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: 2024

Years Monitored: 16th year of monitoring (4th year after adaptive management actions in 2020)

Corps Permit Number: NWO-2005-90-185

Monitoring Conducted By: Confluence Consulting Inc Dates Monitoring Was Conducted: July 1-2, 2024

Purpose of the Approved Project:

US 93 Peterson is one of five onsite 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 Adaptive Management Actions Started: Fall 2019 Ended: Spring 2020

Specific recommendations for any additional corrective actions: Repairs are needed to the log crib structures repaired and installed in 2020 as part of adaptive management actions. Weed management by MDT continues within the site.

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

Wetland Credit Acres Generated to Date: USACE – 2.99, CSKT – 1.33

Previous Monitoring Reports:

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

Requirements (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 log crib structural repairs and installation 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 2024 was 3.46 acres, a decrease of 0.05 acres from 2023. The decrease in wetland acreage occurred in the north central area of Wetland Type 8 primarily due to log crib failures and ongoing drought conditions within the Mission Valley in 2024. 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). Changes in wetland habitat at the site have not developed as expected with the crib repairs and installations made in 2020 that were intended to spread water out across the site to mimic beaver dams.

Table 1. Delineated Wetland Acreage from 2016-2017 and 2020-2024 at the US 93 Peterson Site.

Habitat Type (acres)	2016	2017	2020	2021	2022	2023	2024
(PEM) Wetland	3.20	3.20	3.94	3.60	3.47	3.51	3.46

Vegetation – A total of 102 plant species have been identified at the site in the 16 years of monitoring, with two species documented at the site for the first time in 2024 (Appendix B; Table B-1).

Two upland type (UT) and four wetland type (WT) vegetation communities were identified and mapped at the site in 2024 (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 end 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. W T 12 has again been included at the site in 2024 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 of the property which consists of 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 2024 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 2024 (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 2023, 83.3 percent of the transect crossed wetland habitat and 16.7% crossed upland. The number of hydrophytic species increased from 16 to 17, and the total number of species documented along the belt transect has increased from 25 to 26. Total vegetative cover remains unchanged at 95 percent.

Table 2. Data Summary for T-1 From 2016 - 2017 and 2022 - 2024 at the US 93 N Peterson Site.

Monitoring Year	2016	2017	2022	2023	2024
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	23	25	26
Total Hydrophytic Species	12	7	14	16	17
Total Upland Species	3	7	9	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	83.3	83.3	83.3
% Transect Length Comprising Upland Vegetation Communities	26.4	14.6	16.7	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 2023, 78.5 percent of the transect crossed wetland habitat and 21.5% crossed upland. The number of hydrophytic species stayed the same at 19, and the total number of species observed along the transect remained at 30. Total vegetative cover remains unchanged at 95 percent.

Table 3. Data Summary for T-2 From 2016 - 2017 and 2022 - 2024 at the US 93 N Peterson Site.

Monitoring Year	2016	2017	2022	2023	2024
Transect Length (feet)	325	325	325	325	325
Vegetation Community Transitions along Transect	3	3	1	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	28	30	30
Total Hydrophytic Species	14	6	18	19	19
Total Upland Species	4	11	10	11	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	78.5	78.5	78.5
% Transect Length Comprising Upland Vegetation Communities	32.3	28.0	21.5	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 2024 and have increased from 2023 (Figure A-3, Appendix A). Infestations areassigned 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 2024, the number of occurrences has remained the same as in 2023. 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. 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. Canada thistle (*Cirsium arvense*) has increased significantly in 2024, primarily along the wetland boundary spanning across the site. Two weed mitigation events took place in 2024. MDT treated whitetop, Canada thistle, gypsyflower, Ventenata, and pale-yellow iris on April 25 and 30, and October 15 in 2024.

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. 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, 2024). During the July 2024 monitoring visit, the U.S. Drought Monitor Index for Lake County was D1 (moderate drought) (NDMC, 2024). Water levels in the channel remained similar to 2023 observations, with the estimated water depth ranging from 0-18 inches. Example photographs of the typical water level observed in the channel are included in Appendix C. Total inundation has decreased approximately 2% in 2024.

