Montana Department of Transportation Wetland Mitigation Monitoring Report

US 93 PETERSON MITIGATION SITE

Project Overview

MDT Project # NH-5-2(122)31 UPN# 1744 Watershed: Watershed #3 – Lower Clark Fork

Monitoring Year: 2023

Years Monitored: 15th year of monitoring (3rd year after adaptive management actions in 2020)

Corps Permit Number: NWO-2005-90-185

Monitoring Conducted By: Confluence Consulting Inc Dates Monitoring Was Conducted: June 21-22, 2023

Purpose of the Approved Project:

US 93 Peterson is one of five mitigation sites developed in cooperation with the permitting and natural resources staff from the Confederated Salish and Kootenai Tribes (CSKT) of the Flathead Nation to mitigate for wetland impacts associated with eight segments of the US 93 Evaro-to-Polson highway reconstruction project by the Montana Department of Transportation (MDT). This report assesses the US 93 Peterson site, that due to adaptive management actions in 2020, has not met required mitigation goals and objectives as determined by the US Army Corps of Engineers (USACE) and the CSKT Shoreline Protection Program. The 2004 wetland mitigation plan provided wetland mitigation concepts, identified wetland community types targeted for establishment, and calculated the wetland mitigation credits expected to be obtained from each onsite mitigation area. At the US 93 Peterson site, MDT was to establish mitigation for wetland impacts regulated by the USACE and the CSKT. This site was to provide 1.31 acres of CSKT mitigation credit and 2.39 acres of Corps mitigation credit (See Table 1-2 in 2017 Monitoring Report https://www.mdt.mt.gov/publications/brochures//wetland-mitigation.aspx).

Site Location:

Latitude: 47.361717 Longitude: -114.099755

County: Lake County Nearest Town: St. Ignatius, MT

Map Included: Figure #1 on page 7.

Mitigation Site Construction Started: 2004 Construction Ended: 2007

Specific recommendations for any additional corrective actions: Repairs to the failing outfall and log crib structures installed in 2020. Weed management should continue.

Anticipated Wetland Credit Acres: USACE - 2.39, CSKT - 1.31

Wetland Credit Acres Generated to Date: USACE - 3.04, CSKT - 1.34

Previous Monitoring Reports:

https://www.mdt.mt.gov/publications/brochures/wetland-mitigation.aspx

<u>Requirements</u> (from approved mitigation plan, banking instrument, or US Army Corps of Engineers permit conditions)

Monitoring Period: 5 years from construction completion or until concurrence by the USACE.

Performance Standards*: 1) Construction of impoundments using 12 log crib structures and earthen berms, and 2) planting of shrubs and herbaceous plugs within the wetland fringe and earthen embankments associated with log crib structures. The target wetland type in the riparian area is palustrine scrub-shrub that supports a Bebb's willow community type with inclusions of palustrine emergent habitat. Grazing is excluded from the mitigation site to

preserve the riparian and wetland areas. Revegetation was completed in 2006, and recent adaptive management associated with crib repairs was completed in May 2020.

*Performance criteria were reviewed in 2022, and where necessary, corrected and/or removed to accurately reflect the original performance criteria agreed to in the mitigation plan and any amendments to the mitigation plan.

Summary Data

Wetland Delineation –Total wetland acreage delineated in 2023 was 3.51 acres, an increase of 0.04 acres from 2022. The dominant wetland type delineated at the site is palustrine emergent (PEM) with a developing palustrine scrub shrub (PSS) component comprised of willows (*Salix* spp.) and alders (*Alnus incana*) that provide approximately 10% canopy cover across the entire wetland area. The small slope wetlands in the north and south portions of the site are decreasing in size as hydrology appears to be decreasing over time (Table 1; Figure A-3, Appendix A). The increased wetland acreage delineated in 2023 is supported by lateral groundwater movement from the adjacent irrigated pasture west of the project site. Changes in wetland habitat at the site have not been supported as expected by the crib repairs in 2020 that were intended to spread water out across the site.

Table 1. Delineated Wetland Acreage from 2016-2017 and 2020-2023 at the US 93 Peterson Site.

Habitat Type (acres)	2016	2017	2020	2021	2022	2023
(PEM) Wetland	3.20	3.20	3.94	3.60	3.47	3.51

Vegetation – A total of 100 plant species have been identified at the site in the 15 years of monitoring, with five species documented at the site for the first time in 2023 (Appendix B; Table B-1).

Two upland type (UT) and four wetland type (WT) vegetation communities were identified and mapped at the site in 2023 (Figure A-3, Appendix A). Wetland type 2 (*Phalaris arundinacea / Carex spp.*), which was developed in 2021 to reflect the diversification of this community from a dominance of reed canary grass (*Phalaris arundinacea*) to a co-dominance with a variety of Carex spp., is present along the stream channel at the east and west ends of the site. Wetland type 8 (*Typha latifolia / Phalaris arundinacea*) is present along the stream channel in the central portion of the site. This WT contains the developing scrub shrub habitat at the site. In 2021, WT 13 (*Carex nebrascensis / Nasturtium officinale*) was created to replace WT 12 (*Carex nebrascensis / Poa pratensis*) and document the vegetation community in the slope wetland at the north end of the site. Wetland Type 12 has again been included at the site in 2023 to document the newly developed wetland area at the west boundary of the site. Much of the upland habitat at the site is mapped as UT 7 (*Elymus repens / Poa pratensis*), except for a natural berm in the northeast corner which is UT 10 (*Elymus repens / Sisymbrium altissimum*).

Species composition for each community type is provided in detail in the Wetland Mitigation Site Monitoring form (Appendix B). The vegetation community types identified within the site in 2023 include the following:

- Wetland Type 2 Phalaris arundinacea / Carex spp.
- Wetland Type 8 Typha latifolia / Phalaris arundinacea
- Wetland Type 12 Carex nebrascensis / Poa pratensis
- Wetland Type 13 Carex nebrascensis / Nasturtium officinale
- Upland Type 7 Elymus repens / Poa pratensis
- Upland Type 10 *Elymus repens / Sisymbrium altissimum*

Vegetation cover was estimated along two belt transects (T-1 and T-2) in 2023 (Figure A-2, Appendix A). Photographs of the transect end points are provided in Appendix C. Data for T-1

are summarized in Table 2. T-1 is 144 feet long and intersects UT 7 – *Elymus repens / Poa pratensis* and WT 8 – *Typha latifolia / Phalaris arundinacea*. Consistent with observations in 2022, 83.3 percent of the transect crossed wetland habitat and 16.7% crossed upland. The number of hydrophytic species increased from 14 to 16, and the total number of species documented along the belt transect has increased from 23 to 25. Total vegetative cover remains unchanged at 95 percent.

Table 2. Data Summary for T-1 From 2016 - 2017 and 2021 - 2023 at the US 93 N Peterson Site.

Monitoring Year	2016	2017	2021	2022	2023
Transect Length (feet)	144	144	144	144	144
Vegetation Community Transitions along Transect	2	2	2	2	2
Vegetation Communities along Transect	2	2	2	2	2
Hydrophytic Vegetation Communities along Transect	1	1	1	1	1
Total Vegetative Species	15	14	17	23	25
Total Hydrophytic Species	12	7	13	14	16
Total Upland Species	3	7	4	9	9
Estimated % Total Vegetative Cover	96	95	95	95	95
Estimated % Unvegetated	4	5	5	5	5
% Transect Length Comprising Hydrophytic Vegetation Communities	73.6	85.4	86.8	83.3	83.3
% Transect Length Comprising Upland Vegetation Communities	26.4	14.6	13.2	16.7	16.7
% Transect Length Comprising Unvegetated Open Water	0	0	0	0	0
% Transect Length Comprising Mudflat	0	0	0	0	0

Data collected on T-2 (Wetland Mitigation Site Monitoring form, Appendix B) are summarized in Table 3. T-2 is 325 feet long and intersects UT 7 – *Elymus repens / Poa pratensis* and WT 8 – *Typha latifolia / Phalaris arundinacea*. Consistent with observations in 2022, 78.5 percent of the transect crossed wetland habitat and 21.5% crossed upland. The number of hydrophytic species increased from 18 to 19, and the total number of species observed along the transect has increased from 28 to 30. Total vegetative cover remains unchanged at 95 percent.

Table 3. Data Summary for T-2 From 2016 - 2017 and 2021 - 2023 at the US 93 N Peterson Site.

Monitoring Year	2016	2017	2021	2022	2023
Transect Length (feet)	325	325	325	325	325
Vegetation Community Transitions along Transect	3	3	3	1	1
Vegetation Communities along Transect	2	2	2	2	2
Hydrophytic Vegetation Communities along Transect	1	1	1	1	1
Total Vegetative Species	18	17	17	28	30
Total Hydrophytic Species	14	6	12	18	19
Total Upland Species	4	11	5	10	11
Estimated % Total Vegetative Cover	93	95	95	95	95
Estimated % Unvegetated	7	5	5	5	5
% Transect Length Comprising Hydrophytic Vegetation Communities	67.7	72.0	72.0	78.5	78.5
% Transect Length Comprising Upland Vegetation Communities	32.3	28.0	28.0	21.5	21.5
% Transect Length Comprising Unvegetated Open Water	0	0	0	0	0
% Transect Length Comprising Mudflat	0	0	0	0	0

Infestations of state-listed Priority 2A and 2B noxious weeds were mapped across the US 93 Peterson site in 2023, and have increased from 2022 (Figure A-3, Appendix A). Infestations are assigned a cover class (Trace = <1%; Low = 1-5%; Moderate – 6-25%; High = 26-50%) assessed at a 0.1-acre area. Ventenata (*Ventenata dubia*) was first observed in the north central portion of the site in 2020 at a low cover class. In 2023, the number of occurrences has increased, ranging from low to moderate. Pale-yellow iris (*Iris pseudacorus*) has spread within WT 8 and is gradually increasing in density over time. Whitetop (*Lepidium draba*) occurrences are most prevalent and range from trace to high in the upland areas with the densest infestations existing in the southwest corner of the mitigation site. Canada thistle (*Cirsium arvense*), Gypsy-flower (*Cynoglossum officinale*), and ox-eye daisy (*Leucanthemum vulgare*) are primarily observed within the wetland and along the wetland boundary with infestations ranging from trace to high.

Hydrology – The main source of hydrology at the Peterson site is an unnamed perennial tributary of Post Creek that flows east to west. The mitigation site is located within a ¼-mile-long wetland corridor aligned east to west that follows the topographic gradient toward Post Creek. The project area is exposed to seasonal flooding during spring runoff, seasonally high groundwater, and sustained flows during summer from irrigation returns. Additionally, small seeps occur north and south of the tributary at the toe of slope. These two wetlands were observed to recede in 2022 and continued to do so in 2023. Immediately east of US 93 and the Peterson site is a small reservoir located on private land. The landowner manipulates the channel flows from this reservoir that supply hydrology to the mitigation site. Lake County has experienced a string of drought years (abnormally dry to extreme drought) over the growing season since 2021 (NDMC 2023). Additionally, water levels in the channel appeared lower than observed in 2022 with the estimated water depth ranging from 0-18 inches. This is a decrease of 6 inches from the previous year. Example photographs of the typical water level observed in the channel are included in Appendix C.

In May 2020, three log crib structures (i.e., log dams 1, 1A, 2, and 6) and earthen berms were installed, repaired, and replaced to improve water impoundment and increase wetland establishment across the site. In 2023, water was flowing under and not over each of the three crib structures, indicating failure. These structures will require repairs to function as intended.

Soils – The assessment area is mapped as Colake silt loam and Ronan silty clay loam by the National Resource Conservation Service (NRCS). Paired soil test plots, one upland plot paired with one wetland plot, were excavated at 5 locations (Figure A-2, Appendix A). The hydric soil indicators redox dark surface, depleted below dark surface, and hydrogen sulfide were observed in wetland test plots. Wetland soil textures ranged from loam to clay to mucky peat, and a restrictive hardpan layer was encountered around 11-12 inches in many upland and wetland soil plots. No hydric soil indicators were observed in the upland soil plots.

Photographs – Photographs were taken at photo points 1–8, transect endpoints, and data points. These, as well as additional site photos of the repaired cribs and outflow structures, are provided in Appendix C with comparisons to the first year of monitoring. MDT added photo point 8 in 2020 to monitor the newly installed Log Crib 1A. Please refer to past monitoring reports for the US93 sites containing all previous annual photographs at this weblink: https://www.mdt.mt.gov/publications/brochures/wetland-mitigation.aspx

Functional Assessment – The 2023 results of the functional assessment utilizing the 2008 version of the Montana Wetland Assessment (MWAM) are summarized in Table 4. Prior to 2021, the 1999 version of the MWAM form was utilized to determine functions and values. In 2020, because of the adaptive management actions, the 2008 MWAM version was implemented at the behest of the Corps. Changes in functional points scored between past years and from 2021 forward may be related to substantial updates between the two different MWAM versions

and are not necessarily representative of altered function. Comparisons across 2021, 2022, and 2023 are more representative of functionality. The 2023 completed MWAM form for the US 93 Peterson site is provided in Appendix B. Overall, the site rates as a Category II wetland and has generated 27.56 Functional Units. Due to observations of minnows in the channel in 2021 and 2022, fish habitat, which was previously rated as N/A, has been included in the MWAM since 2020. Expected wetland mitigation credits are shown in Table 5.

Table 4. Montana Wetland Assessment Method Summary for the US 93 N Peterson Site.

Function and Value Parameters from the MDT Montana Wetland Assessment Method (2008)	2004 (Baseline) (AA-1)*	2017 (AA-1)*	2021 (AA-1)	2022 (AA-1)	2023 (AA-1)
Listed/Proposed T&E Species Habitat	Low (0.3)	High (0.8)	High (0.8)	High (0.8)	High (0.8)
MTNHP Species Habitat	Low (0.1)	Low (0.1)	Low (0.1)	Low (0.1)	Low (0.1)
General Wildlife Habitat	Low (0.5)	High (0.9)	High (0.9)	High (0.9)	High (0.9)
General Fish/Aquatic Habitat	Low (0.1)	NA	Low (0.3)	Low (0.3)	Low (0.3)
Flood Attenuation	Low (0.2)	High (0.8)	Mod (0.6)	Mod (0.6)	Mod (0.6)
Short and Long Term Surface Water Storage	Mod (0.4)	High (0.8)	High (0.8)	High (0.8)	High (0.8)
Sediment/Nutrient/Toxicant Removal	High (0.9)	High (1.0)	High (1)	High (1)	High (1)
Sediment/Shoreline Stabilization	High (0.7)	High (1.0)	High (1)	High (1)	High (1)
Production Export/Food Chain Support	High (0.8)	High (0.8)	High (0.8)	High (0.8)	High (0.8)
Groundwater Discharge/Recharge	High (1.0)	High (1.0)	High (1)	High (1)	High (1)
Uniqueness	Low (0.2)	Mod (0.4)	Mod (0.4)	Mod (0.4)	Mod (0.4)
Recreation/Education Potential (Bonus Points)	Low (0.1)	High (1.0)	High (0.15)	High (0.15)	High (0.15)
Actual Points / Possible Points	5.3/12	8.6/11	7.85/11	7.85/11	7.85/11
% of Possible Score Achieved	44%	78%	71%	71%	71%
Overall Category	III	II	II	II	II

^{*1999} MWAM form. 2008 MWAM first utilized at US 93 N Peterson in 2021.

Wildlife – Eight bird species were identified at the site in 2023. Bird behavior observed included foraging, nesting, loafing, and flying over. Additional wildlife directly observed at the site includes leeches and crayfish in the stream channel. Further evidence of wildlife use includes observations of tracks, scat, bedding, and bird nests. Woody vegetation provides important usable habitat for wildlife and birds.

Credit Summary – Wetland acreage totaled 3.51-acres and has generated 23.84 Functional Units in 2023. This is a slight increase of 0.31 acres from 2022. Based on the 3.51 acres of delineated wetlands using the USACE credit ratios for creation and rehabilitation/secondary restoration, the site is currently receiving 3.04 USACE credit acres and 1.34 CSKT credit acres. Table 5 summarizes the estimated wetland credits based on USACE-approved credit ratios and the wetland delineation completed in June 2023. Credit acres calculated in 2023 exceed anticipated credit acres for both the USACE and CSKT.

Table 5. Expected USACE Functional Credits for US 93 Peterson Site for 2023.

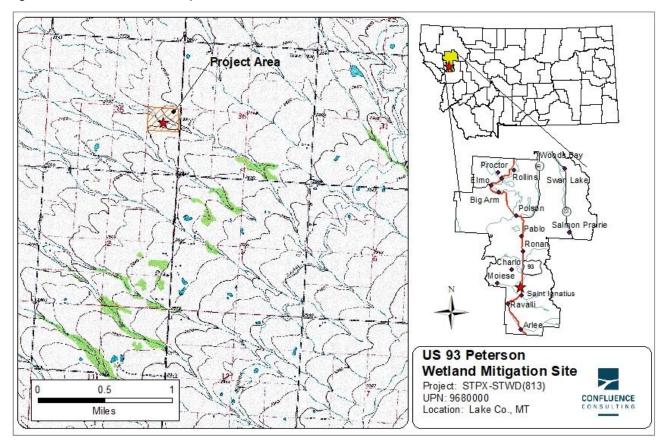
Compensatory Mitigation Type	2023 Delineated Acres	Mitigatio	Mitigation Ratio 2023 Wetland Mitigation Credit Acres		MWAM Actual Points	2023 Functional Credits Generated	
		USACE	CSKT	USACE	CSKT		
Creation	2.26	1:1	3.36:1	2.26	0.67	7.85	17.74
Rehabilitation/Secondary Restoration	1.25	1.61:1*	1.86:1	0.78	0.67	7.85	6.09
(Wetland Mitigation Credit Acres** X MWAM Actual Points						23.84	

^{*}Corrected enhancement ratio implemented in 2014.

^{**}Functional Credits are calculated based on the USACE Mitigation Credit Acres and do not include CSKT Credit Acres.

Maps, Plans, Photos

Figure # 1: Site Location Map



Project Area Maps/Figures: See Appendix A (Figure 2 – Monitoring Activity Locations, Figure 3 – Mapped Site Features and Figure 4 – Wetland Delineation).

Data Forms: See Appendix B (Site Monitoring form, USACE data forms, and MWAM forms).

Tables: See Appendix B (Comprehensive Vegetation Species List, Table B-1).

Photos: See Appendix C.

