Shallow Aquitard (D3)	
☐ Algal Mat or Crust (B4)	☐ Recent Iron Reduction in Tilled Soils (C6)	☒ FAC-Neutral Test (D5)	
☐ Iron Deposits (B5)	☐ Stunted or Stressed Plants (D1) (LRR A)	☐ Raised Ant Mounds (D6) (LRR A)	
☐ Surface Soil Cracks (B6)	☐ Other (Explain in Remarks)	☐ Frost-Heave Hummocks (D7)	
☐ Inundation Visible on Aerial Imagery (B7)			
☐ Sparsely Vegetated Concave Surface (B8)			

Field Observations:				Wetland Hydrology Present?	
Surface Water Present?	Yes ☐ No ☒	Depth (inches):	_____	Yes	☒
Water Table Present?	Yes ☒ No ☐	Depth (inches):	1	No	☐
Saturation Present?	Yes ☒ No ☐	Depth (inches):	0.5		
(includes capillary fringe)					

Describe Recorded Data (stream gage, monitoring well, aerial photos, previous inspections), if available:

Remarks:

U.S. Army Corps of Engineers

WETLAND DETERMINATION DATA SHEET – Western Mountains, Valleys, and Coast Region

See ERDC/EL TR-10-3; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp: 9/30/2027

Requirement Control Symbol EXEMPT:

(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Eagle Pass Trail

City/County: Lake County

Sampling Date: 6/2/26

Applicant/Owner: Montana Department of Transportation

State: MT

Sampling Point: UP-2b

Investigator(s): J. Mulligan and A. Hendryx

Section, Township, Range: S01 T19N R20W

Landform (hillside, terrace, etc.): hillside

Local relief (concave, convex, none): convex

Slope (%): 3

Subregion (LRR/MLRA): LRR E, MLRA 44A

Lat: 47.440347

Long: -114.096845

Datum: WGS 84

Soil Map Unit Name: Post silty clay loam, 2 to 4 percent slopes

NWI classification: Upland

Are climatic / hydrologic conditions on the site typical for this time of year?

Yes

No X

(If no, explain in Remarks.)

Are Vegetation X, Soil, or Hydrology significantly disturbed?

Are "Normal Circumstances" present?

Yes X

No

Are Vegetation, Soil, or Hydrology naturally problematic?

(If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?

Yes

No X

Hydric Soil Present?

Yes

No X

Wetland Hydrology Present?

Yes

No X

Is the Sampled Area within a Wetland?

Yes

No X

Remarks:

Paired upland point for WL-2b in front of Ninepipes Lodge. All vegetation has been recently mowed. The APT determined hydrologic conditions at the time of the survey were wetter than normal.

VEGETATION – Use scientific names of plants.

Tree Stratum

(Plot size: r = 30 ft)

Absolute % Cover

Dominant Species?

Indicator Status

1.

2.

3.

4.

=Total Cover

Sapling/Shrub Stratum

(Plot size: r = 15 ft)

Absolute % Cover

Dominant Species?

Indicator Status

1.

2.

3.

4.

5.

=Total Cover

Herb Stratum

(Plot size: r = 5 ft)

Absolute % Cover

Dominant Species?

Indicator Status

1. Poa pratensis

2. Phalaris arundinacea

3. Taraxacum officinale

4.

5.

6.

7.

8.

9.

10.

11.

100 =Total Cover

Woody Vine Stratum

(Plot size: n/a)

Absolute % Cover

Dominant Species?

Indicator Status

1.

2.

=Total Cover

% Bare Ground in Herb Stratum

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:

1 (A)

Total Number of Dominant Species Across All Strata:

1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC:

100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:

Multiply by:

OBL species 0 x 1 = 0

FACW species 15 x 2 = 30

FAC species 80 x 3 = 240

FACU species 5 x 4 = 20

UPL species 0 x 5 = 0

Column Totals: 100 (A) 290 (B)

Prevalence Index = B/A = 2.90

Hydrophytic Vegetation Indicators:

1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

3 - Prevalence Index is ≤3.0¹

4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

5 - Wetland Non-Vascular Plants¹

Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present?

Yes X

No

Remarks:

All vegetation has been mowed.

SOIL

Sampling Point: UP-2b

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-2	10YR 3/2	100					Loamy/Clayey	
2-12	10YR 4/2	100					Loamy/Clayey	60% cobble and gravel

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)			Indicators for Problematic Hydric Soils ³ :	
☐ Histosol (A1)	☐ Sandy Gleyed Matrix (S4)	☐ 2 cm Muck (A10) (LRR A, E)		
☐ Histic Epipedon (A2)	☐ Sandy Redox (S5)	☐ Iron-Manganese Masses (F12) (LRR D)		
☐ Black Histic (A3)	☐ Stripped Matrix (S6)	☐ Red Parent Material (F21)		
☐ Hydrogen Sulfide (A4)	☐ Loamy Mucky Mineral (F1) (except MLRA 1)	☐ Very Shallow Dark Surface (F22)		
☐ 1 cm Muck (A9) (LRR D, G)	☐ Loamy Gleyed Matrix (F2)	☐ Other (Explain in Remarks)		
☐ Depleted Below Dark Surface (A11)	☐ Depleted Matrix (F3)			
☐ Thick Dark Surface (A12)	☐ Redox Dark Surface (F6)			
☐ Iron Monosulfide (A18)	☐ Depleted Dark Surface (F7)			
☐ Sandy Mucky Mineral (S1)	☐ Redox Depressions (F8)			
☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G)				

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: <u>hardpan</u> Depth (inches): <u>12</u>		Hydric Soil Present? Yes ☐ No ☒
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Remarks:
No hydric soil present.

HYDROLOGY

Wetland Hydrology Indicators:			
Primary Indicators (minimum of one is required; check all that apply)		Secondary Indicators (2 or more required)	
☐ Surface Water (A1)	☐ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	☐ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)	
☐ High Water Table (A2)	☐ Salt Crust (B11)	☐ Drainage Patterns (B10)	
☐ Saturation (A3)	☐ Aquatic Invertebrates (B13)	☐ Dry-Season Water Table (C2)	
☐ Water Marks (B1)	☐ Hydrogen Sulfide Odor (C1)	☐ Saturation Visible on Aerial Imagery (C9)	
☐ Sediment Deposits (B2)	☐ Oxidized Rhizospheres on Living Roots (C3)	☐ Geomorphic Position (D2)	
☐ Drift Deposits (B3)	☐ Presence of Reduced Iron (C4)	☐ Shallow Aquitard (D3)	
☐ Algal Mat or Crust (B4)	☐ Recent Iron Reduction in Tilled Soils (C6)	☐ FAC-Neutral Test (D5)	
☐ Iron Deposits (B5)	☐ Stunted or Stressed Plants (D1) (LRR A)	☐ Raised Ant Mounds (D6) (LRR A)	
☐ Surface Soil Cracks (B6)	☐ Other (Explain in Remarks)	☐ Frost-Heave Hummocks (D7)	
☐ Inundation Visible on Aerial Imagery (B7)			
☐ Sparsely Vegetated Concave Surface (B8)			

Field Observations: Surface Water Present? Yes ☐ No ☒ Depth (inches): <u> </u> Water Table Present? Yes ☐ No ☒ Depth (inches): <u> </u> Saturation Present? Yes ☐ No ☒ Depth (inches): <u> </u> (includes capillary fringe)				Wetland Hydrology Present? Yes ☐ No ☒
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Describe Recorded Data (stream gage, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Wetland Determination Data Form - Western Mountains, Valleys, and Coast Region

Project/Site: US 93 Ninepipes City/County: Lake County Sampling Date: 5/19/2025
 Applicant/Owner: Montana Department of Transportation State: MT Sampling Point: WL-3
 Investigator(s): R. Newton and J. Mulligan Section, Township, Range: S1 T19N R20W
 Landform (*hillslope, terrace, etc.*): sloped pond fringe Local Relief (*concave, convex, none*): concave Slope (%): 0-2
 Subregion (LRR): E - Rocky Mtn. Forests and Rangeland Lat. 47.442483 Long: -114.096383 Datum: WGS 84
 Soil Map Unit Name: Post silty clay loam, 2 to 4 percent slopes NWI Classification: PAB/PEM

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No X (If no, explain in Remarks)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes X No
 Hydric Soil Present? Yes X No Is the Sampled Area within a Wetland? Yes X No
 Wetland Hydrology Present? Yes X No

Remarks:

Depressional wetland WL-3, open water and fringing PEM, in a prairie pothole on the southeastern side of US 93 and Eagle Pass Trail intersection. Receives surface flow from WL-4a through a CMP culvert. The APT determined drought conditions. Approx. 1.34" precip recorded in the 10 days prior to survey and approx. 0.25" precip recorded during the four-day survey period (Ronan Mesonet station).

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: <u>r = 30 ft.</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:			
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)			
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Total Number of Dominant Species Across All Strata: <u>2</u> (B)			
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)			
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>				
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>				
<u>0</u> = Total Cover							
Sapling/Shrub Stratum (Plot size: <u>r = 15 ft.</u>)				Prevalence Index Worksheet:			
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Total % Cover of: <u> </u> Multiply by: <u> </u>			
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	OBL species	<u>25</u>	x 1 =	<u>25</u>
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	FACW species	<u>77</u>	x 2 =	<u>154</u>
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	FAC species	<u>10</u>	x 3 =	<u>30</u>
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>	FACU species	<u>0</u>	x 4 =	<u>0</u>
<u>0</u> = Total Cover				UPL species	<u>0</u>	x 5 =	<u>0</u>
				Column Totals:	<u>112</u> (A)		<u>209</u> (B)
				Prevalence Index = B/A = <u>1.9</u>			
Herb Stratum (Plot size: <u>r = 5ft.</u>)				Hydrophytic Vegetation Indicators:			
1. <u>Phalaris arundinacea</u>	<u>65</u>	<u>Y</u>	<u>FACW</u>	<u>X</u> 1. Rapid Test for Hydrophytic Vegetation			
2. <u>Rorippa palustris</u>	<u>25</u>	<u>Y</u>	<u>OBL</u>	<u>X</u> 2. Dominance Test is >50%.			
3. <u>Cirsium arvense</u>	<u>10</u>	<u>N</u>	<u>FAC</u>	<u>X</u> 3. Prevalence Index is ≤3.0 ¹			
4. <u>Juncus balticus</u>	<u>12</u>	<u>N</u>	<u>FACW</u>	<u> </u> 4. Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)			
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u> 5. Wetland Non-Vascular Plants ¹			
6. <u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u> Problematic Hydrophytic Vegetation (Explain)			
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>				
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>				
9. <u> </u>	<u> </u>	<u> </u>	<u> </u>				
10. <u> </u>	<u> </u>	<u> </u>	<u> </u>				
<u>112</u> = Total Cover				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.			
Woody Vine Stratum (Plot size: <u>n/a</u>)				Hydrophytic Vegetation Present? <u>X</u> Yes <u> </u> No <u> </u>			
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>				
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>				
<u>0</u> = Total Cover							
% Bare Ground in Herb Stratum <u>0</u> %							

Remarks:

SOIL

Sampling Point: **WL-3****Profile Description:** *(Describe to the depth needed to document the indicator or confirm the absence of indicators.)*

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-8	10 YR 3/2	95	5 YR 4/6	5	C	M	Silt Loam	
8-16	5 YR 3/2	60	5 YR 4/6	20	C	M	Silty Clay	
	10 YR 3/2	20					Silty Clay	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix**Hydric Soil Indicators**

☐ Histosol (A1)	☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G)
☐ Histic Epipedon (A2)	☐ Sandy Gleyed Matrix (S4)
☐ Black Histic (A3)	☐ Sandy Redox (S5)
☐ Hydrogen Sulfide (A4)	☐ Stripped Matrix (S6)
☐ 1 cm Muck (A9) (LRR D, G)	☐ Loamy Mucky Mineral (F1) (except MLRA 1)
☐ Depleted Below Dark Surface (A11)	☐ Loamy Gleyed Matrix (F2)
☐ Thick Dark Surface (A12)	☐ Depleted Matrix (F3)
☐ Iron Monosulfide (A18)	☐ Redox Dark Surface (F6)
☐ Sandy Mucky Mineral (S1)	☐ Depleted Dark Surface (F7)
	☒ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

☐ 2 cm Muck (A10) (LRRA, E)
☐ Iron-Manganese Masses (F12) (LRR D)
☐ Red Parent Material (F21)
☐ Very Shallow Dark Surface (F22)
☐ Other (Explain in Remarks)

³Indicators of hydrophylic vegetation and wetland hydrology must be present, unless disturbed or problematic.**Restrictive Layer:** *(if observed)*
Type: _____
Depth (inches): _____
Hydric Soil Present? Yes ☒ No ☐**Remarks:****HYDROLOGY****Wetland Hydrology Indicators:**Primary Indicators *(minimum of one is required; check all that apply)*

☐ Surface Water (A1)
☐ High Water Table (A2)
☐ Saturation (A3)
☐ Water Marks (B1)
☐ Sediment Deposits (B2)
☐ Drift Deposits (B3)
☐ Algal Mat or Crust (B4)
☐ Iron Deposits (B5)
☐ Surface Soil Cracks (B6)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Sparsely Vegetated Concave Surface (B8)

Secondary Indicators *(minimum of two required)*

☐ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	☐ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
☐ Salt Crust (B11)	☐ Drainage Patterns (B10)
☐ Aquatic Invertebrates (B13)	☐ Dry-Season Water Table (C2)
☐ Hydrogen Sulfide Odor (C1)	☒ Saturation Visible on Aerial Imagery (C9)
☐ Oxidized Rhizospheres on Living Roots (C3)	☒ Geomorphic Position (D2)
☐ Presence of Reduced Iron (C4)	☐ Shallow Aquitard (D3)
☐ Recent Iron Reduction in Tilled Soils (C6)	☒ FAC-Neutral Test (D5)
☐ Stunted or Stressed Plants (D1) (LRR A)	☐ Raised Ant Mounds (D6) (LRR A)
☐ Other (Explain in Remarks)	☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes ☐ No ☒	Depth (inches) _____	Wetland Hydrology Present?
Water Table Present?	Yes ☐ No ☒	Depth (inches) _____	
Saturation Present? <i>(includes capillary fringe)</i>	Yes ☒ No ☐	Depth (inches) surface	☒ Yes ☐ No

Remarks:

water in PAB is 3 feet deep

Wetland Determination Data Form - Western Mountains, Valleys, and Coast Region

Project/Site: US 93 Ninepipes City/County: Lake County Sampling Date: 5/19/2025
 Applicant/Owner: Montana Department of Transportation State: MT Sampling Point: UP-3
 Investigator(s): R. Newton and J. Mulligan Section, Township, Range: S1 T19N R20W
 Landform (*hillslope, terrace, etc.*): hillslope Local Relief (*concave, convex, none*): concave Slope (%): 0-3
 Subregion (LRR): E - Rocky Mtn. Forests and Rangeland Lat. 47.442491 Long: -114.0964 Datum: WGS 84
 Soil Map Unit Name: Post silt loam, 0 to 2 percent slopes NWI Classification: UPL

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No X (If no, explain in Remarks)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes No X
 Hydric Soil Present? Yes No X Is the Sampled Area within a Wetland? Yes No X
 Wetland Hydrology Present? Yes No X

Remarks:

Paired upland point for wetland sample point WL-3. The APT determined drought conditions. Approx. 1.34" precip recorded in the 10 days prior to survey and approx. 0.25" precip recorded during the four-day survey period (Ronan Mesonet station).

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: r = 30 ft.)

	Absolute % Cover	Dominant Species?	Indicator Status
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>0</u> = Total Cover			

Sapling/Shrub Stratum (Plot size: r = 15 ft.)

	Absolute % Cover	Dominant Species?	Indicator Status
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>0</u> = Total Cover			

Herb Stratum (Plot size: r = 5ft.)

	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Cirsium arvense</u>	<u>15</u>	<u>N</u>	<u>FAC</u>
2. <u>Juncus balticus</u>	<u>20</u>	<u>Y</u>	<u>FACW</u>
3. <u>Cardaria draba</u>	<u>5</u>	<u>N</u>	<u>NI</u>
4. <u>Bromus inermis</u>	<u>40</u>	<u>Y</u>	<u>UPL</u>
5. <u>Rorippa palustris</u>	<u>5</u>	<u>N</u>	<u>OBL</u>
6. <u>Taraxacum officinale</u>	<u>5</u>	<u>N</u>	<u>FACU</u>
7. <u>Lappula squarrosa</u>	<u>3</u>	<u>N</u>	<u>NI</u>
8. <u>Phalaris arundinacea</u>	<u>10</u>	<u>N</u>	<u>FACW</u>
9. <u> </u>	<u> </u>	<u> </u>	<u> </u>
10. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>103</u> = Total Cover			

Woody Vine Stratum (Plot size: n/a)

	Absolute % Cover	Dominant Species?	Indicator Status
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>0</u> = Total Cover			

% Bare Ground in Herb Stratum 0 %

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
 Total Number of Dominant Species Across All Strata: 2 (B)
 Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	<u>5</u>	x 1 =	<u>5</u>
FACW species	<u>30</u>	x 2 =	<u>60</u>
FAC species	<u>15</u>	x 3 =	<u>45</u>
FACU species	<u>5</u>	x 4 =	<u>20</u>
UPL species	<u>48</u>	x 5 =	<u>240</u>
Column Totals:	<u>103</u> (A)		<u>370</u> (B)
Prevalence Index = B/A =			<u>3.6</u>

Hydrophytic Vegetation Indicators:

1. Rapid Test for Hydrophytic Vegetation
 2. Dominance Test is >50%.
 3. Prevalence Index is ≤3.0¹
 4. Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 5. Wetland Non-Vascular Plants¹
- Problematic Hydrophytic Vegetation (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No

Remarks:

Species with no indicator (NI) are treated as UPL for this analysis.

SOIL

Sampling Point: **UP-3****Profile Description:** *(Describe to the depth needed to document the indicator or confirm the absence of indicators.)*

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 7.5	10 YR 3/2	100					Silt Loam	
7.5 - 16	7.5 YR 5/2	50	7.5 YR 5/6	30	C	M	Silty Clay	
	10 YR 3/2	20					Silty Clay	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix**Hydric Soil Indicators**

☐ Histosol (A1)	☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G)
☐ Histic Epipedon (A2)	☐ Sandy Gleyed Matrix (S4)
☐ Black Histic (A3)	☐ Sandy Redox (S5)
☐ Hydrogen Sulfide (A4)	☐ Stripped Matrix (S6)
☐ 1 cm Muck (A9) (LRR D, G)	☐ Loamy Mucky Mineral (F1) (except MLRA 1)
☐ Depleted Below Dark Surface (A11)	☐ Loamy Gleyed Matrix (F2)
☐ Thick Dark Surface (A12)	☐ Depleted Matrix (F3)
☐ Iron Monosulfide (A18)	☐ Redox Dark Surface (F6)
☐ Sandy Mucky Mineral (S1)	☐ Depleted Dark Surface (F7)
	☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

☐ 2 cm Muck (A10) (LRRA, E)
☐ Iron-Manganese Masses (F12) (LRR D)
☐ Red Parent Material (F21)
☐ Very Shallow Dark Surface (F22)
☐ Other (Explain in Remarks)

³Indicators of hydrophylic vegetation and wetland hydrology must be present, unless disturbed or problematic.**Restrictive Layer:** *(if observed)*

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☐ No ☒**Remarks:****HYDROLOGY****Wetland Hydrology Indicators:**Primary Indicators *(minimum of one is required; check all that apply)*

☐ Surface Water (A1)
☐ High Water Table (A2)
☐ Saturation (A3)
☐ Water Marks (B1)
☐ Sediment Deposits (B2)
☐ Drift Deposits (B3)
☐ Algal Mat or Crust (B4)
☐ Iron Deposits (B5)
☐ Surface Soil Cracks (B6)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Sparsely Vegetated Concave Surface (B8)

Secondary Indicators *(minimum of two required)*

☐ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	☐ Water-Stained Leaves (B9)
☐ Salt Crust (B11)	☐ (MLRA 1, 2, 4A, and 4B)
☐ Aquatic Invertebrates (B13)	☐ Drainage Patterns (B10)
☐ Hydrogen Sulfide Odor (C1)	☐ Dry-Season Water Table (C2)
☐ Oxidized Rhizospheres on Living Roots (C3)	☐ Saturation Visible on Aerial Imagery (C9)
☐ Presence of Reduced Iron (C4)	☐ Geomorphic Position (D2)
☐ Recent Iron Reduction in Tilled Soils (C6)	☐ Shallow Aquitard (D3)
☐ Stunted or Stressed Plants (D1) (LRR A)	☐ FAC-Neutral Test (D5)
☐ Other (Explain in Remarks)	☐ Raised Ant Mounds (D6) (LRR A)
	☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes ☐ No ☒	Depth (inches)	_____	Wetland Hydrology Present?
Water Table Present?	Yes ☐ No ☒	Depth (inches)	_____	
Saturation Present? <i>(includes capillary fringe)</i>	Yes ☐ No ☒	Depth (inches)	_____	
				☐ Yes ☒ No

Remarks:

Wetland Determination Data Form - Western Mountains, Valleys, and Coast Region

Project/Site: US 93 Ninepipes City/County: Lake County Sampling Date: 5/19/2025
Applicant/Owner: Montana Department of Transportation State: MT Sampling Point: WL-4a
Investigator(s): R. Newton and J. Mulligan Section, Township, Range: S1 T19N R20W
Landform (*hillslope, terrace, etc.*): roadside ditch Local Relief (*concave, convex, none*): concave Slope (%): 0-1
Subregion (LRR): E - Rocky Mtn. Forests and Rangeland Lat. 47.442561 Long: -114.096377 Datum: WGS 84
Soil Map Unit Name: Post silt loam, 0 to 2 percent slopes NWI Classification: PEM

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No X (If no, explain in Remarks)
Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No
Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes X No
Hydric Soil Present? Yes X No Is the Sampled Area within a Wetland? Yes X No
Wetland Hydrology Present? Yes X No

Remarks:

Depressional PEM wetland WL-4a within roadside ditch, southeastern quadrant of US 93 and Eagle Pass Trail intersection. Connects to WL-4b in NE quadrant through two 12" CMP culverts. Connects to WL-3 through a CMP culvert. The APT determined drought conditions. Approx. 1.34" precip recorded in the 10 days prior to survey and approx. 0.25" precip recorded during the four-day survey period (Ronan Mesonet station).

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: <u>r = 30 ft.</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>0</u> = Total Cover			

Sapling/Shrub Stratum (Plot size: <u>r = 15 ft.</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>0</u> = Total Cover			

Herb Stratum (Plot size: <u>r = 5ft.</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Typha latifolia</u>	<u>5</u>	<u>N</u>	<u>OBL</u>
2. <u>Phalaris arundinacea</u>	<u>95</u>	<u>Y</u>	<u>FACW</u>
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>
6. <u> </u>	<u> </u>	<u> </u>	<u> </u>
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>
9. <u> </u>	<u> </u>	<u> </u>	<u> </u>
10. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>100</u> = Total Cover			

Woody Vine Stratum (Plot size: <u>n/a</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>0</u> = Total Cover			

% Bare Ground in Herb Stratum 0 %

Dominance Test Worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	<u>5</u>	x 1 =	<u>5</u>
FACW species	<u>95</u>	x 2 =	<u>190</u>
FAC species	<u>0</u>	x 3 =	<u>0</u>
FACU species	<u>0</u>	x 4 =	<u>0</u>
UPL species	<u>0</u>	x 5 =	<u>0</u>
Column Totals:	<u>100</u> (A)		<u>195</u> (B)

Prevalence Index = B/A = 2.0

Hydrophytic Vegetation Indicators:
 1. Rapid Test for Hydrophytic Vegetation
X 2. Dominance Test is >50%.
X 3. Prevalence Index is ≤3.0¹
 4. Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 5. Wetland Non-Vascular Plants¹
 Problematic Hydrophytic Vegetation (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? X Yes No

Remarks:

SOIL

Sampling Point: **WL-4a****Profile Description:** *(Describe to the depth needed to document the indicator or confirm the absence of indicators.)*

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 6	10 YR 4/2	100					Silty Clay	10% gravel
6 - 16	7.5 YR 5/2	80	7.5 YR 4/6	20	C	M	Silty Clay	20% gravel

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix**Hydric Soil Indicators**

☐ Histosol (A1)	☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G)
☐ Histic Epipedon (A2)	☐ Sandy Gleyed Matrix (S4)
☐ Black Histic (A3)	☐ Sandy Redox (S5)
☐ Hydrogen Sulfide (A4)	☐ Stripped Matrix (S6)
☐ 1 cm Muck (A9) (LRR D, G)	☐ Loamy Mucky Mineral (F1) (except MLRA 1)
☐ Depleted Below Dark Surface (A11)	☐ Loamy Gleyed Matrix (F2)
☐ Thick Dark Surface (A12)	☒ Depleted Matrix (F3)
☐ Iron Monosulfide (A18)	☐ Redox Dark Surface (F6)
☐ Sandy Mucky Mineral (S1)	☐ Depleted Dark Surface (F7)
	☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

☐ 2 cm Muck (A10) (LRRA, E)
☐ Iron-Manganese Masses (F12) (LRR D)
☐ Red Parent Material (F21)
☐ Very Shallow Dark Surface (F22)
☐ Other (Explain in Remarks)

³Indicators of hydrophylic vegetation and wetland hydrology must be present, unless disturbed or problematic.**Restrictive Layer:** *(if observed)*Type: _____
Depth (inches): _____**Hydric Soil Present?** Yes ☒ No ☐**Remarks:****HYDROLOGY****Wetland Hydrology Indicators:**Primary Indicators *(minimum of one is required; check all that apply)*

☒ Surface Water (A1)	☐ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
☒ High Water Table (A2)	☐ Salt Crust (B11)
☒ Saturation (A3)	☐ Aquatic Invertebrates (B13)
☐ Water Marks (B1)	☐ Hydrogen Sulfide Odor (C1)
☐ Sediment Deposits (B2)	☐ Oxidized Rhizospheres on Living Roots (C3)
☐ Drift Deposits (B3)	☐ Presence of Reduced Iron (C4)
☐ Algal Mat or Crust (B4)	☐ Recent Iron Reduction in Tilled Soils (C6)
☐ Iron Deposits (B5)	☐ Stunted or Stressed Plants (D1) (LRR A)
☐ Surface Soil Cracks (B6)	☐ Other (Explain in Remarks)
☐ Inundation Visible on Aerial Imagery (B7)	
☐ Sparsely Vegetated Concave Surface (B8)	

Secondary Indicators *(minimum of two required)*

☐ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
☐ Drainage Patterns (B10)
☐ Dry-Season Water Table (C2)
☐ Saturation Visible on Aerial Imagery (C9)
☒ Geomorphic Position (D2)
☐ Shallow Aquitard (D3)
☒ FAC-Neutral Test (D5)
☐ Raised Ant Mounds (D6) (LRR A)
☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes ☒ No ☐	Depth (inches)	0.5	Wetland Hydrology Present?
Water Table Present?	Yes ☒ No ☐	Depth (inches)	7	
Saturation Present? <i>(includes capillary fringe)</i>	Yes ☒ No ☐	Depth (inches)	surface	

Remarks:

Wetland Determination Data Form - Western Mountains, Valleys, and Coast Region

Project/Site: US 93 Ninepipes City/County: Lake County Sampling Date: 5/19/2025
 Applicant/Owner: Montana Department of Transportation State: MT Sampling Point: UP-4a
 Investigator(s): R. Newton and J. Mulligan Section, Township, Range: S1 T19N R20W
 Landform (*hillslope, terrace, etc.*): ditch bank Local Relief (*concave, convex, none*): none Slope (%): 0-2
 Subregion (LRR): E - Rocky Mtn. Forests and Rangeland Lat. 47.442555 Long: -114.09639 Datum: WGS 84
 Soil Map Unit Name: Post silt loam, 0 to 2 percent slopes NWI Classification: UPL

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No X (If no, explain in Remarks)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes No X
 Hydric Soil Present? Yes No X Is the Sampled Area within a Wetland? Yes No X
 Wetland Hydrology Present? Yes No X

Remarks:

Paired upland point for wetland sample point WL-4a. The APT determined drought conditions. Approx. 1.34" precip recorded in the 10 days prior to survey and approx. 0.25" precip recorded during the four-day survey period (Ronan Mesonet station).

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: r = 30 ft.)

	Absolute % Cover	Dominant Species?	Indicator Status
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>0</u> = Total Cover			

Sapling/Shrub Stratum (Plot size: r = 15 ft.)

	Absolute % Cover	Dominant Species?	Indicator Status
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>0</u> = Total Cover			

Herb Stratum (Plot size: r = 5ft.)

	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Bromus inermis</u>	<u>90</u>	<u>Y</u>	<u>UPL</u>
2. <u>Phalaris arundinacea</u>	<u>10</u>	<u>N</u>	<u>FACW</u>
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>
6. <u> </u>	<u> </u>	<u> </u>	<u> </u>
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>
9. <u> </u>	<u> </u>	<u> </u>	<u> </u>
10. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>100</u> = Total Cover			

Woody Vine Stratum (Plot size: n/a)

	Absolute % Cover	Dominant Species?	Indicator Status
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>0</u> = Total Cover			

% Bare Ground in Herb Stratum 0 %

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
 Total Number of Dominant Species Across All Strata: 1 (B)
 Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	<u>0</u>	x 1 =	<u>0</u>
FACW species	<u>10</u>	x 2 =	<u>20</u>
FAC species	<u>0</u>	x 3 =	<u>0</u>
FACU species	<u>0</u>	x 4 =	<u>0</u>
UPL species	<u>90</u>	x 5 =	<u>450</u>
Column Totals:	<u>100</u> (A)		<u>470</u> (B)
Prevalence Index = B/A =			<u>4.7</u>

Hydrophytic Vegetation Indicators:

1. Rapid Test for Hydrophytic Vegetation
 2. Dominance Test is >50%.
 3. Prevalence Index is ≤3.0¹
 4. Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 5. Wetland Non-Vascular Plants¹
- Problematic Hydrophytic Vegetation (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No

Remarks:

SOIL

Sampling Point: **UP-4a****Profile Description:** *(Describe to the depth needed to document the indicator or confirm the absence of indicators.)*

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 2	10 YR 3/2	100					Silt Loam	
2 - 16	7.5 YR 4/4	100					Clay	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix**Hydric Soil Indicators**

☐ Histosol (A1)	☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G)
☐ Histic Epipedon (A2)	☐ Sandy Gleyed Matrix (S4)
☐ Black Histic (A3)	☐ Sandy Redox (S5)
☐ Hydrogen Sulfide (A4)	☐ Stripped Matrix (S6)
☐ 1 cm Muck (A9) (LRR D, G)	☐ Loamy Mucky Mineral (F1) (except MLRA 1)
☐ Depleted Below Dark Surface (A11)	☐ Loamy Gleyed Matrix (F2)
☐ Thick Dark Surface (A12)	☐ Depleted Matrix (F3)
☐ Iron Monosulfide (A18)	☐ Redox Dark Surface (F6)
☐ Sandy Mucky Mineral (S1)	☐ Depleted Dark Surface (F7)
	☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

☐ 2 cm Muck (A10) (LRRA, E)
☐ Iron-Manganese Masses (F12) (LRR D)
☐ Red Parent Material (F21)
☐ Very Shallow Dark Surface (F22)
☐ Other (Explain in Remarks)

³Indicators of hydrophylic vegetation and wetland hydrology must be present, unless disturbed or problematic.**Restrictive Layer:** *(if observed)*
 Type: _____
 Depth (inches): _____
Hydric Soil Present? Yes _____ No X**Remarks:****HYDROLOGY****Wetland Hydrology Indicators:**Primary Indicators *(minimum of one is required; check all that apply)*

☐ Surface Water (A1)
☐ High Water Table (A2)
☐ Saturation (A3)
☐ Water Marks (B1)
☐ Sediment Deposits (B2)
☐ Drift Deposits (B3)
☐ Algal Mat or Crust (B4)
☐ Iron Deposits (B5)
☐ Surface Soil Cracks (B6)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Sparsely Vegetated Concave Surface (B8)

Secondary Indicators *(minimum of two required)*

☐ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	☐ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
☐ Salt Crust (B11)	☐ Drainage Patterns (B10)
☐ Aquatic Invertebrates (B13)	☐ Dry-Season Water Table (C2)
☐ Hydrogen Sulfide Odor (C1)	☐ Saturation Visible on Aerial Imagery (C9)
☐ Oxidized Rhizospheres on Living Roots (C3)	☐ Geomorphic Position (D2)
☐ Presence of Reduced Iron (C4)	☐ Shallow Aquitard (D3)
☐ Recent Iron Reduction in Tilled Soils (C6)	☐ FAC-Neutral Test (D5)
☐ Stunted or Stressed Plants (D1) (LRR A)	☐ Raised Ant Mounds (D6) (LRR A)
☐ Other (Explain in Remarks)	☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes _____ No <u>X</u>	Depth (inches) _____	Wetland Hydrology Present? Yes _____ X _____ No _____
Water Table Present?	Yes _____ No <u>X</u>	Depth (inches) _____	
Saturation Present? <i>(includes capillary fringe)</i>	Yes _____ No <u>X</u>	Depth (inches) _____	

Remarks:

Wetland Determination Data Form - Western Mountains, Valleys, and Coast Region

Project/Site: US 93 Ninepipes City/County: Lake County Sampling Date: 5/19/2025
 Applicant/Owner: Montana Department of Transportation State: MT Sampling Point: WL-4b1
 Investigator(s): R. Newton and J. Mulligan Section, Township, Range: S36 T20N R20W
 Landform (*hillslope, terrace, etc.*): roadside ditch Local Relief (*concave, convex, none*): concave Slope (%): 0-2
 Subregion (LRR): E - Rocky Mtn. Forests and Rangeland Lat. 47.442696 Long: -114.095775 Datum: WGS 84
 Soil Map Unit Name: Post silt loam, 0 to 2 percent slopes NWI Classification: PEM

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No X (If no, explain in Remarks)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes X No
 Hydric Soil Present? Yes X No Is the Sampled Area within a Wetland? Yes X No
 Wetland Hydrology Present? Yes X No

Remarks:

Depressional PEM wetland WL-4b in roadside ditch, northeastern quadrant of US 93 and Eagle Pass Trail intersection. Connects to WL-4a in SE quadrant through two 12" CMP culverts. Continues to the north along US 93. The APT determined drought conditions. Approx. 1.34" precip recorded in the 10 days prior to survey and approx. 0.25" precip recorded during the four-day survey period (Ronan Mesonet station).

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: <u>r = 30 ft.</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:																												
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)																												
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>																													
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>																													
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>																													
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>																													
<u>0</u> = Total Cover																																
Sapling/Shrub Stratum (Plot size: <u>r = 15 ft.</u>)																																
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Prevalence Index Worksheet: <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2">Total % Cover of:</th> <th colspan="2">Multiply by:</th> </tr> </thead> <tbody> <tr> <td>OBL species</td> <td style="text-align: center;">23</td> <td>x 1 =</td> <td style="text-align: center;">23</td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;">35</td> <td>x 2 =</td> <td style="text-align: center;">70</td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;">0</td> <td>x 3 =</td> <td style="text-align: center;">0</td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;">0</td> <td>x 4 =</td> <td style="text-align: center;">0</td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;">0</td> <td>x 5 =</td> <td style="text-align: center;">0</td> </tr> <tr> <td>Column Totals:</td> <td style="text-align: center;"><u>58</u> (A)</td> <td></td> <td style="text-align: center;"><u>93</u> (B)</td> </tr> </tbody> </table> Prevalence Index = B/A = <u>1.6</u>	Total % Cover of:		Multiply by:		OBL species	23	x 1 =	23	FACW species	35	x 2 =	70	FAC species	0	x 3 =	0	FACU species	0	x 4 =	0	UPL species	0	x 5 =	0	Column Totals:	<u>58</u> (A)		<u>93</u> (B)
Total % Cover of:		Multiply by:																														
OBL species	23	x 1 =	23																													
FACW species	35	x 2 =	70																													
FAC species	0	x 3 =	0																													
FACU species	0	x 4 =	0																													
UPL species	0	x 5 =	0																													
Column Totals:	<u>58</u> (A)		<u>93</u> (B)																													
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>																													
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>																													
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>																													
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>																													
<u>0</u> = Total Cover																																
Herb Stratum (Plot size: <u>r = 5ft.</u>)																																
1. <u>Phalaris arundinacea</u>	35	Y	FACW	Hydrophytic Vegetation Indicators: <u>X</u> 1. Rapid Test for Hydrophytic Vegetation <u>X</u> 2. Dominance Test is >50%. <u>X</u> 3. Prevalence Index is ≤3.0¹ <u> </u> 4. Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> 5. Wetland Non-Vascular Plants¹ <u> </u> Problematic Hydrophytic Vegetation (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																												
2. <u>Rorippa palustris</u>	13	Y	OBL																													
3. <u>Typha latifolia</u>	10	N	OBL																													
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>																													
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>																													
6. <u> </u>	<u> </u>	<u> </u>	<u> </u>																													
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>																													
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>																													
9. <u> </u>	<u> </u>	<u> </u>	<u> </u>																													
10. <u> </u>	<u> </u>	<u> </u>	<u> </u>																													
<u>58</u> = Total Cover																																
Woody Vine Stratum (Plot size: <u>n/a</u>)																																
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Hydrophytic Vegetation Present? <u>X</u> Yes <u> </u> No <u> </u>																												
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>																													
<u>0</u> = Total Cover																																
% Bare Ground in Herb Stratum	<u>50</u> %																															

Remarks:

Profile Description: *(Describe to the depth needed to document the indicator or confirm the absence of indicators.)*

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 10	10 YR 2/2	100					Silty Clay	
10 - 16	7.5 YR 5/2	70	7.5 YR 5/6	30	C	M	Clay	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

☐ Histosol (A1)	☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G)
☐ Histic Epipedon (A2)	☐ Sandy Gleyed Matrix (S4)
☐ Black Histic (A3)	☐ Sandy Redox (S5)
☐ Hydrogen Sulfide (A4)	☐ Stripped Matrix (S6)
☐ 1 cm Muck (A9) (LRR D, G)	☐ Loamy Mucky Mineral (F1) (except MLRA 1)
☒ Depleted Below Dark Surface (A11)	☐ Loamy Gleyed Matrix (F2)
☐ Thick Dark Surface (A12)	☒ Depleted Matrix (F3)
☐ Iron Monosulfide (A18)	☐ Redox Dark Surface (F6)
☐ Sandy Mucky Mineral (S1)	☐ Depleted Dark Surface (F7)
	☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

☐ 2 cm Muck (A10) (LRRA, E)
☐ Iron-Manganese Masses (F12) (LRR D)
☐ Red Parent Material (F21)
☐ Very Shallow Dark Surface (F22)
☐ Other (Explain in Remarks)

³Indicators of hydrophylic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer: *(if observed)*

Type: _____
Depth (*inches*): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators *(minimum of one is required; check all that apply)*

☒ Surface Water (A1)
☒ High Water Table (A2)
☒ Saturation (A3)
☐ Water Marks (B1)
☐ Sediment Deposits (B2)
☐ Drift Deposits (B3)
☐ Algal Mat or Crust (B4)
☐ Iron Deposits (B5)
☐ Surface Soil Cracks (B6)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Sparsely Vegetated Concave Surface (B8)

Secondary Indicators *(minimum of two required)*

☐ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	☐ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
☐ Salt Crust (B11)	☐ Drainage Patterns (B10)
☐ Aquatic Invertebrates (B13)	☐ Dry-Season Water Table (C2)
☐ Hydrogen Sulfide Odor (C1)	☐ Saturation Visible on Aerial Imagery (C9)
☐ Oxidized Rhizospheres on Living Roots (C3)	☒ Geomorphic Position (D2)
☐ Presence of Reduced Iron (C4)	☐ Shallow Aquitard (D3)
☐ Recent Iron Reduction in Tilled Soils (C6)	☒ FAC-Neutral Test (D5)
☐ Stunted or Stressed Plants (D1) (LRR A)	☐ Raised Ant Mounds (D6) (LRR A)
☐ Other (Explain in Remarks)	☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes ☒ No ☐	Depth (<i>inches</i>)	<u>9</u>	Wetland Hydrology Present?
Water Table Present?	Yes ☒ No ☐	Depth (<i>inches</i>)	<u>12</u>	
Saturation Present? <i>(includes capillary fringe)</i>	Yes ☒ No ☐	Depth (<i>inches</i>)	<u>surface</u>	

Remarks:

Wetland Determination Data Form - Western Mountains, Valleys, and Coast Region

Project/Site: US 93 Ninepipes City/County: Lake County Sampling Date: 5/19/2025
 Applicant/Owner: Montana Department of Transportation State: MT Sampling Point: UP-4b1
 Investigator(s): R. Newton and J. Mulligan Section, Township, Range: S36 T20N R20W
 Landform (*hillslope, terrace, etc.*): ditch bank Local Relief (*concave, convex, none*): none Slope (%): 0-2
 Subregion (LRR): E - Rocky Mtn. Forests and Rangeland Lat. 47.442702 Long: -114.095762 Datum: WGS 84
 Soil Map Unit Name: Post silt loam, 0 to 2 percent slopes NWI Classification: UPL

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No X (If no, explain in Remarks)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes No X
 Hydric Soil Present? Yes No X Is the Sampled Area within a Wetland? Yes No X
 Wetland Hydrology Present? Yes No X

Remarks:

Paired upland point for wetland sample point WL-4b1. The APT determined drought conditions. Approx. 1.34" precip recorded in the 10 days prior to survey and approx. 0.25" precip recorded during the four-day survey period (Ronan Mesonet station).

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: r = 30 ft.)

	Absolute % Cover	Dominant Species?	Indicator Status
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>0</u> = Total Cover			

Sapling/Shrub Stratum (Plot size: r = 15 ft.)

	Absolute % Cover	Dominant Species?	Indicator Status
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>0</u> = Total Cover			

Herb Stratum (Plot size: r = 5ft.)

	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Bromus inermis</u>	<u>50</u>	<u>Y</u>	<u>UPL</u>
2. <u>Thlaspi arvense</u>	<u>5</u>	<u>N</u>	<u>UPL</u>
3. <u>Cirsium arvense</u>	<u>12</u>	<u>N</u>	<u>FAC</u>
4. <u>Phalaris arundinacea</u>	<u>8</u>	<u>N</u>	<u>FACW</u>
5. <u>Rorippa palustris</u>	<u>3</u>	<u>N</u>	<u>OBL</u>
6. <u> </u>	<u> </u>	<u> </u>	<u> </u>
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>
9. <u> </u>	<u> </u>	<u> </u>	<u> </u>
10. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>78</u> = Total Cover			

Woody Vine Stratum (Plot size: n/a)

	Absolute % Cover	Dominant Species?	Indicator Status
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>0</u> = Total Cover			

% Bare Ground in Herb Stratum 25 %

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
 Total Number of Dominant Species Across All Strata: 1 (B)
 Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	<u>3</u>	x 1 =	<u>3</u>
FACW species	<u>8</u>	x 2 =	<u>16</u>
FAC species	<u>12</u>	x 3 =	<u>36</u>
FACU species	<u>0</u>	x 4 =	<u>0</u>
UPL species	<u>55</u>	x 5 =	<u>275</u>
Column Totals:	<u>78</u> (A)		<u>330</u> (B)
Prevalence Index = B/A =		<u>4.2</u>	

Hydrophytic Vegetation Indicators:

1. Rapid Test for Hydrophytic Vegetation
2. Dominance Test is >50%.
3. Prevalence Index is ≤3.0¹
4. Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
5. Wetland Non-Vascular Plants¹
- Problematic Hydrophytic Vegetation (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No

Remarks:

Profile Description: *(Describe to the depth needed to document the indicator or confirm the absence of indicators.)*

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 9	10 YR 3/2	100					Silty Clay	
9 - 16	7.5 YR 4/2	100					Clay	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

☐ Histosol (A1)	☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G)
☐ Histic Epipedon (A2)	☐ Sandy Gleyed Matrix (S4)
☐ Black Histic (A3)	☐ Sandy Redox (S5)
☐ Hydrogen Sulfide (A4)	☐ Stripped Matrix (S6)
☐ 1 cm Muck (A9) (LRR D, G)	☐ Loamy Mucky Mineral (F1) (except MLRA 1)
☐ Depleted Below Dark Surface (A11)	☐ Loamy Gleyed Matrix (F2)
☐ Thick Dark Surface (A12)	☐ Depleted Matrix (F3)
☐ Iron Monosulfide (A18)	☐ Redox Dark Surface (F6)
☐ Sandy Mucky Mineral (S1)	☐ Depleted Dark Surface (F7)
	☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

☐ 2 cm Muck (A10) (LRRA, E)
☐ Iron-Manganese Masses (F12) (LRR D)
☐ Red Parent Material (F21)
☐ Very Shallow Dark Surface (F22)
☐ Other (Explain in Remarks)

³Indicators of hydrophylic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer: *(if observed)*

Type: _____
Depth (*inches*): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators *(minimum of one is required; check all that apply)*

☐ Surface Water (A1)
☐ High Water Table (A2)
☐ Saturation (A3)
☐ Water Marks (B1)
☐ Sediment Deposits (B2)
☐ Drift Deposits (B3)
☐ Algal Mat or Crust (B4)
☐ Iron Deposits (B5)
☐ Surface Soil Cracks (B6)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Sparsely Vegetated Concave Surface (B8)

Secondary Indicators *(minimum of two required)*

☐ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	☐ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
☐ Salt Crust (B11)	☐ Drainage Patterns (B10)
☐ Aquatic Invertebrates (B13)	☐ Dry-Season Water Table (C2)
☐ Hydrogen Sulfide Odor (C1)	☐ Saturation Visible on Aerial Imagery (C9)
☐ Oxidized Rhizospheres on Living Roots (C3)	☐ Geomorphic Position (D2)
☐ Presence of Reduced Iron (C4)	☐ Shallow Aquitard (D3)
☐ Recent Iron Reduction in Tilled Soils (C6)	☐ FAC-Neutral Test (D5)
☐ Stunted or Stressed Plants (D1) (LRR A)	☐ Raised Ant Mounds (D6) (LRR A)
☐ Other (Explain in Remarks)	☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes _____ No <u>X</u>	Depth (<i>inches</i>) _____	Wetland Hydrology Present? Yes _____ X _____ No _____
Water Table Present?	Yes _____ No <u>X</u>	Depth (<i>inches</i>) _____	
Saturation Present? <i>(includes capillary fringe)</i>	Yes _____ No <u>X</u>	Depth (<i>inches</i>) _____	

Remarks:

Wetland Determination Data Form - Western Mountains, Valleys, and Coast Region

Project/Site: US 93 Ninepipes City/County: Lake County Sampling Date: 5/19/2025
Applicant/Owner: Montana Department of Transportation State: MT Sampling Point: WL-4b2
Investigator(s): R. Newton and J. Mulligan Section, Township, Range: S36 T20N R20W
Landform (*hillslope, terrace, etc.*): roadside ditch Local Relief (*concave, convex, none*): concave Slope (%): 0-2
Subregion (LRR): E - Rocky Mtn. Forests and Rangeland Lat. 47.443345 Long: -114.096811 Datum: WGS 84
Soil Map Unit Name: Post silt loam, 0 to 2 percent slopes NWI Classification: PEM

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No X (If no, explain in Remarks)
Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No
Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes X No
Hydric Soil Present? Yes X No Is the Sampled Area within a Wetland? Yes X No
Wetland Hydrology Present? Yes X No

Remarks:

Additional sample point for depressionnal PEM wetland WL-4b in roadside ditch, east of US 93. The APT determined drought conditions. Approx. 1.34" precip recorded in the 10 days prior to survey and approx. 0.25" precip recorded during the four-day survey period (Ronan Mesonet station).

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: <u>r = 30 ft.</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>0</u> = Total Cover			

Sapling/Shrub Stratum (Plot size: <u>r = 15 ft.</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>0</u> = Total Cover			

Herb Stratum (Plot size: <u>r = 5ft.</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Eleocharis acicularis</u>	<u>85</u>	<u>Y</u>	<u>OBL</u>
2. <u>Bromus inermis</u>	<u>10</u>	<u>N</u>	<u>UPL</u>
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>
6. <u> </u>	<u> </u>	<u> </u>	<u> </u>
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>
9. <u> </u>	<u> </u>	<u> </u>	<u> </u>
10. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>95</u> = Total Cover			

Woody Vine Stratum (Plot size: <u>n/a</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>0</u> = Total Cover			

% Bare Ground in Herb Stratum 10 %

Dominance Test Worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across All Strata: 1 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	<u>85</u>	x 1 =	<u>85</u>
FACW species	<u>0</u>	x 2 =	<u>0</u>
FAC species	<u>0</u>	x 3 =	<u>0</u>
FACU species	<u>0</u>	x 4 =	<u>0</u>
UPL species	<u>10</u>	x 5 =	<u>50</u>
Column Totals:	<u>95</u> (A)		<u>135</u> (B)

Prevalence Index = B/A = 1.4

Hydrophytic Vegetation Indicators:
X 1. Rapid Test for Hydrophytic Vegetation
X 2. Dominance Test is >50%.
X 3. Prevalence Index is ≤3.0¹
 4. Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 5. Wetland Non-Vascular Plants¹
 Problematic Hydrophytic Vegetation (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? X Yes No

Remarks:

Profile Description: *(Describe to the depth needed to document the indicator or confirm the absence of indicators.)*

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 7	10 YR 2/2	100					Silty Clay Loam	dense roots throughout
7 - 16	7.5 YR 5/2	80	7.5 YR 5/6	20	C	PL	Clay	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators		2.5 cm Mucky Peat or Peat (S2) (LRR G)	Indicators for Problematic Hydric Soils³:
☐ Histosol (A1)		☐ Sandy Gleyed Matrix (S4)	☐ 2 cm Muck (A10) (LRR A, E)
☐ Histic Epipedon (A2)		☐ Sandy Redox (S5)	☐ Iron-Manganese Masses (F12) (LRR D)
☐ Black Histic (A3)		☐ Stripped Matrix (S6)	☐ Red Parent Material (F21)
☐ Hydrogen Sulfide (A4)		☐ Loamy Mucky Mineral (F1) (except MLRA 1)	☐ Very Shallow Dark Surface (F22)
☐ 1 cm Muck (A9) (LRR D, G)		☐ Loamy Gleyed Matrix (F2)	☐ Other (Explain in Remarks)
☒ Depleted Below Dark Surface (A11)		☒ Depleted Matrix (F3)	³ Indicators of hydrophylic vegetation and wetland hydrology must be present, unless disturbed or problematic.
☐ Thick Dark Surface (A12)		☐ Redox Dark Surface (F6)	
☐ Iron Monosulfide (A18)		☐ Depleted Dark Surface (F7)	
☐ Sandy Mucky Mineral (S1)		☐ Redox Depressions (F8)	

Restrictive Layer: *(if observed)*

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators *(minimum of one is required; check all that apply)*

- ☒ Surface Water (A1)
☒ High Water Table (A2)
☒ Saturation (A3)
☐ Water Marks (B1)
☐ Sediment Deposits (B2)
☐ Drift Deposits (B3)
☒ Algal Mat or Crust (B4)
☐ Iron Deposits (B5)
☐ Surface Soil Cracks (B6)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Sparsely Vegetated Concave Surface (B8)

- ☐ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
☐ Salt Crust (B11)
☐ Aquatic Invertebrates (B13)
☐ Hydrogen Sulfide Odor (C1)
☐ Oxidized Rhizospheres on Living Roots (C3)
☐ Presence of Reduced Iron (C4)
☐ Recent Iron Reduction in Tilled Soils (C6)
☐ Stunted or Stressed Plants (D1) (LRR A)
☐ Other (Explain in Remarks)

Secondary Indicators *(minimum of two required)*

- ☐ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
☐ Drainage Patterns (B10)
☐ Dry-Season Water Table (C2)
☐ Saturation Visible on Aerial Imagery (C9)
☒ Geomorphic Position (D2)
☐ Shallow Aquitard (D3)
☒ FAC-Neutral Test (D5)
☐ Raised Ant Mounds (D6) (LRR A)
☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes ☒ No ☐	Depth (inches)	<u>2</u>	Wetland Hydrology Present? ☒ Yes ☐ No
Water Table Present?	Yes ☒ No ☐	Depth (inches)	<u>8</u>	
Saturation Present? <i>(includes capillary fringe)</i>	Yes ☒ No ☐	Depth (inches)	<u>surface</u>	

Remarks:

Wetland Determination Data Form - Western Mountains, Valleys, and Coast Region

Project/Site: US 93 Ninepipes City/County: Lake County Sampling Date: 5/19/2025
 Applicant/Owner: Montana Department of Transportation State: MT Sampling Point: UP-4b2
 Investigator(s): R. Newton and J. Mulligan Section, Township, Range: S36 T20N R20W
 Landform (*hillslope, terrace, etc.*): ditch bank terrace Local Relief (*concave, convex, none*): none Slope (%): 0-1
 Subregion (LRR): E - Rocky Mtn. Forests and Rangeland Lat. 47.44334 Long: -114.09679 Datum: WGS 84
 Soil Map Unit Name: Post silt loam, 0 to 2 percent slopes NWI Classification: UPL

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No X (If no, explain in Remarks)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes No X
 Hydric Soil Present? Yes No X Is the Sampled Area within a Wetland? Yes No X
 Wetland Hydrology Present? Yes No X

Remarks:

Paired upland point for wetland sample point WL-4b2. The APT determined drought conditions. Approx. 1.34" precip recorded in the 10 days prior to survey and approx. 0.25" precip recorded during the four-day survey period (Ronan Mesonet station).

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: <u>r = 30 ft.</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:																																
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)																																
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
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Sapling/Shrub Stratum (Plot size: <u>r = 15 ft.</u>)																																				
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Prevalence Index Worksheet: <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2">Total % Cover of:</th> <th colspan="2">Multiply by:</th> </tr> </thead> <tbody> <tr> <td>OBL species</td> <td><u>0</u></td> <td>x 1 =</td> <td><u>0</u></td> </tr> <tr> <td>FACW species</td> <td><u>0</u></td> <td>x 2 =</td> <td><u>0</u></td> </tr> <tr> <td>FAC species</td> <td><u>0</u></td> <td>x 3 =</td> <td><u>0</u></td> </tr> <tr> <td>FACU species</td> <td><u>0</u></td> <td>x 4 =</td> <td><u>0</u></td> </tr> <tr> <td>UPL species</td> <td><u>75</u></td> <td>x 5 =</td> <td><u>375</u></td> </tr> <tr> <td>Column Totals:</td> <td><u>75</u> (A)</td> <td></td> <td><u>375</u> (B)</td> </tr> <tr> <td colspan="4" style="text-align: center;">Prevalence Index = B/A = <u>5.0</u></td> </tr> </tbody> </table>	Total % Cover of:		Multiply by:		OBL species	<u>0</u>	x 1 =	<u>0</u>	FACW species	<u>0</u>	x 2 =	<u>0</u>	FAC species	<u>0</u>	x 3 =	<u>0</u>	FACU species	<u>0</u>	x 4 =	<u>0</u>	UPL species	<u>75</u>	x 5 =	<u>375</u>	Column Totals:	<u>75</u> (A)		<u>375</u> (B)	Prevalence Index = B/A = <u>5.0</u>			
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1. <u>Bromus inermis</u>	<u>75</u>	<u>Y</u>	<u>UPL</u>	Hydrophytic Vegetation Indicators: 1. Rapid Test for Hydrophytic Vegetation <u> </u> 2. Dominance Test is >50%. <u> </u> 3. Prevalence Index is ≤3.0 ¹ <u> </u> 4. Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> 5. Wetland Non-Vascular Plants ¹ <u> </u> Problematic Hydrophytic Vegetation (Explain) <u> </u> ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																																
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3. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
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10. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
<u>75</u> = Total Cover																																				
Woody Vine Stratum (Plot size: <u>n/a</u>)																																				
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Hydrophytic Vegetation Present? <u> </u> Yes <u>X</u> No <u> </u>																																
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
<u>0</u> = Total Cover																																				
% Bare Ground in Herb Stratum	<u>25</u> %																																			

Remarks:

Profile Description: *(Describe to the depth needed to document the indicator or confirm the absence of indicators.)*

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 4	10 YR 3/2	100					Silty Clay	
4 - 16	5 YR 4/4	100					Clay	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

☐ Histosol (A1)	☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G)
☐ Histic Epipedon (A2)	☐ Sandy Gleyed Matrix (S4)
☐ Black Histic (A3)	☐ Sandy Redox (S5)
☐ Hydrogen Sulfide (A4)	☐ Stripped Matrix (S6)
☐ 1 cm Muck (A9) (LRR D, G)	☐ Loamy Mucky Mineral (F1) (except MLRA 1)
☐ Depleted Below Dark Surface (A11)	☐ Loamy Gleyed Matrix (F2)
☐ Thick Dark Surface (A12)	☐ Depleted Matrix (F3)
☐ Iron Monosulfide (A18)	☐ Redox Dark Surface (F6)
☐ Sandy Mucky Mineral (S1)	☐ Depleted Dark Surface (F7)
	☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

☐ 2 cm Muck (A10) (LRRA, E)
☐ Iron-Manganese Masses (F12) (LRR D)
☐ Red Parent Material (F21)
☐ Very Shallow Dark Surface (F22)
☐ Other (Explain in Remarks)

³Indicators of hydrophylic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer: *(if observed)*

Type: _____
Depth (*inches*): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators *(minimum of one is required; check all that apply)*

☐ Surface Water (A1)
☐ High Water Table (A2)
☐ Saturation (A3)
☐ Water Marks (B1)
☐ Sediment Deposits (B2)
☐ Drift Deposits (B3)
☐ Algal Mat or Crust (B4)
☐ Iron Deposits (B5)
☐ Surface Soil Cracks (B6)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Sparsely Vegetated Concave Surface (B8)

Secondary Indicators *(minimum of two required)*

☐ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	☐ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
☐ Salt Crust (B11)	☐ Drainage Patterns (B10)
☐ Aquatic Invertebrates (B13)	☐ Dry-Season Water Table (C2)
☐ Hydrogen Sulfide Odor (C1)	☐ Saturation Visible on Aerial Imagery (C9)
☐ Oxidized Rhizospheres on Living Roots (C3)	☐ Geomorphic Position (D2)
☐ Presence of Reduced Iron (C4)	☐ Shallow Aquitard (D3)
☐ Recent Iron Reduction in Tilled Soils (C6)	☐ FAC-Neutral Test (D5)
☐ Stunted or Stressed Plants (D1) (LRR A)	☐ Raised Ant Mounds (D6) (LRR A)
☐ Other (Explain in Remarks)	☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes _____ No <u>X</u>	Depth (<i>inches</i>) _____	Wetland Hydrology Present? Yes _____ X _____ No _____
Water Table Present?	Yes _____ No <u>X</u>	Depth (<i>inches</i>) _____	
Saturation Present? <i>(includes capillary fringe)</i>	Yes _____ No <u>X</u>	Depth (<i>inches</i>) _____	

Remarks:

Wetland Determination Data Form - Western Mountains, Valleys, and Coast Region

Project/Site: US93 Ninepipes City/County: Lake County Sampling Date: 5/19/2025
 Applicant/Owner: Montana Department of Transportation State: MT Sampling Point: WL-5
 Investigator(s): B. Stockowitz and A. Hendryx Section, Township, Range: S35 T20N R20W
 Landform (*hillslope, terrace, etc.*): Depression Local Relief (*concave, convex, none*): Concave Slope (%): 0-2
 Subregion (LRR): E - Rocky Mtn. Forests and Rangeland Lat. 47.442753 Long: -114.097308 Datum: WGS 84
 Soil Map Unit Name: Post silt loam, 0 to 2 percent slopes NWI Classification: PEM

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No X (If no, explain in Remarks)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes X No
 Hydric Soil Present? Yes X No Is the Sampled Area within a Wetland? Yes X No
 Wetland Hydrology Present? Yes X No

Remarks:

Depressional PEM wetland WL-5 in a prairie pothole on the western side of US 93. Isolated. The APT determined drought conditions. Approx. 1.34" precip recorded in the 10 days prior to survey and approx. 0.25" precip recorded during the four-day survey period (Ronan Mesonet station).

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: <u>r = 30 ft.</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)																																
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
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5. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
<u>0</u> = Total Cover																																				
Sapling/Shrub Stratum (Plot size: <u>r = 15 ft.</u>)				Prevalence Index Worksheet: <table border="1"> <thead> <tr> <th colspan="2">Total % Cover of:</th> <th colspan="2">Multiply by:</th> </tr> </thead> <tbody> <tr> <td>OBL species</td> <td><u>0</u></td> <td>x 1 =</td> <td><u>0</u></td> </tr> <tr> <td>FACW species</td> <td><u>90</u></td> <td>x 2 =</td> <td><u>180</u></td> </tr> <tr> <td>FAC species</td> <td><u>2</u></td> <td>x 3 =</td> <td><u>6</u></td> </tr> <tr> <td>FACU species</td> <td><u>0</u></td> <td>x 4 =</td> <td><u>0</u></td> </tr> <tr> <td>UPL species</td> <td><u>3</u></td> <td>x 5 =</td> <td><u>15</u></td> </tr> <tr> <td>Column Totals:</td> <td><u>95</u> (A)</td> <td></td> <td><u>201</u> (B)</td> </tr> <tr> <td colspan="4">Prevalence Index = B/A = <u>2.1</u></td> </tr> </tbody> </table>	Total % Cover of:		Multiply by:		OBL species	<u>0</u>	x 1 =	<u>0</u>	FACW species	<u>90</u>	x 2 =	<u>180</u>	FAC species	<u>2</u>	x 3 =	<u>6</u>	FACU species	<u>0</u>	x 4 =	<u>0</u>	UPL species	<u>3</u>	x 5 =	<u>15</u>	Column Totals:	<u>95</u> (A)		<u>201</u> (B)	Prevalence Index = B/A = <u>2.1</u>			
Total % Cover of:		Multiply by:																																		
OBL species	<u>0</u>	x 1 =	<u>0</u>																																	
FACW species	<u>90</u>	x 2 =	<u>180</u>																																	
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FACU species	<u>0</u>	x 4 =	<u>0</u>																																	
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Column Totals:	<u>95</u> (A)		<u>201</u> (B)																																	
Prevalence Index = B/A = <u>2.1</u>																																				
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<u>0</u> = Total Cover																																				
Herb Stratum (Plot size: <u>r = 5 ft.</u>)				Hydrophytic Vegetation Indicators: 1. Rapid Test for Hydrophytic Vegetation <u> </u> X 2. Dominance Test is >50%. <u> </u> X 3. Prevalence Index is ≤3.0 ¹ <u> </u> 4. Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> 5. Wetland Non-Vascular Plants ¹ <u> </u> Problematic Hydrophytic Vegetation (Explain) <u> </u> ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? <u>X</u> Yes <u> </u> No <u> </u>																																
1. <u>Phalaris arundinacea</u>	<u>90</u>	<u>Y</u>	<u>FACW</u>																																	
2. <u>Cardaria draba</u>	<u>3</u>	<u>N</u>	<u>NI</u>																																	
3. <u>Dipsacus fullonum</u>	<u>2</u>	<u>N</u>	<u>FAC</u>																																	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
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Woody Vine Stratum (Plot size: <u>n/a</u>)																																				
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2. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
<u>0</u> = Total Cover																																				
% Bare Ground in Herb Stratum	<u>5</u> %																																			

Remarks:

Species with no indicator (NI) are treated as UPL for this analysis.

SOIL

Sampling Point: **WL-5****Profile Description:** *(Describe to the depth needed to document the indicator or confirm the absence of indicators.)*

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0–8	10YR 3/1	100					Loam	
8–18	10YR 4/2	95	10YR 4/6	5	C	M	Clay Loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix**Hydric Soil Indicators**

- ☐ Histosol (A1)
☐ Histic Epipedon (A2)
☐ Black Histic (A3)
☐ Hydrogen Sulfide (A4)
☐ 1 cm Muck (A9) (**LRR D, G**)
☒ Depleted Below Dark Surface (A11)
☐ Thick Dark Surface (A12)
☐ Iron Monosulfide (A18)
☐ Sandy Mucky Mineral (S1)

2.5 cm Mucky Peat or Peat (S2) (LRR G)

- ☐ Sandy Gleyed Matrix (S4)
☐ Sandy Redox (S5)
☐ Stripped Matrix (S6)
☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
☐ Loamy Gleyed Matrix (F2)
☒ Depleted Matrix (F3)
☐ Redox Dark Surface (F6)
☐ Depleted Dark Surface (F7)
☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- ☐ 2 cm Muck (A10) (**LRRA, E**)
☐ Iron-Manganese Masses (F12) (**LRR D**)
☐ Red Parent Material (F21)
☐ Very Shallow Dark Surface (F22)
☐ Other (Explain in Remarks)

³Indicators of hydrophylic vegetation and wetland hydrology must be present, unless disturbed or problematic.**Restrictive Layer: (if observed)**

Type: _____

Depth (inches): _____

Hydric Soil Present?Yes ☒ No ☐**Remarks:****HYDROLOGY****Wetland Hydrology Indicators:**Primary Indicators *(minimum of one is required; check all that apply)*

- ☐ Surface Water (A1)
☐ High Water Table (A2)
☐ Saturation (A3)
☐ Water Marks (B1)
☐ Sediment Deposits (B2)
☐ Drift Deposits (B3)
☐ Algal Mat or Crust (B4)
☐ Iron Deposits (B5)
☐ Surface Soil Cracks (B6)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Sparsely Vegetated Concave Surface (B8)

Secondary Indicators *(minimum of two required)*

- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
☐ Salt Crust (B11)
☐ Aquatic Invertebrates (B13)
☐ Hydrogen Sulfide Odor (C1)
☐ Oxidized Rhizospheres on Living Roots (C3)
☐ Presence of Reduced Iron (C4)
☐ Recent Iron Reduction in Tilled Soils (C6)
☐ Stunted or Stressed Plants (D1) (**LRR A**)
☐ Other (Explain in Remarks)
- ☐ Water-Stained Leaves (B9)
☐ (**MLRA 1, 2, 4A, and 4B**)
☐ Drainage Patterns (B10)
☐ Dry-Season Water Table (C2)
☐ Saturation Visible on Aerial Imagery (C9)
☒ Geomorphic Position (D2)
☐ Shallow Aquitard (D3)
☒ FAC-Neutral Test (D5)
☐ Raised Ant Mounds (D6) (**LRR A**)
☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes ☐ No ☒	Depth (inches)	_____	Wetland Hydrology Present?
Water Table Present?	Yes ☐ No ☒	Depth (inches)	_____	
Saturation Present? <i>(includes capillary fringe)</i>	Yes ☐ No ☒	Depth (inches)	_____	

☒ Yes ☐ No

Remarks:

Wetland Determination Data Form - Western Mountains, Valleys, and Coast Region

Project/Site: US93 Ninepipes City/County: Lake County Sampling Date: 5/19/2025
 Applicant/Owner: Montana Department of Transportation State: MT Sampling Point: UP-5
 Investigator(s): B. Stockowitz and A. Hendryx Section, Township, Range: S35 T20N R20W
 Landform (*hillslope, terrace, etc.*): Side slope of depression Local Relief (*concave, convex, none*): Convex Slope (%): 0-2
 Subregion (LRR): E - Rocky Mtn. Forests and Rangeland Lat. 47.442736 Long: -114.097305 Datum: WGS 84
 Soil Map Unit Name: Post silt loam, 0 to 2 percent slopes NWI Classification: UPL

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No X (If no, explain in Remarks)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes No X
 Hydric Soil Present? Yes X No Is the Sampled Area within a Wetland? Yes No X
 Wetland Hydrology Present? Yes No X

Remarks:

Paired upland point for wetland sample point WL-5. The APT determined drought conditions. Approx. 1.34" precip recorded in the 10 days prior to survey and approx. 0.25" precip recorded during the four-day survey period (Ronan Mesonet station).

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: <u>r = 30 ft.</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>33%</u> (A/B)																																
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Sapling/Shrub Stratum (Plot size: <u>r = 15 ft.</u>)				Prevalence Index Worksheet: <table border="1"> <thead> <tr> <th colspan="2">Total % Cover of:</th> <th colspan="2">Multiply by:</th> </tr> </thead> <tbody> <tr><td>OBL species</td><td><u>0</u></td><td>x 1 =</td><td><u>0</u></td></tr> <tr><td>FACW species</td><td><u>20</u></td><td>x 2 =</td><td><u>40</u></td></tr> <tr><td>FAC species</td><td><u>20</u></td><td>x 3 =</td><td><u>60</u></td></tr> <tr><td>FACU species</td><td><u>10</u></td><td>x 4 =</td><td><u>40</u></td></tr> <tr><td>UPL species</td><td><u>40</u></td><td>x 5 =</td><td><u>200</u></td></tr> <tr><td>Column Totals:</td><td><u>90</u> (A)</td><td></td><td><u>340</u> (B)</td></tr> <tr><td colspan="2">Prevalence Index = B/A =</td><td colspan="2"><u>3.8</u></td></tr> </tbody> </table>	Total % Cover of:		Multiply by:		OBL species	<u>0</u>	x 1 =	<u>0</u>	FACW species	<u>20</u>	x 2 =	<u>40</u>	FAC species	<u>20</u>	x 3 =	<u>60</u>	FACU species	<u>10</u>	x 4 =	<u>40</u>	UPL species	<u>40</u>	x 5 =	<u>200</u>	Column Totals:	<u>90</u> (A)		<u>340</u> (B)	Prevalence Index = B/A =		<u>3.8</u>	
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Herb Stratum (Plot size: <u>r = 5 ft.</u>)				Hydrophytic Vegetation Indicators: 1. Rapid Test for Hydrophytic Vegetation <u> </u> 2. Dominance Test is >50%. <u> </u> 3. Prevalence Index is ≤3.0 ¹ <u> </u> 4. Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> 5. Wetland Non-Vascular Plants ¹ <u> </u> Problematic Hydrophytic Vegetation (Explain) <u> </u> ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? <u> </u> Yes <u>X</u> No																																
1. <u>Phalaris arundinacea</u>	<u>20</u>	<u>Y</u>	<u>FACW</u>																																	
2. <u>Cardaria draba</u>	<u>40</u>	<u>Y</u>	<u>NI</u>																																	
3. <u>Dipsacus fullonum</u>	<u>20</u>	<u>Y</u>	<u>FAC</u>																																	
4. <u>Sisymbrium altissimum</u>	<u>10</u>	<u>N</u>	<u>FACU</u>																																	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
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Woody Vine Stratum (Plot size: <u>n/a</u>)																																				
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<u>0</u> = Total Cover																																				
% Bare Ground in Herb Stratum	<u>10</u> %																																			

Remarks: Weedy area.
 Species with no indicator (NI) are treated as UPL for this analysis.

SOIL

Sampling Point: **UP-5****Profile Description:** *(Describe to the depth needed to document the indicator or confirm the absence of indicators.)*

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0–2	10YR 3/2	100					Loam	
2–9	10YR 3/2	100					Clay Loam	
9–18	10YR 4/2	97	10YR 4/6	3	C	M	Clay Loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix**Hydric Soil Indicators**

☐ Histosol (A1)	☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G)
☐ Histic Epipedon (A2)	☐ Sandy Gleyed Matrix (S4)
☐ Black Histic (A3)	☐ Sandy Redox (S5)
☐ Hydrogen Sulfide (A4)	☐ Stripped Matrix (S6)
☐ 1 cm Muck (A9) (LRR D, G)	☐ Loamy Mucky Mineral (F1) (except MLRA 1)
☒ Depleted Below Dark Surface (A11)	☐ Loamy Gleyed Matrix (F2)
☐ Thick Dark Surface (A12)	☒ Depleted Matrix (F3)
☐ Iron Monosulfide (A18)	☐ Redox Dark Surface (F6)
☐ Sandy Mucky Mineral (S1)	☐ Depleted Dark Surface (F7)
	☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

☐ 2 cm Muck (A10) (LRRA, E)
☐ Iron-Manganese Masses (F12) (LRR D)
☐ Red Parent Material (F21)
☐ Very Shallow Dark Surface (F22)
☐ Other (Explain in Remarks)

³Indicators of hydrophylic vegetation and wetland hydrology must be present, unless disturbed or problematic.**Restrictive Layer:** *(if observed)*

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐**Remarks:** Bottom horizon moist, but not saturated.**HYDROLOGY****Wetland Hydrology Indicators:**Primary Indicators *(minimum of one is required; check all that apply)*

☐ Surface Water (A1)
☐ High Water Table (A2)
☐ Saturation (A3)
☐ Water Marks (B1)
☐ Sediment Deposits (B2)
☐ Drift Deposits (B3)
☐ Algal Mat or Crust (B4)
☐ Iron Deposits (B5)
☐ Surface Soil Cracks (B6)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Sparsely Vegetated Concave Surface (B8)

Secondary Indicators *(minimum of two required)*

☐ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	☐ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
☐ Salt Crust (B11)	☐ Drainage Patterns (B10)
☐ Aquatic Invertebrates (B13)	☐ Dry-Season Water Table (C2)
☐ Hydrogen Sulfide Odor (C1)	☐ Saturation Visible on Aerial Imagery (C9)
☐ Oxidized Rhizospheres on Living Roots (C3)	☐ Geomorphic Position (D2)
☐ Presence of Reduced Iron (C4)	☐ Shallow Aquitard (D3)
☐ Recent Iron Reduction in Tilled Soils (C6)	☒ FAC-Neutral Test (D5)
☐ Stunted or Stressed Plants (D1) (LRR A)	☐ Raised Ant Mounds (D6) (LRR A)
☐ Other (Explain in Remarks)	☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes _____	No <u>X</u>	Depth (inches)	_____	Wetland Hydrology Present?
Water Table Present?	Yes _____	No <u>X</u>	Depth (inches)	_____	
Saturation Present? (includes capillary fringe)	Yes _____	No <u>X</u>	Depth (inches)	_____	
					Yes X No

Remarks:

Wetland Determination Data Form - Western Mountains, Valleys, and Coast Region

Project/Site: US 93 Ninepipes City/County: Lake County Sampling Date: 5/19/2025
 Applicant/Owner: Montana Department of Transportation State: MT Sampling Point: WL-6
 Investigator(s): R. Newton and J. Mulligan Section, Township, Range: S36 T20N R20W
 Landform (*hillslope, terrace, etc.*): kettle pond fringe Local Relief (*concave, convex, none*): concave Slope (%): 0-2
 Subregion (LRR): E - Rocky Mtn. Forests and Rangeland Lat. 47.444286 Long: -114.096407 Datum: WGS 84
 Soil Map Unit Name: Post silty clay loam, 2 to 4 percent slopes NWI Classification: PEM

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No X (If no, explain in Remarks)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes X No
 Hydric Soil Present? Yes X No Is the Sampled Area within a Wetland? Yes X No
 Wetland Hydrology Present? Yes X No

Remarks:

Depressional wetland WL-6, open water and fringing PEM, in a prairie pothole on eastern side of US 93. The APT determined drought conditions. Approx. 1.34" precip recorded in the 10 days prior to survey and approx. 0.25" precip recorded during the four-day survey period (Ronan Mesonet station).

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: r = 30 ft.)

	Absolute % Cover	Dominant Species?	Indicator Status
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>0</u> = Total Cover			

Sapling/Shrub Stratum (Plot size: r = 15 ft.)

	Absolute % Cover	Dominant Species?	Indicator Status
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>0</u> = Total Cover			

Herb Stratum (Plot size: r = 5ft.)

	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Typha latifolia</u>	<u>25</u>	<u>Y</u>	<u>OBL</u>
2. <u>Cirsium arvense</u>	<u>12</u>	<u>N</u>	<u>FAC</u>
3. <u>Schoenoplectus acutus</u>	<u>8</u>	<u>N</u>	<u>OBL</u>
4. <u>Persicaria amphibia</u>	<u>15</u>	<u>Y</u>	<u>OBL</u>
5. <u>Phalaris arundinacea</u>	<u>15</u>	<u>Y</u>	<u>FACW</u>
6. <u>Bromus inermis</u>	<u>10</u>	<u>N</u>	<u>UPL</u>
7. <u>Epilobium ciliatum</u>	<u>5</u>	<u>N</u>	<u>FACW</u>
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>
9. <u> </u>	<u> </u>	<u> </u>	<u> </u>
10. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>90</u> = Total Cover			

Woody Vine Stratum (Plot size: n/a)

	Absolute % Cover	Dominant Species?	Indicator Status
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>0</u> = Total Cover			

% Bare Ground in Herb Stratum 10 %

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	<u>48</u>	x 1 =	<u>48</u>
FACW species	<u>20</u>	x 2 =	<u>40</u>
FAC species	<u>12</u>	x 3 =	<u>36</u>
FACU species	<u>0</u>	x 4 =	<u>0</u>
UPL species	<u>10</u>	x 5 =	<u>50</u>
Column Totals:	<u>90</u> (A)		<u>174</u> (B)
Prevalence Index = B/A =		<u>1.9</u>	

Hydrophytic Vegetation Indicators:

- X 1. Rapid Test for Hydrophytic Vegetation
X 2. Dominance Test is >50%.
X 3. Prevalence Index is ≤3.0¹
 4. Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 5. Wetland Non-Vascular Plants¹
 Problematic Hydrophytic Vegetation (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? X Yes No

Remarks:

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 8	10 YR 2/2	100					Silty Clay Loam	dense roots throughout
8 - 16	7.5 YR 5/2	80	7.5 YR 5/6	20	C	PL	Clay	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators		2.5 cm Mucky Peat or Peat (S2) (LRR G)	Indicators for Problematic Hydric Soils³:
☐ Histosol (A1)	☐	Sandy Gleyed Matrix (S4)	☐ 2 cm Muck (A10) (LRR A, E)
☐ Histic Epipedon (A2)	☐	Sandy Redox (S5)	☐ Iron-Manganese Masses (F12) (LRR D)
☐ Black Histic (A3)	☐	Stripped Matrix (S6)	☐ Red Parent Material (F21)
☐ Hydrogen Sulfide (A4)	☐	Loamy Mucky Mineral (F1) (except MLRA 1)	☐ Very Shallow Dark Surface (F22)
☐ 1 cm Muck (A9) (LRR D, G)	☐	Loamy Gleyed Matrix (F2)	☐ Other (Explain in Remarks)
☒ Depleted Below Dark Surface (A11)	☒	Depleted Matrix (F3)	³ Indicators of hydrophylic vegetation and wetland hydrology must be present, unless disturbed or problematic.
☐ Thick Dark Surface (A12)	☐	Redox Dark Surface (F6)	
☐ Iron Monosulfide (A18)	☐	Depleted Dark Surface (F7)	
☐ Sandy Mucky Mineral (S1)	☐	Redox Depressions (F8)	

Restrictive Layer: (if observed)

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☒ Surface Water (A1)
☐ High Water Table (A2)
☒ Saturation (A3)
☐ Water Marks (B1)
☐ Sediment Deposits (B2)
☐ Drift Deposits (B3)
☐ Algal Mat or Crust (B4)
☐ Iron Deposits (B5)
☐ Surface Soil Cracks (B6)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Sparsely Vegetated Concave Surface (B8)

- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
☐ Salt Crust (B11)
☐ Aquatic Invertebrates (B13)
☐ Hydrogen Sulfide Odor (C1)
☐ Oxidized Rhizospheres on Living Roots (C3)
☐ Presence of Reduced Iron (C4)
☐ Recent Iron Reduction in Tilled Soils (C6)
☐ Stunted or Stressed Plants (D1) (**LRR A**)
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Water-Stained Leaves (B9)
☐ (MLRA 1, 2, 4A, and 4B)
☐ Drainage Patterns (B10)
☒ Dry-Season Water Table (C2)
☐ Saturation Visible on Aerial Imagery (C9)
☒ Geomorphic Position (D2)
☐ Shallow Aquitard (D3)
☒ FAC-Neutral Test (D5)
☐ Raised Ant Mounds (D6) (**LRR A**)
☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes ☒ No ☐	Depth (inches)	2	Wetland Hydrology Present? ☒ Yes ☐ No
Water Table Present?	Yes ☒ No ☐	Depth (inches)	15	
Saturation Present? (includes capillary fringe)	Yes ☒ No ☐	Depth (inches)	surface	

Remarks:

water in pond is 12" deep

Wetland Determination Data Form - Western Mountains, Valleys, and Coast Region

Project/Site: US 93 Ninepipes City/County: Lake County Sampling Date: 5/19/2025
 Applicant/Owner: Montana Department of Transportation State: MT Sampling Point: UP-6
 Investigator(s): R. Newton and J. Mulligan Section, Township, Range: S36 T20N R20W
 Landform (*hillslope, terrace, etc.*): hillslope Local Relief (*concave, convex, none*): concave Slope (%): 0-1
 Subregion (LRR): E - Rocky Mtn. Forests and Rangeland Lat. 47.444277 Long: -114.096404 Datum: WGS 84
 Soil Map Unit Name: Post silty clay loam, 2 to 4 percent slopes NWI Classification: UPL

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No X (If no, explain in Remarks)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes No X
 Hydric Soil Present? Yes No X Is the Sampled Area within a Wetland? Yes No X
 Wetland Hydrology Present? Yes No X

Remarks:

Paired upland point for wetland sample point WL-6. The APT determined drought conditions. Approx. 1.34" precip recorded in the 10 days prior to survey and approx. 0.25" precip recorded during the four-day survey period (Ronan Mesonet station).