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 2024, log dams 1 and 2 were failing as indicated by water flow underneath the structures. The failure of these two crib structures may be contributing to the minor decline in wetland acreage at this site. The 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, 2024a). Paired soil test plots, one upland plot paired with one wetland plot, were excavated at 5 locations (Figure A-4, Appendix A). The hydric soil indicators observed included depleted matrix and hydrogen sulfide in several of the wetland test plots. The texture of the wetland soils was silty clay loam, and a restrictive hardpan layer was encountered around 8-10 inches in many upland and wetland soil plots. Upland soils

ranged from loam to silty clay loam. 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 2024 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 2022, 2023, and 2024 are more representative of functionality. The 2024 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 27.16 Functional Units. Due to observations of minnows in the channel, 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)*	2022 (AA-1)	2023 (AA-1)	2024 (AA-1)
Listed/Proposed T&E Species Habitat	Low (0.3)	Mod (0.8)	Mod (0.8)	Mod (0.8)	Mod (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 – Four bird species were identified at the site in 2024. Bird behavior observed included foraging, loafing, and flying over. Additional wildlife directly observed at the site includes white-tailed deer, mice, and minnows 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 neotropical migrants.

Credit Summary – Wetland acreage totaled 3.46 acres and has generated 23.47 Functional Credits in 2024. This is a slight decrease of 0.37 functional credits from 2023. Based on the

3.46 acres of delineated wetlands using the USACE credit ratios for creation and rehabilitation/secondary restoration, the site is currently receiving 2.99 USACE credit acres and 1.33 CSKT credit acres. Table 5 summarizes the estimated wetland credits based on USACE-approved credit ratios and the wetland delineation completed in July 2024. Credit acres calculated in 2024 exceed anticipated credit acres for both the USACE and CSKT.

Table 5. Expected USACE Functional Credits for US 93 Peterson Site for 2024.

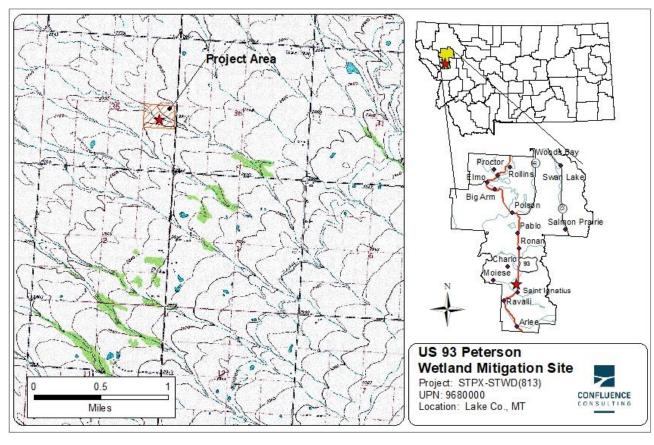
Compensatory Mitigation Type	2024 Delineated Acres	Mitigatio	n Ratio	2024 We Mitigation Cr		MWAM Actual Points	2024 USACE Functional Credits Generated
		USACE	CSKT	USACE	CSKT		
Creation	2.21	1:1	3.36:1	2.21	0.66	7.85	17.35
Rehabilitation/Secondary Restoration	1.25	1.61:1*	1.86:1	0.78	0.67	7.85	6.12
Totals	3.46	O !'(A	× V 844484	2.99	1.33	-	00.47
(We	tland Mitigation	Credit Acres*	* X MWAM	Actual Points			23.47