Plans: See Appendix D of 2020 US 93 N Peterson Wetland Monitoring Report found at this

website: https://www.mdt.mt.gov/publications/brochures/wetland-mitigation.aspx

Conclusions

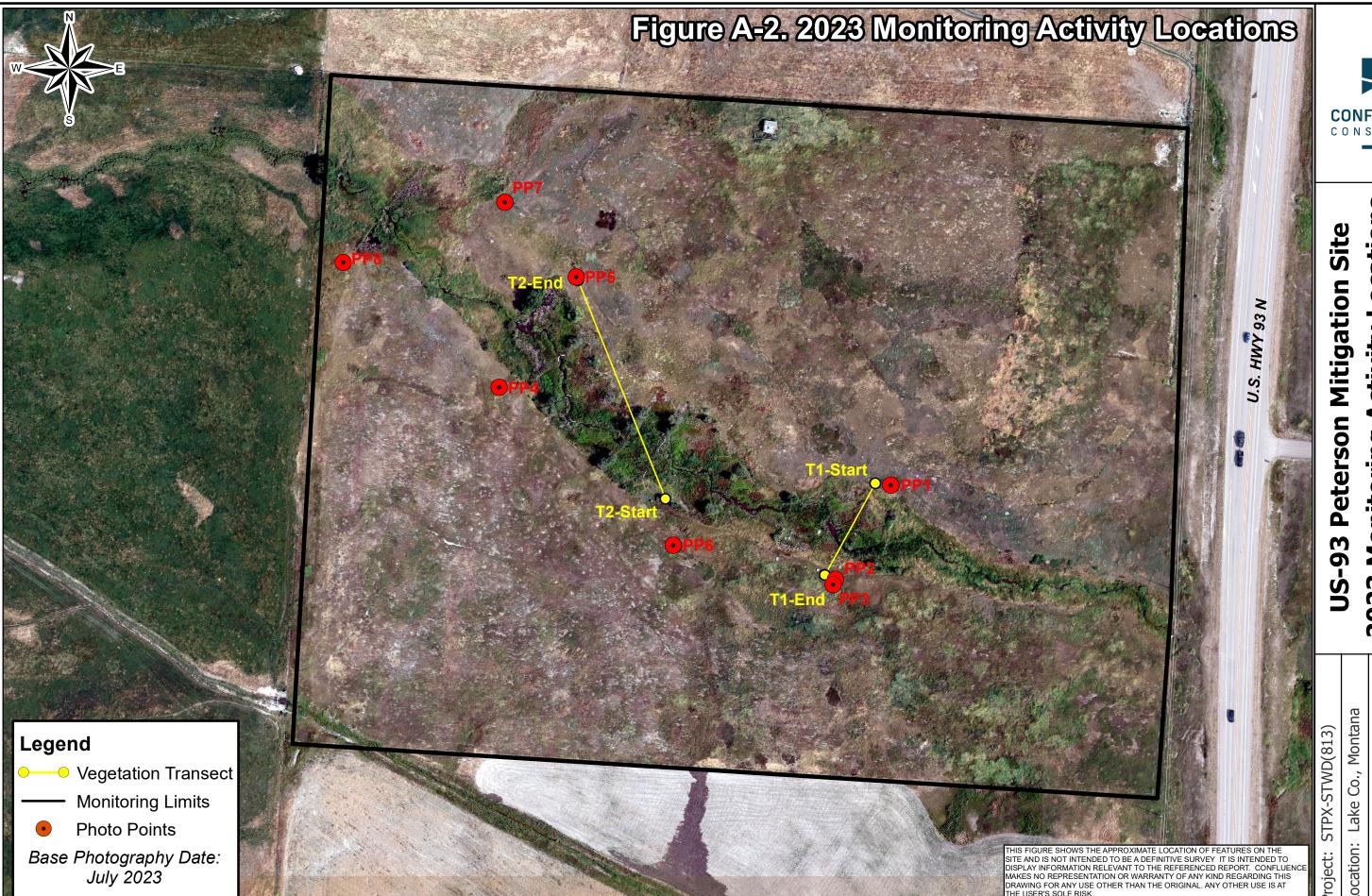
Based on the results of the fifteenth year of monitoring, the mitigation site has developed into a diverse emergent wetland with a scrub shrub component. The site is meeting the following performance standards in 2023: the construction of 12 log crib structures and earthen berms and the planting of shrubs and herbaceous plugs within the wetland fringe. However, the site has not developed into the target Bebb's Willow habitat type. At the 2023 site visit, none of the three crib structures installed in May 2020 were functioning as intended. These structures require repair to operate effectively and expand wetland habitat. The slope wetlands north and south of the main channel have continued to recede. However, this decrease in wetland acreage was offset in 2023 by the newly activated wetland at the west project boundary where adjacent irrigation is spreading groundwater laterally and supplying wetland development at the site, resulting in a net increase of wetland acreage. Both the USACE and CSKT mitigation credits outlined in the 2008 mitigation plan have been reached and exceeded.

References

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- Natural Resources Conservation Service (NRCS). 2018. Field Indicators of Hydric Soils in the United States, Version 8.2. L.M. Vasilas, G.W. Hurt, and J.F. Berkowitz (eds.). USDA, NRCS, in cooperation with the National Technical Committee for Hydric Soils. 55 p.
- **U.S. Army Corps of Engineers (USACE).** 2005. *Montana Mitigation Information*. Accessed on 10 October 2016 at http://www.nwo.usace.army.mil/Missions/Regulatory-Program/Montana/Mitigation/
- U.S. Army Corps of Engineers (USACE). 2010. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coasts Region (Version 2.0), prepared by U.S. Army Corps of Engineers, U.S. Army Engineer Research and Development Center, Environmental Laboratory, Vicksburg, MS.
- U.S. Army Corps of Engineers (USACE). 2020. National Wetland Plant List (Version 3.5), prepared by U.S. Army Corps of Engineers, U.S. Army Engineer Research and Development Center, Cold Regions Research and Engineering Laboratory, Hanover, NH.

APPENDIX A PROJECT AREA MAPS

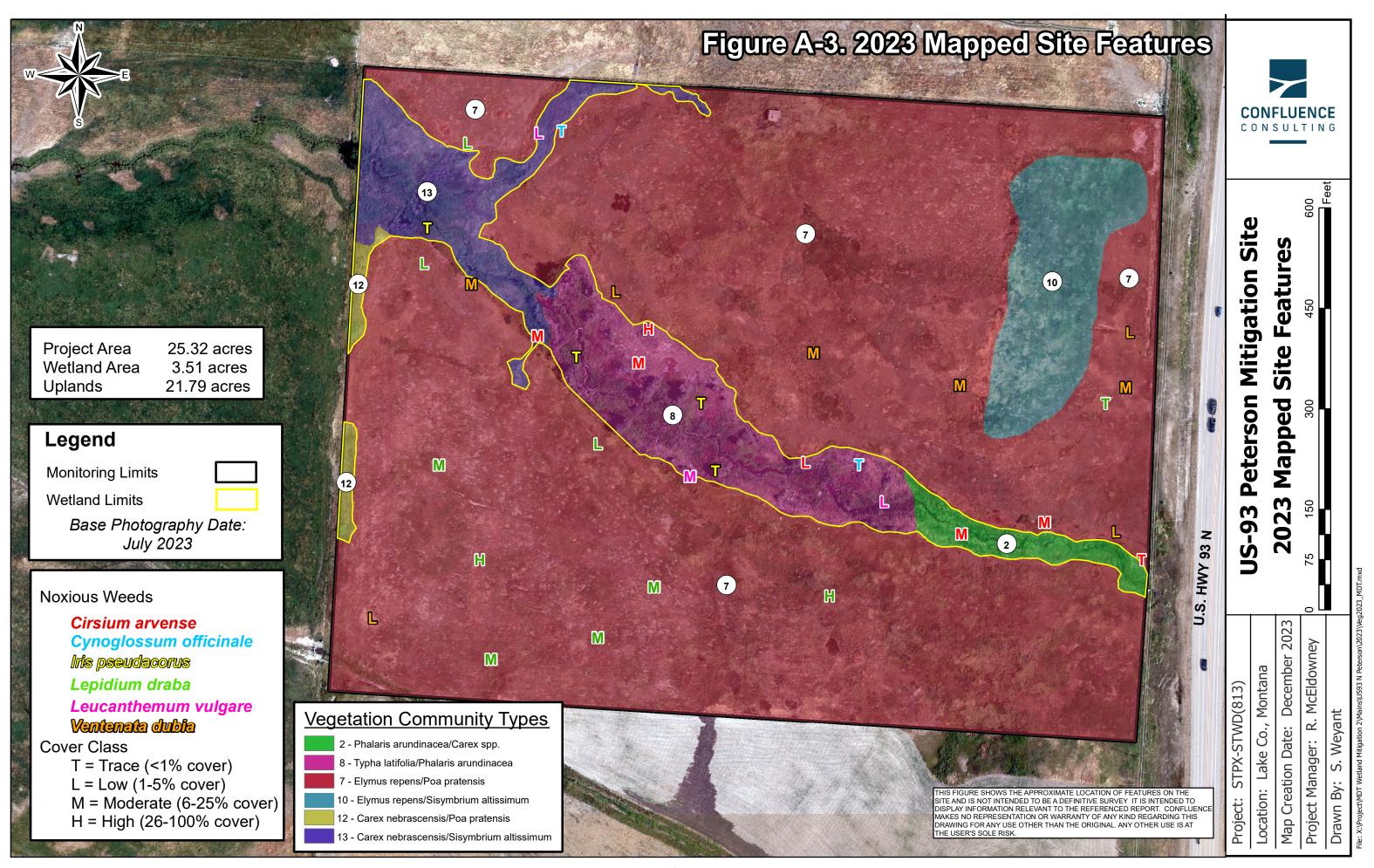
MDT Wetland Mitigation Monitoring US 93 Peterson Lake County, Montana

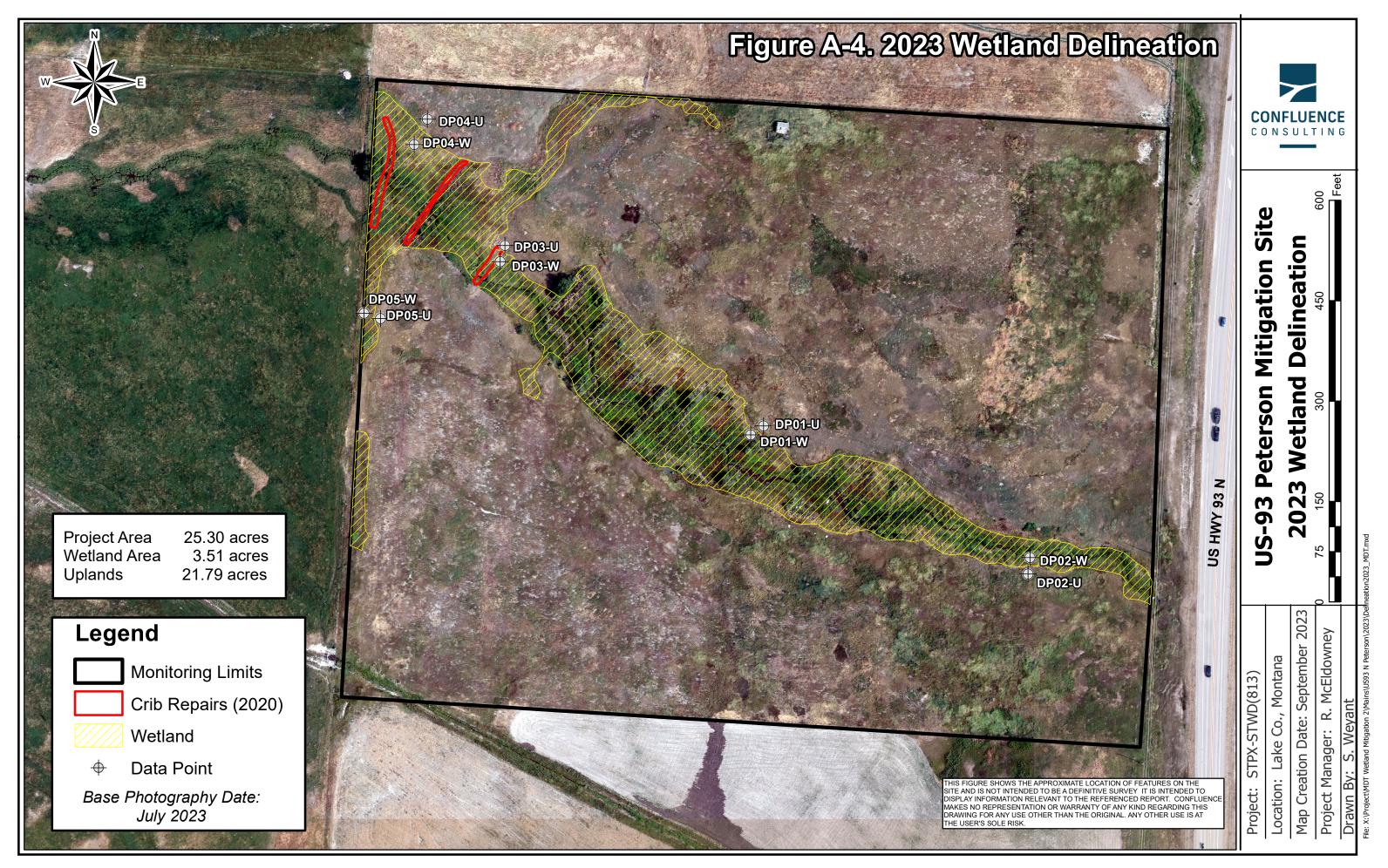




Activity Locations Monitoring 2023

A-1





APPENDIX B MONITORING FORMS

MDT Wetland Mitigation Monitoring US 93 Peterson Lake County, Montana

MDT WETLAND MITIGATION SITE MONITORING FORM

Project Site: <u>US 93 Peterson</u> Assessment Date/Time	6/21/2023
Person(s) conducting the assessment: S Weyant	
Weather: Clearly, partly cloudy, 75 degrees Location: St. Ignatius	
MDT District: Missoula Milepost: 35.5	
Legal Description: T <u>19N</u> R <u>20W</u> Section(s) <u>35</u>	
Initial Evaluation Date: 8/15/2008 Monitoring Year: 15 #Visits in Year: 1	
Size of Evaluation Area: 25 (acres)	
Land use surrounding wetland:	
Residential & agriculture.	
HYDROLOGY	
Surface Water Source: Unnamed tributary to Post Creek; irrigation ditch diversion.	
nundation: Average Depth: 0.25 (ft) Range of Depths: 0-18 (ft)	
Percent of assessment area under inundation: 15 %	
Depth at emergent vegetation-open water boundary:0 (ft)	
f assessment area is not inundated then are the soils saturated within 12 inches of surface: Ye	es
Other evidence of hydrology on the site (ex. – drift lines, erosion, stained vegetation, etc <u>:</u>	
Surface water, high water table, saturation, surface soil cracks, inundation visible on aerial	
imagery, hydrogen sulfide odor, geomorphic position, and a positive fac-neutral test.	
- · · · · · · · · · · · · · · · · · · ·	<u> </u>
Groundwater Monitoring Wells	
Record depth of water surface below ground surface, in feet.	
dditional Activities Checklist:	
Map emergent vegetation-open water boundary on aerial photograph.	
Observe extent of surface water during each site visit and look for evidence of past surface water	
levations (drift lines, erosion, vegetation staining, etc.)	
Use GPS to survey groundwater monitoring well locations, if present.	
lydrology Notes:	
ake County, MT has experienced a string of drought conditions (abnormally dry to extreme drought) through the growing season since 2021. Hydrology to the slope wetlands appears to be decreasing and the wetland boundary in these areas has receded.	е

VEGETATION COMMUNITIES

Site US 93 Peterson

(Cover Class Codes 0 = < 1%, 1 = 1.5%, 2 = 6.10%, 3 = 11.20%, 4 = 21.50%, 5 = >50%)

Community # 2 Community Type: Phalaris arundinacea / Carex spp. Acres: 0.38

Species	Cover class	Species	Cover class
Alnus incana	1	Brassica juncea	2
Carex aquatilis	1	Carex lasiocarpa	1
Carex nebrascensis	1	Carex pachystachya	1
Carex pellita	2	Carex stipata	2
Cirsium arvense	0	Dipsacus fullonum	2
Eleocharis palustris	1	Epilobium ciliatum	2
Glyceria grandis	0	Juncus balticus	0
Juncus ensifolius	1	Juncus tenuis	1
Nasturtium officinale	2	Phalaris arundinacea	4
Poa palustris	0	Rosa woodsii	1
Schoenoplectus acutus	1	Scirpus microcarpus	1
Solanum dulcamara	2	Typha latifolia	3
-			

Comments:

Wetland community type created in 2021 to represent the diversifying wetland areas mapped as the Phalaris arundinacea community. This WC is observed along the stream channel at the west and east ends of the mitigation site. Cover by Typha latifolia in 2023 has decreased at the upstream end of the mitigation site where inundation has also decreased in association with the failure of the crib structures to retain water.

Community # 7 Community Type: Elymus repens / Poa pratensis Acres: 20.46

Species	Cover class	Species	Cover class
Bare Ground	1	Brassica juncea	2
Bromus inermis	2	Bromus tectorum	1
Carex nebrascensis	2	Cirsium arvense	0
Dipsacus fullonum	1	Elymus repens	4
Elymus trachycaulus	0	Gallium aperine	0
Juncus balticus	0	Lactuca serriola	0
Lepidium campestre	1	Lepidium draba	1
Lepidium perfoliatum	2	Mentha arvensis	0
Pascopyrum smithii	2	Phalaris arundinacea	0
Poa pratensis	4	Rosa woodsii	0
Sisymbrium altissimum	1	Sonchus arvensis	1
Thlaspi arvense	0	Ventenata dubia	2

Comments:

Upland type surrounding the wetland assessment area. Ventenata dubia is increasing and spreading across the site within this community, particularly in disturbed and drier areas that appear to have been previously sprayed with herbicide.

Community # 8 Community Type: Typha latifolia / Phalaris arundinacea Acres: 1.77

Species	Cover class	Species	Cover class
Alnus incana	2	Bare Ground	0
Brassica juncea	2	Carex aquatilis	1
Carex nebrascensis	2	Carex stipata	0
Carex utriculata	2	Cirsium arvense	0
Cirsium vulgare	0	Cornus alba	1
Cynoglossum officinale	0	Dipsacus fullonum	1
Elymus repens	0	Epilobium ciliatum	2
Geum macrophyllum	2	Glyceria grandis	0
Hesperis matronalis	0	Iris pseudacorus	0
Lemna minor	0	Leucanthemum vulgare	1
Mentha arvensis	1	Myosotis laxa	2
Nasturtium microphyllum	2	Nasturtium officinale	3
Nepeta cataria	1	Open Water	0
Persicaria amphibia	1	Phalaris arundinacea	4
Poa palustris	1	Poa pratensis	1
Rosa woodsii	1	Salix exigua	1
Sisymbrium altissimum	0	Solanum dulcamara	2
Sonchus arvensis	0	Thlaspi arvense	2
Typha latifolia	3	Veronica americana	0
Commonts:			

Comments:

Wetland type present along the stream channel in the central portion of the mitigation site. The density of cattail stands were observed to have decreased in 2023.

Community # 10 Community Type: Elymus repens / Sisymbrium altissimum Acres: 1.35

Species	Cover class	Species	Cover class	
Brassica juncea	1	Bromus inermis	1	
Cirsium vulgare	0	Elymus repens	5	
Lepidium perfoliatum	2	Sisymbrium altissimum	4	
Thlaspi arvense	0			

Comments:

Upland community type in northeast quandrant of site.