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: r = 30 ft.)

	Absolute % Cover	Dominant Species?	Indicator Status
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>0</u> = Total Cover			

Sapling/Shrub Stratum (Plot size: r = 15 ft.)

	Absolute % Cover	Dominant Species?	Indicator Status
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>0</u> = Total Cover			

Herb Stratum (Plot size: r = 5ft.)

	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Cirsium arvense</u>	<u>10</u>	<u>N</u>	<u>FAC</u>
2. <u>Bromus inermis</u>	<u>70</u>	<u>Y</u>	<u>UPL</u>
3. <u>Persicaria amphibia</u>	<u>12</u>	<u>N</u>	<u>OBL</u>
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>
6. <u> </u>	<u> </u>	<u> </u>	<u> </u>
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>
9. <u> </u>	<u> </u>	<u> </u>	<u> </u>
10. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>92</u> = Total Cover			

Woody Vine Stratum (Plot size: n/a)

	Absolute % Cover	Dominant Species?	Indicator Status
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>0</u> = Total Cover			

% Bare Ground in Herb Stratum 10 %

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
 Total Number of Dominant Species Across All Strata: 1 (B)
 Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	<u>12</u>	x 1 =	<u>12</u>
FACW species	<u>0</u>	x 2 =	<u>0</u>
FAC species	<u>10</u>	x 3 =	<u>30</u>
FACU species	<u>0</u>	x 4 =	<u>0</u>
UPL species	<u>70</u>	x 5 =	<u>350</u>
Column Totals:	<u>92</u> (A)		<u>392</u> (B)
Prevalence Index = B/A =		<u>4.3</u>	

Hydrophytic Vegetation Indicators:

1. Rapid Test for Hydrophytic Vegetation
2. Dominance Test is >50%.
3. Prevalence Index is ≤3.0'
4. Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
5. Wetland Non-Vascular Plants¹
- Problematic Hydrophytic Vegetation (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No

Remarks:

Profile Description: *(Describe to the depth needed to document the indicator or confirm the absence of indicators.)*

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 14	10 YR 2/2	100					Silty Clay Loam	
14 - 16	7.5 YR 5/6	50					Clay	
	7.5 YR 5/2	50					Clay	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators	2.5 cm Mucky Peat or Peat (S2) (LRR G)	Indicators for Problematic Hydric Soils³:
☐ Histosol (A1)	☐ Sandy Gleyed Matrix (S4)	☐ 2 cm Muck (A10) (LRRA, E)
☐ Histic Epipedon (A2)	☐ Sandy Redox (S5)	☐ Iron-Manganese Masses (F12) (LRR D)
☐ Black Histic (A3)	☐ Stripped Matrix (S6)	☐ Red Parent Material (F21)
☐ Hydrogen Sulfide (A4)	☐ Loamy Mucky Mineral (F1) (except MLRA 1)	☐ Very Shallow Dark Surface (F22)
☐ 1 cm Muck (A9) (LRR D, G)	☐ Loamy Gleyed Matrix (F2)	☐ Other (Explain in Remarks)
☐ Depleted Below Dark Surface (A11)	☐ Depleted Matrix (F3)	³ Indicators of hydrophylic vegetation and wetland hydrology must be present, unless disturbed or problematic.
☐ Thick Dark Surface (A12)	☐ Redox Dark Surface (F6)	
☐ Iron Monosulfide (A18)	☐ Depleted Dark Surface (F7)	
☐ Sandy Mucky Mineral (S1)	☐ Redox Depressions (F8)	

Restrictive Layer: *(if observed)*

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes _____ No ☒ **X**

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators *(minimum of one is required; check all that apply)*

- ☐ Surface Water (A1)
☐ High Water Table (A2)
☐ Saturation (A3)
☐ Water Marks (B1)
☐ Sediment Deposits (B2)
☐ Drift Deposits (B3)
☐ Algal Mat or Crust (B4)
☐ Iron Deposits (B5)
☐ Surface Soil Cracks (B6)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Sparsely Vegetated Concave Surface (B8)

- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
☐ Salt Crust (B11)
☐ Aquatic Invertebrates (B13)
☐ Hydrogen Sulfide Odor (C1)
☐ Oxidized Rhizospheres on Living Roots (C3)
☐ Presence of Reduced Iron (C4)
☐ Recent Iron Reduction in Tilled Soils (C6)
☐ Stunted or Stressed Plants (D1) (**LRR A**)
☐ Other (Explain in Remarks)

Secondary Indicators *(minimum of two required)*

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
☐ Drainage Patterns (B10)
☐ Dry-Season Water Table (C2)
☐ Saturation Visible on Aerial Imagery (C9)
☐ Geomorphic Position (D2)
☐ Shallow Aquitard (D3)
☐ FAC-Neutral Test (D5)
☐ Raised Ant Mounds (D6) (**LRR A**)
☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes _____ No ☒ X	Depth (inches) _____	Wetland Hydrology Present? Yes _____ ☒ X No _____
Water Table Present?	Yes _____ No ☒ X	Depth (inches) _____	
Saturation Present? <i>(includes capillary fringe)</i>	Yes _____ No ☒ X	Depth (inches) _____	

Remarks:

Wetland Determination Data Form - Western Mountains, Valleys, and Coast Region

Project/Site: US 93 Ninepipes City/County: Lake County Sampling Date: 5/19/2025
 Applicant/Owner: Montana Department of Transportation State: MT Sampling Point: WL-7
 Investigator(s): R. Newton and J. Mulligan Section, Township, Range: S36 T20N R20W
 Landform (*hillslope, terrace, etc.*): roadside ditch Local Relief (*concave, convex, none*): concave Slope (%): 0-1
 Subregion (LRR): E - Rocky Mtn. Forests and Rangeland Lat. 47.445187 Long: -114.096797 Datum: WGS 84
 Soil Map Unit Name: Post silty clay loam, 2 to 4 percent slopes NWI Classification: PEM

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No X (If no, explain in Remarks)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes X No
 Hydric Soil Present? Yes X No Is the Sampled Area within a Wetland? Yes X No
 Wetland Hydrology Present? Yes X No

Remarks:

Depressional PEM wetland WL-7 within roadside ditch on the eastern side of US 93. Appears to be isolated. The APT determined drought conditions. Approx. 1.34" precip recorded in the 10 days prior to survey and approx. 0.25" precip recorded during the four-day survey period (Ronan Mesonet station).

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: r = 30 ft.) Absolute % Cover Dominant Species? Indicator Status
 1.
 2.
 3.
 4.
 5.
0 = Total Cover

Sapling/Shrub Stratum (Plot size: r = 15 ft.) Absolute % Cover Dominant Species? Indicator Status
 1.
 2.
 3.
 4.
 5.
0 = Total Cover

Herb Stratum (Plot size: r = 5ft.) Absolute % Cover Dominant Species? Indicator Status
 1. Typha latifolia 35 Y OBL
 2. Eleocharis acicularis 25 Y OBL
 3. Poa pratensis 20 Y FAC
 4. Bromus inermis 12 N UPL
 5.
 6.
 7.
 8.
 9.
 10.
92 = Total Cover

Woody Vine Stratum (Plot size: n/a) Absolute % Cover Dominant Species? Indicator Status
 1.
 2.
0 = Total Cover

% Bare Ground in Herb Stratum 10 %

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	60	x 1 =	60
FACW species	0	x 2 =	0
FAC species	20	x 3 =	60
FACU species	0	x 4 =	0
UPL species	12	x 5 =	60
Column Totals:	92 (A)		180 (B)
Prevalence Index = B/A =		2.0	

Hydrophytic Vegetation Indicators:

1. Rapid Test for Hydrophytic Vegetation
- X 2. Dominance Test is >50%.
- X 3. Prevalence Index is ≤3.0¹
4. Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
5. Wetland Non-Vascular Plants¹
- Problematic Hydrophytic Vegetation (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? X Yes No

Remarks:

SOIL

Sampling Point: **WL-7****Profile Description:** *(Describe to the depth needed to document the indicator or confirm the absence of indicators.)*

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 3	10 YR 3/2	100					Silty Clay Loam	
3 - 16	2.5 Y 5/2	80	10 YR 5/8	20	C	M	Clay	70% cobbles and gravels

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators		2.5 cm Mucky Peat or Peat (S2) (LRR G)	Indicators for Problematic Hydric Soils³:
☐	Histosol (A1)	☐ Sandy Gleyed Matrix (S4)	☐ 2 cm Muck (A10) (LRRA, E)
☐	Histic Epipedon (A2)	☐ Sandy Redox (S5)	☐ Iron-Manganese Masses (F12) (LRR D)
☐	Black Histic (A3)	☐ Stripped Matrix (S6)	☐ Red Parent Material (F21)
☐	Hydrogen Sulfide (A4)	☐ Loamy Mucky Mineral (F1) (except MLRA 1)	☐ Very Shallow Dark Surface (F22)
☐	1 cm Muck (A9) (LRR D, G)	☐ Loamy Gleyed Matrix (F2)	☐ Other (Explain in Remarks)
☒	Depleted Below Dark Surface (A11)	☒ Depleted Matrix (F3)	³ Indicators of hydrophylic vegetation and wetland hydrology must be present, unless disturbed or problematic.
☐	Thick Dark Surface (A12)	☐ Redox Dark Surface (F6)	
☐	Iron Monosulfide (A18)	☐ Depleted Dark Surface (F7)	
☐	Sandy Mucky Mineral (S1)	☐ Redox Depressions (F8)	

Restrictive Layer: *(if observed)*Type: _____
Depth (inches): _____**Hydric Soil Present?** Yes ☒ No ☐**Remarks:****HYDROLOGY****Wetland Hydrology Indicators:**Primary Indicators *(minimum of one is required; check all that apply)*

- ☐ Surface Water (A1)
- ☒ High Water Table (A2)
- ☒ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)

Secondary Indicators *(minimum of two required)*

- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)
- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☒ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes ☐	No ☒	Depth (inches)	_____	Wetland Hydrology Present?
Water Table Present?	Yes ☒	No ☐	Depth (inches)	7	
Saturation Present? <i>(includes capillary fringe)</i>	Yes ☒	No ☐	Depth (inches)	surface	

☒ Yes ☐ No**Remarks:**

Wetland Determination Data Form - Western Mountains, Valleys, and Coast Region

Project/Site: US 93 Ninepipes City/County: Lake County Sampling Date: 5/19/2025
 Applicant/Owner: Montana Department of Transportation State: MT Sampling Point: UP-7
 Investigator(s): R. Newton and J. Mulligan Section, Township, Range: S36 T20N R20W
 Landform (*hillslope, terrace, etc.*): road slope Local Relief (*concave, convex, none*): none Slope (%): 0-1
 Subregion (LRR): E - Rocky Mtn. Forests and Rangeland Lat. 47.445192 Long: -114.09681 Datum: WGS 84
 Soil Map Unit Name: Post silty clay loam, 2 to 4 percent slopes NWI Classification: UPL

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No X (If no, explain in Remarks)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes No X
 Hydric Soil Present? Yes No X Is the Sampled Area within a Wetland? Yes No X
 Wetland Hydrology Present? Yes No X

Remarks:

Paired upland point for wetland sample point WL-7. The APT determined drought conditions. Approx. 1.34" precip recorded in the 10 days prior to survey and approx. 0.25" precip recorded during the four-day survey period (Ronan Mesonet station).

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: <u>r = 30 ft.</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>33%</u> (A/B)																																
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
<u>0</u> = Total Cover																																				
Shrub/Strat (Plot size: <u>r = 15 ft.</u>)				Prevalence Index Worksheet: <table border="1"> <thead> <tr> <th colspan="2">Total % Cover of:</th> <th colspan="2">Multiply by:</th> </tr> </thead> <tbody> <tr><td>OBL species</td><td><u>0</u></td><td>x 1 =</td><td><u>0</u></td></tr> <tr><td>FACW species</td><td><u>0</u></td><td>x 2 =</td><td><u>0</u></td></tr> <tr><td>FAC species</td><td><u>20</u></td><td>x 3 =</td><td><u>60</u></td></tr> <tr><td>FACU species</td><td><u>0</u></td><td>x 4 =</td><td><u>0</u></td></tr> <tr><td>UPL species</td><td><u>65</u></td><td>x 5 =</td><td><u>325</u></td></tr> <tr><td>Column Totals:</td><td><u>85</u> (A)</td><td></td><td><u>385</u> (B)</td></tr> <tr><td colspan="2">Prevalence Index = B/A =</td><td colspan="2"><u>4.5</u></td></tr> </tbody> </table>	Total % Cover of:		Multiply by:		OBL species	<u>0</u>	x 1 =	<u>0</u>	FACW species	<u>0</u>	x 2 =	<u>0</u>	FAC species	<u>20</u>	x 3 =	<u>60</u>	FACU species	<u>0</u>	x 4 =	<u>0</u>	UPL species	<u>65</u>	x 5 =	<u>325</u>	Column Totals:	<u>85</u> (A)		<u>385</u> (B)	Prevalence Index = B/A =		<u>4.5</u>	
Total % Cover of:		Multiply by:																																		
OBL species	<u>0</u>	x 1 =	<u>0</u>																																	
FACW species	<u>0</u>	x 2 =	<u>0</u>																																	
FAC species	<u>20</u>	x 3 =	<u>60</u>																																	
FACU species	<u>0</u>	x 4 =	<u>0</u>																																	
UPL species	<u>65</u>	x 5 =	<u>325</u>																																	
Column Totals:	<u>85</u> (A)		<u>385</u> (B)																																	
Prevalence Index = B/A =		<u>4.5</u>																																		
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
<u>0</u> = Total Cover																																				
Herb Stratum (Plot size: <u>r = 5ft.</u>)				Hydrophytic Vegetation Indicators: 1. Rapid Test for Hydrophytic Vegetation <u> </u> 2. Dominance Test is >50%. <u> </u> 3. Prevalence Index is ≤3.0 ¹ <u> </u> 4. Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> 5. Wetland Non-Vascular Plants ¹ <u> </u> Problematic Hydrophytic Vegetation (Explain) <u> </u> ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? <u> </u> Yes <u>X</u> No																																
1. <u>Bromus inermis</u>	<u>35</u>	<u>Y</u>	<u>UPL</u>																																	
2. <u>Lappula squarrosa</u>	<u>30</u>	<u>Y</u>	<u>NI</u>																																	
3. <u>Poa pratensis</u>	<u>20</u>	<u>Y</u>	<u>FAC</u>																																	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
6. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
9. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
10. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
<u>85</u> = Total Cover																																				
Woody Vine Stratum (Plot size: <u>n/a</u>)																																				
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
<u>0</u> = Total Cover																																				
% Bare Ground in Herb Stratum	<u>15</u> %																																			

Remarks:

Species with no indicator (NI) are treated as UPL for this analysis.

SOIL

Sampling Point: **UP-7****Profile Description:** *(Describe to the depth needed to document the indicator or confirm the absence of indicators.)*

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 4	10 YR 3/2	100					Silty Clay	
4 - 16	2.5 Y 6/3	100					Sandy Clay Loam	~50% roadfill

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix**Hydric Soil Indicators**

- ☐ Histosol (A1)
☐ Histic Epipedon (A2)
☐ Black Histic (A3)
☐ Hydrogen Sulfide (A4)
☐ 1 cm Muck (A9) (**LRR D, G**)
☐ Depleted Below Dark Surface (A11)
☐ Thick Dark Surface (A12)
☐ Iron Monosulfide (A18)
☐ Sandy Mucky Mineral (S1)

2.5 cm Mucky Peat or Peat (S2) (LRR G)

- ☐ Sandy Gleyed Matrix (S4)
☐ Sandy Redox (S5)
☐ Stripped Matrix (S6)
☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
☐ Loamy Gleyed Matrix (F2)
☐ Depleted Matrix (F3)
☐ Redox Dark Surface (F6)
☐ Depleted Dark Surface (F7)
☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- ☐ 2 cm Muck (A10) (**LRRA, E**)
☐ Iron-Manganese Masses (F12) (**LRR D**)
☐ Red Parent Material (F21)
☐ Very Shallow Dark Surface (F22)
☐ Other (Explain in Remarks)

³Indicators of hydrophylic vegetation and wetland hydrology must be present, unless disturbed or problematic.**Restrictive Layer:** *(if observed)*

Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No ☒**Remarks:****HYDROLOGY****Wetland Hydrology Indicators:**Primary Indicators *(minimum of one is required; check all that apply)*

- ☐ Surface Water (A1)
☐ High Water Table (A2)
☐ Saturation (A3)
☐ Water Marks (B1)
☐ Sediment Deposits (B2)
☐ Drift Deposits (B3)
☐ Algal Mat or Crust (B4)
☐ Iron Deposits (B5)
☐ Surface Soil Cracks (B6)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Sparsely Vegetated Concave Surface (B8)

Secondary Indicators *(minimum of two required)*

- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
☐ Salt Crust (B11)
☐ Aquatic Invertebrates (B13)
☐ Hydrogen Sulfide Odor (C1)
☐ Oxidized Rhizospheres on Living Roots (C3)
☐ Presence of Reduced Iron (C4)
☐ Recent Iron Reduction in Tilled Soils (C6)
☐ Stunted or Stressed Plants (D1) (**LRR A**)
☐ Other (Explain in Remarks)
- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
☐ Drainage Patterns (B10)
☐ Dry-Season Water Table (C2)
☐ Saturation Visible on Aerial Imagery (C9)
☐ Geomorphic Position (D2)
☐ Shallow Aquitard (D3)
☐ FAC-Neutral Test (D5)
☐ Raised Ant Mounds (D6) (**LRR A**)
☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes _____	No ☒	Depth (inches)	_____	Wetland Hydrology Present? Yes _____ ☒ No _____
Water Table Present?	Yes _____	No ☒	Depth (inches)	_____	
Saturation Present? <i>(includes capillary fringe)</i>	Yes _____	No ☒	Depth (inches)	_____	

Remarks:

Wetland Determination Data Form - Western Mountains, Valleys, and Coast Region

Project/Site: US 93 Ninepipes City/County: Lake County Sampling Date: 5/19/2025
 Applicant/Owner: Montana Department of Transportation State: MT Sampling Point: WL-8
 Investigator(s): R. Newton and J. Mulligan Section, Township, Range: S36 T20N R20W
 Landform (*hillslope, terrace, etc.*): roadside ditch Local Relief (*concave, convex, none*): concave Slope (%): 0-2
 Subregion (LRR): E - Rocky Mtn. Forests and Rangeland Lat. 47.44541 Long: -114.096776 Datum: WGS 84
 Soil Map Unit Name: Post silty clay loam, 2 to 4 percent slopes NWI Classification: PEM

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No X (If no, explain in Remarks)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes X No
 Hydric Soil Present? Yes X No Is the Sampled Area within a Wetland? Yes X No
 Wetland Hydrology Present? Yes X No

Remarks:

Depressional PEM wetland WL-8 within roadside ditch on the eastern side of US 93; appears to be isolated. The APT determined drought conditions. Approx. 1.34" precip recorded in the 10 days prior to survey and approx. 0.25" precip recorded during the four-day survey period (Ronan Mesonet station).

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: r = 30 ft.)

	Absolute % Cover	Dominant Species?	Indicator Status
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>0</u> = Total Cover			

Sapling/Shrub Stratum (Plot size: r = 15 ft.)

	Absolute % Cover	Dominant Species?	Indicator Status
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>0</u> = Total Cover			

Herb Stratum (Plot size: r = 5ft.)

	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Typha latifolia</u>	<u>55</u>	<u>Y</u>	<u>OBL</u>
2. <u>Poa pratensis</u>	<u>30</u>	<u>Y</u>	<u>FAC</u>
3. <u>Bromus inermis</u>	<u>10</u>	<u>N</u>	<u>UPL</u>
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>
6. <u> </u>	<u> </u>	<u> </u>	<u> </u>
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>
9. <u> </u>	<u> </u>	<u> </u>	<u> </u>
10. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>95</u> = Total Cover			

Woody Vine Stratum (Plot size: n/a)

	Absolute % Cover	Dominant Species?	Indicator Status
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>0</u> = Total Cover			

% Bare Ground in Herb Stratum 10 %

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	<u>55</u>	x 1 =	<u>55</u>
FACW species	<u>0</u>	x 2 =	<u>0</u>
FAC species	<u>30</u>	x 3 =	<u>90</u>
FACU species	<u>0</u>	x 4 =	<u>0</u>
UPL species	<u>10</u>	x 5 =	<u>50</u>
Column Totals:	<u>95</u> (A)		<u>195</u> (B)
Prevalence Index = B/A =			<u>2.1</u>

Hydrophytic Vegetation Indicators:

1. Rapid Test for Hydrophytic Vegetation X
2. Dominance Test is >50%. X
3. Prevalence Index is ≤3.0¹
4. Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
5. Wetland Non-Vascular Plants¹
- Problematic Hydrophytic Vegetation (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? X Yes No

Remarks:

SOIL

Sampling Point: **WL-8****Profile Description:** *(Describe to the depth needed to document the indicator or confirm the absence of indicators.)*

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 4	10 YR 3/2	100					Silty Clay Loam	
4 - 16	7.5 YR 5/2	60	7.5 YR 5/8	40	C	M	Clay	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators	2.5 cm Mucky Peat or Peat (S2) (LRR G)	Indicators for Problematic Hydric Soils³:
☐ Histosol (A1)	☐ Sandy Gleyed Matrix (S4)	☐ 2 cm Muck (A10) (LRRA, E)
☐ Histic Epipedon (A2)	☐ Sandy Redox (S5)	☐ Iron-Manganese Masses (F12) (LRR D)
☐ Black Histic (A3)	☐ Stripped Matrix (S6)	☐ Red Parent Material (F21)
☐ Hydrogen Sulfide (A4)	☐ Loamy Mucky Mineral (F1) (except MLRA 1)	☐ Very Shallow Dark Surface (F22)
☐ 1 cm Muck (A9) (LRR D, G)	☐ Loamy Gleyed Matrix (F2)	☐ Other (Explain in Remarks)
☒ Depleted Below Dark Surface (A11)	☒ Depleted Matrix (F3)	³ Indicators of hydrophylic vegetation and wetland hydrology must be present, unless disturbed or problematic.
☐ Thick Dark Surface (A12)	☐ Redox Dark Surface (F6)	
☐ Iron Monosulfide (A18)	☐ Depleted Dark Surface (F7)	
☐ Sandy Mucky Mineral (S1)	☐ Redox Depressions (F8)	

Restrictive Layer: *(if observed)*
 Type: _____
 Depth (inches): _____
Hydric Soil Present? Yes ☒ No ☐**Remarks:****HYDROLOGY****Wetland Hydrology Indicators:**Primary Indicators *(minimum of one is required; check all that apply)*

☐ Surface Water (A1)
☐ High Water Table (A2)
☐ Saturation (A3)
☐ Water Marks (B1)
☐ Sediment Deposits (B2)
☐ Drift Deposits (B3)
☐ Algal Mat or Crust (B4)
☐ Iron Deposits (B5)
☐ Surface Soil Cracks (B6)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Sparsely Vegetated Concave Surface (B8)

☐ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
☐ Salt Crust (B11)
☐ Aquatic Invertebrates (B13)
☐ Hydrogen Sulfide Odor (C1)
☐ Oxidized Rhizospheres on Living Roots (C3)
☐ Presence of Reduced Iron (C4)
☐ Recent Iron Reduction in Tilled Soils (C6)
☐ Stunted or Stressed Plants (D1) (LRR A)
☐ Other (Explain in Remarks)

Secondary Indicators *(minimum of two required)*

☐ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
☐ Drainage Patterns (B10)
☐ Dry-Season Water Table (C2)
☐ Saturation Visible on Aerial Imagery (C9)
☒ Geomorphic Position (D2)
☐ Shallow Aquitard (D3)
☒ FAC-Neutral Test (D5)
☐ Raised Ant Mounds (D6) (LRR A)
☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes ☐ No ☒	Depth (inches)	_____	Wetland Hydrology Present?
Water Table Present?	Yes ☐ No ☒	Depth (inches)	_____	
Saturation Present? <i>(includes capillary fringe)</i>	Yes ☒ No ☐	Depth (inches)	surface	

Remarks:

Wetland Determination Data Form - Western Mountains, Valleys, and Coast Region

Project/Site: US 93 Ninepipes City/County: Lake County Sampling Date: 5/19/2025
 Applicant/Owner: Montana Department of Transportation State: MT Sampling Point: UP-8
 Investigator(s): R. Newton and J. Mulligan Section, Township, Range: S36 T20N R20W
 Landform (*hillslope, terrace, etc.*): roadslope Local Relief (*concave, convex, none*): none Slope (%): 0-2
 Subregion (LRR): E - Rocky Mtn. Forests and Rangeland Lat. 47.445416 Long: -114.096763 Datum: WGS 84
 Soil Map Unit Name: Post silty clay loam, 2 to 4 percent slopes NWI Classification: UPL

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No X (If no, explain in Remarks)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes No X
 Hydric Soil Present? Yes No X Is the Sampled Area within a Wetland? Yes No X
 Wetland Hydrology Present? Yes No X

Remarks:

Paired upland point for wetland sample point WL-8. The APT determined drought conditions. Approx. 1.34" precip recorded in the 10 days prior to survey and approx. 0.25" precip recorded during the four-day survey period (Ronan Mesonet station).

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: <u>r = 30 ft.</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)	
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>		Total Number of Dominant Species Across All Strata: <u>2</u> (B)
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>		
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B)	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>		
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Prevalence Index Worksheet: Total % Cover of: <u> </u> Multiply by: <u> </u>	
0 = Total Cover					
Sapling/Shrub Stratum (Plot size: <u>r = 15 ft.</u>)				OBL species <u>0</u> x 1 = <u>0</u>	
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>		FACW species <u>0</u> x 2 = <u>0</u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	FAC species <u>45</u> x 3 = <u>135</u>	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	FACU species <u>0</u> x 4 = <u>0</u>	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	UPL species <u>55</u> x 5 = <u>275</u>	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Column Totals: <u>100</u> (A) <u>410</u> (B)	
0 = Total Cover				Prevalence Index = B/A = <u>4.1</u>	
Herb Stratum (Plot size: <u>r = 5ft.</u>)				Hydrophytic Vegetation Indicators: 1. Rapid Test for Hydrophytic Vegetation <u> </u> 2. Dominance Test is >50%. <u> </u> 3. Prevalence Index is ≤3.0 ¹ <u> </u> 4. Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> 5. Wetland Non-Vascular Plants ¹ <u> </u> Problematic Hydrophytic Vegetation (Explain) <u> </u> ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
1. <u>Poa pratensis</u>	<u>45</u>	<u>Y</u>	<u>FAC</u>		
2. <u>Bromus inermis</u>	<u>55</u>	<u>Y</u>	<u>UPL</u>		
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>		
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>		
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>		
6. <u> </u>	<u> </u>	<u> </u>	<u> </u>		
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>		
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>		
9. <u> </u>	<u> </u>	<u> </u>	<u> </u>		
10. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Hydrophytic Vegetation Present? <u> </u> Yes <u>X</u> No <u> </u>	
100 = Total Cover					
Woody Vine Stratum (Plot size: <u>n/a</u>)					
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>		
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>		
0 = Total Cover					
% Bare Ground in Herb Stratum	<u>0</u> %				

Remarks:

Profile Description: *(Describe to the depth needed to document the indicator or confirm the absence of indicators.)*

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 4	10 YR 3/2	100					Silty Clay Loam	
4 - 16	10 YR 5/6	100					Clay	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators	2.5 cm Mucky Peat or Peat (S2) (LRR G)	Indicators for Problematic Hydric Soils³:
☐ Histosol (A1)	☐ Sandy Gleyed Matrix (S4)	☐ 2 cm Muck (A10) (LRRA, E)
☐ Histic Epipedon (A2)	☐ Sandy Redox (S5)	☐ Iron-Manganese Masses (F12) (LRR D)
☐ Black Histic (A3)	☐ Stripped Matrix (S6)	☐ Red Parent Material (F21)
☐ Hydrogen Sulfide (A4)	☐ Loamy Mucky Mineral (F1) (except MLRA 1)	☐ Very Shallow Dark Surface (F22)
☐ 1 cm Muck (A9) (LRR D, G)	☐ Loamy Gleyed Matrix (F2)	☐ Other (Explain in Remarks)
☐ Depleted Below Dark Surface (A11)	☐ Depleted Matrix (F3)	³ Indicators of hydrophylic vegetation and wetland hydrology must be present, unless disturbed or problematic.
☐ Thick Dark Surface (A12)	☐ Redox Dark Surface (F6)	
☐ Iron Monosulfide (A18)	☐ Depleted Dark Surface (F7)	
☐ Sandy Mucky Mineral (S1)	☐ Redox Depressions (F8)	

Restrictive Layer: *(if observed)*

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators *(minimum of one is required; check all that apply)*

- ☐ Surface Water (A1)
☐ High Water Table (A2)
☐ Saturation (A3)
☐ Water Marks (B1)
☐ Sediment Deposits (B2)
☐ Drift Deposits (B3)
☐ Algal Mat or Crust (B4)
☐ Iron Deposits (B5)
☐ Surface Soil Cracks (B6)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Sparsely Vegetated Concave Surface (B8)

- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
☐ Salt Crust (B11)
☐ Aquatic Invertebrates (B13)
☐ Hydrogen Sulfide Odor (C1)
☐ Oxidized Rhizospheres on Living Roots (C3)
☐ Presence of Reduced Iron (C4)
☐ Recent Iron Reduction in Tilled Soils (C6)
☐ Stunted or Stressed Plants (D1) (**LRR A**)
☐ Other (Explain in Remarks)

Secondary Indicators *(minimum of two required)*

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
☐ Drainage Patterns (B10)
☐ Dry-Season Water Table (C2)
☐ Saturation Visible on Aerial Imagery (C9)
☐ Geomorphic Position (D2)
☐ Shallow Aquitard (D3)
☐ FAC-Neutral Test (D5)
☐ Raised Ant Mounds (D6) (**LRR A**)
☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes _____ No <u>X</u>	Depth (inches) _____	Wetland Hydrology Present? _____ Yes <u>X</u> No
Water Table Present?	Yes _____ No <u>X</u>	Depth (inches) _____	
Saturation Present? <i>(includes capillary fringe)</i>	Yes _____ No <u>X</u>	Depth (inches) _____	

Remarks:

Wetland Determination Data Form - Western Mountains, Valleys, and Coast Region

Project/Site: US93 Ninepipes City/County: Lake County Sampling Date: 5/19/2025
Applicant/Owner: Montana Department of Transportation State: MT Sampling Point: WL-9
Investigator(s): B. Stockowitz and A. Hendryx Section, Township, Range: S35 T20N R20W
Landform (*hillslope, terrace, etc.*): Depression Local Relief (*concave, convex, none*): Concave Slope (%): 0-2
Subregion (LRR): E - Rocky Mtn. Forests and Rangeland Lat. 47.445544 Long: -114.097392 Datum: WGS 84
Soil Map Unit Name: Post silty clay loam, 2 to 4 percent slopes NWI Classification: PAB/PEM

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No X (If no, explain in Remarks)
Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No
Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes X No
Hydric Soil Present? Yes X No Is the Sampled Area within a Wetland? Yes X No
Wetland Hydrology Present? Yes X No

Remarks:

Depressional PEM wetland WL-9 in a prairie pothole on the western side of US 93; appears to be isolated. The APT determined drought conditions. Approx. 1.34" precip recorded in the 10 days prior to survey and approx. 0.25" precip recorded during the four-day survey period (Ronan Mesonet station).

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: <u>r = 30 ft.</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>0</u> = Total Cover			

Sapling/Shrub Stratum (Plot size: <u>r = 15 ft.</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>0</u> = Total Cover			

Herb Stratum (Plot size: <u>r = 5 ft.</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Phalaris arundinacea</u>	<u>60</u>	<u>Y</u>	<u>FACW</u>
2. <u>Typha latifolia</u>	<u>30</u>	<u>Y</u>	<u>OBL</u>
3. <u>Cirsium arvense</u>	<u>10</u>	<u>N</u>	<u>FAC</u>
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>
6. <u> </u>	<u> </u>	<u> </u>	<u> </u>
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>
9. <u> </u>	<u> </u>	<u> </u>	<u> </u>
10. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>100</u> = Total Cover			

Woody Vine Stratum (Plot size: <u>n/a</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>0</u> = Total Cover			

% Bare Ground in Herb Stratum 0 %

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	<u>30</u>	x 1 =	<u>30</u>
FACW species	<u>60</u>	x 2 =	<u>120</u>
FAC species	<u>10</u>	x 3 =	<u>30</u>
FACU species	<u>0</u>	x 4 =	<u>0</u>
UPL species	<u>0</u>	x 5 =	<u>0</u>
Column Totals:	<u>100</u> (A)		<u>180</u> (B)
Prevalence Index = B/A =		<u>1.8</u>	

Hydrophytic Vegetation Indicators:

1. Rapid Test for Hydrophytic Vegetation
- X 2. Dominance Test is >50%.
- X 3. Prevalence Index is ≤3.0¹
4. Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
5. Wetland Non-Vascular Plants¹
- Problematic Hydrophytic Vegetation (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? X Yes No

Remarks:

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-6	10YR 3/1	100					Clay Loam	
6-12	10YR 4/2	98	10YR 4/6	2	C	M	Clay Loam	
12-20	10YR 4/2	97	10YR 4/6	3	C	M	Clay	H2S odor

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

☐ Histosol (A1)	☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G)
☐ Histic Epipedon (A2)	☐ Sandy Gleyed Matrix (S4)
☐ Black Histic (A3)	☐ Sandy Redox (S5)
☒ Hydrogen Sulfide (A4)	☐ Stripped Matrix (S6)
1 cm Muck (A9) (LRR D, G)	☐ Loamy Mucky Mineral (F1) (except MLRA 1)
☒ Depleted Below Dark Surface (A11)	☐ Loamy Gleyed Matrix (F2)
☐ Thick Dark Surface (A12)	☒ Depleted Matrix (F3)
☐ Iron Monosulfide (A18)	☐ Redox Dark Surface (F6)
☐ Sandy Mucky Mineral (S1)	☐ Depleted Dark Surface (F7)
	☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

☐ 2 cm Muck (A10) (LRR A, E)
☐ Iron-Manganese Masses (F12) (LRR D)
☐ Red Parent Material (F21)
☐ Very Shallow Dark Surface (F22)
☐ Other (Explain in Remarks)

³Indicators of hydrophylic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer: (if observed)

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

☐ Surface Water (A1)
☐ High Water Table (A2)
☒ Saturation (A3)
☐ Water Marks (B1)
☐ Sediment Deposits (B2)
☐ Drift Deposits (B3)
☐ Algal Mat or Crust (B4)
☐ Iron Deposits (B5)
☐ Surface Soil Cracks (B6)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Sparsely Vegetated Concave Surface (B8)

Secondary Indicators (minimum of two required)

☐ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	☐ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
☐ Salt Crust (B11)	☐ Drainage Patterns (B10)
☐ Aquatic Invertebrates (B13)	☒ Dry-Season Water Table (C2)
☒ Hydrogen Sulfide Odor (C1)	☐ Saturation Visible on Aerial Imagery (C9)
☐ Oxidized Rhizospheres on Living Roots (C3)	☐ Geomorphic Position (D2)
☐ Presence of Reduced Iron (C4)	☐ Shallow Aquitard (D3)
☐ Recent Iron Reduction in Tilled Soils (C6)	☒ FAC-Neutral Test (D5)
☐ Stunted or Stressed Plants (D1) (LRR A)	☐ Raised Ant Mounds (D6) (LRR A)
☐ Other (Explain in Remarks)	☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes ☐ No ☒	Depth (inches)	_____	Wetland Hydrology Present? ☒ Yes ☐ No
Water Table Present?	Yes ☒ No ☐	Depth (inches)	14	
Saturation Present? (includes capillary fringe)	Yes ☒ No ☐	Depth (inches)	10	

Remarks: Delineated feature contained standing surface water up to 1" deep.

Wetland Determination Data Form - Western Mountains, Valleys, and Coast Region

Project/Site: US93 Ninepipes City/County: Lake County Sampling Date: 5/19/2025
 Applicant/Owner: Montana Department of Transportation State: MT Sampling Point: UP-9
 Investigator(s): B. Stockowitz and A. Hendryx Section, Township, Range: S35 T20N R20W
 Landform (*hillslope, terrace, etc.*): Swale Local Relief (*concave, convex, none*): convex Slope (%): 2-5
 Subregion (LRR): E - Rocky Mtn. Forests and Rangeland Lat. 47.445544 Long: -114.097357 Datum: WGS 84
 Soil Map Unit Name: Post silty clay loam, 2 to 4 percent slopes NWI Classification: UPL

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No X (If no, explain in Remarks)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes X No
 Hydric Soil Present? Yes No X Is the Sampled Area within a Wetland? Yes No X
 Wetland Hydrology Present? Yes No X

Remarks:

Paired upland point for wetland sample point WL-9. The APT determined drought conditions. Approx. 1.34" precip recorded in the 10 days prior to survey and approx. 0.25" precip recorded during the four-day survey period (Ronan Mesonet station).

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: r = 30 ft.)

	Absolute % Cover	Dominant Species?	Indicator Status
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>0</u> = Total Cover			

Sapling/Shrub Stratum (Plot size: r = 15 ft.)

	Absolute % Cover	Dominant Species?	Indicator Status
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>0</u> = Total Cover			

Herb Stratum (Plot size: r = 5 ft.)

	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Phalaris arundinacea</u>	<u>70</u>	<u>Y</u>	<u>FACW</u>
2. <u>Cirsium arvense</u>	<u>20</u>	<u>Y</u>	<u>FAC</u>
3. <u>Galium aparine</u>	<u>5</u>	<u>N</u>	<u>FACU</u>
4. <u>Thalictrum arvense</u>	<u>3</u>	<u>N</u>	<u>UPL</u>
5. <u>Lappula squarrosa</u>	<u>2</u>	<u>N</u>	<u>NI</u>
6. <u> </u>	<u> </u>	<u> </u>	<u> </u>
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>
9. <u> </u>	<u> </u>	<u> </u>	<u> </u>
10. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>100</u> = Total Cover			

Woody Vine Stratum (Plot size: n/a)

	Absolute % Cover	Dominant Species?	Indicator Status
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>0</u> = Total Cover			

% Bare Ground in Herb Stratum 0 %

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
 Total Number of Dominant Species Across All Strata: 2 (B)
 Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	<u>0</u>	x 1 =	<u>0</u>
FACW species	<u>70</u>	x 2 =	<u>140</u>
FAC species	<u>20</u>	x 3 =	<u>60</u>
FACU species	<u>5</u>	x 4 =	<u>20</u>
UPL species	<u>5</u>	x 5 =	<u>25</u>
Column Totals:	<u>100</u> (A)		<u>245</u> (B)
Prevalence Index = B/A =			<u>2.5</u>

Hydrophytic Vegetation Indicators:

1. Rapid Test for Hydrophytic Vegetation
2. Dominance Test is >50%.
- X 3. Prevalence Index is ≤3.0¹
4. Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
5. Wetland Non-Vascular Plants¹
- Problematic Hydrophytic Vegetation (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No

Remarks:

Species with no indicator (NI) are treated as UPL for this analysis.

SOIL

Sampling Point: **UP-9****Profile Description:** *(Describe to the depth needed to document the indicator or confirm the absence of indicators.)*

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0–8	10YR 3/2	100					Loam	
8–14	10YR 4/2	100					Clay Loam	
14–18	10YR 4/4	98	10YR 4/6	2	C	M	Clay Loam	Faint redox

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix**Hydric Soil Indicators**

☐ Histosol (A1)	☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G)
☐ Histic Epipedon (A2)	☐ Sandy Gleyed Matrix (S4)
☐ Black Histic (A3)	☐ Sandy Redox (S5)
☐ Hydrogen Sulfide (A4)	☐ Stripped Matrix (S6)
☐ 1 cm Muck (A9) (LRR D, G)	☐ Loamy Mucky Mineral (F1) (except MLRA 1)
☐ Depleted Below Dark Surface (A11)	☐ Loamy Gleyed Matrix (F2)
☐ Thick Dark Surface (A12)	☐ Depleted Matrix (F3)
☐ Iron Monosulfide (A18)	☐ Redox Dark Surface (F6)
☐ Sandy Mucky Mineral (S1)	☐ Depleted Dark Surface (F7)
	☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

☐ 2 cm Muck (A10) (LRRA, E)
☐ Iron-Manganese Masses (F12) (LRR D)
☐ Red Parent Material (F21)
☐ Very Shallow Dark Surface (F22)
☐ Other (Explain in Remarks)

³Indicators of hydrophylic vegetation and wetland hydrology must be present, unless disturbed or problematic.**Restrictive Layer:** *(if observed)*

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☐ No ☒**Remarks:****HYDROLOGY****Wetland Hydrology Indicators:**Primary Indicators *(minimum of one is required; check all that apply)*

☐ Surface Water (A1)
☐ High Water Table (A2)
☐ Saturation (A3)
☐ Water Marks (B1)
☐ Sediment Deposits (B2)
☐ Drift Deposits (B3)
☐ Algal Mat or Crust (B4)
☐ Iron Deposits (B5)
☐ Surface Soil Cracks (B6)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Sparsely Vegetated Concave Surface (B8)

Secondary Indicators *(minimum of two required)*

☐ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	☐ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
☐ Salt Crust (B11)	☐ Drainage Patterns (B10)
☐ Aquatic Invertebrates (B13)	☐ Dry-Season Water Table (C2)
☐ Hydrogen Sulfide Odor (C1)	☐ Saturation Visible on Aerial Imagery (C9)
☐ Oxidized Rhizospheres on Living Roots (C3)	☐ Geomorphic Position (D2)
☐ Presence of Reduced Iron (C4)	☐ Shallow Aquitard (D3)
☐ Recent Iron Reduction in Tilled Soils (C6)	☒ FAC-Neutral Test (D5)
☐ Stunted or Stressed Plants (D1) (LRR A)	☐ Raised Ant Mounds (D6) (LRR A)
☐ Other (Explain in Remarks)	☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes ☐ No ☒	Depth (inches)	_____	Wetland Hydrology Present?
Water Table Present?	Yes ☐ No ☒	Depth (inches)	_____	
Saturation Present? <i>(includes capillary fringe)</i>	Yes ☐ No ☒	Depth (inches)	_____	☐ Yes ☒ No

Remarks: No moisture.

Wetland Determination Data Form - Western Mountains, Valleys, and Coast Region

Project/Site: US 93 Ninepipes City/County: Lake County Sampling Date: 5/19/2025
 Applicant/Owner: Montana Department of Transportation State: MT Sampling Point: WL-10
 Investigator(s): R. Newton and J. Mulligan Section, Township, Range: S36 T20N R20W
 Landform (*hillslope, terrace, etc.*): depression Local Relief (*concave, convex, none*): concave Slope (%): 0-1
 Subregion (LRR): E - Rocky Mtn. Forests and Rangeland Lat. 47.44577 Long: -114.096489 Datum: WGS 84
 Soil Map Unit Name: Post silty clay loam, 2 to 4 percent slopes NWI Classification: PEM

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No X (If no, explain in Remarks)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes X No
 Hydric Soil Present? Yes X No Is the Sampled Area within a Wetland? Yes X No
 Wetland Hydrology Present? Yes X No

Remarks:

Isolated depressional PEM wetland WL-10 on eastern side of US 93. The APT determined drought conditions. Approx. 1.34" precip recorded in the 10 days prior to survey and approx. 0.25" precip recorded during the four-day survey period (Ronan Mesonet station).

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: <u>r = 30 ft.</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)																																
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
<u>0</u> = Total Cover																																				
Sapling/Shrub Stratum (Plot size: <u>r = 15 ft.</u>)				Prevalence Index Worksheet: <table border="1"> <thead> <tr> <th colspan="2">Total % Cover of:</th> <th colspan="2">Multiply by:</th> </tr> </thead> <tbody> <tr><td>OBL species</td><td><u>47</u></td><td>x 1 =</td><td><u>47</u></td></tr> <tr><td>FACW species</td><td><u>12</u></td><td>x 2 =</td><td><u>24</u></td></tr> <tr><td>FAC species</td><td><u>0</u></td><td>x 3 =</td><td><u>0</u></td></tr> <tr><td>FACU species</td><td><u>0</u></td><td>x 4 =</td><td><u>0</u></td></tr> <tr><td>UPL species</td><td><u>0</u></td><td>x 5 =</td><td><u>0</u></td></tr> <tr><td>Column Totals:</td><td><u>59</u> (A)</td><td></td><td><u>71</u> (B)</td></tr> <tr><td colspan="2">Prevalence Index = B/A =</td><td colspan="2"><u>1.2</u></td></tr> </tbody> </table>	Total % Cover of:		Multiply by:		OBL species	<u>47</u>	x 1 =	<u>47</u>	FACW species	<u>12</u>	x 2 =	<u>24</u>	FAC species	<u>0</u>	x 3 =	<u>0</u>	FACU species	<u>0</u>	x 4 =	<u>0</u>	UPL species	<u>0</u>	x 5 =	<u>0</u>	Column Totals:	<u>59</u> (A)		<u>71</u> (B)	Prevalence Index = B/A =		<u>1.2</u>	
Total % Cover of:		Multiply by:																																		
OBL species	<u>47</u>	x 1 =	<u>47</u>																																	
FACW species	<u>12</u>	x 2 =	<u>24</u>																																	
FAC species	<u>0</u>	x 3 =	<u>0</u>																																	
FACU species	<u>0</u>	x 4 =	<u>0</u>																																	
UPL species	<u>0</u>	x 5 =	<u>0</u>																																	
Column Totals:	<u>59</u> (A)		<u>71</u> (B)																																	
Prevalence Index = B/A =		<u>1.2</u>																																		
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
<u>0</u> = Total Cover																																				
Herb Stratum (Plot size: <u>r = 5ft.</u>)				Hydrophytic Vegetation Indicators: <u>X</u> 1. Rapid Test for Hydrophytic Vegetation <u>X</u> 2. Dominance Test is >50%. <u>X</u> 3. Prevalence Index is ≤3.0' <u> </u> 4. Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> 5. Wetland Non-Vascular Plants ¹ <u> </u> Problematic Hydrophytic Vegetation (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? <u>X</u> Yes <u> </u> No																																
1. <u>Schoenoplectus acutus</u>	<u>35</u>	<u>Y</u>	<u>OBL</u>																																	
2. <u>Phalaris arundinacea</u>	<u>12</u>	<u>Y</u>	<u>FACW</u>																																	
3. <u>Typha latifolia</u>	<u>12</u>	<u>Y</u>	<u>OBL</u>																																	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
6. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
9. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
10. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
<u>59</u> = Total Cover																																				
Woody Vine Stratum (Plot size: <u>n/a</u>)																																				
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
<u>0</u> = Total Cover																																				
% Bare Ground in Herb Stratum	<u>45</u> %																																			

Remarks:

Profile Description: *(Describe to the depth needed to document the indicator or confirm the absence of indicators.)*

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 10	10 YR 3/2	100					Silty Clay Loam	
10 - 16	7.5 YR 5/2	100					Clay	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators	2.5 cm Mucky Peat or Peat (S2) (LRR G)	Indicators for Problematic Hydric Soils³:
☐ Histosol (A1)	☐ Sandy Gleyed Matrix (S4)	☐ 2 cm Muck (A10) (LRRA, E)
☐ Histic Epipedon (A2)	☐ Sandy Redox (S5)	☐ Iron-Manganese Masses (F12) (LRR D)
☐ Black Histic (A3)	☐ Stripped Matrix (S6)	☐ Red Parent Material (F21)
☐ Hydrogen Sulfide (A4)	☐ Loamy Mucky Mineral (F1) (except MLRA 1)	☐ Very Shallow Dark Surface (F22)
☐ 1 cm Muck (A9) (LRR D, G)	☐ Loamy Gleyed Matrix (F2)	☒ Other (Explain in Remarks)
☐ Depleted Below Dark Surface (A11)	☐ Depleted Matrix (F3)	³ Indicators of hydrophylic vegetation and wetland hydrology must be present, unless disturbed or problematic.
☐ Thick Dark Surface (A12)	☐ Redox Dark Surface (F6)	
☐ Iron Monosulfide (A18)	☐ Depleted Dark Surface (F7)	
☐ Sandy Mucky Mineral (S1)	☐ Redox Depressions (F8)	

Restrictive Layer: *(if observed)*

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks:

Soils permanently saturated; redoximorphic features likely masked.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators *(minimum of one is required; check all that apply)*

- ☐ Surface Water (A1)
☒ High Water Table (A2)
☒ Saturation (A3)
☐ Water Marks (B1)
☐ Sediment Deposits (B2)
☐ Drift Deposits (B3)
☐ Algal Mat or Crust (B4)
☐ Iron Deposits (B5)
☐ Surface Soil Cracks (B6)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Sparsely Vegetated Concave Surface (B8)

- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
☐ Salt Crust (B11)
☐ Aquatic Invertebrates (B13)
☐ Hydrogen Sulfide Odor (C1)
☐ Oxidized Rhizospheres on Living Roots (C3)
☐ Presence of Reduced Iron (C4)
☐ Recent Iron Reduction in Tilled Soils (C6)
☐ Stunted or Stressed Plants (D1) (**LRR A**)
☐ Other (Explain in Remarks)

Secondary Indicators *(minimum of two required)*

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
☐ Drainage Patterns (B10)
☐ Dry-Season Water Table (C2)
☐ Saturation Visible on Aerial Imagery (C9)
☒ Geomorphic Position (D2)
☐ Shallow Aquitard (D3)
☒ FAC-Neutral Test (D5)
☐ Raised Ant Mounds (D6) (**LRR A**)
☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes ☐ No ☒	Depth (inches)	_____	Wetland Hydrology Present?
Water Table Present?	Yes ☒ No ☐	Depth (inches)	6	
Saturation Present? <i>(includes capillary fringe)</i>	Yes ☒ No ☐	Depth (inches)	surface	

☒ Yes ☐ No

Remarks:

Wetland Determination Data Form - Western Mountains, Valleys, and Coast Region

Project/Site: US 93 Ninepipes City/County: Lake County Sampling Date: 5/19/2025
Applicant/Owner: Montana Department of Transportation State: MT Sampling Point: UP-10
Investigator(s): R. Newton and J. Mulligan Section, Township, Range: S36 T20N R20W
Landform (*hillslope, terrace, etc.*): hillslope Local Relief (*concave, convex, none*): concave Slope (%): 0-1
Subregion (LRR): E - Rocky Mtn. Forests and Rangeland Lat. 47.445775 Long: -114.096467 Datum: WGS 84
Soil Map Unit Name: Post silty clay loam, 2 to 4 percent slopes NWI Classification: UPL

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No X (If no, explain in Remarks)
Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No
Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes X No
Hydric Soil Present? Yes No X Is the Sampled Area within a Wetland? Yes No X
Wetland Hydrology Present? Yes No X

Remarks:

Paired upland point for wetland sample point WL-10. The APT determined drought conditions. Approx. 1.34" precip recorded in the 10 days prior to survey and approx. 0.25" precip recorded during the four-day survey period (Ronan Mesonet station).

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: <u>r = 30 ft.</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>0</u> = Total Cover			
Sapling/Shrub Stratum (Plot size: <u>r = 15 ft.</u>)			
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>0</u> = Total Cover			
Herb Stratum (Plot size: <u>r = 5ft.</u>)			
1. <u>Phalaris arundinacea</u>	<u>75</u>	<u>Y</u>	<u>FACW</u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>
6. <u> </u>	<u> </u>	<u> </u>	<u> </u>
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>
9. <u> </u>	<u> </u>	<u> </u>	<u> </u>
10. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>75</u> = Total Cover			
Woody Vine Stratum (Plot size: <u>n/a</u>)			
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>0</u> = Total Cover			
% Bare Ground in Herb Stratum	<u>25</u> %		

Dominance Test Worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	<u>0</u>	x 1 =	<u>0</u>
FACW species	<u>75</u>	x 2 =	<u>150</u>
FAC species	<u>0</u>	x 3 =	<u>0</u>
FACU species	<u>0</u>	x 4 =	<u>0</u>
UPL species	<u>0</u>	x 5 =	<u>0</u>
Column Totals:	<u>75</u> (A)		<u>150</u> (B)

Prevalence Index = B/A = 2.0

Hydrophytic Vegetation Indicators:
 1. Rapid Test for Hydrophytic Vegetation
X 2. Dominance Test is >50%.
X 3. Prevalence Index is ≤3.0¹
 4. Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 5. Wetland Non-Vascular Plants¹
 Problematic Hydrophytic Vegetation (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? X Yes No

Remarks:

Profile Description: *(Describe to the depth needed to document the indicator or confirm the absence of indicators.)*

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 14	10 YR 3/2	100					Silty Clay Loam	
14 - 16	10 YR 4/3	100					Clay	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators	2.5 cm Mucky Peat or Peat (S2) (LRR G)	Indicators for Problematic Hydric Soils³:
☐ Histosol (A1)	☐ Sandy Gleyed Matrix (S4)	☐ 2 cm Muck (A10) (LRR A, E)
☐ Histic Epipedon (A2)	☐ Sandy Redox (S5)	☐ Iron-Manganese Masses (F12) (LRR D)
☐ Black Histic (A3)	☐ Stripped Matrix (S6)	☐ Red Parent Material (F21)
☐ Hydrogen Sulfide (A4)	☐ Loamy Mucky Mineral (F1) (except MLRA 1)	☐ Very Shallow Dark Surface (F22)
☐ 1 cm Muck (A9) (LRR D, G)	☐ Loamy Gleyed Matrix (F2)	☐ Other (Explain in Remarks)
☐ Depleted Below Dark Surface (A11)	☐ Depleted Matrix (F3)	³ Indicators of hydrophylic vegetation and wetland hydrology must be present, unless disturbed or problematic.
☐ Thick Dark Surface (A12)	☐ Redox Dark Surface (F6)	
☐ Iron Monosulfide (A18)	☐ Depleted Dark Surface (F7)	
☐ Sandy Mucky Mineral (S1)	☐ Redox Depressions (F8)	

Restrictive Layer: *(if observed)*

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators *(minimum of one is required; check all that apply)*

- ☐ Surface Water (A1)
☐ High Water Table (A2)
☐ Saturation (A3)
☐ Water Marks (B1)
☐ Sediment Deposits (B2)
☐ Drift Deposits (B3)
☐ Algal Mat or Crust (B4)
☐ Iron Deposits (B5)
☐ Surface Soil Cracks (B6)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Sparsely Vegetated Concave Surface (B8)

Secondary Indicators *(minimum of two required)*

- ☐ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
☐ Salt Crust (B11)
☐ Aquatic Invertebrates (B13)
☐ Hydrogen Sulfide Odor (C1)
☐ Oxidized Rhizospheres on Living Roots (C3)
☐ Presence of Reduced Iron (C4)
☐ Recent Iron Reduction in Tilled Soils (C6)
☐ Stunted or Stressed Plants (D1) (LRR A)
☐ Other (Explain in Remarks)
- ☐ Water-Stained Leaves (B9)
☐ (MLRA 1, 2, 4A, and 4B)
☐ Drainage Patterns (B10)
☐ Dry-Season Water Table (C2)
☐ Saturation Visible on Aerial Imagery (C9)
☐ Geomorphic Position (D2)
☐ Shallow Aquitard (D3)
☒ FAC-Neutral Test (D5)
☐ Raised Ant Mounds (D6) (LRR A)
☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes _____ No <u>X</u>	Depth (inches) _____	Wetland Hydrology Present? ____ Yes <u>X</u> No
Water Table Present?	Yes _____ No <u>X</u>	Depth (inches) _____	
Saturation Present? <i>(includes capillary fringe)</i>	Yes _____ No <u>X</u>	Depth (inches) _____	

Remarks:

Wetland Determination Data Form - Western Mountains, Valleys, and Coast Region

Project/Site: US93 Ninepipes City/County: Lake County Sampling Date: 5/19/2025
 Applicant/Owner: Montana Department of Transportation State: MT Sampling Point: WL-11a
 Investigator(s): B. Stockowitz and A. Hendryx Section, Township, Range: S35 T20N R20W
 Landform (*hillslope, terrace, etc.*): Depression Local Relief (*concave, convex, none*): Concave Slope (%): 0-2
 Subregion (LRR): E - Rocky Mtn. Forests and Rangeland Lat. 47.445914 Long: -114.097305 Datum: WGS 84
 Soil Map Unit Name: Post silty clay loam, 2 to 4 percent slopes NWI Classification: PSS

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No X (If no, explain in Remarks)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes X No
 Hydric Soil Present? Yes X No Is the Sampled Area within a Wetland? Yes X No
 Wetland Hydrology Present? Yes X No

Remarks:

Depressional WL-11 wetland, open water and fringing PSS, on the western side of US 93. Appears to be isolated; driveway culvert at southern end is perched above the ground surface. The APT determined drought conditions. Approx. 1.34" precip recorded in the 10 days prior to survey and approx. 0.25" precip recorded during the four-day survey period (Ronan Mesonet station).

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: <u>r = 30 ft.</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:			
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A)			
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Total Number of Dominant Species Across All Strata: <u>4</u> (B)			
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)			
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>				
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>				
<u>0</u> = Total Cover							
Sapling/Shrub Stratum (Plot size: <u>r = 15 ft.</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index Worksheet:			
1. <u>Crataegus douglasii</u>	<u>40</u>	<u>Y</u>	<u>FAC</u>	Total % Cover of: <u>13</u> x 1 = <u>13</u>			
2. <u>Cornus alba</u>	<u>30</u>	<u>Y</u>	<u>FACW</u>	<u>32</u> x 2 = <u>64</u>			
3. <u>Salix lutea</u>	<u>10</u>	<u>N</u>	<u>OBL</u>	<u>40</u> x 3 = <u>120</u>			
4. <u>Lonicera tatarica</u>	<u>10</u>	<u>N</u>	<u>FACU</u>	<u>10</u> x 4 = <u>40</u>			
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>	<u>0</u> x 5 = <u>0</u>			
<u>90</u> = Total Cover				Column Totals: <u>95</u> (A) <u>237</u> (B)			
				Prevalence Index = B/A = <u>2.5</u>			
Herb Stratum (Plot size: <u>r = 5 ft.</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:			
1. <u>Carex nebrascensis</u>	<u>3</u>	<u>Y</u>	<u>OBL</u>	<u> </u> 1. Rapid Test for Hydrophytic Vegetation			
2. <u>Solidago sp.</u>	<u>5</u>	<u>N</u>	<u>-</u>	<u>X</u> 2. Dominance Test is >50%.			
3. <u>Phalaris arundinacea</u>	<u>2</u>	<u>Y</u>	<u>FACW</u>	<u>X</u> 3. Prevalence Index is ≤3.0 ¹			
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u> 4. Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)			
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u> 5. Wetland Non-Vascular Plants ¹			
6. <u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u> Problematic Hydrophytic Vegetation (Explain)			
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>				
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>				
9. <u> </u>	<u> </u>	<u> </u>	<u> </u>				
10. <u> </u>	<u> </u>	<u> </u>	<u> </u>				
<u>10</u> = Total Cover							
Woody Vine Stratum (Plot size: <u>n/a</u>)	Absolute % Cover	Dominant Species?	Indicator Status				
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>				
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>				
<u>0</u> = Total Cover							
% Bare Ground in Herb Stratum <u>90</u> %							

Remarks: Ground cover in herb stratum is predominately willow duff/leaf litter.

Profile Description: *(Describe to the depth needed to document the indicator or confirm the absence of indicators.)*

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0–4	10YR 3/1	100					Loam	
4–18	10 YR 6/1	100					Clay Loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

☐ Histosol (A1)	☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G)
☐ Histic Epipedon (A2)	☐ Sandy Gleyed Matrix (S4)
☐ Black Histic (A3)	☐ Sandy Redox (S5)
☐ Hydrogen Sulfide (A4)	☐ Stripped Matrix (S6)
☐ 1 cm Muck (A9) (LRR D, G)	☐ Loamy Mucky Mineral (F1) (except MLRA 1)
☒ Depleted Below Dark Surface (A11)	☐ Loamy Gleyed Matrix (F2)
☐ Thick Dark Surface (A12)	☒ Depleted Matrix (F3)
☐ Iron Monosulfide (A18)	☐ Redox Dark Surface (F6)
☐ Sandy Mucky Mineral (S1)	☐ Depleted Dark Surface (F7)
	☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

☐ 2 cm Muck (A10) (LRRA, E)
☐ Iron-Manganese Masses (F12) (LRR D)
☐ Red Parent Material (F21)
☐ Very Shallow Dark Surface (F22)
☐ Other (Explain in Remarks)

³Indicators of hydrophylic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer: *(if observed)*

Type: _____
Depth (*inches*): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators *(minimum of one is required; check all that apply)*

☐ Surface Water (A1)
☒ High Water Table (A2)
☒ Saturation (A3)
☐ Water Marks (B1)
☐ Sediment Deposits (B2)
☐ Drift Deposits (B3)
☐ Algal Mat or Crust (B4)
☐ Iron Deposits (B5)
☐ Surface Soil Cracks (B6)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Sparsely Vegetated Concave Surface (B8)

Secondary Indicators *(minimum of two required)*

☐ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	☐ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
☐ Salt Crust (B11)	☐ Drainage Patterns (B10)
☐ Aquatic Invertebrates (B13)	☐ Dry-Season Water Table (C2)
☐ Hydrogen Sulfide Odor (C1)	☐ Saturation Visible on Aerial Imagery (C9)
☐ Oxidized Rhizospheres on Living Roots (C3)	☒ Geomorphic Position (D2)
☐ Presence of Reduced Iron (C4)	☐ Shallow Aquitard (D3)
☐ Recent Iron Reduction in Tilled Soils (C6)	☒ FAC-Neutral Test (D5)
☐ Stunted or Stressed Plants (D1) (LRR A)	☐ Raised Ant Mounds (D6) (LRR A)
☐ Other (Explain in Remarks)	☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes ☐ No ☒	Depth (<i>inches</i>)	☐	Wetland Hydrology Present?
Water Table Present?	Yes ☒ No ☐	Depth (<i>inches</i>)	8	
Saturation Present? <i>(includes capillary fringe)</i>	Yes ☒ No ☐	Depth (<i>inches</i>)	6	
				☒ Yes ☐ No

Remarks:

Wetland Determination Data Form - Western Mountains, Valleys, and Coast Region

Project/Site: US93 Ninepipes City/County: Lake County Sampling Date: 5/19/2025
 Applicant/Owner: Montana Department of Transportation State: MT Sampling Point: UP-11a
 Investigator(s): B. Stockowitz and A. Hendryx Section, Township, Range: S35 T20N R20W
 Landform (*hillslope, terrace, etc.*): Hillslope Local Relief (*concave, convex, none*): none/flat Slope (%): 0-2
 Subregion (LRR): E - Rocky Mtn. Forests and Rangeland Lat. 47.445871 Long: -114.097352 Datum: WGS 84
 Soil Map Unit Name: Post silty clay loam, 2 to 4 percent slopes NWI Classification: UPL

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No X (If no, explain in Remarks)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes No X
 Hydric Soil Present? Yes No X Is the Sampled Area within a Wetland? Yes No X
 Wetland Hydrology Present? Yes No X

Remarks:

Paired upland point for wetland sample point WL-11a. The APT determined drought conditions. Approx. 1.34" precip recorded in the 10 days prior to survey and approx. 0.25" precip recorded during the four-day survey period (Ronan Mesonet station).

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: r = 30 ft.)

	Absolute % Cover	Dominant Species?	Indicator Status
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>0</u> = Total Cover			

Sapling/Shrub Stratum (Plot size: r = 15 ft.)

1. <u>Lonicera tatarica</u>	<u>25</u>	<u>Y</u>	<u>FACU</u>
2. <u>Crataegus douglasii</u>	<u>15</u>	<u>Y</u>	<u>FAC</u>
3. <u>Cornus alba</u>	<u>10</u>	<u>Y</u>	<u>FACW</u>
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>50</u> = Total Cover			

Herb Stratum (Plot size: r = 5 ft.)

1. <u>Bromus inermis</u>	<u>80</u>	<u>Y</u>	<u>UPL</u>
2. <u>Dactylis glomerata</u>	<u>5</u>	<u>N</u>	<u>FACU</u>
3. <u>Lappula squarrosa</u>	<u>5</u>	<u>N</u>	<u>NI</u>
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>
6. <u> </u>	<u> </u>	<u> </u>	<u> </u>
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>
9. <u> </u>	<u> </u>	<u> </u>	<u> </u>
10. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>90</u> = Total Cover			

Woody Vine Stratum (Plot size: n/a)

1. <u> </u>	<u> </u>	<u> </u>	<u> </u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>0</u> = Total Cover			

% Bare Ground in Herb Stratum 10 %

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
 Total Number of Dominant Species Across All Strata: 4 (B)
 Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	<u>0</u>	x 1 =	<u>0</u>
FACW species	<u>10</u>	x 2 =	<u>20</u>
FAC species	<u>15</u>	x 3 =	<u>45</u>
FACU species	<u>30</u>	x 4 =	<u>120</u>
UPL species	<u>85</u>	x 5 =	<u>425</u>
Column Totals:	<u>140</u> (A)		<u>610</u> (B)
Prevalence Index = B/A =			<u>4.4</u>

Hydrophytic Vegetation Indicators:

1. Rapid Test for Hydrophytic Vegetation
 2. Dominance Test is >50%.
 3. Prevalence Index is ≤3.0¹
 4. Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 5. Wetland Non-Vascular Plants¹
- Problematic Hydrophytic Vegetation (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No

Remarks:

Species with no indicator (NI) are treated as UPL for this analysis.

Profile Description: *(Describe to the depth needed to document the indicator or confirm the absence of indicators.)*

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0–3	10YR 4/4	100					Loam	
3–16	10 YR 4/4	100					Clay Loam	90% gravel

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

☐ Histosol (A1)	☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G)
☐ Histic Epipedon (A2)	☐ Sandy Gleyed Matrix (S4)
☐ Black Histic (A3)	☐ Sandy Redox (S5)
☐ Hydrogen Sulfide (A4)	☐ Stripped Matrix (S6)
☐ 1 cm Muck (A9) (LRR D, G)	☐ Loamy Mucky Mineral (F1) (except MLRA 1)
☐ Depleted Below Dark Surface (A11)	☐ Loamy Gleyed Matrix (F2)
☐ Thick Dark Surface (A12)	☐ Depleted Matrix (F3)
☐ Iron Monosulfide (A18)	☐ Redox Dark Surface (F6)
☐ Sandy Mucky Mineral (S1)	☐ Depleted Dark Surface (F7)
	☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

☐ 2 cm Muck (A10) (LRRA, E)
☐ Iron-Manganese Masses (F12) (LRR D)
☐ Red Parent Material (F21)
☐ Very Shallow Dark Surface (F22)
☐ Other (Explain in Remarks)

³Indicators of hydrophylic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer: *(if observed)*

Type: _____
Depth (*inches*): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators *(minimum of one is required; check all that apply)*

☐ Surface Water (A1)
☐ High Water Table (A2)
☐ Saturation (A3)
☐ Water Marks (B1)
☐ Sediment Deposits (B2)
☐ Drift Deposits (B3)
☐ Algal Mat or Crust (B4)
☐ Iron Deposits (B5)
☐ Surface Soil Cracks (B6)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Sparsely Vegetated Concave Surface (B8)

Secondary Indicators *(minimum of two required)*

☐ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	☐ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
☐ Salt Crust (B11)	☐ Drainage Patterns (B10)
☐ Aquatic Invertebrates (B13)	☐ Dry-Season Water Table (C2)
☐ Hydrogen Sulfide Odor (C1)	☐ Saturation Visible on Aerial Imagery (C9)
☐ Oxidized Rhizospheres on Living Roots (C3)	☐ Geomorphic Position (D2)
☐ Presence of Reduced Iron (C4)	☐ Shallow Aquitard (D3)
☐ Recent Iron Reduction in Tilled Soils (C6)	☐ FAC-Neutral Test (D5)
☐ Stunted or Stressed Plants (D1) (LRR A)	☐ Raised Ant Mounds (D6) (LRR A)
☐ Other (Explain in Remarks)	☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes _____ No <u>X</u>	Depth (<i>inches</i>) _____	Wetland Hydrology Present? Yes _____ X _____ No _____
Water Table Present?	Yes _____ No <u>X</u>	Depth (<i>inches</i>) _____	
Saturation Present? <i>(includes capillary fringe)</i>	Yes _____ No <u>X</u>	Depth (<i>inches</i>) _____	

Remarks:

Wetland Determination Data Form - Western Mountains, Valleys, and Coast Region

Project/Site: US93 Ninepipes City/County: Lake County Sampling Date: 5/19/2025
 Applicant/Owner: Montana Department of Transportation State: MT Sampling Point: WL-11b
 Investigator(s): B. Stockowitz and A. Hendryx Section, Township, Range: S35 T20N R20W
 Landform (*hillslope, terrace, etc.*): Depression Local Relief (*concave, convex, none*): Concave Slope (%): 0-2
 Subregion (LRR): E - Rocky Mtn. Forests and Rangeland Lat. 47.446561 Long: -114.097177 Datum: WGS 84
 Soil Map Unit Name: Post silty clay loam, 2 to 4 percent slopes NWI Classification: PAB

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No X (If no, explain in Remarks)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes X No
 Hydric Soil Present? Yes X No Is the Sampled Area within a Wetland? Yes X No
 Wetland Hydrology Present? Yes X No

Remarks:

Depressional WL-11 wetland, palustrine floating vegetation mat PAB4H, on the western side of US 93. The APT determined drought conditions. Approx. 1.34" precip recorded in the 10 days prior to survey and approx. 0.25" precip recorded during the four-day survey period (Ronan Mesonet station).

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: r = 30 ft.) Absolute % Cover Dominant Species? Indicator Status
 1.
 2.
 3.
 4.
 5.
0 = Total Cover

Sapling/Shrub Stratum (Plot size: r = 15 ft.)
 1. Salix spp. 5 Y -
 2. Cornus alba 2 Y FACW
 3.
 4.
 5.
7 = Total Cover

Herb Stratum (Plot size: r = 5 ft.)
 1. Typha angustifolia 45 Y OBL
 2. Carex aquatilis 50 Y OBL
 3. Eleocharis acicularis 5 N OBL
 4.
 5.
 6.
 7.
 8.
 9.
 10.
100 = Total Cover

Woody Vine Stratum (Plot size: n/a)
 1.
 2.
0 = Total Cover

% Bare Ground in Herb Stratum 0 %

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 67% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	100	x 1 =	100
FACW species	2	x 2 =	4
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	102 (A)		104 (B)
Prevalence Index = B/A =		1.0	

Hydrophytic Vegetation Indicators:

1. Rapid Test for Hydrophytic Vegetation
- X 2. Dominance Test is >50%.
- X 3. Prevalence Index is ≤3.0¹
4. Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
5. Wetland Non-Vascular Plants¹
- Problematic Hydrophytic Vegetation (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? X Yes No

Remarks:

Vegetation growing on floating organic mat made up of partially decayed plant material and mosses. Other species observed within delineated feature: bulrush (Schoenoplectus spp.), bladderwort (Utricularia spp.), duckweed (Lemna spp.), and aquatic mosses.

Profile Description: *(Describe to the depth needed to document the indicator or confirm the absence of indicators.)*

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0–8	10YR 4/4	100					OTHER	decomp. organic material
8–12	10YR 4/4	50					OTHER	H2S odor. Mixed roadbase materials
	10YR 6/1	50						washed in
12								water

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

	2.5 cm Mucky Peat or Peat (S2) (LRR G)
	Sandy Gleyed Matrix (S4)
X	Histic Epipedon (A2)
	Sandy Redox (S5)
	Stripped Matrix (S6)
X	Hydrogen Sulfide (A4)
	Loamy Mucky Mineral (F1) (except MLRA 1)
	Loamy Gleyed Matrix (F2)
	Depleted Below Dark Surface (A11)
	Depleted Matrix (F3)
	Thick Dark Surface (A12)
	Redox Dark Surface (F6)
	Iron Monosulfide (A18)
	Depleted Dark Surface (F7)
	Sandy Mucky Mineral (S1)
	Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

	2 cm Muck (A10) (LRRA, E)
	Iron-Manganese Masses (F12) (LRR D)
	Red Parent Material (F21)
	Very Shallow Dark Surface (F22)
	Other (Explain in Remarks)

³Indicators of hydrophylic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer: *(if observed)*

Type: _____
Depth (*inches*): _____

Hydric Soil Present? Yes X No _____

Remarks:

Floating mat of decomposing organic material and moss.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators *(minimum of one is required; check all that apply)*

X	Surface Water (A1)		Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
X	High Water Table (A2)		
X	Saturation (A3)		Salt Crust (B11)
	Water Marks (B1)	X	Aquatic Invertebrates (B13)
	Sediment Deposits (B2)	X	Hydrogen Sulfide Odor (C1)
	Drift Deposits (B3)		Oxidized Rhizospheres on Living Roots (C3)
	Algal Mat or Crust (B4)		Presence of Reduced Iron (C4)
	Iron Deposits (B5)		Recent Iron Reduction in Tilled Soils (C6)
	Surface Soil Cracks (B6)		Stunted or Stressed Plants (D1) (LRR A)
X	Inundation Visible on Aerial Imagery (B7)		Other (Explain in Remarks)
	Sparsely Vegetated Concave Surface (B8)		

Secondary Indicators *(minimum of two required)*

	Water-Stained Leaves (B9)
	(MLRA 1, 2, 4A, and 4B)
	Drainage Patterns (B10)
X	Dry-Season Water Table (C2)
	Saturation Visible on Aerial Imagery (C9)
X	Geomorphic Position (D2)
	Shallow Aquitard (D3)
	FAC-Neutral Test (D5)
	Raised Ant Mounds (D6) (LRR A)
	Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes <u>X</u>	No _____	Depth (<i>inches</i>)	<u>6</u>	Wetland Hydrology Present?
Water Table Present?	Yes <u>X</u>	No _____	Depth (<i>inches</i>)	<u>surface</u>	
Saturation Present? <i>(includes capillary fringe)</i>	Yes <u>X</u>	No _____	Depth (<i>inches</i>)	<u>surface</u>	
					<u>X</u> Yes _____ No

Remarks: Iron oxidizing bacterial "scheen" on water surface.

Wetland Determination Data Form - Western Mountains, Valleys, and Coast Region

Project/Site: US93 Ninepipes City/County: Lake County Sampling Date: 5/19/2025
 Applicant/Owner: Montana Department of Transportation State: MT Sampling Point: UP-11b
 Investigator(s): B. Stockowitz and A. Hendryx Section, Township, Range: S35 T20N R20W
 Landform (*hillslope, terrace, etc.*): Hillslope (road prism) Local Relief (*concave, convex, none*): Convex Slope (%): 5-10
 Subregion (LRR): E - Rocky Mtn. Forests and Rangeland Lat. 47.446558 Long: -114.097154 Datum: WGS 84
 Soil Map Unit Name: Post silty clay loam, 2 to 4 percent slopes NWI Classification: UPL

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No X (*If no, explain in Remarks*)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation , Soil , or Hydrology naturally problematic? (*If needed, explain any answers in Remarks.*)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes X No
 Hydric Soil Present? Yes No X Is the Sampled Area within a Wetland? Yes No X
 Wetland Hydrology Present? Yes No X

Remarks:

Paired upland point for wetland sample point WL-11b. The APT determined drought conditions. Approx. 1.34" precip recorded in the 10 days prior to survey and approx. 0.25" precip recorded during the four-day survey period (Ronan Mesonet station).