^{*}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

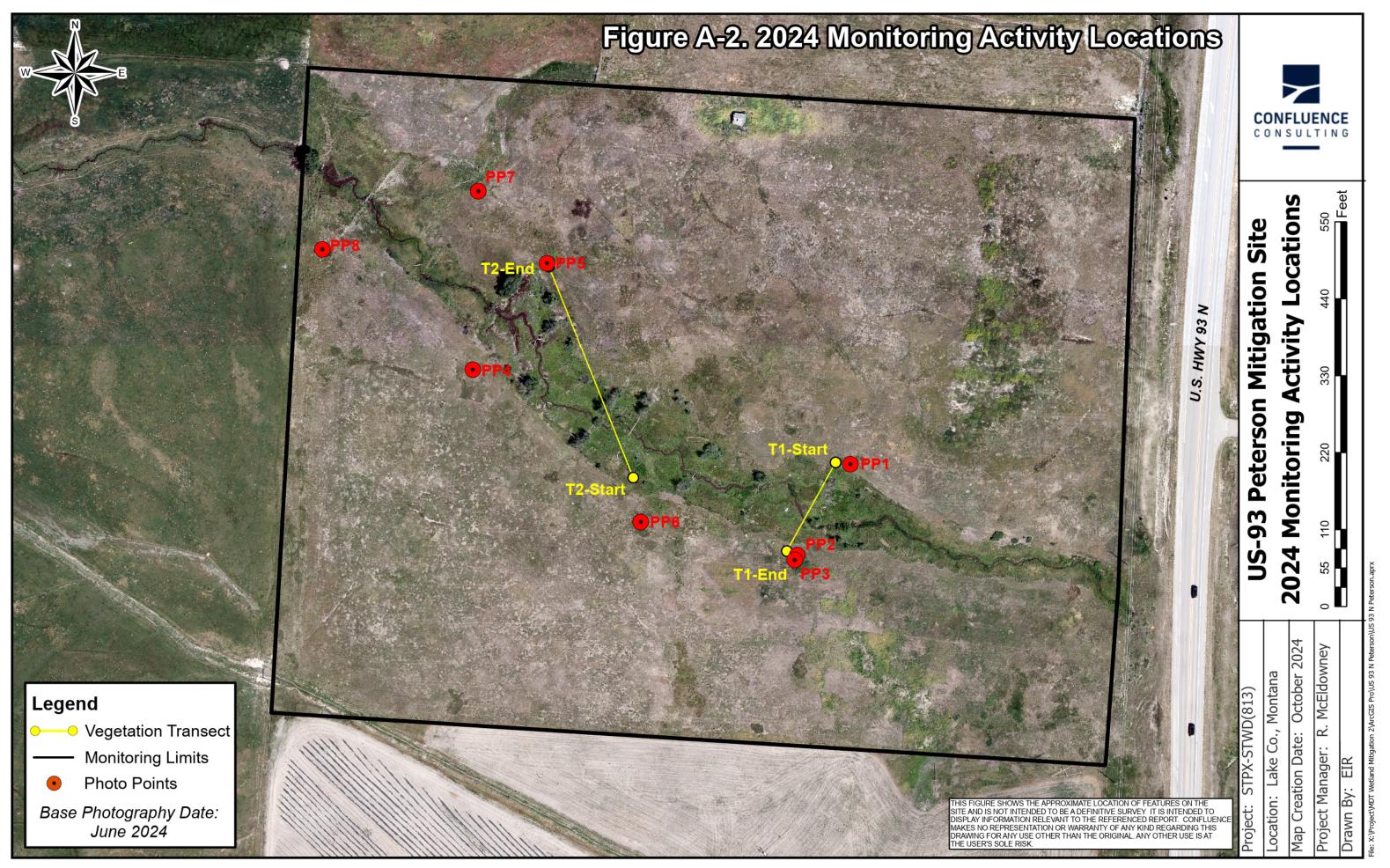
Based on the results of the sixteenth year of monitoring, the mitigation site has developed into a diverse emergent wetland with a scrub-shrub component. The site is meeting the following performance standards in 2024: the construction of 12 log crib structures and earthen berms and the planting of shrubs and herbaceous plugs within the wetland fringe. However, the site has not developed into the target Bebb's willow habitat type. At the 2024 site visit, two of the three crib structures installed in May 2020 were failing. The western and middle structures require repair to operate effectively and expand wetland habitat. Total wetland acreage decreased 0.05 acre in the central portion of the site. However, the majority of the wetland coverage stayed the same in 2024. Both the USACE and CSKT mitigation credits outlined in the 2008 mitigation plan have been reached and exceeded.