Community #	<u>12</u>	Community Type:	Carex nebrascensis / Poa pratensis	Acres:	<u>0.16</u>

Species	Cover class	Species	Cover class
Brassica juncea	2	Carex nebrascensis	5
Carex stipata	1	Elymus repens	2
Glyceria grandis	1	Juncus tenuis	1
Pascopyrum smithii	1	Poa palustris	1
Poa pratensis	3	Typha latifolia	1
Comments:			

WT replaced in 2021 with WT 13. This community is now present along the west boundary of the mitigation site where irrigation in the adjacent pasture is overflowing to support wetland development on the hillside.

Community # 13 Community Type: Carex nebrascensis / Nasturtium officinale Acres: 1.2

Species	Cover class	Species	Cover class
Alyssum alyssoides	1	Brassica juncea	3
Carduus nutans	0	Carex nebrascensis	5
Carex stipata	1	Cynoglossum officinale	1
Dipsacus fullonum	1	Elymus repens	0
Gallium aperine	1	Glyceria grandis	0
Lactuca serriola	1	Lepidium draba	1
Leucanthemum vulgare	1	Nasturtium officinale	3
Pascopyrum smithii	0	Phalaris arundinacea	2
Poa pratensis	2	Sisymbrium altissimum	1
Thlaspi arvense	2	Typha latifolia	1

Comments:

Wetland type 13 was created in 2021 to represent the vegetation community in the slope wetland at the north portion of the site previously mapped as WT 12. This area has a large component of weedy, annual species rated UPL and FACU that are spreading throughout.

Total Vegetation Community Acreage

25.32

VEGETATION TRANSECTS

Intomial Data			ss Direction from Star	
Interval Data: Ending Station	13	Community Type:	Elymus repens / Poa pratens	is
Species		Cover class	Species	Cover cla
Bare Ground		2	Brassica juncea	
Dipsacus fullonum		1	Elymus repens	
Gallium aperine		1	Pascopyrum smithii	
Poa pratensis		2	Ventenata dubia	
Ending Station	133	Community Type:	Typha latifolia / Phalaris arun	dinacea
Species		Cover class	Species	Cover cla
Alnus incana		0	Bare Ground	
Brassica juncea		4	Carex nebrascensis	
Carex stipata		1	Carex utriculata	
Cynoglossum officinale		0	Dipsacus fullonum	
Epilobium ciliatum		2	Geum macrophyllum	
Hesperis matronalis		1	Myosotis laxa	
Nasturtium microphyllum		2	Open Water	
Phalaris arundinacea		3	Poa pratensis	
Rosa woodsii		0	Sisymbrium altissimum	
Solanum dulcamara		1	Thlaspi arvense	
Typha latifolia		2	Veronica americana	
Ending Station	144	Community Type:	Elymus repens / Poa pratens	is
Species		Cover class	Species	Cover cla
Elymus trachycaulus		3	Lactuca serriola	
Poa pratensis		4	Thlaspi arvense	

Transect Notes:

The wetland vegetation community (WC 8) is dominated by weedy, annual species (field pennycress, brown mustard) in the wetland areas away from the active channel.

340 **Compass Direction from Start:** Transect Number: **Interval Data: Ending Station** Typha latifolia / Phalaris arundinacea 255 Community Type: **Species Cover class Cover class Species** Alnus incana 1 Brassica juncea 3 Carex nebrascensis 1 Cirsium arvense 0 2 0 Dipsacus fullonum Elymus repens Epilobium ciliatum 3 2 Geum macrophyllum Glyceria grandis 0 Iris pseudacorus 0 Leucanthemum vulgare 1 Mentha arvensis 0 3 Nasturtium officinale 3 Myosotis laxa Nepeta cataria 0 Persicaria amphibia 0 Phalaris arundinacea 0 Poa palustris 0 Rosa woodsii 0 Solanum dulcamara 1 Sonchus arvensis 1 Thlaspi arvense 2 Typha latifolia 3 Veronica americana **Ending Station** 325 Community Type: Elymus repens / Poa pratensis **Cover class Species Cover class Species** Bare Ground Bromus tectorum 0 0 Carex nebrascensis 0 Lactuca serriola Pascopyrum smithii 3 Poa pratensis 5

Thlaspi arvense

1

Transect Notes:

Ventenata dubia

Sisymbrium altissimum

Transect spans channel in WT 8.

PLANTED WOODY VEGETATION SURVIVAL

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Planting Type	#Planted	#Alive Notes
Alnus incana	1163	
Betula occidentalis	817	
Cornus alba	408	
Crataegus douglasii		
Ribes hudsonianum	245	
Rosa woodsii	450	
Salix exigua	408	

Comments

No planted woody vegetation survival was assessed during 2020-2023 monitoring events. Woody plants were evaluated based on ocular observation. Alnus incana has the highest woody plant density, but appears stunted (thin foliage, bare branches, some basal regrowth). Rosa woodsii and Cornus alba are present along the wetland/upland boundary, and Salix exigua plantings and volunteers are observed in WT 8. Overall, woody vegetation provides important wildlife habitat and structural diversity at this site.

US 93 Peterson

WILDLIFE

Birds

Were man-made nesting structures installed?	No
If yes, type of structure:	
How many?	
Are the nesting structures being used?	No
Do the nesting structures need repairs?	No
Nesting Structure Comments:	

Species	#Observed	Behavior	Habitat
American Crow	1	FO	
Common Yellowthroat	3	L, FO	
European Starling	25	FO	
Mourning Dove	1	L	
Red-tailed Hawk	1	FO	
Red-winged Blackbird	15	FO, L, F	
Ring-billed Gull	5	FO	
Turkey Vulture	7	FO	
Bird Comments			
Observed owl pellets, fe	athers, and bird	ls nests in shrub	S.

BEHAVIOR CODES

BP = One of a breeding pair **BD** = Breeding display **F** = Foraging **FO** = Flyover **L** = Loafing **N** = Nesting

HABITAT CODES

AB = Aquatic bed **SS** = Scrub/Shrub **FO** = Forested **UP** = Upland buffer **I** = Island

WM = Wet meadow MA = Marsh US = Unconsolidated shore MF = Mud Flat OW = Open Water

Mammals and Herptiles

Species	# Observed	Tracks	Scat I	Burrows	Comments
Crayfish	4	No	No	No	Unidentified crayfish observed in channel.
Leech	2	No	No	No	Unidentified leech sp. observed in channel

Wildlife Comments:

Sightings, tracks, and scat indicate wildlife presence. Minnows observed in channel in 2021 and 2022.

PHOTOGRAPHS

Take photographs of the following permanent reference points listed in the check list below. Record the direction of the photograph using a compass. When at the site for the first time, establish a permanent reference point by setting a ½ inch rebar or fencepost extending 2-3 feet above ground. Survey the location with a resource grade GPS and mark the location on the aerial photograph.

Photograph Checklist:

✓	One photograph for each of the four cardinal directions surrounding the wetland.
	At least one photograph showing upland use surrounding the wetland. If more than one upland
exists	then take additional photographs.
	At least one photograph showing the buffer surrounding the wetland.
✓	One photograph from each end of the vegetation transect, showing the transect.

One photograph from each end of the vegetation transect, showing the transect.

Photo #	Latitude	Longitude	Bearing	Description
DP01u	47.361646	-114.099637		Upland data point
DP01w	47.361606	-114.099712		Wetland data point
DP02u	47.361104	-114.097994		Upland data point
DP02w	47.361171	-114.097988		Wetland data point
DP03u	47.362321	-114.101259		Upland data point
DP03w	47.362254	-114.101282		Wetland data point
DP04u	47.36282	-114.101771		Upland data point
DP04w	47.362713	-114.101841		Wetland data point
DP05u	47.361993	-114.101981		Upland data point
DP05w	47.362011	-114.102083		Wetland data point
PP1	47.361538	-114.098828	175	Photo point 1: Photo 1.
PP2-1	47.361169	-114.099105	35	Photo point 2: Photo 1.
PP2-2	47.361169	-114.099105	110	Photo point 2: Photo 2.
PP3	47.36115	-114.099117	45	Photo point 3.
PP4	47.361821	-114.101036	30	Photo point 4.
PP5	47.362254	-114.100645	175	Photo point 5.
PP6	47.361263	-114.100017	315	Photo point 6.
PP7-1	47.362521	-114.101066	5	Photo point 7: Photo 1.
PP7-2	47.362521	-114.101066	267	Photo point 7: Photo 2.
PP8	47.362257	-114.101944	34	Photo point 8.
T1-End	47.361169	-114.099105	45	Photo point 2. T-1 End.
T1-Start	47.361538	-114.098828	215	Photo point 1. T-1 Start.
T2-End	47.362242	-114.100633	315	Photo point 5. T-2 End.
T2-Start	47.361435	-114.100076	135	Transect 2 start.

Comments:

ADDITIONAL ITEMS CHECKLIST

	Hydrology
✓ ✓ lines	Map emergent vegetation/open water boundary on aerial photos. Observe extent of surface water. Look for evidence of past surface water elevations (e.g. drift s, vegetation staining, erosion, etc).
	Photos
	One photo from the wetland toward each of the four cardinal directions One photo showing upland use surrounding the wetland. One photo showing the buffer around the wetland One photo from each end of each vegetation transect, toward the transect
	Vegetation
∠ M	ap vegetation community boundaries
✓ C	omplete Vegetation Transects
	Soils
✓ A	ssess soils
	Wetland Delineations
√ Sunr	Delineate wetlands according to applicable USACE protocol (1987 form or plement)
oup _t ✓	Delineate wetland – upland boundary onto aerial photograph.
Wetl	and Delineation Comments
V	Vetland acreage increased 0.04-acres in 2023 to a total delineated acreage of 3.51-acres.
	Functional Assessments
✓ form:	Complete and attach full MDT Montana Wetland Assessment Method field s.
Fund	ctional Assessment Comments:
Т	he Assessment Area (AA) is rated as a Category II Wetland.

Maintenance

Were man-made nesting structure installed at this site? No

If yes, do they need to be repaired?

If yes, describe the problems below and indicate if any actions were taken to remedy the problems

Were man-made structures built or installed to impound water or control water flow

into or out of the wetland? Yes

If yes, are the structures in need of repair? Yes

If yes, describe the problems below.

The second wire from the top of fence at the entry gate has again been cut and needs repair. Crib repairs in 2020 are failing - water in the channel was observed flowing under, rather than over the cribs. Undercutting was observed at two structures.

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

Project/Site: US93 N Peterson	(City/Co	ounty: L	ake Co	unty	Sampling	Date: 202	23-06-21
Applicant/Owner: MDT		-	-		State: Montana			
Investigator(s): S Weyant	;	Section	n, Town	nship, Rar	nge: S35 T19N R20W	<i>I</i>		
Landform (hillslope, terrace, etc.): Valley Floor							Slope (%): <u>10</u>
Subregion (LRR): E 44	Lat: 47.	36163	39		Long: -114.099624		Datum: I	NAD 83
Soil Map Unit Name: 22 - Colake silt loam, 0 to 1 per					NWI classific			
Are climatic / hydrologic conditions on the site typical for this								
Are Vegetation, Soil, or Hydrologys					Normal Circumstances" p		/os /	No
Are Vegetation, Soil, or Hydrology r					eded, explain any answe			
SUMMARY OF FINDINGS – Attach site map								ıres, etc.
Hydrophytic Vegetation Present? Yes N	lo							
Hydric Soil Present? Yes N	lo			Sampled	Area	NI.	/	
Wetland Hydrology Present? Yes N	lo		witnin	a Wetlan	a? Yes	No _		
Remarks:								_
Upland sample point on toe slope adjacent to DP01w. I Lake County, MT during the site visit is D1 (moderate of		condit	tions o	n the site	are atypical. The U.S. I	Orought M	onitor Inde	ex for
VEGETATION – Use scientific names of plan	ts.							
Tree Stratum (Plot size: 30 ft r	Absolute			ndicator	Dominance Test work	sheet:		
1	% Cover				Number of Dominant Sp That Are OBL, FACW, of	pecies or FAC: _	1	(A)
2					Total Number of Domin	ant		
3					Species Across All Stra		1	(B)
4	0				Percent of Dominant Sp		100.00	
Sapling/Shrub Stratum (Plot size: 15 ft r)	<u> </u>	- 1016	ai Cove	1	That Are OBL, FACW, o	_	100.00	(A/B)
1					Prevalence Index work Total % Cover of:		Multiply by	
2						x 1	Multiply by = 15	<u> </u>
3					FACW species 1			
4						x 3		
5					•	x 4		
Herb Stratum (Plot size: 5 ft r	0	= Tota	al Cove	r	UPL species 5		= 25	
1. Poa pratensis	75	~	<u> </u>	AC		(A)	281	(B)
2 Carex nebrascensis	15			DBL	Prevalence Index	- D/A - '	2 81	
3. Brassica juncea	4			JPL	Hydrophytic Vegetation	_		
4. Elymus repens	2		F	AC	1 - Rapid Test for H			า
5. Thlaspi arvense	1		<u>\</u>	JPL	✓ 2 - Dominance Tes		3	
6. Juncus balticus	1		<u>F</u>	ACW	3 - Prevalence Inde	ex is ≤3.0 ¹		
7. Sisymbrium altissimum	_ 1			ACU	4 - Morphological A			
8. Lactuca serriola	_ 1		<u>F</u>	ACU	data in Remarks		•	et)
9					5 - Wetland Non-Va			
10					Problematic Hydrop	-		
11	400				¹ Indicators of hydric soi be present, unless distu			gy must
Woody Vine Stratum (Plot size:)	100	= Tota	l Cover			· ·		
1					Hydrophytic			
2.					Vegetation	.,		
	_		l Cover		Present? Yes	s	No	_
% Bare Ground in Herb Stratum								
Remarks:								
Although hydrophytic vegetation was o	bserved	, the	data	point	lacked evidence	of hydr	ic soil	

development and is not supported by wetland hydrology (1987 COE Wetland Delineation Manual).

SOIL Sampling Point: DP01u

(inches) Color (Matrix		Redox Features	2 -	ъ .
0 0 7 5 1/0 /			olor (moist) % Type ¹ Lo	oc² Textu	
0-2 7.5YR 2		00		Loam	Many fine roots
2 - 10 7.5YR 2	2.5/1 1	00		Loam	
<u> </u>					
-					
-					
					
1 0 0 1 1					21
			uced Matrix, CS=Covered or Coated Sa s, unless otherwise noted.)		² Location: PL=Pore Lining, M=Matrix. licators for Problematic Hydric Soils ³ :
Histosol (A1)	. (Арріїоцьі		Sandy Redox (S5)		2 cm Muck (A10)
Histic Epipedon (A2	2)		Stripped Matrix (S6)		Red Parent Material (TF2)
Black Histic (A3)	,	·	Loamy Mucky Mineral (F1) (except ML	RA 1)	Very Shallow Dark Surface (TF12)
Hydrogen Sulfide (/			oamy Gleyed Matrix (F2)		Other (Explain in Remarks)
Depleted Below Da			Depleted Matrix (F3)	3.	
Thick Dark Surface	. ,		Redox Dark Surface (F6)		dicators of hydrophytic vegetation and wetland hydrology must be present,
Sandy Mucky Mine Sandy Gleyed Matr			Depleted Dark Surface (F7) Redox Depressions (F8)		unless disturbed or problematic.
Restrictive Layer (if pr		<u> </u>	todox Boprocolone (i o)		anieco dictarsod or prosicinatio.
Type: Bedrock	,				
Depth (inches): 10				Hydric	Soil Present? Yes No
Remarks:					
HYDROLOGY Wetland Hydrology Inc	dia atawa				
	dicators:				
Primary Indicators (mini	mum of one	required; che			Secondary Indicators (2 or more required)
Surface Water (A1)	mum of one	required; che	Water-Stained Leaves (B9) (excep		Water-Stained Leaves (B9) (MLRA 1, 2,
Surface Water (A1) High Water Table (A	mum of one	required; che	Water-Stained Leaves (B9) (exception MLRA 1, 2, 4A, and 4B)		Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
Surface Water (A1) High Water Table (A1) Saturation (A3)	mum of one	required; che	Water-Stained Leaves (B9) (exception MLRA 1, 2, 4A, and 4B) Salt Crust (B11)	ot	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10)
Surface Water (A1) High Water Table (A1) Saturation (A3) Water Marks (B1)	Mum of one A2)	required; che	Water-Stained Leaves (B9) (exception MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13)	ot	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2)
Surface Water (A1) High Water Table (A1) Saturation (A3) Water Marks (B1) Sediment Deposits	Mum of one A2)	required; che	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1)	ot	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9
Surface Water (A1) High Water Table (A1) Saturation (A3) Water Marks (B1) Sediment Deposits Drift Deposits (B3)	MA2) (B2)	required; che	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livir	ot	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)
Surface Water (A1) High Water Table (A1) Saturation (A3) Water Marks (B1) Sediment Deposits Drift Deposits (B3) Algal Mat or Crust (MA2) (B2)	required; che	Water-Stained Leaves (B9) (exception of the content	ot	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)
Surface Water (A1) High Water Table (A1) Saturation (A3) Water Marks (B1) Sediment Deposits Drift Deposits (B3)	(B2) (B4)		Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livir	of	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)
Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits Drift Deposits (B3) Algal Mat or Crust (B1) Iron Deposits (B5)	(B2) (B4) (B6)		Water-Stained Leaves (B9) (exception MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled So	of	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)
Surface Water (A1) High Water Table (A) Saturation (A3) Water Marks (B1) Sediment Deposits Drift Deposits (B3) Algal Mat or Crust (Iron Deposits (B5) Surface Soil Cracks	(B2) (B4) (B6) (B6) (B7) (B8) (B8) (B8) (B8) (B8) (B8)	gery (B7)	Water-Stained Leaves (B9) (exception MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled So	of	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)
Surface Water (A1) High Water Table (A1) Saturation (A3) Water Marks (B1) Sediment Deposits Drift Deposits (B3) Algal Mat or Crust (B1) Iron Deposits (B5) Surface Soil Cracks Inundation Vis ble of	(B2) (B4) (B6) (B6) (B7) (B8) (B8) (B8) (B8) (B8) (B8)	gery (B7)	Water-Stained Leaves (B9) (exception MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled So	of	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)
Surface Water (A1) High Water Table (A1) Saturation (A3) Water Marks (B1) Sediment Deposits Drift Deposits (B3) Algal Mat or Crust (B1) Iron Deposits (B5) Surface Soil Cracks Inundation Vis ble of	(B2) (B4) (B6) (B6) (B6) (B6) (B6) (B6) (B6) (B6	gery (B7) urface (B8)	Water-Stained Leaves (B9) (exception MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled So	of	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)
Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits Drift Deposits (B3) Algal Mat or Crust (B2) Iron Deposits (B5) Surface Soil Cracks Inundation Vis ble of Sparsely Vegetated	(B2) (B4) S (B6) On Aerial Imad Concave Su	gery (B7) urface (B8)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livin Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled So Stunted or Stressed Plants (D1) (L. Other (Explain in Remarks)	of	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)
Surface Water (A1) High Water Table (A1) Saturation (A3) Water Marks (B1) Sediment Deposits Drift Deposits (B3) Algal Mat or Crust (B5) Surface Soil Cracks Inundation Visible of Sparsely Vegetated Field Observations: Surface Water Present? Water Table Present?	(B2) (B4) (B6) on Aerial Imad Concave Sol	gery (B7) urface (B8) No No	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livin Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled So Stunted or Stressed Plants (D1) (LOther (Explain in Remarks)	of	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)
Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits Drift Deposits (B3) Algal Mat or Crust (B2) Iron Deposits (B5) Surface Soil Cracks Inundation Vis ble of Sparsely Vegetated Field Observations: Surface Water Present? Water Table Present? Saturation Present?	(B2) (B4) s (B6) on Aerial Ima d Concave So Yes Yes Yes	gery (B7) urface (B8) No No No	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livin Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled So Stunted or Stressed Plants (D1) (LOther (Explain in Remarks) Depth (inches): Depth (inches): Depth (inches):	of	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)
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WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: US93 N Peterson	c	City/County	Lake Co	unty Sampling Date: 2023-06-21
Applicant/Owner: MDT				State: Montana Sampling Point: DP01w
Investigator(s): S Weyant	5	Section, To	wnship, Rai	nge: S35 T19N R20W
Landform (hillslope, terrace, etc.): Stream Channel				
				Long: -114.099699 Datum: NAD 83
Soil Map Unit Name: 22 - Colake silt loam, 0 to 1 per				NWI classification: Not mapped
•				
Are climatic / hydrologic conditions on the site typical for thi	-			
Are Vegetation, Soil, or Hydrology				Normal Circumstances" present? Yes No
Are Vegetation, Soil, or Hydrology	naturally prob	olematic?	(If ne	eded, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map		samplin	g point le	ocations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes N	No	lo th	a Camplad	Avec
Hydric Soil Present? Yes N	No		e Sampled in a Wetlan	./
Wetland Hydrology Present? Yes N	No		a rrona.	
Remarks:	ampla paint	in north o	ntral narti	on of wotland. Hydrologic conditions on the site are
PEM, riverine wetland with scrub shrub component. Sa atypical. The U.S. Drought Monitor Index for Lake Cou				
VEGETATION – Use scientific names of plan	nts.			
20 ft r	Absolute	Dominant		Dominance Test worksheet:
Tree Stratum (Plot size: 30 ft r)	% Cover			Number of Dominant Species
1				That Are OBL, FACW, or FAC: 4 (A)
2				Total Number of Dominant
3				Species Across All Strata: 4 (B)
4	0	= Total Co	ver	Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)
Sapling/Shrub Stratum (Plot size: 15 ft r				Prevalence Index worksheet:
1. Salix exigua	10		FACW	Total % Cover of: Multiply by:
2. Alnus incana	3		FACW	OBL species 30 x 1 = 30
3				FACW species 68 x 2 = 136
4				FAC species 0 x 3 = 0
5				FACU species $\frac{1}{1}$ $x 4 = \frac{4}{4}$
Herb Stratum (Plot size: 5 ft r)	13	= Total Co	ver	UPL species 4 x 5 = 20
1. Persicaria maculosa	45	<u> </u>	FACW	Column Totals: 103 (A) 190 (B)
2. Carex stipata	20		OBL	Dravelance Index - D/A - 18/
3. Phalaris arundinacea	10		FACW	Prevalence Index = B/A = 1.84 Hydrophytic Vegetation Indicators:
4. Typha latifolia	5		OBL	✓ 1 - Rapid Test for Hydrophytic Vegetation
5. Brassica juncea	4		UPL	✓ 2 - Dominance Test is >50%
6. Nasturtium officinale	2		OBL	✓ 3 - Prevalence Index is ≤3.0 ¹
7. Carex bebbii	2		OBL	4 - Morphological Adaptations ¹ (Provide supporting
8. Glyceria grandis	_ 1		OBL	data in Remarks or on a separate sheet)
9. Leucanthemum vulgare	_ 1		FACU	5 - Wetland Non-Vascular Plants ¹
10.				Problematic Hydrophytic Vegetation ¹ (Explain)
11				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Manda Vine Otastana (Diet sine)	90 :	= Total Cov	er er	be present, unless disturbed of problematic.
Woody Vine Stratum (Plot size:)				
1				Hydrophytic Vegetation
2	_	= Total Cov		Present? Yes No
% Bare Ground in Herb Stratum 10		- TOLAT COV	· CI	
Remarks:				
Evidence of hydrophytic vegetation inc	ludes a n	ositive	rapid te	est, a positive dominance test, and a
prevalence index less than or equal to 3	-		- 1- 1 1	, ,