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: <u>r = 30 ft.</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>67%</u> (A/B)
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
0 = Total Cover				
Sapling/Shrub Stratum (Plot size: <u>r = 15 ft.</u>)				
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
0 = Total Cover				
Herb Stratum (Plot size: <u>r = 5 ft.</u>)				
1. <u>Bromus inermis</u>	50	Y	UPL	
2. <u>Poa pratensis</u>	20	Y	FAC	
3. <u>Equisetum hyemale</u>	20	Y	FACW	
4. <u>Lactuca serriola</u>	10	N	FACU	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
6. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
9. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
10. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
100 = Total Cover				
Woody Vine Stratum (Plot size: <u>n/a</u>)				
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
0 = Total Cover				
% Bare Ground in Herb Stratum <u>0</u> %				
Prevalence Index Worksheet: Total % Cover of: <u> </u> Multiply by: <u> </u> OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>20</u> x 2 = <u>40</u> FAC species <u>20</u> x 3 = <u>60</u> FACU species <u>10</u> x 4 = <u>40</u> UPL species <u>50</u> x 5 = <u>250</u> Column Totals: <u>100</u> (A) <u>390</u> (B) Prevalence Index = B/A = <u>3.9</u>				
Hydrophytic Vegetation Indicators: <u> </u> 1. Rapid Test for Hydrophytic Vegetation <u>X</u> 2. Dominance Test is >50%. <u> </u> 3. Prevalence Index is ≤3.0 ¹ <u> </u> 4. Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> 5. Wetland Non-Vascular Plants ¹ <u> </u> Problematic Hydrophytic Vegetation (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.				
Hydrophytic Vegetation Present? <u>X</u> Yes <u> </u> No				

Remarks:

SOIL

Sampling Point: **UP-11b****Profile Description:** *(Describe to the depth needed to document the indicator or confirm the absence of indicators.)*

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0–4	10YR 4/4	100					Loam	Coarse gravelly loam
4–14	10YR 4/4	100					Sandy Loam	
14–16	10YR 4/4	98	10YR 5/4	2	C	M	Sandy Loam	Faint redox

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators		2.5 cm Mucky Peat or Peat (S2) (LRR G)	Indicators for Problematic Hydric Soils³:
☐ Histosol (A1)	☐	Sandy Gleyed Matrix (S4)	☐ 2 cm Muck (A10) (LRR A, E)
☐ Histic Epipedon (A2)	☐	Sandy Redox (S5)	☐ Iron-Manganese Masses (F12) (LRR D)
☐ Black Histic (A3)	☐	Stripped Matrix (S6)	☐ Red Parent Material (F21)
☐ Hydrogen Sulfide (A4)	☐	Loamy Mucky Mineral (F1) (except MLRA 1)	☐ Very Shallow Dark Surface (F22)
☐ 1 cm Muck (A9) (LRR D, G)	☐	Loamy Gleyed Matrix (F2)	☐ Other (Explain in Remarks)
☐ Depleted Below Dark Surface (A11)	☐	Depleted Matrix (F3)	³ Indicators of hydrophylic vegetation and wetland hydrology must be present, unless disturbed or problematic.
☐ Thick Dark Surface (A12)	☐	Redox Dark Surface (F6)	
☐ Iron Monosulfide (A18)	☐	Depleted Dark Surface (F7)	
☐ Sandy Mucky Mineral (S1)	☐	Redox Depressions (F8)	

Restrictive Layer: *(if observed)*Type: _____
Depth (inches): _____**Hydric Soil Present?** Yes _____ No ☒ X**Remarks:** Many coarse fragments throughout (base of road shoulder).

HYDROLOGY

Wetland Hydrology Indicators:Primary Indicators *(minimum of one is required; check all that apply)*

- ☐ Surface Water (A1)
☐ High Water Table (A2)
☐ Saturation (A3)
☐ Water Marks (B1)
☐ Sediment Deposits (B2)
☐ Drift Deposits (B3)
☐ Algal Mat or Crust (B4)
☐ Iron Deposits (B5)
☐ Surface Soil Cracks (B6)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Sparsely Vegetated Concave Surface (B8)

Secondary Indicators *(minimum of two required)*

- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
☐ Salt Crust (B11)
☐ Aquatic Invertebrates (B13)
☐ Hydrogen Sulfide Odor (C1)
☐ Oxidized Rhizospheres on Living Roots (C3)
☐ Presence of Reduced Iron (C4)
☐ Recent Iron Reduction in Tilled Soils (C6)
☐ Stunted or Stressed Plants (D1) (**LRR A**)
☐ Other (Explain in Remarks)
- ☐ Water-Stained Leaves (B9)
☐ (**MLRA 1, 2, 4A, and 4B**)
☐ Drainage Patterns (B10)
☐ Dry-Season Water Table (C2)
☐ Saturation Visible on Aerial Imagery (C9)
☐ Geomorphic Position (D2)
☐ Shallow Aquitard (D3)
☐ FAC-Neutral Test (D5)
☐ Raised Ant Mounds (D6) (**LRR A**)
☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes _____ No ☒ X	Depth (inches)	_____	Wetland Hydrology Present?
Water Table Present?	Yes _____ No ☒ X	Depth (inches)	_____	
Saturation Present? <i>(includes capillary fringe)</i>	Yes ☒ X No _____	Depth (inches)	14	

Remarks: No moisture.

Attachment D
Montana Wetland Assessment Method Forms

MDT Montana Wetland Assessment Form (revised March 2008)

1. Project Name: US 93 North Ninepipe
2. MDT Project #: **Control #:**
3. Evaluation Date: 05/11/2026 **4. Evaluator(s):** Rachel Newton and John Mulligan **5. Wetlands/Site #(s):** WL-1a and WL-2a
6. Wetland Location(s): i. Legal: T19N,R20W,S02 ;T19N,R20W,S01 **Latitude/Longitude:** 47.438246, -114.097344 : WL-1A centroid
ii. Approx. Stationing or Mileposts: 1a: 476+83 to 482+82 LT; 2a: 476+83 to 47.438391, -114.09663 : WL-2A centroid
iii. Watershed: 3 486+31 RT
Watershed Name, County: Lower Clark Fork, Lake

7. a. Evaluating Agency:

b. Purpose of Evaluation:

1. ☒ Wetlands potentially affected by MDT project
2. ☐ Mitigation wetlands; pre-construction
3. ☐ Mitigation wetlands; post-construction
4. ☐ Other:

8. Wetland size: Min: 1.385 acres, Max: 1.394 acres, Avg: 1.390 acres (estimated)
9. Assessment area (AA): Min: 1.385 acres, Max: 1.394 acres, Avg: 1.390 acres (estimated)

10. Classification of Wetland and Aquatic Habitats in AA

HGM Class (Brinson)	Class (Cowardin)	Modifier (Cowardin)	Water Regime	% of AA
D	EM	NA	SI	100

Abbreviations: (see manual for definitions)

HGM Classes: Riverine (R), Depressional (D), Slope (S), Mineral Soil Flats (MSF), Organic Soil Flats (OSF), Lacustrine Fringe (LF);
Cowardin Classes: Rock Bottom (RB), Unconsolidated bottom (UB), Aquatic Bed (AB), Unconsolidated Shore (US), Moss-lichen Wetland (ML), Emergent Wetland (EM), Scrub-Shrub Wetland (SS), Forested Wetland (FO)
Modifiers: Excavated (E), Impounded (I), Diked (D), Partly Drained (PD), Farmed (F), Artificial (A)
Water Regimes: Permanent / Perennial (PP), Seasonal / Intermittent (SI), Temporary / Ephemeral (TE)

11. Estimated relative abundance:

ABUNDANT (of similarly classified sites within the same Major Montana Watershed Basin, see definitions)

12. General condition of AA:

i. Disturbance: (use matrix below to determine [circle] appropriate response – see instructions for Montana-listed noxious weed and aquatic nuisance vegetation species (ANVS) list)

Conditions within AA	Predominant conditions adjacent to (within 500 feet of) AA		
	Managed in predominantly natural state; is not grazed, hayed, logged, or otherwise converted; does not contain roads or buildings; and noxious weed or ANVS cover is >=15%.	Land not cultivated, but may be moderately grazed or hayed or selectively logged; or has been subject to minor clearing; contains few roads or buildings; noxious weed or ANVS cover is <= 30%.	Land cultivated or heavily grazed or logged; subject to substantial fill placement, grading, clearing, or hydrological alteration; high road or building density; or noxious weed or ANVS cover is > 30%.
AA occurs and is managed in predominantly natural state; is not grazed, hayed, logged, or otherwise converted; does not contain roads or occupied buildings; and noxious weed or ANVS cover is <= 15%.	low disturbance	low disturbance	moderate disturbance
AA not cultivated, but may be moderately grazed or hayed or selectively logged; or has been subject to relatively minor clearing, fill placement, or hydrological alteration; contains few roads or buildings; noxious weed or ANVS cover is <=	moderate disturbance	moderate disturbance	high disturbance
AA cultivated or heavily grazed or logged; subject to relatively substantial fill placement, grading, clearing, or hydrological alteration; high road or building density; or noxious weed or ANVS cover is > 30%.	high disturbance	high disturbance	high disturbance

Comments: (types of disturbance, intensity, season, etc.): Wetlands in roadside ditches, giving way to fringing wetlands on the Ninepipe Feeder Canal.

ii. Prominent noxious, aquatic nuisance, & other exotic vegetation species: The following species are present within the study area: Spotted Knapweed, Field Bindweed, Dalmatian Toadflax, Whitetop, Oxeye Daisy, Purple Loosestrife, Yellowflag Iris, Canada Thistle, Common Hound's-tongue, and Common St. John's-wort.

iii. Provide brief descriptive summary of AA and surrounding land use/habitat: The roadside ditches are on both sides of a 2-lane highway and are entirely within the highway ROW. Occasionally mowed. The portion fringing the canal is under passive management for wildlife and waterfowl.

13. Structural Diversity: (based on number of "Cowardin" **vegetated** classes present [do not include unvegetated classes], see #10 above)

Existing # of "Cowardin" Vegetated Classes in AA	Initial Rating	Is current management preventing (passive) existence of additional vegetated classes?		Modified Rating
>= 3 (or 2 if 1 is forested) classes	H	NA	NA	NA
2 (or 1 if forested) classes	M	NA	NA	NA
1 class, but not a monoculture	M	<-- NO	YES -->	L
1 class, monoculture (1 species comprises >= 90% of total cover)	L	NA	NA	NA

Comments: Phalaris dominant.

SECTION PERTAINING to FUNCTIONS & VALUES ASSESSMENT

14A. Habitat for Federally Listed or Proposed Threatened or Endangered Plants or Animals:

- i. AA is Documented (D) or Suspected (S) to contain (circle one based on definitions contained in instructions): No usable habitat
- Primary or critical habitat (list species) Secondary habitat (list species) Incidental habitat (list species)**

ii. **Rating** (use the conclusions from i above and the matrix below to arrive at [circle] the functional points and rating)

Highest Habitat Level	doc/primary	sus/primary	doc/secondary	sus/secondary	doc/incidental	sus/incidental	None
Functional Points and Rating	1H	.9H	.8M	.7M	.3L	.1L	0L

Sources for documented use (e.g. observations, records, etc): IPAC lists grizzly bears and monarch butterflies for this area. The proximity of the ditches to the highway makes it unlikely grizzly would use them on a regular basis. No suitable habitat for monarchs within these wetlands - no milkweed noted.

14B. Habitat for plant or animals rated S1, S2, or S3 by the Montana Natural Heritage Program: (not including species listed in 14A above)

- i. AA is Documented (D) or Suspected (S) to contain (circle one based on definitions contained in instructions): No usable habitat
- Primary or critical habitat (list species) Secondary habitat (list species) Incidental habitat (list species)**

ii. **Rating** (use the conclusions from i above and the matrix below to arrive at [circle] the functional points and rating)

Highest Habitat Level	doc/primary	sus/primary	doc/secondary	sus/secondary	doc/incidental	sus/incidental	None
S1 Species: Functional Points and Rating	1H	.8H	.7M	.6M	.2L	.1L	0L
S2 and S3 Species: Functional Points and Rating	.9H	.7M	.6M	.5M	.2L	.1L	0L

Sources for documented use (e.g. observations, records, etc): Because these wetlands are subjected to regular mowing and other disturbance, the ditches are not likely to provide habitat for any S1 - S3 species. See the Biological Resource Report for more details on special status species occurring within the study area.

14C. General Wildlife Habitat Rating:

i. **Evidence of overall wildlife use in the AA** (circle substantial, moderate, or low based on supporting evidence):

Substantial (based on any of the following [check]):

- ☐ observations of abundant wildlife #s or high species diversity (during any period)
- ☐ abundant wildlife sign such as scat, tracks, nest structures, game trails, etc.
- ☐ presence of extremely limiting habitat features not available in the surrounding area
- ☐ interviews with local biologists with knowledge of the AA

Minimal (based on any of the following [check]):

- ☒ few or no wildlife observations during peak use periods
- ☒ little to no wildlife sign
- ☐ sparse adjacent upland food sources
- ☐ interviews with local biologists with knowledge of the AA

Moderate (based on any of the following [check]):

- ☐ observations of scattered wildlife groups or individuals or relatively few species during peak periods
- ☐ common occurrence of wildlife sign such as scat, tracks, nest structures, game trails, etc.
- ☐ adequate adjacent upland food sources
- ☐ interviews with local biologists with knowledge of the AA

ii. **Wildlife habitat features** (Working from top to bottom, circle appropriate AA attributes in matrix to arrive at rating. Structural diversity is from #13. For class cover to be considered evenly distributed, the most and least prevalent vegetated classes must be within 20% of each other in terms of their percent composition of the AA (see #10). Abbreviations for surface water durations are as follows: P/P = permanent/perennial; S/I = seasonal/intermittent; T/E = temporary/ephemeral; and A = absent [see instructions for further definitions of these terms])

Structural diversity (see #13)	High								Moderate								Low			
Class cover distribution (all vegetated classes)	Even				Uneven				Even				Uneven				Even			
Duration of surface water in >=10% of AA	P/P	S/I	T/E	A	P/P	S/I	T/E	A	P/P	S/I	T/E	A	P/P	S/I	T/E	A	P/P	S/I	T/E	A
Low disturbance at AA (see #12i)	E	E	E	H	E	E	H	H	E	H	H	M	E	H	M	M	E	H	M	M
Moderate disturbance at AA (see #12i)	H	H	H	H	H	H	H	M	H	H	M	M	H	M	M	L	H	M	L	L
High disturbance at AA (see #12i)	M	M	M	L	M	M	L	L	M	M	L	L	M	L	L	L	L	L	L	L

iii. **Rating** (use the conclusions from i and ii above and the matrix below to arrive at [circle] the functional points and rating)

Evidence of wildlife use (i)	Wildlife habitat features rating (ii)			
	Exceptional		High	
Substantial	1E		.9H	
Moderate	.9H		.7M	
Minimal	.6M		.4M	

Comments: A lot of roadkill present (deer, waterfowl, turtles) but few signs of recent wildlife use observed in the ditches.

14D. General Fish Habitat Rating: (Assess this function if the AA is used by fish or the existing situation is “correctable” such that the AA could be used by fish [i.e., fish use is precluded by perched culvert or other barrier, etc.]. If the AA is not used by fish, fish use is not restorable due to habitat constraints, or is not desired from a management perspective [such as fish entrapped in a canal], then mark **X NA** and proceed to 14E.)

Type of Fishery: Cold Water (CW) ☐ Warm Water (WW) ☐ Use the CW or WW guidelines in the user manual to complete the matrix

i. Habitat Quality and Known / Suspected Fish Species in AA (use matrix to arrive at [circle] the functional points and rating)

Duration of surface water in AA	Permanent / Perennial						Seasonal / Intermittent						Temporary / Ephemeral					
Aquatic hiding / resting / escape cover	Optimal		Adequate		Poor		Optimal		Adequate		Poor		Optimal		Adequate		Poor	
Thermal cover optimal / suboptimal	O	S	O	S	O	S	O	S	O	S	O	S	O	S	O	S	O	S
FWP Tier I fish species	1E	.9H	.8H	.7M	.6M	.5M	.9H	.8H	.7M	.6M	.5M	.4M	.7M	.6M	.5M	.4M	.3L	.2L
FWP Tier II or Native Game fish species	.9H	.8H	.7M	.6M	.5M	.5M	.8H	.7M	.6M	.5M	.4M	.4M	.6M	.5M	.4M	.3L	.2L	.2L
FWP Tier III or Introduced Game fish	.8H	.7M	.6M	.5M	.5M	.4M	.7M	.6M	.5M	.4M	.4M	.3L	.5M	.4M	.3L	.2L	.2L	.1L
FWP Non-Game Tier IV or No fish species	.5M	.5M	.5M	.4M	.4M	.3L	.4M	.4M	.4M	.3L	.3L	.2L	.2L	.2L	.2L	.1L	.1L	.1L

Sources used for identifying fish sp. potentially found in AA:

ii. Modified Rating (NOTE: Modified score cannot exceed 1 or be less than 0.1)

a) Is fish use of the AA significantly reduced by a culvert, dike, or other man-made structure or activity or is the waterbody included on the current final MDEQ list of waterbodies in need of TMDL development with listed “Probable Impaired Uses” including cold or warm water fishery or aquatic life support, or do aquatic nuisance plant or animal species (see Appendix E) occur in fish habitat? ☐ If yes, reduce score in i above by 0.1.

b) Does the AA contain a documented spawning area or other critical habitat feature (i.e., sanctuary pool, upwelling area, etc.- specify in comments) for native fish or introduced game fish? ☐ If yes, add 0.1 to the adjusted score in i or iia.

iii. Final Score and Rating: NA

Comments: .

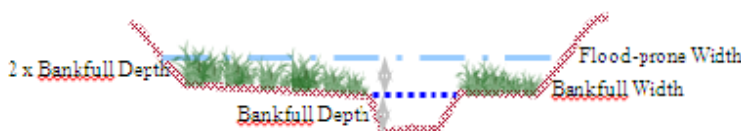
14E. Flood Attenuation: (Applies only to wetlands subject to flooding via in-channel or overbank flow. If wetlands in AA are not flooded from in-channel or overbank flow, mark **X NA** and proceed to 14F.)

i. Rating (working from top to bottom, use the matrix below to arrive at [circle] the functional points and rating)

Estimated or Calculated Entrenchment (Rosgen 1994, 1996)	Slightly entrenched - C, D, E stream types			Moderately entrenched – B stream type			Entrenched-A, F, G stream types		
% of flooded wetland classified as forested and/or scrub/shrub	75%	25-75%	<25%	75%	25-75%	<25%	75%	25-75%	<25%
AA contains no outlet or restricted outlet	1H	.9H	.6M	.8H	.7M	.5M	.4M	.3L	.2L
AA contains unrestricted outlet	.9H	.8H	.5M	.7M	.6M	.4M	.3L	.2L	.1L

Entrenchment ratio (ER) estimation – see User’s Manual for additional guidance. Entrenchment ratio = (flood-prone width)/(bankfull width) Flood-prone width = estimated horizontal projection of where 2 x maximum bankfull depth elevation intersects the floodplain on each side of the stream.

$$\frac{\text{Flood-prone width}}{\text{Bankfull width}} = \text{Entrenchment ratio (ER)}$$



Slightly Entrenched ER = >2.2			Moderately Entrenched ER = 1.41 – 2.2	Entrenched ER = 1.0 – 1.4		
C stream type	D stream type	E stream type	B stream type	A stream type	F stream type	G stream type

ii. Are ≥10 acres of wetland in the AA subject to flooding AND are man-made features which may be significantly damaged by floods located within 0.5 mile downstream of the AA (circle)? ☐ **Comments:**

14F. Short and Long Term Surface Water Storage: (Applies to wetlands that flood or pond from overbank or in-channel flow, precipitation, upland surface flow, or groundwater flow. If no wetlands in the AA are subject to flooding or ponding, NA and proceed to 14G.)

i. Rating (Working from top to bottom, use the matrix below to arrive at [circle] the functional points and rating. Abbreviations for surface water durations are as follows: P/P = permanent/perennial; S/I = seasonal/intermittent; and T/E = temporary/ephemeral [see instructions for further definitions of these terms].)

Estimated maximum acre feet of water contained in wetlands within the AA that are subject to periodic flooding or ponding	>5 acre feet			1.1 to 5 acre feet			<=1 acre foot		
Duration of surface water at wetlands within the AA	P/P	S/I	T/E	P/P	S/I	T/E	P/P	S/I	T/E
Wetlands in AA flood or pond >= 5 out of 10 years	1H	.9H	.8H	.8H	.6M	.5M	.4M	.3L	.2L
Wetlands in AA flood or pond < 5 out of 10 years	.9H	.8H	.7M	.7M	.5M	.4M	.3L	.2L	.1L

Comments: Flooding potential from the Ninepipe Feeder Canal during high run-off years.

14G. Sediment/Nutrient/Toxicant Retention and Removal: (Applies to wetlands with potential to receive sediments, nutrients, or toxicants through influx of surface or ground water or direct input. If no wetlands in the AA are subject to such input, NA and proceed to 14H.)

i. Rating (working from top to bottom, use the matrix below to arrive at [circle] the functional points and rating [H=high, M=moderate, or L=low])

Sediment, nutrient, and toxicant input levels within AA	AA receives or surrounding land use with potential to deliver levels of sediments, nutrients, or compounds at levels such that other functions are not substantially impaired. Minor sedimentation, sources of nutrients or toxicants, or signs of eutrophication present.				Waterbody on MDEQ list of waterbodies in need of TMDL development for "probable causes" related to sediment, nutrients, or toxicants or AA receives or surrounding land use with potential to deliver high levels of sediments, nutrients, or compounds such that other functions are substantially impaired. Major sedimentation, sources of nutrients or toxicants, or signs of eutrophication present.			
% cover of wetland vegetation in AA	>= 70%		< 70%		>= 70%		< 70%	
Evidence of flooding / ponding in AA	Yes	No	Yes	No	Yes	No	Yes	No
AA contains no or restricted outlet	1H	.8H	.7M	.5M	.5M	.4M	.3L	.2L
AA contains unrestricted outlet	.9H	.7M	.6M	.4M	.4M	.3L	.2L	.1L

Comments: Unrestricted connection to the Ninepipe Feeder Canal; ditches are immediately adjacent to US 93.

14H Sediment/Shoreline Stabilization: (Applies only if AA occurs on or within the banks or a river, stream, or other natural or man-made drainage, or on the shoreline of a standing water body which is subject to wave action. If 14H does not apply, NA and proceed to 14I.)

i. Rating (working from top to bottom, use the matrix below to arrive at [circle] the functional points and rating)

% Cover of <u>wetland</u> streambank or shoreline by species with stability ratings of >=6 (see Appendix F).	Duration of surface water adjacent to rooted vegetation		
	Permanent / Perennial	Seasonal / Intermittent	Temporary / Ephemeral
>= 65%	1H	.9H	.7M
35-64%	.7M	.6M	.5M
35%	.3L	.2L	.1L

Comments: Phalaris has a stability rating of 9.

14I. Production Export/Food Chain Support:

i. Level of Biological Activity (synthesis of wildlife and fish habitat ratings [circle])

General Fish Habitat Rating (14D.iii.)	General Wildlife Habitat Rating (14C.iii.)		
	E/H	M	L
E/H	H	H	M
M	H	M	M
L	M	M	L
N/A	H	M	L

ii. Rating (Working from top to bottom, use the matrix below to arrive at [circle] the functional points and rating. Factor A = acreage of vegetated wetland component in the AA; Factor B = level of biological activity rating from above (14I.i.); Factor C = whether or not the AA contains a surface or subsurface outlet; the final three rows pertain to duration of surface water in the AA, where P/P, S/I, and T/E are as previously defined, and A = "absent" [see instructions for further definitions of these terms].)

A	Vegetated component >5 acres						Vegetated component 1-5 acres						Vegetated component < 1 acre					
B	High		Moderate		Low		High		Moderate		Low		High		Moderate		Low	
C	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
P/P	1H	.7M	.8H	.5M	.6M	.4M	.9H	.6M	.7M	.4M	.5M	.3L	.8H	.6M	.6M	.4M	.3L	.2L
S/I	.9H	.6M	.7M	.4M	.5M	.3L	.8H	.5M	.6M	.3L	.4M	.2L	.7M	.5M	.5M	.3L	.3L	.2L
T/E/A	.8H	.5M	.6M	.3L	.4M	.2L	.7M	.4M	.5M	.2L	.3L	.1L	.6M	.4M	.4M	.2L	.2L	.1L

iii. Modified Rating (NOTE: Modified score cannot exceed 1 or be less than 0.1.) **Vegetated Upland Buffer (VUB):** Area with >= 30% plant cover, = 15% noxious weed or ANVS cover, and that is not subjected to periodic mechanical mowing or clearing (unless for weed control).

a) Is there an average >= 50 foot-wide vegetated upland buffer around >= 75% of the AA circumference? NA If yes, add 0.1 to the score in ii above.

iv. Final Score and Rating: 0.40M

Comments: Wetland boundaries formed by the US 93 road prism.

14J. Groundwater Discharge/Recharge: (check the appropriate indicators in i & ii below)

i. Discharge Indicators

☐ The AA is a slope wetland

☐ Springs or seeps are known or observed

☐ Vegetation growing during dormant season/drought

☐ Wetland occurs at the toe of a natural slope

☐ AA permanently flooded during drought periods

☐ Wetland contains an outlet, but no inlet

☐ Shallow water table and the site is saturated to the surface

☐ Other: _____

ii. Recharge Indicators

☐ Permeable substrate present without underlying impeding layer

☐ Wetland contains inlet but no outlet

☐ Stream is a known 'losing' stream; discharge volume decreases

☐ Other: _____

iii. Rating (use the information from i and ii above and the table below to arrive at [circle] the functional points and rating)

Criteria	Duration of saturation at AA Wetlands FROM GROUNDWATER DISCHARGE OR WITH WATER THAT IS RECHARGING THE GROUNDWATER SYSTEM			
	P/P	S/I	T	None
Groundwater Discharge or Recharge	1H	.7M	.4M	.1L
Insufficient Data/Information	N/A			

Comments: .

14K. Uniqueness:

i. Rating (working from top to bottom, use the matrix below to arrive at [circle] the functional points and rating)

Replacement potential	AA contains fen, bog, warm springs or mature (>80 yr-old) forested wetland or plant association listed as "S1" by the MTNHP			AA does not contain previously cited rare types and structural diversity (#13) is high or contains plant association listed as "S2" by the MTNHP			AA does not contain previously cited rare types or associations and structural diversity (#13) is low-moderate		
Estimated relative abundance (#11)	rare	common	abundant	rare	common	abundant	rare	common	abundant
Low disturbance at AA (#12i)	1H	.9H	.8H	.8H	.6M	.5M	.5M	.4M	.3L
Moderate disturbance at AA (#12i)	.9H	.8H	.7M	.7M	.5M	.4M	.4M	.3L	.2L
High disturbance at AA (#12i)	.8H	.7M	.6M	.6M	.4M	.3L	.3L	.2L	.1L

Comments: Not unique.

14L. Recreation/Education Potential: (affords "bonus" points if AA provides recreation or education opportunity)

i. Is the AA a known or potential rec./ed. site: (circle) ____ (if 'Yes' continue with the evaluation; if 'No' then mark **X** **NA** and proceed to the overall summary and rating page)

ii. Check categories that apply to the AA: ____ Educational/scientific study; ____ Consumptive rec.; ____ Non-consumptive rec.;
____ Other :

iii. Rating:

Known or Potential Recreation or Education Area	Known	Potential
Public ownership or public easement with general public access (no permission required)	.2H	.15H
Private ownership with general public access (no permission required)	.15H	.1M
Private or public ownership without general public access, or requiring permission for public access	.1M	.05L

Comments: .

General Site Notes

FUNCTION & VALUE SUMMARY & OVERALL RATING FOR WETLAND/SITE #(S): WL-1a and WL-2a

Function & Value Variables	Rating	Actual Functional Points	Possible Functional Points	Functional Units: (Actual Points x Wetland Acreage)	Indicate the four most prominent functions with an asterisk (*)
A. Listed/Proposed T&E Species Habitat	L	0.00	1		
B. MT Natural Heritage Program Species Habitat	L	0.00	1		
C. General Wildlife Habitat	L	0.10	1		
D. General Fish Habitat	NA				
E. Flood Attenuation	NA				
F. Short and Long Term Surface Water Storage	L	0.30	1		*
G. Sediment/Nutrient/Toxicant Removal	M	0.40	1		*
H. Sediment/Shoreline Stabilization	H	0.90	1		*
I. Production Export/Food Chain Support	M	0.40	1		*
J. Groundwater Discharge/Recharge	NA				
K. Uniqueness	L	0.10	1		
L. Recreation/Education Potential (bonus points)	NA				
Totals:		2.20	8.00		
Percent of Possible Score			28%		

Category I Wetland: (must satisfy one of the following criteria; otherwise go to Category II)

- ☐ Score of 1 functional point for Listed/Proposed Threatened or Endangered Species; **or**
☐ Score of 1 functional point for Uniqueness; **or**
☐ Score of 1 functional point for Flood Attenuation and answer to Question 14E.ii is "yes"; **or**
☐ Percent of possible score > 80% (round to nearest whole #).

Category II Wetland: (Criteria for Category I not satisfied and meets any one of the following criteria; otherwise go to Category IV)

- ☐ Score of 1 functional point for MT Natural Heritage Program Species Habitat; **or**
☐ Score of .9 or 1 functional point for General Wildlife Habitat; **or**
☐ Score of .9 or 1 functional point for General Fish Habitat; **or**
☐ "High" to "Exceptional" ratings for **both** General Wildlife Habitat **and** General Fish/Aquatic Habitat; **or**
☐ Score of .9 functional point for Uniqueness; **or**
☐ Percent of possible score > 65% (round to nearest whole #).

Category III Wetland: (Criteria for Categories I, II, or IV not satisfied)

Category IV Wetland: (Criteria for Categories I or II are not satisfied and all of the following criteria are met; otherwise go to Category III)

- ☒ "Low" rating for Uniqueness; **and**
☐ Vegetated wetland component 1 acre (do not include upland vegetated buffer); **and**
☒ Percent of possible score 35% (round to nearest whole #).

OVERALL ANALYSIS AREA RATING: III

Summary Comments: Roadside ditch wetlands extending to fringe along Ninepipe Feeder Canal.

MDT Montana Wetland Assessment Form (revised March 2008)

1. Project Name: US 93 Ninepipes
2. MDT Project #:
Control #:
3. Evaluation Date: 05/22/2025 **4. Evaluator(s):** Rachel Newton **5. Wetlands/Site #(s):** WL-1b1, WL-1c, WL-2b, WL-4a, WL-4b, WL-7, and WL-8
6. Wetland Location(s): i. Legal: T19N,R20W,S1, S2 ;T20N,R20W,S13, S36 **Latitude/Longitude:** 44.440171, -114.09732 : WL-1b1 centroid
ii. Approx. Stationing or Mileposts: 483+36 to 495+29 LT, 495+89 to 502+58 47.443618, -114.097162 : WL-1c centroid
iii. Watershed: 3 LT, 487+22 to 490+04 RT, 495+35 to 47.44071, -114.096854 : WL-2b centroid
Watershed Name, County: 498+35 RT, 495+80 to 498+31 RT, 47.442562, -114.09621 : WL-4a centroid
7. a. Evaluating Agency: 504+47 to 505+25 RT, 505+70 to 47.442897, -114.096609 : WL-4b centroid
505+75 RT 47.445204, -114.09677 : WL-7 centroid
47.445405, -114.096781 : WL-8 centroid

Lower Clark Fork, Lake

Jacobs

b. Purpose of Evaluation:

1. ☒ Wetlands potentially affected by MDT project
2. ☐ Mitigation wetlands; pre-construction
3. ☐ Mitigation wetlands; post-construction
4. ☐ Other:

8. Wetland size:

Min: 0.001 acres, Max: 0.144
 acres, Avg: 0.090 acres (estimated)
 Min: 0.001 acres, Max: 0.144
 acres, Avg: 0.090 acres (estimated)

9. Assessment area (AA):

10. Classification of Wetland and Aquatic Habitats in AA

HGM Class (Brinson)	Class (Cowardin)	Modifier (Cowardin)	Water Regime	% of AA
D	EM	PD	SI	100

Abbreviations: (see manual for definitions)

HGM Classes: Riverine (R), Depressional (D), Slope (S), Mineral Soil Flats (MSF), Organic Soil Flats (OSF), Lacustrine Fringe (LF);

Cowardin Classes: Rock Bottom (RB), Unconsolidated bottom (UB), Aquatic Bed (AB), Unconsolidated Shore (US), Moss-lichen Wetland (ML), Emergent Wetland (EM), Scrub-Shrub Wetland (SS), Forested Wetland (FO)

Modifiers: Excavated (E), Impounded (I), Diked (D), Partly Drained (PD), Farmed (F), Artificial (A)

Water Regimes: Permanent / Perennial (PP), Seasonal / Intermittent (SI), Temporary / Ephemeral (TE)

11. Estimated relative abundance: (of similarly classified sites within the same Major Montana Watershed Basin, see definitions)

ABUNDANT

12. General condition of AA:

- i. **Disturbance:** (use matrix below to determine [circle] appropriate response – see instructions for Montana-listed noxious weed and aquatic nuisance vegetation species (ANVS) list)

Conditions within AA	Predominant conditions adjacent to (within 500 feet of) AA		
	Managed in predominantly natural state; is not grazed, hayed, logged, or otherwise converted; does not contain roads or buildings; and noxious weed or ANVS cover is >=15%.	Land not cultivated, but may be moderately grazed or hayed or selectively logged; or has been subject to minor clearing; contains few roads or buildings; noxious weed or ANVS cover is <= 30%.	Land cultivated or heavily grazed or logged; subject to substantial fill placement, grading, clearing, or hydrological alteration; high road or building density; or noxious weed or ANVS cover is > 30%.
AA occurs and is managed in predominantly natural state; is not grazed, hayed, logged, or otherwise converted; does not contain roads or occupied buildings; and noxious weed or ANVS cover is <= 15%.	low disturbance	low disturbance	moderate disturbance
AA not cultivated, but may be moderately grazed or hayed or selectively logged; or has been subject to relatively minor clearing, fill placement, or hydrological alteration; contains few roads or buildings; noxious weed or ANVS cover is <=	moderate disturbance	moderate disturbance	high disturbance
AA cultivated or heavily grazed or logged; subject to relatively substantial fill placement, grading, clearing, or hydrological alteration; high road or building density; or noxious weed or ANVS cover is > 30%.	high disturbance	high disturbance	high disturbance

Comments: (types of disturbance, intensity, season, etc.): Wetlands occurring in roadside ditches along US 93.

ii. Prominent noxious, aquatic nuisance, & other exotic vegetation species: The following species are present within the study area: Spotted Knapweed, Field Bindweed, Dalmatian Toadflax, Whitetop, Oxeye Daisy, Purple Loosestrife, Yellowflag Iris, Canada Thistle, Common Hound's-tongue, and Common St. John's-wort.

iii. Provide brief descriptive summary of AA and surrounding land use/habitat: The roadside ditches are on both sides of a 2-lane highway and are entirely within the highway ROW. Occasionally mowed.

13. Structural Diversity: (based on number of "Cowardin" vegetated classes present [do not include unvegetated classes], see #10 above)

Existing # of "Cowardin" Vegetated Classes in AA	Initial Rating	Is current management preventing (passive) existence of additional vegetated classes?		Modified Rating
>= 3 (or 2 if 1 is forested) classes	H	NA	NA	NA
2 (or 1 if forested) classes	M	NA	NA	NA
1 class, but not a monoculture	M	<-- NO	YES -->	L
1 class, monoculture (1 species comprises >= 90% of total cover)	L	NA	NA	NA

Comments: Phalaris or Typha dominant. Growth by woody species likely deterred by routine mowing of highway ROW.

SECTION PERTAINING to FUNCTIONS & VALUES ASSESSMENT

14A. Habitat for Federally Listed or Proposed Threatened or Endangered Plants or Animals:

- i. AA is Documented (D) or Suspected (S) to contain (circle one based on definitions contained in instructions): No usable habitat
- Primary or critical habitat (list species) Secondary habitat (list species) Incidental habitat (list species)**

ii. **Rating** (use the conclusions from i above and the matrix below to arrive at [circle] the functional points and rating)

Highest Habitat Level	doc/primary	sus/primary	doc/secondary	sus/secondary	doc/incidental	sus/incidental	None
Functional Points and Rating	1H	.9H	.8M	.7M	.3L	.1L	0L

Sources for documented use (e.g. observations, records, etc): IPAC lists grizzly bears and monarch butterflies for this area. The proximity of the ditches to the highway makes it unlikely grizzly would use them on a regular basis. No suitable habitat for monarchs within these wetlands - no milkweed noted.

14B. Habitat for plant or animals rated S1, S2, or S3 by the Montana Natural Heritage Program: (not including species listed in 14A above)

- i. AA is Documented (D) or Suspected (S) to contain (circle one based on definitions contained in instructions): No usable habitat
- Primary or critical habitat (list species) Secondary habitat (list species) Incidental habitat (list species)**

ii. **Rating** (use the conclusions from i above and the matrix below to arrive at [circle] the functional points and rating)

Highest Habitat Level	doc/primary	sus/primary	doc/secondary	sus/secondary	doc/incidental	sus/incidental	None
S1 Species: Functional Points and Rating	1H	.8H	.7M	.6M	.2L	.1L	0L
S2 and S3 Species: Functional Points and Rating	.9H	.7M	.6M	.5M	.2L	.1L	0L

Sources for documented use (e.g. observations, records, etc): Because these wetlands are subjected to regular mowing and other disturbance, the ditches are not likely to provide habitat for any S1 - S3 species. See the Biological Resource Report for more details on special status species occurring within the study area.

14C. General Wildlife Habitat Rating:

i. **Evidence of overall wildlife use in the AA** (circle substantial, moderate, or low based on supporting evidence):

Substantial (based on any of the following [check]):

- ☐ observations of abundant wildlife #s or high species diversity (during any period)
- ☐ abundant wildlife sign such as scat, tracks, nest structures, game trails, etc.
- ☐ presence of extremely limiting habitat features not available in the surrounding area
- ☐ interviews with local biologists with knowledge of the AA

Minimal (based on any of the following [check]):

- ☒ few or no wildlife observations during peak use periods
- ☒ little to no wildlife sign
- ☐ sparse adjacent upland food sources
- ☐ interviews with local biologists with knowledge of the AA

Moderate (based on any of the following [check]):

- ☐ observations of scattered wildlife groups or individuals or relatively few species during peak periods
- ☐ common occurrence of wildlife sign such as scat, tracks, nest structures, game trails, etc.
- ☐ adequate adjacent upland food sources
- ☐ interviews with local biologists with knowledge of the AA

ii. **Wildlife habitat features** (Working from top to bottom, circle appropriate AA attributes in matrix to arrive at rating. Structural diversity is from #13. For class cover to be considered evenly distributed, the most and least prevalent vegetated classes must be within 20% of each other in terms of their percent composition of the AA (see #10). Abbreviations for surface water durations are as follows: P/P = permanent/perennial; S/I = seasonal/intermittent; T/E = temporary/ephemeral; and A = absent [see instructions for further definitions of these terms])

Structural diversity (see #13)	High								Moderate								Low			
Class cover distribution (all vegetated classes)	Even				Uneven				Even				Uneven				Even			
Duration of surface water in >=10% of AA	P/P	S/I	T/E	A	P/P	S/I	T/E	A	P/P	S/I	T/E	A	P/P	S/I	T/E	A	P/P	S/I	T/E	A
Low disturbance at AA (see #12i)	E	E	E	H	E	E	H	H	E	H	H	M	E	H	M	M	E	H	M	M
Moderate disturbance at AA (see #12i)	H	H	H	H	H	H	H	M	H	H	M	M	H	M	M	L	H	M	L	L
High disturbance at AA (see #12i)	M	M	M	L	M	M	L	L	M	M	L	L	M	L	L	L	L	L	L	L

iii. **Rating** (use the conclusions from i and ii above and the matrix below to arrive at [circle] the functional points and rating)

Evidence of wildlife use (i)	Wildlife habitat features rating (ii)			
	Exceptional		High	
Substantial	1E		.9H	
Moderate	.9H		.7M	
Minimal	.6M		.4M	

Comments: A lot of roadkill present (deer, waterfowl, turtles) but few signs of recent wildlife use observed in the ditches.

14D. General Fish Habitat Rating: (Assess this function if the AA is used by fish or the existing situation is “correctable” such that the AA could be used by fish [i.e., fish use is precluded by perched culvert or other barrier, etc.]. If the AA is not used by fish, fish use is not restorable due to habitat constraints, or is not desired from a management perspective [such as fish entrapped in a canal], then mark **X NA** and proceed to 14E.)

Type of Fishery: Cold Water (CW) _____ Warm Water (WW) _____ **Use the CW or WW guidelines in the user manual to complete the matrix**

i. Habitat Quality and Known / Suspected Fish Species in AA (use matrix to arrive at [circle] the functional points and rating)

Duration of surface water in AA	Permanent / Perennial						Seasonal / Intermittent						Temporary / Ephemeral					
Aquatic hiding / resting / escape cover	Optimal		Adequate		Poor		Optimal		Adequate		Poor		Optimal		Adequate		Poor	
Thermal cover optimal / suboptimal	O	S	O	S	O	S	O	S	O	S	O	S	O	S	O	S	O	S
FWP Tier I fish species	1E	.9H	.8H	.7M	.6M	.5M	.9H	.8H	.7M	.6M	.5M	.4M	.7M	.6M	.5M	.4M	.3L	.2L
FWP Tier II or Native Game fish species	.9H	.8H	.7M	.6M	.5M	.5M	.8H	.7M	.6M	.5M	.4M	.4M	.6M	.5M	.4M	.3L	.2L	.2L
FWP Tier III or Introduced Game fish	.8H	.7M	.6M	.5M	.5M	.4M	.7M	.6M	.5M	.4M	.4M	.3L	.5M	.4M	.3L	.2L	.2L	.1L
FWP Non-Game Tier IV or No fish species	.5M	.5M	.5M	.4M	.4M	.3L	.4M	.4M	.4M	.3L	.3L	.2L	.2L	.2L	.2L	.1L	.1L	.1L

Sources used for identifying fish sp. potentially found in AA:

ii. Modified Rating (NOTE: Modified score cannot exceed 1 or be less than 0.1)

a) Is fish use of the AA significantly reduced by a culvert, dike, or other man-made structure or activity or is the waterbody included on the current final MDEQ list of waterbodies in need of TMDL development with listed “Probable Impaired Uses” including cold or warm water fishery or aquatic life support, or do aquatic nuisance plant or animal species (see Appendix E) occur in fish habitat? _____ If yes, reduce score in i above by 0.1.

b) Does the AA contain a documented spawning area or other critical habitat feature (i.e., sanctuary pool, upwelling area, etc.- specify in comments) for native fish or introduced game fish? _____ If yes, add 0.1 to the adjusted score in i or iia.

iii. Final Score and Rating: NA

Comments: .

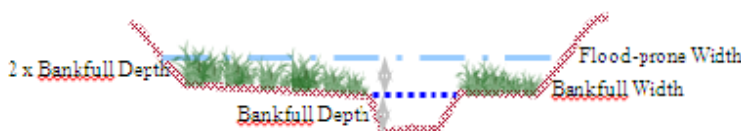
14E. Flood Attenuation: (Applies only to wetlands subject to flooding via in-channel or overbank flow. If wetlands in AA are not flooded from in-channel or overbank flow, mark **X NA** and proceed to 14F.)

i. Rating (working from top to bottom, use the matrix below to arrive at [circle] the functional points and rating)

Estimated or Calculated Entrenchment (Rosgen 1994, 1996)	Slightly entrenched - C, D, E stream types			Moderately entrenched – B stream type			Entrenched-A, F, G stream types		
% of flooded wetland classified as forested and/or scrub/shrub	75%	25-75%	<25%	75%	25-75%	<25%	75%	25-75%	<25%
AA contains no outlet or restricted outlet	1H	.9H	.6M	.8H	.7M	.5M	.4M	.3L	.2L
AA contains unrestricted outlet	.9H	.8H	.5M	.7M	.6M	.4M	.3L	.2L	.1L

Entrenchment ratio (ER) estimation – see User’s Manual for additional guidance. Entrenchment ratio = (flood-prone width)/(bankfull width) Flood-prone width = estimated horizontal projection of where 2 x maximum bankfull depth elevation intersects the floodplain on each side of the stream.

$$\frac{\text{Flood-prone width}}{\text{Bankfull width}} = \text{Entrenchment ratio (ER)}$$



Slightly Entrenched ER = >2.2			Moderately Entrenched ER = 1.41 – 2.2	Entrenched ER = 1.0 – 1.4		
C stream type	D stream type	E stream type	B stream type	A stream type	F stream type	G stream type

ii. Are ≥10 acres of wetland in the AA subject to flooding AND are man-made features which may be significantly damaged by floods located within 0.5 mile downstream of the AA (circle)? _____ **Comments:** .

14F. Short and Long Term Surface Water Storage: (Applies to wetlands that flood or pond from overbank or in-channel flow, precipitation, upland surface flow, or groundwater flow. If no wetlands in the AA are subject to flooding or ponding, NA and proceed to 14G.)

i. Rating (Working from top to bottom, use the matrix below to arrive at [circle] the functional points and rating. Abbreviations for surface water durations are as follows: P/P = permanent/perennial; S/I = seasonal/intermittent; and T/E = temporary/ephemeral [see instructions for further definitions of these terms].)

Estimated maximum acre feet of water contained in wetlands within the AA that are subject to periodic flooding or ponding	>5 acre feet			1.1 to 5 acre feet			<=1 acre foot		
Duration of surface water at wetlands within the AA	P/P	S/I	T/E	P/P	S/I	T/E	P/P	S/I	T/E
Wetlands in AA flood or pond >= 5 out of 10 years	1H	.9H	.8H	.8H	.6M	.5M	.4M	.3L	.2L
Wetlands in AA flood or pond < 5 out of 10 years	.9H	.8H	.7M	.7M	.5M	.4M	.3L	.2L	.1L

Comments: Twenty-seven individual wetland polygons are included in this assessment. Only two of these total over 1 acre, therefore the < 1 acre option for the maximum amount of water was selected.

14G. Sediment/Nutrient/Toxicant Retention and Removal: (Applies to wetlands with potential to receive sediments, nutrients, or toxicants through influx of surface or ground water or direct input. If no wetlands in the AA are subject to such input, NA and proceed to 14H.)

i. Rating (working from top to bottom, use the matrix below to arrive at [circle] the functional points and rating [H=high, M=moderate, or L=low])

Sediment, nutrient, and toxicant input levels within AA	AA receives or surrounding land use with potential to deliver levels of sediments, nutrients, or compounds at levels such that other functions are not substantially impaired. Minor sedimentation, sources of nutrients or toxicants, or signs of eutrophication present.				Waterbody on MDEQ list of waterbodies in need of TMDL development for "probable causes" related to sediment, nutrients, or toxicants or AA receives or surrounding land use with potential to deliver high levels of sediments, nutrients, or compounds such that other functions are substantially impaired. Major sedimentation, sources of nutrients or toxicants, or signs of eutrophication present.			
% cover of wetland vegetation in AA	>= 70%		< 70%		>= 70%		< 70%	
Evidence of flooding / ponding in AA	Yes	No	Yes	No	Yes	No	Yes	No
AA contains no or restricted outlet	1H	.8H	.7M	.5M	.5M	.4M	.3L	.2L
AA contains unrestricted outlet	.9H	.7M	.6M	.4M	.4M	.3L	.2L	.1L

Comments: Ditches immediately adjacent to US 93.

14H Sediment/Shoreline Stabilization: (Applies only if AA occurs on or within the banks or a river, stream, or other natural or man-made drainage, or on the shoreline of a standing water body which is subject to wave action. If 14H does not apply, X NA and proceed to 14I.)

i. Rating (working from top to bottom, use the matrix below to arrive at [circle] the functional points and rating)

% Cover of wetland streambank or shoreline by species with stability ratings of >=6 (see Appendix F).	Duration of surface water adjacent to rooted vegetation		
	Permanent / Perennial	Seasonal / Intermittent	Temporary / Ephemeral
>= 65%	1H	.9H	.7M
35-64%	.7M	.6M	.5M
35%	.3L	.2L	.1L

Comments: .

14I. Production Export/Food Chain Support:

i. Level of Biological Activity (synthesis of wildlife and fish habitat ratings [circle])

General Fish Habitat Rating (14D.iii.)	General Wildlife Habitat Rating (14C.iii.)		
	E/H	M	L
E/H	H	H	M
M	H	M	M
L	M	M	L
N/A	H	M	L

ii. Rating (Working from top to bottom, use the matrix below to arrive at [circle] the functional points and rating. Factor A = acreage of vegetated wetland component in the AA; Factor B = level of biological activity rating from above (14I.i.); Factor C = whether or not the AA contains a surface or subsurface outlet; the final three rows pertain to duration of surface water in the AA, where P/P, S/I, and T/E are as previously defined, and A = "absent" [see instructions for further definitions of these terms].)

A	Vegetated component >5 acres						Vegetated component 1-5 acres						Vegetated component < 1 acre					
B	High		Moderate		Low		High		Moderate		Low		High		Moderate		Low	
C	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
P/P	1H	.7M	.8H	.5M	.6M	.4M	.9H	.6M	.7M	.4M	.5M	.3L	.8H	.6M	.6M	.4M	.3L	.2L
S/I	.9H	.6M	.7M	.4M	.5M	.3L	.8H	.5M	.6M	.3L	.4M	.2L	.7M	.5M	.5M	.3L	.3L	.2L
T/E/A	.8H	.5M	.6M	.3L	.4M	.2L	.7M	.4M	.5M	.2L	.3L	.1L	.6M	.4M	.4M	.2L	.2L	.1L

iii. Modified Rating (NOTE: Modified score cannot exceed 1 or be less than 0.1.) **Vegetated Upland Buffer (VUB):** Area with >= 30% plant cover, = 15% noxious weed or ANVS cover, and that is not subjected to periodic mechanical mowing or clearing (unless for weed control).

a) Is there an average >= 50 foot-wide vegetated upland buffer around >= 75% of the AA circumference?

If yes, add 0.1 to the score in ii above.

iv. Final Score and Rating: 0.20L

Comments: Twenty-seven individual wetland polygons are included in this assessment. Only two of these total over 1 acre, therefore the < 1 acre option for the vegetated component was selected.

14J. Groundwater Discharge/Recharge: (check the appropriate indicators in i & ii below)

i. Discharge Indicators

☐ The AA is a slope wetland

☐ Springs or seeps are known or observed

☐ Vegetation growing during dormant season/drought

☐ Wetland occurs at the toe of a natural slope

☐ AA permanently flooded during drought periods

☐ Wetland contains an outlet, but no inlet

☐ Shallow water table and the site is saturated to the surface

☐ Other: _____

ii. Recharge Indicators

☐ Permeable substrate present without underlying impeding layer

☐ Wetland contains inlet but no outlet

☐ Stream is a known 'losing' stream; discharge volume decreases

☐ Other: _____

iii. Rating (use the information from i and ii above and the table below to arrive at [circle] the functional points and rating)

Criteria	Duration of saturation at AA Wetlands FROM GROUNDWATER DISCHARGE OR WITH WATER THAT IS RECHARGING THE GROUNDWATER SYSTEM			
	P/P	S/I	T	None
Groundwater Discharge or Recharge	1H	.7M	.4M	.1L
Insufficient Data/Information	N/A			

Comments: .

14K. Uniqueness:

i. Rating (working from top to bottom, use the matrix below to arrive at [circle] the functional points and rating)

Replacement potential	AA contains fen, bog, warm springs or mature (>80 yr-old) forested wetland or plant association listed as "S1" by the MTNHP			AA does not contain previously cited rare types and structural diversity (#13) is high or contains plant association listed as "S2" by the MTNHP			AA does not contain previously cited rare types or associations and structural diversity (#13) is low-moderate		
Estimated relative abundance (#11)	rare	common	abundant	rare	common	abundant	rare	common	abundant
Low disturbance at AA (#12i)	1H	.9H	.8H	.8H	.6M	.5M	.5M	.4M	.3L
Moderate disturbance at AA (#12i)	.9H	.8H	.7M	.7M	.5M	.4M	.4M	.3L	.2L
High disturbance at AA (#12i)	.8H	.7M	.6M	.6M	.4M	.3L	.3L	.2L	.1L

Comments: .

14L. Recreation/Education Potential: (affords "bonus" points if AA provides recreation or education opportunity)

i. Is the AA a known or potential rec./ed. site: (circle) ____ (if 'Yes' continue with the evaluation; if 'No' then mark **X** **NA** and proceed to the overall summary and rating page)

ii. Check categories that apply to the AA: ____ Educational/scientific study; ____ Consumptive rec.; ____ Non-consumptive rec.;
____ Other :

iii. Rating:

Known or Potential Recreation or Education Area	Known	Potential
Public ownership or public easement with general public access (no permission required)	.2H	.15H
Private ownership with general public access (no permission required)	.15H	.1M
Private or public ownership without general public access, or requiring permission for public access	.1M	.05L

Comments: .

General Site Notes

FUNCTION & VALUE SUMMARY & OVERALL RATING FOR WETLAND/SITE #(S): WL-1b1, WL-1c, WL-2b, WL-4a, WL-4b, WL-7, and WL-8

Function & Value Variables	Rating	Actual Functional Points	Possible Functional Points	Functional Units: (Actual Points x Wetland Acreage)	Indicate the four most prominent functions with an asterisk (*)
A. Listed/Proposed T&E Species Habitat	L	0.00	1		
B. MT Natural Heritage Program Species Habitat	L	0.00	1		
C. General Wildlife Habitat	L	0.10	1		*
D. General Fish Habitat	NA				
E. Flood Attenuation	NA				
F. Short and Long Term Surface Water Storage	L	0.30	1		*
G. Sediment/Nutrient/Toxicant Removal	H	1.00	1		*
H. Sediment/Shoreline Stabilization	NA				
I. Production Export/Food Chain Support	L	0.20	1		*
J. Groundwater Discharge/Recharge	NA				
K. Uniqueness	L	0.10	1		
L. Recreation/Education Potential (bonus points)	NA				
Totals:		1.70	7.00		
Percent of Possible Score			24%		

Category I Wetland: (must satisfy one of the following criteria; otherwise go to Category II)

- ☐ Score of 1 functional point for Listed/Proposed Threatened or Endangered Species; **or**
☐ Score of 1 functional point for Uniqueness; **or**
☐ Score of 1 functional point for Flood Attenuation and answer to Question 14E.ii is "yes"; **or**
☐ Percent of possible score > 80% (round to nearest whole #).

Category II Wetland: (Criteria for Category I not satisfied and meets any one of the following criteria; otherwise go to Category IV)

- ☐ Score of 1 functional point for MT Natural Heritage Program Species Habitat; **or**
☐ Score of .9 or 1 functional point for General Wildlife Habitat; **or**
☐ Score of .9 or 1 functional point for General Fish Habitat; **or**
☐ "High" to "Exceptional" ratings for **both** General Wildlife Habitat **and** General Fish/Aquatic Habitat; **or**
☐ Score of .9 functional point for Uniqueness; **or**
☐ Percent of possible score > 65% (round to nearest whole #).

Category III Wetland: (Criteria for Categories I, II, or IV not satisfied)

Category IV Wetland: (Criteria for Categories I or II are not satisfied and all of the following criteria are met; otherwise go to Category III)

- ☒ "Low" rating for Uniqueness; **and**
☒ Vegetated wetland component 1 acre (do not include upland vegetated buffer); **and**
☒ Percent of possible score 35% (round to nearest whole #).

OVERALL ANALYSIS AREA RATING: IV

Summary Comments: Roadside ditch wetlands subject to high pollutant input.

MDT Montana Wetland Assessment Form (revised March 2008)

1. Project Name: US 93 Ninepipes
2. MDT Project #: **Control #:**
3. Evaluation Date: 05/22/2025 **4. Evaluator(s):** Rachel Newton **5. Wetlands/Site #(s):** WL-1b2, WL-3, WL-6, and WL-9
6. Wetland Location(s): i. Legal: T19N,R20W,S02 ;T20N,R20W,S13, S26, and S35 **Latitude/Longitude:** 47.440264, -114.097332 : WL-1b2 centroid
ii. Approx. Stationing or Mileposts: 485+49 to 488+70 LT; 494+44 to 495+18 47.442407, -114.096391 : WL-3 centroid
iii. Watershed: 3 RT; 501+46 to 503+69 RT; 505+33 to 47.444533, -114.096561 : WL-6 centroid
Watershed Name, County: 506+60 LT 47.445516, -114.097508 : WL-9 centroid

7. a. Evaluating Agency:
 Lower Clark Fork, Lake
 Jacobs

b. Purpose of Evaluation:

1. ☒ Wetlands potentially affected by MDT project
2. ☐ Mitigation wetlands; pre-construction
3. ☐ Mitigation wetlands; post-construction
4. ☐ Other:

Min: 0.020 acres, Max: 0.590
 acres, Avg: 1.120 acres (estimated)

8. Wetland size:

Min: 0.020 acres, Max: 0.590
 acres, Avg: 1.120 acres (estimated)

9. Assessment area (AA):

10. Classification of Wetland and Aquatic Habitats in AA

HGM Class (Brinson)	Class (Cowardin)	Modifier (Cowardin)	Water Regime	% of AA
D	EM	NA	PP	85
D	SS	NA	PP	1
D	UB	NA	PP	14

Abbreviations: (see manual for definitions)

HGM Classes: Riverine (R), Depressional (D), Slope (S), Mineral Soil Flats (MSF), Organic Soil Flats (OSF), Lacustrine Fringe (LF);

Cowardin Classes: Rock Bottom (RB), Unconsolidated bottom (UB), Aquatic Bed (AB), Unconsolidated Shore (US), Moss-lichen Wetland (ML), Emergent Wetland (EM), Scrub-Shrub Wetland (SS), Forested Wetland (FO)

Modifiers: Excavated (E), Impounded (I), Diked (D), Partly Drained (PD), Farmed (F), Artificial (A)

Water Regimes: Permanent / Perennial (PP), Seasonal / Intermittent (SI), Temporary / Ephemeral (TE)

11. Estimated relative abundance: (of similarly classified sites within the same Major Montana Watershed Basin, see definitions)
 COMMON

12. General condition of AA:

i. Disturbance: (use matrix below to determine [circle] appropriate response – see instructions for Montana-listed noxious weed and aquatic nuisance vegetation species (ANVS) list)

Conditions within AA	Predominant conditions adjacent to (within 500 feet of) AA		
	Managed in predominantly natural state; is not grazed, hayed, logged, or otherwise converted; does not contain roads or buildings; and noxious weed or ANVS cover is >=15%.	Land not cultivated, but may be moderately grazed or hayed or selectively logged; or has been subject to minor clearing; contains few roads or buildings; noxious weed or ANVS cover is <= 30%.	Land cultivated or heavily grazed or logged; subject to substantial fill placement, grading, clearing, or hydrological alteration; high road or building density; or noxious weed or ANVS cover is > 30%.
AA occurs and is managed in predominantly natural state; is not grazed, hayed, logged, or otherwise converted; does not contain roads or occupied buildings; and noxious weed or ANVS cover is <= 15%.	low disturbance	low disturbance	moderate disturbance
AA not cultivated, but may be moderately grazed or hayed or selectively logged; or has been subject to relatively minor clearing, fill placement, or hydrological alteration; contains few roads or buildings; noxious weed or ANVS cover is <=	moderate disturbance	moderate disturbance	high disturbance
AA cultivated or heavily grazed or logged; subject to relatively substantial fill placement, grading, clearing, or hydrological alteration; high road or building density; or noxious weed or ANVS cover is > 30%.	high disturbance	high disturbance	high disturbance

Comments: (types of disturbance, intensity, season, etc.): Pothole wetlands within the study area contained substantial standing water at the time of the survey in late May.

ii. Prominent noxious, aquatic nuisance, & other exotic vegetation species: none.

iii. Provide brief descriptive summary of AA and surrounding land use/habitat: One side of these wetlands faces US 93 and is subjected to mowing; the other side abuts land managed for wildlife habitat or agriculture.

13. Structural Diversity: (based on number of "Cowardin" **vegetated** classes present [do not include unvegetated classes], see #10 above)

Existing # of "Cowardin" Vegetated Classes in AA	Initial Rating	Is current management preventing (passive) existence of additional vegetated classes?		Modified Rating
>= 3 (or 2 if 1 is forested) classes	H	NA	NA	NA
2 (or 1 if forested) classes	M	NA	NA	NA
1 class, but not a monoculture	M	<-- NO	YES -->	L
1 class, monoculture (1 species comprises >= 90% of total cover)	L	NA	NA	NA

Comments: Emergent vegetation with some sparse PSS. Unconsolidated bottom component is open water.

SECTION PERTAINING to FUNCTIONS & VALUES ASSESSMENT

14A. Habitat for Federally Listed or Proposed Threatened or Endangered Plants or Animals:

i. AA is Documented (D) or Suspected (S) to contain (circle one based on definitions contained in instructions):

Primary or critical habitat (list species)

Secondary habitat (list species)

Incidental habitat (list species)

Grizzly bear(S)

Monarch butterfly(S)

ii. **Rating** (use the conclusions from i above and the matrix below to arrive at [circle] the functional points and rating)

Highest Habitat Level	doc/primary	sus/primary	doc/secondary	sus/secondary	doc/incidental	sus/incidental	None
Functional Points and Rating	1H	.9H	.8M	.7M	.3L	.1L	0L

Sources for documented use (e.g. observations, records, etc): IPAC

14B. Habitat for plant or animals rated S1, S2, or S3 by the Montana Natural Heritage Program: (not including species listed in 14A above)

i. AA is Documented (D) or Suspected (S) to contain (circle one based on definitions contained in instructions): No usable habitat

Primary or critical habitat (list species)

Secondary habitat (list species)

Incidental habitat (list species)

ii. **Rating** (use the conclusions from i above and the matrix below to arrive at [circle] the functional points and rating)

Highest Habitat Level	doc/primary	sus/primary	doc/secondary	sus/secondary	doc/incidental	sus/incidental	None
S1 Species: Functional Points and Rating	1H	.8H	.7M	.6M	.2L	.1L	0L
S2 and S3 Species: Functional Points and Rating	.9H	.7M	.6M	.5M	.2L	.1L	0L

Sources for documented use (e.g. observations, records, etc): MTNHP query; see Biological Resources Report for complete list. No S1 species present.

14C. General Wildlife Habitat Rating:

i. **Evidence of overall wildlife use in the AA** (circle substantial, moderate, or low based on supporting evidence):

Substantial (based on any of the following [check]):

- ☐ observations of abundant wildlife #s or high species diversity (during any period)
- ☐ abundant wildlife sign such as scat, tracks, nest structures, game trails, etc.
- ☐ presence of extremely limiting habitat features not available in the surrounding area
- ☐ interviews with local biologists with knowledge of the AA

Minimal (based on any of the following [check]):

- ☐ few or no wildlife observations during peak use periods
- ☐ little to no wildlife sign
- ☐ sparse adjacent upland food sources
- ☐ interviews with local biologists with knowledge of the AA

Moderate (based on any of the following [check]):

- ☒ observations of scattered wildlife groups or individuals or relatively few species during peak periods
- ☒ common occurrence of wildlife sign such as scat, tracks, nest structures, game trails, etc.
- ☒ adequate adjacent upland food sources
- ☐ interviews with local biologists with knowledge of the AA

ii. **Wildlife habitat features** (Working from top to bottom, circle appropriate AA attributes in matrix to arrive at rating. Structural diversity is from #13. For class cover to be considered evenly distributed, the most and least prevalent vegetated classes must be within 20% of each other in terms of their percent composition of the AA (see #10). Abbreviations for surface water durations are as follows: P/P = permanent/perennial; S/I = seasonal/intermittent; T/E = temporary/ephemeral; and A = absent [see instructions for further definitions of these terms])

Structural diversity (see #13)	High								Moderate								Low			
Class cover distribution (all vegetated classes)	Even				Uneven				Even				Uneven				Even			
Duration of surface water in >=10% of AA	P/P	S/I	T/E	A	P/P	S/I	T/E	A	P/P	S/I	T/E	A	P/P	S/I	T/E	A	P/P	S/I	T/E	A
Low disturbance at AA (see #12i)	E	E	E	H	E	E	H	H	E	H	H	M	E	H	M	M	E	H	M	M
Moderate disturbance at AA (see #12i)	H	H	H	H	H	H	H	M	H	H	M	M	H	M	M	L	H	M	L	L
High disturbance at AA (see #12i)	M	M	M	L	M	M	L	L	M	M	L	L	M	L	L	L	L	L	L	L

iii. **Rating** (use the conclusions from i and ii above and the matrix below to arrive at [circle] the functional points and rating)

Evidence of wildlife use (i)	Wildlife habitat features rating (ii)			
	Exceptional	High	Moderate	Moderate
Substantial	1E	.9H	.8H	.7M
Moderate	.9H	.7M	.5M	.3L
Minimal	.6M	.4M	.2L	.1L

Comments: Waterfowl observed in approximately 1/3 of these wetlands during the survey period.

14D. General Fish Habitat Rating: (Assess this function if the AA is used by fish or the existing situation is "correctable" such that the AA could be used by fish [i.e., fish use is precluded by perched culvert or other barrier, etc.]. If the AA is not used by fish, fish use is not restorable due to habitat constraints, or is not desired from a management perspective [such as fish entrapped in a canal], then mark **X NA** and proceed to 14E.)

Type of Fishery: Cold Water (CW) ☐ Warm Water (WW) ☐ Use the CW or WW guidelines in the user manual to complete the matrix

i. Habitat Quality and Known / Suspected Fish Species in AA (use matrix to arrive at [circle] the functional points and rating)

Duration of surface water in AA	Permanent / Perennial						Seasonal / Intermittent						Temporary / Ephemeral					
Aquatic hiding / resting / escape cover	Optimal		Adequate		Poor		Optimal		Adequate		Poor		Optimal		Adequate		Poor	
Thermal cover optimal / suboptimal	O	S	O	S	O	S	O	S	O	S	O	S	O	S	O	S	O	S
FWP Tier I fish species	1E	.9H	.8H	.7M	.6M	.5M	.9H	.8H	.7M	.6M	.5M	.4M	.7M	.6M	.5M	.4M	.3L	.2L
FWP Tier II or Native Game fish species	.9H	.8H	.7M	.6M	.5M	.5M	.8H	.7M	.6M	.5M	.4M	.4M	.6M	.5M	.4M	.3L	.2L	.2L
FWP Tier III or Introduced Game fish	.8H	.7M	.6M	.5M	.5M	.4M	.7M	.6M	.5M	.4M	.4M	.3L	.5M	.4M	.3L	.2L	.2L	.1L
FWP Non-Game Tier IV or No fish species	.5M	.5M	.5M	.4M	.4M	.3L	.4M	.4M	.4M	.3L	.3L	.2L	.2L	.2L	.2L	.1L	.1L	.1L

Sources used for identifying fish sp. potentially found in AA:

ii. Modified Rating (NOTE: Modified score cannot exceed 1 or be less than 0.1)

a) Is fish use of the AA significantly reduced by a culvert, dike, or other man-made structure or activity or is the waterbody included on the current final MDEQ list of waterbodies in need of TMDL development with listed "Probable Impaired Uses" including cold or warm water fishery or aquatic life support, or do aquatic nuisance plant or animal species (see Appendix E) occur in fish habitat? ☐ If yes, reduce score in i above by 0.1.

b) Does the AA contain a documented spawning area or other critical habitat feature (i.e., sanctuary pool, upwelling area, etc.- specify in comments) for native fish or introduced game fish? ☐ If yes, add 0.1 to the adjusted score in i or iia.

iii. Final Score and Rating: NA

Comments: Isolated and of insufficient depth to support fish.

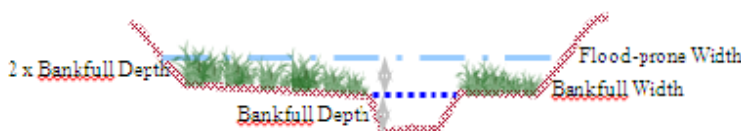
14E. Flood Attenuation: (Applies only to wetlands subject to flooding via in-channel or overbank flow. If wetlands in AA are not flooded from in-channel or overbank flow, mark **X NA** and proceed to 14F.)

i. Rating (working from top to bottom, use the matrix below to arrive at [circle] the functional points and rating)

Estimated or Calculated Entrenchment (Rosgen 1994, 1996)	Slightly entrenched - C, D, E stream types			Moderately entrenched - B stream type			Entrenched-A, F, G stream types		
% of flooded wetland classified as forested and/or scrub/shrub	75%	25-75%	<25%	75%	25-75%	<25%	75%	25-75%	<25%
AA contains no outlet or restricted outlet	1H	.9H	.6M	.8H	.7M	.5M	.4M	.3L	.2L
AA contains unrestricted outlet	.9H	.8H	.5M	.7M	.6M	.4M	.3L	.2L	.1L

Entrenchment ratio (ER) estimation – see User's Manual for additional guidance. Entrenchment ratio = (flood-prone width)/(bankfull width) Flood-prone width = estimated horizontal projection of where 2 x maximum bankfull depth elevation intersects the floodplain on each side of the stream.

$$\frac{\text{Flood-prone width}}{\text{Bankfull width}} = \text{Entrenchment ratio (ER)}$$



Slightly Entrenched ER = >2.2			Moderately Entrenched ER = 1.41 – 2.2		Entrenched ER = 1.0 – 1.4		
C stream type	D stream type	E stream type	B stream type	A stream type	F stream type	G stream type	

ii. Are ≥10 acres of wetland in the AA subject to flooding AND are man-made features which may be significantly damaged by floods located within 0.5 mile downstream of the AA (circle)? ☐ **Comments:** .

14F. Short and Long Term Surface Water Storage: (Applies to wetlands that flood or pond from overbank or in-channel flow, precipitation, upland surface flow, or groundwater flow. If no wetlands in the AA are subject to flooding or ponding, NA and proceed to 14G.)

i. Rating (Working from top to bottom, use the matrix below to arrive at [circle] the functional points and rating. Abbreviations for surface water durations are as follows: P/P = permanent/perennial; S/I = seasonal/intermittent; and T/E = temporary/ephemeral [see instructions for further definitions of these terms].)

Estimated maximum acre feet of water contained in wetlands within the AA that are subject to periodic flooding or ponding	>5 acre feet			1.1 to 5 acre feet			<=1 acre foot		
Duration of surface water at wetlands within the AA	P/P	S/I	T/E	P/P	S/I	T/E	P/P	S/I	T/E
Wetlands in AA flood or pond >= 5 out of 10 years	1H	.9H	.8H	.8H	.6M	.5M	.4M	.3L	.2L
Wetlands in AA flood or pond < 5 out of 10 years	.9H	.8H	.7M	.7M	.5M	.4M	.3L	.2L	.1L

Comments: These wetlands receive input from precipitation and upland surface flow. Groundwater connectivity likely.

14G. Sediment/Nutrient/Toxicant Retention and Removal: (Applies to wetlands with potential to receive sediments, nutrients, or toxicants through influx of surface or ground water or direct input. If no wetlands in the AA are subject to such input, NA and proceed to 14H.)

i. Rating (working from top to bottom, use the matrix below to arrive at [circle] the functional points and rating [H=high, M=moderate, or L=low])

Sediment, nutrient, and toxicant input levels within AA	AA receives or surrounding land use with potential to deliver levels of sediments, nutrients, or compounds at levels such that other functions are not substantially impaired. Minor sedimentation, sources of nutrients or toxicants, or signs of eutrophication present.				Waterbody on MDEQ list of waterbodies in need of TMDL development for "probable causes" related to sediment, nutrients, or toxicants or AA receives or surrounding land use with potential to deliver high levels of sediments, nutrients, or compounds such that other functions are substantially impaired. Major sedimentation, sources of nutrients or toxicants, or signs of eutrophication present.				
% cover of wetland vegetation in AA	>= 70%		< 70%		>= 70%		< 70%		
Evidence of flooding / ponding in AA	Yes	No	Yes	No	Yes	No	Yes	No	
AA contains no or restricted outlet	1H	.8H	.7M	.5M	.5M	.4M	.3L	.2L	
AA contains unrestricted outlet	.9H	.7M	.6M	.4M	.4M	.3L	.2L	.1L	

Comments: Some of these pothole wetlands are within the highway ROW.

14H Sediment/Shoreline Stabilization: (Applies only if AA occurs on or within the banks or a river, stream, or other natural or man-made drainage, or on the shoreline of a standing water body which is subject to wave action. If 14H does not apply, X NA and proceed to 14I.)

i. Rating (working from top to bottom, use the matrix below to arrive at [circle] the functional points and rating)

% Cover of <u>wetland</u> streambank or shoreline by species with stability ratings of >=6 (see Appendix F).	Duration of surface water adjacent to rooted vegetation		
	Permanent / Perennial	Seasonal / Intermittent	Temporary / Ephemeral
>= 65%	1H	.9H	.7M
35-64%	.7M	.6M	.5M
35%	.3L	.2L	.1L

Comments: .

14I. Production Export/Food Chain Support:

i. Level of Biological Activity (synthesis of wildlife and fish habitat ratings [circle])

General Fish Habitat Rating (14D.iii.)	General Wildlife Habitat Rating (14C.iii.)		
	E/H	M	L
E/H	H	H	M
M	H	M	M
L	M	M	L
N/A	H	M	L

ii. Rating (Working from top to bottom, use the matrix below to arrive at [circle] the functional points and rating. Factor A = acreage of vegetated wetland component in the AA; Factor B = level of biological activity rating from above (14I.i.); Factor C = whether or not the AA contains a surface or subsurface outlet; the final three rows pertain to duration of surface water in the AA, where P/P, S/I, and T/E are as previously defined, and A = "absent" [see instructions for further definitions of these terms].)

A	Vegetated component >5 acres						Vegetated component 1-5 acres						Vegetated component < 1 acre					
B	High		Moderate		Low		High		Moderate		Low		High		Moderate		Low	
C	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
P/P	1H	.7M	.8H	.5M	.6M	.4M	.9H	.6M	.7M	.4M	.5M	.3L	.8H	.6M	.6M	.4M	.3L	.2L
S/I	.9H	.6M	.7M	.4M	.5M	.3L	.8H	.5M	.6M	.3L	.4M	.2L	.7M	.5M	.5M	.3L	.3L	.2L
T/E/A	.8H	.5M	.6M	.3L	.4M	.2L	.7M	.4M	.5M	.2L	.3L	.1L	.6M	.4M	.4M	.2L	.2L	.1L

iii. Modified Rating (NOTE: Modified score cannot exceed 1 or be less than 0.1.) **Vegetated Upland Buffer (VUB):** Area with >= 30% plant cover, = 15% noxious weed or ANVS cover, and that is not subjected to periodic mechanical mowing or clearing (unless for weed control).

a) Is there an average >= 50 foot-wide vegetated upland buffer around >= 75% of the AA circumference?

X If yes, add 0.1 to the score in ii above.

iv. Final Score and Rating: 0.50M

Comments: These wetlands are generally less than 1 acre each.

14J. Groundwater Discharge/Recharge: (check the appropriate indicators in i & ii below)

i. Discharge Indicators

- ☐ The AA is a slope wetland
- ☐ Springs or seeps are known or observed
- ☒ Vegetation growing during dormant season/drought
- ☒ Wetland occurs at the toe of a natural slope
- ☐ AA permanently flooded during drought periods
- ☐ Wetland contains an outlet, but no inlet
- ☐ Shallow water table and the site is saturated to the surface
- ☐ Other:

ii. Recharge Indicators

- ☐ Permeable substrate present without underlying impeding layer
- ☐ Wetland contains inlet but no outlet
- ☐ Stream is a known 'losing' stream; discharge volume decreases
- ☐ Other:

iii. Rating (use the information from i and ii above and the table below to arrive at [circle] the functional points and rating)

Criteria	Duration of saturation at AA Wetlands FROM GROUNDWATER DISCHARGE OR WITH WATER THAT IS RECHARGING THE GROUNDWATER SYSTEM			
	P/P	S/I	T	None
Groundwater Discharge or Recharge	1H	.7M	.4M	.1L
Insufficient Data/Information	N/A			

Comments: Groundwater interaction likely.

14K. Uniqueness:

i. Rating (working from top to bottom, use the matrix below to arrive at [circle] the functional points and rating)

Replacement potential	AA contains fen, bog, warm springs or mature (>80 yr-old) forested wetland or plant association listed as "S1" by the MTNHP			AA does not contain previously cited rare types and structural diversity (#13) is high or contains plant association listed as "S2" by the MTNHP			AA does not contain previously cited rare types or associations and structural diversity (#13) is low-moderate		
Estimated relative abundance (#11)	rare	common	abundant	rare	common	abundant	rare	common	abundant
Low disturbance at AA (#12i)	1H	.9H	.8H	.8H	.6M	.5M	.5M	.4M	.3L
Moderate disturbance at AA (#12i)	.9H	.8H	.7M	.7M	.5M	.4M	.4M	.3L	.2L
High disturbance at AA (#12i)	.8H	.7M	.6M	.6M	.4M	.3L	.3L	.2L	.1L

Comments: .

14L. Recreation/Education Potential: (affords "bonus" points if AA provides recreation or education opportunity)

i. Is the AA a known or potential rec./ed. site: (circle) ____ (if 'Yes' continue with the evaluation; if 'No' then mark **X** **NA** and proceed to the overall summary and rating page)

ii. Check categories that apply to the AA: ____ Educational/scientific study; ____ Consumptive rec.; ____ Non-consumptive rec.;
____ Other :

iii. Rating:

Known or Potential Recreation or Education Area	Known	Potential
Public ownership or public easement with general public access (no permission required)	.2H	.15H
Private ownership with general public access (no permission required)	.15H	.1M
Private or public ownership without general public access, or requiring permission for public access	.1M	.05L

Comments: .

General Site Notes
Wetlands adjacent to the highway act as buffers for the parts of the potholes occurring on lands managed for wildlife.

FUNCTION & VALUE SUMMARY & OVERALL RATING FOR WETLAND/SITE #(S): WL-1b2, WL-3, WL-6, and WL-9

Function & Value Variables	Rating	Actual Functional Points	Possible Functional Points	Functional Units: (Actual Points x Wetland Acreage)	Indicate the four most prominent functions with an asterisk (*)
A. Listed/Proposed T&E Species Habitat	L	0.10	1		*
B. MT Natural Heritage Program Species Habitat	L	0.00	1		
C. General Wildlife Habitat	M	0.50	1		
D. General Fish Habitat	NA				
E. Flood Attenuation	NA				
F. Short and Long Term Surface Water Storage	M	0.40	1		*
G. Sediment/Nutrient/Toxicant Removal	H	1.00	1		*
H. Sediment/Shoreline Stabilization	NA				
I. Production Export/Food Chain Support	M	0.50	1		
J. Groundwater Discharge/Recharge	H	1.00	1		*
K. Uniqueness	L	0.20	1		
L. Recreation/Education Potential (bonus points)	NA				
Totals:		3.70	8.00		
Percent of Possible Score			46%		

Category I Wetland: (must satisfy one of the following criteria; otherwise go to Category II)

- ☐ Score of 1 functional point for Listed/Proposed Threatened or Endangered Species; **or**
☐ Score of 1 functional point for Uniqueness; **or**
☐ Score of 1 functional point for Flood Attenuation and answer to Question 14E.ii is "yes"; **or**
☐ Percent of possible score > 80% (round to nearest whole #).