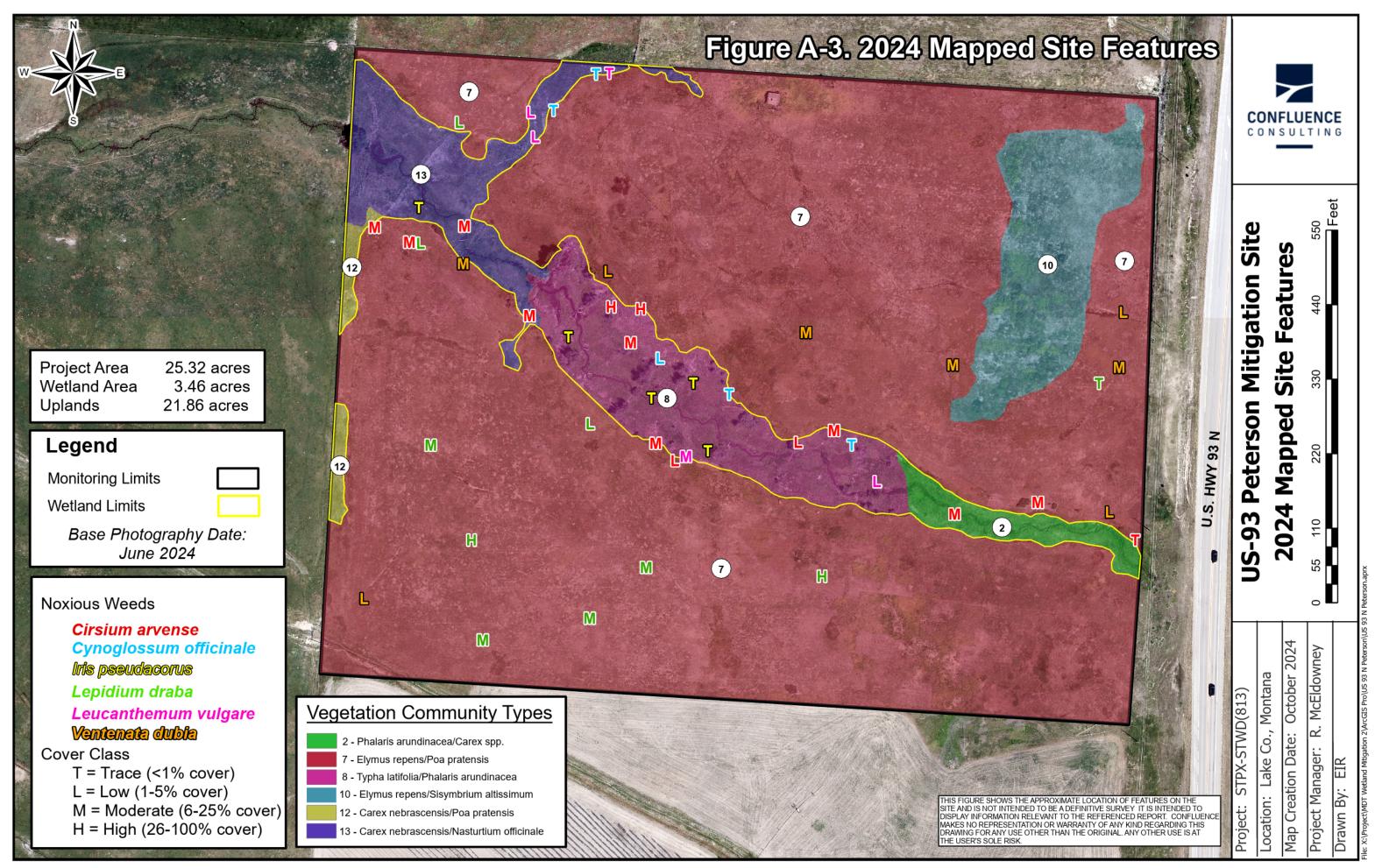
References

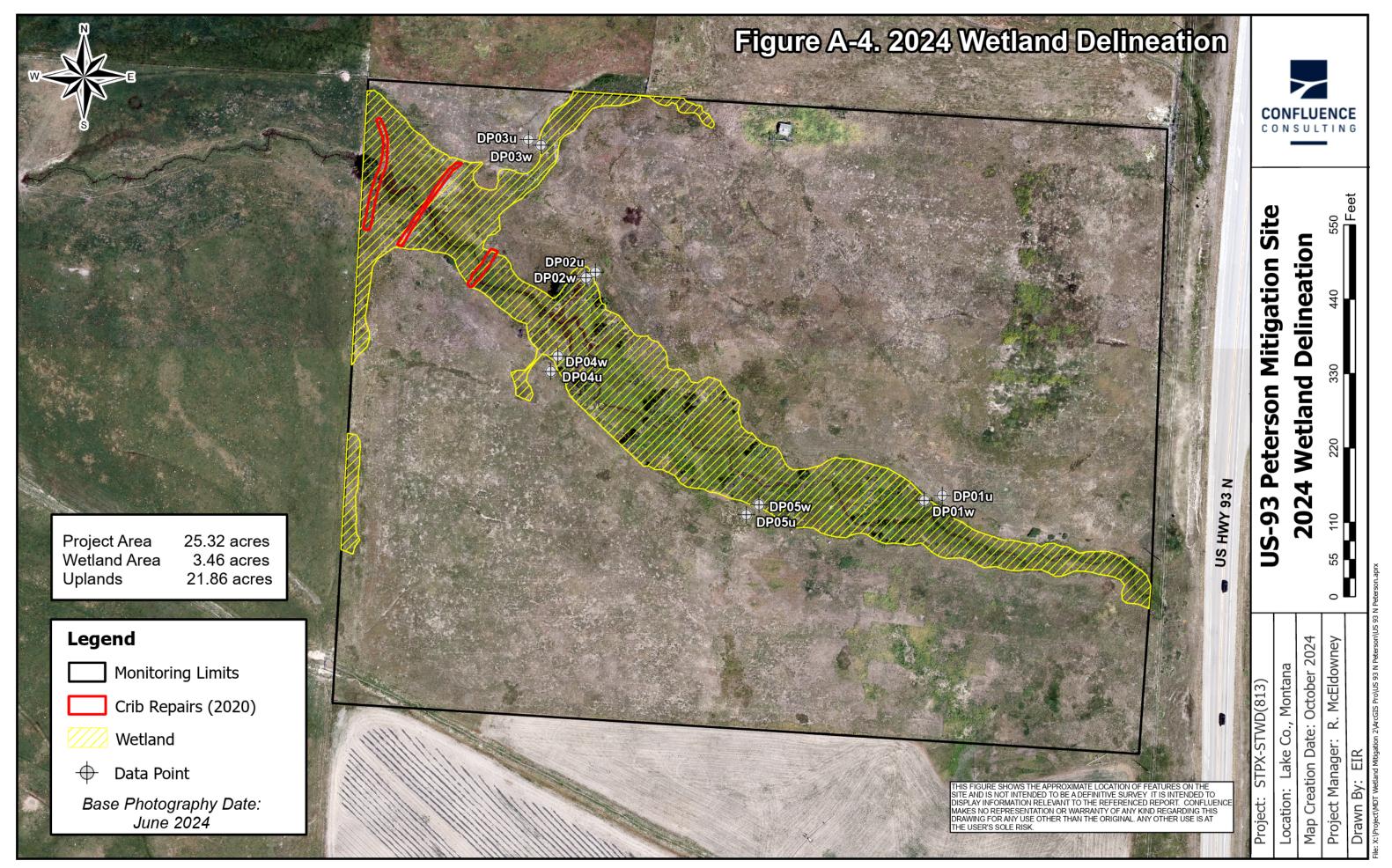
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APPENDIX A PROJECT AREA MAPS