US Army Corps of Engineers

SOIL Sampling Point: DP01w

Profile Desc	ription: (Describ	oe to the de	epth needed to docu	ment the	indicator	or confirı	n the absence	of indicators.)
Depth	Matrix		-	ox Feature				,
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0 - 11	10YR 2/2	100	_				Clay Loam	
11 - 14	10YR 5/1	88	10YR 6/8	5	С	М	Clay	Gravelly
11 - 14			5Y 5/1	7	D	М		
				- <u>-</u>				
						-	·	
					_			
			_					
-								
¹Type: C=Co	oncentration, D=D	epletion, RI	M=Reduced Matrix, C	S=Covere	ed or Coate	d Sand G	rains. ² Lo	cation: PL=Pore Lining, M=Matrix.
			II LRRs, unless othe					ors for Problematic Hydric Soils ³ :
Histosol	(A1)		Sandy Redox ((S5)			2 cr	m Muck (A10)
Histic Ep	oipedon (A2)		Stripped Matrix	(S6)				l Parent Material (TF2)
Black Hi			Loamy Mucky			MLRA 1	· —	y Shallow Dark Surface (TF12)
	en Sulfide (A4)		Loamy Gleyed		2)		Oth	er (Explain in Remarks)
	d Below Dark Surf	ace (A11)	Depleted Matri		`		31	
	ark Surface (A12) Iucky Mineral (S1)	١	Redox Dark Su Depleted Dark	•	•			ors of hydrophytic vegetation and and hydrology must be present,
-	Gleyed Matrix (S4)		Redox Depress					es disturbed or problematic.
	Layer (if present)				'		1	
Type:	, , ,							
	ches):						Hydric Soil	Present? Yes No
Remarks:								
Promine	nt redoximo	orphic (concentration	s com	man W			ad matrix
		•		0 00111	IIIOII W	itnin t	ne depiet	eu maurx.
		•		0 00111	illoll w	itnin t	ne depiet	eu maurx.
		•			illoll w	itnin t	ne depiet	eu maurx.
HYDROLO					illoll w	itnin t	ne depiet	ей шашх.
	GY drology Indicator				mon w	itnin t	ne deplet	eu matrix.
Wetland Hyd	drology Indicator	· ·s:	red; check all that app		mon w	itnin t		ndary Indicators (2 or more required)
Wetland Hyd Primary Indic Surface	drology Indicator cators (minimum o Water (A1)	· ·s:	red; check all that app	ly)	ves (B9) (e		Seco	
Wetland Hyd Primary Indic Surface	drology Indicator cators (minimum o	· ·s:	ed; check all that app Water-Sta	ly)	ves (B9) (e		Seco V	ndary Indicators (2 or more required) Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
Wetland Hyd Primary Indic Surface High Wa Saturatio	drology Indicator cators (minimum o Water (A1) ater Table (A2) on (A3)	· ·s:	red; check all that app Water-Sta MLRA Salt Crust	ly) ained Leav 1, 2, 4A, t (B11)	ves (B9) (e and 4B)		<u>Seco</u> V [ndary Indicators (2 or more required) Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Orainage Patterns (B10)
Wetland Hyd Primary Indic Surface High Wa Saturatic Water M	drology Indicator cators (minimum o Water (A1) ater Table (A2) on (A3) larks (B1)	· ·s:	red; check all that app Water-Sta MLRA Salt Crust Aquatic In	ly) ained Leav 1, 2, 4A, t (B11) avertebrate	ves (B9) (e and 4B) es (B13)		Seco V C	ndary Indicators (2 or more required) Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Orainage Patterns (B10) Ory-Season Water Table (C2)
Wetland Hyd Primary India Surface High Wa Saturatio Water M Sedimer	drology Indicator cators (minimum o Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2)	· ·s:	red; check all that app Water-Sta MLRA Salt Crust Aquatic In Hydrogen	ly) ained Leav 1, 2, 4A, t (B11) avertebrate Sulfide C	ves (B9) (e and 4B) es (B13) odor (C1)	xcept	Seco V C C	ndary Indicators (2 or more required) Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Orainage Patterns (B10) Ory-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)
Wetland Hyd Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep	cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) on Deposits (B2) on (B3)	· ·s:	red; check all that app Water-Sta MLRA Salt Crust Aquatic In Hydrogen Oxidized I	ly) ained Leav 1, 2, 4A, t (B11) overtebrate Sulfide C	ves (B9) (e and 4B) es (B13) odor (C1) eres along	xcept Living Ro	Seco V E E S ots (C3) <u>v</u> G	ndary Indicators (2 or more required) Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Orainage Patterns (B10) Ory-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2)
Wetland Hyd Primary Indic Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma	drology Indicator cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) at Deposits (B2) posits (B3) at or Crust (B4)	· ·s:	red; check all that app Water-Sta MLRA Salt Crust Aquatic In Hydrogen Oxidized In Presence	ly) ained Leav 1, 2, 4A, t (B11) avertebrate Sulfide C Rhizosphe of Reduc	ves (B9) (e and 4B) es (B13) odor (C1) eres along ed Iron (C4	xcept Living Ro	Seco V E E S ots (C3)	ndary Indicators (2 or more required) Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Orainage Patterns (B10) Ory-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Secomorphic Position (D2) Shallow Aquitard (D3)
Wetland Hyd Primary Indic Surface High Wa Saturatic Water M Sedimer Drift Dep Algal Ma	drology Indicator cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) at Deposits (B2) posits (B3) at or Crust (B4) posits (B5)	· ·s:	red; check all that app Water-Sta MLRA Salt Crust Aquatic In Hydrogen Oxidized I Presence Recent Iro	ined Leav 1, 2, 4A, t (B11) nvertebrate Sulfide C Rhizosphe of Reduct	ves (B9) (e and 4B) es (B13) Odor (C1) eres along ed Iron (C4 tion in Tille	xcept Living Ro	Seco V L C Sots (C3) V S 6) V S S S S S S S S S S S S S	ndary Indicators (2 or more required) Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Orainage Patterns (B10) Ory-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) (AC-Neutral Test (D5)
Wetland Hyd Primary Indic Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface	drology Indicator cators (minimum of Water (A1) ater Table (A2) on (A3) darks (B1) at Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) Soil Cracks (B6)	rs: f one requir	red; check all that app Water-Sta MLRA Salt Crust Aquatic In Hydrogen Oxidized In Presence Recent Ind Stunted o	ly) ained Leav 1, 2, 4A, t (B11) avertebrate Sulfide C Rhizosphe of Reduct on Reduct r Stressed	ves (B9) (e and 4B) es (B13) odor (C1) eres along ed Iron (C4 tion in Tille d Plants (D	xcept Living Ro	Seco V Seco V Seco V Seco F Seco V F Seco V Seco Sec	ndary Indicators (2 or more required) Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Orainage Patterns (B10) Ory-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Seomorphic Position (D2) Shallow Aquitard (D3) CAC-Neutral Test (D5) Saised Ant Mounds (D6) (LRR A)
Wetland Hyd Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatio	drology Indicator cators (minimum o Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) Soil Cracks (B6) on Vis ble on Aeria	's: f one requir	red; check all that app Water-Sta MLRA Salt Crust Aquatic In Hydrogen Oxidized I Presence Recent Ird Stunted o	ly) ained Leav 1, 2, 4A, t (B11) avertebrate Sulfide C Rhizosphe of Reduct on Reduct r Stressed	ves (B9) (e and 4B) es (B13) odor (C1) eres along ed Iron (C4 tion in Tille d Plants (D	xcept Living Ro	Seco V Seco V Seco V Seco F Seco V F Seco V Seco Sec	ndary Indicators (2 or more required) Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Orainage Patterns (B10) Ory-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) (AC-Neutral Test (D5)
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WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: US93 N Peterson	(Citv/Count	tv: Lake Co	unty Sampling Date: 2023-06-21
Applicant/Owner: MDT		-	-	State: Montana Sampling Point: DP02u
• •				nge: S35 T19N R20W
Landform (hillslope, terrace, etc.): Valley Floor				
				Long: -114.097981 Datum: NAD 83
Soil Map Unit Name: 22 - Colake silt loam, 0 to 1 per				NWI classification: Not mapped
•				
Are climatic / hydrologic conditions on the site typical for this	-			
Are Vegetation, Soil, or Hydrologys				Normal Circumstances" present? Yes No
Are Vegetation, Soil, or Hydrology r				eded, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map		sampli	ng point lo	ocations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes N		lo 4	ha Camplad	Area
Hydric Soil Present? Yes N			the Sampled thin a Wetlan	
Wetland Hydrology Present? Yes N	0		4 1101141	
Remarks:	رطعمام هذم م	anditions.	on the site of	are etypical. The LLC Drought Manitar Index for Lake
Upland sample point in southeast corner of the site. Hy County, MT during the site visit is D1 (moderate drough	_	unuitions	on the site a	are atypical. The O.S. Drought Monitor Index for Lake
VEGETATION – Use scientific names of plan	ts.			
Tree Stratum (Plot size: 30 ft r	Absolute		nt Indicator	Dominance Test worksheet:
1	% Cover			Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
2				Total Number of Dominant
3				Species Across All Strata: 2 (B)
4				Percent of Dominant Species
Sapling/Shrub Stratum (Plot size: 15 ft r	0	= Total C	over	That Are OBL, FACW, or FAC: 50.00 (A/B)
1				Prevalence Index worksheet:
2.				Total % Cover of: Multiply by:
3.				OBL species $\frac{0}{0}$ $\times 1 = \frac{0}{0}$
4.				FACW species $\frac{0}{30}$ $\times 2 = \frac{0}{60}$
5.				FAC species 20 x 3 = 60
	0	= Total C	over	FACU species $\frac{1}{79}$ $x 4 = \frac{4}{395}$ UPL species $x 5 = 395$
Herb Stratum (Plot size: 5 ft r				
1. Bromus inermis	70			
2. Elymus repens 3. Lepidium draba	<u>20</u> 4		FAC	Prevalence Index = B/A = 4.59
Thlaspi arvense	3		_ <u>UPL</u> UPL	Hydrophytic Vegetation Indicators:
5. Brassica juncea	2		UPL	1 - Rapid Test for Hydrophytic Vegetation
6. Lactuca serriola	1		FACU	2 - Dominance Test is >50%
· ·				3 - Prevalence Index is ≤3.0 ¹
7 8				4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
9				5 - Wetland Non-Vascular Plants ¹
10.				Problematic Hydrophytic Vegetation ¹ (Explain)
11.				¹ Indicators of hydric soil and wetland hydrology must
	400	= Total Co	over	be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size:)				
1				Hydrophytic
2				Vegetation Present? Yes No
% Bare Ground in Herb Stratum 0	0	= Total Co	over	
Remarks:				
Data point is dominated by upland ve	egetatio	on.		

SOIL Sampling Point: DP02u

Depth	Matrix		Redox Features		
(inches)	Color (moist)	%	Color (moist) % Type ¹ Lo	c ² Texture	Remarks
0 - 16	10YR 2/2	100		Silt Loam	
<u>-</u> .					
-					
<u> </u>					
-					
_					
1 _{Type:} C=Ce	acontration D=Da	nlotion DM=	Paduand Matrix, CS=Covered or Control So	nd Crains 21 cost	ion: DI =Doro Lining M=Matrix
			Reduced Matrix, CS=Covered or Coated Sa RRs, unless otherwise noted.)		ion: PL=Pore Lining, M=Matrix. for Problematic Hydric Soils ³ :
•	`	cable to all L	•		•
Histosol (pedon (A2)	=	Sandy Redox (S5) Stripped Matrix (S6)		/luck (A10) arent Material (TF2)
Black His		_	Surpped Matrix (30) Loamy Mucky Mineral (F1) (except MLF		hallow Dark Surface (TF12)
	Sulfide (A4)	_	Loamy Gleyed Matrix (F2)		(Explain in Remarks)
	Below Dark Surfa	ce (A11)	Depleted Matrix (F3)		(<u> </u>
	k Surface (A12)	·	Redox Dark Surface (F6)	³ Indicators	of hydrophytic vegetation and
Sandy Μι	ucky Mineral (S1)	=	Depleted Dark Surface (F7)	wetland	hydrology must be present,
	eyed Matrix (S4)	-	Redox Depressions (F8)	unless	disturbed or problematic.
Restrictive La	ayer (if present):				
Type:			<u> </u>		
Depth (incl	nes):			Hydric Soil Pi	esent? Yes No
	soil indica	tors obs	erved.		
		tors obs	erved.		
No hydrid	SY		erved.		
No hydrid	SY rology Indicators	:		Second	any Indicators (2 or more required)
No hydric IYDROLOG Wetland Hyd Primary Indica	GY rology Indicators ators (minimum of	:	check all that apply)		ary Indicators (2 or more required)
No hydric IYDROLOG Wetland Hyd Primary Indica Surface V	GY rology Indicators ators (minimum of Vater (A1)	:	check all that apply) Water-Stained Leaves (B9) (excep	t Wat	er-Stained Leaves (B9) (MLRA 1, 2,
No hydric IYDROLOG Wetland Hyd Primary Indica Surface V High Wat	rology Indicators ators (minimum of Vater (A1) er Table (A2)	:	check all that apply) Water-Stained Leaves (B9) (excep MLRA 1, 2, 4A, and 4B)	Wat	er-Stained Leaves (B9) (MLRA 1, 2, IA, and 4B)
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No hydric IYDROLOG Wetland Hyd Primary Indica Surface V High Wate Saturation Water Ma	rology Indicators ators (minimum of Vater (A1) er Table (A2) n (A3) arks (B1)	:	check all that apply) Water-Stained Leaves (B9) (excep	t Wat Drai Dry-	er-Stained Leaves (B9) (MLRA 1, 2, IA, and 4B) nage Patterns (B10) -Season Water Table (C2)
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No hydric IYDROLOG Wetland Hyd Primary Indica Surface V High Wate Saturation Water Mater Mater Sediment Drift Depo	rology Indicators ators (minimum of Vater (A1) er Table (A2) n (A3) urks (B1) Deposits (B2) osits (B3)	:	check all that apply) Water-Stained Leaves (B9) (excep	Wat Drai Dry Satu g Roots (C3) Geo	er-Stained Leaves (B9) (MLRA 1, 2, IA, and 4B) nage Patterns (B10) Season Water Table (C2) uration Visible on Aerial Imagery (C9 morphic Position (D2)
No hydric IYDROLOG Wetland Hyd Primary Indica Surface V High Wate Saturation Water Ma Sediment Drift Depo	rology Indicators ators (minimum of Vater (A1) er Table (A2) n (A3) arks (B1) Deposits (B2) osits (B3) or Crust (B4)	:	check all that apply) Water-Stained Leaves (B9) (excep	Wat Drai Dry Satu g Roots (C3) Gec Sha	er-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) nage Patterns (B10) Season Water Table (C2) uration Visible on Aerial Imagery (C9 amorphic Position (D2) Illow Aquitard (D3)
No hydric IYDROLOG Wetland Hyd Primary Indica Surface V High Wate Saturation Water Ma Sediment Drift Depo	rology Indicators ators (minimum of Vater (A1) er Table (A2) n (A3) urks (B1) Deposits (B2) osits (B3) or Crust (B4) osits (B5)	:	check all that apply) Water-Stained Leaves (B9) (excep MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soil	Wat Drai Dry Satu g Roots (C3) Geo Sha ls (C6) FAC	er-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) nage Patterns (B10) Season Water Table (C2) uration Visible on Aerial Imagery (C9) umorphic Position (D2) Illow Aquitard (D3) C-Neutral Test (D5)
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WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: US93 N Peterson	c	City/County	_{y:} Lake Co	unty	Sampling Date: 2023-06-21
Applicant/Owner: MDT				State: Montana	Sampling Point: DP02w
Investigator(s): S Weyant	8	Section, To	ownship, Ra	nge: S35 T19N R20W	
Landform (hillslope, terrace, etc.): Fringe	[Local relie	f (concave, o	convex, none): None	Slope (%): 3
Subregion (LRR): E 44	Lat: 47.3	361165		Long: -114.097975	Datum: NAD 83
Soil Map Unit Name: 22 - Colake silt loam, 0 to 1 pe				NWI classifica	
Are climatic / hydrologic conditions on the site typical for the	nis time of yea	r? Yes	No	(If no, explain in Re	marks.)
Are Vegetation, Soil, or Hydrology					resent? Yes No
Are Vegetation, Soil, or Hydrology	naturally prob	olematic?	(If ne	eded, explain any answers	s in Remarks.)
SUMMARY OF FINDINGS - Attach site map	showing	samplir	ng point le	ocations, transects,	important features, etc.
Hydrophytic Vegetation Present? Yes	No				
Hydric Soil Present? Yes	No	l l	he Sampled		No
Wetland Hydrology Present? Yes	No	With	nin a Wetlar	id? Yes	No
Remarks:					
PEM, riverine wetland. Sample point located approxin Drought Monitor Index for Lake County, MT during th					e site are atypical. The U.S.
VEGETATION – Use scientific names of pla	nts.				
Tue Otation (Blateine 30 ft r	Absolute		t Indicator	Dominance Test works	heet:
Tree Stratum (Plot size: 30 ft r	· · · · · · · · · · · · · · · · · · ·			Number of Dominant Sp	
1 2				That Are OBL, FACW, o	. (A)
3.				Total Number of Domina Species Across All Strats	4
4.					
	_	= Total Co	over	Percent of Dominant Spe That Are OBL, FACW, o	
Sapling/Shrub Stratum (Plot size: 15 ft r				Prevalence Index work	sheet:
1				Total % Cover of:	Multiply by:
2					x 1 = <u>1</u>
3 4			·	FACW species 85	
5					x 3 = 12
	_	= Total Co	over	•	x 4 = <u>0</u>
Herb Stratum (Plot size: 5 ft r)					x 5 = 5
1. Phalaris arundinacea	<u>85</u>		FACW	Column Totals: 91	(A) <u>188</u> (B)
2. Solanum dulcamara	_ 4		FAC	Prevalence Index	= B/A = 2.07
3. Brassica juncea	_ 1		UPL	Hydrophytic Vegetation	
4. Carex stipata	_ 1		OBL	1 - Rapid Test for H	
5				✓ 2 - Dominance Test	
6				3 - Prevalence Index	
7				4 - Morphological Adda in Remarks	daptations ¹ (Provide supporting or on a separate sheet)
8 9				5 - Wetland Non-Va	
10					hytic Vegetation ¹ (Explain)
11.				¹ Indicators of hydric soil	and wetland hydrology must
	01	= Total Co	ver	be present, unless distur	bed or problematic.
Woody Vine Stratum (Plot size:)					
1				Hydrophytic	
2	_			Vegetation Present? Yes	No
% Bare Ground in Herb Stratum 10	0 =	= Total Co	ver		
Remarks:				I	
Evidence of wetland hydrology include	s a nositi	ve rani	d test a	positive dominan	ce test, and a
prevalence index less than or equal to	-	. o .apı	1001, u	promise dominan	22 1001/ 01101 01
ip. 2. a.					