Category II Wetland: (Criteria for Category I not satisfied and meets any one of the following criteria; otherwise go to Category IV)

- ☐ Score of 1 functional point for MT Natural Heritage Program Species Habitat; **or**
☐ Score of .9 or 1 functional point for General Wildlife Habitat; **or**
☐ Score of .9 or 1 functional point for General Fish Habitat; **or**
☐ "High" to "Exceptional" ratings for **both** General Wildlife Habitat **and** General Fish/Aquatic Habitat; **or**
☐ Score of .9 functional point for Uniqueness; **or**
☐ Percent of possible score > 65% (round to nearest whole #).

Category III Wetland: (Criteria for Categories I, II, or IV not satisfied)

Category IV Wetland: (Criteria for Categories I or II are not satisfied and all of the following criteria are met; otherwise go to Category III)

- ☒ "Low" rating for Uniqueness; **and**
☒ Vegetated wetland component 1 acre (do not include upland vegetated buffer); **and**
☐ Percent of possible score 35% (round to nearest whole #).

OVERALL ANALYSIS AREA RATING: III

Summary Comments: Pothole wetlands formed by glacier activity with varying depths of standing water.

MDT Montana Wetland Assessment Form (revised March 2008)

1. **Project Name:** US 93 Ninepipes
 2. **MDT Project #:**
Control #:
 3. **Evaluation Date:** 05/22/2025 4. **Evaluator(s):** Rachel Newton
 5. **Wetlands/Site #(s):** WL-5 and WL-10
 6. **Wetland Location(s): i. Legal:** T20N,R20W,S23 and S36
Latitude/Longitude: 47.442865, -114.097321 : WL-5 centroid
 47.445808, -114.096578 : WL-10 centroid
 ii. **Approx. Stationing or Mileposts:** 496+01 to 496+93 RT, 506+86 to
 iii. **Watershed:** 3 507+66 RT

Watershed Name, County:

Lower Clark Fork, Lake

7. **a. Evaluating Agency:**

Jacobs

b. Purpose of Evaluation:

1. ☒ Wetlands potentially affected by MDT project
2. ☐ Mitigation wetlands; pre-construction
3. ☐ Mitigation wetlands; post-construction
4. ☐ Other:

Min: 0.079 acres, Max: 0.086
 acres, Avg: 0.083 acres (estimated)

8. **Wetland size:**

Min: 0.079 acres, Max: 0.086
 acres, Avg: 0.083 acres (estimated)

9. **Assessment area (AA):**

10. **Classification of Wetland and Aquatic Habitats in AA**

HGM Class (Brinson)	Class (Cowardin)	Modifier (Cowardin)	Water Regime	% of AA
D	EM	NA	SI	100

Abbreviations: (see manual for definitions)

HGM Classes: Riverine (R), Depressional (D), Slope (S), Mineral Soil Flats (MSF), Organic Soil Flats (OSF), Lacustrine Fringe (LF);

Cowardin Classes: Rock Bottom (RB), Unconsolidated bottom (UB), Aquatic Bed (AB), Unconsolidated Shore (US), Moss-lichen Wetland (ML), Emergent Wetland (EM), Scrub-Shrub Wetland (SS), Forested Wetland (FO)

Modifiers: Excavated (E), Impounded (I), Diked (D), Partly Drained (PD), Farmed (F), Artificial (A)

Water Regimes: Permanent / Perennial (PP), Seasonal / Intermittent (SI), Temporary / Ephemeral (TE)

11. **Estimated relative abundance:** (of similarly classified sites within the same Major Montana Watershed Basin, see definitions)

COMMON

12. **General condition of AA:**

- i. **Disturbance:** (use matrix below to determine [circle] appropriate response – see instructions for Montana-listed noxious weed and aquatic nuisance vegetation species (ANVS) list)

Conditions within AA	Predominant conditions adjacent to (within 500 feet of) AA		
	Managed in predominantly natural state; is not grazed, hayed, logged, or otherwise converted; does not contain roads or buildings; and noxious weed or ANVS cover is >=15%.	Land not cultivated, but may be moderately grazed or hayed or selectively logged; or has been subject to minor clearing; contains few roads or buildings; noxious weed or ANVS cover is <= 30%.	Land cultivated or heavily grazed or logged; subject to substantial fill placement, grading, clearing, or hydrological alteration; high road or building density; or noxious weed or ANVS cover is > 30%.
AA occurs and is managed in predominantly natural state; is not grazed, hayed, logged, or otherwise converted; does not contain roads or occupied buildings; and noxious weed or ANVS cover is <= 15%.	low disturbance	low disturbance	moderate disturbance
AA not cultivated, but may be moderately grazed or hayed or selectively logged; or has been subject to relatively minor clearing, fill placement, or hydrological alteration; contains few roads or buildings; noxious weed or ANVS cover is <=	moderate disturbance	moderate disturbance	high disturbance
AA cultivated or heavily grazed or logged; subject to relatively substantial fill placement, grading, clearing, or hydrological alteration; high road or building density; or noxious weed or ANVS cover is > 30%.	high disturbance	high disturbance	high disturbance

Comments: (types of disturbance, intensity, season, etc.): Depressional palustrine emergent wetlands in wet meadows that may have previously been prairie potholes.

ii. **Prominent noxious, aquatic nuisance, & other exotic vegetation species:** None observed.

iii. **Provide brief descriptive summary of AA and surrounding land use/habitat:** These wet meadows are on privately owned land, within the ROW, and on lands managed for wildlife.

13. **Structural Diversity:** (based on number of "Cowardin" **vegetated** classes present [do not include unvegetated classes], see #10 above)

Existing # of "Cowardin" Vegetated Classes in AA	Initial Rating	Is current management preventing (passive) existence of additional vegetated classes?		Modified Rating
>= 3 (or 2 if 1 is forested) classes	H	NA	NA	NA
2 (or 1 if forested) classes	M	NA	NA	NA
1 class, but not a monoculture	M	<-- NO	YES -->	L
1 class, monoculture (1 species comprises >= 90% of total cover)	L	NA	NA	NA

Comments: These locations may be prairie pothole wetlands that are drying up, or may be vernal pools with a different hydrologic regime.

SECTION PERTAINING to FUNCTIONS & VALUES ASSESSMENT

14A. Habitat for Federally Listed or Proposed Threatened or Endangered Plants or Animals:

i. AA is Documented (D) or Suspected (S) to contain (circle one based on definitions contained in instructions):

Primary or critical habitat (list species) **Secondary habitat (list species)** **Incidental habitat (list species)**
 Grizzly bear(D)
 monarch butterfly(S)

ii. **Rating** (use the conclusions from i above and the matrix below to arrive at [circle] the functional points and rating)

Highest Habitat Level	doc/primary	sus/primary	doc/secondary	sus/secondary	doc/incidental	sus/incidental	None
Functional Points and Rating	1H	.9H	.8M	.7M	.3L	.1L	0L

Sources for documented use (e.g. observations, records, etc): MTNHP query indicates secondary habitat for grizzly is present in the study area.
 Grizzly are unlikely to use the wet meadows anything aside from general movement.
 These wetlands lack standing water throughout the season. Monarch butterfly may use this area.

14B. Habitat for plant or animals rated S1, S2, or S3 by the Montana Natural Heritage Program: (not including species listed in 14A above)

i. AA is Documented (D) or Suspected (S) to contain (circle one based on definitions contained in instructions): No usable habitat

Primary or critical habitat (list species) **Secondary habitat (list species)** **Incidental habitat (list species)**

ii. **Rating** (use the conclusions from i above and the matrix below to arrive at [circle] the functional points and rating)

Highest Habitat Level	doc/primary	sus/primary	doc/secondary	sus/secondary	doc/incidental	sus/incidental	None
S1 Species: Functional Points and Rating	1H	.8H	.7M	.6M	.2L	.1L	0L
S2 and S3 Species: Functional Points and Rating	.9H	.7M	.6M	.5M	.2L	.1L	0L

Sources for documented use (e.g. observations, records, etc): MTNHP query.

14C. General Wildlife Habitat Rating:

i. **Evidence of overall wildlife use in the AA** (circle substantial, moderate, or low based on supporting evidence):

Substantial (based on any of the following [check]):

- ☐ observations of abundant wildlife #s or high species diversity (during any period)
- ☐ abundant wildlife sign such as scat, tracks, nest structures, game trails, etc.
- ☐ presence of extremely limiting habitat features not available in the surrounding area
- ☐ interviews with local biologists with knowledge of the AA

Minimal (based on any of the following [check]):

- ☒ few or no wildlife observations during peak use periods
- ☒ little to no wildlife sign
- ☒ sparse adjacent upland food sources
- ☐ interviews with local biologists with knowledge of the AA

Moderate (based on any of the following [check]):

- ☐ observations of scattered wildlife groups or individuals or relatively few species during peak periods
- ☐ common occurrence of wildlife sign such as scat, tracks, nest structures, game trails, etc.
- ☐ adequate adjacent upland food sources
- ☐ interviews with local biologists with knowledge of the AA

ii. **Wildlife habitat features** (Working from top to bottom, circle appropriate AA attributes in matrix to arrive at rating. Structural diversity is from #13. For class cover to be considered evenly distributed, the most and least prevalent vegetated classes must be within 20% of each other interms of their percent composition of the AA (see #10). Abbreviations for surface water durations are as follows: P/P = permanent/perennial; S/I = seasonal/intermittent; T/E = temporary/ephemeral; and A = absent [see instructions for further definitions of these terms])

Structural diversity (see #13)	High								Moderate								Low			
Class cover distribution (all vegetated classes)	Even				Uneven				Even				Uneven				Even			
Duration of surface water in >=10% of AA	P/P	S/I	T/E	A	P/P	S/I	T/E	A	P/P	S/I	T/E	A	P/P	S/I	T/E	A	P/P	S/I	T/E	A
Low disturbance at AA (see #12i)	E	E	E	H	E	E	H	H	E	H	H	M	E	H	M	M	E	H	M	M
Moderate disturbance at AA (see #12i)	H	H	H	H	H	H	H	M	H	H	M	M	H	M	M	L	H	M	L	L
High disturbance at AA (see #12i)	M	M	M	L	M	M	L	L	M	M	L	L	M	L	L	L	L	L	L	L

iii. **Rating** (use the conclusions from i and ii above and the matrix below to arrive at [circle] the functional points and rating)

Evidence of wildlife use (i)	Wildlife habitat features rating (ii)			
	Exceptional	High	Moderate	Moderate
Substantial	1E	.9H	.8H	.7M
Moderate	.9H	.7M	.5M	.3L
Minimal	.6M	.4M	.2L	.1L

Comments: Incidental habitat for waterfowl

14D. General Fish Habitat Rating: (Assess this function if the AA is used by fish or the existing situation is “correctable” such that the AA could be used by fish [i.e., fish use is precluded by perched culvert or other barrier, etc.]. If the AA is not used by fish, fish use is not restorable due to habitat constraints, or is not desired from a management perspective [such as fish entrapped in a canal], then mark **X NA** and proceed to 14E.)

Type of Fishery: Cold Water (CW) _____ Warm Water (WW) _____ **Use the CW or WW guidelines in the user manual to complete the matrix**

i. Habitat Quality and Known / Suspected Fish Species in AA (use matrix to arrive at [circle] the functional points and rating)

Duration of surface water in AA	Permanent / Perennial						Seasonal / Intermittent						Temporary / Ephemeral					
Aquatic hiding / resting / escape cover	Optimal		Adequate		Poor		Optimal		Adequate		Poor		Optimal		Adequate		Poor	
Thermal cover optimal / suboptimal	O	S	O	S	O	S	O	S	O	S	O	S	O	S	O	S	O	S
FWP Tier I fish species	1E	.9H	.8H	.7M	.6M	.5M	.9H	.8H	.7M	.6M	.5M	.4M	.7M	.6M	.5M	.4M	.3L	.2L
FWP Tier II or Native Game fish species	.9H	.8H	.7M	.6M	.5M	.5M	.8H	.7M	.6M	.5M	.4M	.4M	.6M	.5M	.4M	.3L	.2L	.2L
FWP Tier III or Introduced Game fish	.8H	.7M	.6M	.5M	.5M	.4M	.7M	.6M	.5M	.4M	.4M	.3L	.5M	.4M	.3L	.2L	.2L	.1L
FWP Non-Game Tier IV or No fish species	.5M	.5M	.5M	.4M	.4M	.3L	.4M	.4M	.4M	.3L	.3L	.2L	.2L	.2L	.2L	.1L	.1L	.1L

Sources used for identifying fish sp. potentially found in AA:

ii. Modified Rating (NOTE: Modified score cannot exceed 1 or be less than 0.1)

a) Is fish use of the AA significantly reduced by a culvert, dike, or other man-made structure or activity or is the waterbody included on the current final MDEQ list of waterbodies in need of TMDL development with listed “Probable Impaired Uses” including cold or warm water fishery or aquatic life support, or do aquatic nuisance plant or animal species (see Appendix E) occur in fish habitat? _____ If yes, reduce score in i above by 0.1.

b) Does the AA contain a documented spawning area or other critical habitat feature (i.e., sanctuary pool, upwelling area, etc.- specify in comments) for native fish or introduced game fish? _____ If yes, add 0.1 to the adjusted score in i or iia.

iii. Final Score and Rating: NA

Comments: .

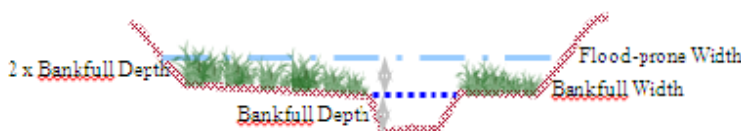
14E. Flood Attenuation: (Applies only to wetlands subject to flooding via in-channel or overbank flow. If wetlands in AA are not flooded from in-channel or overbank flow, mark **X NA** and proceed to 14F.)

i. Rating (working from top to bottom, use the matrix below to arrive at [circle] the functional points and rating)

Estimated or Calculated Entrenchment (Rosgen 1994, 1996)	Slightly entrenched - C, D, E stream types			Moderately entrenched – B stream type			Entrenched-A, F, G stream types		
% of flooded wetland classified as forested and/or scrub/shrub	75%	25-75%	<25%	75%	25-75%	<25%	75%	25-75%	<25%
AA contains no outlet or restricted outlet	1H	.9H	.6M	.8H	.7M	.5M	.4M	.3L	.2L
AA contains unrestricted outlet	.9H	.8H	.5M	.7M	.6M	.4M	.3L	.2L	.1L

Entrenchment ratio (ER) estimation – see User’s Manual for additional guidance. Entrenchment ratio = (flood-prone width)/(bankfull width) Flood-prone width = estimated horizontal projection of where 2 x maximum bankfull depth elevation intersects the floodplain on each side of the stream.

$$\frac{\text{Flood-prone width}}{\text{Bankfull width}} = \text{Entrenchment ratio (ER)}$$



Slightly Entrenched ER = >2.2			Moderately Entrenched ER = 1.41 – 2.2	Entrenched ER = 1.0 – 1.4		
C stream type	D stream type	E stream type	B stream type	A stream type	F stream type	G stream type

ii. Are ≥10 acres of wetland in the AA subject to flooding AND are man-made features which may be significantly damaged by floods located within 0.5 mile downstream of the AA (circle)? _____ **Comments:** .

14F. Short and Long Term Surface Water Storage: (Applies to wetlands that flood or pond from overbank or in-channel flow, precipitation, upland surface flow, or groundwater flow. If no wetlands in the AA are subject to flooding or ponding, NA and proceed to 14G.)

i. Rating (Working from top to bottom, use the matrix below to arrive at [circle] the functional points and rating. Abbreviations for surface water durations are as follows: P/P = permanent/perennial; S/I = seasonal/intermittent; and T/E = temporary/ephemeral [see instructions for further definitions of these terms].)

Estimated maximum acre feet of water contained in wetlands within the AA that are subject to periodic flooding or ponding	>5 acre feet			1.1 to 5 acre feet			<=1 acre foot		
Duration of surface water at wetlands within the AA	P/P	S/I	T/E	P/P	S/I	T/E	P/P	S/I	T/E
Wetlands in AA flood or pond >= 5 out of 10 years	1H	.9H	.8H	.8H	.6M	.5M	.4M	.3L	.2L
Wetlands in AA flood or pond < 5 out of 10 years	.9H	.8H	.7M	.7M	.5M	.4M	.3L	.2L	.1L

Comments: Fifteen wetlands are included in this assessment, none of which are larger than 0.5 acre. Therefore, <1 acre foot chosen for amt. of water contained in wetlands. OR 1.1 to 5 feet makes it 0.6 M

14G. Sediment/Nutrient/Toxicant Retention and Removal: (Applies to wetlands with potential to receive sediments, nutrients, or toxicants through influx of surface or ground water or direct input. If no wetlands in the AA are subject to such input, NA and proceed to 14H.)

i. Rating (working from top to bottom, use the matrix below to arrive at [circle] the functional points and rating [H=high, M=moderate, or L=low])

Sediment, nutrient, and toxicant input levels within AA	AA receives or surrounding land use with potential to deliver levels of sediments, nutrients, or compounds at levels such that other functions are not substantially impaired. Minor sedimentation, sources of nutrients or toxicants, or signs of eutrophication present.				Waterbody on MDEQ list of waterbodies in need of TMDL development for "probable causes" related to sediment, nutrients, or toxicants or AA receives or surrounding land use with potential to deliver high levels of sediments, nutrients, or compounds such that other functions are substantially impaired. Major sedimentation, sources of nutrients or toxicants, or signs of eutrophication present.			
% cover of wetland vegetation in AA	>= 70%		< 70%		>= 70%		< 70%	
Evidence of flooding / ponding in AA	Yes	No	Yes	No	Yes	No	Yes	No
AA contains no or restricted outlet	1H	.8H	.7M	.5M	.5M	.4M	.3L	.2L
AA contains unrestricted outlet	.9H	.7M	.6M	.4M	.4M	.3L	.2L	.1L

Comments: These wetlands receive input from US 93.

14H Sediment/Shoreline Stabilization: (Applies only if AA occurs on or within the banks or a river, stream, or other natural or man-made drainage, or on the shoreline of a standing water body which is subject to wave action. If 14H does not apply, X NA and proceed to 14I.)

i. Rating (working from top to bottom, use the matrix below to arrive at [circle] the functional points and rating)

% Cover of wetland streambank or shoreline by species with stability ratings of >=6 (see Appendix F).	Duration of surface water adjacent to rooted vegetation		
	Permanent / Perennial	Seasonal / Intermittent	Temporary / Ephemeral
>= 65%	1H	.9H	.7M
35-64%	.7M	.6M	.5M
35%	.3L	.2L	.1L

Comments: .

14I. Production Export/Food Chain Support:

i. Level of Biological Activity (synthesis of wildlife and fish habitat ratings [circle])

General Fish Habitat Rating (14D.iii.)	General Wildlife Habitat Rating (14C.iii.)		
	E/H	M	L
E/H	H	H	M
M	H	M	M
L	M	M	L
N/A	H	M	L

ii. Rating (Working from top to bottom, use the matrix below to arrive at [circle] the functional points and rating. Factor A = acreage of vegetated wetland component in the AA; Factor B = level of biological activity rating from above (14I.i.); Factor C = whether or not the AA contains a surface or subsurface outlet; the final three rows pertain to duration of surface water in the AA, where P/P, S/I, and T/E are as previously defined, and A = "absent" [see instructions for further definitions of these terms].)

A	Vegetated component >5 acres						Vegetated component 1-5 acres						Vegetated component < 1 acre					
B	High		Moderate		Low		High		Moderate		Low		High		Moderate		Low	
C	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
P/P	1H	.7M	.8H	.5M	.6M	.4M	.9H	.6M	.7M	.4M	.5M	.3L	.8H	.6M	.6M	.4M	.3L	.2L
S/I	.9H	.6M	.7M	.4M	.5M	.3L	.8H	.5M	.6M	.3L	.4M	.2L	.7M	.5M	.5M	.3L	.3L	.2L
T/E/A	.8H	.5M	.6M	.3L	.4M	.2L	.7M	.4M	.5M	.2L	.3L	.1L	.6M	.4M	.4M	.2L	.2L	.1L

iii. Modified Rating (NOTE: Modified score cannot exceed 1 or be less than 0.1.) **Vegetated Upland Buffer (VUB):** Area with >= 30% plant cover, = 15% noxious weed or ANVS cover, and that is not subjected to periodic mechanical mowing or clearing (unless for weed control).

a) Is there an average >= 50 foot-wide vegetated upland buffer around >= 75% of the AA circumference?

X If yes, add 0.1 to the score in ii above.

iv. Final Score and Rating: 0.20L

Comments: Surface water likely present during spring run-off.

14J. Groundwater Discharge/Recharge: (check the appropriate indicators in i & ii below)

i. Discharge Indicators

- ☐ The AA is a slope wetland
- ☐ Springs or seeps are known or observed
- ☐ Vegetation growing during dormant season/drought
- ☒ Wetland occurs at the toe of a natural slope
- ☐ AA permanently flooded during drought periods
- ☐ Wetland contains an outlet, but no inlet
- ☐ Shallow water table and the site is saturated to the surface
- ☐ Other:

ii. Recharge Indicators

- ☐ Permeable substrate present without underlying impeding layer
- ☒ Wetland contains inlet but no outlet
- ☐ Stream is a known 'losing' stream; discharge volume decreases
- ☐ Other:

iii. Rating (use the information from i and ii above and the table below to arrive at [circle] the functional points and rating)

Criteria	Duration of saturation at AA Wetlands FROM GROUNDWATER DISCHARGE OR WITH WATER THAT IS RECHARGING THE GROUNDWATER SYSTEM			
	P/P	S/I	T	None
Groundwater Discharge or Recharge	1H	.7M	.4M	.1L
Insufficient Data/Information	N/A			

Comments: Wetlands likely seasonally intermittently saturated.

14K. Uniqueness:

i. Rating (working from top to bottom, use the matrix below to arrive at [circle] the functional points and rating)

Replacement potential	AA contains fen, bog, warm springs or mature (>80 yr-old) forested wetland or plant association listed as "S1" by the MTNHP			AA does not contain previously cited rare types and structural diversity (#13) is high or contains plant association listed as "S2" by the MTNHP			AA does not contain previously cited rare types or associations and structural diversity (#13) is low-moderate		
Estimated relative abundance (#11)	rare	common	abundant	rare	common	abundant	rare	common	abundant
Low disturbance at AA (#12i)	1H	.9H	.8H	.8H	.6M	.5M	.5M	.4M	.3L
Moderate disturbance at AA (#12i)	.9H	.8H	.7M	.7M	.5M	.4M	.4M	.3L	.2L
High disturbance at AA (#12i)	.8H	.7M	.6M	.6M	.4M	.3L	.3L	.2L	.1L

Comments: Not unique

14L. Recreation/Education Potential: (affords "bonus" points if AA provides recreation or education opportunity)

i. Is the AA a known or potential rec./ed. site: (circle) ____ (if 'Yes' continue with the evaluation; if 'No' then mark **X** **NA** and proceed to the overall summary and rating page)

ii. Check categories that apply to the AA: ____ Educational/scientific study; ____ Consumptive rec.; ____ Non-consumptive rec.;
____ Other :

iii. Rating:

Known or Potential Recreation or Education Area	Known	Potential
Public ownership or public easement with general public access (no permission required)	.2H	.15H
Private ownership with general public access (no permission required)	.15H	.1M
Private or public ownership without general public access, or requiring permission for public access	.1M	.05L

Comments: .

General Site Notes
These areas have potential to hold surface water.

FUNCTION & VALUE SUMMARY & OVERALL RATING FOR WETLAND/SITE #(S): WL-5 and WL-10

Function & Value Variables	Rating	Actual Functional Points	Possible Functional Points	Functional Units: (Actual Points x Wetland Acreage)	Indicate the four most prominent functions with an asterisk (*)
A. Listed/Proposed T&E Species Habitat	L	0.30	1		
B. MT Natural Heritage Program Species Habitat	L	0.00	1		
C. General Wildlife Habitat	L	0.20	1		
D. General Fish Habitat	NA				
E. Flood Attenuation	NA				*
F. Short and Long Term Surface Water Storage	L	0.30	1		*
G. Sediment/Nutrient/Toxicant Removal	H	1.00	1		*
H. Sediment/Shoreline Stabilization	NA				
I. Production Export/Food Chain Support	L	0.20	1		
J. Groundwater Discharge/Recharge	M	0.70	1		*
K. Uniqueness	L	0.20	1		
L. Recreation/Education Potential (bonus points)	NA				
Totals:		2.90	8.00		
Percent of Possible Score			36%		

Category I Wetland: (must satisfy one of the following criteria; otherwise go to Category II)

- ☐ Score of 1 functional point for Listed/Proposed Threatened or Endangered Species; **or**
☐ Score of 1 functional point for Uniqueness; **or**
☐ Score of 1 functional point for Flood Attenuation and answer to Question 14E.ii is "yes"; **or**
☐ Percent of possible score > 80% (round to nearest whole #).

Category II Wetland: (Criteria for Category I not satisfied and meets any one of the following criteria; otherwise go to Category IV)

- ☐ Score of 1 functional point for MT Natural Heritage Program Species Habitat; **or**
☐ Score of .9 or 1 functional point for General Wildlife Habitat; **or**
☐ Score of .9 or 1 functional point for General Fish Habitat; **or**
☐ "High" to "Exceptional" ratings for **both** General Wildlife Habitat **and** General Fish/Aquatic Habitat; **or**
☐ Score of .9 functional point for Uniqueness; **or**
☐ Percent of possible score > 65% (round to nearest whole #).

Category III Wetland: (Criteria for Categories I, II, or IV not satisfied)

Category IV Wetland: (Criteria for Categories I or II are not satisfied and all of the following criteria are met; otherwise go to Category III)

- ☒ "Low" rating for Uniqueness; **and**
☒ Vegetated wetland component 1 acre (do not include upland vegetated buffer); **and**
☐ Percent of possible score 35% (round to nearest whole #).

OVERALL ANALYSIS AREA RATING: III

Summary Comments: Good candidates for mitigation.

MDT Montana Wetland Assessment Form (revised March 2008)

1. **Project Name:** US 93 Ninepipes
 2. **MDT Project #:** **Control #:**
 3. **Evaluation Date:** 12/07/2025 4. **Evaluator(s):** Brian Stockowitz and Rachel Newton 5. **Wetlands/Site #(s):** WL-11
 6. **Wetland Location(s): i. Legal:** T20N,R20W,S35 **Latitude/Longitude:** 47.446944, -114.097531 : WL-11 centroid
 ii. **Approx. Stationing or Mileposts:**
 iii. **Watershed:** 3 507+35 to 512+79 LT

Watershed Name, County:

Lower Clark Fork, Lake

7. **a. Evaluating Agency:** DJ&A and Jacobs

b. Purpose of Evaluation:

1. ☒ Wetlands potentially affected by MDT project
2. ☐ Mitigation wetlands; pre-construction
3. ☐ Mitigation wetlands; post-construction
4. ☐ Other:

8. **Wetland size:** 0.923 acres (measured)

9. **Assessment area (AA):** 0.923 acres (measured)

10. Classification of Wetland and Aquatic Habitats in AA

HGM Class (Brinson)	Class (Cowardin)	Modifier (Cowardin)	Water Regime	% of AA
D	AB	NA	PP	76
D	SS	NA	PP	6
D	UB	NA	PP	18

Abbreviations: (see manual for definitions)

HGM Classes: Riverine (R), Depressional (D), Slope (S), Mineral Soil Flats (MSF), Organic Soil Flats (OSF), Lacustrine Fringe (LF);

Cowardin Classes: Rock Bottom (RB), Unconsolidated bottom (UB), Aquatic Bed (AB), Unconsolidated Shore (US), Moss-lichen Wetland (ML), Emergent Wetland (EM), Scrub-Shrub Wetland (SS), Forested Wetland (FO)

Modifiers: Excavated (E), Impounded (I), Diked (D), Partly Drained (PD), Farmed (F), Artificial (A)

Water Regimes: Permanent / Perennial (PP), Seasonal / Intermittent (SI), Temporary / Ephemeral (TE)

11. **Estimated relative abundance:** (of similarly classified sites within the same Major Montana Watershed Basin, see definitions)

RARE

12. General condition of AA:

i. **Disturbance:** (use matrix below to determine [circle] appropriate response – see instructions for Montana-listed noxious weed and aquatic nuisance vegetation species (ANVS) list)

Conditions within AA	Predominant conditions adjacent to (within 500 feet of) AA		
	Managed in predominantly natural state; is not grazed, hayed, logged, or otherwise converted; does not contain roads or buildings; and noxious weed or ANVS cover is >=15%.	Land not cultivated, but may be moderately grazed or hayed or selectively logged; or has been subject to minor clearing; contains few roads or buildings; noxious weed or ANVS cover is <= 30%.	Land cultivated or heavily grazed or logged; subject to substantial fill placement, grading, clearing, or hydrological alteration; high road or building density; or noxious weed or ANVS cover is > 30%.
AA occurs and is managed in predominantly natural state; is not grazed, hayed, logged, or otherwise converted; does not contain roads or occupied buildings; and noxious weed or ANVS cover is <= 15%.	low disturbance	low disturbance	moderate disturbance
AA not cultivated, but may be moderately grazed or hayed or selectively logged; or has been subject to relatively minor clearing, fill placement, or hydrological alteration; contains few roads or buildings; noxious weed or ANVS cover is <=	moderate disturbance	moderate disturbance	high disturbance
AA cultivated or heavily grazed or logged; subject to relatively substantial fill placement, grading, clearing, or hydrological alteration; high road or building density; or noxious weed or ANVS cover is > 30%.	high disturbance	high disturbance	high disturbance

Comments: (types of disturbance, intensity, season, etc.): Bounded by the Post A Canal to the north and US 93 to the east.

ii. **Prominent noxious, aquatic nuisance, & other exotic vegetation species:** None observed on site. See BRR.

iii. **Provide brief descriptive summary of AA and surrounding land use/habitat:** The area along the western boundary is managed for wildlife habitat. US 93 is a busy highway with some development.

13. **Structural Diversity:** (based on number of "Cowardin" **vegetated** classes present [do not include unvegetated classes], see #10 above)

Existing # of "Cowardin" Vegetated Classes in AA	Initial Rating	Is current management preventing (passive) existence of additional vegetated classes?		Modified Rating
>= 3 (or 2 if 1 is forested) classes	H	NA	NA	NA
2 (or 1 if forested) classes	M	NA	NA	NA
1 class, but not a monoculture	M	<-- NO	YES -->	L
1 class, monoculture (1 species comprises >= 90% of total cover)	L	NA	NA	NA

Comments: PSS, PAB floating mat (Typha, Carex, and moss), and two areas of open water (listed as palustrine unconsolidated bottom in wetland classification).

SECTION PERTAINING to FUNCTIONS & VALUES ASSESSMENT

14A. Habitat for Federally Listed or Proposed Threatened or Endangered Plants or Animals:

i. AA is Documented (D) or Suspected (S) to contain (circle one based on definitions contained in instructions):

Primary or critical habitat (list species)

Secondary habitat (list species)

Incidental habitat (list species)

Monarch butterfly(S)

Grizzly bear(S)

ii. **Rating** (use the conclusions from i above and the matrix below to arrive at [circle] the functional points and rating)

Highest Habitat Level	doc/primary	sus/primary	doc/secondary	sus/secondary	doc/incidental	sus/incidental	None
Functional Points and Rating	1H	.9H	.8M	.7M	.3L	.1L	0L

Sources for documented use (e.g. observations, records, etc): Grizzly and monarch butterfly are known to occur within the delineation study area. This wetland complex is the most diverse within the study area; both species may use the wetland complex incidentally.

14B. Habitat for plant or animals rated S1, S2, or S3 by the Montana Natural Heritage Program: (not including species listed in 14A above)

i. AA is Documented (D) or Suspected (S) to contain (circle one based on definitions contained in instructions):

Primary or critical habitat (list species)

Secondary habitat (list species)

Incidental habitat (list species)

Great blue heron(S) - S2S3

ii. **Rating** (use the conclusions from i above and the matrix below to arrive at [circle] the functional points and rating)

Highest Habitat Level	doc/primary	sus/primary	doc/secondary	sus/secondary	doc/incidental	sus/incidental	None
S1 Species: Functional Points and Rating	1H	.8H	.7M	.6M	.2L	.1L	0L
S2 and S3 Species: Functional Points and Rating	.9H	.7M	.6M	.5M	.2L	.1L	0L

Sources for documented use (e.g. observations, records, etc): See BRR for additional species from MTNHP query. No formal surveys have been conducted.

14C. General Wildlife Habitat Rating:

i. **Evidence of overall wildlife use in the AA** (circle substantial, moderate, or low based on supporting evidence):

Substantial (based on any of the following [check]):

- ☒ observations of abundant wildlife #s or high species diversity (during any period)
- ☒ abundant wildlife sign such as scat, tracks, nest structures, game trails, etc.
- ☒ presence of extremely limiting habitat features not available in the surrounding area
- ☐ interviews with local biologists with knowledge of the AA

Minimal (based on any of the following [check]):

- ☐ few or no wildlife observations during peak use periods
- ☐ little to no wildlife sign
- ☐ sparse adjacent upland food sources
- ☐ interviews with local biologists with knowledge of the AA

Moderate (based on any of the following [check]):

- ☐ observations of scattered wildlife groups or individuals or relatively few species during peak periods
- ☐ common occurrence of wildlife sign such as scat, tracks, nest structures, game trails, etc.
- ☐ adequate adjacent upland food sources
- ☐ interviews with local biologists with knowledge of the AA

ii. **Wildlife habitat features** (Working from top to bottom, circle appropriate AA attributes in matrix to arrive at rating. Structural diversity is from #13. For class cover to be considered evenly distributed, the most and least prevalent vegetated classes must be within 20% of each other in terms of their percent composition of the AA (see #10). Abbreviations for surface water durations are as follows: P/P = permanent/perennial; S/I = seasonal/intermittent; T/E = temporary/ephemeral; and A = absent [see instructions for further definitions of these terms])

Structural diversity (see #13)	High								Moderate								Low			
Class cover distribution (all vegetated classes)	Even				Uneven				Even				Uneven				Even			
Duration of surface water in >=10% of AA	P/P	S/I	T/E	A	P/P	S/I	T/E	A	P/P	S/I	T/E	A	P/P	S/I	T/E	A	P/P	S/I	T/E	A
Low disturbance at AA (see #12i)	E	E	E	H	E	E	H	H	E	H	H	M	E	H	M	M	E	H	M	M
Moderate disturbance at AA (see #12i)	H	H	H	H	H	H	H	M	H	H	M	M	H	M	M	L	H	M	L	L
High disturbance at AA (see #12i)	M	M	M	L	M	M	L	L	M	M	L	L	M	L	L	L	L	L	L	L

iii. **Rating** (use the conclusions from i and ii above and the matrix below to arrive at [circle] the functional points and rating)

Evidence of wildlife use (i)	Wildlife habitat features rating (ii)			
	Exceptional	High	Moderate	Moderate
Substantial	1E	.9H	.8H	.7M
Moderate	.9H	.7M	.5M	.3L
Minimal	.6M	.4M	.2L	.1L

Comments:

3

14F. Short and Long Term Surface Water Storage: (Applies to wetlands that flood or pond from overbank or in-channel flow, precipitation, upland surface flow, or groundwater flow. If no wetlands in the AA are subject to flooding or ponding, NA and proceed to 14G.)

i. Rating (Working from top to bottom, use the matrix below to arrive at [circle] the functional points and rating. Abbreviations for surface water durations are as follows: P/P = permanent/perennial; S/I = seasonal/intermittent; and T/E = temporary/ephemeral [see instructions for further definitions of these terms].)

Estimated maximum acre feet of water contained in wetlands within the AA that are subject to periodic flooding or ponding	>5 acre feet			1.1 to 5 acre feet			<=1 acre foot		
Duration of surface water at wetlands within the AA	P/P	S/I	T/E	P/P	S/I	T/E	P/P	S/I	T/E
Wetlands in AA flood or pond >= 5 out of 10 years	1H	.9H	.8H	.8H	.6M	.5M	.4M	.3L	.2L
Wetlands in AA flood or pond < 5 out of 10 years	.9H	.8H	.7M	.7M	.5M	.4M	.3L	.2L	.1L

Comments: Depressional wetland likely to experience seasonal upwellings related to snowmelt and runoff.

14G. Sediment/Nutrient/Toxicant Retention and Removal: (Applies to wetlands with potential to receive sediments, nutrients, or toxicants through influx of surface or ground water or direct input. If no wetlands in the AA are subject to such input, NA and proceed to 14H.)

i. Rating (working from top to bottom, use the matrix below to arrive at [circle] the functional points and rating [H=high, M=moderate, or L=low])

Sediment, nutrient, and toxicant input levels within AA	AA receives or surrounding land use with potential to deliver levels of sediments, nutrients, or compounds at levels such that other functions are not substantially impaired. Minor sedimentation, sources of nutrients or toxicants, or signs of eutrophication present.				Waterbody on MDEQ list of waterbodies in need of TMDL development for "probable causes" related to sediment, nutrients, or toxicants or AA receives or surrounding land use with potential to deliver high levels of sediments, nutrients, or compounds such that other functions are substantially impaired. Major sedimentation, sources of nutrients or toxicants, or signs of eutrophication present.				
% cover of wetland vegetation in AA	>= 70%		< 70%		>= 70%		< 70%		
Evidence of flooding / ponding in AA	Yes	No	Yes	No	Yes	No	Yes	No	
AA contains no or restricted outlet	1H	.8H	.7M	.5M	.5M	.4M	.3L	.2L	
AA contains unrestricted outlet	.9H	.7M	.6M	.4M	.4M	.3L	.2L	.1L	

Comments: Wetland complex receives runoff and other pollutants from US 93 traffic.

14H Sediment/Shoreline Stabilization: (Applies only if AA occurs on or within the banks or a river, stream, or other natural or man-made drainage, or on the shoreline of a standing water body which is subject to wave action. If 14H does not apply, NA and proceed to 14I.)

i. Rating (working from top to bottom, use the matrix below to arrive at [circle] the functional points and rating)

% Cover of wetland streambank or shoreline by species with stability ratings of >=6 (see Appendix F).	Duration of surface water adjacent to rooted vegetation		
	Permanent / Perennial	Seasonal / Intermittent	Temporary / Ephemeral
>= 65%	1H	.9H	.7M
35-64%	.7M	.6M	.5M
35%	.3L	.2L	.1L

Comments: Waves likely during high winds.

14I. Production Export/Food Chain Support:

i. Level of Biological Activity (synthesis of wildlife and fish habitat ratings [circle])

General Fish Habitat Rating (14D.iii.)	General Wildlife Habitat Rating (14C.iii.)		
	E/H	M	L
E/H	H	H	M
M	H	M	M
L	M	M	L
N/A	H	M	L

ii. Rating (Working from top to bottom, use the matrix below to arrive at [circle] the functional points and rating. Factor A = acreage of vegetated wetland component in the AA; Factor B = level of biological activity rating from above (14I.i.); Factor C = whether or not the AA contains a surface or subsurface outlet; the final three rows pertain to duration of surface water in the AA, where P/P, S/I, and T/E are as previously defined, and A = "absent" [see instructions for further definitions of these terms].)

A	Vegetated component >5 acres						Vegetated component 1-5 acres						Vegetated component < 1 acre					
B	High		Moderate		Low		High		Moderate		Low		High		Moderate		Low	
C	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
P/P	1H	.7M	.8H	.5M	.6M	.4M	.9H	.6M	.7M	.4M	.5M	.3L	.8H	.6M	.6M	.4M	.3L	.2L
S/I	.9H	.6M	.7M	.4M	.5M	.3L	.8H	.5M	.6M	.3L	.4M	.2L	.7M	.5M	.5M	.3L	.3L	.2L
T/E/A	.8H	.5M	.6M	.3L	.4M	.2L	.7M	.4M	.5M	.2L	.3L	.1L	.6M	.4M	.4M	.2L	.2L	.1L

iii. Modified Rating (NOTE: Modified score cannot exceed 1 or be less than 0.1.) **Vegetated Upland Buffer (VUB):** Area with >= 30% plant cover, = 15% noxious weed or ANVS cover, and that is not subjected to periodic mechanical mowing or clearing (unless for weed control).

a) Is there an average >= 50 foot-wide vegetated upland buffer around >= 75% of the AA circumference?

X If yes, add 0.1 to the score in ii above.

iv. Final Score and Rating: 0.70M

Comments: Mature riparian forest of Populus balsamifera fringing Cornus alba.

14J. Groundwater Discharge/Recharge: (check the appropriate indicators in i & ii below)

i. Discharge Indicators

- ☐ The AA is a slope wetland
- ☐ Springs or seeps are known or observed
- ☐ Vegetation growing during dormant season/drought
- ☐ Wetland occurs at the toe of a natural slope
- ☒ AA permanently flooded during drought periods
- ☐ Wetland contains an outlet, but no inlet
- ☐ Shallow water table and the site is saturated to the surface
- ☐ Other:

ii. Recharge Indicators

- ☐ Permeable substrate present without underlying impeding layer
- ☒ Wetland contains inlet but no outlet
- ☐ Stream is a known 'losing' stream; discharge volume decreases
- ☐ Other:

iii. Rating (use the information from i and ii above and the table below to arrive at [circle] the functional points and rating)

Criteria	Duration of saturation at AA Wetlands FROM GROUNDWATER DISCHARGE OR WITH WATER THAT IS RECHARGING THE GROUNDWATER SYSTEM			
	P/P	S/I	T	None
Groundwater Discharge or Recharge	1H	.7M	.4M	.1L
Insufficient Data/Information	N/A			

Comments: High potential for groundwater recharge, although more information is required.

14K. Uniqueness:

i. Rating (working from top to bottom, use the matrix below to arrive at [circle] the functional points and rating)

Replacement potential	AA contains fen, bog, warm springs or mature (>80 yr-old) forested wetland or plant association listed as "S1" by the MTNHP			AA does not contain previously cited rare types and structural diversity (#13) is high or contains plant association listed as "S2" by the MTNHP			AA does not contain previously cited rare types or associations and structural diversity (#13) is low-moderate		
	rare	common	abundant	rare	common	abundant	rare	common	abundant
Estimated relative abundance (#11)	rare	common	abundant	rare	common	abundant	rare	common	abundant
Low disturbance at AA (#12i)	1H	.9H	.8H	.8H	.6M	.5M	.5M	.4M	.3L
Moderate disturbance at AA (#12i)	.9H	.8H	.7M	.7M	.5M	.4M	.4M	.3L	.2L
High disturbance at AA (#12i)	.8H	.7M	.6M	.6M	.4M	.3L	.3L	.2L	.1L

Comments: Floating vegetation mat is unique within the study area.

14L. Recreation/Education Potential: (affords "bonus" points if AA provides recreation or education opportunity)

i. Is the AA a known or potential rec./ed. site: (circle) ☒ (if 'Yes' continue with the evaluation; if 'No' then mark **NA** and proceed to the overall summary and rating page)

ii. Check categories that apply to the AA: ☒ Educational/scientific study; ☐ Consumptive rec.; ☐ Non-consumptive rec.; ☐ Other :

iii. Rating:

Known or Potential Recreation or Education Area	Known	Potential
Public ownership or public easement with general public access (no permission required)	.2H	.15H
Private ownership with general public access (no permission required)	.15H	.1M
Private or public ownership without general public access, or requiring permission for public access	.1M	.05L

Comments: Floating mats could be studied.

General Site Notes
Most complex wetland within the study area: areas of open water surrounded by a floating mat of herbaceous vegetation, a PSS wetland, and riparian buffer.

FUNCTION & VALUE SUMMARY & OVERALL RATING FOR WETLAND/SITE #(S): WL-11

Function & Value Variables	Rating	Actual Functional Points	Possible Functional Points	Functional Units: (Actual Points x Wetland Acreage)	Indicate the four most prominent functions with an asterisk (*)
A. Listed/Proposed T&E Species Habitat	L	0.10	1	0.09	
B. MT Natural Heritage Program Species Habitat	L	0.10	1	0.09	
C. General Wildlife Habitat	H	0.80	1	0.74	*
D. General Fish Habitat	NA				
E. Flood Attenuation	NA				
F. Short and Long Term Surface Water Storage	H	1.00	1	0.92	*
G. Sediment/Nutrient/Toxicant Removal	H	1.00	1	0.92	*
H. Sediment/Shoreline Stabilization	H	1.00	1	0.92	
I. Production Export/Food Chain Support	M	0.70	1	0.65	
J. Groundwater Discharge/Recharge	H	1.00	1	0.92	*
K. Uniqueness	L	0.30	1	0.28	
L. Recreation/Education Potential (bonus points)	H	0.15	1	0.14	
Totals:		6.15	9.00	5.67	
Percent of Possible Score			68%		

Category I Wetland: (must satisfy one of the following criteria; otherwise go to Category II)

- ☐ Score of 1 functional point for Listed/Proposed Threatened or Endangered Species; **or**
☐ Score of 1 functional point for Uniqueness; **or**
☐ Score of 1 functional point for Flood Attenuation and answer to Question 14E.ii is "yes"; **or**
☐ Percent of possible score > 80% (round to nearest whole #).

Category II Wetland: (Criteria for Category I not satisfied and meets any one of the following criteria; otherwise go to Category IV)

- ☐ Score of 1 functional point for MT Natural Heritage Program Species Habitat; **or**
☐ Score of .9 or 1 functional point for General Wildlife Habitat; **or**
☐ Score of .9 or 1 functional point for General Fish Habitat; **or**
☐ "High" to "Exceptional" ratings for **both** General Wildlife Habitat **and** General Fish/Aquatic Habitat; **or**
☐ Score of .9 functional point for Uniqueness; **or**
☒ Percent of possible score > 65% (round to nearest whole #).

Category III Wetland: (Criteria for Categories I, II, or IV not satisfied)

Category IV Wetland: (Criteria for Categories I or II are not satisfied and all of the following criteria are met; otherwise go to Category III)

- ☒ "Low" rating for Uniqueness; **and**
☒ Vegetated wetland component 1 acre (do not include upland vegetated buffer); **and**
☐ Percent of possible score 35% (round to nearest whole #).

OVERALL ANALYSIS AREA RATING: II

Summary Comments: This wetland would be a good model for mitigation wetlands.

Montana Department of Transportation

Aquatic Resources Finding Report

Agency/Firm Name: **Jacobs**

Date: **August 4, 2026**

Prepared By: **Rachel Newton**

Position Title of Preparer: **Senior Wetland Scientist**

Project (Name, Number, UPN): **US 93 Wildlife Overpass Project SSS 5-2(204)41, 10567000**

Watershed: **Lower Clark Fork #3**

Project Description

The US 93 Wildlife Overpass Project will construct a wildlife overpass near RP 41.5 spanning US 93. Overpass structure type, and associated wildlife features (e.g., approach slopes, noise and light reduction measures) will be determined by the design team. Associated roadway reconstruction includes new surfacing, shoulder widening, drainage upgrades, slope flattening, and increased traffic signage. Wildlife exclusion fencing 8-feet tall will be installed within the project on both the east and west sides of US 93 between RP 41.36 and 41.57 and integrated with the overpass structure. Wildlife fencing connections will extend from RP 41.57 to approximately RP 42.05 (i.e., the intersection of US 93 and MT-212) on both sides of US 93. If appropriate and feasible, a single-strand electrified wire may be installed along the exclusion fencing, and selected approaches within the project area may have cattle/wildlife guards and/or electrified mats installed. Turtle exclusion fencing may be installed throughout portions of the project where warranted and appropriate. Additional mainline roadway transition work will extend from RP 41.57 to RP 41.65. A temporary detour may be implemented during construction within the project limits.

Project Location

County: **Lake County**

Route/Highway: **US Highway 93**

From RP: **41.36** to RP: **42.05**

Nearest Town: **Ronan, MT**

Methods

Before the field survey, the following sources were reviewed for information on soils, hydrology, and existing wetlands:

- U.S. Geological Survey topographic maps
- National Wetland Inventory (USFWS 2025)
- National Hydrography Dataset (USGS 2025)
- U.S. Department of Agriculture Natural Resources Conservation Service Web Soil Survey (2025)
- Satellite imagery (ESRI 2021)

The aquatic resource delineation and assessment followed:

- *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987)
- *Ordinary High Water Mark (OHWM) Identification* Regulatory Guidance Letter No. 05-05 (USACE 2005)
- *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region*, Version 2.0 (USACE 2010)
- *National Ordinary High Water Mark Field Delineation Manual for Rivers and Streams*: Final Version (David et al. 2025)
- National Wetland Plant List, version 3.6 (USACE 2022)
- *Montana Wetland Assessment Method (MWAM)* (Berglund and McEldowney 2008)
- *MDT Wetland and Stream Delineation Process* (MDT 2020)
- *Montana Stream Mitigation Procedure* (USACE 2013)

Where aquatic resources were identified, feature boundaries were mapped using a handheld global positioning system (GPS) unit with submeter accuracy set to collect points at 2-second intervals. Data were collected in WGS 84. Geographic information system (GIS) data were post-processed using ArcPRO 3.4.4.

The delineation for the Project was conducted by Jacobs biologists Rachel Newton and John Mulligan and DJ&A biologists Brian Stockowitz and Allison Hendryx from May 19 through 22, 2025. The study area consisted of a 150-foot buffer off the US Highway 93 centerline and a 30-foot buffer off the centerline of smaller arterial roads. A 350-foot buffer off centerline to the east was included at Kettle Pond 1 to accommodate potential detours. The Project limits encompass 34.97 acres within the larger aquatic resource study area. Delineated aquatic resources total 8.575 acres across 13 features (Table 1). No natural drainage systems with a defined bed and bank were identified during the delineation. Figures presenting the delineated aquatic resources are included in Attachment A. USACE datasheets are included in Attachment B. Photographic documentation is presented in Attachment C, and MWAM forms are in Attachment D.

Table 1. Characteristics of Wetlands within the US 93 Wildlife Overpass Project

Wetland ID #	Latitude ^[a]	Longitude ^[a]	MWAM Category ^[b]	Water Regime	Cowardin Class/ Modifier ^[c]	HGM Class	Dominant Vegetation
WL-11	47.445976	-114.097345	II	PP	Open Water, PAB, and PSS	depressional	black hawthorn, redosier dogwood, Nebraska sedge, water sedge, broadleaf cattail, duckweed
WL-12	47.447058	-114.096765	IV	SI	PEM	depressional	Nebraska sedge
WL-13	47.447389	-114.096572	III	PP	Open Water, PEM, and PSS	depressional	reed canarygrass, Nebraska sedge, redosier dogwood, Bebb's willow
WL-14a	47.448938	-114.096776	IV	SI	PEM	depressional	broadleaf cattail
WL-14b	47.449272	-114.09678	IV	SI	PEM	depressional	needle spikerush
WL-15	47.451411	-114.097338	III	PP	Open Water and PEM	depressional	reed canarygrass, common threesquare, Nebraska sedge
WL-16	47.451345	-114.096383	III	PP	Open Water and PEM	depressional	reed canarygrass, common threesquare
WL-17	47.453173	-114.096743	IV	SI	PEM	depressional	broadleaf cattail
WL-18	47.454465	-114.097265	III	SI	PEM	depressional	broadleaf cattail
WL-19	47.454746	-114.09653	III	PP	Open Water and PEM	depressional	broadleaf cattail, rough bentgrass
WL-20	47.455311	-114.097401	III	PP	Open Water and PEM	depressional	reed canarygrass
WL-21	47.456154	-114.096574	III	PP	Open Water and PEM	depressional	Baltic rush
WL-22a	47.456946	-114.09852	IV	SI	PEM	depressional	broadleaf cattail, Baltic rush, reed canarygrass

^[a] Latitudes and longitudes reflect wetland centroids.

^[b] Categories defined by the *Montana Wetland Assessment Method (MWAM)* (Berglund, J., and R. McEldowney 2008)

^[c] Class defined by Cowardin L.M., V.C. Carter, F.C. Golet, and E.T. LaRoe. 1979. *Classification of Wetlands and Deepwater Habitats of the United States*. U.S. Fish and Wildlife Service. FWS/OBS 79/31. Washington, D.C.

Wetlands Discussion

A total of 0.06 acre of permanent wetland impacts is anticipated from the Project. Table 2 presents a summary of impacts by acreage and functional points. A summary of each impacted wetland is presented below.

Wetland (WL-) 12 is a depressional palustrine emergent (PEM) wetland in the eastern ditch of US 93 at approximate STA 511+64 to 511+92 RT. WL-12 appears to be isolated. Vegetation is dominated by Nebraska sedge (*Carex nebrascensis*, obligate [OBL]). Observed hydric soil indicators included depleted matrix and depleted below dark surface. Wetland hydrology indicators consisted of geomorphic position and a positive FAC-neutral test. Adjacent uplands are dominated by smooth brome (*Bromus inermis*, upland [UPL]). WL-12 received a Category IV MWAM rating.

WL-13 is a depressional prairie pothole wetland complex with open water, PEM, and palustrine scrub-shrub (PSS) components. WL-13 is located on the eastern side of US-93 at approximate STA 511+98 to 513+94 RT and appears to be isolated. Dominant woody species include redosier dogwood (*Cornus alba*, facultative wetland [FACW]) and Bebb's willow (*Salix bebbiana*, FACW). The herbaceous layer is dominated by reed canarygrass (*Phalaris arundinacea*, FACW), Nebraska sedge, Canada thistle (*Cirsium arvense*, facultative [FAC]), and largeleaf avens (*Geum macrophyllum*, FACW). Soils met the depleted below dark surface and depleted matrix hydric soil indicators. Observed wetland hydrology indicators included surface water, saturation, dry season water table, geomorphic position, and a positive FAC-neutral test. Neighboring uplands are dominated by smooth brome. WL-13 received a Category III MWAM rating.

WL-14a and WL-14b are PEM wetlands in the eastern ditch of US 93. These wetlands are connected via a drainage ditch culvert but otherwise appear to be isolated. WL-14a is found at approximate STA 518+57 to 518+70 RT, and WL-14b is found at approximate STA 519+17 to 520+53 RT. Dominant hydrophytic vegetation consists of needle spikerush (*Eleocharis acicularis*, OBL) and broadleaf cattail (*Typha latifolia*, OBL). Observed hydric soil indicators included depleted matrix and depleted below dark surface. Wetland hydrology indicators included surface water, high water table, saturation, algal mat, geomorphic position, and a positive FAC-neutral test. Adjacent uplands are dominated by smooth brome. WL-14a and WL-14b received Category IV MWAM ratings.

Table 2. Permanent Wetland Impacts from the US 93 Wildlife Overpass Project

Wetland #	Delineated Acres	Impacted Acres	Actual MWAM Functional Points	Impacted Functional Units (Impacted Acres x Functional Points)	Connection to a WOTUS
WL-11	0.238 ^[a]	0.000	6.15	0.000	No
WL-12	0.006	0.005	1.70	0.009	No
WL-13	0.360	0.036	3.70	0.159	No
WL-14a	0.001	0.001	1.70	0.002	No
WL-14b	0.017	0.017	1.70	0.029	No
WL-15	2.113	0.000	5.60	0.000	No
WL-16	2.591	0.000	5.60	0.000	No
WL-17	0.004	0.000	1.70	0.000	No
WL-18	0.481	0.000	2.90	0.000	No
WL-19	1.115	0.000	3.70	0.000	No
WL-20	0.174	0.000	3.70	0.000	No
WL-21	0.180	0.000	3.70	0.000	No
WL-22a	0.371	0.000	1.70	0.000	No
Total	7.65	0.06	-----	0.20	-----

^[a] WL-11 extends south outside the Wildlife Overpass Project study area with a total delineated area of 1.161 acres.

Avoidance and Minimization

Permanent wetland impacts at the 30 percent milestone totaled 0.469 acre across 7 wetlands. Design progression reduced these impacts by 0.399 acre to 0.059 acre across 4 wetlands. This decrease was achieved by lowering the roadway and path profiles in select locations, steepening fill slopes, and removing segments of the shared-use path.

WL-11, WL-15 and WL-16 were completely avoided, reducing impacts by 0.346 acre. Avoidance of WL-15 and WL-16 was accomplished by lowering the roadway profile, using variable 2.5:1 to 3:1 surfacing inslopes and fill slopes behind the guardrail and removing the shared-use path in this location. WL-11 was avoided by lowering the roadway profile, steepening the special borrow inslope to 5:1 at the northern end of the wetland, and adding a guardrail.

Impacts to WL-13 were reduced by lowering the profile of the multi-use path and steepening fill slopes. Impacts to WL-13 were reduced from an initial 0.099 acre to 0.036 acre. Lowering the roadway profile, providing a 3-foot recovery area using 6:1 slope for the shared-use path, followed by a variable fill slope ranging from 3:1 to 4:1 resulted in the 0.063-acre decrease.

General design progression reduced impacts to WL-12 by 0.001 acre to 0.005 acre.

Compensatory Mitigation

Wetland impacts generated from this project are below the 0.10 acre threshold for compensatory mitigation. Therefore, mitigation will occur under the FHWA EO 11990 at MDT's Finley Flats mitigation site. Permanent impacts to wetlands on CSKT lands will be mitigated at a minimum 3:1 ratio and will occur at MDT's Bouchard wetland mitigation site.

Streams Discussion

No stream features were delineated within the project area. Therefore, no stream mitigation is required.

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Attachments

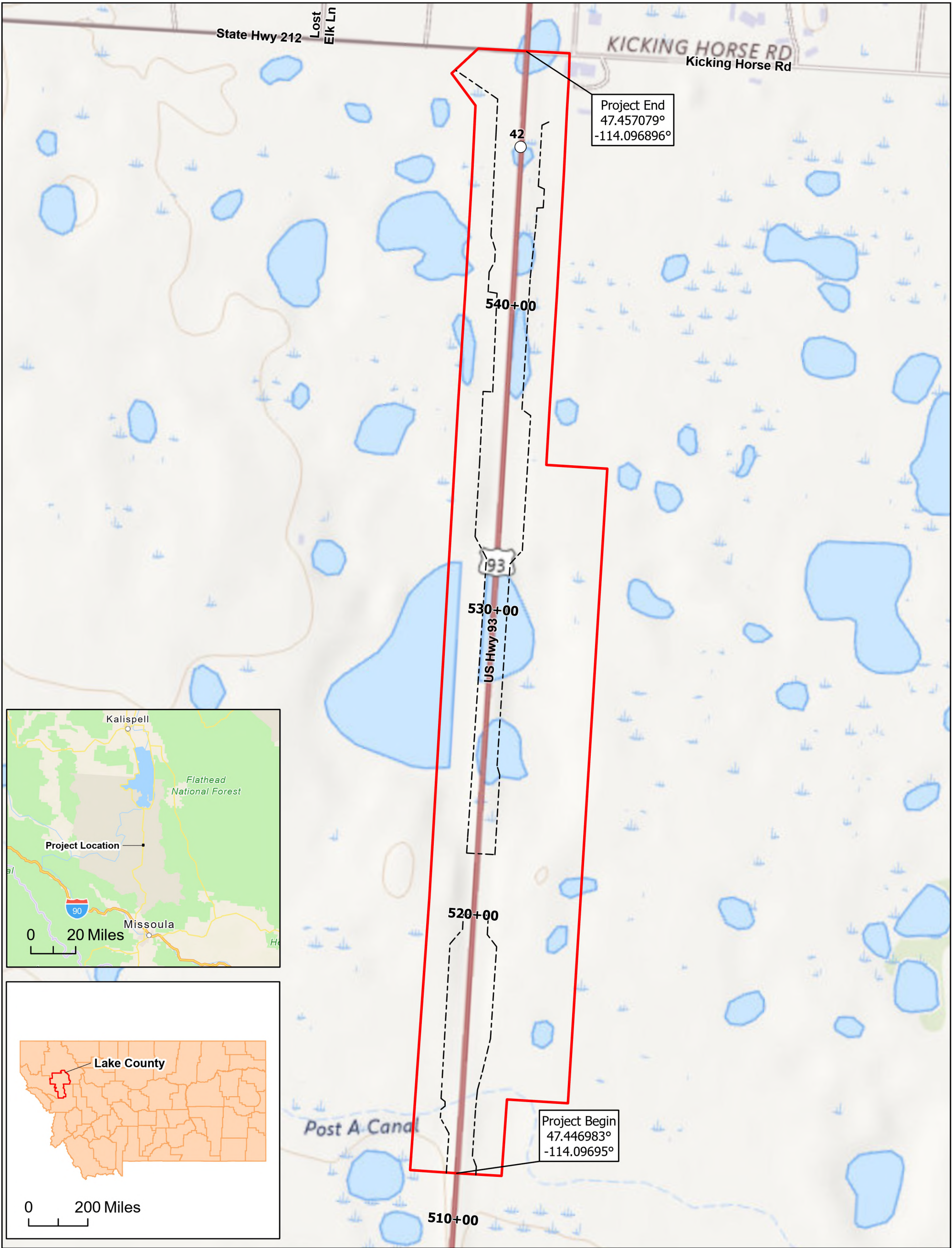
- A Figures
- B USACE Wetland Determination Datasheets for Delineated Features
- C Photo Log
- D Montana Wetland Assessment Method Forms

Attachment A

Figures

1 Project Location

2 Potential Wetlands and Waters of the US



- Legend**
- US-93 Wildlife Overpass (34.97 ac.)
 - Proposed Fencing
 - Mile Posts
 - Stationing

NAD 1983 (2011) StatePlane Montana FIPS 2500 (Intl Feet)
Projection Lambert Conformal Conic
WKID 6515
Linear Unit Feet (0.3048)
False Easting 1968503.937007874
False Northing 0.0
Central Meridian -109.5
Standard Parallel 1 45.0
Standard Parallel 2 49.0
Latitude Of Origin 44.25
USGS Quads: Fort Connah, 2020

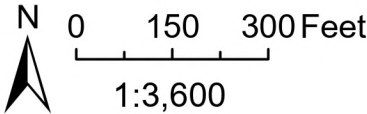
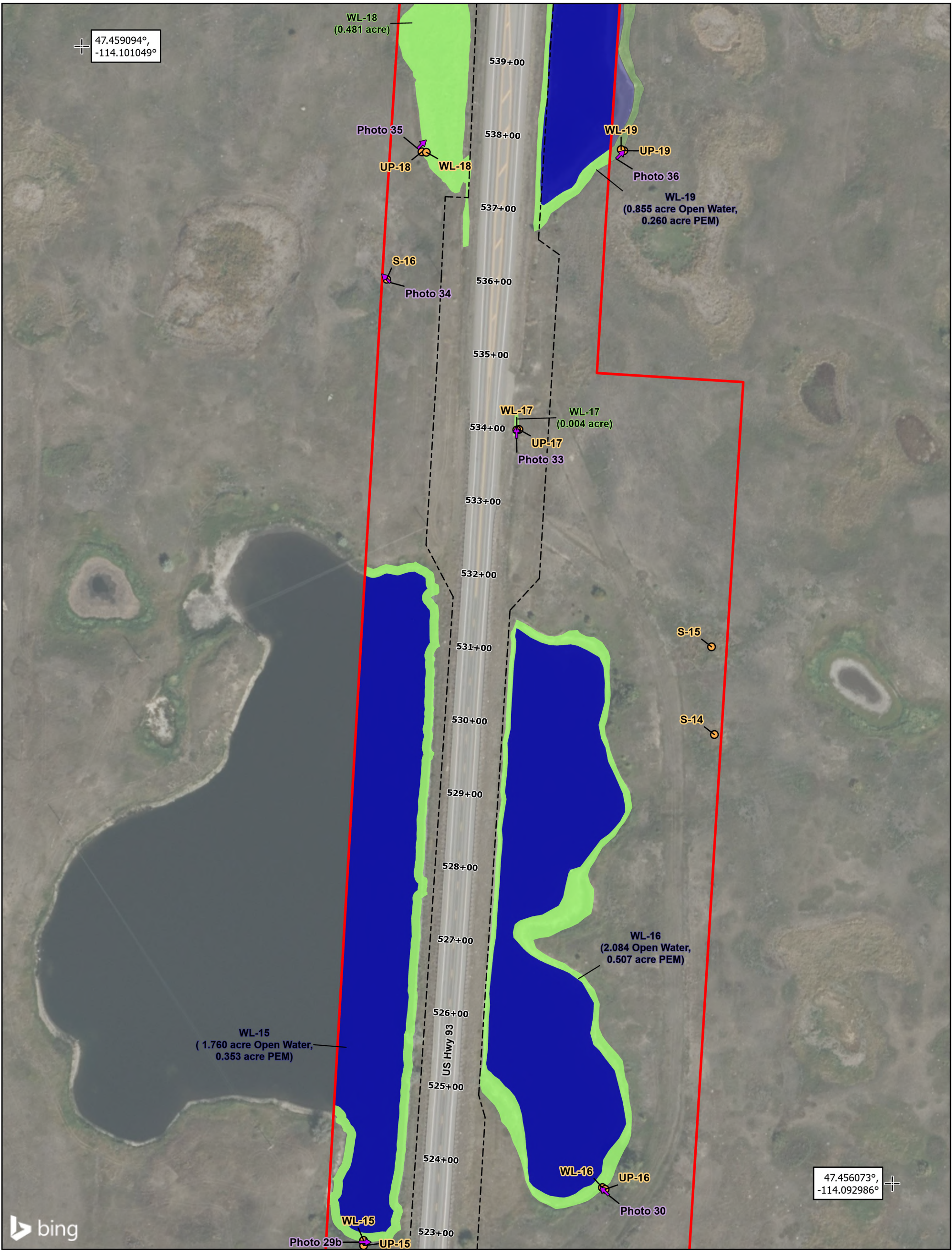


Figure 1
Regional Vicinity Map
 Aquatic Resources Finding Report
 US 93 Wildlife Overpass Project
 SSS 5-2(204)41, 10567000
 Montana Department of Transportation
 Lake County, MT

Image Source: USGS National Map
 Figure created by Jill Rosenberger/JACOBS, revised 5/21/2026



Legend

- US-93 Wildlife Overpass (34.97 ac.)
- Proposed Fencing
- Stationing
- Mile Posts
- Sample Point
- Photo Point

Delineated Features

- PEM Wetland
- Open Water

Figure 2B

Potential Wetlands and Waters of the US

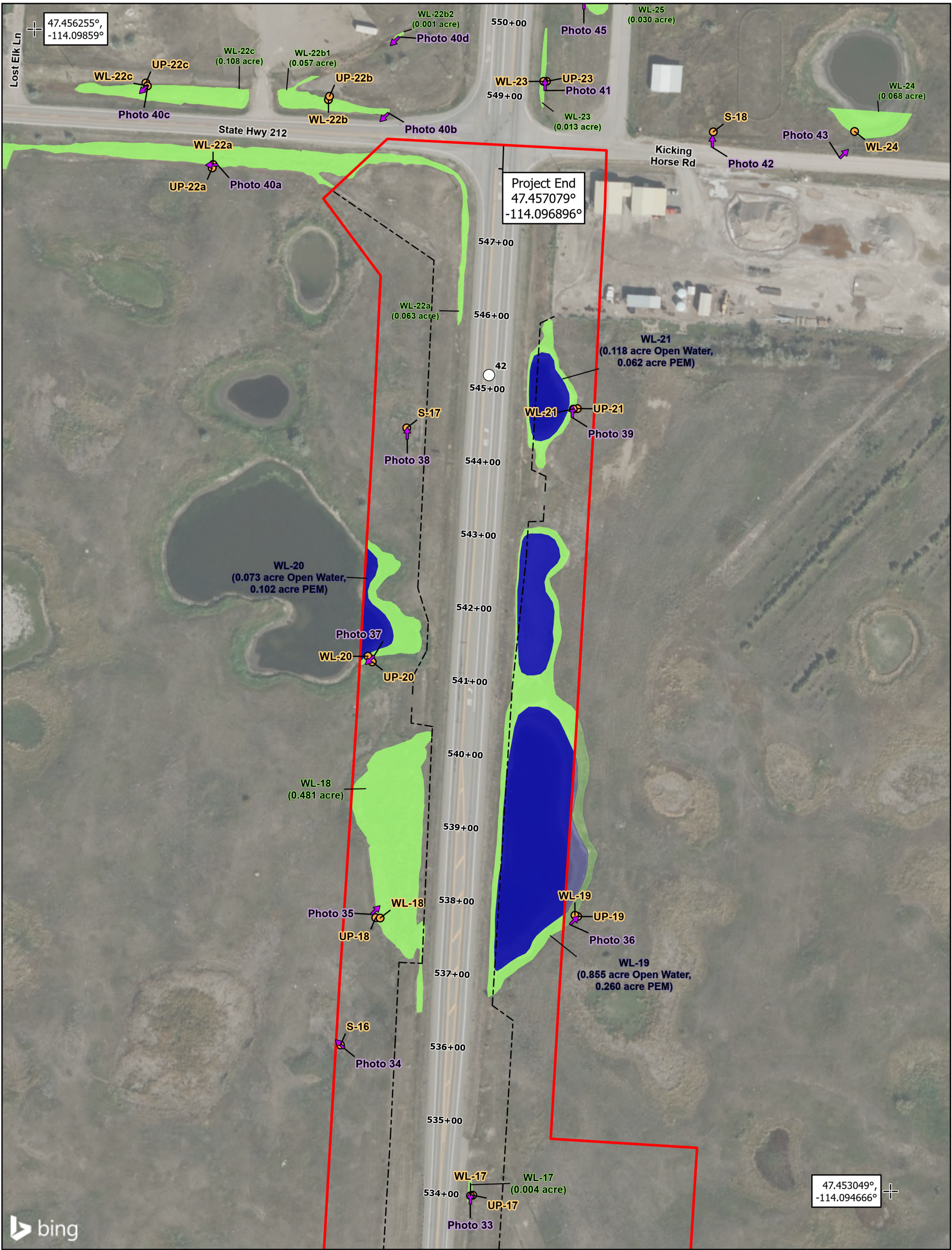
Aquatic Resources Finding Report

US 93 Wildlife Overpass Project

SSS 5-2(204)41, 10567000

Montana Department of Transportation

Lake County, MT



- Legend**

 - US-93 Wildlife Overpass (34.97 ac.)
 - Proposed Fencing
 - Stationing
 - Mile Posts
 - Sample Point
 - Photo Point
- Delineated Features**

 - PEM Wetland
 - Open Water

Figure 2C
Potential Wetlands and Waters of the US
Aquatic Resources Finding Report
US 93 Wildlife Overpass Project
SSS 5-2(204)41, 10567000
Montana Department of Transportation
Lake County, MT

Delineation completed by J. Mulligan/JACOBS
and A. Hendryx, 5/11/2026,
R. Newton and J. Mulligan/JACOBS
and B. Stockowitz and A. Hendryx/DJ&A, May 19 - 23, 2025.

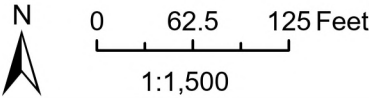


Image Source: Bing Aerial
Figure created by Jill Rosenberger/JACOBS, revised 5/21/2026

Attachment B
USACE Wetland Determination Datasheets for Delineated
Features

Wetland Determination Data Form - Western Mountains, Valleys, and Coast Region

Project/Site: US93 Ninepipes City/County: Lake County Sampling Date: 5/19/2025
 Applicant/Owner: Montana Department of Transportation State: MT Sampling Point: WL-11a
 Investigator(s): B. Stockowitz and A. Hendryx Section, Township, Range: S35 T20N R20W
 Landform (*hillslope, terrace, etc.*): Depression Local Relief (*concave, convex, none*): Concave Slope (%): 0-2
 Subregion (LRR): E - Rocky Mtn. Forests and Rangeland Lat. 47.445914 Long: -114.097305 Datum: WGS 84
 Soil Map Unit Name: Post silty clay loam, 2 to 4 percent slopes NWI Classification: PSS

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No X (If no, explain in Remarks)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes X No
 Hydric Soil Present? Yes X No Is the Sampled Area within a Wetland? Yes X No
 Wetland Hydrology Present? Yes X No

Remarks:

Depressional WL-11 wetland, open water and fringing PSS, on the western side of US 93. Appears to be isolated; driveway culvert at southern end is perched above the ground surface. The APT determined drought conditions. Approx. 1.34" precip recorded in the 10 days prior to survey and approx. 0.25" precip recorded during the four-day survey period (Ronan Mesonet station).

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: <u>r = 30 ft.</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:			
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A)			
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Total Number of Dominant Species Across All Strata: <u>4</u> (B)			
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)			
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>				
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>				
<u>0</u> = Total Cover							
Sapling/Shrub Stratum (Plot size: <u>r = 15 ft.</u>)				Prevalence Index Worksheet:			
1. <u>Crataegus douglasii</u>	<u>40</u>	<u>Y</u>	<u>FAC</u>	Total % Cover of: <u> </u> Multiply by: <u> </u>			
2. <u>Cornus alba</u>	<u>30</u>	<u>Y</u>	<u>FACW</u>	OBL species	<u>13</u>	x 1 =	<u>13</u>
3. <u>Salix lutea</u>	<u>10</u>	<u>N</u>	<u>OBL</u>	FACW species	<u>32</u>	x 2 =	<u>64</u>
4. <u>Lonicera tatarica</u>	<u>10</u>	<u>N</u>	<u>FACU</u>	FAC species	<u>40</u>	x 3 =	<u>120</u>
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>	FACU species	<u>10</u>	x 4 =	<u>40</u>
<u>90</u> = Total Cover				UPL species	<u>0</u>	x 5 =	<u>0</u>
				Column Totals:	<u>95</u> (A)		<u>237</u> (B)
				Prevalence Index = B/A = <u>2.5</u>			
Herb Stratum (Plot size: <u>r = 5 ft.</u>)				Hydrophytic Vegetation Indicators:			
1. <u>Carex nebrascensis</u>	<u>3</u>	<u>Y</u>	<u>OBL</u>	<u> </u> 1. Rapid Test for Hydrophytic Vegetation			
2. <u>Solidago sp.</u>	<u>5</u>	<u>N</u>	<u>-</u>	<u>X</u> 2. Dominance Test is >50%.			
3. <u>Phalaris arundinacea</u>	<u>2</u>	<u>Y</u>	<u>FACW</u>	<u>X</u> 3. Prevalence Index is ≤3.0 ¹			
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u> 4. Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)			
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u> 5. Wetland Non-Vascular Plants ¹			
6. <u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u> Problematic Hydrophytic Vegetation (Explain)			
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>				
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>				
9. <u> </u>	<u> </u>	<u> </u>	<u> </u>				
10. <u> </u>	<u> </u>	<u> </u>	<u> </u>				
<u>10</u> = Total Cover							
Woody Vine Stratum (Plot size: <u>n/a</u>)				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.			
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>				
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>				
<u>0</u> = Total Cover							
% Bare Ground in Herb Stratum	<u>90</u> %			Hydrophytic Vegetation Present? <u>X</u> Yes <u> </u> No <u> </u>			

Remarks: Ground cover in herb stratum is predominately willow duff/leaf litter.

Profile Description: *(Describe to the depth needed to document the indicator or confirm the absence of indicators.)*

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0–4	10YR 3/1	100					Loam	
4–18	10 YR 6/1	100					Clay Loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

☐ Histosol (A1)	☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G)
☐ Histic Epipedon (A2)	☐ Sandy Gleyed Matrix (S4)
☐ Black Histic (A3)	☐ Sandy Redox (S5)
☐ Hydrogen Sulfide (A4)	☐ Stripped Matrix (S6)
☐ 1 cm Muck (A9) (LRR D, G)	☐ Loamy Mucky Mineral (F1) (except MLRA 1)
☒ Depleted Below Dark Surface (A11)	☐ Loamy Gleyed Matrix (F2)
☐ Thick Dark Surface (A12)	☒ Depleted Matrix (F3)
☐ Iron Monosulfide (A18)	☐ Redox Dark Surface (F6)
☐ Sandy Mucky Mineral (S1)	☐ Depleted Dark Surface (F7)
	☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

☐ 2 cm Muck (A10) (LRRA, E)
☐ Iron-Manganese Masses (F12) (LRR D)
☐ Red Parent Material (F21)
☐ Very Shallow Dark Surface (F22)
☐ Other (Explain in Remarks)

³Indicators of hydrophylic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer: *(if observed)*

Type: _____
Depth (*inches*): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators *(minimum of one is required; check all that apply)*

☐ Surface Water (A1)
☒ High Water Table (A2)
☒ Saturation (A3)
☐ Water Marks (B1)
☐ Sediment Deposits (B2)
☐ Drift Deposits (B3)
☐ Algal Mat or Crust (B4)
☐ Iron Deposits (B5)
☐ Surface Soil Cracks (B6)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Sparsely Vegetated Concave Surface (B8)

Secondary Indicators *(minimum of two required)*

☐ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	☐ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
☐ Salt Crust (B11)	☐ Drainage Patterns (B10)
☐ Aquatic Invertebrates (B13)	☐ Dry-Season Water Table (C2)
☐ Hydrogen Sulfide Odor (C1)	☐ Saturation Visible on Aerial Imagery (C9)
☐ Oxidized Rhizospheres on Living Roots (C3)	☒ Geomorphic Position (D2)
☐ Presence of Reduced Iron (C4)	☐ Shallow Aquitard (D3)
☐ Recent Iron Reduction in Tilled Soils (C6)	☒ FAC-Neutral Test (D5)
☐ Stunted or Stressed Plants (D1) (LRR A)	☐ Raised Ant Mounds (D6) (LRR A)
☐ Other (Explain in Remarks)	☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes ☐ No ☒	Depth (<i>inches</i>)	☐	Wetland Hydrology Present?
Water Table Present?	Yes ☒ No ☐	Depth (<i>inches</i>)	8	
Saturation Present? <i>(includes capillary fringe)</i>	Yes ☒ No ☐	Depth (<i>inches</i>)	6	
				☒ Yes ☐ No

Remarks:

Wetland Determination Data Form - Western Mountains, Valleys, and Coast Region

Project/Site: US93 Ninepipes City/County: Lake County Sampling Date: 5/19/2025
 Applicant/Owner: Montana Department of Transportation State: MT Sampling Point: UP-11a
 Investigator(s): B. Stockowitz and A. Hendryx Section, Township, Range: S35 T20N R20W
 Landform (*hillslope, terrace, etc.*): Hillslope Local Relief (*concave, convex, none*): none/flat Slope (%): 0-2
 Subregion (LRR): E - Rocky Mtn. Forests and Rangeland Lat. 47.445871 Long: -114.097352 Datum: WGS 84
 Soil Map Unit Name: Post silty clay loam, 2 to 4 percent slopes NWI Classification: UPL

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No X (If no, explain in Remarks)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes No X
 Hydric Soil Present? Yes No X Is the Sampled Area within a Wetland? Yes No X
 Wetland Hydrology Present? Yes No X

Remarks:

Paired upland point for wetland sample point WL-11a. The APT determined drought conditions. Approx. 1.34" precip recorded in the 10 days prior to survey and approx. 0.25" precip recorded during the four-day survey period (Ronan Mesonet station).