MDT Wetland Mitigation Monitoring US 93 Peterson Lake County, Montana







APPENDIX B MONITORING FORMS

MDT Wetland Mitigation Monitoring US 93 Peterson Lake County, Montana

MDT WETLAND MITIGATION SITE MONITORING FORM

Project Site: US 93 Peterson	Assessment Date/Time	<u>7/1/2</u> 024
Person(s) conducting the assessment: E		
Weather: Overcast, rainy, 70 degrees	Location: St. Ignatius	
MDT District: Missoula	Milepost: 35.5	
Legal Description: T <u>19N</u> R <u>20W</u> Sectio	on(s) <u>35</u>	
Initial Evaluation Date: 8/15/2008 Mo	onitoring Year: <u>16</u> #Visits in Year: <u>1</u>	
Size of Evaluation Area: 25 (acres)		
Land use surrounding wetland:		
Residential & agriculture.		
	HYDROLOGY	
Surface Water Source: Unnamed tributary t	o Post Creek; irrigation ditch diversion.	
nundation: 🔻 🔽 Average Depth: .	0.25 (ft) Range of Depths: 0-18 (ft)	
Percent of assessment area under inundation:	: <u>13 %</u>	
Depth at emergent vegetation-open water bou	ındary:0 (ft)	
f assessment area is not inundated then are t	the soils saturated within 12 inches of surface:Y	es
Other evidence of hydrology on the site (ex. –		
Soil saturation, geomorphic position, positiv	<u> </u>	
Groundwater Monitoring Wells		
Record depth of water surface below grou	und surface, in feet.	
dditional Activities Checklist: Map emergent vegetation-open water boundary on a	aerial nhotograph	
Observe extent of surface water during each site vis		
levations (drift lines, erosion, vegetation staining, etc.)	•	
Use GPS to survey groundwater monitoring well located	ations, if present.	
lydrology Notes:		
frought) through the growing season since	of drought conditions (abnormally dry to extreme 2021. Hydrology to the slope wetlands appears to ese areas has receded. Inundation appears to be	be

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 east end of the mitigation site. Cover by Typha latifolia has stayed consistent in 2024 at the upstream end of the mitigation site where inundation has also decreased in association with past crib structure complications.

Community # 7 Community Type: Elymus repens / Poa pratensis Acres: 20.37

Species	Cover class	Species	Cover class
Bare Ground	1	Brassica juncea	2
Bromus inermis	2	Bromus tectorum	1
Carex nebrascensis	2	Cirsium arvense	1
Dipsacus fullonum	1	Elymus repens	4
Elymus trachycaulus	0	Galium aparine	1
Juncus balticus	0	Lactuca serriola	0
_epidium campestre	1	Lepidium draba	1
Lepidium perfoliatum	2	Mentha arvensis	0
Pascopyrum smithii	3	Phalaris arundinacea	0
Poa pratensis	4	Rosa woodsii	0
Sisymbrium altissimum	2	Sonchus arvensis	1
Thlaspi arvense	1	Ventenata dubia	2