US Army Corps of Engineers

SOIL Sampling Point: DP02w

Depth	Matrix	ine depin n	Redox Features		uie auseiice	or muicators.
(inches)	Color (moist)	%	Color (moist) % Type ¹	Loc ²	Texture	Remarks
0 - 5	10YR 4/1	100			Mucky Peat	Mucky peat + mineral
5 - 12	5Y 2.5/1	100			Clay Loam	Sulfidic odor
-						
_						
		· 				<u> </u>
		· 				
-	_	· 				
	_					
¹Type: C=Co	ncentration, D=Dep	letion, RM=Red	duced Matrix, CS=Covered or Coate	d Sand Gra	nins. ² Loc	cation: PL=Pore Lining, M=Matrix.
Hydric Soil I	ndicators: (Applic	able to all LRF	Rs, unless otherwise noted.)			rs for Problematic Hydric Soils ³ :
Histosol	• ,		Sandy Redox (S5)			n Muck (A10)
-	ipedon (A2)		Stripped Matrix (S6)			Parent Material (TF2)
Black His	` '	_	Loamy Mucky Mineral (F1) (except	MLRA 1)		/ Shallow Dark Surface (TF12)
	n Sulfide (A4) I Below Dark Surfac	·	Loamy Gleyed Matrix (F2) Depleted Matrix (F3)		Othe	er (Explain in Remarks)
-	rk Surface (A12)		Redox Dark Surface (F6)		³ Indicato	rs of hydrophytic vegetation and
	lucky Mineral (S1)	_	Depleted Dark Surface (F7)			nd hydrology must be present,
Sandy G	leyed Matrix (S4)	=	Redox Depressions (F8)		unles	s disturbed or problematic.
Restrictive L	ayer (if present):					
Type:			=			
Depth (inc	ches):		-		Hydric Soil	Present? Yes No
Remarks:				'		
HYDROLO		in include	s sulfidic odor.			
	drology Indicators:					
_	ators (minimum of o	ne required: ch	neck all that apply)		Secor	ndary Indicators (2 or more required)
	Water (A1)		Water-Stained Leaves (B9) (e	xcept		/ater-Stained Leaves (B9) (MLRA 1, 2,
l 	ter Table (A2)		MLRA 1, 2, 4A, and 4B)	- 1		4A, and 4B)
<u>✓</u> Saturatio			Salt Crust (B11)		D	rainage Patterns (B10)
·	arks (B1)		Aquatic Invertebrates (B13)		D	ry-Season Water Table (C2)
Sedimen	t Deposits (B2)		✓ Hydrogen Sulfide Odor (C1)			aturation Visible on Aerial Imagery (C9)
Drift Dep	osits (B3)		Oxidized Rhizospheres along	Living Root	s (C3) 🔽 G	eomorphic Position (D2)
Algal Ma	t or Crust (B4)		Presence of Reduced Iron (C4	·)	s	hallow Aquitard (D3)
	osits (B5)		Recent Iron Reduction in Tille			AC-Neutral Test (D5)
	Soil Cracks (B6)		Stunted or Stressed Plants (D	1) (LRR A)	· · · · · · · · · · · · · · · · · · ·	aised Ant Mounds (D6) (LRR A)
	on Vis ble on Aerial I		Other (Explain in Remarks)		F	rost-Heave Hummocks (D7)
	Vegetated Concave	Surface (B8)		Т		
Field Observ			V 5 4 4 4 4 4			
Surface Water			Depth (inches):	-		
Water Table			Depth (inches): 8	-		
Saturation Pr (includes cap		es 💆 No _	Depth (inches): 0	Wetla	nd Hydrolog	y Present? Yes No
Describe Rec	corded Data (stream	gauge, monito	ring well, aerial photos, previous ins	pections), if	available:	
	•			•		
Remarks:						
Evidonos	of wetlend	hydrolog	v includes seturation t	a tha as	ail aurfaa	o high water table
		-	y includes saturation t eutral test, and geomo			e, nign water table,
	· •			· •		

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

Project/Site: US93 N Peterson City/County: Lake County Sampling Date: 2023-	
Applicant/Owner: MDT State: Montana Sampling Point: DP03u	
Investigator(s): S Weyant Section, Township, Range: S35 T19N R20W	
Landform (hillslope, terrace, etc.): Valley Floor Local relief (concave, convex, none): Linear Slope (%):	0
Subregion (LRR): <u>E 44</u> Lat: <u>47.362315</u> Long: -114.101246 Datum: NAI	
Soil Map Unit Name: 22 - Colake silt loam, 0 to 1 percent slopes NWI classification: PEM1C	
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	
Hydric Soil Present? Yes No V Is the Sampled Area within a Wetland? Yes No V	
Wetland Hydrology Present? Yes No This is a first transfer of the first trans	
Remarks: Upland sample point located adjacent to log crib structed installed in 2020. Area was previously delineated as wetland and is no longer supported by we	land
hydrology. Hydrologic conditions on the site are atypical. The U.S. Drought Monitor Index for Lake County, MT during the site visit is D1 (moderate drought Monitor Index for Lake County).	
VEGETATION – Use scientific names of plants.	
Absolute Dominant Indicator Dominance Test worksheet:	
Tree Stratum (Plot size: 30 ft r	
1 That Are OBL, FACW, or FAC: 1	(A)
2 Total Number of Dominant	
3 Species Across All Strata: <u>3</u>	(B)
4 Percent of Dominant Species	
Sapling/Shrub Stratum (Plot size: 15 ft r) 0 = Total Cover That Are OBL, FACW, or FAC: 33.33	(A/B)
1. Rosa woodsii 5 FACU Prevalence Index worksheet:	
Total % Cover of: Multiply by:	-
OBL species X I =	-
PACW species 27 x2 = 0.	-
FAC species 20 x 3 = 00	-
5 = Total Cover	•
Tion Statum (Floresco. 2007	(B)
- Paccapitum emithii	(6)
Flymus ranges 45	_
Correy personnic Correy of Property Correy (Personnic Vegetation Indicators:	
- Processes imposes 5 Line	
Cohedensia protein	
6. Schedonorus pratensis 7. Carex pachystachya 2 FAC 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supplementations)	ortina
8. Cirsium arvense 2 FAC data in Remarks or on a separate sheet)	orang
9. Plantago lanceolata 1 FACU 5 - Wetland Non-Vascular Plants ¹	
10. Poa pratensis 1 FAC Problematic Hydrophytic Vegetation¹ (Explain	ı)
11. Leucanthemum vulgare 1 FACU Indicators of hydric soil and wetland hydrology n	ust
90 = Total Cover be present, unless disturbed or problematic.	
Woody Vine Stratum (Plot size:)	
1 Hydrophytic 2 Vegetation	
2 Vegetation Present? Yes No	
% Bare Ground in Herb Stratum 10	
Remarks:	
Data point includes hydrophytic and upland rated plant species. No hydrophytic vegetation indica	tors
present.	

SOIL Sampling Point: DP03u

dichches) Color (moist) % Color (moist) % Type Loc	(Inches)	<u>Matrix</u>		Redox Features	2 –	
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. **Location: PL=Pore Lining, M=Matrix, Pythydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosoi (A1)		Color (moist)		Color (moist) % Type ¹ Lo		narks
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histos (A1) Asandy Redox (S5) Black Histic (A3) Black Histic (A3) Loamy Mucky Mineral (F1) (except MLRA 1) Depleted Below Dark Surface (A11) Depleted Matrix (F2) Sandy Mucky Mineral (F1) Sandy Mucky Mineral (F1) Sandy Mucky Mineral (F1) Sandy Mucky Mineral (S1) Depleted Below Dark Surface (A11) Depleted Dark Surface (A11) Depleted Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Sandy Gleyed Matrix (S4) Redox Depressions (F8) Wetarind hydrology must be present, unless disturbed or problematic. Restrictive Laper (if present): Type: Bedrock Depth (inches): 7 Wetand Hydrology Indicators: Wetand Hydrology Indicators present. Water Assert (A1) Hydric Soil Present? Yes	0 - 7	10YR 2/2	100		Clay Loam	
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Histosol (A1) Sandy Redox (S5) 2 cm Muck (A10) Red Parent Material (TF2) Stripped Matrix (S6) Red Parent Material (TF2) Pallow Dark Surface (TF12) Ditter (Explain in Remarks) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) 2 Ditter (Explain in Remarks) Depleted Below Dark Surface (A11) Depleted Matrix (F2) 2 Ditter (Explain in Remarks) Thick Dark Surface (A12) Redox Dark Surface (F6) 3 Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Wetland hydrology must be present, unless disturbed or problematic. Restrictive Layer (if present): Type: Bedrock Depth (inches): 7 Hydrogen Sulfide (A2) Hydrogen Sulfide (B4) Hydric Soil Present? Yes No Vater-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Surface Water (A1) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Surface Water (A3) Salt Crust (B11) Drainage Patterns (B10) Water Marks (B1) Aquatic Invertebrates (B13) Drin pep etaterns (B10) Water Marks (B1) Aquatic Invertebrates (B13) Drin pep etaterns (B10) Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Saturation Visible on Aerial Imagery (C9) Difft Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) Geomorphic Position (D2) Algal Mat or Crust (B4) Presence of Reduced fron (C4) Shallow Aquatard (D3) Iron Deposits (B5) Recent Iron Reduction in Tilled Soils (C6) FAC-Neutral Test (D5) Surface Water Present? Yes No Pepth (inches): Surface Water Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Pepth (inches): W						
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Hydrogen Sulfide (A4)						•
Depleted Bellow Dark Surface (A11)			_	_ , , , ,		
Thick Dark Surface (A12)			nce (A11)			,
Sandy Gleyed Matrix (S4) Redox Depressions (F8) unless disturbed or problematic. Restrictive Layer (if present):			. , , _	_ , , , ,	³ Indicators of hydrophytic ve	egetation and
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Depth (inches): 7						
Remarks: No hydric soil indicators present.	, <u> </u>			<u> </u>		
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Water Marks (B1) Aquatic Invertebrates (B13) Dry-Season Water Table (C2) Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Saturation Visible on Aerial Imagery (C9 Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) Geomorphic Position (D2) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Aquitard (D3) Iron Deposits (B5) Recent Iron Reduction in Tilled Soils (C6) FAC-Neutral Test (D5) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave Hummocks (D7) 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): Saturation Present? Yes No Depth (inches): Because of Reduced Iron (C4) Shallow Aquitard (D3) FAC-Neutral Test (D5)	Primary Indic	drology Indicators				
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Drift Deposits (B3)	Primary Indic Surface High Wa	drology Indicators eators (minimum of Water (A1) eter Table (A2)		Water-Stained Leaves (B9) (exception MLRA 1, 2, 4A, and 4B)	Water-Stained Leave 4A, and 4B)	es (B9) (MLRA 1, 2,
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No evidence of wetland hydrology observed. Soil is bone dry.	Primary Indice Surface High Wa Saturatice Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatice Sparsely Field Observ Surface Water Table Saturation Pr (includes cap	cators (minimum of Water (A1) Inter Table (A2) Inter Table (A2) Inter Table (A2) Inter Table (A2) Inter Table (B2) Inter Tabl	I Imagery (B7) ve Surface (B8 Yes No Yes No	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soil Stunted or Stressed Plants (D1) (Liter (Explain in Remarks) Depth (inches): Depth (inches): Depth (inches):	Water-Stained Leave 4A, and 4B) Drainage Patterns (B Dry-Season Water Ta Saturation Visible on Geomorphic Position Shallow Aquitard (D3 s (C6) FAC-Neutral Test (Da) RR A) Raised Ant Mounds (D3 Frost-Heave Hummo	es (B9) (MLRA 1, 2, 310) able (C2) Aerial Imagery (C9 (D2) 3) 5) (D6) (LRR A) acks (D7)
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WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: US93 N Peterson	(City/Co	_{ounty:} La	ake Co	unty Sampling Date: 2023-06-22
Applicant/Owner: MDT					State: Montana Sampling Point: DP03w
Investigator(s): S Weyant	;	Section	n, Townsl	ship, Rar	nge: S35 T19N R20W
Landform (hillslope, terrace, etc.): Valley Floor					
					Long: -114.101268 Datum: NAD 83
Soil Map Unit Name: 22 - Colake silt loam, 0 to 1 po					NWI classification: PEM1C
•					
Are climatic / hydrologic conditions on the site typical for t	-				
Are Vegetation, Soil, or Hydrology					Normal Circumstances" present? Yes No
Are Vegetation, Soil, or Hydrology					eded, explain any answers in Remarks.)
		sam	pling p	oint lo	ocations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes	No		Is the Sa	amplad	Area
Hydric Soil Present? Yes			within a	-	
Wetland Hydrology Present? Yes	No				
Remarks:	om of the un	otron	m most l	log orib	estructura installad in 2020. Hydrologia conditions on
the site are atypical. The U.S. Drought Monitor Index				-	structure installed in 2020. Hydrologic conditions on te visit is D1 (moderate drought).
VEGETATION – Use scientific names of pla	nts.				
- 30 ft r	Absolute		inant Ind		Dominance Test worksheet:
Tree Stratum (Plot size: 30 ft r	% Cover			tatus	Number of Dominant Species
1					That Are OBL, FACW, or FAC: 2 (A)
2					Total Number of Dominant
3					Species Across All Strata: 2 (B)
7	0	= Tota	al Cover		Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)
Sapling/Shrub Stratum (Plot size: 15 ft r)					Prevalence Index worksheet:
1					Total % Cover of: Multiply by:
2					OBL species 28 x 1 = 28
3					FACW species 60 x 2 = 120
4 5					FAC species $5 \times 3 = 15$
0.	0	= Tota	al Cover		FACU species $\frac{2}{x}$ $x = \frac{8}{x}$
Herb Stratum (Plot size: 5 ft r)		100	ai oovei		UPL species 3 x 5 = 15
1. Phalaris arundinacea	60		<u> FA</u>	ACW	Column Totals: <u>98</u> (A) <u>186</u> (B)
2. Carex stipata	28		<u> O</u>	BL	Prevalence Index = B/A = 1.90
3. Brassica juncea	3		<u>U</u> F		Hydrophytic Vegetation Indicators:
4. Poa pratensis	_ 2		<u>FA</u>		1 - Rapid Test for Hydrophytic Vegetation
5. Poa palustris	_ 1		<u>F</u> A		✓ 2 - Dominance Test is >50%
6. Leucanthemum vulgare	_ 1			ACU_	✓ 3 - Prevalence Index is ≤3.0 ¹
7. Cirsium arvense	$-\frac{1}{1}$			AC	4 - Morphological Adaptations ¹ (Provide supporting
8. Elymus repens 9. Gallium aperine	_ '			AC.	data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants ¹
	_ <u>-</u>			ACU_	Problematic Hydrophytic Vegetation¹ (Explain)
10					Indicators of hydric soil and wetland hydrology must
11	00				be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size:)	90	= Tota	al Cover		
1					Hydrophytic
2.					Vegetation
	_	= Tota	al Cover		Present? Yes No No
% Bare Ground in Herb Stratum 2					
Remarks:					
Evidence of hydrophytic vegetation in	cludes a p	osit	ive rap	pid te	st, a positive dominance test, and a
prevalence index less than or equal to	3.0.				