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: r = 30 ft.)

	Absolute % Cover	Dominant Species?	Indicator Status
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>0</u> = Total Cover			

Sapling/Shrub Stratum (Plot size: r = 15 ft.)

1. <u>Lonicera tatarica</u>	<u>25</u>	<u>Y</u>	<u>FACU</u>
2. <u>Crataegus douglasii</u>	<u>15</u>	<u>Y</u>	<u>FAC</u>
3. <u>Cornus alba</u>	<u>10</u>	<u>Y</u>	<u>FACW</u>
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>50</u> = Total Cover			

Herb Stratum (Plot size: r = 5 ft.)

1. <u>Bromus inermis</u>	<u>80</u>	<u>Y</u>	<u>UPL</u>
2. <u>Dactylis glomerata</u>	<u>5</u>	<u>N</u>	<u>FACU</u>
3. <u>Lappula squarrosa</u>	<u>5</u>	<u>N</u>	<u>NI</u>
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>
6. <u> </u>	<u> </u>	<u> </u>	<u> </u>
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>
9. <u> </u>	<u> </u>	<u> </u>	<u> </u>
10. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>90</u> = Total Cover			

Woody Vine Stratum (Plot size: n/a)

1. <u> </u>	<u> </u>	<u> </u>	<u> </u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>0</u> = Total Cover			

% Bare Ground in Herb Stratum 10 %

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
 Total Number of Dominant Species Across All Strata: 4 (B)
 Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	<u>0</u>	x 1 =	<u>0</u>
FACW species	<u>10</u>	x 2 =	<u>20</u>
FAC species	<u>15</u>	x 3 =	<u>45</u>
FACU species	<u>30</u>	x 4 =	<u>120</u>
UPL species	<u>85</u>	x 5 =	<u>425</u>
Column Totals:	<u>140</u> (A)		<u>610</u> (B)
Prevalence Index = B/A =			<u>4.4</u>

Hydrophytic Vegetation Indicators:

1. Rapid Test for Hydrophytic Vegetation
 2. Dominance Test is >50%.
 3. Prevalence Index is ≤3.0¹
 4. Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 5. Wetland Non-Vascular Plants¹
- Problematic Hydrophytic Vegetation (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No

Remarks:

Species with no indicator (NI) are treated as UPL for this analysis.

Profile Description: *(Describe to the depth needed to document the indicator or confirm the absence of indicators.)*

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0–3	10YR 4/4	100					Loam	
3–16	10 YR 4/4	100					Clay Loam	90% gravel

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

☐ Histosol (A1)	☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G)
☐ Histic Epipedon (A2)	☐ Sandy Gleyed Matrix (S4)
☐ Black Histic (A3)	☐ Sandy Redox (S5)
☐ Hydrogen Sulfide (A4)	☐ Stripped Matrix (S6)
☐ 1 cm Muck (A9) (LRR D, G)	☐ Loamy Mucky Mineral (F1) (except MLRA 1)
☐ Depleted Below Dark Surface (A11)	☐ Loamy Gleyed Matrix (F2)
☐ Thick Dark Surface (A12)	☐ Depleted Matrix (F3)
☐ Iron Monosulfide (A18)	☐ Redox Dark Surface (F6)
☐ Sandy Mucky Mineral (S1)	☐ Depleted Dark Surface (F7)
	☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

☐ 2 cm Muck (A10) (LRRA, E)
☐ Iron-Manganese Masses (F12) (LRR D)
☐ Red Parent Material (F21)
☐ Very Shallow Dark Surface (F22)
☐ Other (Explain in Remarks)

³Indicators of hydrophylic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer: *(if observed)*

Type: _____
Depth (*inches*): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators *(minimum of one is required; check all that apply)*

☐ Surface Water (A1)
☐ High Water Table (A2)
☐ Saturation (A3)
☐ Water Marks (B1)
☐ Sediment Deposits (B2)
☐ Drift Deposits (B3)
☐ Algal Mat or Crust (B4)
☐ Iron Deposits (B5)
☐ Surface Soil Cracks (B6)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Sparsely Vegetated Concave Surface (B8)

Secondary Indicators *(minimum of two required)*

☐ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	☐ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
☐ Salt Crust (B11)	☐ Drainage Patterns (B10)
☐ Aquatic Invertebrates (B13)	☐ Dry-Season Water Table (C2)
☐ Hydrogen Sulfide Odor (C1)	☐ Saturation Visible on Aerial Imagery (C9)
☐ Oxidized Rhizospheres on Living Roots (C3)	☐ Geomorphic Position (D2)
☐ Presence of Reduced Iron (C4)	☐ Shallow Aquitard (D3)
☐ Recent Iron Reduction in Tilled Soils (C6)	☐ FAC-Neutral Test (D5)
☐ Stunted or Stressed Plants (D1) (LRR A)	☐ Raised Ant Mounds (D6) (LRR A)
☐ Other (Explain in Remarks)	☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes _____ No <u>X</u>	Depth (<i>inches</i>) _____	Wetland Hydrology Present? Yes _____ X _____ No _____
Water Table Present?	Yes _____ No <u>X</u>	Depth (<i>inches</i>) _____	
Saturation Present? <i>(includes capillary fringe)</i>	Yes _____ No <u>X</u>	Depth (<i>inches</i>) _____	

Remarks:

Wetland Determination Data Form - Western Mountains, Valleys, and Coast Region

Project/Site: US93 Ninepipes City/County: Lake County Sampling Date: 5/19/2025
 Applicant/Owner: Montana Department of Transportation State: MT Sampling Point: WL-11b
 Investigator(s): B. Stockowitz and A. Hendryx Section, Township, Range: S35 T20N R20W
 Landform (*hillslope, terrace, etc.*): Depression Local Relief (*concave, convex, none*): Concave Slope (%): 0-2
 Subregion (LRR): E - Rocky Mtn. Forests and Rangeland Lat. 47.446561 Long: -114.097177 Datum: WGS 84
 Soil Map Unit Name: Post silty clay loam, 2 to 4 percent slopes NWI Classification: PAB

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No X (If no, explain in Remarks)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes X No
 Hydric Soil Present? Yes X No Is the Sampled Area within a Wetland? Yes X No
 Wetland Hydrology Present? Yes X No

Remarks:

Depressional WL-11 wetland, palustrine floating vegetation mat PAB4H, on the western side of US 93. The APT determined drought conditions. Approx. 1.34" precip recorded in the 10 days prior to survey and approx. 0.25" precip recorded during the four-day survey period (Ronan Mesonet station).

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: r = 30 ft.) Absolute % Cover Dominant Species? Indicator Status
 1.
 2.
 3.
 4.
 5.
0 = Total Cover

Sapling/Shrub Stratum (Plot size: r = 15 ft.)
 1. Salix spp. 5 Y -
 2. Cornus alba 2 Y FACW
 3.
 4.
 5.
7 = Total Cover

Herb Stratum (Plot size: r = 5 ft.)
 1. Typha angustifolia 45 Y OBL
 2. Carex aquatilis 50 Y OBL
 3. Eleocharis acicularis 5 N OBL
 4.
 5.
 6.
 7.
 8.
 9.
 10.
100 = Total Cover

Woody Vine Stratum (Plot size: n/a)
 1.
 2.
0 = Total Cover

% Bare Ground in Herb Stratum 0 %

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 67% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	100	x 1 =	100
FACW species	2	x 2 =	4
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	102 (A)		104 (B)
Prevalence Index = B/A =		1.0	

Hydrophytic Vegetation Indicators:

1. Rapid Test for Hydrophytic Vegetation
- X 2. Dominance Test is >50%.
- X 3. Prevalence Index is ≤3.0¹
4. Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
5. Wetland Non-Vascular Plants¹
- Problematic Hydrophytic Vegetation (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? X Yes No

Remarks:

Vegetation growing on floating organic mat made up of partially decayed plant material and mosses. Other species observed within delineated feature: bulrush (Schoenoplectus spp.), bladderwort (Utricularia spp.), duckweed (Lemna spp.), and aquatic mosses.

Profile Description: *(Describe to the depth needed to document the indicator or confirm the absence of indicators.)*

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0–8	10YR 4/4	100					OTHER	decomp. organic material
8–12	10YR 4/4	50					OTHER	H2S odor. Mixed roadbase materials
	10YR 6/1	50						washed in
12								water

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

	Histosol (A1)	2.5 cm Mucky Peat or Peat (S2) (LRR G)
X	Histic Epipedon (A2)	Sandy Gleyed Matrix (S4)
	Black Histic (A3)	Sandy Redox (S5)
X	Hydrogen Sulfide (A4)	Stripped Matrix (S6)
	1 cm Muck (A9) (LRR D, G)	Loamy Mucky Mineral (F1) (except MLRA 1)
	Depleted Below Dark Surface (A11)	Loamy Gleyed Matrix (F2)
	Thick Dark Surface (A12)	Depleted Matrix (F3)
	Iron Monosulfide (A18)	Redox Dark Surface (F6)
	Sandy Mucky Mineral (S1)	Depleted Dark Surface (F7)
		Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

	2 cm Muck (A10) (LRRA, E)
	Iron-Manganese Masses (F12) (LRR D)
	Red Parent Material (F21)
	Very Shallow Dark Surface (F22)
	Other (Explain in Remarks)

³Indicators of hydrophylic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer: *(if observed)*

Type: _____
Depth (*inches*): _____

Hydric Soil Present? Yes X No _____

Remarks:

Floating mat of decomposing organic material and moss.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators *(minimum of one is required; check all that apply)*

X	Surface Water (A1)	Water-Stained Leaves (B9) (except
X	High Water Table (A2)	MLRA 1, 2, 4A, and 4B)
X	Saturation (A3)	Salt Crust (B11)
	Water Marks (B1)	X Aquatic Invertebrates (B13)
	Sediment Deposits (B2)	X Hydrogen Sulfide Odor (C1)
	Drift Deposits (B3)	Oxidized Rhizospheres on Living Roots (C3)
	Algal Mat or Crust (B4)	Presence of Reduced Iron (C4)
	Iron Deposits (B5)	Recent Iron Reduction in Tilled Soils (C6)
	Surface Soil Cracks (B6)	Stunted or Stressed Plants (D1) (LRR A)
X	Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)
	Sparsely Vegetated Concave Surface (B8)	

Secondary Indicators *(minimum of two required)*

	Water-Stained Leaves (B9)
	(MLRA 1, 2, 4A, and 4B)
	Drainage Patterns (B10)
X	Dry-Season Water Table (C2)
	Saturation Visible on Aerial Imagery (C9)
X	Geomorphic Position (D2)
	Shallow Aquitard (D3)
	FAC-Neutral Test (D5)
	Raised Ant Mounds (D6) (LRR A)
	Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes <u>X</u> No _____	Depth (<i>inches</i>)	<u>6</u>	Wetland Hydrology Present?
Water Table Present?	Yes <u>X</u> No _____	Depth (<i>inches</i>)	<u>surface</u>	
Saturation Present? <i>(includes capillary fringe)</i>	Yes <u>X</u> No _____	Depth (<i>inches</i>)	<u>surface</u>	
				<u>X</u> Yes _____ No

Remarks: Iron oxidizing bacterial "scheen" on water surface.

Wetland Determination Data Form - Western Mountains, Valleys, and Coast Region

Project/Site: US93 Ninepipes City/County: Lake County Sampling Date: 5/19/2025
 Applicant/Owner: Montana Department of Transportation State: MT Sampling Point: UP-11b
 Investigator(s): B. Stockowitz and A. Hendryx Section, Township, Range: S35 T20N R20W
 Landform (*hillslope, terrace, etc.*): Hillslope (road prism) Local Relief (*concave, convex, none*): Convex Slope (%): 5-10
 Subregion (LRR): E - Rocky Mtn. Forests and Rangeland Lat. 47.446558 Long: -114.097154 Datum: WGS 84
 Soil Map Unit Name: Post silty clay loam, 2 to 4 percent slopes NWI Classification: UPL

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No X (*If no, explain in Remarks*)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation , Soil , or Hydrology naturally problematic? (*If needed, explain any answers in Remarks.*)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes X No
 Hydric Soil Present? Yes No X Is the Sampled Area within a Wetland? Yes No X
 Wetland Hydrology Present? Yes No X

Remarks:

Paired upland point for wetland sample point WL-11b. The APT determined drought conditions. Approx. 1.34" precip recorded in the 10 days prior to survey and approx. 0.25" precip recorded during the four-day survey period (Ronan Mesonet station).

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: <u>r = 30 ft.</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>67%</u> (A/B)
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
0 = Total Cover				
Sapling/Shrub Stratum (Plot size: <u>r = 15 ft.</u>)				
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
0 = Total Cover				
Herb Stratum (Plot size: <u>r = 5 ft.</u>)				
1. <u>Bromus inermis</u>	50	Y	UPL	
2. <u>Poa pratensis</u>	20	Y	FAC	
3. <u>Equisetum hyemale</u>	20	Y	FACW	
4. <u>Lactuca serriola</u>	10	N	FACU	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
6. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
9. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
10. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
100 = Total Cover				
Woody Vine Stratum (Plot size: <u>n/a</u>)				
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
0 = Total Cover				
% Bare Ground in Herb Stratum <u>0</u> %				
Prevalence Index Worksheet: Total % Cover of: <u> </u> Multiply by: <u> </u> OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>20</u> x 2 = <u>40</u> FAC species <u>20</u> x 3 = <u>60</u> FACU species <u>10</u> x 4 = <u>40</u> UPL species <u>50</u> x 5 = <u>250</u> Column Totals: <u>100</u> (A) <u>390</u> (B) Prevalence Index = B/A = <u>3.9</u>				
Hydrophytic Vegetation Indicators: <u> </u> 1. Rapid Test for Hydrophytic Vegetation <u>X</u> 2. Dominance Test is >50%. <u> </u> 3. Prevalence Index is ≤3.0 ¹ <u> </u> 4. Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> 5. Wetland Non-Vascular Plants ¹ <u> </u> Problematic Hydrophytic Vegetation (Explain)				
¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.				
Hydrophytic Vegetation Present? <u>X</u> Yes <u> </u> No				

Remarks:

SOIL

Sampling Point: **UP-11b****Profile Description:** *(Describe to the depth needed to document the indicator or confirm the absence of indicators.)*

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0–4	10YR 4/4	100					Loam	Coarse gravelly loam
4–14	10YR 4/4	100					Sandy Loam	
14–16	10YR 4/4	98	10YR 5/4	2	C	M	Sandy Loam	Faint redox

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators	2.5 cm Mucky Peat or Peat (S2) (LRR G)	Indicators for Problematic Hydric Soils³:
☐ Histosol (A1)	☐ Sandy Gleyed Matrix (S4)	☐ 2 cm Muck (A10) (LRR A, E)
☐ Histic Epipedon (A2)	☐ Sandy Redox (S5)	☐ Iron-Manganese Masses (F12) (LRR D)
☐ Black Histic (A3)	☐ Stripped Matrix (S6)	☐ Red Parent Material (F21)
☐ Hydrogen Sulfide (A4)	☐ Loamy Mucky Mineral (F1) (except MLRA 1)	☐ Very Shallow Dark Surface (F22)
☐ 1 cm Muck (A9) (LRR D, G)	☐ Loamy Gleyed Matrix (F2)	☐ Other (Explain in Remarks)
☐ Depleted Below Dark Surface (A11)	☐ Depleted Matrix (F3)	³ Indicators of hydrophylic vegetation and wetland hydrology must be present, unless disturbed or problematic.
☐ Thick Dark Surface (A12)	☐ Redox Dark Surface (F6)	
☐ Iron Monosulfide (A18)	☐ Depleted Dark Surface (F7)	
☐ Sandy Mucky Mineral (S1)	☐ Redox Depressions (F8)	

Restrictive Layer: *(if observed)*Type: _____
Depth (inches): _____**Hydric Soil Present?** Yes _____ No ☒ X**Remarks:** Many coarse fragments throughout (base of road shoulder).

HYDROLOGY

Wetland Hydrology Indicators:Primary Indicators *(minimum of one is required; check all that apply)*

- ☐ Surface Water (A1)
☐ High Water Table (A2)
☐ Saturation (A3)
☐ Water Marks (B1)
☐ Sediment Deposits (B2)
☐ Drift Deposits (B3)
☐ Algal Mat or Crust (B4)
☐ Iron Deposits (B5)
☐ Surface Soil Cracks (B6)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Sparsely Vegetated Concave Surface (B8)

Secondary Indicators *(minimum of two required)*

- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
☐ Salt Crust (B11)
☐ Aquatic Invertebrates (B13)
☐ Hydrogen Sulfide Odor (C1)
☐ Oxidized Rhizospheres on Living Roots (C3)
☐ Presence of Reduced Iron (C4)
☐ Recent Iron Reduction in Tilled Soils (C6)
☐ Stunted or Stressed Plants (D1) (**LRR A**)
☐ Other (Explain in Remarks)
- ☐ Water-Stained Leaves (B9)
☐ (**MLRA 1, 2, 4A, and 4B**)
☐ Drainage Patterns (B10)
☐ Dry-Season Water Table (C2)
☐ Saturation Visible on Aerial Imagery (C9)
☐ Geomorphic Position (D2)
☐ Shallow Aquitard (D3)
☐ FAC-Neutral Test (D5)
☐ Raised Ant Mounds (D6) (**LRR A**)
☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes _____ No ☒ X	Depth (inches)	_____	Wetland Hydrology Present?
Water Table Present?	Yes _____ No ☒ X	Depth (inches)	_____	
Saturation Present? <i>(includes capillary fringe)</i>	Yes ☒ X No _____	Depth (inches)	14	

Remarks: No moisture.

Wetland Determination Data Form - Western Mountains, Valleys, and Coast Region

Project/Site: US 93 Ninepipes City/County: Lake County Sampling Date: 5/19/2025
 Applicant/Owner: Montana Department of Transportation State: MT Sampling Point: WL-12
 Investigator(s): R. Newton and J. Mulligan Section, Township, Range: S36 T20N R20W
 Landform (*hillslope, terrace, etc.*): roadside ditch Local Relief (*concave, convex, none*): concave Slope (%): 0-1
 Subregion (LRR): E - Rocky Mtn. Forests and Rangeland Lat. 47.447078 Long: -114.09678 Datum: WGS 84
 Soil Map Unit Name: Post silty clay loam, 2 to 4 percent slopes NWI Classification: PEM

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No X (If no, explain in Remarks)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes X No
 Hydric Soil Present? Yes X No Is the Sampled Area within a Wetland? Yes X No
 Wetland Hydrology Present? Yes X No

Remarks:

Depressional PEM wetland WL-12 within roadside ditch on the eastern side of US 93; appears to be isolated. The APT determined drought conditions. Approx. 1.34" precip recorded in the 10 days prior to survey and approx. 0.25" precip recorded during the four-day survey period (Ronan Mesonet station).

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: <u>r = 30 ft.</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:			
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)			
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Total Number of Dominant Species Across All Strata: <u>1</u> (B)			
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)			
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>				
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>				
<u>0</u> = Total Cover							
Sapling/Shrub Stratum (Plot size: <u>r = 15 ft.</u>)				Prevalence Index Worksheet:			
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Total % Cover of: <u> </u> Multiply by: <u> </u>			
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	OBL species	<u>73</u>	x 1 =	<u>73</u>
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	FACW species	<u>0</u>	x 2 =	<u>0</u>
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	FAC species	<u>22</u>	x 3 =	<u>66</u>
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>	FACU species	<u>0</u>	x 4 =	<u>0</u>
<u>0</u> = Total Cover				UPL species	<u>0</u>	x 5 =	<u>0</u>
				Column Totals:	<u>95</u> (A)		<u>139</u> (B)
				Prevalence Index = B/A = <u>1.5</u>			
Herb Stratum (Plot size: <u>r = 5ft.</u>)				Hydrophytic Vegetation Indicators:			
1. <u>Carex nebrascensis</u>	<u>65</u>	<u>Y</u>	<u>OBL</u>	<u>X</u> 1. Rapid Test for Hydrophytic Vegetation			
2. <u>Geum macrophyllum</u>	<u>12</u>	<u>N</u>	<u>FAC</u>	<u>X</u> 2. Dominance Test is >50%.			
3. <u>Persicaria amphibia</u>	<u>8</u>	<u>N</u>	<u>OBL</u>	<u>X</u> 3. Prevalence Index is ≤3.0 ¹			
4. <u>Cardamine oligosperma</u>	<u>10</u>	<u>N</u>	<u>FAC</u>	<u> </u> 4. Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)			
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u> 5. Wetland Non-Vascular Plants ¹			
6. <u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u> Problematic Hydrophytic Vegetation (Explain)			
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>				
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>				
9. <u> </u>	<u> </u>	<u> </u>	<u> </u>				
10. <u> </u>	<u> </u>	<u> </u>	<u> </u>				
<u>95</u> = Total Cover							
Woody Vine Stratum (Plot size: <u>n/a</u>)							
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>				
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>				
<u>0</u> = Total Cover							
% Bare Ground in Herb Stratum <u>5</u> %				Hydrophytic Vegetation Present? <u>X</u> Yes <u> </u> No <u> </u>			

Remarks:

SOIL

Sampling Point: **WL-12****Profile Description:** *(Describe to the depth needed to document the indicator or confirm the absence of indicators.)*

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 3	10 YR 3/2	100					Silty Clay	
3 - 13	10 YR 5/2	80	7.5 YR 5/6	20	C	M	Sandy Clay	70% cobbles and gravels
13								shovel refusal - cobble

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix**Hydric Soil Indicators**

☐ Histosol (A1)	☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G)
☐ Histic Epipedon (A2)	☐ Sandy Gleyed Matrix (S4)
☐ Black Histic (A3)	☐ Sandy Redox (S5)
☐ Hydrogen Sulfide (A4)	☐ Stripped Matrix (S6)
☐ 1 cm Muck (A9) (LRR D, G)	☐ Loamy Mucky Mineral (F1) (except MLRA 1)
☒ Depleted Below Dark Surface (A11)	☐ Loamy Gleyed Matrix (F2)
☐ Thick Dark Surface (A12)	☒ Depleted Matrix (F3)
☐ Iron Monosulfide (A18)	☐ Redox Dark Surface (F6)
☐ Sandy Mucky Mineral (S1)	☐ Depleted Dark Surface (F7)
	☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

☐ 2 cm Muck (A10) (LRRA, E)
☐ Iron-Manganese Masses (F12) (LRR D)
☐ Red Parent Material (F21)
☐ Very Shallow Dark Surface (F22)
☐ Other (Explain in Remarks)

³Indicators of hydrophylic vegetation and wetland hydrology must be present, unless disturbed or problematic.**Restrictive Layer:** *(if observed)*Type: _____
Depth (inches): _____**Hydric Soil Present?** Yes ☒ No ☐**Remarks:****HYDROLOGY****Wetland Hydrology Indicators:**Primary Indicators *(minimum of one is required; check all that apply)*

☐ Surface Water (A1)
☐ High Water Table (A2)
☐ Saturation (A3)
☐ Water Marks (B1)
☐ Sediment Deposits (B2)
☐ Drift Deposits (B3)
☐ Algal Mat or Crust (B4)
☐ Iron Deposits (B5)
☐ Surface Soil Cracks (B6)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Sparsely Vegetated Concave Surface (B8)

Secondary Indicators *(minimum of two required)*

☐ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	☐ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
☐ Salt Crust (B11)	☐ Drainage Patterns (B10)
☐ Aquatic Invertebrates (B13)	☐ Dry-Season Water Table (C2)
☐ Hydrogen Sulfide Odor (C1)	☐ Saturation Visible on Aerial Imagery (C9)
☐ Oxidized Rhizospheres on Living Roots (C3)	☒ Geomorphic Position (D2)
☐ Presence of Reduced Iron (C4)	☐ Shallow Aquitard (D3)
☐ Recent Iron Reduction in Tilled Soils (C6)	☒ FAC-Neutral Test (D5)
☐ Stunted or Stressed Plants (D1) (LRR A)	☐ Raised Ant Mounds (D6) (LRR A)
☐ Other (Explain in Remarks)	☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes ☐ No ☒	Depth (inches) _____	Wetland Hydrology Present? ☒ Yes ☐ No
Water Table Present?	Yes ☐ No ☒	Depth (inches) _____	
Saturation Present? <i>(includes capillary fringe)</i>	Yes ☐ No ☒	Depth (inches) _____	

Remarks:

Wetland Determination Data Form - Western Mountains, Valleys, and Coast Region

Project/Site: US 93 Ninepipes City/County: Lake County Sampling Date: 5/19/2025
 Applicant/Owner: Montana Department of Transportation State: MT Sampling Point: UP-12
 Investigator(s): R. Newton and J. Mulligan Section, Township, Range: S36 T20N R20W
 Landform (*hillslope, terrace, etc.*): roadslope Local Relief (*concave, convex, none*): none Slope (%): 0-1
 Subregion (LRR): E - Rocky Mtn. Forests and Rangeland Lat. 47.447074 Long: -114.096793 Datum: WGS 84
 Soil Map Unit Name: Post silty clay loam, 2 to 4 percent slopes NWI Classification: UPL

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No X (If no, explain in Remarks)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes No X
 Hydric Soil Present? Yes No X Is the Sampled Area within a Wetland? Yes No X
 Wetland Hydrology Present? Yes No X

Remarks:

Paired upland point for wetland sample point WL-12. The APT determined drought conditions. Approx. 1.34" precip recorded in the 10 days prior to survey and approx. 0.25" precip recorded during the four-day survey period (Ronan Mesonet station).

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: <u>r = 30 ft.</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)																																
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
<u>0</u> = Total Cover																																				
Sapling/Shrub Stratum (Plot size: <u>r = 15 ft.</u>)				Prevalence Index Worksheet: <table border="1"> <thead> <tr> <th colspan="2">Total % Cover of:</th> <th colspan="2">Multiply by:</th> </tr> </thead> <tbody> <tr><td>OBL species</td><td><u>15</u></td><td>x 1 =</td><td><u>15</u></td></tr> <tr><td>FACW species</td><td><u>0</u></td><td>x 2 =</td><td><u>0</u></td></tr> <tr><td>FAC species</td><td><u>0</u></td><td>x 3 =</td><td><u>0</u></td></tr> <tr><td>FACU species</td><td><u>0</u></td><td>x 4 =</td><td><u>0</u></td></tr> <tr><td>UPL species</td><td><u>70</u></td><td>x 5 =</td><td><u>350</u></td></tr> <tr><td>Column Totals:</td><td><u>85</u> (A)</td><td></td><td><u>365</u> (B)</td></tr> <tr><td colspan="2">Prevalence Index = B/A =</td><td colspan="2"><u>4.3</u></td></tr> </tbody> </table>	Total % Cover of:		Multiply by:		OBL species	<u>15</u>	x 1 =	<u>15</u>	FACW species	<u>0</u>	x 2 =	<u>0</u>	FAC species	<u>0</u>	x 3 =	<u>0</u>	FACU species	<u>0</u>	x 4 =	<u>0</u>	UPL species	<u>70</u>	x 5 =	<u>350</u>	Column Totals:	<u>85</u> (A)		<u>365</u> (B)	Prevalence Index = B/A =		<u>4.3</u>	
Total % Cover of:		Multiply by:																																		
OBL species	<u>15</u>	x 1 =	<u>15</u>																																	
FACW species	<u>0</u>	x 2 =	<u>0</u>																																	
FAC species	<u>0</u>	x 3 =	<u>0</u>																																	
FACU species	<u>0</u>	x 4 =	<u>0</u>																																	
UPL species	<u>70</u>	x 5 =	<u>350</u>																																	
Column Totals:	<u>85</u> (A)		<u>365</u> (B)																																	
Prevalence Index = B/A =		<u>4.3</u>																																		
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
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5. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
<u>0</u> = Total Cover																																				
Herb Stratum (Plot size: <u>r = 5ft.</u>)				Hydrophytic Vegetation Indicators: 1. Rapid Test for Hydrophytic Vegetation <u> </u> 2. Dominance Test is >50%. <u> </u> 3. Prevalence Index is ≤3.0 ¹ <u> </u> 4. Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> 5. Wetland Non-Vascular Plants ¹ <u> </u> Problematic Hydrophytic Vegetation (Explain) <u> </u> ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? <u> </u> Yes <u>X</u> No																																
1. <u>Bromus inermis</u>	<u>65</u>	<u>Y</u>	<u>UPL</u>																																	
2. <u>Carex nebrascensis</u>	<u>15</u>	<u>N</u>	<u>OBL</u>																																	
3. <u>Lappula squarrosa</u>	<u>5</u>	<u>N</u>	<u>NI</u>																																	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
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9. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
10. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
<u>85</u> = Total Cover																																				
Woody Vine Stratum (Plot size: <u>n/a</u>)																																				
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
<u>0</u> = Total Cover																																				
% Bare Ground in Herb Stratum	<u>15</u> %																																			

Remarks:

Species with no indicator (NI) are treated as UPL for this analysis.

SOIL

Sampling Point: **UP-12****Profile Description:** *(Describe to the depth needed to document the indicator or confirm the absence of indicators.)*

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 4	10 YR 4/3	100					Silty Clay	
4 - 12	10 YR 5/3	100					Silty Clay	70% cobbles and gravels
12								shovel refusal - cobbles

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix**Hydric Soil Indicators**

☐ Histosol (A1)	☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G)
☐ Histic Epipedon (A2)	☐ Sandy Gleyed Matrix (S4)
☐ Black Histic (A3)	☐ Sandy Redox (S5)
☐ Hydrogen Sulfide (A4)	☐ Stripped Matrix (S6)
☐ 1 cm Muck (A9) (LRR D, G)	☐ Loamy Mucky Mineral (F1) (except MLRA 1)
☐ Depleted Below Dark Surface (A11)	☐ Loamy Gleyed Matrix (F2)
☐ Thick Dark Surface (A12)	☐ Depleted Matrix (F3)
☐ Iron Monosulfide (A18)	☐ Redox Dark Surface (F6)
☐ Sandy Mucky Mineral (S1)	☐ Depleted Dark Surface (F7)
	☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

☐ 2 cm Muck (A10) (LRRA, E)
☐ Iron-Manganese Masses (F12) (LRR D)
☐ Red Parent Material (F21)
☐ Very Shallow Dark Surface (F22)
☐ Other (Explain in Remarks)

³Indicators of hydrophylic vegetation and wetland hydrology must be present, unless disturbed or problematic.**Restrictive Layer:** *(if observed)*
Type: _____
Depth (*inches*): _____
Hydric Soil Present? Yes _____ No X**Remarks:**

Road fill throughout the profile.

HYDROLOGY**Wetland Hydrology Indicators:**Primary Indicators *(minimum of one is required; check all that apply)*

☐ Surface Water (A1)
☐ High Water Table (A2)
☐ Saturation (A3)
☐ Water Marks (B1)
☐ Sediment Deposits (B2)
☐ Drift Deposits (B3)
☐ Algal Mat or Crust (B4)
☐ Iron Deposits (B5)
☐ Surface Soil Cracks (B6)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Sparsely Vegetated Concave Surface (B8)

Secondary Indicators *(minimum of two required)*

☐ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	☐ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
☐ Salt Crust (B11)	☐ Drainage Patterns (B10)
☐ Aquatic Invertebrates (B13)	☐ Dry-Season Water Table (C2)
☐ Hydrogen Sulfide Odor (C1)	☐ Saturation Visible on Aerial Imagery (C9)
☐ Oxidized Rhizospheres on Living Roots (C3)	☐ Geomorphic Position (D2)
☐ Presence of Reduced Iron (C4)	☐ Shallow Aquitard (D3)
☐ Recent Iron Reduction in Tilled Soils (C6)	☐ FAC-Neutral Test (D5)
☐ Stunted or Stressed Plants (D1) (LRR A)	☐ Raised Ant Mounds (D6) (LRR A)
☐ Other (Explain in Remarks)	☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes _____ No <u>X</u>	Depth (<i>inches</i>) _____	Wetland Hydrology Present? Yes _____ No <u>X</u>
Water Table Present?	Yes _____ No <u>X</u>	Depth (<i>inches</i>) _____	
Saturation Present? <i>(includes capillary fringe)</i>	Yes _____ No <u>X</u>	Depth (<i>inches</i>) _____	

Remarks:

Wetland Determination Data Form - Western Mountains, Valleys, and Coast Region

Project/Site: US 93 Ninepipes City/County: Lake County Sampling Date: 5/19/2025
 Applicant/Owner: Montana Department of Transportation State: MT Sampling Point: WL-13a
 Investigator(s): R. Newton and J. Mulligan Section, Township, Range: S36 T20N R20W
 Landform (*hillslope, terrace, etc.*): hillslope Local Relief (*concave, convex, none*): concave Slope (%): 0-1
 Subregion (LRR): E - Rocky Mtn. Forests and Rangeland Lat. 47.447246 Long: -114.096774 Datum: WGS 84
 Soil Map Unit Name: Post silty clay loam, 2 to 4 percent slopes NWI Classification: PAB/PEM

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No X (If no, explain in Remarks)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes X No
 Hydric Soil Present? Yes X No Is the Sampled Area within a Wetland? Yes X No
 Wetland Hydrology Present? Yes X No

Remarks:

Depressional wetland WL-13, open water and fringing PEM, in a prairie pothole on the eastern side of US 93. The APT determined drought conditions. Approx. 1.34" precip recorded in the 10 days prior to survey and approx. 0.25" precip recorded during the four-day survey period (Ronan Mesonet station).

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: <u>r = 30 ft.</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)																																
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
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0 = Total Cover																																				
Sapling/Shrub Stratum (Plot size: <u>r = 15 ft.</u>)																																				
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
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5. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
0 = Total Cover																																				
Herb Stratum (Plot size: <u>r = 5ft.</u>)																																				
1. <u>Typha latifolia</u>	<u>18</u>	<u>N</u>	<u>OBL</u>																																	
2. <u>Geum macrophyllum</u>	<u>10</u>	<u>N</u>	<u>FAC</u>																																	
3. <u>Carex nebrascensis</u>	<u>25</u>	<u>Y</u>	<u>OBL</u>																																	
4. <u>Cardamine oligosperma</u>	<u>2</u>	<u>N</u>	<u>FAC</u>																																	
5. <u>Phalaris arundinacea</u>	<u>40</u>	<u>Y</u>	<u>FACW</u>																																	
6. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
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95 = Total Cover																																				
Woody Vine Stratum (Plot size: <u>n/a</u>)																																				
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2. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
0 = Total Cover																																				
% Bare Ground in Herb Stratum	<u>5</u> %																																			

Hydrophytic Vegetation Indicators:

X 1. Rapid Test for Hydrophytic Vegetation
X 2. Dominance Test is >50%.
X 3. Prevalence Index is ≤3.0'
 4. Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 5. Wetland Non-Vascular Plants¹
 Problematic Hydrophytic Vegetation (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? X Yes No

Remarks:

Profile Description: *(Describe to the depth needed to document the indicator or confirm the absence of indicators.)*

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 4	10 YR 3/3	100					Silty Clay	fibrous roots throughout
4 - 16	10 YR 5/1	85	7.5 YR 4/6	15	C	M	Clay	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

☐ Histosol (A1)	☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G)
☐ Histic Epipedon (A2)	☐ Sandy Gleyed Matrix (S4)
☐ Black Histic (A3)	☐ Sandy Redox (S5)
☐ Hydrogen Sulfide (A4)	☐ Stripped Matrix (S6)
☐ 1 cm Muck (A9) (LRR D, G)	☐ Loamy Mucky Mineral (F1) (except MLRA 1)
☐ Depleted Below Dark Surface (A11)	☐ Loamy Gleyed Matrix (F2)
☐ Thick Dark Surface (A12)	☒ Depleted Matrix (F3)
☐ Iron Monosulfide (A18)	☐ Redox Dark Surface (F6)
☐ Sandy Mucky Mineral (S1)	☐ Depleted Dark Surface (F7)
	☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

☐ 2 cm Muck (A10) (LRRA, E)
☐ Iron-Manganese Masses (F12) (LRR D)
☐ Red Parent Material (F21)
☐ Very Shallow Dark Surface (F22)
☐ Other (Explain in Remarks)

³Indicators of hydrophylic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer: *(if observed)*

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators *(minimum of one is required; check all that apply)*

☐ Surface Water (A1)
☐ High Water Table (A2)
☐ Saturation (A3)
☐ Water Marks (B1)
☐ Sediment Deposits (B2)
☐ Drift Deposits (B3)
☐ Algal Mat or Crust (B4)
☐ Iron Deposits (B5)
☐ Surface Soil Cracks (B6)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Sparsely Vegetated Concave Surface (B8)

Secondary Indicators *(minimum of two required)*

☐ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	☐ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
☐ Salt Crust (B11)	☐ Drainage Patterns (B10)
☐ Aquatic Invertebrates (B13)	☐ Dry-Season Water Table (C2)
☐ Hydrogen Sulfide Odor (C1)	☒ Saturation Visible on Aerial Imagery (C9)
☐ Oxidized Rhizospheres on Living Roots (C3)	☒ Geomorphic Position (D2)
☐ Presence of Reduced Iron (C4)	☐ Shallow Aquitard (D3)
☐ Recent Iron Reduction in Tilled Soils (C6)	☒ FAC-Neutral Test (D5)
☐ Stunted or Stressed Plants (D1) (LRR A)	☐ Raised Ant Mounds (D6) (LRR A)
☐ Other (Explain in Remarks)	☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes ☐ No ☒	Depth (inches) _____	Wetland Hydrology Present? ☒ Yes ☐ No
Water Table Present?	Yes ☐ No ☒	Depth (inches) _____	
Saturation Present? <i>(includes capillary fringe)</i>	Yes ☐ No ☒	Depth (inches) _____	

Remarks:

Wetland Determination Data Form - Western Mountains, Valleys, and Coast Region

Project/Site: US 93 Ninepipes City/County: Lake County Sampling Date: 5/19/2025
 Applicant/Owner: Montana Department of Transportation State: MT Sampling Point: UP-13a
 Investigator(s): R. Newton and J. Mulligan Section, Township, Range: S36 T20N R20W
 Landform (*hillslope, terrace, etc.*): hillslope Local Relief (*concave, convex, none*): none Slope (%): 0-1
 Subregion (LRR): E - Rocky Mtn. Forests and Rangeland Lat. 47.447248 Long: -114.096797 Datum: WGS 84
 Soil Map Unit Name: Post silty clay loam, 2 to 4 percent slopes NWI Classification: UPL

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No X (If no, explain in Remarks)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes No X
 Hydric Soil Present? Yes No X Is the Sampled Area within a Wetland? Yes No X
 Wetland Hydrology Present? Yes No X

Remarks:

Paired upland point for wetland sample point WL-13a. The APT determined drought conditions. Approx. 1.34" precip recorded in the 10 days prior to survey and approx. 0.25" precip recorded during the four-day survey period (Ronan Mesonet station).

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: <u>r = 30 ft.</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B)																																
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
<u>0</u> = Total Cover																																				
Shrub/Strat (Plot size: <u>r = 15 ft.</u>)				Prevalence Index Worksheet: <table border="1"> <thead> <tr> <th colspan="2">Total % Cover of:</th> <th colspan="2">Multiply by:</th> </tr> </thead> <tbody> <tr><td>OBL species</td><td><u>15</u></td><td>x 1 =</td><td><u>15</u></td></tr> <tr><td>FACW species</td><td><u>0</u></td><td>x 2 =</td><td><u>0</u></td></tr> <tr><td>FAC species</td><td><u>0</u></td><td>x 3 =</td><td><u>0</u></td></tr> <tr><td>FACU species</td><td><u>8</u></td><td>x 4 =</td><td><u>32</u></td></tr> <tr><td>UPL species</td><td><u>60</u></td><td>x 5 =</td><td><u>300</u></td></tr> <tr><td>Column Totals:</td><td><u>83</u> (A)</td><td></td><td><u>347</u> (B)</td></tr> <tr><td colspan="2">Prevalence Index = B/A =</td><td colspan="2"><u>4.2</u></td></tr> </tbody> </table>	Total % Cover of:		Multiply by:		OBL species	<u>15</u>	x 1 =	<u>15</u>	FACW species	<u>0</u>	x 2 =	<u>0</u>	FAC species	<u>0</u>	x 3 =	<u>0</u>	FACU species	<u>8</u>	x 4 =	<u>32</u>	UPL species	<u>60</u>	x 5 =	<u>300</u>	Column Totals:	<u>83</u> (A)		<u>347</u> (B)	Prevalence Index = B/A =		<u>4.2</u>	
Total % Cover of:		Multiply by:																																		
OBL species	<u>15</u>	x 1 =	<u>15</u>																																	
FACW species	<u>0</u>	x 2 =	<u>0</u>																																	
FAC species	<u>0</u>	x 3 =	<u>0</u>																																	
FACU species	<u>8</u>	x 4 =	<u>32</u>																																	
UPL species	<u>60</u>	x 5 =	<u>300</u>																																	
Column Totals:	<u>83</u> (A)		<u>347</u> (B)																																	
Prevalence Index = B/A =		<u>4.2</u>																																		
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
<u>0</u> = Total Cover																																				
Herb Stratum (Plot size: <u>r = 5ft.</u>)				Hydrophytic Vegetation Indicators: 1. Rapid Test for Hydrophytic Vegetation <u> </u> 2. Dominance Test is >50%. <u> </u> 3. Prevalence Index is ≤3.0 ¹ <u> </u> 4. Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> 5. Wetland Non-Vascular Plants ¹ <u> </u> Problematic Hydrophytic Vegetation (Explain) <u> </u> ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? <u> </u> Yes <u>X</u> No																																
1. <u>Carex nebrascensis</u>	<u>15</u>	<u>Y</u>	<u>OBL</u>																																	
2. <u>Verbascum thapsus</u>	<u>8</u>	<u>N</u>	<u>FACU</u>																																	
3. <u>Thinopyrum intermedium</u>	<u>10</u>	<u>N</u>	<u>NI</u>																																	
4. <u>Bromus tectorum</u>	<u>10</u>	<u>N</u>	<u>NI</u>																																	
5. <u>Bromus inermis</u>	<u>40</u>	<u>Y</u>	<u>UPL</u>																																	
6. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
9. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
10. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
<u>83</u> = Total Cover																																				
Woody Vine Stratum (Plot size: <u>n/a</u>)																																				
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
<u>0</u> = Total Cover																																				
% Bare Ground in Herb Stratum	<u>40</u> %																																			

Remarks:

Species with no indicator (NI) are treated as UPL for this analysis.

Profile Description: *(Describe to the depth needed to document the indicator or confirm the absence of indicators.)*

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 16	10 YR 3/2	100					Silty Clay	50% gravels

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

☐ Histosol (A1)	☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G)
☐ Histic Epipedon (A2)	☐ Sandy Gleyed Matrix (S4)
☐ Black Histic (A3)	☐ Sandy Redox (S5)
☐ Hydrogen Sulfide (A4)	☐ Stripped Matrix (S6)
☐ 1 cm Muck (A9) (LRR D, G)	☐ Loamy Mucky Mineral (F1) (except MLRA 1)
☐ Depleted Below Dark Surface (A11)	☐ Loamy Gleyed Matrix (F2)
☐ Thick Dark Surface (A12)	☐ Depleted Matrix (F3)
☐ Iron Monosulfide (A18)	☐ Redox Dark Surface (F6)
☐ Sandy Mucky Mineral (S1)	☐ Depleted Dark Surface (F7)
	☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

☐ 2 cm Muck (A10) (LRRA, E)
☐ Iron-Manganese Masses (F12) (LRR D)
☐ Red Parent Material (F21)
☐ Very Shallow Dark Surface (F22)
☐ Other (Explain in Remarks)

³Indicators of hydrophylic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer: *(if observed)*

Type: _____
Depth (*inches*): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators *(minimum of one is required; check all that apply)*

☐ Surface Water (A1)
☐ High Water Table (A2)
☐ Saturation (A3)
☐ Water Marks (B1)
☐ Sediment Deposits (B2)
☐ Drift Deposits (B3)
☐ Algal Mat or Crust (B4)
☐ Iron Deposits (B5)
☐ Surface Soil Cracks (B6)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Sparsely Vegetated Concave Surface (B8)

Secondary Indicators *(minimum of two required)*

☐ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	☐ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
☐ Salt Crust (B11)	☐ Drainage Patterns (B10)
☐ Aquatic Invertebrates (B13)	☐ Dry-Season Water Table (C2)
☐ Hydrogen Sulfide Odor (C1)	☐ Saturation Visible on Aerial Imagery (C9)
☐ Oxidized Rhizospheres on Living Roots (C3)	☐ Geomorphic Position (D2)
☐ Presence of Reduced Iron (C4)	☐ Shallow Aquitard (D3)
☐ Recent Iron Reduction in Tilled Soils (C6)	☐ FAC-Neutral Test (D5)
☐ Stunted or Stressed Plants (D1) (LRR A)	☐ Raised Ant Mounds (D6) (LRR A)
☐ Other (Explain in Remarks)	☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes _____ No <u>X</u>	Depth (<i>inches</i>) _____	Wetland Hydrology Present? Yes _____ X _____ No _____
Water Table Present?	Yes _____ No <u>X</u>	Depth (<i>inches</i>) _____	
Saturation Present? <i>(includes capillary fringe)</i>	Yes _____ No <u>X</u>	Depth (<i>inches</i>) _____	

Remarks:

Wetland Determination Data Form - Western Mountains, Valleys, and Coast Region

Project/Site: US 93 Ninepipes City/County: Lake County Sampling Date: 5/19/2025
 Applicant/Owner: Montana Department of Transportation State: MT Sampling Point: WL-13b
 Investigator(s): R. Newton and J. Mulligan Section, Township, Range: S36 T20N R20W
 Landform (*hillslope, terrace, etc.*): hillslope Local Relief (*concave, convex, none*): concave Slope (%): 0-1
 Subregion (LRR): E - Rocky Mtn. Forests and Rangeland Lat. 47.44714 Long: -114.096614 Datum: WGS 84
 Soil Map Unit Name: Post silty clay loam, 2 to 4 percent slopes NWI Classification: PSS

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No X (If no, explain in Remarks)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes X No
 Hydric Soil Present? Yes X No Is the Sampled Area within a Wetland? Yes X No
 Wetland Hydrology Present? Yes X No

Remarks:

Depressional PSS component of WL-13 wetland in a prairie pothole on the eastern side of US 93. The APT determined drought conditions. Approx. 1.34" precip recorded in the 10 days prior to survey and approx. 0.25" precip recorded during the four-day survey period (Ronan Mesonet station).

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: r = 30 ft.)

	Absolute % Cover	Dominant Species?	Indicator Status
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>0</u> = Total Cover			

Sapling/Shrub Stratum (Plot size: r = 15 ft.)

1. <u>Cornus alba</u>	<u>60</u>	<u>Y</u>	<u>FACW</u>
2. <u>Salix bebbiana</u>	<u>15</u>	<u>Y</u>	<u>FACW</u>
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>75</u> = Total Cover			

Herb Stratum (Plot size: r = 5ft.)

1. <u>Cirsium arvense</u>	<u>20</u>	<u>Y</u>	<u>FAC</u>
2. <u>Cardaria draba</u>	<u>25</u>	<u>Y</u>	<u>NI</u>
3. <u>Urtica dioica</u>	<u>8</u>	<u>N</u>	<u>FAC</u>
4. <u>Geum macrophyllum</u>	<u>22</u>	<u>Y</u>	<u>FAC</u>
5. <u>Dispsacus fullonum</u>	<u>12</u>	<u>N</u>	<u>FAC</u>
6. <u>Hypericum perforatum</u>	<u>10</u>	<u>N</u>	<u>FACU</u>
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>
9. <u> </u>	<u> </u>	<u> </u>	<u> </u>
10. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>97</u> = Total Cover			

Woody Vine Stratum (Plot size: n/a)

1. <u> </u>	<u> </u>	<u> </u>	<u> </u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>0</u> = Total Cover			

% Bare Ground in Herb Stratum 10 %

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 80% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	<u>0</u>	x 1 =	<u>0</u>
FACW species	<u>75</u>	x 2 =	<u>150</u>
FAC species	<u>62</u>	x 3 =	<u>186</u>
FACU species	<u>10</u>	x 4 =	<u>40</u>
UPL species	<u>25</u>	x 5 =	<u>125</u>
Column Totals:	<u>172</u> (A)		<u>501</u> (B)
Prevalence Index = B/A =			<u>2.9</u>

Hydrophytic Vegetation Indicators:

1. Rapid Test for Hydrophytic Vegetation
- X 2. Dominance Test is >50%.
- X 3. Prevalence Index is ≤3.0¹
4. Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
5. Wetland Non-Vascular Plants¹
- Problematic Hydrophytic Vegetation (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? X Yes No

Remarks:

Species with no indicator (NI) are treated as UPL for this analysis.

Profile Description: *(Describe to the depth needed to document the indicator or confirm the absence of indicators.)*

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 10	10 YR 2/2	100					Silty Clay Loam	
10 - 19	7.5 YR 4/2	90	7.5 YR 4/6	10	C	M	Clay	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators		2.5 cm Mucky Peat or Peat (S2) (LRR G)	Indicators for Problematic Hydric Soils³: 2 cm Muck (A10) (LRRA, E) Iron-Manganese Masses (F12) (LRR D) Red Parent Material (F21) Very Shallow Dark Surface (F22) Other (Explain in Remarks) ³ Indicators of hydrophylic vegetation and wetland hydrology must be present, unless disturbed or problematic.
☐	Histosol (A1)	☐ Sandy Gleyed Matrix (S4)	
☐	Histic Epipedon (A2)	☐ Sandy Redox (S5)	
☐	Black Histic (A3)	☐ Stripped Matrix (S6)	
☐	Hydrogen Sulfide (A4)	☐ Loamy Mucky Mineral (F1) (except MLRA 1)	
☐	1 cm Muck (A9) (LRR D, G)	☐ Loamy Gleyed Matrix (F2)	
☒	Depleted Below Dark Surface (A11)	☒ Depleted Matrix (F3)	
☐	Thick Dark Surface (A12)	☐ Redox Dark Surface (F6)	
☐	Iron Monosulfide (A18)	☐ Depleted Dark Surface (F7)	
☐	Sandy Mucky Mineral (S1)	☐ Redox Depressions (F8)	

Restrictive Layer: *(if observed)*

Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators *(minimum of one is required; check all that apply)*

☐	Surface Water (A1)
☐	High Water Table (A2)
☒	Saturation (A3)
☐	Water Marks (B1)
☐	Sediment Deposits (B2)
☐	Drift Deposits (B3)
☐	Algal Mat or Crust (B4)
☐	Iron Deposits (B5)
☐	Surface Soil Cracks (B6)
☐	Inundation Visible on Aerial Imagery (B7)
☐	Sparsely Vegetated Concave Surface (B8)

Secondary Indicators *(minimum of two required)*

☐	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	☐	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
☐	Salt Crust (B11)	☐	Drainage Patterns (B10)
☐	Aquatic Invertebrates (B13)	☒	Dry-Season Water Table (C2)
☐	Hydrogen Sulfide Odor (C1)	☒	Saturation Visible on Aerial Imagery (C9)
☐	Oxidized Rhizospheres on Living Roots (C3)	☒	Geomorphic Position (D2)
☐	Presence of Reduced Iron (C4)	☐	Shallow Aquitard (D3)
☐	Recent Iron Reduction in Tilled Soils (C6)	☒	FAC-Neutral Test (D5)
☐	Stunted or Stressed Plants (D1) (LRR A)	☐	Raised Ant Mounds (D6) (LRR A)
☐	Other (Explain in Remarks)	☐	Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes ☐ No ☒	Depth (inches)	_____	Wetland Hydrology Present?
Water Table Present?	Yes ☒ No ☐	Depth (inches)	18	
Saturation Present? <i>(includes capillary fringe)</i>	Yes ☒ No ☐	Depth (inches)	10	

Remarks:

Wetland Determination Data Form - Western Mountains, Valleys, and Coast Region

Project/Site: US 93 Ninepipes City/County: Lake County Sampling Date: 5/19/2025
Applicant/Owner: Montana Department of Transportation State: MT Sampling Point: UP-13b
Investigator(s): R. Newton and J. Mulligan Section, Township, Range: S36 T20N R20W
Landform (*hillslope, terrace, etc.*): hillslope Local Relief (*concave, convex, none*): concave Slope (%): 0-1
Subregion (LRR): E - Rocky Mtn. Forests and Rangeland Lat. 47.447129 Long: -114.096603 Datum: WGS 84
Soil Map Unit Name: Post silty clay loam, 2 to 4 percent slopes NWI Classification: UPL

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No X (If no, explain in Remarks)

Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No

Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes No X

Hydric Soil Present? Yes No X

Is the Sampled Area within a Wetland? Yes No X

Wetland Hydrology Present? Yes No X

Remarks:

Paired upland point for wetland sample point WL-13b. The APT determined drought conditions. Approx. 1.34" precip recorded in the 10 days prior to survey and approx. 0.25" precip recorded during the four-day survey period (Ronan Mesonet station).

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: <u>r = 30 ft.</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>0</u> = Total Cover			

Sapling/Shrub Stratum (Plot size: <u>r = 15 ft.</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>0</u> = Total Cover			

Herb Stratum (Plot size: <u>r = 5ft.</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Dipsacus fullonum</u>	<u>40</u>	<u>Y</u>	<u>FAC</u>
2. <u>Lappula squarrosa</u>	<u>10</u>	<u>N</u>	<u>NI</u>
3. <u>Bromus inermis</u>	<u>20</u>	<u>Y</u>	<u>UPL</u>
4. <u>Hypericum perforatum</u>	<u>18</u>	<u>N</u>	<u>FACU</u>
5. <u>Thlaspi arvense</u>	<u>5</u>	<u>N</u>	<u>UPL</u>
6. <u>Taraxacum officinale</u>	<u>5</u>	<u>N</u>	<u>FACU</u>
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>
9. <u> </u>	<u> </u>	<u> </u>	<u> </u>
10. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>98</u> = Total Cover			

Woody Vine Stratum (Plot size: <u>n/a</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>0</u> = Total Cover			

% Bare Ground in Herb Stratum 2 %

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:		Multiply by:	
OBL species	<u>0</u>	x 1 =	<u>0</u>	
FACW species	<u>0</u>	x 2 =	<u>0</u>	
FAC species	<u>40</u>	x 3 =	<u>120</u>	
FACU species	<u>23</u>	x 4 =	<u>92</u>	
UPL species	<u>35</u>	x 5 =	<u>175</u>	
Column Totals:	<u>98</u> (A)		<u>387</u> (B)	
Prevalence Index = B/A =			<u>3.9</u>	

Hydrophytic Vegetation Indicators:

1. Rapid Test for Hydrophytic Vegetation
2. Dominance Test is >50%.
3. Prevalence Index is ≤3.0¹
4. Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
5. Wetland Non-Vascular Plants¹
- Problematic Hydrophytic Vegetation (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No

Remarks:

Species with no indicator (NI) are treated as UPL for this analysis.

Profile Description: *(Describe to the depth needed to document the indicator or confirm the absence of indicators.)*

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 8	10 YR 3/2	100					Silty Clay Loam	
8 - 16	7.5 YR 4/4	100					Silty Clay	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators	2.5 cm Mucky Peat or Peat (S2) (LRR G)	Indicators for Problematic Hydric Soils³:
☐ Histosol (A1)	☐ Sandy Gleyed Matrix (S4)	☐ 2 cm Muck (A10) (LRRA, E)
☐ Histic Epipedon (A2)	☐ Sandy Redox (S5)	☐ Iron-Manganese Masses (F12) (LRR D)
☐ Black Histic (A3)	☐ Stripped Matrix (S6)	☐ Red Parent Material (F21)
☐ Hydrogen Sulfide (A4)	☐ Loamy Mucky Mineral (F1) (except MLRA 1)	☐ Very Shallow Dark Surface (F22)
☐ 1 cm Muck (A9) (LRR D, G)	☐ Loamy Gleyed Matrix (F2)	☐ Other (Explain in Remarks)
☐ Depleted Below Dark Surface (A11)	☐ Depleted Matrix (F3)	³ Indicators of hydrophylic vegetation and wetland hydrology must be present, unless disturbed or problematic.
☐ Thick Dark Surface (A12)	☐ Redox Dark Surface (F6)	
☐ Iron Monosulfide (A18)	☐ Depleted Dark Surface (F7)	
☐ Sandy Mucky Mineral (S1)	☐ Redox Depressions (F8)	

Restrictive Layer: *(if observed)*

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators *(minimum of one is required; check all that apply)*

- ☐ Surface Water (A1)
☐ High Water Table (A2)
☐ Saturation (A3)
☐ Water Marks (B1)
☐ Sediment Deposits (B2)
☐ Drift Deposits (B3)
☐ Algal Mat or Crust (B4)
☐ Iron Deposits (B5)
☐ Surface Soil Cracks (B6)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Sparsely Vegetated Concave Surface (B8)

- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
☐ Salt Crust (B11)
☐ Aquatic Invertebrates (B13)
☐ Hydrogen Sulfide Odor (C1)
☐ Oxidized Rhizospheres on Living Roots (C3)
☐ Presence of Reduced Iron (C4)
☐ Recent Iron Reduction in Tilled Soils (C6)
☐ Stunted or Stressed Plants (D1) (**LRR A**)
☐ Other (Explain in Remarks)

Secondary Indicators *(minimum of two required)*

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
☐ Drainage Patterns (B10)
☐ Dry-Season Water Table (C2)
☐ Saturation Visible on Aerial Imagery (C9)
☐ Geomorphic Position (D2)
☐ Shallow Aquitard (D3)
☐ FAC-Neutral Test (D5)
☐ Raised Ant Mounds (D6) (**LRR A**)
☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes _____ No <u>X</u>	Depth (inches) _____	Wetland Hydrology Present? _____ Yes <u>X</u> No
Water Table Present?	Yes _____ No <u>X</u>	Depth (inches) _____	
Saturation Present? <i>(includes capillary fringe)</i>	Yes _____ No <u>X</u>	Depth (inches) _____	

Remarks:

U.S. Army Corps of Engineers (USACE)
**RAPID ORDINARY HIGH WATER MARK
(OHWM) FIELD IDENTIFICATION DATA SHEET**
The proponent agency is Headquarters USACE CECW-COR.

Form Approved -
OMB No. 0710-0024
Expires: 2027-09-30

The Agency Disclosure Notice (ADN)

The Public reporting burden for this collection of information, 0710-0024, is estimated to average 30 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or burden reduction suggestions to the Department of Defense, Washington Headquarters Services, at whs.mc-alex.esd.mbx.dd-dod-information-collections@mail.mil. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.

Project ID #: ID-2a Post A Canal

Site Name: US 93 Ninepipes

Date and Time: 5/20/2025

Location (lat/long): 47.447513, --114.097389

Investigator(s): B. Stockowitz, A. Hendryx

Step 1 Site overview from remote and online resources.

Check boxes for online resources used to evaluate site:

gage data

LiDAR

geologic maps

climatic data

☒

satellite imagery

land use maps

☒

aerial photos

topographic maps

Other: _____

Describe land use and flow conditions from online resources.

Were there any recent extreme events (floods or drought)?

Excavated canal flowing through cement culvert under US 93.

Step 2 Site conditions during field assessment. First look for changes in channel shape, depositional and erosional features, and changes in vegetation and sediment type, size, density, and distribution. Make note of natural or human-made disturbances that would affect flow and channel form, such as bridges, riprap, landslides, rockfalls, etc.

Irrigation canal. Not flowing at time of survey.

Step 3 Mark the boxes next to the indicators used to help identify the location of the OHWM.

OHWM is at a transition point, therefore some indicators used to identify the location of the OHWM may be just below or above the OHWM.

Make a slash in boxes next to indicators that are helpful in identifying the OHWM. After the initial assessment, those indicators identified at the OHWM elevation should be changed from slashes to x's. Note, it is not necessary to mark indicators that are present but do not help inform identification of the OHWM.

Go to page 2 to describe overall rationale for location of OHWM, write any additional observations, and attach a photo log.

Geomorphic indicators

Sediment indicators

☒

Break in slope

Channel bar

☒

on the bank

shelving (berms) on bar

☐

undercut bank

unvegetated

☐

valley bottom

vegetation transition (go to veg. indicators)

☐

Other: _____

sediment transition (go to sed. indicators)

upper limit of deposition on bar

Shelving

shelf at top of bank

Instream bedforms and other bedload transport evidence

natural levee

deposition bedload indicators (e.g., imbricated clasts, gravel sheets, etc.)

human-made berms or levees

bedforms (e.g., pools, riffles, steps, etc.)

X other berms: excavated canal

Weathered clasts or bedrock

Secondary channels

erosional bedload indicators (e.g., obstacle marks, scour, smoothing, etc.)

X Soil development

X Changes in character of soil

Mudcracks

X Changes in particle-sized distribution

X transition from cobble to fines

upper limit of sand-sized particles

silt deposits

Vegetation indicators (Consider the vegetation transition looking from the middle of the channel, up the banks, and into the floodplain)

Other physical indicators

X Change in vegetation type from _____ to none to woody

Change in density of vegetation

Sediment deposited on vegetation or structures

X Exposed roots below intact soil layer

Vegetation matted down and/or bent

X Wracking/presence of organic litter

Other vegetation observations

Species: Cornus sericea, Salix exigua, Populus balsamifera

Presence of large wood

X Leaf litter disturbed or washed away

Water staining

Other observed indicators? Describe:

Project ID #: OHWM-1a Post A Canal

Step 4 Was additional information used to support identification of the OHWM? Yes ☒ No If yes, describe and attach information to data sheet:	
--	--

Yes ☒ No

If yes, describe and attach information to data sheet:

Step 5 Is an OHWM present at this site? ☒ Yes ☐ No
Describe rationale for location of OHWM or lack thereof by describing any observed indicators (at, above, and/or below the OHWM location).

No

Describe rationale for location of OHWM or lack thereof by describing any observed indicators (at, above, and/or below the OHWM location).

Clearly defined irrigation channel with abrupt transition in slope, sediment, and vegetation. Approximately 4' strip of riparian buffer on either side. Access road/trail parallels to the south, open field to the north. Buffering riparian vegetation species include: *Salix exigua*, *Populus balsamifera*, and *Cornus sericea*. Dimensions at OHWM are approximately 2' deep by 12' wide.

Additional observations or notes

Attach an imagery log of the site.

Imagery log attached? Yes ☒ No If no, explain why not: _____

Imagery log attached?

Yes

☐ No

If no, explain why not:

List photographs, or other imagery/sketches, and include descriptions in the table below.

Number photographs in the order that they are taken. Attach imagery and include annotations of features.

[illegible]

U.S. Army Corps of Engineers (USACE)
**RAPID ORDINARY HIGH WATER MARK
(OHWM) FIELD IDENTIFICATION DATA SHEET**
The proponent agency is Headquarters USACE CECW-COR.

Form Approved -
OMB No. 0710-0024
Expires: 2027-09-30

The Agency Disclosure Notice (ADN)

The Public reporting burden for this collection of information, 0710-0024, is estimated to average 30 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or burden reduction suggestions to the Department of Defense, Washington Headquarters Services, at whs.mc-alex.esd.mbx.dd-dod-information-collections@mail.mil. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.

Project ID #: ID-2b Post A Canal

Site Name: US 93 Ninepipes

Date and Time: 5/19/25

Location (lat/long): 47.447734 , -114.096722

Investigator(s): R. Newton, J. Mulligan

Step 1 Site overview from remote and online resources.

Check boxes for online resources used to evaluate site:

gage data LiDAR geologic maps

climatic data ☒ satellite imagery land use maps

☒ aerial photos topographic maps Other: _____

Describe land use and flow conditions from online resources.

Were there any recent extreme events (floods or drought)?
Intermittent canal flowing through concrete culvert under US 93. 2' deep x 12' wide.

Step 2 Site conditions during field assessment. First look for changes in channel shape, depositional and erosional features, and changes in vegetation and sediment type, size, density, and distribution. Make note of natural or human-made disturbances that would affect flow and channel form, such as bridges, riprap, landslides, rockfalls, etc.

No fringing wetlands present. No flow at time of survey.

Step 3 Mark the boxes next to the indicators used to help identify the location of the OHWM.

OHWM is at a transition point, therefore some indicators used to identify the location of the OHWM may be just below or above the OHWM.

Make a slash in boxes next to indicators that are helpful in identifying the OHWM. After the initial assessment, those indicators identified at the OHWM elevation should be changed from slashes to x's. Note, it is not necessary to mark indicators that are present but do not help inform identification of the OHWM.

Go to page 2 to describe overall rationale for location of OHWM, write any additional observations, and attach a photo log.

Geomorphic indicators

Sediment indicators

☒ **Break in slope**
☒ on the bank
☐ undercut bank
☐ valley bottom
☐ Other: _____

☒ **Shelving**

shelf at top of bank

natural levee

human-made berms or levees

☒ other berms: excavated irrigation canal

Secondary channels

Channel bar

shelving (berms) on bar

unvegetated

vegetation transition (go to veg. indicators)

sediment transition (go to sed. indicators)

upper limit of deposition on bar

Instream bedforms and other bedload transport evidence

deposition bedload indicators (e.g., imbricated clasts, gravel sheets, etc.)

bedforms (e.g., pools, riffles, steps, etc.)

Weathered clasts or bedrock

erosional bedload indicators (e.g., obstacle marks, scour, smoothing, etc.)

Soil development

Changes in character of soil

Mudcracks

Changes in particle-sized distribution

transition from _____ to _____

upper limit of sand-sized particles

silt deposits

Vegetation indicators (Consider the vegetation transition looking from the middle of the channel, up the banks, and into the floodplain)

Other physical indicators

☒ **Change in vegetation type** from 0 to herbaceous

☒ **Change in density of vegetation**

Exposed roots below intact soil layer

Vegetation matted down and/or bent

Other vegetation observations

Sediment deposited on vegetation or structures

Wracking/presence of organic litter

Presence of large wood

Leaf litter disturbed or washed away

Water staining

Other observed indicators? Describe:

Clear line in the bank marking OHW. Phalaris above OHW; no vegetation below the line. Approximately 2 feet deep.

Project ID #: OHWM-1b Post A Canal

Step 4 Was additional information used to support identification of the OHWM? Yes ☒ No ☐

If yes, describe and attach information to data sheet:

☒ No

--

Step 5 Is an OHWM present at this site? ☒ Yes ☐ No

Describe rationale for location of OHWM or lack thereof by describing any observed indicators (at, above, and/or below the OHWM location).

Describe rationale for location of OHWM or lack thereof by describing any observed indicators (at, above, and/or below the OHWM location).

Impressed line in the bank
Abrupt change in vegetation

Additional observations or notes

Attach an imagery log of the site.

Imagery log attached?	Yes	No	If no, explain why not:

Yes

No

If no, explain why not:

List photographs, or other imagery/sketches, and include descriptions in the table below.

Number photographs in the order that they are taken. Attach imagery and include annotations of features.

[illegible]

Wetland Determination Data Form - Western Mountains, Valleys, and Coast Region

Project/Site: US 93 Ninepipes City/County: Lake County Sampling Date: 5/19/2025
 Applicant/Owner: Montana Department of Transportation State: MT Sampling Point: WL-14a
 Investigator(s): R. Newton and J. Mulligan Section, Township, Range: S36 T20N R20W
 Landform (*hillslope, terrace, etc.*): roadside ditch Local Relief (*concave, convex, none*): concave Slope (%): 0-1
 Subregion (LRR): E - Rocky Mtn. Forests and Rangeland Lat. 47.448935 Long: -114.096782 Datum: WGS 84
 Soil Map Unit Name: Post-Ronan-Water complex, 2 to 8 percent slopes NWI Classification: PEM

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No X (If no, explain in Remarks)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes X No
 Hydric Soil Present? Yes X No Is the Sampled Area within a Wetland? Yes X No
 Wetland Hydrology Present? Yes X No

Remarks:

Depressional PEM wetland WL-14a in roadside ditch on the eastern side of US 93; connected via driveway culvert to WL-14b. Appears to be isolated. The APT determined drought conditions. Approx. 1.34" precip recorded in the 10 days prior to survey and approx. 0.25" precip recorded during the four-day survey period (Ronan Mesonet station).

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: r = 30 ft.) Absolute % Cover Dominant Species? Indicator Status
 1.
 2.
 3.
 4.
 5.
0 = Total Cover

Sapling/Shrub Stratum (Plot size: r = 15 ft.) Absolute % Cover Dominant Species? Indicator Status
 1.
 2.
 3.
 4.
 5.
0 = Total Cover

Herb Stratum (Plot size: r = 5ft.) Absolute % Cover Dominant Species? Indicator Status
 1. Typha latifolia 35 Y OBL
 2. Cardaria draba 3 N NI
 3.
 4.
 5.
 6.
 7.
 8.
 9.
 10.
38 = Total Cover

Woody Vine Stratum (Plot size: n/a) Absolute % Cover Dominant Species? Indicator Status
 1.
 2.
0 = Total Cover

% Bare Ground in Herb Stratum 70 %

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	35	x 1 =	35
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	3	x 5 =	15
Column Totals:	38 (A)		50 (B)
Prevalence Index = B/A =		1.3	

Hydrophytic Vegetation Indicators:

- X 1. Rapid Test for Hydrophytic Vegetation
- X 2. Dominance Test is >50%.
- X 3. Prevalence Index is ≤3.0¹
- 4. Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
- 5. Wetland Non-Vascular Plants¹
- Problematic Hydrophytic Vegetation (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? X Yes No

Remarks:

Species with no indicator (NI) are treated as UPL for this analysis.

Profile Description: *(Describe to the depth needed to document the indicator or confirm the absence of indicators.)*

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 7	10 YR 3/2	100					Silty Clay	
7 - 16	10 YR 5/1	100					Clay	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

☐ Histosol (A1)	☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G)
☐ Histic Epipedon (A2)	☐ Sandy Gleyed Matrix (S4)
☐ Black Histic (A3)	☐ Sandy Redox (S5)
☐ Hydrogen Sulfide (A4)	☐ Stripped Matrix (S6)
☐ 1 cm Muck (A9) (LRR D, G)	☐ Loamy Mucky Mineral (F1) (except MLRA 1)
☒ Depleted Below Dark Surface (A11)	☐ Loamy Gleyed Matrix (F2)
☐ Thick Dark Surface (A12)	☒ Depleted Matrix (F3)
☐ Iron Monosulfide (A18)	☐ Redox Dark Surface (F6)
☐ Sandy Mucky Mineral (S1)	☐ Depleted Dark Surface (F7)
	☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

☐ 2 cm Muck (A10) (LRRA, E)
☐ Iron-Manganese Masses (F12) (LRR D)
☐ Red Parent Material (F21)
☐ Very Shallow Dark Surface (F22)
☐ Other (Explain in Remarks)

³Indicators of hydrophylic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer: *(if observed)*

Type: _____
Depth (*inches*): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators *(minimum of one is required; check all that apply)*

☒ Surface Water (A1)
☒ High Water Table (A2)
☒ Saturation (A3)
☐ Water Marks (B1)
☐ Sediment Deposits (B2)
☐ Drift Deposits (B3)
☒ Algal Mat or Crust (B4)
☐ Iron Deposits (B5)
☐ Surface Soil Cracks (B6)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Sparsely Vegetated Concave Surface (B8)

Secondary Indicators *(minimum of two required)*

☐ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	☐ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
☐ Salt Crust (B11)	☐ Drainage Patterns (B10)
☐ Aquatic Invertebrates (B13)	☐ Dry-Season Water Table (C2)
☐ Hydrogen Sulfide Odor (C1)	☐ Saturation Visible on Aerial Imagery (C9)
☐ Oxidized Rhizospheres on Living Roots (C3)	☒ Geomorphic Position (D2)
☐ Presence of Reduced Iron (C4)	☐ Shallow Aquitard (D3)
☐ Recent Iron Reduction in Tilled Soils (C6)	☒ FAC-Neutral Test (D5)
☐ Stunted or Stressed Plants (D1) (LRR A)	☐ Raised Ant Mounds (D6) (LRR A)
☐ Other (Explain in Remarks)	☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes ☒ No ☐	Depth (<i>inches</i>)	<u>2</u>	Wetland Hydrology Present?
Water Table Present?	Yes ☒ No ☐	Depth (<i>inches</i>)	<u>6</u>	
Saturation Present? <i>(includes capillary fringe)</i>	Yes ☒ No ☐	Depth (<i>inches</i>)	<u>surface</u>	

Remarks:

Wetland Determination Data Form - Western Mountains, Valleys, and Coast Region

Project/Site: US 93 Ninepipes City/County: Lake County Sampling Date: 5/19/2025
 Applicant/Owner: Montana Department of Transportation State: MT Sampling Point: UP-14a
 Investigator(s): R. Newton and J. Mulligan Section, Township, Range: S36 T20N R20W
 Landform (*hillslope, terrace, etc.*): road slope Local Relief (*concave, convex, none*): none Slope (%): 0-1
 Subregion (LRR): E - Rocky Mtn. Forests and Rangeland Lat. 47.448935 Long: -114.096802 Datum: WGS 84
 Soil Map Unit Name: Post-Ronan-Water complex, 2 to 8 percent slopes NWI Classification: UPL

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No X (If no, explain in Remarks)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes No X
 Hydric Soil Present? Yes No X Is the Sampled Area within a Wetland? Yes No X
 Wetland Hydrology Present? Yes No X

Remarks:

Paired upland point for wetland sample point WL-14a. The APT determined drought conditions. Approx. 1.34" precip recorded in the 10 days prior to survey and approx. 0.25" precip recorded during the four-day survey period (Ronan Mesonet station).

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: <u>r = 30 ft.</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:																																
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)																																
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Total Number of Dominant Species Across All Strata: <u>1</u> (B)																																
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)																																
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
<u>0</u> = Total Cover																																				
Sapling/Shrub Stratum (Plot size: <u>r = 15 ft.</u>)																																				
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
<u>0</u> = Total Cover																																				
Herb Stratum (Plot size: <u>r = 5ft.</u>)																																				
1. <u>Bromus inermis</u>	<u>40</u>	<u>Y</u>	<u>UPL</u>																																	
2. <u>Bromus tectorum</u>	<u>10</u>	<u>N</u>	<u>NI</u>																																	
3. <u>Cardamine oligosperma</u>	<u>5</u>	<u>N</u>	<u>FAC</u>																																	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
6. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
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9. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
10. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
<u>55</u> = Total Cover																																				
Woody Vine Stratum (Plot size: <u>n/a</u>)																																				
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
<u>0</u> = Total Cover																																				
% Bare Ground in Herb Stratum	<u>50</u> %																																			
				Prevalence Index Worksheet: <table border="1"> <thead> <tr> <th colspan="2">Total % Cover of:</th> <th colspan="2">Multiply by:</th> </tr> </thead> <tbody> <tr> <td>OBL species</td> <td><u>0</u></td> <td>x 1 =</td> <td><u>0</u></td> </tr> <tr> <td>FACW species</td> <td><u>0</u></td> <td>x 2 =</td> <td><u>0</u></td> </tr> <tr> <td>FAC species</td> <td><u>5</u></td> <td>x 3 =</td> <td><u>15</u></td> </tr> <tr> <td>FACU species</td> <td><u>0</u></td> <td>x 4 =</td> <td><u>0</u></td> </tr> <tr> <td>UPL species</td> <td><u>50</u></td> <td>x 5 =</td> <td><u>250</u></td> </tr> <tr> <td>Column Totals:</td> <td><u>55</u> (A)</td> <td></td> <td><u>265</u> (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A =</td> <td colspan="2"><u>4.8</u></td> </tr> </tbody> </table>	Total % Cover of:		Multiply by:		OBL species	<u>0</u>	x 1 =	<u>0</u>	FACW species	<u>0</u>	x 2 =	<u>0</u>	FAC species	<u>5</u>	x 3 =	<u>15</u>	FACU species	<u>0</u>	x 4 =	<u>0</u>	UPL species	<u>50</u>	x 5 =	<u>250</u>	Column Totals:	<u>55</u> (A)		<u>265</u> (B)	Prevalence Index = B/A =		<u>4.8</u>	
Total % Cover of:		Multiply by:																																		
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				Hydrophytic Vegetation Indicators: 1. Rapid Test for Hydrophytic Vegetation <u> </u> 2. Dominance Test is >50%. <u> </u> 3. Prevalence Index is ≤3.0 ¹ <u> </u> 4. Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> 5. Wetland Non-Vascular Plants ¹ <u> </u> Problematic Hydrophytic Vegetation (Explain) <u> </u> ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																																
				Hydrophytic Vegetation Present? <u> </u> Yes <u>X</u> No																																

Remarks:

Species with no indicator (NI) are treated as UPL for this analysis.