Upland type surrounding the wetland assessment area. Weeds such as Cirsium arvense are 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: 1.73

Species	Cover class	Species	Cover class
Alnus incana	2	Bare Ground	0
Brassica juncea	2	Carex aquatilis	1
Carex nebrascensis	2	Carex stipata	1
Carex utriculata	2	Cirsium arvense	1
Cirsium vulgare	0	Cornus alba	1
Cynoglossum officinale	0	Dipsacus fullonum	2
Elymus repens	0	Epilobium ciliatum	2
Geum macrophyllum	2	Glyceria grandis	0
Hesperis matronalis	1	Iris pseudacorus	0
Lemna minor	0	Leucanthemum vulgare	1
Mentha arvensis	1	Myosotis laxa	2
Nasturtium microphyllum	2	Nasturtium officinale	2
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	2
0			

Comments:

Wetland type present along the stream channel in the central portion of the mitigation site. The density of Cirsium arvense is increasing along edges of wetland.

Community # 10 Community Type: Elymus repens / Sisymbrium altissimum Acres: 1.49

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

Comments:

Upland community type in northeast quandrant of site. Sisymbrium altissum cover has increased in 2024 likely due to drought conditions and previous weed control of Lepidium draba at this location.

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

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	0

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. Typha latifolia cover has decreased in 2024.

Community # 13 Community Type: Carex nebrascensis / Nasturtium officinale Acres: 1.19

Species	Cover class	Species	Cover class
Alyssum alyssoides	1	Brassica juncea	3
Carduus nutans	0	Carex nebrascensis	5
Carex stipata	1	Cirsium vulgare	0
Cynoglossum officinale	1	Dipsacus fullonum	1
Elymus repens	0	Galium aparine	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. Brassica juncea, Sisymbrium altissum, and Cirsium arvense are dominating the drier areas of the site and moving into wetland community types. Ongoing drought conditions may be contributing to the increase of weedy species across the site.

Total Vegetation Community Acreage

25.32

VEGETATION TRANSECTS

US 93 Peterson	Da	ate: 7/1/2024	
Transect Numbe	r: <u>1</u> Compa	ss Direction from Sta	rt: <u>210</u>
Interval Data: Ending Station	13 Community Type:	Elymus repens / Poa praten	sis
Species	Cover class	Species	Cover clas
Bare Ground	2	Brassica juncea	2
Dipsacus fullonum	1	Elymus repens	4
Gallium aperine	1	Pascopyrum smithii	
Poa pratensis	2	Ventenata dubia	
Ending Station	133 Community Type:	Typha latifolia / Phalaris aru	ndinacea
Species	Cover class	Species	Cover clas
Alnus incana	0	Bare Ground	
Brassica juncea	5	Carex nebrascensis	
Carex stipata	1	Carex utriculata	
Cirsium arvense	0	Cynoglossum officinale	(
Dipsacus fullonum	3	Epilobium ciliatum	:
Geum macrophyllum	0	Hesperis matronalis	
Myosotis laxa	3	Nasturtium microphyllum	;
Open Water	1	Phalaris arundinacea	:
Poa pratensis	0	Sisymbrium altissimum	(
Solanum dulcamara	1	Thlaspi arvense	;
Typha latifolia	2	Veronica americana	;
Ending Station	144 Community Type:	Elymus repens / Poa praten	sis
Species	Cover class	Species	Cover clas
Brassica juncea	1	Elymus trachycaulus	;
Galium aparine	0	Lactuca serriola	(
Poa pratensis	3	Thlaspi arvense	

Transect Notes:

The wetland vegetation community (WT 8) is dominated by weedy, annual species (field pennycress, brown mustard) in the wetland areas away from the active channel. Ongoing drought conditions may be contributing to the spread of weedy, upland species into wetland communities.

Transect Number: 2 Compass Direction from Start: 340

Interval Data:

Ending Station	255 Community Type:	Typha latifolia / Phalaris aru	ındinacea
Species	Cover class	Species	Cover class
Alnus incana	1	Brassica juncea	3
Carex nebrascensis	1	Cirsium arvense	2
Dipsacus fullonum	3	Elymus repens	0
Epilobium ciliatum	3	Geum macrophyllum	3
Glyceria grandis	0	Hesperis matronalis	0
Iris pseudacorus	0	Leucanthemum vulgare	1
Mentha arvensis	1	Myosotis laxa	2
Nasturtium officinale	3	Nepeta cataria	0
Persicaria amphibia	0	Phalaris arundinacea	0
Poa palustris	1	Rosa woodsii	0
Solanum dulcamara	1	Sonchus arvensis	1
Thlaspi arvense	2	Typha latifolia	3
Veronica americana	2		