US Army Corps of Engineers

SOIL Sampling Point: DP03w

Profile Desc	ription: (Describe	to the dep	oth needed to docur	ment the	indicator	or confirm	n the absence of indic	ators.)
Depth	Matrix		Redo	x Feature	es			
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type ¹	_Loc ²	Texture	Remarks
0 - 10	10YR 2/1	100					Clay Loam	
10 - 24	2.5Y 3/2	95	10YR 5/2	5	D	М	Clay Loam	
-								
-						<u>-</u>		
	-							
	-					· ——		
				_		·		
			=Reduced Matrix, CS			ed Sand G		PL=Pore Lining, M=Matrix.
_		able to all	LRRs, unless othe		ted.)			roblematic Hydric Soils ³ :
Histosol	• •		Sandy Redox (•			2 cm Muck ('
-	pipedon (A2)		Stripped Matrix					Material (TF2)
Black His			Loamy Mucky I			t MLRA 1	•	w Dark Surface (TF12)
	n Sulfide (A4)		Loamy Gleyed	•	2)		Other (Expla	ain in Remarks)
	Below Dark Surfac	e (A11)	Depleted Matrix				•	
	ark Surface (A12)		Redox Dark Su	,	,			drophytic vegetation and
	lucky Mineral (S1)		Depleted Dark	•	•			plogy must be present,
	leyed Matrix (S4)		Redox Depress	sions (F8)			unless disturb	ped or problematic.
Restrictive L	ayer (if present):							
Type:								.,
Depth (inc	ches):						Hydric Soil Presen	t? Yes / No
Remarks:								
HYDROLO								
Wetland Hyd	drology Indicators:							
Primary Indic	ators (minimum of c	ne require	d; check all that appl	y)			Secondary Inc	dicators (2 or more required)
Surface	Water (A1)		Water-Sta	ined Leav	ves (B9) (except	Water-Sta	ained Leaves (B9) (MLRA 1, 2,
High Wa	ter Table (A2)		MLRA	1, 2, 4A,	and 4B)		4A, ar	
Saturation	on (A3)		Salt Crust	(B11)			Drainage	Patterns (B10)
Water M	arks (B1)		Aquatic In	vertebrate	es (B13)		Dry-Seas	on Water Table (C2)
Sedimer	t Deposits (B2)		Hydrogen	Sulfide C	dor (C1)		Saturation	n Visible on Aerial Imagery (C9)
	oosits (B3)		Oxidized F			Livina Ro		hic Position (D2)
	it or Crust (B4)		Presence		_	-	Shallow A	
	osits (B5)		Recent Iro					
	Soil Cracks (B6)							nt Mounds (D6) (LRR A)
			Stunted or) (LKK F		
	on Vis ble on Aerial			piain in R	emarks)		Frost-Hea	ave Hummocks (D7)
	Vegetated Concave	e Surface (B8)					
Field Observ								
Surface Wate			No Depth (in					
Water Table			No Depth (in					
Saturation Pr (includes cap		es	No Depth (in	ches):		Wet	land Hydrology Prese	nt? Yes No
		gauge, mo	onitoring well, aerial	photos, p	revious in	spections),	if available:	
Remarks:								
Evidono	of wattand	hydral	ogy ipolydes	0 000	itiva f	00 50.	itral toot and -	comorphic position
		nyaroi	ogy includes	a pos	sitive T	ac-net	itrai test and g	eomorphic position.
Soils slig	ıhtly moist.							

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

Project/Site: US93 N Peterson	(City/Coun	_{ty:} Lake Co	unty Sampling Date: 2023-06-22
Applicant/Owner: MDT		-		Martin
Investigator(s): S Weyant	;	Section, T	ownship, Rar	nge: S35 T19N R20W
Landform (hillslope, terrace, etc.): Hillside	_	Local reli	ef (concave, o	convex, none): Convex Slope (%): 25
				Long: -114.101757 Datum: NAD 83
Soil Map Unit Name: 143 - Ronan silty clay loam, 4				
Are climatic / hydrologic conditions on the site typical for th				
Are Vegetation, Soil, or Hydrology				Normal Circumstances" present? Yes No
Are Vegetation, Soil, or Hydrology	-			eded, explain any answers in Remarks.)
				ocations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes I			-	· · · · ·
Hydric Soil Present? Yes I	No V		the Sampled	
Wetland Hydrology Present? Yes I	No	Wit	thin a Wetlan	nd? Yes No
Remarks:				
Upland sample point is located on hillside and located are atypical. The U.S. Drought Monitor Index for Lake			-	
VEGETATION – Use scientific names of plan	nts.			
20.64 "	Absolute		nt Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 ft r	% Cover		? Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC: 0 (A)
2				Total Number of Dominant
3				Species Across All Strata: 2 (B)
4	0	= Total C	`over	Percent of Dominant Species That Are OBL_FACW_or FAC: 0.00 (A/B)
Sapling/Shrub Stratum (Plot size: 15 ft r)		_ rotar c	JOVC1	That Are OBL, FACW, or FAC: 0.00 (A/B) Prevalence Index worksheet:
1				Total % Cover of: Multiply by:
2				OBL species 0 x 1 = 0
3				FACW species 0 x 2 = 0
4				FAC species 0 x 3 = 0
5				FACU species 15 x 4 = 60
Herb Stratum (Plot size: 5 ft r)	0	= Total C	over	UPL species <u>55</u> x 5 = <u>275</u>
1. Bromus inermis	45		UPL	Column Totals: <u>70</u> (A) <u>335</u> (B)
2. Gallium aperine	15		FACU	Prevalence Index = B/A = 4.79
3. Lepidium draba	10		UPL	Hydrophytic Vegetation Indicators:
4				1 - Rapid Test for Hydrophytic Vegetation
5				2 - Dominance Test is >50%
6				3 - Prevalence Index is ≤3.0 ¹
7				4 - Morphological Adaptations (Provide supporting
8				data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants ¹
9				Problematic Hydrophytic Vegetation¹ (Explain)
10.		-	-	¹Indicators of hydric soil and wetland hydrology must
11	70	= Total C		be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size:)	, , , , , , , , , , , , , , , , , , , 	- Total C	ovei	
1				Hydrophytic
2.				Vegetation
	_	= Total C	over	Present? Yes No
% Bare Ground in Herb Stratum 30				
	.			
Data point is dominated by upland v	egetation	on.		

SOIL Sampling Point: DP04u

Depth	Matrix		Redox Features	3 -
	lor (moist)		Color (moist) % Type ¹ Loc	
	R 3/1	100		Clay Loam
6 - 12 10YI	R 3/1	100		Clay
_				
			Reduced Matrix, CS=Covered or Coated San	
-	ors: (Applic	able to all Li	RRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils ³ :
Histosol (A1)	. (40)	_	Sandy Redox (S5)	2 cm Muck (A10)
Histic EpipedonBlack Histic (A3		_	Stripped Matrix (S6)Loamy Mucky Mineral (F1) (except MLR)	Red Parent Material (TF2) A 1) Very Shallow Dark Surface (TF12)
Hydrogen Sulfic		_	Loamy Middly Milleral (11) (except MLR) Loamy Gleyed Matrix (F2)	Other (Explain in Remarks)
Depleted Below	. ,	e (A11)	Depleted Matrix (F3)	Other (Explain in remarks)
Thick Dark Surf		` ' =	Redox Dark Surface (F6)	³ Indicators of hydrophytic vegetation and
Sandy Mucky M	lineral (S1)	_	Depleted Dark Surface (F7)	wetland hydrology must be present,
Sandy Gleyed I		_	_ Redox Depressions (F8)	unless disturbed or problematic.
Restrictive Layer (
Type: Bedrock			<u> </u>	
Depth (inches): _	12		<u></u>	Hydric Soil Present? Yes No
Remarks:				
	il indicat	ors obse	erved.	
No hydric so			erved.	
No hydric so	y Indicators:		check all that apply)	Secondary Indicators (2 or more required)
No hydric so	y Indicators:			
No hydric sol	y Indicators: minimum of c		check all that apply)	
No hydric so HYDROLOGY Wetland Hydrology Primary Indicators (I	y Indicators: minimum of c (A1) ole (A2)		check all that apply) Water-Stained Leaves (B9) (except	Water-Stained Leaves (B9) (MLRA 1, 2,
No hydric so HYDROLOGY Wetland Hydrology Primary Indicators (I Surface Water of High Water Tab	y Indicators: minimum of c (A1) ble (A2)		check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
No hydric solution in the solution is a second solution in the	y Indicators: minimum of c (A1) ble (A2)		check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11)	Water-Stained Leaves (B9) (MLRA 1, 2,4A, and 4B)Drainage Patterns (B10)
No hydric solution in the solution is a solution in the soluti	y Indicators: minimum of c (A1) ble (A2) st1) ssits (B2)		check all that apply) Water-Stained Leaves (B9) (except	 Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2)
No hydric solution in the control of	y Indicators: minimum of c (A1) ble (A2) st) ssits (B2) B3) ust (B4)		check all that apply) Water-Stained Leaves (B9) (except	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9 Roots (C3) Geomorphic Position (D2) Shallow Aquitard (D3)
No hydric social	y Indicators: minimum of c (A1) ble (A2) st1) sits (B2) B3) ust (B4)		check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9 Roots (C3) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)
No hydric soil HYDROLOGY Wetland Hydrology Primary Indicators (I Surface Water of High Water Table Saturation (A3) Water Marks (Been Sediment Deposits (I Algal Mat or Crossing Iron Deposits (Ees Surface Soil Crossing Crossing Control Crossing Crossi	y Indicators: minimum of c (A1) ble (A2) (B1) sits (B2) (B3) ust (B4) (B5) acks (B6)	ne required;	check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils Stunted or Stressed Plants (D1) (LR	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Roots (C3) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) RAA) Raised Ant Mounds (D6) (LRR A)
No hydric solution No hydric solution No hydric solution No hydrology Wetland Hydrology Primary Indicators (I) Surface Water of High Water Table Saturation (A3) Water Marks (B) Sediment Depoist (I) Algal Mat or Crollinon Deposits (E) Surface Soil Crollinundation Visit	y Indicators: minimum of c (A1) ble (A2) st1) ssits (B2) B3) ust (B4) B5) acks (B6) ble on Aerial I	ne required;	check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils Stunted or Stressed Plants (D1) (LR	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9 Roots (C3) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)
No hydric solutions of the solution of the sol	y Indicators: minimum of c (A1) ble (A2) sit) sits (B2) s3) ust (B4) 35) acks (B6) ble on Aerial I ated Concave	ne required;	check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils Stunted or Stressed Plants (D1) (LR	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Roots (C3) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) RAA) Raised Ant Mounds (D6) (LRR A)
No hydric solutions of the solution of the sol	y Indicators: minimum of c (A1) ble (A2) sits (B2) sits (B4) sits (B4) acks (B6) ble on Aerial I ated Concave	magery (B7) e Surface (B8	check all that apply) — Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) — Salt Crust (B11) — Aquatic Invertebrates (B13) — Hydrogen Sulfide Odor (C1) — Oxidized Rhizospheres along Living — Presence of Reduced Iron (C4) — Recent Iron Reduction in Tilled Soils — Stunted or Stressed Plants (D1) (LR — 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) Roots (C3) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) RAA) Raised Ant Mounds (D6) (LRR A)
No hydric solutions of the control o	y Indicators: minimum of c (A1) ble (A2) sits (B2) B3) ust (B4) B35) acks (B6) ble on Aerial I ated Concave s: ent? Y	magery (B7) e Surface (B8	check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils Stunted or Stressed Plants (D1) (LR 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) Roots (C3) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) RAA) Raised Ant Mounds (D6) (LRR A)
No hydric solutions of the control o	y Indicators: minimum of o (A1) ole (A2) (B1) osits (B2) (B3) oust (B4) (B5) acks (B6) ole on Aerial I ated Concave s: ent? Y	magery (B7) e Surface (B8	check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils Stunted or Stressed Plants (D1) (LR 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) Roots (C3) Geomorphic Position (D2) Shallow Aquitard (D3) S (C6) FAC-Neutral Test (D5) RAA) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
No hydric solutions of the solution of the sol	y Indicators: minimum of c (A1) ble (A2) st1) ssits (B2) s3) ust (B4) s35) acks (B6) ble on Aerial I ated Concave s: ent? Y	magery (B7) e Surface (B8	check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils Stunted or Stressed Plants (D1) (LR 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) Roots (C3) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) RAA) Raised Ant Mounds (D6) (LRR A)
No hydric solutions of the solution of the sol	y Indicators: minimum of o (A1) ole (A2) (B1) osits (B2) (B3) oust (B4) (B5) ole on Aerial I ated Concave (B6) other on Aerial I ated Concave (B7)	magery (B7) e Surface (B8 es No es No es No	check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils Stunted or Stressed Plants (D1) (LR 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) Roots (C3) Geomorphic Position (D2) Shallow Aquitard (D3) S (C6) FAC-Neutral Test (D5) RAA) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7) Wetland Hydrology Present? Yes No
No hydric solutions of the solution of the sol	y Indicators: minimum of o (A1) ole (A2) (B1) osits (B2) (B3) oust (B4) (B5) ole on Aerial I ated Concave (B6) other on Aerial I ated Concave (B7)	magery (B7) e Surface (B8 es No es No es No	check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils Stunted or Stressed Plants (D1) (LR 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) Roots (C3) Geomorphic Position (D2) Shallow Aquitard (D3) S (C6) FAC-Neutral Test (D5) RAA) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7) Wetland Hydrology Present? Yes No
No hydric solutions of the solution of the sol	y Indicators: minimum of o (A1) ole (A2) (B1) osits (B2) (B3) oust (B4) (B5) ole on Aerial I ated Concave (B6) other on Aerial I ated Concave (B7)	magery (B7) e Surface (B8 es No es No es No	check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils Stunted or Stressed Plants (D1) (LR 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) Roots (C3) Geomorphic Position (D2) Shallow Aquitard (D3) S (C6) FAC-Neutral Test (D5) RAA) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7) Wetland Hydrology Present? Yes No
No hydric solutions of the control o	y Indicators: minimum of c (A1) ble (A2) st1) ssits (B2) s3) ust (B4) s35) acks (B6) ble on Aerial I ated Concave s: ent? Y tinge) Data (stream	magery (B7) e Surface (B8 fes No fes No gauge, moni	check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils Stunted or Stressed Plants (D1) (LR Other (Explain in Remarks) Depth (inches): Depth (inches):	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Roots (C3) Geomorphic Position (D2) Shallow Aquitard (D3) S (C6) FAC-Neutral Test (D5) RAA) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7) Wetland Hydrology Present? Yes No
No hydric solutions of the control o	y Indicators: minimum of c (A1) ble (A2) st1) ssits (B2) s3) ust (B4) s35) acks (B6) ble on Aerial I ated Concave s: ent? Y tinge) Data (stream	magery (B7) e Surface (B8 fes No fes No gauge, moni	check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils Stunted or Stressed Plants (D1) (LR 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) Roots (C3) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) RAA) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7) Wetland Hydrology Present? Yes No
No hydric solutions of the control o	y Indicators: minimum of c (A1) ble (A2) st1) ssits (B2) s3) ust (B4) s35) acks (B6) ble on Aerial I ated Concave s: ent? Y tinge) Data (stream	magery (B7) e Surface (B8 fes No fes No gauge, moni	check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils Stunted or Stressed Plants (D1) (LR Other (Explain in Remarks) Depth (inches): Depth (inches):	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Roots (C3) Geomorphic Position (D2) Shallow Aquitard (D3) S (C6) FAC-Neutral Test (D5) RAA) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7) Wetland Hydrology Present? Yes No

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

Project/Site: US93 N Peterson	City/0	County: Lake Co	unty	Sampling Date: 2023-06-22
Applicant/Owner: MDT			State: Montana	Sampling Point: DP04w
Investigator(s): S Weyant	Secti	on, Township, Ra	nge: S35 T19N R20W	!
Landform (hillslope, terrace, etc.): Valley Floor				
Subregion (LRR): E 44				
Soil Map Unit Name: 143 - Ronan silty clay loam, 4				
Are climatic / hydrologic conditions on the site typical for t				
	-			
Are Vegetation, Soil, or Hydrology				resent? Yes No
Are Vegetation, Soil, or Hydrology			eeded, explain any answer	
SUMMARY OF FINDINGS – Attach site map		npling point l	ocations, transects,	important features, etc.
Hydrophytic Vegetation Present? Yes Hydric Soil Present? Yes	No	Is the Sampled	Area	
Hydric Soil Present? Wetland Hydrology Present? Yes Yes		within a Wetlar		No
Remarks:				
PEM, riverine wetland. Sample point approximately 3	0' north of strean	n channel. Hvdro	logic conditions on the s	site are atypical. The U.S.
Drought Monitor Index for Lake County, MT during th			=	
VEGETATION – Use scientific names of pla	nts.			
20 ft r		minant Indicator	Dominance Test works	sheet:
Tree Stratum (Plot size: 30 ft r	% Cover Spe		Number of Dominant Sp	
1			That Are OBL, FACW, o	or FAC: 1 (A)
2			Total Number of Domina	
3			Species Across All Strat	ta: <u>1</u> (B)
4	<u>0</u> = To	otal Cover	Percent of Dominant Sp That Are OBL, FACW, o	
Sapling/Shrub Stratum (Plot size: 15 ft r)			Prevalence Index work	sheet:
1			Total % Cover of:	Multiply by:
2			-	x 1 = <u>0</u>
3 4			· ·	x 2 = 140
5			· ·	x 3 = <u>3</u>
<u> </u>	0 = To	otal Cover	-	x 4 = 0
Herb Stratum (Plot size: 5 ft r)				x 5 = 20
1. Phalaris arundinacea	70	FACW_	Column Totals: /5	(A) <u>163</u> (B)
2. Brassica juncea		UPL	Prevalence Index	= B/A = <u>2.17</u>
3. Geum macrophyllum	1	FAC	Hydrophytic Vegetatio	n Indicators:
4			✓ 1 - Rapid Test for H	ydrophytic Vegetation
5			✓ 2 - Dominance Test	
6			✓ 3 - Prevalence Inde	
7				daptations ¹ (Provide supporting or on a separate sheet)
8			5 - Wetland Non-Va	•
9				ohytic Vegetation ¹ (Explain)
10 11				and wetland hydrology must
111.	7-	tal Cover	be present, unless distu	
Woody Vine Stratum (Plot size:)		tai oovei		
1			Hydrophytic	
2			Vegetation	s_ 🗸 No
W Done Crowned in Light Objections 25	<u>0</u> = To	tal Cover	Present? Yes	S No
% Bare Ground in Herb Stratum 25 Remarks:				
Evidence of hydrophytic vegetation in	•	itive rapid te	est, a positive dom	ilnance test, and a
prevalence index less than or equal to	3.0.			