Profile Description: *(Describe to the depth needed to document the indicator or confirm the absence of indicators.)*

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 4	10 YR 3/2	100					Silty Clay	50% road fill/gravels
4 - 12	10 YR 5/4	50					Clay	70% road fill/gravels
	10 YR 5/3	50					Clay	70% road fill/gravels
12								shovel refusal - cobbles

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

☐ Histosol (A1)	☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G)
☐ Histic Epipedon (A2)	☐ Sandy Gleyed Matrix (S4)
☐ Black Histic (A3)	☐ Sandy Redox (S5)
☐ Hydrogen Sulfide (A4)	☐ Stripped Matrix (S6)
☐ 1 cm Muck (A9) (LRR D, G)	☐ Loamy Mucky Mineral (F1) (except MLRA 1)
☐ Depleted Below Dark Surface (A11)	☐ Loamy Gleyed Matrix (F2)
☐ Thick Dark Surface (A12)	☐ Depleted Matrix (F3)
☐ Iron Monosulfide (A18)	☐ Redox Dark Surface (F6)
☐ Sandy Mucky Mineral (S1)	☐ Depleted Dark Surface (F7)
	☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

☐ 2 cm Muck (A10) (LRRA, E)
☐ Iron-Manganese Masses (F12) (LRR D)
☐ Red Parent Material (F21)
☐ Very Shallow Dark Surface (F22)
☐ Other (Explain in Remarks)

³Indicators of hydrophylic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer: *(if observed)*

Type: _____
Depth (*inches*): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators *(minimum of one is required; check all that apply)*

☐ Surface Water (A1)
☐ High Water Table (A2)
☐ Saturation (A3)
☐ Water Marks (B1)
☐ Sediment Deposits (B2)
☐ Drift Deposits (B3)
☐ Algal Mat or Crust (B4)
☐ Iron Deposits (B5)
☐ Surface Soil Cracks (B6)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Sparsely Vegetated Concave Surface (B8)

Secondary Indicators *(minimum of two required)*

☐ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	☐ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
☐ Salt Crust (B11)	☐ Drainage Patterns (B10)
☐ Aquatic Invertebrates (B13)	☐ Dry-Season Water Table (C2)
☐ Hydrogen Sulfide Odor (C1)	☐ Saturation Visible on Aerial Imagery (C9)
☐ Oxidized Rhizospheres on Living Roots (C3)	☐ Geomorphic Position (D2)
☐ Presence of Reduced Iron (C4)	☐ Shallow Aquitard (D3)
☐ Recent Iron Reduction in Tilled Soils (C6)	☐ FAC-Neutral Test (D5)
☐ Stunted or Stressed Plants (D1) (LRR A)	☐ Raised Ant Mounds (D6) (LRR A)
☐ Other (Explain in Remarks)	☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes _____ No <u>X</u>	Depth (<i>inches</i>) _____	Wetland Hydrology Present? Yes _____ X _____ No _____
Water Table Present?	Yes _____ No <u>X</u>	Depth (<i>inches</i>) _____	
Saturation Present? <i>(includes capillary fringe)</i>	Yes _____ No <u>X</u>	Depth (<i>inches</i>) _____	

Remarks:

Wetland Determination Data Form - Western Mountains, Valleys, and Coast Region

Project/Site: US 93 Ninepipes City/County: Lake County Sampling Date: 5/19/2025
 Applicant/Owner: Montana Department of Transportation State: MT Sampling Point: WL-14b
 Investigator(s): R. Newton and J. Mulligan Section, Township, Range: S36 T20N R20W
 Landform (*hillslope, terrace, etc.*): roadside ditch Local Relief (*concave, convex, none*): concave Slope (%): 0-1
 Subregion (LRR): E - Rocky Mtn. Forests and Rangeland Lat. 47.449452 Long: -114.09678 Datum: WGS 84
 Soil Map Unit Name: Post-Ronan-Water complex, 2 to 8 percent slopes NWI Classification: PEM

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No X (If no, explain in Remarks)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes X No
 Hydric Soil Present? Yes X No Is the Sampled Area within a Wetland? Yes X No
 Wetland Hydrology Present? Yes X No

Remarks:

Depressional PEM wetland WL-14b in roadside ditch on the eastern side of US 93; connected via driveway culvert to WL-14a. Otherwise appears to be isolated. The APT determined drought conditions. Approx. 1.34" precip recorded in the 10 days prior to survey and approx. 0.25" precip recorded during the four-day survey period (Ronan Mesonet station).

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: r = 30 ft.)

	Absolute % Cover	Dominant Species?	Indicator Status
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>0</u> = Total Cover			

Sapling/Shrub Stratum (Plot size: r = 15 ft.)

	Absolute % Cover	Dominant Species?	Indicator Status
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>0</u> = Total Cover			

Herb Stratum (Plot size: r = 5ft.)

	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Eleocharis acicularis</u>	<u>40</u>	<u>Y</u>	<u>OBL</u>
2. <u>Bromus inermis</u>	<u>12</u>	<u>N</u>	<u>UPL</u>
3. <u>Phalaris arundinacea</u>	<u>10</u>	<u>N</u>	<u>FACW</u>
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>
6. <u> </u>	<u> </u>	<u> </u>	<u> </u>
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>
9. <u> </u>	<u> </u>	<u> </u>	<u> </u>
10. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>62</u> = Total Cover			

Woody Vine Stratum (Plot size: n/a)

	Absolute % Cover	Dominant Species?	Indicator Status
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>0</u> = Total Cover			

% Bare Ground in Herb Stratum 40 %

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	<u>40</u>	x 1 =	<u>40</u>
FACW species	<u>10</u>	x 2 =	<u>20</u>
FAC species	<u>0</u>	x 3 =	<u>0</u>
FACU species	<u>0</u>	x 4 =	<u>0</u>
UPL species	<u>12</u>	x 5 =	<u>60</u>
Column Totals:	<u>62</u> (A)		<u>120</u> (B)
Prevalence Index = B/A =		<u>1.9</u>	

Hydrophytic Vegetation Indicators:

- X 1. Rapid Test for Hydrophytic Vegetation
- X 2. Dominance Test is >50%.
- X 3. Prevalence Index is ≤3.0¹
- 4. Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
- 5. Wetland Non-Vascular Plants¹
- Problematic Hydrophytic Vegetation (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? X Yes No

Remarks:

Profile Description: *(Describe to the depth needed to document the indicator or confirm the absence of indicators.)*

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 4	10 YR 3/2	100					Silty Clay	25% gravels
4 - 16	2.5 Y 6/1	85	10 YR 5/6	15	C	M	Clay	25% gravels

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

☐ Histosol (A1)	☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G)
☐ Histic Epipedon (A2)	☐ Sandy Gleyed Matrix (S4)
☐ Black Histic (A3)	☐ Sandy Redox (S5)
☐ Hydrogen Sulfide (A4)	☐ Stripped Matrix (S6)
☐ 1 cm Muck (A9) (LRR D, G)	☐ Loamy Mucky Mineral (F1) (except MLRA 1)
☒ Depleted Below Dark Surface (A11)	☐ Loamy Gleyed Matrix (F2)
☐ Thick Dark Surface (A12)	☒ Depleted Matrix (F3)
☐ Iron Monosulfide (A18)	☐ Redox Dark Surface (F6)
☐ Sandy Mucky Mineral (S1)	☐ Depleted Dark Surface (F7)
	☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

☐ 2 cm Muck (A10) (LRRA, E)
☐ Iron-Manganese Masses (F12) (LRR D)
☐ Red Parent Material (F21)
☐ Very Shallow Dark Surface (F22)
☐ Other (Explain in Remarks)

³Indicators of hydrophylic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer: *(if observed)*

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators *(minimum of one is required; check all that apply)*

☐ Surface Water (A1)
☐ High Water Table (A2)
☐ Saturation (A3)
☐ Water Marks (B1)
☐ Sediment Deposits (B2)
☐ Drift Deposits (B3)
☐ Algal Mat or Crust (B4)
☐ Iron Deposits (B5)
☐ Surface Soil Cracks (B6)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Sparsely Vegetated Concave Surface (B8)

Secondary Indicators *(minimum of two required)*

☐ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	☐ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
☐ Salt Crust (B11)	☐ Drainage Patterns (B10)
☐ Aquatic Invertebrates (B13)	☐ Dry-Season Water Table (C2)
☐ Hydrogen Sulfide Odor (C1)	☐ Saturation Visible on Aerial Imagery (C9)
☐ Oxidized Rhizospheres on Living Roots (C3)	☒ Geomorphic Position (D2)
☐ Presence of Reduced Iron (C4)	☐ Shallow Aquitard (D3)
☐ Recent Iron Reduction in Tilled Soils (C6)	☒ FAC-Neutral Test (D5)
☐ Stunted or Stressed Plants (D1) (LRR A)	☐ Raised Ant Mounds (D6) (LRR A)
☐ Other (Explain in Remarks)	☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes ☐ No ☒	Depth (inches) _____	Wetland Hydrology Present? ☒ Yes ☐ No
Water Table Present?	Yes ☐ No ☒	Depth (inches) _____	
Saturation Present? <i>(includes capillary fringe)</i>	Yes ☐ No ☒	Depth (inches) _____	

Remarks:

Wetland Determination Data Form - Western Mountains, Valleys, and Coast Region

Project/Site: US 93 Ninepipes City/County: Lake County Sampling Date: 5/19/2025
 Applicant/Owner: Montana Department of Transportation State: MT Sampling Point: UP-14b
 Investigator(s): R. Newton and J. Mulligan Section, Township, Range: S36 T20N R20W
 Landform (*hillslope, terrace, etc.*): road slope Local Relief (*concave, convex, none*): none Slope (%): 0-1
 Subregion (LRR): E - Rocky Mtn. Forests and Rangeland Lat. 47.449453 Long: -114.0968 Datum: WGS 84
 Soil Map Unit Name: Post-Ronan-Water complex, 2 to 8 percent slopes NWI Classification: UPL

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No X (If no, explain in Remarks)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes No X
 Hydric Soil Present? Yes No X Is the Sampled Area within a Wetland? Yes No X
 Wetland Hydrology Present? Yes No X

Remarks:

Paired upland point for wetland sample point WL-14b. The APT determined drought conditions. Approx. 1.34" precip recorded in the 10 days prior to survey and approx. 0.25" precip recorded during the four-day survey period (Ronan Mesonet station).

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: <u>r = 30 ft.</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Prevalence Index Worksheet: Total % Cover of: <u>0</u> Multiply by: <u>1</u> = <u>0</u>
<u>0</u> = Total Cover				
Sapling/Shrub Stratum (Plot size: <u>r = 15 ft.</u>)				FACW species <u>0</u> x 2 = <u>0</u>
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	FAC species <u>5</u> x 3 = <u>15</u>
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	FACU species <u>0</u> x 4 = <u>0</u>
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	UPL species <u>50</u> x 5 = <u>250</u>
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Column Totals: <u>55</u> (A) <u>265</u> (B)
<u>0</u> = Total Cover				Prevalence Index = B/A = <u>4.8</u>
Herb Stratum (Plot size: <u>r = 5ft.</u>)				Hydrophytic Vegetation Indicators: 1. Rapid Test for Hydrophytic Vegetation <u> </u> 2. Dominance Test is >50%. <u> </u> 3. Prevalence Index is ≤3.0 ¹ <u> </u> 4. Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> 5. Wetland Non-Vascular Plants ¹ <u> </u> Problematic Hydrophytic Vegetation (Explain) <u> </u> ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Bromus inermis</u>	<u>45</u>	<u>Y</u>	<u>UPL</u>	
2. <u>Poa pratensis</u>	<u>5</u>	<u>N</u>	<u>FAC</u>	
3. <u>Bromus tectorum</u>	<u>5</u>	<u>N</u>	<u>NI</u>	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
6. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
9. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
10. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
<u>55</u> = Total Cover				
Woody Vine Stratum (Plot size: <u>n/a</u>)				Hydrophytic Vegetation Present? <u> </u> Yes <u>X</u> No <u> </u>
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
<u>0</u> = Total Cover				
% Bare Ground in Herb Stratum	<u>45</u> %			

Remarks:

Species with no indicator (NI) are treated as UPL for this analysis.

Profile Description: *(Describe to the depth needed to document the indicator or confirm the absence of indicators.)*

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 4	10 YR 3/2	100					Silty Clay	50% road fill/gravels
4 - 12	10 YR 5/4	50					Clay	70% road fill/gravels
	10 YR 5/3	50					Clay	70% road fill/gravels
12								shovel refusal - cobbles

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

☐ Histosol (A1)	☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G)
☐ Histic Epipedon (A2)	☐ Sandy Gleyed Matrix (S4)
☐ Black Histic (A3)	☐ Sandy Redox (S5)
☐ Hydrogen Sulfide (A4)	☐ Stripped Matrix (S6)
☐ 1 cm Muck (A9) (LRR D, G)	☐ Loamy Mucky Mineral (F1) (except MLRA 1)
☐ Depleted Below Dark Surface (A11)	☐ Loamy Gleyed Matrix (F2)
☐ Thick Dark Surface (A12)	☐ Depleted Matrix (F3)
☐ Iron Monosulfide (A18)	☐ Redox Dark Surface (F6)
☐ Sandy Mucky Mineral (S1)	☐ Depleted Dark Surface (F7)
	☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

☐ 2 cm Muck (A10) (LRRA, E)
☐ Iron-Manganese Masses (F12) (LRR D)
☐ Red Parent Material (F21)
☐ Very Shallow Dark Surface (F22)
☐ Other (Explain in Remarks)

³Indicators of hydrophylic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer: *(if observed)*

Type: _____
Depth (*inches*): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators *(minimum of one is required; check all that apply)*

☐ Surface Water (A1)
☐ High Water Table (A2)
☐ Saturation (A3)
☐ Water Marks (B1)
☐ Sediment Deposits (B2)
☐ Drift Deposits (B3)
☐ Algal Mat or Crust (B4)
☐ Iron Deposits (B5)
☐ Surface Soil Cracks (B6)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Sparsely Vegetated Concave Surface (B8)

Secondary Indicators *(minimum of two required)*

☐ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	☐ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
☐ Salt Crust (B11)	☐ Drainage Patterns (B10)
☐ Aquatic Invertebrates (B13)	☐ Dry-Season Water Table (C2)
☐ Hydrogen Sulfide Odor (C1)	☐ Saturation Visible on Aerial Imagery (C9)
☐ Oxidized Rhizospheres on Living Roots (C3)	☐ Geomorphic Position (D2)
☐ Presence of Reduced Iron (C4)	☐ Shallow Aquitard (D3)
☐ Recent Iron Reduction in Tilled Soils (C6)	☐ FAC-Neutral Test (D5)
☐ Stunted or Stressed Plants (D1) (LRR A)	☐ Raised Ant Mounds (D6) (LRR A)
☐ Other (Explain in Remarks)	☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes _____ No <u>X</u>	Depth (<i>inches</i>) _____	Wetland Hydrology Present? Yes _____ X _____ No _____
Water Table Present?	Yes _____ No <u>X</u>	Depth (<i>inches</i>) _____	
Saturation Present? <i>(includes capillary fringe)</i>	Yes _____ No <u>X</u>	Depth (<i>inches</i>) _____	

Remarks:

Wetland Determination Data Form - Western Mountains, Valleys, and Coast Region									
Project/Site: US93 Ninepipes		City/County: Lake County			Sampling Date: 5/20/2025				
Applicant/Owner: Montana Department of Transportation				State: _____		Sampling Point: WL-15			
Investigator(s): B. Stockowitz and A. Hendryx				Section, Township, Range: S35 T20N R20W					
Landform (hillslope, terrace, etc.): toe slope		Local Relief (concave, convex, none): concave			Slope (%): 0-2				
Subregion (LRR): E - Rocky Mtn. Forests and Rangeland		Lat. 47.450092		Long: -114.09732		Datum: WGS 84			
Soil Map Unit Name: Post-Ronan-Water complex, 8 to 15 percent slopes				NWI Classification: PEM					
Are climatic/hydrologic conditions on the site typical for this time of year? Yes _____ No X (If no, explain in Remarks)									
Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No X									
Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)									
SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.									
Hydrophytic Vegetation Present?		Yes X	No _____						
Hydric Soil Present?		Yes X	No _____	Is the Sampled Area within a Wetland?			Yes X	No _____	
Wetland Hydrology Present?		Yes X	No _____						
Remarks:									
Depressional wetland WL-15, open water and fringing PEM, on the western side of US 93. Separated from WL-16 by the road embankment. No surface connection observed. The APT determined drought conditions. Approx. 1.34" precip recorded in the 10 days prior to survey and approx. 0.25" precip recorded during the four-day survey period (Ronan Mesonet station).									
VEGETATION - Use scientific names of plants.									
Tree Stratum (Plot size: r = 30 ft.)				Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:		
1. _____				_____	_____	_____	Number of Dominant Species		
2. _____				_____	_____	_____	That Are OBL, FACW, or FAC: 2 (A)		
3. _____				_____	_____	_____	Total Number of Dominant Species Across All Strata: 2 (B)		
4. _____				_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)		
5. _____				_____	_____	_____			
				0	= Total Cover				
Sapling/Shrub Stratum (Plot size: r = 15 ft.)							Prevalence Index Worksheet:		
1. _____							Total % Cover of: _____ Multiply by: _____		
2. _____							OBL species 70 x 1 = 70		
3. _____							FACW species 5 x 2 = 10		
4. _____							FAC species 5 x 3 = 15		
5. _____							FACU species 0 x 4 = 0		
				0	= Total Cover		UPL species 0 x 5 = 0		
							Column Totals: 80 (A) 95 (B)		
							Prevalence Index = B/A = 1.2		
Herb Stratum (Plot size: r = 5 ft.)							Hydrophytic Vegetation Indicators:		
1. <i>Schoenoplectus pungens</i>				40	Y	OBL	X 1. Rapid Test for Hydrophytic Vegetation		
2. <i>Carex nebrascensis</i>				30	Y	OBL	X 2. Dominance Test is >50%.		
3. <i>Eleocharis acicularis</i>				5	N	FACW	X 3. Prevalence Index is ≤3.0 ¹		
4. <i>Cirsium arvense</i>				5	N	FAC	4. Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)		
5. _____							5. Wetland Non-Vascular Plants ¹		
6. _____							Problematic Hydrophytic Vegetation (Explain)		
7. _____									
8. _____									
9. _____									
10. _____									
				80	= Total Cover		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.		
Woody Vine Stratum (Plot size: n/a)							Hydrophytic Vegetation Present? X Yes _____ No _____		
1. _____									
2. _____									
				0	= Total Cover				
% Bare Ground in Herb Stratum 20 %									
Remarks:									

Profile Description: *(Describe to the depth needed to document the indicator or confirm the absence of indicators.)*

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-3	10YR 3/2	100					Clay Loam	
3-16	10YR 6/2	85	10YR 4/6	10	C	M	Clay	
			N 2.5/Gley 1	5	C	PL	Clay	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

☐ Histosol (A1)	☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G)
☐ Histic Epipedon (A2)	☐ Sandy Gleyed Matrix (S4)
☐ Black Histic (A3)	☐ Sandy Redox (S5)
☐ Hydrogen Sulfide (A4)	☐ Stripped Matrix (S6)
☐ 1 cm Muck (A9) (LRR D, G)	☐ Loamy Mucky Mineral (F1) (except MLRA 1)
☒ Depleted Below Dark Surface (A11)	☐ Loamy Gleyed Matrix (F2)
☐ Thick Dark Surface (A12)	☒ Depleted Matrix (F3)
☐ Iron Monosulfide (A18)	☐ Redox Dark Surface (F6)
☐ Sandy Mucky Mineral (S1)	☐ Depleted Dark Surface (F7)
	☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

☐ 2 cm Muck (A10) (LRRA, E)
☐ Iron-Manganese Masses (F12) (LRR D)
☐ Red Parent Material (F21)
☐ Very Shallow Dark Surface (F22)
☐ Other (Explain in Remarks)

³Indicators of hydrophylic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer: *(if observed)*

Type: _____
Depth (*inches*): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators *(minimum of one is required; check all that apply)*

☐ Surface Water (A1)	☐ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
☒ High Water Table (A2)	☐ Salt Crust (B11)
☒ Saturation (A3)	☐ Aquatic Invertebrates (B13)
☐ Water Marks (B1)	☐ Hydrogen Sulfide Odor (C1)
☐ Sediment Deposits (B2)	☐ Oxidized Rhizospheres on Living Roots (C3)
☐ Drift Deposits (B3)	☐ Presence of Reduced Iron (C4)
☐ Algal Mat or Crust (B4)	☐ Recent Iron Reduction in Tilled Soils (C6)
☐ Iron Deposits (B5)	☐ Stunted or Stressed Plants (D1) (LRR A)
☐ Surface Soil Cracks (B6)	☐ Other (Explain in Remarks)
☐ Inundation Visible on Aerial Imagery (B7)	
☐ Sparsely Vegetated Concave Surface (B8)	

Secondary Indicators *(minimum of two required)*

☐ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
☐ Drainage Patterns (B10)
☐ Dry-Season Water Table (C2)
☐ Saturation Visible on Aerial Imagery (C9)
☒ Geomorphic Position (D2)
☐ Shallow Aquitard (D3)
☒ FAC-Neutral Test (D5)
☐ Raised Ant Mounds (D6) (LRR A)
☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes ☐ No ☒	Depth (<i>inches</i>)	☐	Wetland Hydrology Present?
Water Table Present?	Yes ☒ No ☐	Depth (<i>inches</i>)	10	
Saturation Present? <i>(includes capillary fringe)</i>	Yes ☒ No ☐	Depth (<i>inches</i>)	surface	

Remarks:

Wetland Determination Data Form - Western Mountains, Valleys, and Coast Region

Project/Site: US93 Ninepipes City/County: Lake County Sampling Date: 5/20/2025
 Applicant/Owner: Montana Department of Transportation State: MT Sampling Point: UP-15
 Investigator(s): B. Stockowitz and A. Hendryx Section, Township, Range: S35 T20N R20W
 Landform (*hillslope, terrace, etc.*): hillslope Local Relief (*concave, convex, none*): convex Slope (%): 3-5
 Subregion (LRR): E - Rocky Mtn. Forests and Rangeland Lat. 47.450073 Long: -114.097318 Datum: WGS 84
 Soil Map Unit Name: Post-Ronan-Water complex, 8 to 15 percent slopes NWI Classification: UPL

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No X (If no, explain in Remarks)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes X No
 Hydric Soil Present? Yes X No Is the Sampled Area within a Wetland? Yes No X
 Wetland Hydrology Present? Yes No X

Remarks:

Paired upland point for wetland sample point WL-15. The APT determined drought conditions. Approx. 1.34" precip recorded in the 10 days prior to survey and approx. 0.25" precip recorded during the four-day survey period (Ronan Mesonet station).

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: r = 30 ft.)

	Absolute % Cover	Dominant Species?	Indicator Status
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>0</u> = Total Cover			

Sapling/Shrub Stratum (Plot size: r = 15 ft.)

	Absolute % Cover	Dominant Species?	Indicator Status
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>0</u> = Total Cover			

Herb Stratum (Plot size: r = 5 ft.)

	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Cirsium arvense</u>	<u>60</u>	<u>Y</u>	<u>FAC</u>
2. <u>Dipsacus fullonum</u>	<u>15</u>	<u>N</u>	<u>FAC</u>
3. <u>Phalaris arundinacea</u>	<u>3</u>	<u>N</u>	<u>FACW</u>
4. <u>Lappula squarrosa</u>	<u>2</u>	<u>N</u>	<u>NI</u>
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>
6. <u> </u>	<u> </u>	<u> </u>	<u> </u>
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>
9. <u> </u>	<u> </u>	<u> </u>	<u> </u>
10. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>80</u> = Total Cover			

Woody Vine Stratum (Plot size: n/a)

	Absolute % Cover	Dominant Species?	Indicator Status
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>0</u> = Total Cover			

% Bare Ground in Herb Stratum 20 %

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
 Total Number of Dominant Species Across All Strata: 1 (B)
 Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	<u>0</u>	x 1 =	<u>0</u>
FACW species	<u>3</u>	x 2 =	<u>6</u>
FAC species	<u>75</u>	x 3 =	<u>225</u>
FACU species	<u>0</u>	x 4 =	<u>0</u>
UPL species	<u>0</u>	x 5 =	<u>0</u>
Column Totals:	<u>78</u> (A)		<u>231</u> (B)
Prevalence Index = B/A =			<u>3.0</u>

Hydrophytic Vegetation Indicators:

1. Rapid Test for Hydrophytic Vegetation
- X 2. Dominance Test is >50%.
- X 3. Prevalence Index is ≤3.0¹
4. Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
5. Wetland Non-Vascular Plants¹
- Problematic Hydrophytic Vegetation (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? X Yes No

Remarks:

Species with no indicator (NI) are treated as UPL for this analysis. Very weedy area. Teasel (*Dipsacus fullonum*), St. Johns Wort (*Hypericum* spp.), Canada thistle (*Cirsium arvense*), dense nearby to south.

Profile Description: *(Describe to the depth needed to document the indicator or confirm the absence of indicators.)*

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-4	10YR 3/2	100					Clay Loam	
4-16	10YR 5/2	97	10YR 4/6	3	C	M	Clay Loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

☐ Histosol (A1)	☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G)
☐ Histic Epipedon (A2)	☐ Sandy Gleyed Matrix (S4)
☐ Black Histic (A3)	☐ Sandy Redox (S5)
☐ Hydrogen Sulfide (A4)	☐ Stripped Matrix (S6)
☐ 1 cm Muck (A9) (LRR D, G)	☐ Loamy Mucky Mineral (F1) (except MLRA 1)
☒ Depleted Below Dark Surface (A11)	☐ Loamy Gleyed Matrix (F2)
☐ Thick Dark Surface (A12)	☒ Depleted Matrix (F3)
☐ Iron Monosulfide (A18)	☐ Redox Dark Surface (F6)
☐ Sandy Mucky Mineral (S1)	☐ Depleted Dark Surface (F7)
	☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

☐ 2 cm Muck (A10) (LRRA, E)
☐ Iron-Manganese Masses (F12) (LRR D)
☐ Red Parent Material (F21)
☐ Very Shallow Dark Surface (F22)
☐ Other (Explain in Remarks)

³Indicators of hydrophylic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer: *(if observed)*

Type: _____
Depth (*inches*): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators *(minimum of one is required; check all that apply)*

☐ Surface Water (A1)
☐ High Water Table (A2)
☐ Saturation (A3)
☐ Water Marks (B1)
☐ Sediment Deposits (B2)
☐ Drift Deposits (B3)
☐ Algal Mat or Crust (B4)
☐ Iron Deposits (B5)
☐ Surface Soil Cracks (B6)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Sparsely Vegetated Concave Surface (B8)

Secondary Indicators *(minimum of two required)*

☐ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	☐ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
☐ Salt Crust (B11)	☐ Drainage Patterns (B10)
☐ Aquatic Invertebrates (B13)	☐ Dry-Season Water Table (C2)
☐ Hydrogen Sulfide Odor (C1)	☐ Saturation Visible on Aerial Imagery (C9)
☐ Oxidized Rhizospheres on Living Roots (C3)	☐ Geomorphic Position (D2)
☐ Presence of Reduced Iron (C4)	☐ Shallow Aquitard (D3)
☐ Recent Iron Reduction in Tilled Soils (C6)	☐ FAC-Neutral Test (D5)
☐ Stunted or Stressed Plants (D1) (LRR A)	☐ Raised Ant Mounds (D6) (LRR A)
☐ Other (Explain in Remarks)	☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes ☐ No ☒	Depth (<i>inches</i>)	_____	Wetland Hydrology Present? Yes ☐ X No ☐
Water Table Present?	Yes ☐ No ☒	Depth (<i>inches</i>)	_____	
Saturation Present? <i>(includes capillary fringe)</i>	Yes ☐ No ☒	Depth (<i>inches</i>)	_____	

Remarks:

No moisture.

Wetland Determination Data Form - Western Mountains, Valleys, and Coast Region

Project/Site: US 93 Ninepipes City/County: Lake County Sampling Date: 5/20/2025
Applicant/Owner: Montana Department of Transportation State: MT Sampling Point: WL-16
Investigator(s): R. Newton and J. Mulligan Section, Township, Range: S36 T20N R20W
Landform (*hillslope, terrace, etc.*): bankslope Local Relief (*concave, convex, none*): minor concave Slope (%): 0-2
Subregion (LRR): E - Rocky Mtn. Forests and Rangeland Lat. 47.450342 Long: -114.096022 Datum: WGS 84
Soil Map Unit Name: Post-Ronan-Water complex, 2 to 8 percent slopes NWI Classification: PEM

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No X (If no, explain in Remarks)

Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No

Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes X No
Hydric Soil Present? Yes X No Is the Sampled Area within a Wetland? Yes X No
Wetland Hydrology Present? Yes X No

Remarks:

Depressional wetland WL-16, open water and fringing PEM, on the eastern side of US 93. Separated from WL-15 by the road embankment. No surface connection observed. The APT determined drought conditions. Approx. 1.34" precip recorded in the 10 days prior to survey and approx. 0.25" precip recorded during the four-day survey period (Ronan Mesonet station).

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: <u>r = 30 ft.</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>0</u> = Total Cover			

Sapling/Shrub Stratum (Plot size: <u>r = 15 ft.</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>0</u> = Total Cover			

Herb Stratum (Plot size: <u>r = 5ft.</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Schoenoplectus pungens</u>	<u>45</u>	<u>Y</u>	<u>OBL</u>
2. <u>Dipsacus fullonum</u>	<u>5</u>	<u>N</u>	<u>FAC</u>
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>
6. <u> </u>	<u> </u>	<u> </u>	<u> </u>
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>
9. <u> </u>	<u> </u>	<u> </u>	<u> </u>
10. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>50</u> = Total Cover			

Woody Vine Stratum (Plot size: <u>n/a</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>0</u> = Total Cover			

% Bare Ground in Herb Stratum 50 %

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	<u>45</u>	x 1 =	<u>45</u>
FACW species	<u>0</u>	x 2 =	<u>0</u>
FAC species	<u>5</u>	x 3 =	<u>15</u>
FACU species	<u>0</u>	x 4 =	<u>0</u>
UPL species	<u>0</u>	x 5 =	<u>0</u>
Column Totals:	<u>50</u> (A)		<u>60</u> (B)
Prevalence Index = B/A =		<u>1.2</u>	

Hydrophytic Vegetation Indicators:

- X 1. Rapid Test for Hydrophytic Vegetation
X 2. Dominance Test is >50%.
X 3. Prevalence Index is ≤3.0'
 4. Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 5. Wetland Non-Vascular Plants¹
 Problematic Hydrophytic Vegetation (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? X Yes No

Remarks:

Profile Description: *(Describe to the depth needed to document the indicator or confirm the absence of indicators.)*

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 7	10 YR 3/1	100					Silty Clay	roots throughout top 12"
7 - 16	10 YR 3/1	97	7.5 YR 4/6	3	C	M	Silty Clay	large cobbles at 10"

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

☐ Histosol (A1)	☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G)
☐ Histic Epipedon (A2)	☐ Sandy Gleyed Matrix (S4)
☐ Black Histic (A3)	☐ Sandy Redox (S5)
☐ Hydrogen Sulfide (A4)	☐ Stripped Matrix (S6)
☐ 1 cm Muck (A9) (LRR D, G)	☐ Loamy Mucky Mineral (F1) (except MLRA 1)
☐ Depleted Below Dark Surface (A11)	☐ Loamy Gleyed Matrix (F2)
☐ Thick Dark Surface (A12)	☐ Depleted Matrix (F3)
☐ Iron Monosulfide (A18)	☒ Redox Dark Surface (F6)
☐ Sandy Mucky Mineral (S1)	☐ Depleted Dark Surface (F7)
	☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

☐ 2 cm Muck (A10) (LRRA, E)
☐ Iron-Manganese Masses (F12) (LRR D)
☐ Red Parent Material (F21)
☐ Very Shallow Dark Surface (F22)
☐ Other (Explain in Remarks)

³Indicators of hydrophylic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer: *(if observed)*

Type: _____
Depth (*inches*): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators *(minimum of one is required; check all that apply)*

☐ Surface Water (A1)
☐ High Water Table (A2)
☐ Saturation (A3)
☐ Water Marks (B1)
☐ Sediment Deposits (B2)
☐ Drift Deposits (B3)
☐ Algal Mat or Crust (B4)
☐ Iron Deposits (B5)
☐ Surface Soil Cracks (B6)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Sparsely Vegetated Concave Surface (B8)

Secondary Indicators *(minimum of two required)*

☐ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	☐ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
☐ Salt Crust (B11)	☐ Drainage Patterns (B10)
☐ Aquatic Invertebrates (B13)	☐ Dry-Season Water Table (C2)
☐ Hydrogen Sulfide Odor (C1)	☐ Saturation Visible on Aerial Imagery (C9)
☐ Oxidized Rhizospheres on Living Roots (C3)	☒ Geomorphic Position (D2)
☐ Presence of Reduced Iron (C4)	☐ Shallow Aquitard (D3)
☐ Recent Iron Reduction in Tilled Soils (C6)	☒ FAC-Neutral Test (D5)
☐ Stunted or Stressed Plants (D1) (LRR A)	☐ Raised Ant Mounds (D6) (LRR A)
☐ Other (Explain in Remarks)	☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes ☐ No ☒	Depth (<i>inches</i>)	_____	Wetland Hydrology Present?
Water Table Present?	Yes ☐ No ☒	Depth (<i>inches</i>)	_____	
Saturation Present? <i>(includes capillary fringe)</i>	Yes ☐ No ☒	Depth (<i>inches</i>)	_____	☒ Yes ☐ No

Remarks:

Wetland Determination Data Form - Western Mountains, Valleys, and Coast Region

Project/Site: US 93 Ninepipes City/County: Lake County Sampling Date: 5/20/2025
Applicant/Owner: Montana Department of Transportation State: MT Sampling Point: UP-16
Investigator(s): R. Newton and J. Mulligan Section, Township, Range: S36 T20N R20W
Landform (*hillslope, terrace, etc.*): minor terrace Local Relief (*concave, convex, none*): none Slope (%): 0-1
Subregion (LRR): E - Rocky Mtn. Forests and Rangeland Lat. 47.450336 Long: -114.096006 Datum: WGS 84
Soil Map Unit Name: Post-Ronan-Water complex, 2 to 8 percent slopes NWI Classification: UPL

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No X (If no, explain in Remarks)
Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No
Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes X No
Hydric Soil Present? Yes No X Is the Sampled Area within a Wetland? Yes No X
Wetland Hydrology Present? Yes No X

Remarks:

Paired upland point for wetland sample point WL-16. The APT determined drought conditions. Approx. 1.34" precip recorded in the 10 days prior to survey and approx. 0.25" precip recorded during the four-day survey period (Ronan Mesonet station).

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: <u>r = 30 ft.</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>0</u> = Total Cover			

Sapling/Shrub Stratum (Plot size: <u>r = 15 ft.</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Rosa acicularis</u>	<u>5</u>	<u>Y</u>	<u>FACU</u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>5</u> = Total Cover			

Herb Stratum (Plot size: <u>r = 5ft.</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Phalaris arundinacea</u>	<u>95</u>	<u>Y</u>	<u>FACW</u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>
6. <u> </u>	<u> </u>	<u> </u>	<u> </u>
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>
9. <u> </u>	<u> </u>	<u> </u>	<u> </u>
10. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>95</u> = Total Cover			

Woody Vine Stratum (Plot size: <u>n/a</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>0</u> = Total Cover			

% Bare Ground in Herb Stratum 10 %

Dominance Test Worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across All Strata: 2 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	<u>0</u>	x 1 =	<u>0</u>
FACW species	<u>95</u>	x 2 =	<u>190</u>
FAC species	<u>0</u>	x 3 =	<u>0</u>
FACU species	<u>5</u>	x 4 =	<u>20</u>
UPL species	<u>0</u>	x 5 =	<u>0</u>
Column Totals:	<u>100</u> (A)		<u>210</u> (B)

Prevalence Index = B/A = 2.1

Hydrophytic Vegetation Indicators:

1. Rapid Test for Hydrophytic Vegetation
2. Dominance Test is >50%.
- X 3. Prevalence Index is ≤3.0¹
4. Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
5. Wetland Non-Vascular Plants¹
- Problematic Hydrophytic Vegetation (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? X Yes No

Remarks:

Profile Description: *(Describe to the depth needed to document the indicator or confirm the absence of indicators.)*

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 16	10 YR 3/1	100					Silty Clay	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

☐ Histosol (A1)	☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G)
☐ Histic Epipedon (A2)	☐ Sandy Gleyed Matrix (S4)
☐ Black Histic (A3)	☐ Sandy Redox (S5)
☐ Hydrogen Sulfide (A4)	☐ Stripped Matrix (S6)
☐ 1 cm Muck (A9) (LRR D, G)	☐ Loamy Mucky Mineral (F1) (except MLRA 1)
☐ Depleted Below Dark Surface (A11)	☐ Loamy Gleyed Matrix (F2)
☐ Thick Dark Surface (A12)	☐ Depleted Matrix (F3)
☐ Iron Monosulfide (A18)	☐ Redox Dark Surface (F6)
☐ Sandy Mucky Mineral (S1)	☐ Depleted Dark Surface (F7)
	☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

☐ 2 cm Muck (A10) (LRRA, E)
☐ Iron-Manganese Masses (F12) (LRR D)
☐ Red Parent Material (F21)
☐ Very Shallow Dark Surface (F22)
☐ Other (Explain in Remarks)

³Indicators of hydrophylic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer: *(if observed)*

Type: _____
Depth (*inches*): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators *(minimum of one is required; check all that apply)*

☐ Surface Water (A1)
☐ High Water Table (A2)
☐ Saturation (A3)
☐ Water Marks (B1)
☐ Sediment Deposits (B2)
☐ Drift Deposits (B3)
☐ Algal Mat or Crust (B4)
☐ Iron Deposits (B5)
☐ Surface Soil Cracks (B6)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Sparsely Vegetated Concave Surface (B8)

Secondary Indicators *(minimum of two required)*

☐ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	☐ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
☐ Salt Crust (B11)	☐ Drainage Patterns (B10)
☐ Aquatic Invertebrates (B13)	☐ Dry-Season Water Table (C2)
☐ Hydrogen Sulfide Odor (C1)	☐ Saturation Visible on Aerial Imagery (C9)
☐ Oxidized Rhizospheres on Living Roots (C3)	☐ Geomorphic Position (D2)
☐ Presence of Reduced Iron (C4)	☐ Shallow Aquitard (D3)
☐ Recent Iron Reduction in Tilled Soils (C6)	☐ FAC-Neutral Test (D5)
☐ Stunted or Stressed Plants (D1) (LRR A)	☐ Raised Ant Mounds (D6) (LRR A)
☐ Other (Explain in Remarks)	☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes _____ No <u>X</u>	Depth (<i>inches</i>) _____	Wetland Hydrology Present? Yes _____ X _____ No _____
Water Table Present?	Yes _____ No <u>X</u>	Depth (<i>inches</i>) _____	
Saturation Present? <i>(includes capillary fringe)</i>	Yes _____ No <u>X</u>	Depth (<i>inches</i>) _____	

Remarks:

Wetland Determination Data Form - Western Mountains, Valleys, and Coast Region

Project/Site: US 93 Ninepipes City/County: Lake County Sampling Date: 5/20/2025
 Applicant/Owner: Montana Department of Transportation State: MT Sampling Point: WL-17
 Investigator(s): R. Newton and J. Mulligan Section, Township, Range: S36 T20N R20W
 Landform (*hillslope, terrace, etc.*): roadside ditch Local Relief (*concave, convex, none*): concave Slope (%): 0-2
 Subregion (LRR): E - Rocky Mtn. Forests and Rangeland Lat. 47.453153 Long: -114.096739 Datum: WGS 84
 Soil Map Unit Name: Post-Ronan-Water complex, 2 to 8 percent slopes NWI Classification: PEM

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No X (If no, explain in Remarks)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes X No
 Hydric Soil Present? Yes X No Is the Sampled Area within a Wetland? Yes X No
 Wetland Hydrology Present? Yes X No

Remarks:

Depressional PEM wetland WL-17 in roadside ditch on eastern side of US 93; appears to be isolated. The APT determined drought conditions. Approx. 1.34" precip recorded in the 10 days prior to survey and approx. 0.25" precip recorded during the four-day survey period (Ronan Mesonet station).

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: r = 30 ft.)

	Absolute % Cover	Dominant Species?	Indicator Status
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>0</u> = Total Cover			

Sapling/Shrub Stratum (Plot size: r = 15 ft.)

	Absolute % Cover	Dominant Species?	Indicator Status
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>0</u> = Total Cover			

Herb Stratum (Plot size: r = 5ft.)

	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Typha latifolia</u>	<u>35</u>	<u>Y</u>	<u>OBL</u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>
6. <u> </u>	<u> </u>	<u> </u>	<u> </u>
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>
9. <u> </u>	<u> </u>	<u> </u>	<u> </u>
10. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>35</u> = Total Cover			

Woody Vine Stratum (Plot size: n/a)

	Absolute % Cover	Dominant Species?	Indicator Status
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>0</u> = Total Cover			

% Bare Ground in Herb Stratum 65 %

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	<u>35</u>	x 1 =	<u>35</u>
FACW species	<u>0</u>	x 2 =	<u>0</u>
FAC species	<u>0</u>	x 3 =	<u>0</u>
FACU species	<u>0</u>	x 4 =	<u>0</u>
UPL species	<u>0</u>	x 5 =	<u>0</u>
Column Totals:	<u>35</u> (A)		<u>35</u> (B)
Prevalence Index = B/A =		<u>1.0</u>	

Hydrophytic Vegetation Indicators:

- X 1. Rapid Test for Hydrophytic Vegetation
- X 2. Dominance Test is >50%.
- X 3. Prevalence Index is ≤3.0¹
- 4. Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
- 5. Wetland Non-Vascular Plants¹
- Problematic Hydrophytic Vegetation (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? X Yes No

Remarks:

Profile Description: *(Describe to the depth needed to document the indicator or confirm the absence of indicators.)*

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 13	10 YR 5/1	100					Silty Clay	50% cobbles and large gravels
13 - 16	10 YR 4/6	100					Silty Clay	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

☐ Histosol (A1)	☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G)
☐ Histic Epipedon (A2)	☐ Sandy Gleyed Matrix (S4)
☐ Black Histic (A3)	☐ Sandy Redox (S5)
☐ Hydrogen Sulfide (A4)	☐ Stripped Matrix (S6)
☐ 1 cm Muck (A9) (LRR D, G)	☐ Loamy Mucky Mineral (F1) (except MLRA 1)
☐ Depleted Below Dark Surface (A11)	☐ Loamy Gleyed Matrix (F2)
☐ Thick Dark Surface (A12)	☒ Depleted Matrix (F3)
☐ Iron Monosulfide (A18)	☐ Redox Dark Surface (F6)
☐ Sandy Mucky Mineral (S1)	☐ Depleted Dark Surface (F7)
	☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

☐ 2 cm Muck (A10) (LRRA, E)
☐ Iron-Manganese Masses (F12) (LRR D)
☐ Red Parent Material (F21)
☐ Very Shallow Dark Surface (F22)
☐ Other (Explain in Remarks)

³Indicators of hydrophylic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer: *(if observed)*

Type: _____
Depth (*inches*): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks:

Decaying organic material present throughout entire profile.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators *(minimum of one is required; check all that apply)*

☐ Surface Water (A1)
☒ High Water Table (A2)
☒ Saturation (A3)
☐ Water Marks (B1)
☐ Sediment Deposits (B2)
☐ Drift Deposits (B3)
☐ Algal Mat or Crust (B4)
☐ Iron Deposits (B5)
☐ Surface Soil Cracks (B6)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Sparsely Vegetated Concave Surface (B8)

Secondary Indicators *(minimum of two required)*

☐ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	☐ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
☐ Salt Crust (B11)	☐ Drainage Patterns (B10)
☐ Aquatic Invertebrates (B13)	☐ Dry-Season Water Table (C2)
☐ Hydrogen Sulfide Odor (C1)	☐ Saturation Visible on Aerial Imagery (C9)
☐ Oxidized Rhizospheres on Living Roots (C3)	☒ Geomorphic Position (D2)
☐ Presence of Reduced Iron (C4)	☐ Shallow Aquitard (D3)
☐ Recent Iron Reduction in Tilled Soils (C6)	☒ FAC-Neutral Test (D5)
☐ Stunted or Stressed Plants (D1) (LRR A)	☐ Raised Ant Mounds (D6) (LRRA A)
☐ Other (Explain in Remarks)	☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes ☐ No ☒	Depth (<i>inches</i>)	☐	Wetland Hydrology Present?
Water Table Present?	Yes ☒ No ☐	Depth (<i>inches</i>)	10	
Saturation Present? <i>(includes capillary fringe)</i>	Yes ☒ No ☐	Depth (<i>inches</i>)	surface	
				☒ Yes ☐ No

Remarks:

Wetland Determination Data Form - Western Mountains, Valleys, and Coast Region

Project/Site: US 93 Ninepipes City/County: Lake County Sampling Date: 5/20/2025
 Applicant/Owner: Montana Department of Transportation State: MT Sampling Point: UP-17
 Investigator(s): R. Newton and J. Mulligan Section, Township, Range: S36 T20N R20W
 Landform (*hillslope, terrace, etc.*): roadslope Local Relief (*concave, convex, none*): none Slope (%): 0-1
 Subregion (LRR): E - Rocky Mtn. Forests and Rangeland Lat. 47.453155 Long: -114.096726 Datum: WGS 84
 Soil Map Unit Name: Post-Ronan-Water complex, 2 to 8 percent slopes NWI Classification: UPL

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No X (If no, explain in Remarks)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes No X
 Hydric Soil Present? Yes No X Is the Sampled Area within a Wetland? Yes No X
 Wetland Hydrology Present? Yes No X

Remarks:

Paired upland point for wetland sample point WL-17. The APT determined drought conditions. Approx. 1.34" precip recorded in the 10 days prior to survey and approx. 0.25" precip recorded during the four-day survey period (Ronan Mesonet station).

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: r = 30 ft.)

	Absolute % Cover	Dominant Species?	Indicator Status
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>0</u> = Total Cover			

Sapling/Shrub Stratum (Plot size: r = 15 ft.)

	Absolute % Cover	Dominant Species?	Indicator Status
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>0</u> = Total Cover			

Herb Stratum (Plot size: r = 5ft.)

	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Leymus cinereus</u>	<u>10</u>	<u>N</u>	<u>FAC</u>
2. <u>Verbascum thapsus</u>	<u>5</u>	<u>N</u>	<u>FACU</u>
3. <u>Bromus inermis</u>	<u>25</u>	<u>Y</u>	<u>UPL</u>
4. <u>Pascopyrum smithii</u>	<u>20</u>	<u>Y</u>	<u>FACU</u>
5. <u>Dipsacus fullonum</u>	<u>8</u>	<u>N</u>	<u>FAC</u>
6. <u> </u>	<u> </u>	<u> </u>	<u> </u>
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>
9. <u> </u>	<u> </u>	<u> </u>	<u> </u>
10. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>68</u> = Total Cover			

Woody Vine Stratum (Plot size: n/a)

	Absolute % Cover	Dominant Species?	Indicator Status
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>0</u> = Total Cover			

% Bare Ground in Herb Stratum 32 %

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
 Total Number of Dominant Species Across All Strata: 2 (B)
 Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	<u>0</u>	x 1 =	<u>0</u>
FACW species	<u>0</u>	x 2 =	<u>0</u>
FAC species	<u>18</u>	x 3 =	<u>54</u>
FACU species	<u>25</u>	x 4 =	<u>100</u>
UPL species	<u>25</u>	x 5 =	<u>125</u>
Column Totals:	<u>68</u> (A)		<u>279</u> (B)
Prevalence Index = B/A =		<u>4.1</u>	

Hydrophytic Vegetation Indicators:

1. Rapid Test for Hydrophytic Vegetation
2. Dominance Test is >50%.
3. Prevalence Index is ≤3.0¹
4. Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
5. Wetland Non-Vascular Plants¹
- Problematic Hydrophytic Vegetation (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No

Remarks:

Profile Description: *(Describe to the depth needed to document the indicator or confirm the absence of indicators.)*

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 4	10 YR 4/2	100					Clay	70% gravels/road fill
4 - 16	10 YR 4/6	100					Clay	40 % gravels/road fill

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

☐ Histosol (A1)	☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G)
☐ Histic Epipedon (A2)	☐ Sandy Gleyed Matrix (S4)
☐ Black Histic (A3)	☐ Sandy Redox (S5)
☐ Hydrogen Sulfide (A4)	☐ Stripped Matrix (S6)
☐ 1 cm Muck (A9) (LRR D, G)	☐ Loamy Mucky Mineral (F1) (except MLRA 1)
☐ Depleted Below Dark Surface (A11)	☐ Loamy Gleyed Matrix (F2)
☐ Thick Dark Surface (A12)	☐ Depleted Matrix (F3)
☐ Iron Monosulfide (A18)	☐ Redox Dark Surface (F6)
☐ Sandy Mucky Mineral (S1)	☐ Depleted Dark Surface (F7)
	☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

☐ 2 cm Muck (A10) (LRRA, E)
☐ Iron-Manganese Masses (F12) (LRR D)
☐ Red Parent Material (F21)
☐ Very Shallow Dark Surface (F22)
☐ Other (Explain in Remarks)

³Indicators of hydrophylic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer: *(if observed)*

Type: _____
Depth (*inches*): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators *(minimum of one is required; check all that apply)*

☐ Surface Water (A1)
☐ High Water Table (A2)
☐ Saturation (A3)
☐ Water Marks (B1)
☐ Sediment Deposits (B2)
☐ Drift Deposits (B3)
☐ Algal Mat or Crust (B4)
☐ Iron Deposits (B5)
☐ Surface Soil Cracks (B6)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Sparsely Vegetated Concave Surface (B8)

Secondary Indicators *(minimum of two required)*

☐ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	☐ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
☐ Salt Crust (B11)	☐ Drainage Patterns (B10)
☐ Aquatic Invertebrates (B13)	☐ Dry-Season Water Table (C2)
☐ Hydrogen Sulfide Odor (C1)	☐ Saturation Visible on Aerial Imagery (C9)
☐ Oxidized Rhizospheres on Living Roots (C3)	☐ Geomorphic Position (D2)
☐ Presence of Reduced Iron (C4)	☐ Shallow Aquitard (D3)
☐ Recent Iron Reduction in Tilled Soils (C6)	☐ FAC-Neutral Test (D5)
☐ Stunted or Stressed Plants (D1) (LRR A)	☐ Raised Ant Mounds (D6) (LRR A)
☐ Other (Explain in Remarks)	☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes _____ No <u>X</u>	Depth (<i>inches</i>) _____	Wetland Hydrology Present? Yes _____ X _____ No _____
Water Table Present?	Yes _____ No <u>X</u>	Depth (<i>inches</i>) _____	
Saturation Present? <i>(includes capillary fringe)</i>	Yes _____ No <u>X</u>	Depth (<i>inches</i>) _____	

Remarks:

Wetland Determination Data Form - Western Mountains, Valleys, and Coast Region

Project/Site: US93 Ninepipes City/County: Lake County Sampling Date: 5/20/2025
 Applicant/Owner: Montana Department of Transportation State: MT Sampling Point: WL-18
 Investigator(s): B. Stockowitz and A. Hendryx Section, Township, Range: S35 T20N R20W
 Landform (*hillslope, terrace, etc.*): Depression Local Relief (*concave, convex, none*): concave Slope (%): 0-2
 Subregion (LRR): E - Rocky Mtn. Forests and Rangeland Lat. 47.45417 Long: -114.097326 Datum: WGS 84
 Soil Map Unit Name: Post-Ronan-Water complex, 2 to 8 percent slopes NWI Classification: PEM

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No X (If no, explain in Remarks)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes X No
 Hydric Soil Present? Yes X No Is the Sampled Area within a Wetland? Yes X No
 Wetland Hydrology Present? Yes X No

Remarks:

Depressional PEM wetland WL-18 in a prairie pothole on the western side of US 93. The APT determined drought conditions. Approx. 1.34" precip recorded in the 10 days prior to survey and approx. 0.25" precip recorded during the four-day survey period (Ronan Mesonet station).

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: <u>r = 30 ft.</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:																																
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)																																
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
<u>0</u> = Total Cover																																				
Sapling/Shrub Stratum (Plot size: <u>r = 15 ft.</u>)																																				
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Prevalence Index Worksheet: <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2">Total % Cover of:</th> <th colspan="2">Multiply by:</th> </tr> </thead> <tbody> <tr> <td>OBL species</td> <td style="text-align: center;"><u>100</u></td> <td>x 1 =</td> <td style="text-align: center;"><u>100</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>0</u></td> <td>x 2 =</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>0</u></td> <td>x 3 =</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;"><u>0</u></td> <td>x 4 =</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>0</u></td> <td>x 5 =</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>Column Totals:</td> <td style="text-align: center;"><u>100</u> (A)</td> <td></td> <td style="text-align: center;"><u>100</u> (B)</td> </tr> <tr> <td colspan="4" style="text-align: center;">Prevalence Index = B/A = <u>1.0</u></td> </tr> </tbody> </table>	Total % Cover of:		Multiply by:		OBL species	<u>100</u>	x 1 =	<u>100</u>	FACW species	<u>0</u>	x 2 =	<u>0</u>	FAC species	<u>0</u>	x 3 =	<u>0</u>	FACU species	<u>0</u>	x 4 =	<u>0</u>	UPL species	<u>0</u>	x 5 =	<u>0</u>	Column Totals:	<u>100</u> (A)		<u>100</u> (B)	Prevalence Index = B/A = <u>1.0</u>			
Total % Cover of:		Multiply by:																																		
OBL species	<u>100</u>	x 1 =	<u>100</u>																																	
FACW species	<u>0</u>	x 2 =	<u>0</u>																																	
FAC species	<u>0</u>	x 3 =	<u>0</u>																																	
FACU species	<u>0</u>	x 4 =	<u>0</u>																																	
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Prevalence Index = B/A = <u>1.0</u>																																				
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
<u>0</u> = Total Cover																																				
Herb Stratum (Plot size: <u>r = 5 ft.</u>)																																				
1. <u>Typha latifolia</u>	<u>100</u>	<u>Y</u>	<u>OBL</u>	Hydrophytic Vegetation Indicators: <u>X</u> 1. Rapid Test for Hydrophytic Vegetation <u>X</u> 2. Dominance Test is >50%. <u>X</u> 3. Prevalence Index is ≤3.0' <u> </u> 4. Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> 5. Wetland Non-Vascular Plants ¹ <u> </u> Problematic Hydrophytic Vegetation (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																																
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
6. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
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9. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
10. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
<u>100</u> = Total Cover																																				
Woody Vine Stratum (Plot size: <u>n/a</u>)																																				
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Hydrophytic Vegetation Present? <u>X</u> Yes <u> </u> No <u> </u>																																
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
<u>0</u> = Total Cover																																				
% Bare Ground in Herb Stratum	<u>0</u> %																																			

Remarks:

Profile Description: *(Describe to the depth needed to document the indicator or confirm the absence of indicators.)*

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-1	10YR 6/2	100					Silty Clay	many partially decayed roots
1-16	10YR 6/1	100					Clay	H2S odor

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

☐	Histosol (A1)	☐	2.5 cm Mucky Peat or Peat (S2) (LRR G)
☐	Histic Epipedon (A2)	☐	Sandy Gleyed Matrix (S4)
☐	Black Histic (A3)	☐	Sandy Redox (S5)
☒	Hydrogen Sulfide (A4)	☐	Stripped Matrix (S6)
	1 cm Muck (A9) (LRR D, G)	☐	Loamy Mucky Mineral (F1) (except MLRA 1)
☐	Depleted Below Dark Surface (A11)	☐	Loamy Gleyed Matrix (F2)
☐	Thick Dark Surface (A12)	☒	Depleted Matrix (F3)
☐	Iron Monosulfide (A18)	☐	Redox Dark Surface (F6)
☐	Sandy Mucky Mineral (S1)	☐	Depleted Dark Surface (F7)
		☐	Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

☐	2 cm Muck (A10) (LRRA, E)
☐	Iron-Manganese Masses (F12) (LRR D)
☐	Red Parent Material (F21)
☐	Very Shallow Dark Surface (F22)
☐	Other (Explain in Remarks)

³Indicators of hydrophylic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer: *(if observed)*

Type: _____
Depth (*inches*): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators *(minimum of one is required; check all that apply)*

☒	Surface Water (A1)
☒	High Water Table (A2)
☒	Saturation (A3)
☐	Water Marks (B1)
☐	Sediment Deposits (B2)
☐	Drift Deposits (B3)
☐	Algal Mat or Crust (B4)
☐	Iron Deposits (B5)
☐	Surface Soil Cracks (B6)
☐	Inundation Visible on Aerial Imagery (B7)
☐	Sparsely Vegetated Concave Surface (B8)

Secondary Indicators *(minimum of two required)*

☐	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	☐	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
☐	Salt Crust (B11)	☐	Drainage Patterns (B10)
☐	Aquatic Invertebrates (B13)	☐	Dry-Season Water Table (C2)
☐	Hydrogen Sulfide Odor (C1)	☐	Saturation Visible on Aerial Imagery (C9)
☐	Oxidized Rhizospheres on Living Roots (C3)	☒	Geomorphic Position (D2)
☐	Presence of Reduced Iron (C4)	☐	Shallow Aquitard (D3)
☐	Recent Iron Reduction in Tilled Soils (C6)	☒	FAC-Neutral Test (D5)
☐	Stunted or Stressed Plants (D1) (LRR A)	☐	Raised Ant Mounds (D6) (LRR A)
☐	Other (Explain in Remarks)	☐	Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes ☒	No ☐	Depth (<i>inches</i>)	0.5	Wetland Hydrology Present?
Water Table Present?	Yes ☒	No ☐	Depth (<i>inches</i>)	surface	
Saturation Present? <i>(includes capillary fringe)</i>	Yes ☒	No ☐	Depth (<i>inches</i>)	surface	

Remarks:

Wetland Determination Data Form - Western Mountains, Valleys, and Coast Region

Project/Site: US93 Ninepipes City/County: Lake County Sampling Date: 5/20/2025
 Applicant/Owner: Montana Department of Transportation State: _____ Sampling Point: UP-18
 Investigator(s): B. Stockowitz and A. Hendryx Section, Township, Range: S35 T20N R20W
 Landform (*hillslope, terrace, etc.*): hillslope Local Relief (*concave, convex, none*): none/flat Slope (%): 0-2
 Subregion (LRR): E - Rocky Mtn. Forests and Rangeland Lat. 47.454171 Long: -114.097351 Datum: WGS 84
 Soil Map Unit Name: Post-Ronan-Water complex, 2 to 8 percent slopes NWI Classification: UPL

Are climatic/hydrologic conditions on the site typical for this time of year? Yes _____ No X (If no, explain in Remarks)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes X No _____
 Hydric Soil Present? Yes X No _____ Is the Sampled Area within a Wetland? Yes _____ No X
 Wetland Hydrology Present? Yes _____ No X

Remarks:

Paired upland point for wetland sample point WL-18. The APT determined drought conditions. Approx. 1.34" precip recorded in the 10 days prior to survey and approx. 0.25" precip recorded during the four-day survey period (Ronan Mesonet station).

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: r = 30 ft.)

	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
0 = Total Cover			

Sapling/Shrub Stratum (Plot size: r = 15 ft.)

	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
0 = Total Cover			

Herb Stratum (Plot size: r = 5 ft.)

	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Juncus balticus</u>	70	Y	FACW
2. <u>Dipsacus fullonum</u>	15	N	FAC
3. <u>Cirsium arvense</u>	10	N	FAC
4. <u>Hypericum perforatum</u>	5	N	FACU
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
100 = Total Cover			

Woody Vine Stratum (Plot size: n/a)

	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
0 = Total Cover			

% Bare Ground in Herb Stratum 0 %

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
 Total Number of Dominant Species Across All Strata: 1 (B)
 Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	70	x 2 =	140
FAC species	25	x 3 =	75
FACU species	5	x 4 =	20
UPL species	0	x 5 =	0
Column Totals:	100 (A)		235 (B)
Prevalence Index = B/A =		2.4	

Hydrophytic Vegetation Indicators:

1. Rapid Test for Hydrophytic Vegetation _____
- X 2. Dominance Test is >50%.
- X 3. Prevalence Index is ≤3.0¹
4. Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) _____
5. Wetland Non-Vascular Plants¹ _____
- Problematic Hydrophytic Vegetation (Explain) _____

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? X Yes _____ No _____

Remarks:

Profile Description: *(Describe to the depth needed to document the indicator or confirm the absence of indicators.)*

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-2	10YR 3/3	100					Loam	
2-16	10YR 5/2	90	10YR 5/4	10	C	M	Clay	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

☐ Histosol (A1)	☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G)
☐ Histic Epipedon (A2)	☐ Sandy Gleyed Matrix (S4)
☐ Black Histic (A3)	☐ Sandy Redox (S5)
☐ Hydrogen Sulfide (A4)	☐ Stripped Matrix (S6)
☐ 1 cm Muck (A9) (LRR D, G)	☐ Loamy Mucky Mineral (F1) (except MLRA 1)
☐ Depleted Below Dark Surface (A11)	☐ Loamy Gleyed Matrix (F2)
☐ Thick Dark Surface (A12)	☒ Depleted Matrix (F3)
☐ Iron Monosulfide (A18)	☐ Redox Dark Surface (F6)
☐ Sandy Mucky Mineral (S1)	☐ Depleted Dark Surface (F7)
	☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

☐ 2 cm Muck (A10) (LRRA, E)
☐ Iron-Manganese Masses (F12) (LRR D)
☐ Red Parent Material (F21)
☐ Very Shallow Dark Surface (F22)
☐ Other (Explain in Remarks)

³Indicators of hydrophylic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer: *(if observed)*

Type: _____
Depth (*inches*): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators *(minimum of one is required; check all that apply)*

☐ Surface Water (A1)
☐ High Water Table (A2)
☐ Saturation (A3)
☐ Water Marks (B1)
☐ Sediment Deposits (B2)
☐ Drift Deposits (B3)
☐ Algal Mat or Crust (B4)
☐ Iron Deposits (B5)
☐ Surface Soil Cracks (B6)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Sparsely Vegetated Concave Surface (B8)

Secondary Indicators *(minimum of two required)*

☐ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	☐ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
☐ Salt Crust (B11)	☐ Drainage Patterns (B10)
☐ Aquatic Invertebrates (B13)	☐ Dry-Season Water Table (C2)
☐ Hydrogen Sulfide Odor (C1)	☐ Saturation Visible on Aerial Imagery (C9)
☐ Oxidized Rhizospheres on Living Roots (C3)	☐ Geomorphic Position (D2)
☐ Presence of Reduced Iron (C4)	☐ Shallow Aquitard (D3)
☐ Recent Iron Reduction in Tilled Soils (C6)	☒ FAC-Neutral Test (D5)
☐ Stunted or Stressed Plants (D1) (LRR A)	☐ Raised Ant Mounds (D6) (LRR A)
☐ Other (Explain in Remarks)	☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes ☐ No ☒	Depth (<i>inches</i>)	_____	Wetland Hydrology Present? Yes ☐ X No ☐
Water Table Present?	Yes ☐ No ☒	Depth (<i>inches</i>)	_____	
Saturation Present? <i>(includes capillary fringe)</i>	Yes ☐ No ☒	Depth (<i>inches</i>)	_____	

Remarks:

Wetland Determination Data Form - Western Mountains, Valleys, and Coast Region

Project/Site: US 93 Ninepipes City/County: Lake County Sampling Date: 5/20/2025
 Applicant/Owner: Montana Department of Transportation State: MT Sampling Point: WL-19
 Investigator(s): R. Newton and J. Mulligan Section, Township, Range: S36 T20N R20W
 Landform (*hillslope, terrace, etc.*): hillslope Local Relief (*concave, convex, none*): concave Slope (%): 0-2
 Subregion (LRR): E - Rocky Mtn. Forests and Rangeland Lat. 47.454223 Long: -114.096254 Datum: WGS 84
 Soil Map Unit Name: Post-Ronan-Water complex, 2 to 8 percent slopes NWI Classification: PUB/PEM

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No X (If no, explain in Remarks)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes X No
 Hydric Soil Present? Yes X No Is the Sampled Area within a Wetland? Yes X No
 Wetland Hydrology Present? Yes X No

Remarks:

Depressional wetland WL-19, open water and fringing PEM, in a prairie pothole on the eastern side of US 93. Appears to be isolated. The APT determined drought conditions. Approx. 1.34" precip recorded in the 10 days prior to survey and approx. 0.25" precip recorded during the four-day survey period (Ronan Mesonet station).

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: r = 30 ft.)

	Absolute % Cover	Dominant Species?	Indicator Status
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>0</u> = Total Cover			

Sapling/Shrub Stratum (Plot size: r = 15 ft.)

	Absolute % Cover	Dominant Species?	Indicator Status
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>0</u> = Total Cover			

Herb Stratum (Plot size: r = 5ft.)

	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Typha latifolia</u>	<u>30</u>	<u>Y</u>	<u>OBL</u>
2. <u>Agrostis scabra</u>	<u>30</u>	<u>Y</u>	<u>FAC</u>
3. <u>Chenopodium album</u>	<u>5</u>	<u>N</u>	<u>FACU</u>
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>
6. <u> </u>	<u> </u>	<u> </u>	<u> </u>
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>
9. <u> </u>	<u> </u>	<u> </u>	<u> </u>
10. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>65</u> = Total Cover			

Woody Vine Stratum (Plot size: n/a)

	Absolute % Cover	Dominant Species?	Indicator Status
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>0</u> = Total Cover			

% Bare Ground in Herb Stratum 35 %

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	<u>30</u>	x 1 =	<u>30</u>
FACW species	<u>0</u>	x 2 =	<u>0</u>
FAC species	<u>30</u>	x 3 =	<u>90</u>
FACU species	<u>5</u>	x 4 =	<u>20</u>
UPL species	<u>0</u>	x 5 =	<u>0</u>
Column Totals:	<u>65</u> (A)		<u>140</u> (B)
Prevalence Index = B/A =			<u>2.2</u>

Hydrophytic Vegetation Indicators:

1. Rapid Test for Hydrophytic Vegetation X
2. Dominance Test is >50%. X
3. Prevalence Index is ≤3.0'
4. Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
5. Wetland Non-Vascular Plants¹
- Problematic Hydrophytic Vegetation (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? X Yes No

Remarks:

Profile Description: *(Describe to the depth needed to document the indicator or confirm the absence of indicators.)*

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 6	10 YR 2/1	98	7.5 YR 4/6	2	C	M	Silty Clay	dense fibrous roots
6 - 12	10 YR 2/1	98	7.5 YR 4/6	2	C	M	Silty Clay	
12 - 16	7.5 YR 5/2	100					Clay	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

☐ Histosol (A1)	☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G)
☐ Histic Epipedon (A2)	☐ Sandy Gleyed Matrix (S4)
☐ Black Histic (A3)	☐ Sandy Redox (S5)
☐ Hydrogen Sulfide (A4)	☐ Stripped Matrix (S6)
☐ 1 cm Muck (A9) (LRR D, G)	☐ Loamy Mucky Mineral (F1) (except MLRA 1)
☐ Depleted Below Dark Surface (A11)	☐ Loamy Gleyed Matrix (F2)
☐ Thick Dark Surface (A12)	☐ Depleted Matrix (F3)
☐ Iron Monosulfide (A18)	☒ Redox Dark Surface (F6)
☐ Sandy Mucky Mineral (S1)	☐ Depleted Dark Surface (F7)
	☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

☐ 2 cm Muck (A10) (LRRA, E)
☐ Iron-Manganese Masses (F12) (LRR D)
☐ Red Parent Material (F21)
☐ Very Shallow Dark Surface (F22)
☐ Other (Explain in Remarks)

³Indicators of hydrophylic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer: *(if observed)*

Type: _____
Depth (*inches*): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators *(minimum of one is required; check all that apply)*

☐ Surface Water (A1)
☒ High Water Table (A2)
☒ Saturation (A3)
☐ Water Marks (B1)
☐ Sediment Deposits (B2)
☐ Drift Deposits (B3)
☐ Algal Mat or Crust (B4)
☐ Iron Deposits (B5)
☐ Surface Soil Cracks (B6)
☒ Inundation Visible on Aerial Imagery (B7)
☐ Sparsely Vegetated Concave Surface (B8)

Secondary Indicators *(minimum of two required)*

☐ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	☐ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
☐ Salt Crust (B11)	☐ Drainage Patterns (B10)
☐ Aquatic Invertebrates (B13)	☐ Dry-Season Water Table (C2)
☐ Hydrogen Sulfide Odor (C1)	☐ Saturation Visible on Aerial Imagery (C9)
☒ Oxidized Rhizospheres on Living Roots (C3)	☒ Geomorphic Position (D2)
☐ Presence of Reduced Iron (C4)	☐ Shallow Aquitard (D3)
☐ Recent Iron Reduction in Tilled Soils (C6)	☒ FAC-Neutral Test (D5)
☐ Stunted or Stressed Plants (D1) (LRR A)	☐ Raised Ant Mounds (D6) (LRR A)
☐ Other (Explain in Remarks)	☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes ☐ No ☒	Depth (<i>inches</i>)	☐	Wetland Hydrology Present?
Water Table Present?	Yes ☒ No ☐	Depth (<i>inches</i>)	8	
Saturation Present? <i>(includes capillary fringe)</i>	Yes ☒ No ☐	Depth (<i>inches</i>)	surface	
				☒ Yes ☐ No

Remarks:

Surface water elsewhere within the wetland polygon approx. 1 foot deep.

Wetland Determination Data Form - Western Mountains, Valleys, and Coast Region

Project/Site: US 93 Ninepipes City/County: Lake County Sampling Date: 5/20/2025
 Applicant/Owner: Montana Department of Transportation State: MT Sampling Point: UP-19
 Investigator(s): R. Newton and J. Mulligan Section, Township, Range: S36 T20N R20W
 Landform (*hillslope, terrace, etc.*): hillslope Local Relief (*concave, convex, none*): none Slope (%): 0-2
 Subregion (LRR): E - Rocky Mtn. Forests and Rangeland Lat. 47.454219 Long: -114.096239 Datum: WGS 84
 Soil Map Unit Name: Post-Ronan-Water complex, 2 to 8 percent slopes NWI Classification: UPL

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No X (If no, explain in Remarks)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes No X
 Hydric Soil Present? Yes No X Is the Sampled Area within a Wetland? Yes No X
 Wetland Hydrology Present? Yes No X

Remarks:

Paired upland point for wetland sample point WL-19. The APT determined drought conditions. Approx. 1.34" precip recorded in the 10 days prior to survey and approx .025" precip recorded during the four-day survey period (Ronan Mesonet station).

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: r = 30 ft.)

	Absolute % Cover	Dominant Species?	Indicator Status
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>0</u> = Total Cover			

Sapling/Shrub Stratum (Plot size: r = 15 ft.)

	Absolute % Cover	Dominant Species?	Indicator Status
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>0</u> = Total Cover			

Herb Stratum (Plot size: r = 5ft.)

	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Elymus lanceolatus</u>	<u>15</u>	<u>Y</u>	<u>FACU</u>
2. <u>Cirsium arvense</u>	<u>15</u>	<u>Y</u>	<u>FAC</u>
3. <u>Dipsacus fullonum</u>	<u>23</u>	<u>Y</u>	<u>FAC</u>
4. <u>Thlaspi arvense</u>	<u>22</u>	<u>Y</u>	<u>UPL</u>
5. <u>Bromus inermis</u>	<u>10</u>	<u>N</u>	<u>UPL</u>
6. <u>Chenopodium album</u>	<u>3</u>	<u>N</u>	<u>FACU</u>
7. <u>Hypericum perforatum</u>	<u>3</u>	<u>N</u>	<u>FACU</u>
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>
9. <u> </u>	<u> </u>	<u> </u>	<u> </u>
10. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>91</u> = Total Cover			

Woody Vine Stratum (Plot size: n/a)

	Absolute % Cover	Dominant Species?	Indicator Status
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>0</u> = Total Cover			

% Bare Ground in Herb Stratum 9 %

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
 Total Number of Dominant Species Across All Strata: 4 (B)
 Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	<u>0</u>	x 1 =	<u>0</u>
FACW species	<u>0</u>	x 2 =	<u>0</u>
FAC species	<u>38</u>	x 3 =	<u>114</u>
FACU species	<u>21</u>	x 4 =	<u>84</u>
UPL species	<u>47</u>	x 5 =	<u>235</u>
Column Totals:	<u>106</u> (A)		<u>433</u> (B)
Prevalence Index = B/A =		<u>4.1</u>	

Hydrophytic Vegetation Indicators:

1. Rapid Test for Hydrophytic Vegetation
2. Dominance Test is >50%.
3. Prevalence Index is ≤3.0¹
4. Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
5. Wetland Non-Vascular Plants¹
- Problematic Hydrophytic Vegetation (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No

Remarks:

Species with no indicator (NI) are treated as UPL for this analysis.

Profile Description: *(Describe to the depth needed to document the indicator or confirm the absence of indicators.)*

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 10	10 YR 3/2	100					Silty Clay	
10 - 16	7.5 YR 4/2	100					Clay	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

☐ Histosol (A1)	☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G)
☐ Histic Epipedon (A2)	☐ Sandy Gleyed Matrix (S4)
☐ Black Histic (A3)	☐ Sandy Redox (S5)
☐ Hydrogen Sulfide (A4)	☐ Stripped Matrix (S6)
☐ 1 cm Muck (A9) (LRR D, G)	☐ Loamy Mucky Mineral (F1) (except MLRA 1)
☐ Depleted Below Dark Surface (A11)	☐ Loamy Gleyed Matrix (F2)
☐ Thick Dark Surface (A12)	☐ Depleted Matrix (F3)
☐ Iron Monosulfide (A18)	☐ Redox Dark Surface (F6)
☐ Sandy Mucky Mineral (S1)	☐ Depleted Dark Surface (F7)
	☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

☐ 2 cm Muck (A10) (LRRA, E)
☐ Iron-Manganese Masses (F12) (LRR D)
☐ Red Parent Material (F21)
☐ Very Shallow Dark Surface (F22)
☐ Other (Explain in Remarks)

³Indicators of hydrophylic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer: *(if observed)*

Type: _____
Depth (*inches*): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators *(minimum of one is required; check all that apply)*

☐ Surface Water (A1)
☐ High Water Table (A2)
☐ Saturation (A3)
☐ Water Marks (B1)
☐ Sediment Deposits (B2)
☐ Drift Deposits (B3)
☐ Algal Mat or Crust (B4)
☐ Iron Deposits (B5)
☐ Surface Soil Cracks (B6)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Sparsely Vegetated Concave Surface (B8)

Secondary Indicators *(minimum of two required)*

☐ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	☐ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
☐ Salt Crust (B11)	☐ Drainage Patterns (B10)
☐ Aquatic Invertebrates (B13)	☐ Dry-Season Water Table (C2)
☐ Hydrogen Sulfide Odor (C1)	☐ Saturation Visible on Aerial Imagery (C9)
☐ Oxidized Rhizospheres on Living Roots (C3)	☐ Geomorphic Position (D2)
☐ Presence of Reduced Iron (C4)	☐ Shallow Aquitard (D3)
☐ Recent Iron Reduction in Tilled Soils (C6)	☐ FAC-Neutral Test (D5)
☐ Stunted or Stressed Plants (D1) (LRR A)	☐ Raised Ant Mounds (D6) (LRR A)
☐ Other (Explain in Remarks)	☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes _____ No <u>X</u>	Depth (<i>inches</i>) _____	Wetland Hydrology Present? Yes _____ X _____ No _____
Water Table Present?	Yes _____ No <u>X</u>	Depth (<i>inches</i>) _____	
Saturation Present? <i>(includes capillary fringe)</i>	Yes _____ No <u>X</u>	Depth (<i>inches</i>) _____	

Remarks:

Wetland Determination Data Form - Western Mountains, Valleys, and Coast Region

Project/Site: US93 Ninepipes City/County: Lake County Sampling Date: 5/20/2025
 Applicant/Owner: Montana Department of Transportation State: MT Sampling Point: WL-20
 Investigator(s): B. Stockowitz and A. Hendryx Section, Township, Range: S35 T20N R20W
 Landform (*hillslope, terrace, etc.*): toe slope Local Relief (*concave, convex, none*): none Slope (%): 0-2
 Subregion (LRR): E - Rocky Mtn. Forests and Rangeland Lat. 47.455146 Long: -114.097478 Datum: WGS 84
 Soil Map Unit Name: Post-Ronan-Water complex, 2 to 8 percent slopes NWI Classification: PAB/PEM

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No X (If no, explain in Remarks)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes X No
 Hydric Soil Present? Yes X No Is the Sampled Area within a Wetland? Yes X No
 Wetland Hydrology Present? Yes X No

Remarks:

Depressional WL-20, open water and fringing PEM, in a prairie pothole on the western side of US 93. Appears to be isolated. The APT determined drought conditions. Approx. 1.34" precip recorded in the 10 days prior to survey and approx. 0.25" precip recorded during the four-day survey period (Ronan Mesonet station).

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: <u>r = 30 ft.</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:			
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)			
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Total Number of Dominant Species Across All Strata: <u>1</u> (B)			
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)			
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>				
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>				
<u>0</u> = Total Cover							
Sapling/Shrub Stratum (Plot size: <u>r = 15 ft.</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index Worksheet:			
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Total % Cover of: <u> </u> Multiply by: <u> </u>			
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	OBL species	<u>5</u>	x 1 =	<u>5</u>
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	FACW species	<u>95</u>	x 2 =	<u>190</u>
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	FAC species	<u>0</u>	x 3 =	<u>0</u>
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>	FACU species	<u>0</u>	x 4 =	<u>0</u>
<u>0</u> = Total Cover				UPL species	<u>0</u>	x 5 =	<u>0</u>
				Column Totals:	<u>100</u>	(A)	<u>195</u> (B)
				Prevalence Index = B/A = <u>2.0</u>			
Herb Stratum (Plot size: <u>r = 5 ft.</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:			
1. <u>Phalaris arundinacea</u>	<u>95</u>	<u>Y</u>	<u>FACW</u>	1. Rapid Test for Hydrophytic Vegetation <u> </u>			
2. <u>Persicaria amphibia</u>	<u>5</u>	<u>N</u>	<u>OBL</u>	<u>X</u> 2. Dominance Test is >50%. <u> </u>			
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	<u>X</u> 3. Prevalence Index is ≤3.0 ¹ <u> </u>			
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u> 4. Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)			
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u> 5. Wetland Non-Vascular Plants ¹			
6. <u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u> Problematic Hydrophytic Vegetation (Explain)			
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>				
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>				
9. <u> </u>	<u> </u>	<u> </u>	<u> </u>				
10. <u> </u>	<u> </u>	<u> </u>	<u> </u>				
<u>100</u> = Total Cover							
Woody Vine Stratum (Plot size: <u>n/a</u>)	Absolute % Cover	Dominant Species?	Indicator Status				
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>				
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>				
<u>0</u> = Total Cover							
% Bare Ground in Herb Stratum <u>0</u> %				Hydrophytic Vegetation Present? <u>X</u> Yes <u> </u> No <u> </u>			

Remarks:

Typha latifolia nearby.