Ending Station 325 Community Type: Elymus repens / Poa pratensis

Species	Cover class	Species	Cover class
Bare Ground	1	Bromus tectorum	0
Carex nebrascensis	1	Cirsium arvense	0
Pascopyrum smithii	2	Poa pratensis	5
Sisymbrium altissimum	2	Thinopyrum intermedium	0
Thlaspi arvense	1	Ventenata dubia	1

Transect Notes:

Transect spans channel in WT 8. Cover by Cirsium arvense has increased in 2024.

PLANTED WOODY VEGETATION SURVIVAL

US 93 Peterson

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 2020-2024 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 Robin	4	FO, F	
European Starling	10	FO	
Red-winged Blackbird	20	FO, F, L	
Wilson's Snipe	1	F	

Bird Comments

Observed feathers and birds nests in shrubs. Four bird species were observed during the 2024 monitoring.

BEHAVIOR CODES

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

HABITAT CODES

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

 $\mathbf{WM} = \mathbf{Wet} \; \mathbf{meadow} \; \mathbf{MA} = \mathbf{Marsh} \; \mathbf{US} = \mathbf{Unconsolidated} \; \mathbf{shore} \; \mathbf{MF} = \mathbf{Mud} \; \mathbf{Flat} \; \mathbf{OW} = \mathbf{Open} \; \mathbf{Water}$

Mammals and Herptiles

Species # Observed Tracks Scat Burrows Comments

White-tailed Deer	2	Yes	Yes	No	Observed browsing
Minnow	4	No	No	No	Seen
Unknown rodent sp.	6	No	No	No	Seen

Wildlife Comments:

Sightings, tracks, and scat indicate wildlife presence.

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.

Photo #	Latitude	Longitude	Bearing	Description
DP01u	47.361418	-114.09852		Upland data point
DP01w	47.361393	-114.098625		Wetland data point
DP02u	47.362239	-114.100665		Upland data point
DP02w	47.362214	-114.100719		Wetland data point
DP03u	47.36276	-114.10111		Upland data point
DP03w	47.362741	-114.101034		Wetland data point
DP04u	47.361826	-114.100896		Upland data point
DP04w	47.36189	-114.10086		Wetland data point
DP05u	47.361293	-114.099681		Upland data point
DP05w	47.361336	-114.099608		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
 ✓ 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 lines, 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
✓ Map vegetation community boundaries
✓ Complete Vegetation Transects
Soils
✓ Assess soils
Wetland Delineations
✓ Delineate wetlands according to applicable USACE protocol (1987 form or Supplement)
☑ Delineate wetland – upland boundary onto aerial photograph.
Wetland Delineation Comments
Wetland area decreased by 0.05 acre in 2024.
Functional Assessments
☑ Complete and attach full MDT Montana Wetland Assessment Method field forms.
Functional Assessment Comments:
The 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.

Crib repairs in 2020 aimed to improve effectiveness in lateral water flow. During the 2024 monitoring visit, water was flowing underneath the western and middle crib structures, indicating failure. Repairs will need to be made to failing structures to ensure functionality as intended.