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SOIL Sampling Point: DP04w

Profile Desc	ription: (Describe	to the dep	th needed to docur	nent the	indicator	or confirn	n the absence of indicat	ors.)
Depth	Matrix		Redo	x Feature	s			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks
0-6	10YR 3/2	100					Clay Loam	
6 - 12	10YR 3/1	97	10YR 5/8	3	<u>C</u>	<u>M</u>	Clay Loam	
-								
_								
						· ——		
						· ——		
1Type: C=C	ncentration D=Den	letion PM	=Reduced Matrix, CS	S=Covere	d or Coate	ad Sand G	rains ² Location: PL:	=Pore Lining, M=Matrix.
			LRRs, unless other			eu Sanu Gi		blematic Hydric Soils ³ :
Histosol			Sandy Redox (,		2 cm Muck (A1	•
	oipedon (A2)		Stripped Matrix				Red Parent Ma	•
Black Hi					1) (avaan	4 MI D A 4\		Dark Surface (TF12)
	` '		Loamy Mucky N			LIVILKA I)	•	
	n Sulfide (A4) I Below Dark Surfac	o (A11)	Loamy Gleyed Depleted Matrix	•	<u>2)</u>		Other (Explain	in Remarks)
	ark Surface (A12)	e (ATT)	✓ Redox Dark Su		\		3Indicators of hydro	phytic vegetation and
	lucky Mineral (S1)		Depleted Dark	, ,				gy must be present,
	Gleyed Matrix (S4)		Redox Depress		1)		unless disturbed	••
	_ayer (if present):		Redox Depress	10113 (1 0)			unicas disturbed	Tot problematic.
Type: Be								
Depth (inc	ches): 12		<u></u>				Hydric Soil Present?	Yes No
Remarks:								
Promine:		phic co	oncentrations	s com	mon w	ithin ti	he matrix.	
Wetland Hvo	drology Indicators:							
_			d; check all that appl	v)			Secondary Indic	ators (2 or more required)
	Water (A1)	,	Water-Sta		es (B9) (excent	<u> </u>	ed Leaves (B9) (MLRA 1, 2,
	iter Table (A2)			1, 2, 4A,			4A, and	, , ,
Saturation			Salt Crust		uu,		Drainage Pa	
Water M	, ,		Aquatic In	` '	oc (P13)			Water Table (C2)
			Hydrogen					
	nt Deposits (B2)					Listan Dan		risible on Aerial Imagery (C9)
	posits (B3)		Oxidized F		_	_		
	it or Crust (B4)		Presence				Shallow Aqu	
	osits (B5)		Recent Iro			,	· —	
Surface	Soil Cracks (B6)		Stunted or	Stressec	l Plants (E	01) (LRR A	A) Raised Ant	Mounds (D6) (LRR A)
Inundation	on Vis ble on Aerial I	magery (B	7) Other (Exp	olain in Re	emarks)		Frost-Heave	Hummocks (D7)
Sparsely	Vegetated Concave	e Surface (l	38)					
Field Observ	vations:							
Surface Water			No Depth (in					
Water Table			No <u> </u>					
Saturation P		es	No Depth (in	ches):		Wetl	and Hydrology Present	Yes No
(includes cap Describe Red		gauge. mo	onitoring well, aerial	photos, n	revious in	spections)	if available:	
	(0	gg-,		, p.				
Remarks:								
Evidona	o of wotland	hydrol	oay ingludge	2 000	itivo f	ac-nou	itral test and se-	amorphic position
Soil is m		riyaron	ogy includes	a pos	itive i	ac-neu	itrai test and ged	omorphic position.

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

Project/Site: US93 N Peterson	(City/Cou	_{ınty:} Lake Co	unty	Sampling Date: 2023-06-23
Applicant/Owner: MDT				State: Montana	Sampling Point: DP05u
Investigator(s): S Weyant	;	Section,	Township, Ra	nge: S35 T19N R20W	
					ng Slope (%): 30
Subregion (LRR): E 44	Lat: 47.	36198	6	Long: -114.101968	Datum: NAD 83
Soil Map Unit Name: 143 - Ronan silty clay loam, 4					
Are climatic / hydrologic conditions on the site typical for t	his time of yea	ar? Yes	No	(If no, explain in Re	marks.)
Are Vegetation, Soil, or Hydrology	_ significantly	disturbe	d? Are "	Normal Circumstances" pr	esent? Yes No
Are Vegetation, Soil, or Hydrology	_naturally pro	blematic	c? (If ne	eded, explain any answers	s in Remarks.)
SUMMARY OF FINDINGS - Attach site ma	p showing	samp	ling point le	ocations, transects,	important features, etc.
Hydrophytic Vegetation Present? Yes	No				
Hydric Soil Present? Yes	No		s the Sampled vithin a Wetlar		No
Wetland Hydrology Present? Yes	No	•	vitiliii a vvetiai	iu: 165	_ 110
Remarks: Upland sample point on hillside in northwest portion	of cito. Hydro	ologic c	anditions on t	ho site are atypical. The	II S. Drought Monitor Indov
for Lake County, MT during the site visit is D1 (mode			onditions on t	ne site are atypical. The	o.s. brought Monitor index
VEGETATION – Use scientific names of pla	ints.				
Tree Stratum (Plot size: 30 ft r	Absolute % Cover		ant Indicator	Dominance Test works	
1				Number of Dominant Spe That Are OBL, FACW, or	4
2				Total Number of Domina	nt
3				Species Across All Strata	4
4				Percent of Dominant Spe	ecies
Sapling/Shrub Stratum (Plot size: 15 ft r	0	= Total	Cover	That Are OBL, FACW, or	、 ,
1				Prevalence Index works	
2				Total % Cover of: OBL species 0	$\frac{\text{Multiply by:}}{\text{x 1 = } 0}$
3				FACW species 0	
4				1	x 3 = 255
5	_				x 4 = 0
Herb Stratum (Plot size: 5 ft r	0	= Total	Cover		x 5 = 0
1. Poa pratensis	80	~	FAC	Column Totals: 85	(A) <u>255</u> (B)
2. Elymus repens	5		FAC	Prevalence Index :	= B/A = 3.00
3.				Hydrophytic Vegetation	
4.				1 - Rapid Test for Hy	
5				✓ 2 - Dominance Test	· · ·
6				3 - Prevalence Index	(is ≤3.0 ¹
7				4 - Morphological Ac	daptations ¹ (Provide supporting
8					or on a separate sheet)
9				5 - Wetland Non-Vas	
10.					hytic Vegetation ¹ (Explain) and wetland hydrology must
11	0.5			be present, unless distur	
Woody Vine Stratum (Plot size:)	00	= Total	Cover		
1				Hydrophytic	
2				Vegetation	√ No.
	_	= Total	Cover	Present? Yes	No
% Bare Ground in Herb Stratum 13 Remarks:				<u> </u>	
	and of the	E 4 0	rotod on -	oioo orooping wild	nuo and Kantualar
Vegetation at the data point is compris	seu oi the	FAC	rated spe	cies creeping wild	rye and Kentucky
bluegrass.					

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SOIL Sampling Point: DP05u

Profile Desc	ription: (Describ	e to the dept	h needed to docu	ment the ind	icator c	or confirm	the absence of i	naicators.)	
Depth	Matrix			x Features					
(inches)	Color (moist)		Color (moist)		Γype¹	Loc ²	<u>Texture</u>	Remark	S
0-7	7.5YR 3/2	100					Clay Loam		
7 - 16	10YR 3/1	100					Clay Loam		
-									
_									
	-								
1- 0.0							. 21	DI D. I	
	oncentration, D=De Indicators: (Appli					d Sand Gra		n: PL=Pore Lining or Problematic Hy	
Histosol		cable to all L	Sandy Redox		,			uck (A10)	une dons .
_	pipedon (A2)	-	Stripped Matrix					rent Material (TF2)	
Black Hi		-	Loamy Mucky	` '	except	MLRA 1)		allow Dark Surface	(TF12)
Hydroge	n Sulfide (A4)	-	Loamy Gleyed	Matrix (F2)			Other (E	xplain in Remarks)
	d Below Dark Surfa	ice (A11)	Depleted Matri				3		
	ark Surface (A12)	-	Redox Dark Su	, ,				f hydrophytic veget	
-	flucky Mineral (S1) Gleyed Matrix (S4)	-	Depleted Dark Redox Depres	` ,				nydrology must be p sturbed or problema	
	_ayer (if present):		Redox Depres	310113 (1 0)			unicss di	starbed or problem	atio.
Type:	,								
Depth (inc	ches):						Hydric Soil Pre	sent? Yes	No 🗸
Remarks:	,								
Soil is ve	ery compact	ed. Soil	norizon has	few clay	/ poc	kets w	ith relict m	ottles (10YR	(5/3).
HYDROLO	GY								
Wetland Hyd	drology Indicators	s:							
Primary Indic	cators (minimum of	one required	check all that app	ly)			Secondar	y Indicators (2 or m	ore required)
Surface	Water (A1)		Water-Sta	ined Leaves	(B9) (ex	ccept	Wate	r-Stained Leaves (E	89) (MLRA 1, 2,
_	iter Table (A2)			1, 2, 4A, and	l 4B)			A, and 4B)	
Saturation	` '		Salt Crus	` '			· <u></u>	age Patterns (B10)	
Water M				vertebrates (Season Water Table	
	nt Deposits (B2)			Sulfide Odor			·	ation Visible on Ae	• • • •
	oosits (B3)							norphic Position (D2)	2)
	at or Crust (B4) posits (B5)			of Reduced I on Reduction				ow Aquitard (D3) Neutral Test (D5)	
	Soil Cracks (B6)		Stunted o					ed Ant Mounds (D6)	(IRRA)
	on Vis ble on Aeria	I Imagery (B7				., (=,		-Heave Hummocks	
	Vegetated Conca				-,		<u>—</u>		,
Field Observ		<u> </u>	·						
i icia obsci			lo 🗸 Denth (ir	iches):		_			
Surface Water	er Present?	Yes N	10 Dcpti1 (ii						
			lo V Depth (ir	iches):					
Surface Wate	Present?	Yes N					and Hydrology Pr	esent? Yes	No <u> </u>
Surface Wate Water Table Saturation Pr (includes cap	Present? resent? pillary fringe)	Yes N Yes N	lo Depth (ir	iches):		_ Wetla	-	esent? Yes	No
Surface Water Water Table Saturation Pr (includes cap	Present? resent?	Yes N Yes N	lo Depth (ir	iches):		_ Wetla	-	esent? Yes	No
Surface Water Water Table Saturation Pr (includes cap Describe Rec	Present? resent? pillary fringe)	Yes N Yes N	lo Depth (ir	iches):		_ Wetla	-	esent? Yes	No
Surface Water Water Table Saturation Pr (includes cap Describe Red Remarks:	Present? resent? pillary fringe) corded Data (strea	Yes N Yes N m gauge, moi	lo V Depth (ir lo V Depth (ir nitoring well, aerial	photos, previ	ous insp	_ Wetla	if available:	esent? Yes	No
Surface Water Water Table Saturation Pr (includes cap Describe Red Remarks:	Present? resent? pillary fringe)	Yes N Yes N m gauge, moi	lo V Depth (ir lo V Depth (ir nitoring well, aerial	photos, previ	ous insp	_ Wetla	if available:	esent? Yes	No
Surface Water Water Table Saturation Pri (includes cap Describe Red Remarks:	Present? resent? pillary fringe) corded Data (strea	Yes N Yes N m gauge, moi	lo V Depth (ir lo V Depth (ir nitoring well, aerial	photos, previ	ous insp	_ Wetla	if available:	esent? Yes	No <u> </u>

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

Project/Site: US93 N Peterson	(City/County	. Lake Co	unty Sampling Date: 2023-06-23
Applicant/Owner: MDT				
Investigator(s): S Weyant	(nge: S35 T19N R20W
• , , -				convex, none): Undulating Slope (%): 30
				Long: -114.10207 Datum: NAD 83
Soil Map Unit Name: 143 - Ronan silty clay loam, 4 to				
Are climatic / hydrologic conditions on the site typical for this				
Are Vegetation, Soil, or Hydrologys				Normal Circumstances" present? Yes No
Are Vegetation, Soil, or Hydrology n	-			eded, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map			g point le	ocations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes N	0			
<u> </u>	0		e Sampled	
Wetland Hydrology Present? Yes N	0	With	in a Wetlan	id?
Remarks:				
PEM, slope wetland. This area is receiving groundwate the site are atypical. The U.S. Drought Monitor Index for				· · · · · · · · · · · · · · · · · · ·
VEGETATION – Use scientific names of plan	ts.			
- 30 ft r	Absolute			Dominance Test worksheet:
Tree Stratum (Plot size: 30 ft r	% Cover			Number of Dominant Species
1				That Are OBL, FACW, or FAC: 2 (A)
2				Total Number of Dominant Species Across All Strata: 2 (B)
3				Species Across All Strata: 2 (B)
	_	= Total Co	ver	Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)
Sapling/Shrub Stratum (Plot size: 15 ft r	'			Prevalence Index worksheet:
1				Total % Cover of: Multiply by:
2				OBL species 45 x 1 = 45
3				FACW species $0 x 2 = 0$
4				FAC species 39 x 3 = 117
5	0			FACU species <u>0</u> x 4 = <u>0</u>
Herb Stratum (Plot size: 5 ft r)	<u> </u>	= Total Co	over	UPL species <u>7</u> x 5 = <u>35</u>
1. Carex nebrascensis	45	~	OBL	Column Totals: <u>91</u> (A) <u>197</u> (B)
2. Poa pratensis	30	~	FAC	Prevalence Index = B/A = 2.16
3. Brassica juncea	7		UPL	Hydrophytic Vegetation Indicators:
4. Juncus tenuis	5		FAC	1 - Rapid Test for Hydrophytic Vegetation
5. Poa palustris	3		FAC	✓ 2 - Dominance Test is >50%
6. Elymus repens	1		FAC	✓ 3 - Prevalence Index is ≤3.0 ¹
7				4 - Morphological Adaptations ¹ (Provide supporting
8				data in Remarks or on a separate sheet)
9				5 - Wetland Non-Vascular Plants ¹
10				Problematic Hydrophytic Vegetation ¹ (Explain)
11				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size:)	91	= Total Co	ver	so process, amose distance of problematic.
, , , , , , , , , , , , , , , , , , , ,				Hadran bada
1 2				Hydrophytic Vegetation
	_	= Total Co	ver	Present? Yes No
% Bare Ground in Herb Stratum 9				
Remarks:				
Evidence of hydrophytic vegetation incl	udes a p	ositive	domina	nce test and a prevalence index less
than or equal to 3.0.				

US Army Corps of Engineers

SOIL Sampling Point: DP05w

Profile Desc	ription: (Describe	to the dep	oth needed to docur	nent the	indicator	or confirm	n the absence of inc	dicators.)	
Depth	Matrix		Redo	x Feature	es				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks	_
0 - 7	7.5YR 2.5/1	100		_			Silty Clay Loam		_
7 - 16	2.5Y 3/2	90	10YR 5/1	10	D	M	Silty Clay Loam		_
-									
_				<u> </u>		<u> </u>			_
									_
				-		-			_
						-			_
									_
			=Reduced Matrix, CS			ed Sand Gr		: PL=Pore Lining, M=Matrix.	
Hydric Soil I	Indicators: (Applic	cable to all	LRRs, unless other	rwise no	ted.)		Indicators for	r Problematic Hydric Soils ³ :	
Histosol	• •		Sandy Redox (,			2 cm Muc	' '	
-	oipedon (A2)		Stripped Matrix					nt Material (TF2)	
Black Hi			Loamy Mucky N			t MLRA 1)		llow Dark Surface (TF12)	
	n Sulfide (A4)		Loamy Gleyed	•	2)		Other (Ex	plain in Remarks)	
	d Below Dark Surfac	ce (A11)	Depleted Matrix				3, ,, ,		
	ark Surface (A12)		Redox Dark Su	•	•			hydrophytic vegetation and	
-	Mucky Mineral (S1)		Depleted Dark				•	drology must be present,	
	Bleyed Matrix (S4) Layer (if present):		Redox Depress	sions (F8)			uniess dist	urbed or problematic.	
_	Layer (ii present).								
Type: Depth (ind	choe):						Hydric Soil Pres	ent? Yes 🗸 No	
Remarks:							Tryunc 3011 Tes	ent: resNo	
HYDROLO		nic depl	letions comm	ion wi	thin th	ne matr	ix.		
_	drology Indicators		d. abaal, all that awal				Casandani	Indicators (O as mass as assisted)	
-		one require	d; check all that appl	•	(DO) (Indicators (2 or more required)	
_	Water (A1)		Water-Sta			except		Stained Leaves (B9) (MLRA 1, 2,	,
_	ater Table (A2)			1, 2, 4A,	and 4B)			and 4B)	
<u>✓</u> Saturation			Salt Crust	` '			 -	ge Patterns (B10)	
Water M			Aquatic In					ason Water Table (C2)	
	nt Deposits (B2)		Hydrogen					tion Visible on Aerial Imagery (C9	∌)
	posits (B3)				_	_	ots (C3) Geomo		
	at or Crust (B4)		Presence	of Reduc	ed Iron (C	4)		v Aquitard (D3)	
	oosits (B5)		Recent Iro	n Reduct	ion in Tille	ed Soils (C6	6) <u>🗸</u> FAC-N	eutral Test (D5)	
Surface	Soil Cracks (B6)		Stunted or	Stressed	d Plants ([01) (LRR A) Raised	Ant Mounds (D6) (LRR A)	
Inundation	on Vis ble on Aerial	Imagery (B	7) Other (Exp	olain in R	emarks)		Frost-H	leave Hummocks (D7)	
Sparsely	Vegetated Concav	e Surface ((B8)						
Field Observ	vations:								
Surface Water	er Present?	Yes	No Depth (in	ches):					
Water Table	Present?	Yes <u>✓</u>	No Depth (in	ches): 10)				
Saturation Pr	resent?	Yes <u>✓</u>	No Depth (in	ches): 0		Wetla	and Hydrology Pres	sent? Yes 🖍 No	
(includes cap				-11			96		
Describe Red	corded Data (strean	n gauge, m	onitoring well, aerial	pnotos, p	revious in	spections),	ır avalladie:		
Remarks:									
	e of wetland fac-neutral	-	ogy includes	satur	ation 1	to the s	soil surface, h	nigh water table, and	l a

MDT Montana Wetland Assessment Form (revised March 2008)

2. MDT Project #: 1. Project Name: US 93 Peterson NH-5-2(122)31 Control #: 9680000

3. Evaluation Date: 06/22/2023 4. Evaluator(s): S Weyant 5. Wetlands/Site #(s): AA-1

6. Wetland Location(s): i. Legal: T19N,R20W,35 Latitude/Longitude: 47.361687, -114.099664: Centroid of

ii. Approx. Stationing or Mileposts: RP 35.5 US 93 North

iii. Watershed:

Watershed Name, County: Flathead, Lake

7. a. Evaluating Agency: CCI - MDT

b. Purpose of Evaluation:

Wetlands potentially affected by MDT project 8. Wetland size:

3.510 acres (measured) Mitigation wetlands; pre-construction 9. Assessment area (AA): 3.510 acres (measured)

3. X Mitigation wetlands; post-construction

Other:

10. Classification of Wetland and Aquatic Habitats in AA

HGM Class (Brinson)	Class (Cowardin)	Modifier (Cowardin)	Water Regime	% of AA
R	EM	ı	PP	84.00
S	EM	I	SI	6.00
R	SS	I	PP	10.00

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)

	Predominant conditions adjacent to (within 500 feet of) AA						
Conditions within 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.): AA includes an unnamed perennial stream channel and adjacent fringe wetlands and slope wetland. Wetlands within the AA were constructed in 2006 and managed in a natural state. Adjacent area is subject to grazing. ii. Prominent noxious, aquatic nuisance, & other exotic vegetation species: Cirsium arvense, Cynoglossum officinale, Iris pseudocorus, and Leucanthemum vulgare are present within the AA. Additionally, Lepidium draba and Ventenata dubia are prominent in the areas surrounding the AA. iii. Provide brief descriptive summary of AA and surrounding land use/habitat: Rangeland to the north, south and west; US 93 corridor to the east. Woody vegetation is dispersed across the wetland, therefore a scrub shrub wetland class is included to capture its observed importance to wildlife (especially Passerines) on the site.