Profile Description: *(Describe to the depth needed to document the indicator or confirm the absence of indicators.)*

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-1	10YR 2/2	100					Clay Loam	
1-18	10YR 4/2	80	10YR 5/6	5	C	PL	Clay	
			10YR 5/6	5	C	M	Clay	
			10Y 6/2	10	D	M	Clay	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

☐ Histosol (A1)	☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G)
☐ Histic Epipedon (A2)	☐ Sandy Gleyed Matrix (S4)
☐ Black Histic (A3)	☐ Sandy Redox (S5)
☐ Hydrogen Sulfide (A4)	☐ Stripped Matrix (S6)
☐ 1 cm Muck (A9) (LRR D, G)	☐ Loamy Mucky Mineral (F1) (except MLRA 1)
☒ Depleted Below Dark Surface (A11)	☐ Loamy Gleyed Matrix (F2)
☐ Thick Dark Surface (A12)	☒ Depleted Matrix (F3)
☐ Iron Monosulfide (A18)	☐ Redox Dark Surface (F6)
☐ Sandy Mucky Mineral (S1)	☐ Depleted Dark Surface (F7)
	☒ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

☐ 2 cm Muck (A10) (LRRA, E)
☐ Iron-Manganese Masses (F12) (LRR D)
☐ Red Parent Material (F21)
☐ Very Shallow Dark Surface (F22)
☐ Other (Explain in Remarks)

³Indicators of hydrophylic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer: *(if observed)*

Type: _____
Depth (*inches*): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators *(minimum of one is required; check all that apply)*

☐ Surface Water (A1)
☐ High Water Table (A2)
☒ Saturation (A3)
☐ Water Marks (B1)
☐ Sediment Deposits (B2)
☐ Drift Deposits (B3)
☐ Algal Mat or Crust (B4)
☐ Iron Deposits (B5)
☐ Surface Soil Cracks (B6)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Sparsely Vegetated Concave Surface (B8)

Secondary Indicators *(minimum of two required)*

☐ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	☐ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
☐ Salt Crust (B11)	☐ Drainage Patterns (B10)
☐ Aquatic Invertebrates (B13)	☒ Dry-Season Water Table (C2)
☐ Hydrogen Sulfide Odor (C1)	☐ Saturation Visible on Aerial Imagery (C9)
☐ Oxidized Rhizospheres on Living Roots (C3)	☒ Geomorphic Position (D2)
☐ Presence of Reduced Iron (C4)	☐ Shallow Aquitard (D3)
☐ Recent Iron Reduction in Tilled Soils (C6)	☒ FAC-Neutral Test (D5)
☐ Stunted or Stressed Plants (D1) (LRR A)	☐ Raised Ant Mounds (D6) (LRR A)
☐ Other (Explain in Remarks)	☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes ☐ No ☒	Depth (<i>inches</i>)	_____	Wetland Hydrology Present?
Water Table Present?	Yes ☒ No ☐	Depth (<i>inches</i>)	16	
Saturation Present? <i>(includes capillary fringe)</i>	Yes ☒ No ☐	Depth (<i>inches</i>)	12	

Remarks:

Wetland Determination Data Form - Western Mountains, Valleys, and Coast Region

Project/Site: US93 Ninepipes City/County: Lake County Sampling Date: 5/20/2025
 Applicant/Owner: Montana Department of Transportation State: MT Sampling Point: UP-20
 Investigator(s): B. Stockowitz and A. Hendryx Section, Township, Range: S35 T20N R20W
 Landform (*hillslope, terrace, etc.*): terrace out of pond Local Relief (*concave, convex, none*): none Slope (%): 0-2
 Subregion (LRR): E - Rocky Mtn. Forests and Rangeland Lat. 47.455125 Long: -114.097453 Datum: WGS 84
 Soil Map Unit Name: Post-Ronan-Water complex, 2 to 8 percent slopes NWI Classification: UPL

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No X (If no, explain in Remarks)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes X No
 Hydric Soil Present? Yes No X Is the Sampled Area within a Wetland? Yes No X
 Wetland Hydrology Present? Yes No X

Remarks:

Paired upland point for wetland sample point WL-20. The APT determined drought conditions. Approx. 1.34" precip recorded in the 10 days prior to survey and approx. 0.25" precip recorded during the four-day survey period (Ronan Mesonet station).

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: <u>r = 30 ft.</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)																																
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
<u>0</u> = Total Cover																																				
Sapling/Shrub Stratum (Plot size: <u>r = 15 ft.</u>)				Prevalence Index Worksheet: <table border="1"> <thead> <tr> <th colspan="2">Total % Cover of:</th> <th colspan="2">Multiply by:</th> </tr> </thead> <tbody> <tr><td>OBL species</td><td><u>0</u></td><td>x 1 =</td><td><u>0</u></td></tr> <tr><td>FACW species</td><td><u>85</u></td><td>x 2 =</td><td><u>170</u></td></tr> <tr><td>FAC species</td><td><u>15</u></td><td>x 3 =</td><td><u>45</u></td></tr> <tr><td>FACU species</td><td><u>0</u></td><td>x 4 =</td><td><u>0</u></td></tr> <tr><td>UPL species</td><td><u>0</u></td><td>x 5 =</td><td><u>0</u></td></tr> <tr><td>Column Totals:</td><td><u>100</u> (A)</td><td></td><td><u>215</u> (B)</td></tr> <tr><td colspan="2">Prevalence Index = B/A =</td><td colspan="2"><u>2.2</u></td></tr> </tbody> </table>	Total % Cover of:		Multiply by:		OBL species	<u>0</u>	x 1 =	<u>0</u>	FACW species	<u>85</u>	x 2 =	<u>170</u>	FAC species	<u>15</u>	x 3 =	<u>45</u>	FACU species	<u>0</u>	x 4 =	<u>0</u>	UPL species	<u>0</u>	x 5 =	<u>0</u>	Column Totals:	<u>100</u> (A)		<u>215</u> (B)	Prevalence Index = B/A =		<u>2.2</u>	
Total % Cover of:		Multiply by:																																		
OBL species	<u>0</u>	x 1 =	<u>0</u>																																	
FACW species	<u>85</u>	x 2 =	<u>170</u>																																	
FAC species	<u>15</u>	x 3 =	<u>45</u>																																	
FACU species	<u>0</u>	x 4 =	<u>0</u>																																	
UPL species	<u>0</u>	x 5 =	<u>0</u>																																	
Column Totals:	<u>100</u> (A)		<u>215</u> (B)																																	
Prevalence Index = B/A =		<u>2.2</u>																																		
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
<u>0</u> = Total Cover																																				
Herb Stratum (Plot size: <u>r = 5 ft.</u>)				Hydrophytic Vegetation Indicators: 1. Rapid Test for Hydrophytic Vegetation <u> </u> X 2. Dominance Test is >50%. <u> </u> X 3. Prevalence Index is ≤3.0' <u> </u> 4. Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> 5. Wetland Non-Vascular Plants ¹ <u> </u> Problematic Hydrophytic Vegetation (Explain) <u> </u> ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? <u>X</u> Yes <u> </u> No <u> </u>																																
1. <u>Phalaris arundinacea</u>	<u>85</u>	<u>Y</u>	<u>FACW</u>																																	
2. <u>Cirsium arvense</u>	<u>15</u>	<u>N</u>	<u>FAC</u>																																	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
6. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
9. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
10. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
<u>100</u> = Total Cover																																				
Woody Vine Stratum (Plot size: <u>n/a</u>)																																				
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
<u>0</u> = Total Cover																																				
% Bare Ground in Herb Stratum	<u>0</u> %																																			

Remarks:

Profile Description: *(Describe to the depth needed to document the indicator or confirm the absence of indicators.)*

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-6	10YR 2/2	100					Loam	
6-16	10YR 4/3	90	10YR 5/6	10	C	PL	Clay Loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

☐ Histosol (A1)	☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G)
☐ Histic Epipedon (A2)	☐ Sandy Gleyed Matrix (S4)
☐ Black Histic (A3)	☐ Sandy Redox (S5)
☐ Hydrogen Sulfide (A4)	☐ Stripped Matrix (S6)
☐ 1 cm Muck (A9) (LRR D, G)	☐ Loamy Mucky Mineral (F1) (except MLRA 1)
☐ Depleted Below Dark Surface (A11)	☐ Loamy Gleyed Matrix (F2)
☐ Thick Dark Surface (A12)	☐ Depleted Matrix (F3)
☐ Iron Monosulfide (A18)	☐ Redox Dark Surface (F6)
☐ Sandy Mucky Mineral (S1)	☐ Depleted Dark Surface (F7)
	☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

☐ 2 cm Muck (A10) (LRRA, E)
☐ Iron-Manganese Masses (F12) (LRR D)
☐ Red Parent Material (F21)
☐ Very Shallow Dark Surface (F22)
☐ Other (Explain in Remarks)

³Indicators of hydrophylic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer: *(if observed)*

Type: _____
Depth (*inches*): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators *(minimum of one is required; check all that apply)*

☐ Surface Water (A1)
☐ High Water Table (A2)
☐ Saturation (A3)
☐ Water Marks (B1)
☐ Sediment Deposits (B2)
☐ Drift Deposits (B3)
☐ Algal Mat or Crust (B4)
☐ Iron Deposits (B5)
☐ Surface Soil Cracks (B6)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Sparsely Vegetated Concave Surface (B8)

Secondary Indicators *(minimum of two required)*

☐ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	☐ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
☐ Salt Crust (B11)	☐ Drainage Patterns (B10)
☐ Aquatic Invertebrates (B13)	☐ Dry-Season Water Table (C2)
☐ Hydrogen Sulfide Odor (C1)	☐ Saturation Visible on Aerial Imagery (C9)
☐ Oxidized Rhizospheres on Living Roots (C3)	☐ Geomorphic Position (D2)
☐ Presence of Reduced Iron (C4)	☐ Shallow Aquitard (D3)
☐ Recent Iron Reduction in Tilled Soils (C6)	☒ FAC-Neutral Test (D5)
☐ Stunted or Stressed Plants (D1) (LRR A)	☐ Raised Ant Mounds (D6) (LRR A)
☐ Other (Explain in Remarks)	☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes _____ No <u>X</u>	Depth (<i>inches</i>) _____	Wetland Hydrology Present? Yes _____ X _____ No _____
Water Table Present?	Yes _____ No <u>X</u>	Depth (<i>inches</i>) _____	
Saturation Present? <i>(includes capillary fringe)</i>	Yes _____ No <u>X</u>	Depth (<i>inches</i>) _____	

Remarks:

Project/Site:	<u>US 93 Ninepipes</u>	City/County:	<u>Lake County</u>	Sampling Date:	<u>5/20/2025</u>
Applicant/Owner:	<u>Montana Department of Transportation</u>	State:	<u>MT</u>	Sampling Point:	<u>WL-21</u>
Investigator(s):	<u>R. Newton and J. Mulligan</u>	Section, Township, Range: <u>S36 T20N R20W</u>			
Landform (<i>hillslope, terrace, etc.</i>):	<u>hill slope</u>	Local Relief (<i>concave, convex, none</i>):	<u>concave</u>	Slope (%): <u>0-2</u>	
Subregion (LRR):	<u>E - Rocky Mtn. Forests and Rangeland</u>	Lat.	<u>47.456114</u>	Long:	<u>-114.096427</u>
Soil Map Unit Name:	<u>Post-Ronan-Water complex, 8 to 15 percent slopes</u>	NW1 Classification:		<u>PUB/PEM</u>	

Are climatic/hydrologic conditions on the site typical for this time of year? Yes _____ No X (If no, explain in Remarks)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

Hydrophytic Vegetation Present? Yes X No

Hydric Soil Present? Yes X No

Wetland Hydrology Present? Yes X No

Is the Sampled Area within a Wetland? Yes X No

Depressional WL-21, open water and fringing PEM, in a prairie pothole on the eastern side of US 93. Appears to be isolated. The APT determined drought conditions. Approx. 1.34" precip recorded in the 10 days prior to survey and approx. 0.25" precip recorded during the four-day survey period (Ronan Mesonet station).

<u>Tree Stratum</u> (Plot size: <u>r = 30 ft.</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____			
2. _____			
3. _____			
4. _____			
5. _____			
	<u>0</u>	= Total Cover	
<u>Sapling/Shrub Stratum</u> (Plot size: <u>r = 15 ft.</u>)			
1. _____			
2. _____			
3. _____			
4. _____			
5. _____			
	<u>0</u>	= Total Cover	
<u>Herb Stratum</u> (Plot size: <u>r = 5ft.</u>)			
1. <i>Juncus balticus</i>	75	Y	FACW
2. <i>Dipsacus fullonum</i>	12	N	FAC
3. <i>Thinopyrum intermedium</i>	10	N	NI
4. <i>Agrostis scabra</i>	15	N	FAC
5. _____			
6. _____			
7. _____			
8. _____			
9. _____			
10. _____			
	<u>112</u>	= Total Cover	
<u>Woody Vine Stratum</u> (Plot size: <u>n/a</u>)			
1. _____			
2. _____			
	<u>0</u>	= Total Cover	
% Bare Ground in Herb Stratum	<u>0</u>	%	

Dominance Test Worksheet:			
Number of Dominant Species That Are OBL, FACW, or FAC:		1	(A)
Total Number of Dominant Species Across All Strata:		1	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:		100%	(A/B)

Prevalence Index Worksheet:			
Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	75	x 2 =	150
FAC species	27	x 3 =	81
FACU species	0	x 4 =	0
UPL species	10	x 5 =	50
Column Totals:	112 (A)		281 (B)
		Prevalence Index = B/A =	2.5

Hydrophytic Vegetation Indicators:	
_____ 1. Rapid Test for Hydrophytic Vegetation	
X 2. Dominance Test is >50%.	
X 3. Prevalence Index is ≤3.0 ¹	
_____ 4. Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
_____ 5. Wetland Non-Vascular Plants ¹	
_____ Problematic Hydrophytic Vegetation (Explain)	
¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	

Hydrophytic Vegetation Present?	X Yes No
--	-------------

Species with no indicator (NI) are treated as UPL for this analysis.

Profile Description: *(Describe to the depth needed to document the indicator or confirm the absence of indicators.)*

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 5	10 YR 3/2	100					Clay	
5 - 16	7.5 YR 4/1	90	7.5 YR 6/1	10	D	PL	Clay	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

☐ Histosol (A1)	☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G)
☐ Histic Epipedon (A2)	☐ Sandy Gleyed Matrix (S4)
☐ Black Histic (A3)	☐ Sandy Redox (S5)
☐ Hydrogen Sulfide (A4)	☐ Stripped Matrix (S6)
☐ 1 cm Muck (A9) (LRR D, G)	☐ Loamy Mucky Mineral (F1) (except MLRA 1)
☒ Depleted Below Dark Surface (A11)	☐ Loamy Gleyed Matrix (F2)
☐ Thick Dark Surface (A12)	☒ Depleted Matrix (F3)
☐ Iron Monosulfide (A18)	☐ Redox Dark Surface (F6)
☐ Sandy Mucky Mineral (S1)	☐ Depleted Dark Surface (F7)
	☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

☐ 2 cm Muck (A10) (LRRA, E)
☐ Iron-Manganese Masses (F12) (LRR D)
☐ Red Parent Material (F21)
☐ Very Shallow Dark Surface (F22)
☐ Other (Explain in Remarks)

³Indicators of hydrophylic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer: *(if observed)*

Type: _____
Depth (*inches*): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators *(minimum of one is required; check all that apply)*

☐ Surface Water (A1)
☒ High Water Table (A2)
☒ Saturation (A3)
☐ Water Marks (B1)
☐ Sediment Deposits (B2)
☐ Drift Deposits (B3)
☒ Algal Mat or Crust (B4)
☐ Iron Deposits (B5)
☐ Surface Soil Cracks (B6)
☒ Inundation Visible on Aerial Imagery (B7)
☐ Sparsely Vegetated Concave Surface (B8)

Secondary Indicators *(minimum of two required)*

☐ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	☐ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
☐ Salt Crust (B11)	☐ Drainage Patterns (B10)
☐ Aquatic Invertebrates (B13)	☐ Dry-Season Water Table (C2)
☐ Hydrogen Sulfide Odor (C1)	☐ Saturation Visible on Aerial Imagery (C9)
☐ Oxidized Rhizospheres on Living Roots (C3)	☒ Geomorphic Position (D2)
☐ Presence of Reduced Iron (C4)	☐ Shallow Aquitard (D3)
☐ Recent Iron Reduction in Tilled Soils (C6)	☒ FAC-Neutral Test (D5)
☐ Stunted or Stressed Plants (D1) (LRR A)	☐ Raised Ant Mounds (D6) (LRR A)
☐ Other (Explain in Remarks)	☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes ☐ No ☒	Depth (<i>inches</i>)	☐	Wetland Hydrology Present?
Water Table Present?	Yes ☒ No ☐	Depth (<i>inches</i>)	☐ 3	
Saturation Present? <i>(includes capillary fringe)</i>	Yes ☒ No ☐	Depth (<i>inches</i>)	☐ surface	☒ Yes ☐ No

Remarks:

Surface water elsewhere within the wetland polygon approx. 1 foot deep.

Wetland Determination Data Form - Western Mountains, Valleys, and Coast Region

Project/Site: US 93 Ninepipes City/County: Lake County Sampling Date: 5/20/2025
Applicant/Owner: Montana Dept. of Transportation State: MT Sampling Point: UP-21
Investigator(s): R. Newton and J. Mulligan Section, Township, Range: S36 T20N R20W
Landform (*hillslope, terrace, etc.*): hillslope Local Relief (*concave, convex, none*): none Slope (%): 0-2
Subregion (LRR): E - Rocky Mtn. Forests and Rangeland Lat. 47.456117 Long: -114.096405 Datum: WGS 84
Soil Map Unit Name: Post-Ronan-Water complex, 8 to 15 percent slopes NWI Classification: UPL

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No X (If no, explain in Remarks)
Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No
Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes No X
Hydric Soil Present? Yes No X Is the Sampled Area within a Wetland? Yes No X
Wetland Hydrology Present? Yes No X

Remarks:

Paired upland point for wetland sample point WL-21. The APT determined drought conditions. Approx. 1.34" precip recorded in the 10 days prior to survey and approx. 0.25" precip recorded during the four-day survey period (Ronan Mesonet station).

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: <u>r = 30 ft.</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>0</u> = Total Cover			
Sapling/Shrub Stratum (Plot size: <u>r = 15 ft.</u>)			
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>0</u> = Total Cover			
Herb Stratum (Plot size: <u>r = 5 ft.</u>)			
1. <u>Thinopyrum intermedium</u>	<u>75</u>	<u>Y</u>	<u>NI</u>
2. <u>Dipsacus fullonum</u>	<u>20</u>	<u>N</u>	<u>FAC</u>
3. <u>Hypericum perforatum</u>	<u>10</u>	<u>N</u>	<u>FACU</u>
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>
6. <u> </u>	<u> </u>	<u> </u>	<u> </u>
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>
9. <u> </u>	<u> </u>	<u> </u>	<u> </u>
10. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>105</u> = Total Cover			
Woody Vine Stratum (Plot size: <u>n/a</u>)			
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>0</u> = Total Cover			
% Bare Ground in Herb Stratum	<u>0</u> %		

Dominance Test Worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
Total Number of Dominant Species Across All Strata: 1 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)
Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	<u>0</u>	x 1 =	<u>0</u>
FACW species	<u>0</u>	x 2 =	<u>0</u>
FAC species	<u>20</u>	x 3 =	<u>60</u>
FACU species	<u>10</u>	x 4 =	<u>40</u>
UPL species	<u>75</u>	x 5 =	<u>375</u>
Column Totals:	<u>105</u> (A)		<u>475</u> (B)

Prevalence Index = B/A = 4.5

Hydrophytic Vegetation Indicators:
 1. Rapid Test for Hydrophytic Vegetation
 2. Dominance Test is >50%.
 3. Prevalence Index is ≤3.0¹
 4. Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 5. Wetland Non-Vascular Plants¹
 Problematic Hydrophytic Vegetation (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No

Remarks:

Species with no indicator (NI) are treated as UPL as analysis.

SOIL

Sampling Point: **UP-21****Profile Description:** *(Describe to the depth needed to document the indicator or confirm the absence of indicators.)*

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 6	10 YR 4/2	100					Clay	
6 - 16	7.5 YR 5/4	100					Clay	large cobbles throughout

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix**Hydric Soil Indicators**

☐ Histosol (A1)	☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G)
☐ Histic Epipedon (A2)	☐ Sandy Gleyed Matrix (S4)
☐ Black Histic (A3)	☐ Sandy Redox (S5)
☐ Hydrogen Sulfide (A4)	☐ Stripped Matrix (S6)
☐ 1 cm Muck (A9) (LRR D, G)	☐ Loamy Mucky Mineral (F1) (except MLRA 1)
☐ Depleted Below Dark Surface (A11)	☐ Loamy Gleyed Matrix (F2)
☐ Thick Dark Surface (A12)	☐ Depleted Matrix (F3)
☐ Iron Monosulfide (A18)	☐ Redox Dark Surface (F6)
☐ Sandy Mucky Mineral (S1)	☐ Depleted Dark Surface (F7)
	☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

☐ 2 cm Muck (A10) (LRRA, E)
☐ Iron-Manganese Masses (F12) (LRR D)
☐ Red Parent Material (F21)
☐ Very Shallow Dark Surface (F22)
☐ Other (Explain in Remarks)

³Indicators of hydrophylic vegetation and wetland hydrology must be present, unless disturbed or problematic.**Restrictive Layer:** *(if observed)*
 Type: _____
 Depth (inches): _____
Hydric Soil Present? Yes _____ No **X****Remarks:****HYDROLOGY****Wetland Hydrology Indicators:**Primary Indicators *(minimum of one is required; check all that apply)*

☐ Surface Water (A1)
☐ High Water Table (A2)
☐ Saturation (A3)
☐ Water Marks (B1)
☐ Sediment Deposits (B2)
☐ Drift Deposits (B3)
☐ Algal Mat or Crust (B4)
☐ Iron Deposits (B5)
☐ Surface Soil Cracks (B6)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Sparsely Vegetated Concave Surface (B8)

Secondary Indicators *(minimum of two required)*

☐ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	☐ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
☐ Salt Crust (B11)	☐ Drainage Patterns (B10)
☐ Aquatic Invertebrates (B13)	☐ Dry-Season Water Table (C2)
☐ Hydrogen Sulfide Odor (C1)	☐ Saturation Visible on Aerial Imagery (C9)
☐ Oxidized Rhizospheres on Living Roots (C3)	☐ Geomorphic Position (D2)
☐ Presence of Reduced Iron (C4)	☐ Shallow Aquitard (D3)
☐ Recent Iron Reduction in Tilled Soils (C6)	☐ FAC-Neutral Test (D5)
☐ Stunted or Stressed Plants (D1) (LRR A)	☐ Raised Ant Mounds (D6) (LRR A)
☐ Other (Explain in Remarks)	☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes _____ No X	Depth (inches)	_____	Wetland Hydrology Present?
Water Table Present?	Yes _____ No X	Depth (inches)	_____	
Saturation Present? <i>(includes capillary fringe)</i>	Yes _____ No X	Depth (inches)	_____	Yes X No

Remarks:

Wetland Determination Data Form - Western Mountains, Valleys, and Coast Region

Project/Site: US93 Ninepipes City/County: Lake County Sampling Date: 5/20/2025
 Applicant/Owner: Montana Department of Transportation State: MT Sampling Point: WL-22a
 Investigator(s): B. Stockowitz and A. Hendryx Section, Township, Range: S35 T20N R20W
 Landform (*hillslope, terrace, etc.*): Ditch Local Relief (*concave, convex, none*): concave Slope (%): 0-2
 Subregion (LRR): E - Rocky Mtn. Forests and Rangeland Lat. 47.456948 Long: -114.098491 Datum: WGS 84
 Soil Map Unit Name: Post-Ronan-Water complex, 2 to 8 percent slopes NWI Classification: PEM

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No X (If no, explain in Remarks)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes X No
 Hydric Soil Present? Yes X No Is the Sampled Area within a Wetland? Yes X No
 Wetland Hydrology Present? Yes X No

Remarks:

Depressional PEM wetland WL-22a in roadside ditch. Connected to WL-22b under Hwy 212 via cement culvert. The APT determined drought conditions. Approx. 1.34" precip recorded in the 10 days prior to survey and approx. 0.25" precip recorded during the four-day survey period (Ronan Mesonet station).

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: <u>r = 30 ft.</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:			
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)			
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Total Number of Dominant Species Across All Strata: <u>3</u> (B)			
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)			
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>				
5. <u> </u>	<u>0</u>	<u> </u>	<u> </u>				
<u>0</u> = Total Cover							
Sapling/Shrub Stratum (Plot size: <u>r = 15 ft.</u>)				Prevalence Index Worksheet:			
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Total % Cover of: <u> </u> Multiply by: <u> </u>			
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	OBL species	<u>50</u>	x 1 =	<u>50</u>
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	FACW species	<u>50</u>	x 2 =	<u>100</u>
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	FAC species	<u>0</u>	x 3 =	<u>0</u>
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>	FACU species	<u>0</u>	x 4 =	<u>0</u>
<u>0</u> = Total Cover				UPL species	<u>0</u>	x 5 =	<u>0</u>
				Column Totals:	<u>100</u>	(A)	<u>150</u> (B)
				Prevalence Index = B/A = <u>1.5</u>			
Herb Stratum (Plot size: <u>r = 5 ft.</u>)				Hydrophytic Vegetation Indicators:			
1. <u>Typha latifolia</u>	<u>50</u>	<u>Y</u>	<u>OBL</u>	<u>X</u> 1. Rapid Test for Hydrophytic Vegetation			
2. <u>Juncus balticus</u>	<u>25</u>	<u>Y</u>	<u>FACW</u>	<u>X</u> 2. Dominance Test is >50%.			
3. <u>Phalaris arundinacea</u>	<u>25</u>	<u>Y</u>	<u>FACW</u>	<u>X</u> 3. Prevalence Index is ≤3.0 ¹			
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u> 4. Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)			
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u> 5. Wetland Non-Vascular Plants ¹			
6. <u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u> Problematic Hydrophytic Vegetation (Explain)			
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>				
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>				
9. <u> </u>	<u> </u>	<u> </u>	<u> </u>				
10. <u> </u>	<u> </u>	<u> </u>	<u> </u>				
<u>100</u> = Total Cover				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.			
Woody Vine Stratum (Plot size: <u>n/a</u>)				Hydrophytic Vegetation Present? <u>X</u> Yes <u> </u> No <u> </u>			
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>				
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>				
<u>0</u> = Total Cover							
% Bare Ground in Herb Stratum <u>0</u> %							

Remarks:

Profile Description: *(Describe to the depth needed to document the indicator or confirm the absence of indicators.)*

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-1	10YR 2/1	100					Silt Loam	
1-16	7.5YR 4/2	95	7.5YR 4/6	3	C	M	Clay	
			N 6/Gley 1	2	D	M	Clay	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

☐ Histosol (A1)	☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G)
☐ Histic Epipedon (A2)	☐ Sandy Gleyed Matrix (S4)
☐ Black Histic (A3)	☐ Sandy Redox (S5)
☐ Hydrogen Sulfide (A4)	☐ Stripped Matrix (S6)
☐ 1 cm Muck (A9) (LRR D, G)	☐ Loamy Mucky Mineral (F1) (except MLRA 1)
☒ Depleted Below Dark Surface (A11)	☐ Loamy Gleyed Matrix (F2)
☐ Thick Dark Surface (A12)	☒ Depleted Matrix (F3)
☐ Iron Monosulfide (A18)	☐ Redox Dark Surface (F6)
☐ Sandy Mucky Mineral (S1)	☐ Depleted Dark Surface (F7)
	☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

☐ 2 cm Muck (A10) (LRRA, E)
☐ Iron-Manganese Masses (F12) (LRR D)
☐ Red Parent Material (F21)
☐ Very Shallow Dark Surface (F22)
☐ Other (Explain in Remarks)

³Indicators of hydrophylic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer: *(if observed)*

Type: _____
Depth (*inches*): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators *(minimum of one is required; check all that apply)*

☒ Surface Water (A1)
☒ High Water Table (A2)
☒ Saturation (A3)
☐ Water Marks (B1)
☐ Sediment Deposits (B2)
☐ Drift Deposits (B3)
☐ Algal Mat or Crust (B4)
☐ Iron Deposits (B5)
☐ Surface Soil Cracks (B6)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Sparsely Vegetated Concave Surface (B8)

Secondary Indicators *(minimum of two required)*

☐ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	☐ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
☐ Salt Crust (B11)	☐ Drainage Patterns (B10)
☐ Aquatic Invertebrates (B13)	☐ Dry-Season Water Table (C2)
☐ Hydrogen Sulfide Odor (C1)	☐ Saturation Visible on Aerial Imagery (C9)
☐ Oxidized Rhizospheres on Living Roots (C3)	☒ Geomorphic Position (D2)
☐ Presence of Reduced Iron (C4)	☐ Shallow Aquitard (D3)
☐ Recent Iron Reduction in Tilled Soils (C6)	☒ FAC-Neutral Test (D5)
☐ Stunted or Stressed Plants (D1) (LRR A)	☐ Raised Ant Mounds (D6) (LRR A)
☐ Other (Explain in Remarks)	☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes ☒ No ☐	Depth (<i>inches</i>)	<u>1</u>	Wetland Hydrology Present?
Water Table Present?	Yes ☒ No ☐	Depth (<i>inches</i>)	<u>8</u>	
Saturation Present? <i>(includes capillary fringe)</i>	Yes ☒ No ☐	Depth (<i>inches</i>)	<u>3</u>	

Remarks:

Wetland Determination Data Form - Western Mountains, Valleys, and Coast Region

Project/Site: US93 Ninepipes City/County: Lake County Sampling Date: 5/20/2025
 Applicant/Owner: Montana Department of Transportation State: MT Sampling Point: UP-22a
 Investigator(s): B. Stockowitz and A. Hendryx Section, Township, Range: S35 T20N R20W
 Landform (*hillslope, terrace, etc.*): 1st "terrace" out of ditch Local Relief (*concave, convex, none*): none Slope (%): 0-2
 Subregion (LRR): E - Rocky Mtn. Forests and Rangeland Lat. 47.456935 Long: -114.098494 Datum: WGS 84
 Soil Map Unit Name: Post-Ronan-Water complex, 2 to 8 percent slopes NWI Classification: UPL

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No X (If no, explain in Remarks)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes No X
 Hydric Soil Present? Yes No X Is the Sampled Area within a Wetland? Yes No X
 Wetland Hydrology Present? Yes No X

Remarks:

Paired upland point for wetland sample point WL-22a. The APT determined drought conditions. Approx. 1.34" precip recorded in the 10 days prior to survey and approx. 0.25" precip recorded during the four-day survey period (Ronan Mesonet station).

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: <u>r = 30 ft.</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>33%</u> (A/B)																																
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>																																	
<u>0</u> = Total Cover																																				
Sapling/Shrub Stratum (Plot size: <u>r = 15 ft.</u>) 1. <u> </u> 2. <u> </u> 3. <u> </u> 4. <u> </u> 5. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Prevalence Index Worksheet: <table border="1"> <thead> <tr> <th colspan="2">Total % Cover of:</th> <th colspan="2">Multiply by:</th> </tr> </thead> <tbody> <tr> <td>OBL species</td> <td><u>0</u></td> <td>x 1 =</td> <td><u>0</u></td> </tr> <tr> <td>FACW species</td> <td><u>0</u></td> <td>x 2 =</td> <td><u>0</u></td> </tr> <tr> <td>FAC species</td> <td><u>20</u></td> <td>x 3 =</td> <td><u>60</u></td> </tr> <tr> <td>FACU species</td> <td><u>80</u></td> <td>x 4 =</td> <td><u>320</u></td> </tr> <tr> <td>UPL species</td> <td><u>0</u></td> <td>x 5 =</td> <td><u>0</u></td> </tr> <tr> <td>Column Totals:</td> <td><u>100</u> (A)</td> <td></td> <td><u>380</u> (B)</td> </tr> <tr> <td colspan="4">Prevalence Index = B/A = <u>3.8</u></td> </tr> </tbody> </table>	Total % Cover of:		Multiply by:		OBL species	<u>0</u>	x 1 =	<u>0</u>	FACW species	<u>0</u>	x 2 =	<u>0</u>	FAC species	<u>20</u>	x 3 =	<u>60</u>	FACU species	<u>80</u>	x 4 =	<u>320</u>	UPL species	<u>0</u>	x 5 =	<u>0</u>	Column Totals:	<u>100</u> (A)		<u>380</u> (B)	Prevalence Index = B/A = <u>3.8</u>			
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Prevalence Index = B/A = <u>3.8</u>																																				
<u>0</u> = Total Cover																																				
Herb Stratum (Plot size: <u>r = 5 ft.</u>) 1. <u>Poa pratensis</u> 2. <u>Elymus lanceolatus</u> 3. <u>Pascopyrum smithii</u> 4. <u> </u> 5. <u> </u> 6. <u> </u> 7. <u> </u> 8. <u> </u> 9. <u> </u> 10. <u> </u>	<u>20</u>	<u>Y</u>	<u>FAC</u>																																	
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	<u> </u>	<u> </u>	<u> </u>																																	
<u>100</u> = Total Cover																																				
Woody Vine Stratum (Plot size: <u>n/a</u>) 1. <u> </u> 2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Hydrophytic Vegetation Indicators: 1. Rapid Test for Hydrophytic Vegetation <u> </u> 2. Dominance Test is >50%. <u> </u> 3. Prevalence Index is ≤3.0 ¹ <u> </u> 4. Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> 5. Wetland Non-Vascular Plants ¹ <u> </u> Problematic Hydrophytic Vegetation (Explain) <u> </u> ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																																
<u>0</u> = Total Cover																																				
% Bare Ground in Herb Stratum <u>0</u> %																																				

Remarks:

Profile Description: *(Describe to the depth needed to document the indicator or confirm the absence of indicators.)*

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-8	10YR 2/2	100					Loam	granular texture
8-16	10YR 4/4	100					Clay Loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators

☐ Histosol (A1)	☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G)
☐ Histic Epipedon (A2)	☐ Sandy Gleyed Matrix (S4)
☐ Black Histic (A3)	☐ Sandy Redox (S5)
☐ Hydrogen Sulfide (A4)	☐ Stripped Matrix (S6)
☐ 1 cm Muck (A9) (LRR D, G)	☐ Loamy Mucky Mineral (F1) (except MLRA 1)
☐ Depleted Below Dark Surface (A11)	☐ Loamy Gleyed Matrix (F2)
☐ Thick Dark Surface (A12)	☐ Depleted Matrix (F3)
☐ Iron Monosulfide (A18)	☐ Redox Dark Surface (F6)
☐ Sandy Mucky Mineral (S1)	☐ Depleted Dark Surface (F7)
	☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

☐ 2 cm Muck (A10) (LRRA, E)
☐ Iron-Manganese Masses (F12) (LRR D)
☐ Red Parent Material (F21)
☐ Very Shallow Dark Surface (F22)
☐ Other (Explain in Remarks)

³Indicators of hydrophylic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer: *(if observed)*

Type: _____
Depth (*inches*): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators *(minimum of one is required; check all that apply)*

☐ Surface Water (A1)
☐ High Water Table (A2)
☐ Saturation (A3)
☐ Water Marks (B1)
☐ Sediment Deposits (B2)
☐ Drift Deposits (B3)
☐ Algal Mat or Crust (B4)
☐ Iron Deposits (B5)
☐ Surface Soil Cracks (B6)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Sparsely Vegetated Concave Surface (B8)

Secondary Indicators *(minimum of two required)*

☐ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	☐ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
☐ Salt Crust (B11)	☐ Drainage Patterns (B10)
☐ Aquatic Invertebrates (B13)	☐ Dry-Season Water Table (C2)
☐ Hydrogen Sulfide Odor (C1)	☐ Saturation Visible on Aerial Imagery (C9)
☐ Oxidized Rhizospheres on Living Roots (C3)	☐ Geomorphic Position (D2)
☐ Presence of Reduced Iron (C4)	☐ Shallow Aquitard (D3)
☐ Recent Iron Reduction in Tilled Soils (C6)	☐ FAC-Neutral Test (D5)
☐ Stunted or Stressed Plants (D1) (LRR A)	☐ Raised Ant Mounds (D6) (LRR A)
☐ Other (Explain in Remarks)	☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes _____ No <u>X</u>	Depth (<i>inches</i>) _____	Wetland Hydrology Present? Yes _____ X _____ No _____
Water Table Present?	Yes _____ No <u>X</u>	Depth (<i>inches</i>) _____	
Saturation Present? <i>(includes capillary fringe)</i>	Yes _____ No <u>X</u>	Depth (<i>inches</i>) _____	

Remarks:

Attachment C
Photo Log



Photo 15a: View to the northwest of depressional WL-11 wetland, open water and fringing PSS components, on the western side of US 93.



Photo 15b: View to the north of depressional WL-11 wetland, palustrine floating vegetation mat PAB, on the western side of US 93.



Photo 15c: View to the west of depressional PAB wetland (right) and open water (left) components of WL-11 on the western side of US 93.



Photo 15d: View to the northwest of PAB (foreground) and open water (background) components of WL-11.

Photo 16: Photo occurs outside the AFR study area. This placeholder maintains cohesion with other documents.

Photo 17: Photo occurs outside the AFR study area. This placeholder maintains cohesion with other documents.

Photo 18: Photo occurs outside the AFR study area. This placeholder maintains cohesion with other documents.



Photo 19: View to the southwest of riparian area (right side of photo) fringing depressional wetland WL-11. Soils in the riparian area lacked hydric indicators (S-8).



Photo 20: View to the west of depressional PEM wetland WL-12 within roadside ditch on the eastern side of US 93.



Photo 21a: View to the northwest of depressional wetland WL-13, open water and in a prairie pothole and paired upland point on the eastern side of US 93.



Photo 21b: View to the northwest of depressional PSS component of WL-13 wetland in a prairie pothole on the eastern side of US 93.



Photo 22a: View to the northwest of irrigation ditch ID-2a, Post A Canal.



Photo 22b: View to the northwest of irrigation ditch ID-2b, Post A Canal.



Photo 23: View to the south of potential wetland fringe along Post A Canal; no hydric soil indicators present (S-9).



Photo 24: View to the northwest of suspect area (S-10) found to be lacking wetland indicators.



Photo 25: View to the south of suspect area (S-11) found to be lacking hydric soil indicators.



Photo 26a: View to the south of depressional PEM wetland WL-14a in roadside ditch on the eastern side of US 93



Photo 26b: View to the south of depressional PEM wetland WL-14b in roadside ditch and paired upland point on the eastern side of US 93.



Photo 27: View to the south of suspect area (S-12) found to be lacking wetland indicators.



Photo 28: View to the east of suspect area (S-13) found to be lacking hydric soil indicators.



Photo 29a: View to the southwest of depressional wetland WL-15, open water and fringing PEM, on the western side of US 93.



Photo 29b: View to the west of depressional wetland WL-15, open water and fringing PEM, on the western side of US 93.



Photo 30: View to the northwest of depressional wetland WL-16, open water and fringing PEM, on the eastern side of US 93..

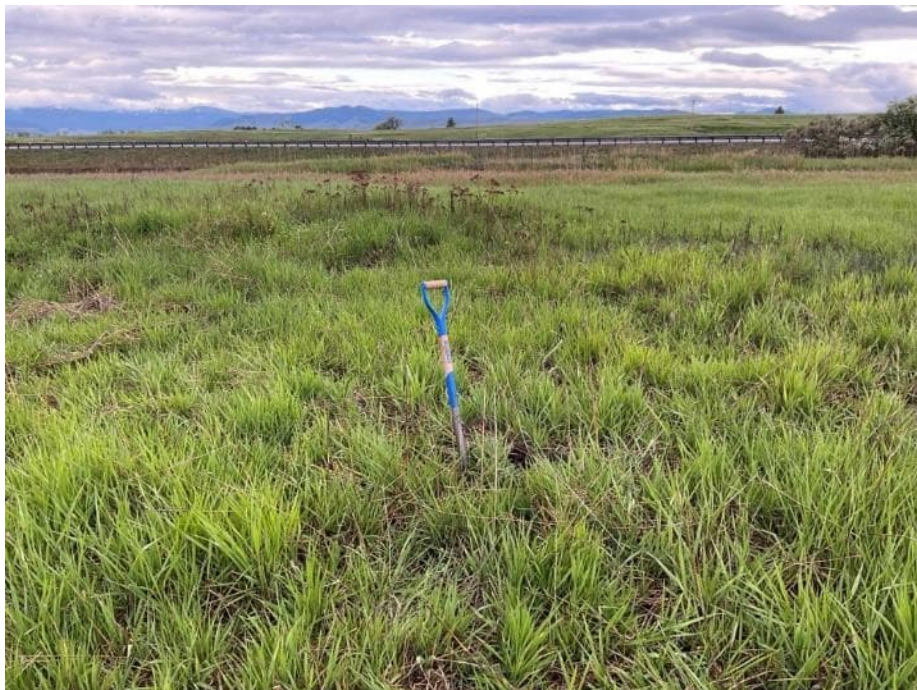


Photo 31: View to the west of suspect depressional area (S-14); no hydric soil indicators present.



Photo 32: View to the west of suspect depressional area on the eastern side of US 93 (S-15); no wetland indicators present.



Photo 33: View to the north of depressional PEM wetland WL-17 in roadside ditch and paired upland point on eastern side of US 93.



Photo 34: View to the northwest of suspect area (S-16) found to be lacking hydric soil indicators.



Photo 35: View to the north of depressional PEM wetland WL-18 in a prairie pothole on the western side of US 93.



Photo 36: View to the south of depressional wetland WL-19, open water, fringing PEM, and paired upland point in a prairie pothole on the eastern side of US 93.



Photo 37: View to the north of depressional WL-20, open water, fringing PEM, and paired upland point in a prairie pothole on the western side of US 93.



Photo 38: View to the west of suspect area (S-17) found to be lacking hydric soil indicators.



Photo 39: View to the north of depressional WL-21, open water, fringing PEM, and paired upland point in a prairie pothole on the eastern side of US 93.



Photo 40a: View to the west of depressional PEM wetland WL-22a in roadside ditch on southwestern side of US 93 - State Hwy 212 intersection.

Attachment D
Montana Wetland Assessment Method Forms

MDT Montana Wetland Assessment Form (revised March 2008)

1. Project Name: US 93 Ninepipes
2. MDT Project #: **Control #:**
3. Evaluation Date: 12/07/2025 **4. Evaluator(s):** Brian Stockowitz and Rachel Newton **5. Wetlands/Site #(s):** WL-11
6. Wetland Location(s): i. Legal: T20N,R20W,S35 **Latitude/Longitude:** 47.446944, -114.097531 : WL-11 centroid
ii. Approx. Stationing or Mileposts:
iii. Watershed: 3 507+35 to 512+79 LT
Watershed Name, County: Lower Clark Fork, Lake
7. a. Evaluating Agency: DJ&A and Jacobs

b. Purpose of Evaluation:

1. ☒ Wetlands potentially affected by MDT project
2. ☐ Mitigation wetlands; pre-construction
3. ☐ Mitigation wetlands; post-construction
4. ☐ Other:

8. Wetland size: 0.238 acres (measured)
9. Assessment area (AA): 0.238 acres (measured)

10. Classification of Wetland and Aquatic Habitats in AA

HGM Class (Brinson)	Class (Cowardin)	Modifier (Cowardin)	Water Regime	% of AA
D	AB	NA	PP	76
D	SS	NA	PP	6
D	UB	NA	PP	18

Abbreviations: (see manual for definitions)

HGM Classes: Riverine (**R**), Depressional (**D**), Slope (**S**), Mineral Soil Flats (**MSF**), Organic Soil Flats (**OSF**), Lacustrine Fringe (**LF**);

Cowardin Classes: Rock Bottom (**RB**), Unconsolidated bottom (**UB**), Aquatic Bed (**AB**), Unconsolidated Shore (**US**), Moss-lichen Wetland (**ML**), Emergent Wetland (**EM**), Scrub-Shrub Wetland (**SS**), Forested Wetland (**FO**)

Modifiers: Excavated (**E**), Impounded (**I**), Diked (**D**), Partly Drained (**PD**), Farmed (**F**), Artificial (**A**)

Water Regimes: Permanent / Perennial (**PP**), Seasonal / Intermittent (**SI**), Temporary / Ephemeral (**TE**)

11. Estimated relative abundance: (of similarly classified sites within the same Major Montana Watershed Basin, see definitions)
 RARE

12. General condition of AA:

- i. Disturbance:** (use matrix below to determine [circle] appropriate response – see instructions for Montana-listed noxious weed and aquatic nuisance vegetation species (**ANVS**) list)

Conditions within AA	Predominant conditions adjacent to (within 500 feet of) AA		
	Managed in predominantly natural state; is not grazed, hayed, logged, or otherwise converted; does not contain roads or buildings; and noxious weed or ANVS cover is >=15%.	Land not cultivated, but may be moderately grazed or hayed or selectively logged; or has been subject to minor clearing; contains few roads or buildings; noxious weed or ANVS cover is <= 30%.	Land cultivated or heavily grazed or logged; subject to substantial fill placement, grading, clearing, or hydrological alteration; high road or building density; or noxious weed or ANVS cover is > 30%.
AA occurs and is managed in predominantly natural state; is not grazed, hayed, logged, or otherwise converted; does not contain roads or occupied buildings; and noxious weed or ANVS cover is <= 15%.	low disturbance	low disturbance	moderate disturbance
AA not cultivated, but may be moderately grazed or hayed or selectively logged; or has been subject to relatively minor clearing, fill placement, or hydrological alteration; contains few roads or buildings; noxious weed or ANVS cover is <=	moderate disturbance	moderate disturbance	high disturbance
AA cultivated or heavily grazed or logged; subject to relatively substantial fill placement, grading, clearing, or hydrological alteration; high road or building density; or noxious weed or ANVS cover is > 30%.	high disturbance	high disturbance	high disturbance

Comments: (types of disturbance, intensity, season, etc.): Bounded by the Post A Canal to the north and US 93 to the east.

ii. Prominent noxious, aquatic nuisance, & other exotic vegetation species: None observed on site. See BRR.

iii. Provide brief descriptive summary of AA and surrounding land use/habitat: The area along the western boundary is managed for wildlife habitat. US 93 is a busy highway with some development.

13. Structural Diversity: (based on number of "Cowardin" **vegetated** classes present [do not include unvegetated classes], see #10 above)

Existing # of "Cowardin" Vegetated Classes in AA	Initial Rating	Is current management preventing (passive) existence of additional vegetated classes?		Modified Rating
>= 3 (or 2 if 1 is forested) classes	H	NA	NA	NA
2 (or 1 if forested) classes	M	NA	NA	NA
1 class, but not a monoculture	M	<-- NO	YES -->	L
1 class, monoculture (1 species comprises >= 90% of total cover)	L	NA	NA	NA

Comments: PSS, PAB floating mat (Typha, Carex, and moss), and two areas of open water (listed as palustrine unconsolidated bottom in wetland classification).

SECTION PERTAINING to FUNCTIONS & VALUES ASSESSMENT

14A. Habitat for Federally Listed or Proposed Threatened or Endangered Plants or Animals:

i. AA is Documented (D) or Suspected (S) to contain (circle one based on definitions contained in instructions):

Secondary habitat (list species)

Incidental habitat (list species)

Monarch butterfly(S)

Grizzly bear(S)

ii. Rating (use the conclusions from i above and the matrix below to arrive at [circle] the functional points and rating)

<i>Highest Habitat Level</i>	<i>doc/primary</i>	<i>sus/primary</i>	<i>doc/secondary</i>	<i>sus/secondary</i>	<i>doc/incidental</i>	<i>sus/incidental</i>	<i>None</i>
<i>Functional Points and Rating</i>	1H	.9H	.8M	.7M	.3L	.1L	0L

Sources for documented use (e.g. observations, records, etc): Grizzly and monarch butterfly are known to occur within the delineation study area.

This wetland complex is the most diverse within the study area; both species may use the wetland complex incidentally.

14B. Habitat for plant or animals rated S1, S2, or S3 by the Montana Natural Heritage Program: (not including species listed in 14A above)

i. AA is Documented (D) or Suspected (S) to contain (circle one based on definitions contained in instructions):

Secondary habitat (list species)

Incidental habitat (list species)

Great blue heron(S) - S2S3

ii. Rating (use the conclusions from i above and the matrix below to arrive at [circle] the functional points and rating)

Highest Habitat Level	doc/primary	sus/primary	doc/secondary	sus/secondary	doc/incidental	sus/incidental	None
S1 Species: Functional Points and Rating	1H	.8H	.7M	.6M	.2L	.1L	0L
S2 and S3 Species: Functional Points and Rating	.9H	.7M	.6M	.5M	.2L	.1L	0L

Sources for documented use (e.g. observations, records, etc): See BRR for additional species from MTNHP query. No formal surveys have been conducted.

14C. General Wildlife Habitat Rating:

i. Evidence of overall wildlife use in the AA (circle substantial, moderate, or low based on supporting evidence):

Substantial (based on any of the following [check]):

X observations of abundant wildlife #s or high species diversity (during any period)

X abundant wildlife sign such as scat, tracks, nest structures, game trails, etc.

$\bar{X}$ presence of extremely limiting habitat features not available in the surrounding area

— interviews with local biologists with knowledge of the AA

Minimal (based on any of the following [check]):

few or no wildlife observations during peak use periods

— little to no wildlife sign

— sparse adjacent upland food sources

— interviews with local biologists with knowledge of the AA

Moderate (based on any of the following [check]):

observations of scattered wildlife groups or individuals or relatively few species during peak periods

— common occurrence of wildlife sign such as scat, tracks, nest structures, game trails, etc.

— adequate adjacent upland food sources

— interviews with local biologists with knowledge of the AA

ii. Wildlife habitat features (Working from top to bottom, circle appropriate AA attributes in matrix to arrive at rating. Structural diversity is from #13. For class cover to be considered evenly distributed, the most and least prevalent vegetated classes must be within 20% of each other in terms of their percent composition of the AA (see #10). Abbreviations for surface water durations are as follows: P/P = permanent/perennial; S/I = seasonal/intermittent; T/E = temporary/ephemeral; and A = absent [see instructions for further definitions of these terms])

<i>Structural diversity (see #13)</i>	High								Moderate								Low			
<i>Class cover distribution (all vegetated classes)</i>	Even				Uneven				Even				Uneven				Even			
<i>Duration of surface water in >=10% of AA</i>	P/P	S/I	T/E	A	P/P	S/I	T/E	A	P/P	S/I	T/E	A	P/P	S/I	T/E	A	P/P	S/I	T/E	A
Low disturbance at AA (see #12i)	E	E	E	H	E	E	H	H	E	H	H	M	E	H	M	M	E	H	M	M
Moderate disturbance at AA (see #12i)	H	H	H	H	H	H	H	M	H	H	M	M	H	M	M	L	H	M	L	L
High disturbance at AA (see #12i)	M	M	M	L	M	M	L	L	M	M	L	L	M	L	L	L	L	L	L	L

iii. Rating (use the conclusions from i and ii above and the matrix below to arrive at [circle] the functional points and rating)

Evidence of wildlife use (i)	Wildlife habitat features rating (ii)			
	Exceptional	High	Moderate	Moderate
Substantial	1E	.9H	.8H	.7M
Moderate	.9H	.7M	.5M	.3L
Minimal	.6M	.4M	.2L	.1L

Comments:

14F. Short and Long Term Surface Water Storage: (Applies to wetlands that flood or pond from overbank or in-channel flow, precipitation, upland surface flow, or groundwater flow. If no wetlands in the AA are subject to flooding or ponding, NA and proceed to 14G.)

i. Rating (Working from top to bottom, use the matrix below to arrive at [circle] the functional points and rating. Abbreviations for surface water durations are as follows: P/P = permanent/perennial; S/I = seasonal/intermittent; and T/E = temporary/ephemeral [see instructions for further definitions of these terms].)

Estimated maximum acre feet of water contained in wetlands within the AA that are subject to periodic flooding or ponding	>5 acre feet			1.1 to 5 acre feet			<=1 acre foot		
Duration of surface water at wetlands within the AA	P/P	S/I	T/E	P/P	S/I	T/E	P/P	S/I	T/E
Wetlands in AA flood or pond >= 5 out of 10 years	1H	.9H	.8H	.8H	.6M	.5M	.4M	.3L	.2L
Wetlands in AA flood or pond < 5 out of 10 years	.9H	.8H	.7M	.7M	.5M	.4M	.3L	.2L	.1L

Comments: Depressional wetland likely to experience seasonal upwellings related to snowmelt and runoff.

14G. Sediment/Nutrient/Toxicant Retention and Removal: (Applies to wetlands with potential to receive sediments, nutrients, or toxicants through influx of surface or ground water or direct input. If no wetlands in the AA are subject to such input, NA and proceed to 14H.)

i. Rating (working from top to bottom, use the matrix below to arrive at [circle] the functional points and rating [H=high, M=moderate, or L=low])

Sediment, nutrient, and toxicant input levels within AA	AA receives or surrounding land use with potential to deliver levels of sediments, nutrients, or compounds at levels such that other functions are not substantially impaired. Minor sedimentation, sources of nutrients or toxicants, or signs of eutrophication present.				Waterbody on MDEQ list of waterbodies in need of TMDL development for "probable causes" related to sediment, nutrients, or toxicants or AA receives or surrounding land use with potential to deliver high levels of sediments, nutrients, or compounds such that other functions are substantially impaired. Major sedimentation, sources of nutrients or toxicants, or signs of eutrophication present.				
% cover of wetland vegetation in AA	>= 70%		< 70%		>= 70%		< 70%		
Evidence of flooding / ponding in AA	Yes	No	Yes	No	Yes	No	Yes	No	
AA contains no or restricted outlet	1H	.8H	.7M	.5M	.5M	.4M	.3L	.2L	
AA contains unrestricted outlet	.9H	.7M	.6M	.4M	.4M	.3L	.2L	.1L	

Comments: Wetland complex receives runoff and other pollutants from US 93 traffic.

14H Sediment/Shoreline Stabilization: (Applies only if AA occurs on or within the banks or a river, stream, or other natural or man-made drainage, or on the shoreline of a standing water body which is subject to wave action. If 14H does not apply, NA and proceed to 14I.)

i. Rating (working from top to bottom, use the matrix below to arrive at [circle] the functional points and rating)

% Cover of <u>wetland</u> streambank or shoreline by species with stability ratings of >=6 (see Appendix F).	Duration of surface water adjacent to rooted vegetation		
	Permanent / Perennial	Seasonal / Intermittent	Temporary / Ephemeral
>= 65%	1H	.9H	.7M
35-64%	.7M	.6M	.5M
35%	.3L	.2L	.1L

Comments: Waves likely during high winds.

14I. Production Export/Food Chain Support:

i. Level of Biological Activity (synthesis of wildlife and fish habitat ratings [circle])

General Fish Habitat Rating (14D.iii.)	General Wildlife Habitat Rating (14C.iii.)		
	E/H	M	L
E/H	H	H	M
M	H	M	M
L	M	M	L
N/A	H	M	L

ii. Rating (Working from top to bottom, use the matrix below to arrive at [circle] the functional points and rating. Factor A = acreage of vegetated wetland component in the AA; Factor B = level of biological activity rating from above (14I.i.); Factor C = whether or not the AA contains a surface or subsurface outlet; the final three rows pertain to duration of surface water in the AA, where P/P, S/I, and T/E are as previously defined, and A = "absent" [see instructions for further definitions of these terms].)

A	Vegetated component >5 acres						Vegetated component 1-5 acres						Vegetated component < 1 acre					
B	High		Moderate		Low		High		Moderate		Low		High		Moderate		Low	
C	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
P/P	1H	.7M	.8H	.5M	.6M	.4M	.9H	.6M	.7M	.4M	.5M	.3L	.8H	.6M	.6M	.4M	.3L	.2L
S/I	.9H	.6M	.7M	.4M	.5M	.3L	.8H	.5M	.6M	.3L	.4M	.2L	.7M	.5M	.5M	.3L	.3L	.2L
T/E/A	.8H	.5M	.6M	.3L	.4M	.2L	.7M	.4M	.5M	.2L	.3L	.1L	.6M	.4M	.4M	.2L	.2L	.1L

iii. Modified Rating (NOTE: Modified score cannot exceed 1 or be less than 0.1.) **Vegetated Upland Buffer (VUB):** Area with >= 30% plant cover, = 15% noxious weed or ANVS cover, and that is not subjected to periodic mechanical mowing or clearing (unless for weed control).

a) Is there an average >= 50 foot-wide vegetated upland buffer around >= 75% of the AA circumference?

X If yes, add 0.1 to the score in ii above.

iv. Final Score and Rating: 0.70M

Comments: Mature riparian forest of Populus balsamifera fringing Cornus alba.

14J. Groundwater Discharge/Recharge: (check the appropriate indicators in i & ii below)

i. Discharge Indicators

- ☐ The AA is a slope wetland
- ☐ Springs or seeps are known or observed
- ☐ Vegetation growing during dormant season/drought
- ☐ Wetland occurs at the toe of a natural slope
- ☒ AA permanently flooded during drought periods
- ☐ Wetland contains an outlet, but no inlet
- ☐ Shallow water table and the site is saturated to the surface
- ☐ Other:

ii. Recharge Indicators

- ☐ Permeable substrate present without underlying impeding layer
- ☒ Wetland contains inlet but no outlet
- ☐ Stream is a known 'losing' stream; discharge volume decreases
- ☐ Other:

iii. Rating (use the information from i and ii above and the table below to arrive at [circle] the functional points and rating)

Criteria	Duration of saturation at AA Wetlands FROM GROUNDWATER DISCHARGE OR WITH WATER THAT IS RECHARGING THE GROUNDWATER SYSTEM			
	P/P	S/I	T	None
Groundwater Discharge or Recharge	1H	.7M	.4M	.1L
Insufficient Data/Information	N/A			

Comments: High potential for groundwater recharge, although more information is required.

14K. Uniqueness:

i. Rating (working from top to bottom, use the matrix below to arrive at [circle] the functional points and rating)

Replacement potential	AA contains fen, bog, warm springs or mature (>80 yr-old) forested wetland or plant association listed as "S1" by the MTNHP			AA does not contain previously cited rare types and structural diversity (#13) is high or contains plant association listed as "S2" by the MTNHP			AA does not contain previously cited rare types or associations and structural diversity (#13) is low-moderate		
	rare	common	abundant	rare	common	abundant	rare	common	abundant
Estimated relative abundance (#11)	rare	common	abundant	rare	common	abundant	rare	common	abundant
Low disturbance at AA (#12i)	1H	.9H	.8H	.8H	.6M	.5M	.5M	.4M	.3L
Moderate disturbance at AA (#12i)	.9H	.8H	.7M	.7M	.5M	.4M	.4M	.3L	.2L
High disturbance at AA (#12i)	.8H	.7M	.6M	.6M	.4M	.3L	.3L	.2L	.1L

Comments: Floating vegetation mat is unique within the study area.

14L. Recreation/Education Potential: (affords "bonus" points if AA provides recreation or education opportunity)

i. Is the AA a known or potential rec./ed. site: (circle) ☒ (if 'Yes' continue with the evaluation; if 'No' then mark **NA** and proceed to the overall summary and rating page)

ii. Check categories that apply to the AA: ☒ Educational/scientific study; ☐ Consumptive rec.; ☐ Non-consumptive rec.; ☐ Other :

iii. Rating:

Known or Potential Recreation or Education Area	Known	Potential
Public ownership or public easement with general public access (no permission required)	.2H	.15H
Private ownership with general public access (no permission required)	.15H	.1M
Private or public ownership without general public access, or requiring permission for public access	.1M	.05L

Comments: Floating mats could be studied.

General Site Notes

Most complex wetland within the study area: areas of open water surrounded by a floating mat of herbaceous vegetation, a PSS wetland, and riparian buffer.

FUNCTION & VALUE SUMMARY & OVERALL RATING FOR WETLAND/SITE #(S): WL-11

Function & Value Variables	Rating	Actual Functional Points	Possible Functional Points	Functional Units: (Actual Points x Wetland Acreage)	Indicate the four most prominent functions with an asterisk (*)
A. Listed/Proposed T&E Species Habitat	L	0.10	1	0.02	
B. MT Natural Heritage Program Species Habitat	L	0.10	1	0.02	
C. General Wildlife Habitat	H	0.80	1	0.19	*
D. General Fish Habitat	NA				
E. Flood Attenuation	NA				
F. Short and Long Term Surface Water Storage	H	1.00	1	0.24	*
G. Sediment/Nutrient/Toxicant Removal	H	1.00	1	0.24	*
H. Sediment/Shoreline Stabilization	H	1.00	1	0.24	
I. Production Export/Food Chain Support	M	0.70	1	0.17	
J. Groundwater Discharge/Recharge	H	1.00	1	0.24	*
K. Uniqueness	L	0.30	1	0.07	
L. Recreation/Education Potential (bonus points)	H	0.15	1	0.04	
Totals:		6.15	9.00	1.47	
Percent of Possible Score			68%		

Category I Wetland: (must satisfy one of the following criteria; otherwise go to Category II)

- ☐ Score of 1 functional point for Listed/Proposed Threatened or Endangered Species; **or**
☐ Score of 1 functional point for Uniqueness; **or**
☐ Score of 1 functional point for Flood Attenuation and answer to Question 14E.ii is "yes"; **or**
☐ Percent of possible score > 80% (round to nearest whole #).

Category II Wetland: (Criteria for Category I not satisfied and meets any one of the following criteria; otherwise go to Category IV)

- ☐ Score of 1 functional point for MT Natural Heritage Program Species Habitat; **or**
☐ Score of .9 or 1 functional point for General Wildlife Habitat; **or**
☐ Score of .9 or 1 functional point for General Fish Habitat; **or**
☐ "High" to "Exceptional" ratings for **both** General Wildlife Habitat **and** General Fish/Aquatic Habitat; **or**
☐ Score of .9 functional point for Uniqueness; **or**
☒ Percent of possible score > 65% (round to nearest whole #).

Category III Wetland: (Criteria for Categories I, II, or IV not satisfied)

Category IV Wetland: (Criteria for Categories I or II are not satisfied and all of the following criteria are met; otherwise go to Category III)

- ☒ "Low" rating for Uniqueness; **and**
☒ Vegetated wetland component 1 acre (do not include upland vegetated buffer); **and**
☐ Percent of possible score 35% (round to nearest whole #).

OVERALL ANALYSIS AREA RATING: II

Summary Comments: This wetland would be a good model for mitigation wetlands.

Kettle Pond 1

Wetland ID	Wetland Type	Acreage	Project Stationing	Centroid Latitude, Longitude	Legal Description
WL-15	Open Water, PEM	2.113	522+81 to 532+12 LT	47.451248, -114.097209	T20N R20W S36
WL-16	Open Water, PEM	2.591	523+43 to 531+41 RT	47.451248, -114.09635	T20N R20W S36
TOTAL	4.704				

MDT Montana Wetland Assessment Form (revised March 2008)

1. Project Name: US 93 Ninepipes 3. Evaluation Date: 05/22/2025 4. Evaluator(s): Rachel Newton 6. Wetland Location(s): i. Legal: TN,RW, ii. Approx. Stationing or Mileposts: See cover sheet. iii. Watershed: 3 Watershed Name, County: Lower Clark Fork, Lake	2. MDT Project #: 5. Wetlands/Site #(s): Kettle Pond 1. See cover sheet. Latitude/Longitude: 8. Wetland size: 4.704 acres (measured) 9. Assessment area (AA): 4.704 acres (measured)
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7. a. Evaluating Agency: Jacobs
b. Purpose of Evaluation:
 1. ☒ Wetlands potentially affected by MDT project
 2. ☐ Mitigation wetlands; pre-construction
 3. ☐ Mitigation wetlands; post-construction
 4. ☐ Other:

10. Classification of Wetland and Aquatic Habitats in AA

HGM Class (Brinson)	Class (Cowardin)	Modifier (Cowardin)	Water Regime	% of AA
D	EM	NA	PP	18
D	UB	NA	PP	82

Abbreviations: (see manual for definitions)

HGM Classes: Riverine (**R**), Depressional (**D**), Slope (**S**), Mineral Soil Flats (**MSF**), Organic Soil Flats (**OSF**), Lacustrine Fringe (**LF**);

Cowardin Classes: Rock Bottom (**RB**), Unconsolidated bottom (**UB**), Aquatic Bed (**AB**), Unconsolidated Shore (**US**), Moss-lichen Wetland (**ML**), Emergent Wetland (**EM**), Scrub-Shrub Wetland (**SS**), Forested Wetland (**FO**)

Modifiers: Excavated (**E**), Impounded (**I**), Diked (**D**), Partly Drained (**PD**), Farmed (**F**), Artificial (**A**)

Water Regimes: Permanent / Perennial (**PP**), Seasonal / Intermittent (**SI**), Temporary / Ephemeral (**TE**)

11. Estimated relative abundance: (of similarly classified sites within the same Major Montana Watershed Basin, see definitions)
 COMMON

12. General condition of AA:

i. Disturbance: (use matrix below to determine [circle] appropriate response – see instructions for Montana-listed noxious weed and aquatic nuisance vegetation species (**ANVS**) list)

Conditions within AA	Predominant conditions adjacent to (within 500 feet of) AA		
	Managed in predominantly natural state; is not grazed, hayed, logged, or otherwise converted; does not contain roads or buildings; and noxious weed or ANVS cover is >=15%.	Land not cultivated, but may be moderately grazed or hayed or selectively logged; or has been subject to minor clearing; contains few roads or buildings; noxious weed or ANVS cover is <= 30%.	Land cultivated or heavily grazed or logged; subject to substantial fill placement, grading, clearing, or hydrological alteration; high road or building density; or noxious weed or ANVS cover is > 30%.
AA occurs and is managed in predominantly natural state; is not grazed, hayed, logged, or otherwise converted; does not contain roads or occupied buildings; and noxious weed or ANVS cover is <= 15%.	low disturbance	low disturbance	moderate disturbance
AA not cultivated, but may be moderately grazed or hayed or selectively logged; or has been subject to relatively minor clearing, fill placement, or hydrological alteration; contains few roads or buildings; noxious weed or ANVS cover is <=	moderate disturbance	moderate disturbance	high disturbance
AA cultivated or heavily grazed or logged; subject to relatively substantial fill placement, grading, clearing, or hydrological alteration; high road or building density; or noxious weed or ANVS cover is > 30%.	high disturbance	high disturbance	high disturbance

Comments: (types of disturbance, intensity, season, etc.): A large highway embankment splits Kettle Pond I into two parts. Unable to determine if any pipe connects the two sides.

ii. Prominent noxious, aquatic nuisance, & other exotic vegetation species: none

iii. Provide brief descriptive summary of AA and surrounding land use/habitat: Kettle Pond 1 is bisected by US 93 and is surrounded by managed habitat.

13. Structural Diversity: (based on number of "Cowardin" **vegetated** classes present [do not include unvegetated classes], see #10 above)

Existing # of "Cowardin" Vegetated Classes in AA	Initial Rating	Is current management preventing (passive) existence of additional vegetated classes?		Modified Rating
>= 3 (or 2 if 1 is forested) classes	H	NA	NA	NA
2 (or 1 if forested) classes	M	NA	NA	NA
1 class, but not a monoculture	M	<-- NO	YES -->	L
1 class, monoculture (1 species comprises >= 90% of total cover)	L	NA	NA	NA

Comments: Phalaris, Schoenoplectus, Rumex.

SECTION PERTAINING to FUNCTIONS & VALUES ASSESSMENT

14A. Habitat for Federally Listed or Proposed Threatened or Endangered Plants or Animals:

i. AA is Documented (D) or Suspected (S) to contain (circle one based on definitions contained in instructions):

Primary or critical habitat (list species)

Secondary habitat (list species)

Incidental habitat (list species)

Grizzly bear(S)

ii. **Rating** (use the conclusions from i above and the matrix below to arrive at [circle] the functional points and rating)

Highest Habitat Level	doc/primary	sus/primary	doc/secondary	sus/secondary	doc/incidental	sus/incidental	None
Functional Points and Rating	1H	.9H	.8M	.7M	.3L	.1L	0L

Sources for documented use (e.g. observations, records, etc): IPAC

14B. Habitat for plant or animals rated S1, S2, or S3 by the Montana Natural Heritage Program: (not including species listed in 14A above)

i. AA is Documented (D) or Suspected (S) to contain (circle one based on definitions contained in instructions):

Primary or critical habitat (list species)

Secondary habitat (list species)

Incidental habitat (list species)

Common loon(S) - S2S3

Great blue heron(S) - S2S3

American bittern(S) - S2S3

ii. **Rating** (use the conclusions from i above and the matrix below to arrive at [circle] the functional points and rating)

Highest Habitat Level	doc/primary	sus/primary	doc/secondary	sus/secondary	doc/incidental	sus/incidental	None
S1 Species: Functional Points and Rating	1H	.8H	.7M	.6M	.2L	.1L	0L
S2 and S3 Species: Functional Points and Rating	.9H	.7M	.6M	.5M	.2L	.1L	0L

Sources for documented use (e.g. observations, records, etc): MTNHP 1-mile buffer data search.

14C. General Wildlife Habitat Rating:

i. **Evidence of overall wildlife use in the AA** (circle substantial, moderate, or low based on supporting evidence):

Substantial (based on any of the following [check]):

- ☒ observations of abundant wildlife #s or high species diversity (during any period)
- ☒ abundant wildlife sign such as scat, tracks, nest structures, game trails, etc.
- ☐ presence of extremely limiting habitat features not available in the surrounding area
- ☐ interviews with local biologists with knowledge of the AA

Minimal (based on any of the following [check]):

- ☐ few or no wildlife observations during peak use periods
- ☐ little to no wildlife sign
- ☐ sparse adjacent upland food sources
- ☐ interviews with local biologists with knowledge of the AA

Moderate (based on any of the following [check]):

- ☐ observations of scattered wildlife groups or individuals or relatively few species during peak periods
- ☐ common occurrence of wildlife sign such as scat, tracks, nest structures, game trails, etc.
- ☐ adequate adjacent upland food sources
- ☐ interviews with local biologists with knowledge of the AA

ii. **Wildlife habitat features** (Working from top to bottom, circle appropriate AA attributes in matrix to arrive at rating. Structural diversity is from #13. For class cover to be considered evenly distributed, the most and least prevalent vegetated classes must be within 20% of each other in terms of their percent composition of the AA (see #10). Abbreviations for surface water durations are as follows: P/P = permanent/perennial; S/I = seasonal/intermittent; T/E = temporary/ephemeral; and A = absent [see instructions for further definitions of these terms])

Structural diversity (see #13)	High								Moderate								Low			
Class cover distribution (all vegetated classes)	Even				Uneven				Even				Uneven				Even			
Duration of surface water in >=10% of AA	P/P	S/I	T/E	A	P/P	S/I	T/E	A	P/P	S/I	T/E	A	P/P	S/I	T/E	A	P/P	S/I	T/E	A
Low disturbance at AA (see #12i)	E	E	E	H	E	E	H	H	E	H	H	M	E	H	M	M	E	H	M	M
Moderate disturbance at AA (see #12i)	H	H	H	H	H	H	H	M	H	H	M	M	H	M	M	L	H	M	L	L
High disturbance at AA (see #12i)	M	M	M	L	M	M	L	L	M	M	L	L	M	L	L	L	L	L	L	L

iii. **Rating** (use the conclusions from i and ii above and the matrix below to arrive at [circle] the functional points and rating)

Evidence of wildlife use (i)	Wildlife habitat features rating (ii)			
	Exceptional	High	Moderate	Moderate
Substantial	1E	.9H	.8H	.7M
Moderate	.9H	.7M	.5M	.3L
Minimal	.6M	.4M	.2L	.1L

Comments: Large pond provides a nice stop for waterfowl.

14F. Short and Long Term Surface Water Storage: (Applies to wetlands that flood or pond from overbank or in-channel flow, precipitation, upland surface flow, or groundwater flow. If no wetlands in the AA are subject to flooding or ponding, NA and proceed to 14G.)

i. Rating (Working from top to bottom, use the matrix below to arrive at [circle] the functional points and rating. Abbreviations for surface water durations are as follows: P/P = permanent/perennial; S/I = seasonal/intermittent; and T/E = temporary/ephemeral [see instructions for further definitions of these terms].)

Estimated maximum acre feet of water contained in wetlands within the AA that are subject to periodic flooding or ponding	>5 acre feet			1.1 to 5 acre feet			<=1 acre foot		
Duration of surface water at wetlands within the AA	P/P	S/I	T/E	P/P	S/I	T/E	P/P	S/I	T/E
Wetlands in AA flood or pond >= 5 out of 10 years	1H	.9H	.8H	.8H	.6M	.5M	.4M	.3L	.2L
Wetlands in AA flood or pond < 5 out of 10 years	.9H	.8H	.7M	.7M	.5M	.4M	.3L	.2L	.1L

Comments: Likely to flood/pond during periods of higher groundwater, e.g., spring runoff. This is one of the deepest pothole wetlands present within the study area.

14G. Sediment/Nutrient/Toxicant Retention and Removal: (Applies to wetlands with potential to receive sediments, nutrients, or toxicants through influx of surface or ground water or direct input. If no wetlands in the AA are subject to such input, NA and proceed to 14H.)

i. Rating (working from top to bottom, use the matrix below to arrive at [circle] the functional points and rating [H=high, M=moderate, or L=low])

Sediment, nutrient, and toxicant input levels within AA	AA receives or surrounding land use with potential to deliver levels of sediments, nutrients, or compounds at levels such that other functions are not substantially impaired. Minor sedimentation, sources of nutrients or toxicants, or signs of eutrophication present.				Waterbody on MDEQ list of waterbodies in need of TMDL development for "probable causes" related to sediment, nutrients, or toxicants or AA receives or surrounding land use with potential to deliver high levels of sediments, nutrients, or compounds such that other functions are substantially impaired. Major sedimentation, sources of nutrients or toxicants, or signs of eutrophication present.			
% cover of wetland vegetation in AA	>= 70%		< 70%		>= 70%		< 70%	
Evidence of flooding / ponding in AA	Yes	No	Yes	No	Yes	No	Yes	No
AA contains no or restricted outlet	1H	.8H	.7M	.5M	.5M	.4M	.3L	.2L
AA contains unrestricted outlet	.9H	.7M	.6M	.4M	.4M	.3L	.2L	.1L

Comments: Most of the wetlands in this AA are open water/unvegetated.

14H Sediment/Shoreline Stabilization: (Applies only if AA occurs on or within the banks or a river, stream, or other natural or man-made drainage, or on the shoreline of a standing water body which is subject to wave action. If 14H does not apply, NA and proceed to 14I.)

i. Rating (working from top to bottom, use the matrix below to arrive at [circle] the functional points and rating)

% Cover of wetland streambank or shoreline by species with stability ratings of >=6 (see Appendix F).	Duration of surface water adjacent to rooted vegetation		
	Permanent / Perennial	Seasonal / Intermittent	Temporary / Ephemeral
>= 65%	1H	.9H	.7M
35-64%	.7M	.6M	.5M
35%	.3L	.2L	.1L

Comments: PEM fringe around the entire pond composed largely of Phalaris (stability rating of 9).

14I. Production Export/Food Chain Support:

i. Level of Biological Activity (synthesis of wildlife and fish habitat ratings [circle])

General Fish Habitat Rating (14D.iii.)	General Wildlife Habitat Rating (14C.iii.)		
	E/H	M	L
E/H	H	H	M
M	H	M	M
L	M	M	L
N/A	H	M	L

ii. Rating (Working from top to bottom, use the matrix below to arrive at [circle] the functional points and rating. Factor A = acreage of vegetated wetland component in the AA; Factor B = level of biological activity rating from above (14I.i.); Factor C = whether or not the AA contains a surface or subsurface outlet; the final three rows pertain to duration of surface water in the AA, where P/P, S/I, and T/E are as previously defined, and A = "absent" [see instructions for further definitions of these terms].)

A	Vegetated component >5 acres						Vegetated component 1-5 acres						Vegetated component < 1 acre					
B	High		Moderate		Low		High		Moderate		Low		High		Moderate		Low	
C	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
P/P	1H	.7M	.8H	.5M	.6M	.4M	.9H	.6M	.7M	.4M	.5M	.3L	.8H	.6M	.6M	.4M	.3L	.2L
S/I	.9H	.6M	.7M	.4M	.5M	.3L	.8H	.5M	.6M	.3L	.4M	.2L	.7M	.5M	.5M	.3L	.3L	.2L
T/E/A	.8H	.5M	.6M	.3L	.4M	.2L	.7M	.4M	.5M	.2L	.3L	.1L	.6M	.4M	.4M	.2L	.2L	.1L

iii. Modified Rating (NOTE: Modified score cannot exceed 1 or be less than 0.1.) **Vegetated Upland Buffer (VUB):** Area with >= 30% plant cover, = 15% noxious weed or ANVS cover, and that is not subjected to periodic mechanical mowing or clearing (unless for weed control).

a) Is there an average >= 50 foot-wide vegetated upland buffer around >= 75% of the AA circumference?

X If yes, add 0.1 to the score in ii above.

iv. Final Score and Rating: 0.70M

Comments: Kettle pond boundaries not adjacent to the highway are in an unmanaged condition (no farming).

14J. Groundwater Discharge/Recharge: (check the appropriate indicators in i & ii below)

i. Discharge Indicators

- _____ The AA is a slope wetland
 _____ Springs or seeps are known or observed
 _____ X Vegetation growing during dormant season/drought
 _____ X Wetland occurs at the toe of a natural slope
 _____ AA permanently flooded during drought periods
 _____ Wetland contains an outlet, but no inlet
 _____ X Shallow water table and the site is saturated to the surface
 _____ Other:

ii. Recharge Indicators

- _____ Permeable substrate present without underlying impeding layer
 _____ Wetland contains inlet but no outlet
 _____ Stream is a known 'losing' stream; discharge volume decreases
 _____ Other:

iii. Rating (use the information from i and ii above and the table below to arrive at [circle] the functional points and rating)

Criteria	Duration of saturation at AA Wetlands FROM GROUNDWATER DISCHARGE OR WITH WATER THAT IS RECHARGING THE GROUNDWATER SYSTEM			
	P/P	S/I	T	None
Groundwater Discharge or Recharge	1H	.7M	.4M	.1L
Insufficient Data/Information	N/A			

Comments: .

14K. Uniqueness:

i. Rating (working from top to bottom, use the matrix below to arrive at [circle] the functional points and rating)

Replacement potential	AA contains fen, bog, warm springs or mature (>80 yr-old) forested wetland or plant association listed as "S1" by the MTNHP			AA does not contain previously cited rare types and structural diversity (#13) is high or contains plant association listed as "S2" by the MTNHP			AA does not contain previously cited rare types or associations and structural diversity (#13) is low-moderate		
	rare	common	abundant	rare	common	abundant	rare	common	abundant
Estimated relative abundance (#11)	rare	common	abundant	rare	common	abundant	rare	common	abundant
Low disturbance at AA (#12i)	1H	.9H	.8H	.8H	.6M	.5M	.5M	.4M	.3L
Moderate disturbance at AA (#12i)	.9H	.8H	.7M	.7M	.5M	.4M	.4M	.3L	.2L
High disturbance at AA (#12i)	.8H	.7M	.6M	.6M	.4M	.3L	.3L	.2L	.1L

Comments: .

14L. Recreation/Education Potential: (affords "bonus" points if AA provides recreation or education opportunity)

i. Is the AA a known or potential rec./ed. site: (circle) _____ (if 'Yes' continue with the evaluation; if 'No' then mark **X** **NA** and proceed to the overall summary and rating page)

ii. Check categories that apply to the AA: _____ Educational/scientific study; _____ Consumptive rec.; _____ Non-consumptive rec.;
 _____ Other :

iii. Rating:

Known or Potential Recreation or Education Area	Known	Potential
Public ownership or public easement with general public access (no permission required)	.2H	.15H
Private ownership with general public access (no permission required)	.15H	.1M
Private or public ownership without general public access, or requiring permission for public access	.1M	.05L

Comments: Along a very busy highway; unlikely to be used for recreation when reservoirs and wildlife refuges are in the vicinity.

General Site Notes
Refuse from the highway present.

FUNCTION & VALUE SUMMARY & OVERALL RATING FOR WETLAND/SITE #(S): Kettle Pond 1. See cover sheet.

Function & Value Variables	Rating	Actual Functional Points	Possible Functional Points	Functional Units: (Actual Points x Wetland Acreage)	Indicate the four most prominent functions with an asterisk (*)
A. Listed/Proposed T&E Species Habitat	L	0.10	1		
B. MT Natural Heritage Program Species Habitat	L	0.10	1		
C. General Wildlife Habitat	H	0.80	1		*
D. General Fish Habitat	NA				
E. Flood Attenuation	NA				
F. Short and Long Term Surface Water Storage	H	1.00	1		*
G. Sediment/Nutrient/Toxicant Removal	M	0.70	1		
H. Sediment/Shoreline Stabilization	H	1.00	1		*
I. Production Export/Food Chain Support	M	0.70	1		
J. Groundwater Discharge/Recharge	H	1.00	1		*
K. Uniqueness	L	0.20	1		
L. Recreation/Education Potential (bonus points)	NA				
Totals:		5.60	9.00		
Percent of Possible Score			62%		

Category I Wetland: (must satisfy one of the following criteria; otherwise go to Category II)

- ☐ Score of 1 functional point for Listed/Proposed Threatened or Endangered Species; **or**
☐ Score of 1 functional point for Uniqueness; **or**
☐ Score of 1 functional point for Flood Attenuation and answer to Question 14E.ii is "yes"; **or**
☐ Percent of possible score > 80% (round to nearest whole #).

Category II Wetland: (Criteria for Category I not satisfied and meets any one of the following criteria; otherwise go to Category IV)

- ☐ Score of 1 functional point for MT Natural Heritage Program Species Habitat; **or**
☐ Score of .9 or 1 functional point for General Wildlife Habitat; **or**
☐ Score of .9 or 1 functional point for General Fish Habitat; **or**
☐ "High" to "Exceptional" ratings for **both** General Wildlife Habitat **and** General Fish/Aquatic Habitat; **or**
☐ Score of .9 functional point for Uniqueness; **or**
☐ Percent of possible score > 65% (round to nearest whole #).

Category III Wetland: (Criteria for Categories I, II, or IV not satisfied)

Category IV Wetland: (Criteria for Categories I or II are not satisfied and all of the following criteria are met; otherwise go to Category III)

- ☒ "Low" rating for Uniqueness; **and**
☒ Vegetated wetland component 1 acre (do not include upland vegetated buffer); **and**
☐ Percent of possible score 35% (round to nearest whole #).

OVERALL ANALYSIS AREA RATING: III

Summary Comments: Large open water feature with fringing PEM providing waterfowl habitat.

Pothole Wetlands and Pothole Fringes

Wetland ID	Wetland Type	Acreage	Project Stationing	Centroid Latitude, Longitude	Legal Description
WL-13	Open Water, PEM, PSS	0.360	511+98 to 513+94 RT	47.447389, -114.096572	T20N R20W S35, S36
WL-19	Open Water, PEM	1.115	536+71 to 543+15 RT	47.454746, -114.09653	T19N R20W S2
WL-20	Open Water, PEM	0.174	541+11 to 542+85 LT	47.455311, -114.097401	T20N R20W S36
WL-21	Open Water, PEM	0.180	543+96 to 545+99 RT	47.456154, -114.096574	T20N R20W S35
TOTAL	1.829				

MDT Montana Wetland Assessment Form (revised March 2008)

1. **Project Name:** US 93 Ninepipes

2. **MDT Project #:**

3. **Evaluation Date:** 05/22/2025

4. **Evaluator(s):** Rachel Newton

5. **Wetlands/Site #(s):** Pothole Wetlands or Pothole Fringes. See cover sheet.

6. **Wetland Location(s):** i. **Legal:** TN,RE,

ii. **Approx. Stationing or Mileposts:** See cover sheet.

iii. **Watershed:** 3

Watershed Name, County: Lower Clark Fork, Lake

7. **a. Evaluating Agency:** Jacobs

b. Purpose of Evaluation:

1. ☒ Wetlands potentially affected by MDT project
2. ☐ Mitigation wetlands; pre-construction
3. ☐ Mitigation wetlands; post-construction
4. ☐ Other:

8. **Wetland size:** Min: 0.174 acres, Max: 1.115 acres, Avg: 0.457 acres (estimated)

9. **Assessment area (AA):** Min: 0.174 acres, Max: 1.115 acres, Avg: 0.457 acres (estimated)

10. Classification of Wetland and Aquatic Habitats in AA

HGM Class (Brinson)	Class (Cowardin)	Modifier (Cowardin)	Water Regime	% of AA
D	EM	NA	PP	85
D	SS	NA	PP	1
D	UB	NA	PP	14

Abbreviations:

(see manual for definitions)

HGM Classes: Riverine (**R**), Depressional (**D**), Slope (**S**), Mineral Soil Flats (**MSF**), Organic Soil Flats (**OSF**), Lacustrine Fringe (**LF**);

Cowardin Classes: Rock Bottom (**RB**), Unconsolidated bottom (**UB**), Aquatic Bed (**AB**), Unconsolidated Shore (**US**), Moss-lichen Wetland (**ML**), Emergent Wetland (**EM**), Scrub-Shrub Wetland (**SS**), Forested Wetland (**FO**)

Modifiers: Excavated (**E**), Impounded (**I**), Diked (**D**), Partly Drained (**PD**), Farmed (**F**), Artificial (**A**)

Water Regimes: Permanent / Perennial (**PP**), Seasonal / Intermittent (**SI**), Temporary / Ephemeral (**TE**)

11. Estimated relative abundance:

COMMON

(of similarly classified sites within the same Major Montana Watershed Basin, see definitions)

12. General condition of AA:

i. **Disturbance:** (use matrix below to determine [circle] appropriate response – see instructions for Montana-listed noxious weed and aquatic nuisance vegetation species (**ANVS**) list)

<i>Conditions within AA</i>	<i>Predominant conditions adjacent to (within 500 feet of) AA</i>		
	Managed in predominantly natural state; is not grazed, hayed, logged, or otherwise converted; does not contain roads or buildings; and noxious weed or ANVS cover is >=15%.	Land not cultivated, but may be moderately grazed or hayed or selectively logged; or has been subject to minor clearing; contains few roads or buildings; noxious weed or ANVS cover is <= 30%.	Land cultivated or heavily grazed or logged; subject to substantial fill placement, grading, clearing, or hydrological alteration; high road or building density; or noxious weed or ANVS cover is > 30%.
AA occurs and is managed in predominantly natural state; is not grazed, hayed, logged, or otherwise converted; does not contain roads or occupied buildings; and noxious weed or ANVS cover is <= 15%.	low disturbance	low disturbance	moderate disturbance
AA not cultivated, but may be moderately grazed or hayed or selectively logged; or has been subject to relatively minor clearing, fill placement, or hydrological alteration; contains few roads or buildings; noxious weed or ANVS cover is <=	moderate disturbance	moderate disturbance	high disturbance
AA cultivated or heavily grazed or logged; subject to relatively substantial fill placement, grading, clearing, or hydrological alteration; high road or building density; or noxious weed or ANVS cover is > 30%.	high disturbance	high disturbance	high disturbance

Comments: (types of disturbance, intensity, season, etc.): Pothole wetlands within the study area contained substantial standing water at the time of the survey in late May.

ii. **Prominent noxious, aquatic nuisance, & other exotic vegetation species:** none.

iii. **Provide brief descriptive summary of AA and surrounding land use/habitat:** One side of these wetlands faces US 93 and is subjected to mowing; the other side abuts land managed for wildlife habitat or agriculture.

13. Structural Diversity: (based on number of "Cowardin" **vegetated** classes present [do not include unvegetated classes], see #10 above)

Existing # of "Cowardin" Vegetated Classes in AA	Initial Rating	Is current management preventing (passive) existence of additional vegetated classes?		Modified Rating
>= 3 (or 2 if 1 is forested) classes	H	NA	NA	NA
2 (or 1 if forested) classes	M	NA	NA	NA
1 class, but not a monoculture	M	<-- NO	YES -->	L
1 class, monoculture (1 species comprises >= 90% of total cover)	L	NA	NA	NA

Comments: Emergent vegetation with some sparse PSS. Unconsolidated bottom component is open water.

SECTION PERTAINING to FUNCTIONS & VALUES ASSESSMENT

14A. Habitat for Federally Listed or Proposed Threatened or Endangered Plants or Animals:

i. AA is Documented (D) or Suspected (S) to contain (circle one based on definitions contained in instructions):

Primary or critical habitat (list species)

Secondary habitat (list species)

Incidental habitat (list species)

Grizzly bear(S)

Monarch butterfly(S)

ii. **Rating** (use the conclusions from i above and the matrix below to arrive at [circle] the functional points and rating)

Highest Habitat Level	doc/primary	sus/primary	doc/secondary	sus/secondary	doc/incidental	sus/incidental	None
Functional Points and Rating	1H	.9H	.8M	.7M	.3L	.1L	0L

Sources for documented use (e.g. observations, records, etc): IPAC

14B. Habitat for plant or animals rated S1, S2, or S3 by the Montana Natural Heritage Program: (not including species listed in 14A above)

i. AA is Documented (D) or Suspected (S) to contain (circle one based on definitions contained in instructions): No usable habitat

Primary or critical habitat (list species)

Secondary habitat (list species)

Incidental habitat (list species)

ii. **Rating** (use the conclusions from i above and the matrix below to arrive at [circle] the functional points and rating)

Highest Habitat Level	doc/primary	sus/primary	doc/secondary	sus/secondary	doc/incidental	sus/incidental	None
S1 Species: Functional Points and Rating	1H	.8H	.7M	.6M	.2L	.1L	0L
S2 and S3 Species: Functional Points and Rating	.9H	.7M	.6M	.5M	.2L	.1L	0L

Sources for documented use (e.g. observations, records, etc): MTNHP query; see Biological Resources Report for complete list. No S1 species present.

14C. General Wildlife Habitat Rating:

i. **Evidence of overall wildlife use in the AA** (circle substantial, moderate, or low based on supporting evidence):

Substantial (based on any of the following [check]):

- ☐ observations of abundant wildlife #s or high species diversity (during any period)
- ☐ abundant wildlife sign such as scat, tracks, nest structures, game trails, etc.
- ☐ presence of extremely limiting habitat features not available in the surrounding area
- ☐ interviews with local biologists with knowledge of the AA

Minimal (based on any of the following [check]):

- ☐ few or no wildlife observations during peak use periods
- ☐ little to no wildlife sign
- ☐ sparse adjacent upland food sources
- ☐ interviews with local biologists with knowledge of the AA

Moderate (based on any of the following [check]):

- ☒ observations of scattered wildlife groups or individuals or relatively few species during peak periods
- ☒ common occurrence of wildlife sign such as scat, tracks, nest structures, game trails, etc.
- ☒ adequate adjacent upland food sources
- ☐ interviews with local biologists with knowledge of the AA

ii. **Wildlife habitat features** (Working from top to bottom, circle appropriate AA attributes in matrix to arrive at rating. Structural diversity is from #13. For class cover to be considered evenly distributed, the most and least prevalent vegetated classes must be within 20% of each other in terms of their percent composition of the AA (see #10). Abbreviations for surface water durations are as follows: P/P = permanent/perennial; S/I = seasonal/intermittent; T/E = temporary/ephemeral; and A = absent [see instructions for further definitions of these terms])

Structural diversity (see #13)	High								Moderate								Low			
Class cover distribution (all vegetated classes)	Even				Uneven				Even				Uneven				Even			
Duration of surface water in >=10% of AA	P/P	S/I	T/E	A	P/P	S/I	T/E	A	P/P	S/I	T/E	A	P/P	S/I	T/E	A	P/P	S/I	T/E	A
Low disturbance at AA (see #12i)	E	E	E	H	E	E	H	H	E	H	H	M	E	H	M	M	E	H	M	M
Moderate disturbance at AA (see #12i)	H	H	H	H	H	H	H	M	H	H	M	M	H	M	M	L	H	M	L	L
High disturbance at AA (see #12i)	M	M	M	L	M	M	L	L	M	M	L	L	M	L	L	L	L	L	L	L

iii. **Rating** (use the conclusions from i and ii above and the matrix below to arrive at [circle] the functional points and rating)

Evidence of wildlife use (i)	Wildlife habitat features rating (ii)			
	Exceptional	High	Moderate	Moderate
Substantial	1E	.9H	.8H	.7M
Moderate	.9H	.7M	.5M	.3L
Minimal	.6M	.4M	.2L	.1L

Comments: Waterfowl observed in approximately 1/3 of these wetlands during the survey period.

14D. General Fish Habitat Rating: (Assess this function if the AA is used by fish or the existing situation is "correctable" such that the AA could be used by fish [i.e., fish use is precluded by perched culvert or other barrier, etc.]. If the AA is not used by fish, fish use is not restorable due to habitat constraints, or is not desired from a management perspective [such as fish entrapped in a canal], then mark **X NA** and proceed to 14E.)

Type of Fishery: Cold Water (CW) ☐ Warm Water (WW) ☐ Use the CW or WW guidelines in the user manual to complete the matrix

i. Habitat Quality and Known / Suspected Fish Species in AA (use matrix to arrive at [circle] the functional points and rating)

Duration of surface water in AA	Permanent / Perennial						Seasonal / Intermittent						Temporary / Ephemeral					
Aquatic hiding / resting / escape cover	Optimal		Adequate		Poor		Optimal		Adequate		Poor		Optimal		Adequate		Poor	
Thermal cover optimal / suboptimal	O	S	O	S	O	S	O	S	O	S	O	S	O	S	O	S	O	S
FWP Tier I fish species	1E	.9H	.8H	.7M	.6M	.5M	.9H	.8H	.7M	.6M	.5M	.4M	.7M	.6M	.5M	.4M	.3L	.2L
FWP Tier II or Native Game fish species	.9H	.8H	.7M	.6M	.5M	.5M	.8H	.7M	.6M	.5M	.4M	.4M	.6M	.5M	.4M	.3L	.2L	.2L
FWP Tier III or Introduced Game fish	.8H	.7M	.6M	.5M	.5M	.4M	.7M	.6M	.5M	.4M	.4M	.3L	.5M	.4M	.3L	.2L	.2L	.1L
FWP Non-Game Tier IV or No fish species	.5M	.5M	.5M	.4M	.4M	.3L	.4M	.4M	.4M	.3L	.3L	.2L	.2L	.2L	.2L	.1L	.1L	.1L

Sources used for identifying fish sp. potentially found in AA:

ii. Modified Rating (NOTE: Modified score cannot exceed 1 or be less than 0.1)

a) Is fish use of the AA significantly reduced by a culvert, dike, or other man-made structure or activity or is the waterbody included on the current final MDEQ list of waterbodies in need of TMDL development with listed "Probable Impaired Uses" including cold or warm water fishery or aquatic life support, or do aquatic nuisance plant or animal species (see Appendix E) occur in fish habitat? ☐ If yes, reduce score in i above by 0.1.

b) Does the AA contain a documented spawning area or other critical habitat feature (i.e., sanctuary pool, upwelling area, etc.- specify in comments) for native fish or introduced game fish? ☐ If yes, add 0.1 to the adjusted score in i or iia.

iii. Final Score and Rating: NA

Comments: Isolated and of insufficient depth to support fish.

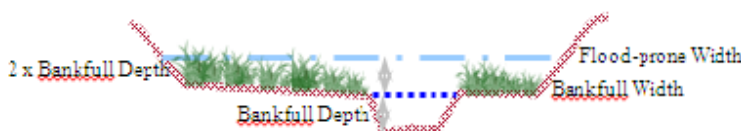
14E. Flood Attenuation: (Applies only to wetlands subject to flooding via in-channel or overbank flow. If wetlands in AA are not flooded from in-channel or overbank flow, mark **X NA** and proceed to 14F.)

i. Rating (working from top to bottom, use the matrix below to arrive at [circle] the functional points and rating)

Estimated or Calculated Entrenchment (Rosgen 1994, 1996)	Slightly entrenched - C, D, E stream types			Moderately entrenched - B stream type			Entrenched-A, F, G stream types		
% of flooded wetland classified as forested and/or scrub/shrub	75%	25-75%	<25%	75%	25-75%	<25%	75%	25-75%	<25%
AA contains no outlet or restricted outlet	1H	.9H	.6M	.8H	.7M	.5M	.4M	.3L	.2L
AA contains unrestricted outlet	.9H	.8H	.5M	.7M	.6M	.4M	.3L	.2L	.1L

Entrenchment ratio (ER) estimation – see User's Manual for additional guidance. Entrenchment ratio = (flood-prone width)/(bankfull width) Flood-prone width = estimated horizontal projection of where 2 x maximum bankfull depth elevation intersects the floodplain on each side of the stream.

$$\frac{\text{Flood-prone width}}{\text{Bankfull width}} = \text{Entrenchment ratio (ER)}$$



Slightly Entrenched ER = >2.2			Moderately Entrenched ER = 1.41 – 2.2		Entrenched ER = 1.0 – 1.4		
C stream type	D stream type	E stream type	B stream type	A stream type	F stream type	G stream type	

ii. Are ≥10 acres of wetland in the AA subject to flooding AND are man-made features which may be significantly damaged by floods located within 0.5 mile downstream of the AA (circle)? ☐ **Comments:** .

14F. Short and Long Term Surface Water Storage: (Applies to wetlands that flood or pond from overbank or in-channel flow, precipitation, upland surface flow, or groundwater flow. If no wetlands in the AA are subject to flooding or ponding, NA and proceed to 14G.)

i. Rating (Working from top to bottom, use the matrix below to arrive at [circle] the functional points and rating. Abbreviations for surface water durations are as follows: P/P = permanent/perennial; S/I = seasonal/intermittent; and T/E = temporary/ephemeral [see instructions for further definitions of these terms].)

Estimated maximum acre feet of water contained in wetlands within the AA that are subject to periodic flooding or ponding	>5 acre feet			1.1 to 5 acre feet			<=1 acre foot		
Duration of surface water at wetlands within the AA	P/P	S/I	T/E	P/P	S/I	T/E	P/P	S/I	T/E
Wetlands in AA flood or pond >= 5 out of 10 years	1H	.9H	.8H	.8H	.6M	.5M	.4M	.3L	.2L
Wetlands in AA flood or pond < 5 out of 10 years	.9H	.8H	.7M	.7M	.5M	.4M	.3L	.2L	.1L

Comments: These wetlands receive input from precipitation and upland surface flow. Groundwater connectivity likely.

14G. Sediment/Nutrient/Toxicant Retention and Removal: (Applies to wetlands with potential to receive sediments, nutrients, or toxicants through influx of surface or ground water or direct input. If no wetlands in the AA are subject to such input, NA and proceed to 14H.)

i. Rating (working from top to bottom, use the matrix below to arrive at [circle] the functional points and rating [H=high, M=moderate, or L=low])

Sediment, nutrient, and toxicant input levels within AA	AA receives or surrounding land use with potential to deliver levels of sediments, nutrients, or compounds at levels such that other functions are not substantially impaired. Minor sedimentation, sources of nutrients or toxicants, or signs of eutrophication present.				Waterbody on MDEQ list of waterbodies in need of TMDL development for "probable causes" related to sediment, nutrients, or toxicants or AA receives or surrounding land use with potential to deliver high levels of sediments, nutrients, or compounds such that other functions are substantially impaired. Major sedimentation, sources of nutrients or toxicants, or signs of eutrophication present.				
% cover of wetland vegetation in AA	>= 70%		< 70%		>= 70%		< 70%		
Evidence of flooding / ponding in AA	Yes	No	Yes	No	Yes	No	Yes	No	
AA contains no or restricted outlet	1H	.8H	.7M	.5M	.5M	.4M	.3L	.2L	
AA contains unrestricted outlet	.9H	.7M	.6M	.4M	.4M	.3L	.2L	.1L	

Comments: Some of these pothole wetlands are within the highway ROW.

14H Sediment/Shoreline Stabilization: (Applies only if AA occurs on or within the banks or a river, stream, or other natural or man-made drainage, or on the shoreline of a standing water body which is subject to wave action. If 14H does not apply, X NA and proceed to 14I.)

i. Rating (working from top to bottom, use the matrix below to arrive at [circle] the functional points and rating)

% Cover of <u>wetland</u> streambank or shoreline by species with stability ratings of >=6 (see Appendix F).	Duration of surface water adjacent to rooted vegetation		
	Permanent / Perennial	Seasonal / Intermittent	Temporary / Ephemeral
>= 65%	1H	.9H	.7M
35-64%	.7M	.6M	.5M
35%	.3L	.2L	.1L

Comments: .

14I. Production Export/Food Chain Support:

i. Level of Biological Activity (synthesis of wildlife and fish habitat ratings [circle])

General Fish Habitat Rating (14D.iii.)	General Wildlife Habitat Rating (14C.iii.)		
	E/H	M	L
E/H	H	H	M
M	H	M	M
L	M	M	L
N/A	H	M	L

ii. Rating (Working from top to bottom, use the matrix below to arrive at [circle] the functional points and rating. Factor A = acreage of vegetated wetland component in the AA; Factor B = level of biological activity rating from above (14I.i.); Factor C = whether or not the AA contains a surface or subsurface outlet; the final three rows pertain to duration of surface water in the AA, where P/P, S/I, and T/E are as previously defined, and A = "absent" [see instructions for further definitions of these terms].)

A	Vegetated component >5 acres						Vegetated component 1-5 acres						Vegetated component < 1 acre					
B	High		Moderate		Low		High		Moderate		Low		High		Moderate		Low	
C	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
P/P	1H	.7M	.8H	.5M	.6M	.4M	.9H	.6M	.7M	.4M	.5M	.3L	.8H	.6M	.6M	.4M	.3L	.2L
S/I	.9H	.6M	.7M	.4M	.5M	.3L	.8H	.5M	.6M	.3L	.4M	.2L	.7M	.5M	.5M	.3L	.3L	.2L
T/E/A	.8H	.5M	.6M	.3L	.4M	.2L	.7M	.4M	.5M	.2L	.3L	.1L	.6M	.4M	.4M	.2L	.2L	.1L

iii. Modified Rating (NOTE: Modified score cannot exceed 1 or be less than 0.1.) **Vegetated Upland Buffer (VUB):** Area with >= 30% plant cover, = 15% noxious weed or ANVS cover, and that is not subjected to periodic mechanical mowing or clearing (unless for weed control).

a) Is there an average >= 50 foot-wide vegetated upland buffer around >= 75% of the AA circumference?

X If yes, add 0.1 to the score in ii above.

iv. Final Score and Rating: 0.50M

Comments: These wetlands are generally less than 1 acre each.

14J. Groundwater Discharge/Recharge: (check the appropriate indicators in i & ii below)

i. Discharge Indicators

- ☐ The AA is a slope wetland
- ☐ Springs or seeps are known or observed
- ☒ Vegetation growing during dormant season/drought
- ☒ Wetland occurs at the toe of a natural slope
- ☐ AA permanently flooded during drought periods
- ☐ Wetland contains an outlet, but no inlet
- ☐ Shallow water table and the site is saturated to the surface
- ☐ Other:

ii. Recharge Indicators

- ☐ Permeable substrate present without underlying impeding layer
- ☐ Wetland contains inlet but no outlet
- ☐ Stream is a known 'losing' stream; discharge volume decreases
- ☐ Other:

iii. Rating (use the information from i and ii above and the table below to arrive at [circle] the functional points and rating)

Criteria	Duration of saturation at AA Wetlands FROM GROUNDWATER DISCHARGE OR WITH WATER THAT IS RECHARGING THE GROUNDWATER SYSTEM			
	P/P	S/I	T	None
Groundwater Discharge or Recharge	1H	.7M	.4M	.1L
Insufficient Data/Information	N/A			

Comments: Groundwater interaction likely.

14K. Uniqueness:

i. Rating (working from top to bottom, use the matrix below to arrive at [circle] the functional points and rating)

Replacement potential	AA contains fen, bog, warm springs or mature (>80 yr-old) forested wetland or plant association listed as "S1" by the MTNHP			AA does not contain previously cited rare types and structural diversity (#13) is high or contains plant association listed as "S2" by the MTNHP			AA does not contain previously cited rare types or associations and structural diversity (#13) is low-moderate		
Estimated relative abundance (#11)	rare	common	abundant	rare	common	abundant	rare	common	abundant
Low disturbance at AA (#12i)	1H	.9H	.8H	.8H	.6M	.5M	.5M	.4M	.3L
Moderate disturbance at AA (#12i)	.9H	.8H	.7M	.7M	.5M	.4M	.4M	.3L	.2L
High disturbance at AA (#12i)	.8H	.7M	.6M	.6M	.4M	.3L	.3L	.2L	.1L

Comments: .

14L. Recreation/Education Potential: (affords "bonus" points if AA provides recreation or education opportunity)

i. Is the AA a known or potential rec./ed. site: (circle) ____ (if 'Yes' continue with the evaluation; if 'No' then mark **X** **NA** and proceed to the overall summary and rating page)

ii. Check categories that apply to the AA: ____ Educational/scientific study; ____ Consumptive rec.; ____ Non-consumptive rec.;
____ Other :

iii. Rating:

Known or Potential Recreation or Education Area	Known	Potential
Public ownership or public easement with general public access (no permission required)	.2H	.15H
Private ownership with general public access (no permission required)	.15H	.1M
Private or public ownership without general public access, or requiring permission for public access	.1M	.05L

Comments: .

General Site Notes
Wetlands adjacent to the highway act as buffers for the parts of the potholes occurring on lands managed for wildlife.

Function & Value Variables	Rating	Actual Functional Points	Possible Functional Points	Functional Units: (Actual Points x Wetland Acreage)	Indicate the four most prominent functions with an asterisk (*)
A. Listed/Proposed T&E Species Habitat	L	0.10	1		*
B. MT Natural Heritage Program Species Habitat	L	0.00	1		
C. General Wildlife Habitat	M	0.50	1		
D. General Fish Habitat	NA				
E. Flood Attenuation	NA				
F. Short and Long Term Surface Water Storage	M	0.40	1		*
G. Sediment/Nutrient/Toxicant Removal	H	1.00	1		*
H. Sediment/Shoreline Stabilization	NA				
I. Production Export/Food Chain Support	M	0.50	1		
J. Groundwater Discharge/Recharge	H	1.00	1		*
K. Uniqueness	L	0.20	1		
L. Recreation/Education Potential (bonus points)	NA				
Totals:		3.70	8.00		
Percent of Possible Score			46%		

Category I Wetland: (must satisfy one of the following criteria; otherwise go to Category II)

- ☐ Score of 1 functional point for Listed/Proposed Threatened or Endangered Species; **or**
☐ Score of 1 functional point for Uniqueness; **or**
☐ Score of 1 functional point for Flood Attenuation and answer to Question 14E.ii is "yes"; **or**
☐ Percent of possible score > 80% (round to nearest whole #).

Category II Wetland: (Criteria for Category I not satisfied and meets any one of the following criteria; otherwise go to Category IV)

- ☐ Score of 1 functional point for MT Natural Heritage Program Species Habitat; **or**
☐ Score of .9 or 1 functional point for General Wildlife Habitat; **or**
☐ Score of .9 or 1 functional point for General Fish Habitat; **or**
☐ "High" to "Exceptional" ratings for **both** General Wildlife Habitat **and** General Fish/Aquatic Habitat; **or**
☐ Score of .9 functional point for Uniqueness; **or**
☐ Percent of possible score > 65% (round to nearest whole #).

Category III Wetland: (Criteria for Categories I, II, or IV not satisfied)

Category IV Wetland: (Criteria for Categories I or II are not satisfied and all of the following criteria are met; otherwise go to Category III)

- ☒ "Low" rating for Uniqueness; **and**
☒ Vegetated wetland component 1 acre (do not include upland vegetated buffer); **and**
☐ Percent of possible score 35% (round to nearest whole #).

OVERALL ANALYSIS AREA RATING: III

Summary Comments: Pothole wetlands formed by glacier activity with varying depths of standing water.

Roadside Ditches

Wetland ID	Wetland Type	Acreage	Project Stationing	Centroid Latitude, Longitude	Legal Description
WL-12	PEM	0.006	511+64 to 511+92 RT	47.447058, -114.096765	T20N R20W S36
WL-14a	PEM	0.001	518+57 to 518+70 RT	47.448938, -114.096776	T20N R20W S35
WL-14b	PEM	0.017	519+17 to 520+53 RT	47.449272, -114.09678	T20N R20W S36
WL-17	PEM	0.004	533+91 to 534+25 RT	47.453173, -114.096743	T19N R20W S2
WL-22a	PEM	0.371	545+83 to 548+12 LT	47.456946, -114.09852	T20N R20W S26
TOTAL		0.399			

MDT Montana Wetland Assessment Form (revised March 2008)

1. **Project Name:** US 93 Ninepipes
2. **MDT Project #:**
3. **Evaluation Date:** 05/22/2025
4. **Evaluator(s):** Rachel Newton
5. **Wetlands/Site #(s):** Roadside Ditches. See cover sheet.
6. **Wetland Location(s):** i. **Legal:** TN,RE,
 ii. **Approx. Stationing or Mileposts:** See cover sheet.
 iii. **Watershed:** 3
Watershed Name, County: Lower Clark Fork, Lake
7. a. **Evaluating Agency:** Jacobs
 b. **Purpose of Evaluation:**
 1. ☒ Wetlands potentially affected by MDT project
 2. ☐ Mitigation wetlands; pre-construction
 3. ☐ Mitigation wetlands; post-construction
 4. ☐ Other:
8. **Wetland size:** Min: 0.001 acres, Max: 0.371 acres, Avg: 0.080 acres (estimated)
9. **Assessment area (AA):** Min: 0.001 acres, Max: 0.371 acres, Avg: 0.080 acres (estimated)

10. Classification of Wetland and Aquatic Habitats in AA

HGM Class (Brinson)	Class (Cowardin)	Modifier (Cowardin)	Water Regime	% of AA
D	EM	PD	SI	100

Abbreviations:

(see manual for definitions)

HGM Classes: Riverine (**R**), Depressional (**D**), Slope (**S**), Mineral Soil Flats (**MSF**), Organic Soil Flats (**OSF**), Lacustrine Fringe (**LF**);

Cowardin Classes: Rock Bottom (**RB**), Unconsolidated bottom (**UB**), Aquatic Bed (**AB**), Unconsolidated Shore (**US**), Moss-lichen Wetland (**ML**), Emergent Wetland (**EM**), Scrub-Shrub Wetland (**SS**), Forested Wetland (**FO**)

Modifiers: Excavated (**E**), Impounded (**I**), Diked (**D**), Partly Drained (**PD**), Farmed (**F**), Artificial (**A**)

Water Regimes: Permanent / Perennial (**PP**), Seasonal / Intermittent (**SI**), Temporary / Ephemeral (**TE**)

11. Estimated relative abundance:

ABUNDANT

(of similarly classified sites within the same Major Montana Watershed Basin, see definitions)

12. General condition of AA:

- i. **Disturbance:** (use matrix below to determine [circle] appropriate response – see instructions for Montana-listed noxious weed and aquatic nuisance vegetation species (**ANVS**) list)

Conditions within AA	Predominant conditions adjacent to (within 500 feet of) AA		
	Managed in predominantly natural state; is not grazed, hayed, logged, or otherwise converted; does not contain roads or buildings; and noxious weed or ANVS cover is >=15%.	Land not cultivated, but may be moderately grazed or hayed or selectively logged; or has been subject to minor clearing; contains few roads or buildings; noxious weed or ANVS cover is <= 30%.	Land cultivated or heavily grazed or logged; subject to substantial fill placement, grading, clearing, or hydrological alteration; high road or building density; or noxious weed or ANVS cover is > 30%.
AA occurs and is managed in predominantly natural state; is not grazed, hayed, logged, or otherwise converted; does not contain roads or occupied buildings; and noxious weed or ANVS cover is <= 15%.	low disturbance	low disturbance	moderate disturbance
AA not cultivated, but may be moderately grazed or hayed or selectively logged; or has been subject to relatively minor clearing, fill placement, or hydrological alteration; contains few roads or buildings; noxious weed or ANVS cover is <=	moderate disturbance	moderate disturbance	high disturbance
AA cultivated or heavily grazed or logged; subject to relatively substantial fill placement, grading, clearing, or hydrological alteration; high road or building density; or noxious weed or ANVS cover is > 30%.	high disturbance	high disturbance	high disturbance

Comments: (types of disturbance, intensity, season, etc.): Wetlands occurring in roadside ditches along US 93.

ii. **Prominent noxious, aquatic nuisance, & other exotic vegetation species:** The following species are present within the study area: Spotted Knapweed, Field Bindweed, Dalmatian Toadflax, Whitetop, Oxeye Daisy, Purple Loosestrife, Yellowflag Iris, Canada Thistle, Common Hound's-tongue, and Common St. John's-wort.

iii. **Provide brief descriptive summary of AA and surrounding land use/habitat:** The roadside ditches are on both sides of a 2-lane highway and are entirely within the highway ROW. Occasionally mowed.

13. Structural Diversity: (based on number of "Cowardin" **vegetated** classes present [do not include unvegetated classes], see #10 above)

Existing # of "Cowardin" Vegetated Classes in AA	Initial Rating	Is current management preventing (passive) existence of additional vegetated classes?		Modified Rating
>= 3 (or 2 if 1 is forested) classes	H	NA	NA	NA
2 (or 1 if forested) classes	M	NA	NA	NA
1 class, but not a monoculture	M	<-- NO	YES -->	L
1 class, monoculture (1 species comprises >= 90% of total cover)	L	NA	NA	NA

Comments: Phalaris or Typha dominant. Growth by woody species likely deterred by routine mowing of highway ROW.

SECTION PERTAINING to FUNCTIONS & VALUES ASSESSMENT

14A. Habitat for Federally Listed or Proposed Threatened or Endangered Plants or Animals:

- i. AA is Documented (D) or Suspected (S) to contain (circle one based on definitions contained in instructions): No usable habitat
- Primary or critical habitat (list species) Secondary habitat (list species) Incidental habitat (list species)**

ii. **Rating** (use the conclusions from i above and the matrix below to arrive at [circle] the functional points and rating)

Highest Habitat Level	doc/primary	sus/primary	doc/secondary	sus/secondary	doc/incidental	sus/incidental	None
Functional Points and Rating	1H	.9H	.8M	.7M	.3L	.1L	0L

Sources for documented use (e.g. observations, records, etc): IPAC lists grizzly bears and monarch butterflies for this area. The proximity of the ditches to the highway makes it unlikely grizzly would use them on a regular basis. No suitable habitat for monarchs within these wetlands - no milkweed noted.

14B. Habitat for plant or animals rated S1, S2, or S3 by the Montana Natural Heritage Program: (not including species listed in 14A above)

- i. AA is Documented (D) or Suspected (S) to contain (circle one based on definitions contained in instructions): No usable habitat
- Primary or critical habitat (list species) Secondary habitat (list species) Incidental habitat (list species)**

ii. **Rating** (use the conclusions from i above and the matrix below to arrive at [circle] the functional points and rating)

Highest Habitat Level	doc/primary	sus/primary	doc/secondary	sus/secondary	doc/incidental	sus/incidental	None
S1 Species: Functional Points and Rating	1H	.8H	.7M	.6M	.2L	.1L	0L
S2 and S3 Species: Functional Points and Rating	.9H	.7M	.6M	.5M	.2L	.1L	0L

Sources for documented use (e.g. observations, records, etc): Because these wetlands are subjected to regular mowing and other disturbance, the ditches are not likely to provide habitat for any S1 - S3 species. See the Biological Resource Report for more details on special status species occurring within the study area.

14C. General Wildlife Habitat Rating:

i. **Evidence of overall wildlife use in the AA** (circle substantial, moderate, or low based on supporting evidence):

Substantial (based on any of the following [check]):

- ☐ observations of abundant wildlife #s or high species diversity (during any period)
- ☐ abundant wildlife sign such as scat, tracks, nest structures, game trails, etc.
- ☐ presence of extremely limiting habitat features not available in the surrounding area
- ☐ interviews with local biologists with knowledge of the AA

Minimal (based on any of the following [check]):

- ☒ few or no wildlife observations during peak use periods
- ☒ little to no wildlife sign
- ☐ sparse adjacent upland food sources
- ☐ interviews with local biologists with knowledge of the AA

Moderate (based on any of the following [check]):

- ☐ observations of scattered wildlife groups or individuals or relatively few species during peak periods
- ☐ common occurrence of wildlife sign such as scat, tracks, nest structures, game trails, etc.
- ☐ adequate adjacent upland food sources
- ☐ interviews with local biologists with knowledge of the AA

ii. **Wildlife habitat features** (Working from top to bottom, circle appropriate AA attributes in matrix to arrive at rating. Structural diversity is from #13. For class cover to be considered evenly distributed, the most and least prevalent vegetated classes must be within 20% of each other in terms of their percent composition of the AA (see #10). Abbreviations for surface water durations are as follows: P/P = permanent/perennial; S/I = seasonal/intermittent; T/E = temporary/ephemeral; and A = absent [see instructions for further definitions of these terms])

Structural diversity (see #13)	High								Moderate								Low			
Class cover distribution (all vegetated classes)	Even				Uneven				Even				Uneven				Even			
Duration of surface water in >=10% of AA	P/P	S/I	T/E	A	P/P	S/I	T/E	A	P/P	S/I	T/E	A	P/P	S/I	T/E	A	P/P	S/I	T/E	A
Low disturbance at AA (see #12i)	E	E	E	H	E	E	H	H	E	H	H	M	E	H	M	M	E	H	M	M
Moderate disturbance at AA (see #12i)	H	H	H	H	H	H	H	M	H	H	M	M	H	M	M	L	H	M	L	L
High disturbance at AA (see #12i)	M	M	M	L	M	M	L	L	M	M	L	L	M	L	L	L	L	L	L	L

iii. **Rating** (use the conclusions from i and ii above and the matrix below to arrive at [circle] the functional points and rating)

Evidence of wildlife use (i)	Wildlife habitat features rating (ii)			
	Exceptional	High	Moderate	Moderate
Substantial	1E	.9H	.8H	.7M
Moderate	.9H	.7M	.5M	.3L
Minimal	.6M	.4M	.2L	.1L

Comments: A lot of roadkill present (deer, waterfowl, turtles) but few signs of recent wildlife use observed in the ditches.

14D. General Fish Habitat Rating: (Assess this function if the AA is used by fish or the existing situation is "correctable" such that the AA could be used by fish [i.e., fish use is precluded by perched culvert or other barrier, etc.]. If the AA is not used by fish, fish use is not restorable due to habitat constraints, or is not desired from a management perspective [such as fish entrapped in a canal], then mark **X NA** and proceed to 14E.)

Type of Fishery: Cold Water (CW) ☐ Warm Water (WW) ☐ Use the CW or WW guidelines in the user manual to complete the matrix

i. Habitat Quality and Known / Suspected Fish Species in AA (use matrix to arrive at [circle] the functional points and rating)

Duration of surface water in AA	Permanent / Perennial						Seasonal / Intermittent						Temporary / Ephemeral					
Aquatic hiding / resting / escape cover	Optimal		Adequate		Poor		Optimal		Adequate		Poor		Optimal		Adequate		Poor	
Thermal cover optimal / suboptimal	O	S	O	S	O	S	O	S	O	S	O	S	O	S	O	S	O	S
FWP Tier I fish species	1E	.9H	.8H	.7M	.6M	.5M	.9H	.8H	.7M	.6M	.5M	.4M	.7M	.6M	.5M	.4M	.3L	.2L
FWP Tier II or Native Game fish species	.9H	.8H	.7M	.6M	.5M	.5M	.8H	.7M	.6M	.5M	.4M	.4M	.6M	.5M	.4M	.3L	.2L	.2L
FWP Tier III or Introduced Game fish	.8H	.7M	.6M	.5M	.5M	.4M	.7M	.6M	.5M	.4M	.4M	.3L	.5M	.4M	.3L	.2L	.2L	.1L
FWP Non-Game Tier IV or No fish species	.5M	.5M	.5M	.4M	.4M	.3L	.4M	.4M	.4M	.3L	.3L	.2L	.2L	.2L	.2L	.1L	.1L	.1L

Sources used for identifying fish sp. potentially found in AA:

ii. Modified Rating (NOTE: Modified score cannot exceed 1 or be less than 0.1)

a) Is fish use of the AA significantly reduced by a culvert, dike, or other man-made structure or activity or is the waterbody included on the current final MDEQ list of waterbodies in need of TMDL development with listed "Probable Impaired Uses" including cold or warm water fishery or aquatic life support, or do aquatic nuisance plant or animal species (see Appendix E) occur in fish habitat? ☐ If yes, reduce score in i above by 0.1.

b) Does the AA contain a documented spawning area or other critical habitat feature (i.e., sanctuary pool, upwelling area, etc.- specify in comments) for native fish or introduced game fish? ☐ If yes, add 0.1 to the adjusted score in i or iia.

iii. Final Score and Rating: NA

Comments: .

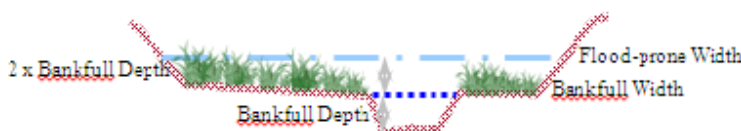
14E. Flood Attenuation: (Applies only to wetlands subject to flooding via in-channel or overbank flow. If wetlands in AA are not flooded from in-channel or overbank flow, mark **X NA** and proceed to 14F.)

i. Rating (working from top to bottom, use the matrix below to arrive at [circle] the functional points and rating)

Estimated or Calculated Entrenchment (Rosgen 1994, 1996)	Slightly entrenched - C, D, E stream types			Moderately entrenched - B stream type			Entrenched-A, F, G stream types		
% of flooded wetland classified as forested and/or scrub/shrub	75%	25-75%	<25%	75%	25-75%	<25%	75%	25-75%	<25%
AA contains no outlet or restricted outlet	1H	.9H	.6M	.8H	.7M	.5M	.4M	.3L	.2L
AA contains unrestricted outlet	.9H	.8H	.5M	.7M	.6M	.4M	.3L	.2L	.1L

Entrenchment ratio (ER) estimation – see User's Manual for additional guidance. Entrenchment ratio = (flood-prone width)/(bankfull width) Flood-prone width = estimated horizontal projection of where 2 x maximum bankfull depth elevation intersects the floodplain on each side of the stream.

$$\frac{\text{Flood-prone width}}{\text{Bankfull width}} = \text{Entrenchment ratio (ER)}$$



Slightly Entrenched ER = >2.2			Moderately Entrenched ER = 1.41 – 2.2	Entrenched ER = 1.0 – 1.4		
C stream type	D stream type	E stream type	B stream type	A stream type	F stream type	G stream type

ii. Are ≥10 acres of wetland in the AA subject to flooding AND are man-made features which may be significantly damaged by floods located within 0.5 mile downstream of the AA (circle)? ☐ **Comments:** .

14F. Short and Long Term Surface Water Storage: (Applies to wetlands that flood or pond from overbank or in-channel flow, precipitation, upland surface flow, or groundwater flow. If no wetlands in the AA are subject to flooding or ponding, NA and proceed to 14G.)

i. Rating (Working from top to bottom, use the matrix below to arrive at [circle] the functional points and rating. Abbreviations for surface water durations are as follows: P/P = permanent/perennial; S/I = seasonal/intermittent; and T/E = temporary/ephemeral [see instructions for further definitions of these terms].)

Estimated maximum acre feet of water contained in wetlands within the AA that are subject to periodic flooding or ponding	>5 acre feet			1.1 to 5 acre feet			<=1 acre foot		
Duration of surface water at wetlands within the AA	P/P	S/I	T/E	P/P	S/I	T/E	P/P	S/I	T/E
Wetlands in AA flood or pond >= 5 out of 10 years	1H	.9H	.8H	.8H	.6M	.5M	.4M	.3L	.2L
Wetlands in AA flood or pond < 5 out of 10 years	.9H	.8H	.7M	.7M	.5M	.4M	.3L	.2L	.1L

Comments: Twenty-seven individual wetland polygons are included in this assessment. Only two of these total over 1 acre, therefore the < 1 acre option for the maximum amount of water was selected.

14G. Sediment/Nutrient/Toxicant Retention and Removal: (Applies to wetlands with potential to receive sediments, nutrients, or toxicants through influx of surface or ground water or direct input. If no wetlands in the AA are subject to such input, NA and proceed to 14H.)

i. Rating (working from top to bottom, use the matrix below to arrive at [circle] the functional points and rating [H=high, M=moderate, or L=low])

Sediment, nutrient, and toxicant input levels within AA	AA receives or surrounding land use with potential to deliver levels of sediments, nutrients, or compounds at levels such that other functions are not substantially impaired. Minor sedimentation, sources of nutrients or toxicants, or signs of eutrophication present.				Waterbody on MDEQ list of waterbodies in need of TMDL development for "probable causes" related to sediment, nutrients, or toxicants or AA receives or surrounding land use with potential to deliver high levels of sediments, nutrients, or compounds such that other functions are substantially impaired. Major sedimentation, sources of nutrients or toxicants, or signs of eutrophication present.			
% cover of wetland vegetation in AA	>= 70%		< 70%		>= 70%		< 70%	
Evidence of flooding / ponding in AA	Yes	No	Yes	No	Yes	No	Yes	No
AA contains no or restricted outlet	1H	.8H	.7M	.5M	.5M	.4M	.3L	.2L
AA contains unrestricted outlet	.9H	.7M	.6M	.4M	.4M	.3L	.2L	.1L

Comments: Ditches immediately adjacent to US 93.

14H Sediment/Shoreline Stabilization: (Applies only if AA occurs on or within the banks or a river, stream, or other natural or man-made drainage, or on the shoreline of a standing water body which is subject to wave action. If 14H does not apply, X NA and proceed to 14I.)

i. Rating (working from top to bottom, use the matrix below to arrive at [circle] the functional points and rating)

% Cover of wetland streambank or shoreline by species with stability ratings of >=6 (see Appendix F).	Duration of surface water adjacent to rooted vegetation		
	Permanent / Perennial	Seasonal / Intermittent	Temporary / Ephemeral
>= 65%	1H	.9H	.7M
35-64%	.7M	.6M	.5M
35%	.3L	.2L	.1L

Comments: .

14I. Production Export/Food Chain Support:

i. Level of Biological Activity (synthesis of wildlife and fish habitat ratings [circle])

General Fish Habitat Rating (14D.iii.)	General Wildlife Habitat Rating (14C.iii.)		
	E/H	M	L
E/H	H	H	M
M	H	M	M
L	M	M	L
N/A	H	M	L

ii. Rating (Working from top to bottom, use the matrix below to arrive at [circle] the functional points and rating. Factor A = acreage of vegetated wetland component in the AA; Factor B = level of biological activity rating from above (14I.i.); Factor C = whether or not the AA contains a surface or subsurface outlet; the final three rows pertain to duration of surface water in the AA, where P/P, S/I, and T/E are as previously defined, and A = "absent" [see instructions for further definitions of these terms].)

A	Vegetated component >5 acres						Vegetated component 1-5 acres						Vegetated component < 1 acre					
B	High		Moderate		Low		High		Moderate		Low		High		Moderate		Low	
C	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
P/P	1H	.7M	.8H	.5M	.6M	.4M	.9H	.6M	.7M	.4M	.5M	.3L	.8H	.6M	.6M	.4M	.3L	.2L
S/I	.9H	.6M	.7M	.4M	.5M	.3L	.8H	.5M	.6M	.3L	.4M	.2L	.7M	.5M	.5M	.3L	.3L	.2L
T/E/A	.8H	.5M	.6M	.3L	.4M	.2L	.7M	.4M	.5M	.2L	.3L	.1L	.6M	.4M	.4M	.2L	.2L	.1L

iii. Modified Rating (NOTE: Modified score cannot exceed 1 or be less than 0.1.) **Vegetated Upland Buffer (VUB):** Area with >= 30% plant cover, = 15% noxious weed or ANVS cover, and that is not subjected to periodic mechanical mowing or clearing (unless for weed control).

a) Is there an average >= 50 foot-wide vegetated upland buffer around >= 75% of the AA circumference?

If yes, add 0.1 to the score in ii above.

iv. Final Score and Rating: 0.20L

Comments: Twenty-seven individual wetland polygons are included in this assessment. Only two of these total over 1 acre, therefore the < 1 acre option for the vegetated component was selected.

14J. Groundwater Discharge/Recharge: (check the appropriate indicators in i & ii below)

i. Discharge Indicators

☐ The AA is a slope wetland

☐ Springs or seeps are known or observed

☐ Vegetation growing during dormant season/drought

☐ Wetland occurs at the toe of a natural slope

☐ AA permanently flooded during drought periods

☐ Wetland contains an outlet, but no inlet

☐ Shallow water table and the site is saturated to the surface

☐ Other: _____

ii. Recharge Indicators

☐ Permeable substrate present without underlying impeding layer

☐ Wetland contains inlet but no outlet

☐ Stream is a known 'losing' stream; discharge volume decreases

☐ Other: _____

iii. Rating (use the information from i and ii above and the table below to arrive at [circle] the functional points and rating)

Criteria	Duration of saturation at AA Wetlands FROM GROUNDWATER DISCHARGE OR WITH WATER THAT IS RECHARGING THE GROUNDWATER SYSTEM			
	P/P	S/I	T	None
Groundwater Discharge or Recharge	1H	.7M	.4M	.1L
Insufficient Data/Information	N/A			

Comments: .

14K. Uniqueness:

i. Rating (working from top to bottom, use the matrix below to arrive at [circle] the functional points and rating)

Replacement potential	AA contains fen, bog, warm springs or mature (>80 yr-old) forested wetland or plant association listed as "S1" by the MTNHP			AA does not contain previously cited rare types and structural diversity (#13) is high or contains plant association listed as "S2" by the MTNHP			AA does not contain previously cited rare types or associations and structural diversity (#13) is low-moderate		
Estimated relative abundance (#11)	rare	common	abundant	rare	common	abundant	rare	common	abundant
Low disturbance at AA (#12i)	1H	.9H	.8H	.8H	.6M	.5M	.5M	.4M	.3L
Moderate disturbance at AA (#12i)	.9H	.8H	.7M	.7M	.5M	.4M	.4M	.3L	.2L
High disturbance at AA (#12i)	.8H	.7M	.6M	.6M	.4M	.3L	.3L	.2L	.1L

Comments: .

14L. Recreation/Education Potential: (affords "bonus" points if AA provides recreation or education opportunity)

i. Is the AA a known or potential rec./ed. site: (circle) ____ (if 'Yes' continue with the evaluation; if 'No' then mark **X** **NA** and proceed to the overall summary and rating page)

ii. Check categories that apply to the AA: ____ Educational/scientific study; ____ Consumptive rec.; ____ Non-consumptive rec.;
____ Other :

iii. Rating:

Known or Potential Recreation or Education Area	Known	Potential
Public ownership or public easement with general public access (no permission required)	.2H	.15H
Private ownership with general public access (no permission required)	.15H	.1M
Private or public ownership without general public access, or requiring permission for public access	.1M	.05L

Comments: .

General Site Notes

FUNCTION & VALUE SUMMARY & OVERALL RATING FOR WETLAND/SITE #(S): Roadside Ditches. See cover sheet.

Function & Value Variables	Rating	Actual Functional Points	Possible Functional Points	Functional Units: (Actual Points x Wetland Acreage)	Indicate the four most prominent functions with an asterisk (*)
A. Listed/Proposed T&E Species Habitat	L	0.00	1		
B. MT Natural Heritage Program Species Habitat	L	0.00	1		
C. General Wildlife Habitat	L	0.10	1		*
D. General Fish Habitat	NA				
E. Flood Attenuation	NA				
F. Short and Long Term Surface Water Storage	L	0.30	1		*
G. Sediment/Nutrient/Toxicant Removal	H	1.00	1		*
H. Sediment/Shoreline Stabilization	NA				
I. Production Export/Food Chain Support	L	0.20	1		*
J. Groundwater Discharge/Recharge	NA				
K. Uniqueness	L	0.10	1		
L. Recreation/Education Potential (bonus points)	NA				
Totals:		1.70	7.00		
Percent of Possible Score			24%		

Category I Wetland: (must satisfy one of the following criteria; otherwise go to Category II)

- ☐ Score of 1 functional point for Listed/Proposed Threatened or Endangered Species; **or**
☐ Score of 1 functional point for Uniqueness; **or**
☐ Score of 1 functional point for Flood Attenuation and answer to Question 14E.ii is "yes"; **or**
☐ Percent of possible score > 80% (round to nearest whole #).

Category II Wetland: (Criteria for Category I not satisfied and meets any one of the following criteria; otherwise go to Category IV)

- ☐ Score of 1 functional point for MT Natural Heritage Program Species Habitat; **or**
☐ Score of .9 or 1 functional point for General Wildlife Habitat; **or**
☐ Score of .9 or 1 functional point for General Fish Habitat; **or**
☐ "High" to "Exceptional" ratings for **both** General Wildlife Habitat **and** General Fish/Aquatic Habitat; **or**
☐ Score of .9 functional point for Uniqueness; **or**
☐ Percent of possible score > 65% (round to nearest whole #).

Category III Wetland: (Criteria for Categories I, II, or IV not satisfied)

Category IV Wetland: (Criteria for Categories I or II are not satisfied and all of the following criteria are met; otherwise go to Category III)

- ☒ "Low" rating for Uniqueness; **and**
☒ Vegetated wetland component 1 acre (do not include upland vegetated buffer); **and**
☒ Percent of possible score 35% (round to nearest whole #).

OVERALL ANALYSIS AREA RATING: IV

Summary Comments: Roadside ditch wetlands subject to high pollutant input.

MDT Montana Wetland Assessment Form (revised March 2008)

1. **Project Name:** US 93 Ninepipes
2. **MDT Project #:**
3. **Evaluation Date:** 05/22/2025
4. **Evaluator(s):** Rachel Newton
5. **Wetlands/Site #(s):** WL-18
6. **Wetland Location(s):** i. **Legal:** T19N,R20W,2
- ii. **Approx. Stationing or Mileposts:** 536+44 to 540+28 LT
- iii. **Watershed:** 3
- Watershed Name, County:** Lower Clark Fork, Lake
7. a. **Evaluating Agency:** Jacobs
- b. **Purpose of Evaluation:**
1. ☒ Wetlands potentially affected by MDT project
 2. ☐ Mitigation wetlands; pre-construction
 3. ☐ Mitigation wetlands; post-construction
 4. ☐ Other:
8. **Wetland size:** 0.481 acres (measured)
9. **Assessment area (AA):** 0.481 acres (measured)

10. Classification of Wetland and Aquatic Habitats in AA

HGM Class (Brinson)	Class (Cowardin)	Modifier (Cowardin)	Water Regime	% of AA
D	EM	NA	SI	100

Abbreviations: (see manual for definitions)

HGM Classes: Riverine (R), Depressional (D), Slope (S), Mineral Soil Flats (MSF), Organic Soil Flats (OSF), Lacustrine Fringe (LF);

Cowardin Classes: Rock Bottom (RB), Unconsolidated bottom (UB), Aquatic Bed (AB), Unconsolidated Shore (US), Moss-lichen Wetland (ML), Emergent Wetland (EM), Scrub-Shrub Wetland (SS), Forested Wetland (FO)

Modifiers: Excavated (E), Impounded (I), Diked (D), Partly Drained (PD), Farmed (F), Artificial (A)

Water Regimes: Permanent / Perennial (PP), Seasonal / Intermittent (SI), Temporary / Ephemeral (TE)

11. **Estimated relative abundance:** (of similarly classified sites within the same Major Montana Watershed Basin, see definitions)
COMMON

12. General condition of AA:

- i. **Disturbance:** (use matrix below to determine [circle] appropriate response – see instructions for Montana-listed noxious weed and aquatic nuisance vegetation species (ANVS) list)

Conditions within AA	Predominant conditions adjacent to (within 500 feet of) AA		
	Managed in predominantly natural state; is not grazed, hayed, logged, or otherwise converted; does not contain roads or buildings; and noxious weed or ANVS cover is >=15%.	Land not cultivated, but may be moderately grazed or hayed or selectively logged; or has been subject to minor clearing; contains few roads or buildings; noxious weed or ANVS cover is <= 30%.	Land cultivated or heavily grazed or logged; subject to substantial fill placement, grading, clearing, or hydrological alteration; high road or building density; or noxious weed or ANVS cover is > 30%.
AA occurs and is managed in predominantly natural state; is not grazed, hayed, logged, or otherwise converted; does not contain roads or occupied buildings; and noxious weed or ANVS cover is <= 15%.	low disturbance	low disturbance	moderate disturbance
AA not cultivated, but may be moderately grazed or hayed or selectively logged; or has been subject to relatively minor clearing, fill placement, or hydrological alteration; contains few roads or buildings; noxious weed or ANVS cover is <=	moderate disturbance	moderate disturbance	high disturbance
AA cultivated or heavily grazed or logged; subject to relatively substantial fill placement, grading, clearing, or hydrological alteration; high road or building density; or noxious weed or ANVS cover is > 30%.	high disturbance	high disturbance	high disturbance

Comments: (types of disturbance, intensity, season, etc.): Depressional palustrine emergent wetlands in wet meadows that may have previously been prairie potholes.

ii. **Prominent noxious, aquatic nuisance, & other exotic vegetation species:** None observed.

iii. **Provide brief descriptive summary of AA and surrounding land use/habitat:** These wet meadows are on privately owned land, within the ROW, and on lands managed for wildlife.

13. Structural Diversity: (based on number of "Cowardin" vegetated classes present [do not include unvegetated classes], see #10 above)

Existing # of "Cowardin" Vegetated Classes in AA	Initial Rating	Is current management preventing (passive) existence of additional vegetated classes?		Modified Rating
>= 3 (or 2 if 1 is forested) classes	H	NA	NA	NA
2 (or 1 if forested) classes	M	NA	NA	NA
1 class, but not a monoculture	M	<-- NO	YES -->	L
1 class, monoculture (1 species comprises >= 90% of total cover)	L	NA	NA	NA

Comments: These locations may be prairie pothole wetlands that are drying up, or may be vernal pools with a different hydrologic regime.

SECTION PERTAINING to FUNCTIONS & VALUES ASSESSMENT

14A. Habitat for Federally Listed or Proposed Threatened or Endangered Plants or Animals:

i. AA is Documented (D) or Suspected (S) to contain (circle one based on definitions contained in instructions):

Primary or critical habitat (list species) **Secondary habitat (list species)** **Incidental habitat (list species)**

Grizzly bear(D)
monarch butterfly(S)

ii. **Rating** (use the conclusions from i above and the matrix below to arrive at [circle] the functional points and rating)

Highest Habitat Level	doc/primary	sus/primary	doc/secondary	sus/secondary	doc/incidental	sus/incidental	None
Functional Points and Rating	1H	.9H	.8M	.7M	.3L	.1L	0L

Sources for documented use (e.g. observations, records, etc): MTNHP query indicates secondary habitat for grizzly is present in the study area.

Grizzly are unlikely to use the wet meadows anything aside from general movement.

These wetlands lack standing water throughout the season. Monarch butterfly may use this area.

14B. Habitat for plant or animals rated S1, S2, or S3 by the Montana Natural Heritage Program: (not including species listed in 14A above)

i. AA is Documented (D) or Suspected (S) to contain (circle one based on definitions contained in instructions): No usable habitat

Primary or critical habitat (list species) **Secondary habitat (list species)** **Incidental habitat (list species)**

ii. **Rating** (use the conclusions from i above and the matrix below to arrive at [circle] the functional points and rating)

Highest Habitat Level	doc/primary	sus/primary	doc/secondary	sus/secondary	doc/incidental	sus/incidental	None
S1 Species: Functional Points and Rating	1H	.8H	.7M	.6M	.2L	.1L	0L
S2 and S3 Species: Functional Points and Rating	.9H	.7M	.6M	.5M	.2L	.1L	0L

Sources for documented use (e.g. observations, records, etc): MTNHP query.

14C. General Wildlife Habitat Rating:

i. **Evidence of overall wildlife use in the AA** (circle substantial, moderate, or low based on supporting evidence):

Substantial (based on any of the following [check]):

- ☐ observations of abundant wildlife #s or high species diversity (during any period)
- ☐ abundant wildlife sign such as scat, tracks, nest structures, game trails, etc.
- ☐ presence of extremely limiting habitat features not available in the surrounding area
- ☐ interviews with local biologists with knowledge of the AA

Minimal (based on any of the following [check]):

- ☒ few or no wildlife observations during peak use periods
- ☒ little to no wildlife sign
- ☒ sparse adjacent upland food sources
- ☐ interviews with local biologists with knowledge of the AA

Moderate (based on any of the following [check]):

- ☐ observations of scattered wildlife groups or individuals or relatively few species during peak periods
- ☐ common occurrence of wildlife sign such as scat, tracks, nest structures, game trails, etc.
- ☐ adequate adjacent upland food sources
- ☐ interviews with local biologists with knowledge of the AA

ii. **Wildlife habitat features** (Working from top to bottom, circle appropriate AA attributes in matrix to arrive at rating. Structural diversity is from #13. For class cover to be considered evenly distributed, the most and least prevalent vegetated classes must be within 20% of each other in terms of their percent composition of the AA (see #10). Abbreviations for surface water durations are as follows: P/P = permanent/perennial; S/I = seasonal/intermittent; T/E = temporary/ephemeral; and A = absent [see instructions for further definitions of these terms])

Structural diversity (see #13)	High								Moderate								Low			
Class cover distribution (all vegetated classes)	Even				Uneven				Even				Uneven				Even			
Duration of surface water in >=10% of AA	P/P	S/I	T/E	A	P/P	S/I	T/E	A	P/P	S/I	T/E	A	P/P	S/I	T/E	A	P/P	S/I	T/E	A
Low disturbance at AA (see #12i)	E	E	E	H	E	E	H	H	E	H	H	M	E	H	M	M	E	H	M	M
Moderate disturbance at AA (see #12i)	H	H	H	H	H	H	H	M	H	H	M	M	H	M	M	L	H	M	L	L
High disturbance at AA (see #12i)	M	M	M	L	M	M	L	L	M	M	L	L	M	L	L	L	L	L	L	L

iii. **Rating** (use the conclusions from i and ii above and the matrix below to arrive at [circle] the functional points and rating)

Evidence of wildlife use (i)	Wildlife habitat features rating (ii)			
	Exceptional	High	Moderate	Moderate
Substantial	1E	.9H	.8H	.7M
Moderate	.9H	.7M	.5M	.3L
Minimal	.6M	.4M	.2L	.1L

Comments: Incidental habitat for waterfowl

14D. General Fish Habitat Rating: (Assess this function if the AA is used by fish or the existing situation is “correctable” such that the AA could be used by fish [i.e., fish use is precluded by perched culvert or other barrier, etc.]. If the AA is not used by fish, fish use is not restorable due to habitat constraints, or is not desired from a management perspective [such as fish entrapped in a canal], then mark **X NA** and proceed to 14E.)

Type of Fishery: Cold Water (CW) _____ Warm Water (WW) _____ **Use the CW or WW guidelines in the user manual to complete the matrix**

i. Habitat Quality and Known / Suspected Fish Species in AA (use matrix to arrive at [circle] the functional points and rating)

Duration of surface water in AA	Permanent / Perennial						Seasonal / Intermittent						Temporary / Ephemeral					
Aquatic hiding / resting / escape cover	Optimal		Adequate		Poor		Optimal		Adequate		Poor		Optimal		Adequate		Poor	
Thermal cover optimal / suboptimal	O	S	O	S	O	S	O	S	O	S	O	S	O	S	O	S	O	S
FWP Tier I fish species	1E	.9H	.8H	.7M	.6M	.5M	.9H	.8H	.7M	.6M	.5M	.4M	.7M	.6M	.5M	.4M	.3L	.2L
FWP Tier II or Native Game fish species	.9H	.8H	.7M	.6M	.5M	.5M	.8H	.7M	.6M	.5M	.4M	.4M	.6M	.5M	.4M	.3L	.2L	.2L
FWP Tier III or Introduced Game fish	.8H	.7M	.6M	.5M	.5M	.4M	.7M	.6M	.5M	.4M	.4M	.3L	.5M	.4M	.3L	.2L	.2L	.1L
FWP Non-Game Tier IV or No fish species	.5M	.5M	.5M	.4M	.4M	.3L	.4M	.4M	.4M	.3L	.3L	.2L	.2L	.2L	.2L	.1L	.1L	.1L

Sources used for identifying fish sp. potentially found in AA:

ii. Modified Rating (NOTE: Modified score cannot exceed 1 or be less than 0.1)

a) Is fish use of the AA significantly reduced by a culvert, dike, or other man-made structure or activity or is the waterbody included on the current final MDEQ list of waterbodies in need of TMDL development with listed “Probable Impaired Uses” including cold or warm water fishery or aquatic life support, or do aquatic nuisance plant or animal species (see Appendix E) occur in fish habitat? _____ If yes, reduce score in i above by 0.1.

b) Does the AA contain a documented spawning area or other critical habitat feature (i.e., sanctuary pool, upwelling area, etc.- specify in comments) for native fish or introduced game fish? _____ If yes, add 0.1 to the adjusted score in i or iia.

iii. Final Score and Rating: NA

Comments: .

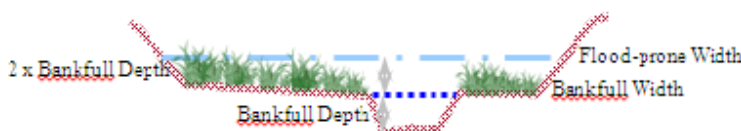
14E. Flood Attenuation: (Applies only to wetlands subject to flooding via in-channel or overbank flow. If wetlands in AA are not flooded from in-channel or overbank flow, mark **X NA** and proceed to 14F.)

i. Rating (working from top to bottom, use the matrix below to arrive at [circle] the functional points and rating)

Estimated or Calculated Entrenchment (Rosgen 1994, 1996)	Slightly entrenched - C, D, E stream types			Moderately entrenched – B stream type			Entrenched-A, F, G stream types		
% of flooded wetland classified as forested and/or scrub/shrub	75%	25-75%	<25%	75%	25-75%	<25%	75%	25-75%	<25%
AA contains no outlet or restricted outlet	1H	.9H	.6M	.8H	.7M	.5M	.4M	.3L	.2L
AA contains unrestricted outlet	.9H	.8H	.5M	.7M	.6M	.4M	.3L	.2L	.1L

Entrenchment ratio (ER) estimation – see User’s Manual for additional guidance. Entrenchment ratio = (flood-prone width)/(bankfull width) Flood-prone width = estimated horizontal projection of where 2 x maximum bankfull depth elevation intersects the floodplain on each side of the stream.

$$\frac{\text{Flood-prone width}}{\text{Bankfull width}} = \text{Entrenchment ratio (ER)}$$



Slightly Entrenched ER = >2.2			Moderately Entrenched ER = 1.41 – 2.2	Entrenched ER = 1.0 – 1.4		
C stream type	D stream type	E stream type	B stream type	A stream type	F stream type	G stream type

ii. Are ≥10 acres of wetland in the AA subject to flooding AND are man-made features which may be significantly damaged by floods located within 0.5 mile downstream of the AA (circle)? _____ **Comments:** .

14F. Short and Long Term Surface Water Storage: (Applies to wetlands that flood or pond from overbank or in-channel flow, precipitation, upland surface flow, or groundwater flow. If no wetlands in the AA are subject to flooding or ponding, NA and proceed to 14G.)

i. Rating (Working from top to bottom, use the matrix below to arrive at [circle] the functional points and rating. Abbreviations for surface water durations are as follows: P/P = permanent/perennial; S/I = seasonal/intermittent; and T/E = temporary/ephemeral [see instructions for further definitions of these terms].)

Estimated maximum acre feet of water contained in wetlands within the AA that are subject to periodic flooding or ponding	>5 acre feet			1.1 to 5 acre feet			<=1 acre foot		
Duration of surface water at wetlands within the AA	P/P	S/I	T/E	P/P	S/I	T/E	P/P	S/I	T/E
Wetlands in AA flood or pond >= 5 out of 10 years	1H	.9H	.8H	.8H	.6M	.5M	.4M	.3L	.2L
Wetlands in AA flood or pond < 5 out of 10 years	.9H	.8H	.7M	.7M	.5M	.4M	.3L	.2L	.1L

Comments: Fifteen wetlands are included in this assessment, none of which are larger than 0.5 acre. Therefore, <1 acre foot chosen for amt. of water contained in wetlands. OR 1.1 to 5 feet makes it 0.6 M

14G. Sediment/Nutrient/Toxicant Retention and Removal: (Applies to wetlands with potential to receive sediments, nutrients, or toxicants through influx of surface or ground water or direct input. If no wetlands in the AA are subject to such input, NA and proceed to 14H.)

i. Rating (working from top to bottom, use the matrix below to arrive at [circle] the functional points and rating [H=high, M=moderate, or L=low])

Sediment, nutrient, and toxicant input levels within AA	AA receives or surrounding land use with potential to deliver levels of sediments, nutrients, or compounds at levels such that other functions are not substantially impaired. Minor sedimentation, sources of nutrients or toxicants, or signs of eutrophication present.				Waterbody on MDEQ list of waterbodies in need of TMDL development for "probable causes" related to sediment, nutrients, or toxicants or AA receives or surrounding land use with potential to deliver high levels of sediments, nutrients, or compounds such that other functions are substantially impaired. Major sedimentation, sources of nutrients or toxicants, or signs of eutrophication present.			
% cover of wetland vegetation in AA	>= 70%		< 70%		>= 70%		< 70%	
Evidence of flooding / ponding in AA	Yes	No	Yes	No	Yes	No	Yes	No
AA contains no or restricted outlet	1H	.8H	.7M	.5M	.5M	.4M	.3L	.2L
AA contains unrestricted outlet	.9H	.7M	.6M	.4M	.4M	.3L	.2L	.1L

Comments: These wetlands receive input from US 93.

14H Sediment/Shoreline Stabilization: (Applies only if AA occurs on or within the banks or a river, stream, or other natural or man-made drainage, or on the shoreline of a standing water body which is subject to wave action. If 14H does not apply, X NA and proceed to 14I.)

i. Rating (working from top to bottom, use the matrix below to arrive at [circle] the functional points and rating)

% Cover of wetland streambank or shoreline by species with stability ratings of >=6 (see Appendix F).	Duration of surface water adjacent to rooted vegetation		
	Permanent / Perennial	Seasonal / Intermittent	Temporary / Ephemeral
>= 65%	1H	.9H	.7M
35-64%	.7M	.6M	.5M
35%	.3L	.2L	.1L

Comments: .

14I. Production Export/Food Chain Support:

i. Level of Biological Activity (synthesis of wildlife and fish habitat ratings [circle])

General Fish Habitat Rating (14D.iii.)	General Wildlife Habitat Rating (14C.iii.)		
	E/H	M	L
E/H	H	H	M
M	H	M	M
L	M	M	L
N/A	H	M	L

ii. Rating (Working from top to bottom, use the matrix below to arrive at [circle] the functional points and rating. Factor A = acreage of vegetated wetland component in the AA; Factor B = level of biological activity rating from above (14I.i.); Factor C = whether or not the AA contains a surface or subsurface outlet; the final three rows pertain to duration of surface water in the AA, where P/P, S/I, and T/E are as previously defined, and A = "absent" [see instructions for further definitions of these terms].)

A	Vegetated component >5 acres						Vegetated component 1-5 acres						Vegetated component < 1 acre					
B	High		Moderate		Low		High		Moderate		Low		High		Moderate		Low	
C	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
P/P	1H	.7M	.8H	.5M	.6M	.4M	.9H	.6M	.7M	.4M	.5M	.3L	.8H	.6M	.6M	.4M	.3L	.2L
S/I	.9H	.6M	.7M	.4M	.5M	.3L	.8H	.5M	.6M	.3L	.4M	.2L	.7M	.5M	.5M	.3L	.3L	.2L
T/E/A	.8H	.5M	.6M	.3L	.4M	.2L	.7M	.4M	.5M	.2L	.3L	.1L	.6M	.4M	.4M	.2L	.2L	.1L

iii. Modified Rating (NOTE: Modified score cannot exceed 1 or be less than 0.1.) **Vegetated Upland Buffer (VUB):** Area with >= 30% plant cover, = 15% noxious weed or ANVS cover, and that is not subjected to periodic mechanical mowing or clearing (unless for weed control).

a) Is there an average >= 50 foot-wide vegetated upland buffer around >= 75% of the AA circumference?

X If yes, add 0.1 to the score in ii above.

iv. Final Score and Rating: 0.20L

Comments: Surface water likely present during spring run-off.

14J. Groundwater Discharge/Recharge: (check the appropriate indicators in i & ii below)

i. Discharge Indicators

- ☐ The AA is a slope wetland
- ☐ Springs or seeps are known or observed
- ☐ Vegetation growing during dormant season/drought
- ☒ Wetland occurs at the toe of a natural slope
- ☐ AA permanently flooded during drought periods
- ☐ Wetland contains an outlet, but no inlet
- ☐ Shallow water table and the site is saturated to the surface
- ☐ Other:

ii. Recharge Indicators

- ☐ Permeable substrate present without underlying impeding layer
- ☒ Wetland contains inlet but no outlet
- ☐ Stream is a known 'losing' stream; discharge volume decreases
- ☐ Other:

iii. Rating (use the information from i and ii above and the table below to arrive at [circle] the functional points and rating)

Criteria	Duration of saturation at AA Wetlands FROM GROUNDWATER DISCHARGE OR WITH WATER THAT IS RECHARGING THE GROUNDWATER SYSTEM			
	P/P	S/I	T	None
Groundwater Discharge or Recharge	1H	.7M	.4M	.1L
Insufficient Data/Information	N/A			

Comments: Wetlands likely seasonally intermittently saturated.

14K. Uniqueness:

i. Rating (working from top to bottom, use the matrix below to arrive at [circle] the functional points and rating)

Replacement potential	AA contains fen, bog, warm springs or mature (>80 yr-old) forested wetland or plant association listed as "S1" by the MTNHP			AA does not contain previously cited rare types and structural diversity (#13) is high or contains plant association listed as "S2" by the MTNHP			AA does not contain previously cited rare types or associations and structural diversity (#13) is low-moderate		
Estimated relative abundance (#11)	rare	common	abundant	rare	common	abundant	rare	common	abundant
Low disturbance at AA (#12i)	1H	.9H	.8H	.8H	.6M	.5M	.5M	.4M	.3L
Moderate disturbance at AA (#12i)	.9H	.8H	.7M	.7M	.5M	.4M	.4M	.3L	.2L
High disturbance at AA (#12i)	.8H	.7M	.6M	.6M	.4M	.3L	.3L	.2L	.1L

Comments: Not unique

14L. Recreation/Education Potential: (affords "bonus" points if AA provides recreation or education opportunity)

i. Is the AA a known or potential rec./ed. site: (circle) ____ (if 'Yes' continue with the evaluation; if 'No' then mark **X** **NA** and proceed to the overall summary and rating page)

ii. Check categories that apply to the AA: ____ Educational/scientific study; ____ Consumptive rec.; ____ Non-consumptive rec.;
____ Other :

iii. Rating:

Known or Potential Recreation or Education Area	Known	Potential
Public ownership or public easement with general public access (no permission required)	.2H	.15H
Private ownership with general public access (no permission required)	.15H	.1M
Private or public ownership without general public access, or requiring permission for public access	.1M	.05L

Comments: .

General Site Notes
These areas have potential to hold surface water.

FUNCTION & VALUE SUMMARY & OVERALL RATING FOR WETLAND/SITE #(S): WL-18

Function & Value Variables	Rating	Actual Functional Points	Possible Functional Points	Functional Units: (Actual Points x Wetland Acreage)	Indicate the four most prominent functions with an asterisk (*)
A. Listed/Proposed T&E Species Habitat	L	0.30	1	0.14	
B. MT Natural Heritage Program Species Habitat	L	0.00	1	0.00	
C. General Wildlife Habitat	L	0.20	1	0.10	
D. General Fish Habitat	NA				
E. Flood Attenuation	NA				*
F. Short and Long Term Surface Water Storage	L	0.30	1	0.14	*
G. Sediment/Nutrient/Toxicant Removal	H	1.00	1	0.48	*
H. Sediment/Shoreline Stabilization	NA				
I. Production Export/Food Chain Support	L	0.20	1	0.10	
J. Groundwater Discharge/Recharge	M	0.70	1	0.34	*
K. Uniqueness	L	0.20	1	0.10	
L. Recreation/Education Potential (bonus points)	NA				
Totals:		2.90	8.00		
Percent of Possible Score			36%		

Category I Wetland: (must satisfy one of the following criteria; otherwise go to Category II)

- ☐ Score of 1 functional point for Listed/Proposed Threatened or Endangered Species; **or**
☐ Score of 1 functional point for Uniqueness; **or**
☐ Score of 1 functional point for Flood Attenuation and answer to Question 14E.ii is "yes"; **or**
☐ Percent of possible score > 80% (round to nearest whole #).

Category II Wetland: (Criteria for Category I not satisfied and meets any one of the following criteria; otherwise go to Category IV)

- ☐ Score of 1 functional point for MT Natural Heritage Program Species Habitat; **or**
☐ Score of .9 or 1 functional point for General Wildlife Habitat; **or**
☐ Score of .9 or 1 functional point for General Fish Habitat; **or**
☐ "High" to "Exceptional" ratings for **both** General Wildlife Habitat **and** General Fish/Aquatic Habitat; **or**
☐ Score of .9 functional point for Uniqueness; **or**
☐ Percent of possible score > 65% (round to nearest whole #).

Category III Wetland: (Criteria for Categories I, II, or IV not satisfied)

Category IV Wetland: (Criteria for Categories I or II are not satisfied and all of the following criteria are met; otherwise go to Category III)

- ☒ "Low" rating for Uniqueness; **and**
☒ Vegetated wetland component 1 acre (do not include upland vegetated buffer); **and**
☐ Percent of possible score 35% (round to nearest whole #).

OVERALL ANALYSIS AREA RATING: III

Summary Comments: Good candidates for mitigation.