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	Н	NA	NA	NA
2 (or 1 if forested) classes	M	NA	NA	NA
1 class, but not a monoculture	М	< NO	YES>	L
1 class, monoculture (1 species comprises >= 90% of total cover)	Ĺ	NA	NA	NA

Comments: Vegetated classes at the mitigation site include emergent and scrub-shrub.

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)

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): Documented occurrence (CSKT Wildlife staff observation 2017/2018). Suspected occurrence (MTNHP 2023, USFWS IPaC 2023).

14B. Habitat for plant or animals rated S1, S2, or S3 by the Montana Natural Heritage Program: (not including species listed in14A 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 (S3)(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): Great Blue Heron have been documented in the project vicinity (MTNHP Environmental Summary 2023).

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]):	Minimal (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	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]):	
X observations of scattered wildlife groups or individuals or relatively few species during	peak periods
X common occurrence of wildlife sign such as scat, tracks, nest structures, game trails, e	etc.
X 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								Mod	erate				Low					
Class cover distribution (all vegetated classes)		E۱	en/en			Une	even			Ev	en			Une	even			Ev	en	
Duration of surface water in >=10% of AA	P/P	S/I	T/E	А	P/P	S/I	T/E	Α	P/P	S/I	T/E	Α	P/P	S/I	T/E	Α	P/P	S/I	T/E	Α
Low disturbance at AA (see #12i)	E	Е	E	Н	E	Е	Н	Н	E	Н	Н	М	E	Н	М	М	Е	Н	М	М
Moderate disturbance at AA (see #12i)	Н	Н	Н	Н	Н	Н	Н	М	Н	Н	М	М	Н	М	М	L	Н	М	L	L
High disturbance at AA (see #12i)	М	М	М	L	М	М	L	L	М	М	L	L	М	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)

Fuidance of wildlife use (i)	Wildlife habitat features rating (ii)									
Evidence of wildlife use (i)	Exceptional	High	Moderate	Moderate						
Substantial	1E	.9H	.8H	.7M						
Moderate	.9H	.7M	.5M	.3L						
Minimal	.6M	.4M	.2L	.1L						

Comments: General wildlife is rated high based on low disturbance to the area and moderate habitat use. 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 **NA** and proceed to 14E.)

Type of Fishery: Cold Water (CW) Warm Water (WW) X 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						Sea	sonal /	Intermi	ttent			Tem	porary / Ephemeral				
Aquatic hiding / resting / escape cover	Opt	imal	Adeo	quate	Po	oor	Opt	imal	Aded	quate	Po	or	Opt	imal	Aded	quate	Po	or
Thermal cover optimal / suboptimal	0	S	0	S	0	S	0	S	0	S	0	S	0	S	0	S	0	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: Unidentified fish species.

- 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? X 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: 0.3L

Comments: General fish habitat rated NA due to impassable barriers (log cribs) that prevented fish from using AA in previous years. Rating updated in 2021 with the observation of minnows in 2021 and 2022.

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 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			ely entrend 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.

4.6 /	2 =	2.30
Flood-prone	Bankfull	Entrenchment ratio
width	width	(ER)



Slightly Entrenched ER = >2.2			Moderately Entrenched ER = 1.41 – 2.2			
C stream type	D stream type	E stream type	B stream type	A stream type	F stream type	G stream type
		1				

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: Log crib structures were installed as beaver dam analogues to spread flow out and create wetland habitat. The dense cattail marsh works to slow flood waters and functions similarly to woody vegetation, so the score was manually increased.

- **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 t	o 5 acre	feet	\ \	1 acre fo	oot
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: Log crib structures impound and store water.

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	potential to or compour are no sedimentat	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.				t for "probable of toxicants or AA otential to delive r compounds so impaired. Majo	waterbodies in r causes" related receives or surrer high levels of uch that other fu or sedimentation ns of eutrophica	to sediment, rounding land sediments, unctions are n, sources of
% cover of wetland vegetation in AA	>= 7	70%	< 7	0%	>=	70%	< 7	0%
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: The AA routinely floods and is dominated by emergent vegetation, and has a restricted outlet created by log crib structures.

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	Duration of surface water adjacent to rooted vegetation							
shoreline by species with stability ratings of >=6 (see Appendix F).	Permanent / Perennial	Seasonal / Intermittent	Temporary / Ephemeral					
>= 65%	1H	.9H	.7M					
35-64%	.7M	.6M	.5M					
35%	.3L	.2L	.1L					

Comments: The AA contains an unnamed tributary to Post Creek. Dominant wetland cover is provided by Typha latifolia and Phalaris arundinacea.

14I. Production Export/Food Chain Support:

i. Level of Biological Activity (synthesis of wildlife and fish habitat ratings [circle])

General Fish Habitat	General Wildlife Habitat Rating (14C.iii.)						
Rating (14D.iii.)	E/H	M	L				
E/H	Н	Н	M				
M	Н	M	M				
L	M	M	L				
N/A	Н	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 (14!.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].)

Α		Vegetat	ed com	onent >	5 acres		Vegetated component 1-5 acres			Vegetated component < 1 acre								
В	Hi	gh	Mod	erate	Lo	W	Hi	gh	Mode	erate	Lo)W	Hi	gh	Mode	erate	Lo	W
С	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

iv. Final Score and Rating: 0.80H

Comments: Vegetated component of AA is 3.51 acres of emergent wetland with a developing scrubshrub component. The AA includes a permanent/perennial stream channel and surface water outlet.

14J. Groundwater Discharge/Recha	rge: (check	the appropria	te indicators	in i & ii belov	v)				
i. Discharge Indicators X The AA is a slope wetland Springs or seeps are known Vegetation growing during do X Wetland occurs at the toe of AA permanently flooded duri Wetland contains an outlet, b Shallow water table and the	ormant seas a natural slo ng drought p out no inlet	son/drought ope periods	face	F	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:				
X Other: Seeps are present at	the wetland	d edge							
iii. Rating (use the information from i	and ii above	Duration	of saturation	on at AA We	the functional tlands FROI THAT IS RE TER SYSTEM	M GROUNDI ECHARGING	<u>NATER</u>		
Criteria	F	P/P		S/I	Т		None	1	
Groundwater Discharge or Rechar	rae	1H		.7M	.4M		.1L		
Insufficient Data/Information	3-			N//	A			1	
Comments: Majority of site hydrolog 14K. Uniqueness: i. Rating (working from top to bottom,					·	·	ur north and s	south of the c	reek.
Replacement potential	or matu wetland o	tains fen, bog, warm springs ature (>80 yr-old) forested d or plant association listed s "S1" by the MTNHP		AA does not contain previously cite rare types and structural diversity (#13) is high or contains plant association listed as "S2" by the MTNHP		al diversity ains plant	AA does not contain previous rare types or associations structural diversity (#13) is moderate		tions and
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: Wetland types are comments: 430% in all areas of the component is included in	site. Howev	er, the woody							
14L. Recreation/Education Potentia	I: (affords "b	onus" points i	if AA provide	s recreation	or education	opportunity)			
i. Is the AA a known or potential rec	•						rk NA aı	nd proceed to	the .
overall summary and rating pa		′ `			,		_	•	
ii. Check categories that apply to the	ne AA: X	_Educational/s _Other :	scientific stud	dy;Cons	sumptive rec	.; <u>X</u> Non-o	consumptive	rec.;	
iii. Rating:		_							
Known or Potential Recreation or Ed	lucation Are	а					Known	Potential	
Public ownership or public easem	ent with ge	neral public	access (no ¡	permission i	required)		.2H	.15H	
Private ownership with general pu	ıblic access	s (no permiss	ion require	d)			.15H	.1M	
Private or public ownership without general public access, or requiring permission for public acces						access	.1M	.05L	
Comments: Site has the potential for	r educationa	al use.						-	
General Site Notes									
Wetland acreage at the mitigation sit	te increased	0.04-acres in	the 2023 m	onitoring eve	nt.				

FUNCTION & VALUE SUMMARY & OVERALL RATING FOR WETLAND/SITE #(S): AA-1

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	М	0.80	1	2.81	
B. MT Natural Heritage Program Species Habitat	L	0.10	1	0.35	
C. General Wildlife Habitat	Н	0.90	1	3.16	*
D. General Fish Habitat	L	0.30	1	1.05	
E. Flood Attenuation	М	0.60	1	2.11	
F. Short and Long Term Surface Water Storage	Н	0.80	1	2.81	
G. Sediment/Nutrient/Toxicant Removal	Н	1.00	1	3.51	*
H. Sediment/Shoreline Stabilization	Н	1.00	1	3.51	*
I. Production Export/Food Chain Support	Н	0.80	1	2.81	
J. Groundwater Discharge/Recharge	Н	1.00	1	3.51	*
K. Uniqueness	М	0.40	1	1.40	
L. Recreation/Education Potential (bonus points)	Н	0.15	1	0.53	_
Totals:		7.85	11.00	27.56	
Percent of Possible Score			71%		

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 X 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 X 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: The US 93 N Peterson MDT Wetland Mitigation Site rates as a Category II wetland.

Table B-1. US93 N Peterson Mitigation Site. Comprehensive Vegetation Species List 2008-2023

Scientific Name	Common Name	WMVC Wetland Indicator ^(a)
Achillea millefolium	Common Yarrow	FACU
Agropyron cristatum	Crested Wheatgrass	UPL
Alnus incana	Speckled Alder	FACW
Amsinckia menziesii	Small-flower Fiddle-neck	UPL
Asparagus officinalis	Asparagus	FACU
Bistorta bistortoides	American Bistort	FACW
Brassica juncea	Chinese Mustard	UPL
Bromus arvensis	Field Brome	UPL
Bromus inermis	Smooth Brome	UPL
Bromus tectorum	Cheatgrass	UPL
Cardaria draba	Whitetop	UPL
Carex aquatilis	Leafy Tussock Sedge	OBL
Carex nebrascensis	Nebraska Sedge	OBL
Carex pachystachya	Thick-Head Sedge	FAC
Carex pellita	Woolly Sedge	OBL
Carex praegracilis	Clustered Field Sedge	FACW
Carex sp.	Sedge	N/A
Carex stipata	Stalk-Grain Sedge	OBL
Carex utriculata	Northwest Territory Sedge	OBL
Carex vesicaria	Lesser Bladder Sedge	OBL
Cirsium arvense	Canadian Thistle	FAC
Cirsium vulgare	Bull Thistle	FACU
Cornus alba	Red Osier	FACW
Cynoglossum officincale	Gypsy-Flower	FACU
Dactylis glomerata	Orchard Grass	FACU
Descurainia sophia	Herb Sophia	UPL
Dianthus sp.	Pink	N/A
Dipsacus fullonum	Fuller's Teasel	FAC
Eleocharis palustris	Common Spike-Rush	OBL
Elodea sp.	Waterweed	N/A
Elymus repens	Creeping Wild Rye	FAC
Epilobium ciliatum	Fringed Willowherb	FACW
Erodium cicutarium	Redstem Stork's Bill	UPL
Festuca arundinacea	Tall fescue	UPL
Festuca sp.	Fescue	N/A
Gallium aperine	Sticky-Willy	FACU
Geum macrophyllum	Large-Leaf Avens	FAC
Glyceria grandis	American Manna Grass	OBL
Helianthus pauciflorus	Stiff Sunflower	UPL
Hordeum jubatum	Fox-Tail Barley	FAC

Table B-1. US93 N Peterson Mitigation Site. Comprehensive Vegetation Species List 2008-2023

Scientific Name	Common Name	WMVC Wetland Indicator ^(a)
Impatiens ecalcarata	Spurless Touch-Me-Not	FACW
Iris pseudacorus	Pale-Yellow Iris	OBL
Juncus balticus	Baltic Rush	FACW
Juncus effusus	Common rush	FACW
Juncus ensifolius	Dagger-Leaf Rush	FACW
Juncus sp.	Rush	N/A
Juncus tenuis	Lesser Poverty Rush	FAC
Kochia scoparia	Mexican Kochia	FAC
Lactuca serriola	Prickly Lettuce	FACU
Lemna minor	Common Duckweed	OBL
Lepidium campestre	Field Pepper-grass	UPL
Lepidium perfoliatum	Clasping Pepperwort	FACU
Leucanthemum vulgare	Ox-Eye Daisy	FACU
Malva neglecta	Dwarf Cheeseweed	UPL
Medicago sativa	Alfalfa	UPL
Melilotus officinalis	Yellow Sweet-Clover	FACU
Mentha arvensis	American Wild Mint	FACW
Myosotis laxa	Bay Forget-Me-Not	OBL
Myriophyllum sibiricum	Siberian Water-Milfoil	OBL
Nasturtium microphyllum	One-Row Watercress	OBL
Nasturtium officinale	Watercress	OBL
Nepeta cataria	Catnip	FACU
Oenanthe sp.	Waterdropwort	N/A
Pascopyrum smithii	Western-Wheat Grass	FACU
Persicaria amphibia	Water Smartweed	OBL
Persicaria lapathifolia	Dock-Leaf Smartweed	FACW
Persicaria maculosa	Spotted Lady's Thumb	FACW
Phalaris arundinacea	Reed Canary Grass	FACW
Plantago lanceolata	English Plantain	FACU
Poa palustris	Fowl Blue Grass	FAC
Poa pratensis	Kentucky Blue Grass	FAC
Poa sp.	Bluegrass	N/A
Potentilla recta	Sulphur Cinquefoil	UPL
Potentilla sp.	Cinquefoil	N/A
Prunella vulgaris	Common Selfheal	FACU
Rosa woodsii	Woods' Rose	FACU
Rumex crispus	Curly Dock	FAC
Salix bebbiana	Gray Willow	FACW
Salix drummondiana	Drummond's Willow	FACW

Table B-1. US93 N Peterson Mitigation Site. Comprehensive Vegetation Species List 2008-2023

Scientific Name	Common Name	WMVC Wetland Indicator ^(a)
Salix exigua	Narrowleaf Willow	FACW
Salix sp.	Willow	N/A
Schedonorus pratensis	Meadow False Fye Grass	FACU
Schoenoplectus acutus	Hard-Stem Club-Rush	OBL
Scirpus microcarpus	Red-Tinge Bulrush	OBL
Silene latifolia	Bladder Campion	UPL
Sisymbrium altissimum	Tall Hedge-Mustard	FACU
Solanum dulcamara	Climbing Nightshade	FAC
Sonchus arvensis	Field Sow-Thistle	FACU
Suaeda calceoliformis	Paiuteweed	FACW
Symphoricarpos albus	Common Snowberry	FACU
Thlaspi arvense	Field Pennycress	UPL
Tragopogon dubius	Meadow Goat's-beard	UPL
Trifolium aureum	Golden clover	UPL
Trifolium pratense	Red Clover	FACU
Trifolium sp.	Clover	N/A
Typha latifolia	Broad-Leaf Cat-Tail	OBL
Ventenata dubia	Ventenata	UPL
Verbascum blattaria	White Moth Mullein	UPL
Verbascum thapsus	Great Mullein	FACU
Veronica sp.	Speedwell	N/A

⁽a) 2020 NWPL (USACE 2020)

Species observed for the first time in 2023 are **bolded.**

APPENDIX C PROJECT AREA PHOTOGRAPHS

MDT Wetland Mitigation Monitoring US 93 Peterson Lake County, Montana

US93 Peterson: Photo Point Photographs



Photo Point: 1 Bearing: 135 degrees



Photo Point: 1 Bearing: 135 degrees



Photo Point: 2 Bearing: 35 degrees



Location: PP1

Photo Point: 2 Bearing: 35 degrees



Location: PP2 photo 1 Year: 2023

Year: 2023



Photo Point: 2 Bearing: 110 degrees



Location: PP2 photo 1

Year: 2017



Photo Point: 2 Bearing: 110 degrees

Location: PP2 photo 2 Year: 2023

US93 Peterson: Photo Point Photographs



Photo Point: 4 Bearing: 30 degrees



Location: Looking across T-2 Year: 2017



Photo Point: 4 Bearing: 30 degrees



Year: 2023



Photo Point: 5 Bearing: 175 degrees



Location: Wetland boundary Year: 2017



Photo Point: 5 Bearing: 175 degrees





Photo Point: 6 Bearing: 315 degrees

Location: Transect 2 Start Year: 2017



Photo Point: 6 Bearing: 315 degrees

Location: Transect 2 Start Year: 2023

US93 Peterson: Photo Point Photographs



Photo Point: 7 Bearing: 5 degrees



Photo Point: 7 Bearing: 5 degrees



Location: PP7 photo 1 Year: 2023



Photo Point: 7 Bearing: 267 degrees



Location: PP7 photo 1

Location: PP7 photo 2 Year: 2020



Photo Point: 7 Bearing: 267 degrees



Location: PP7 photo 2 Year: 2023



Photo Point: 8 Bearing: 34 degrees

Location: New crib structure. Year: 2020



Photo Point: 8 Bearing: 34 degrees

Location: New crib structure. Year: 2023

US93 Peterson: Transect Photographs



Photo Point: T-1 Start Bearing: 215 degrees



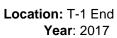
Photo Point: T-1 Start Bearing: 215 degrees



Location: T-1 Start Year: 2023



Photo Point 3 (T-1 End) Bearing: 45 degrees



Location: T-1 Start



Photo Point 3 (T-1 End) Bearing: 45 degrees

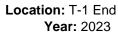




Photo Point: T-2 Start Bearing: 135



Location: T-2 Start Year: 2020



Photo Point: T-2 Start Bearing: 135

Location: T-2 Start Year: 2023



Photo Point: T-2 End Bearing: 315 degrees

Location: T-2 End Year: 2020



Location: T-2 End Photo Point: T-2 End Bearing: 315 degrees

US93 Peterson: Data Point Photographs



Data Point: DP01w

Year: 2023



Data Point: DP02w

Year: 2023



Data Point: DP03w

Year: 2023



Data Point: DP01u

Year: 2023



Data Point: DP02u

Year: 2023



Data Point: DP03u



Data Point: DP04w

Year: 2023



Data Point: DP05w

Year: 2023



Data Point: DP04u

Year: 2023



Data Point: DP05u

US93 Peterson: Additional Site Photographs



Additional Photo 1. View of downstream log crib structure facing north across the channel.



Additional Photo 3. View of upstream log crib structure facing northeast across the channel.



Additional Photo 2. View of middle log crib structure facing north/northeast across the channel.



Additional Photo 4. Example photo of water level at log crib structure in the central portion of the project site.