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

Project/Site: US93 N Peterson	(City/County	: Lake Co	unty Sampling Date: 2024-07-01
Applicant/Owner: MDT				Mandana DD04
Investigator(s): E Reynaud	;	Section, To	ownship, Rar	nge: S35 T19N R20W
Landform (hillslope, terrace, etc.): Valley Floor				
				Long: -114.0985196 Datum: NAD 83
Soil Map Unit Name: 22 - Colake silt loam, 0 to 1 per				
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				
Hydrophytic Vegetation Present? Yes N	o <u> </u>			
Hydric Soil Present? Yes N	o <u>′</u>	l l	ne Sampled	•
Wetland Hydrology Present? Yes N	o	Witi	nin a Wetlan	id! TeSNO
Remarks: Upland point taken in southeast portion of site. The U.\$	S Drought	Monitor In	idex from La	ake County, MT during the site visit was D1 (moderate
drought).	J. Droug.ic			and doubty, in adding the one volt was 21 (mediate
VEGETATION – Use scientific names of plan	ts.			
Tree Stratum (Plot size: 30 ft r			t Indicator	Dominance Test worksheet:
1	% Cover			Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
2.				
3				Total Number of Dominant Species Across All Strata: 2 (B)
4				Percent of Dominant Species
Sapling/Shrub Stratum (Plot size: 15 ft r		= Total Co	over	That Are OBL, FACW, or FAC: 50.00 (A/B)
1				Prevalence Index worksheet:
2.				Total % Cover of: Multiply by:
3.				OBL species 0 x 1 = 0
4.				FACW species $\frac{0}{10}$ $x = \frac{0}{30}$
5				FAC species $\frac{10}{35}$ $x 3 = \frac{30}{140}$ FACU species $\frac{35}{35}$ $x 4 = \frac{140}{140}$
Harb Otation (District Eft.)		= Total Co	over	UPL species 0 x 5 = 0
Herb Stratum (Plot size: 5 ft r 1. Pascopyrum smithii	35	~	FACII	Column Totals: <u>45</u> (A) <u>170</u> (B)
2. Elymus repens	10		FAC	
3.		-		Prevalence Index = B/A = 3.77 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 ¹ (Provide supporting
8				data in Remarks or on a separate sheet)
9				5 - Wetland Non-Vascular Plants ¹ Problematic Hydrophytic Vegetation ¹ (Explain)
10		-		Indicators of hydric soil and wetland hydrology must
11	4 =	= Total Co		be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size:)		- Total Co	vei	
1				Hydrophytic
2				Vegetation Present? Yes No
% Bare Ground in Herb Stratum 55		= Total Co	ver	Present? Yes No
Remarks:				
	و دا د ده	du a l		station in dia atom
Vegetation community did not meet	any nyo	ıropny	uc vege	etation indicators.

SOIL Sampling Point: DP01u

Profile Desc	ription: (Describ	e to the dept	th needed to docur	nent the i	ndicator	or confirn	n the absence o	f indicators.)
Depth	Matrix			x Feature				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks
0 - 8	10YR 2/2	100					Loam	
-								
	-			· ——			 -	-
	-			· ——				
-								
17 0-0.		mletien DM-	-Dadwaad Matrix CC	`-C			21	tion. DI - Dono Lining. M-Matrix
			Reduced Matrix, CS			ed Sand G		tion: PL=Pore Lining, M=Matrix. s for Problematic Hydric Soils ³ :
-		cable to all i			eu.)			•
Histosol	oipedon (A2)		Sandy Redox (Stripped Matrix	•				Muck (A10) Parent Material (TF2)
Black Hi			Loamy Mucky N		1) (except	t MLRA 1)		Shallow Dark Surface (TF12)
	n Sulfide (A4)		Loamy Gleyed	•		,		(Explain in Remarks)
	d Below Dark Surfa	ice (A11)	Depleted Matrix		,			
Thick Da	ark Surface (A12)	, ,	Redox Dark Su				³ Indicators	s of hydrophytic vegetation and
Sandy M	lucky Mineral (S1)		Depleted Dark	Surface (F	7)		wetland	d hydrology must be present,
	Bleyed Matrix (S4)		Redox Depress	ions (F8)			unless	disturbed or problematic.
Restrictive I	_ayer (if present):							
Type:								,
Depth (inc	ches):						Hydric Soil P	Present? Yes No
Remarks:							•	
HYDROLO								
_	drology Indicators						0	de made diseate ma (O em mana manaria el)
	•	one required	l; check all that appl		(DO) (-			dary Indicators (2 or more required)
	Water (A1)		Water-Sta			xcept		ater-Stained Leaves (B9) (MLRA 1, 2,
_	iter Table (A2)		Salt Crust	1, 2, 4A, a	ana 4B)			4A, and 4B)
Saturatio	, ,			` '	o (D12)		· 	ainage Patterns (B10)
Water M	nt Deposits (B2)		Aquatic In Hydrogen					y-Season Water Table (C2) turation Visible on Aerial Imagery (C9)
	oosits (B3)					Living Poo		omorphic Position (D2)
	at or Crust (B4)		Oxidized P	•	-	•	· · · —	allow Aquitard (D3)
	osits (B5)		Recent Iro		•	•		C-Neutral Test (D5)
	Soil Cracks (B6)		Stunted or			,		ised Ant Mounds (D6) (LRR A)
	on Vis ble on Aeria	I Imagery (B7				(LIXIX A		ost-Heave Hummocks (D7)
	Vegetated Conca				indiko)		110	ost rieuve riammooks (Br)
Field Observ		ve carrace (E	50)					
Surface Water		Vas N	No Depth (in	ches).				
			No Depth (in					
Water Table			No Depth (in					Present? Yes No
Saturation Proceed (includes cape		resr	No _ • Depth (in	cnes):		vveti	and Hydrology	Present? Yes No
		m gauge, mo	nitoring well, aerial	ohotos, pr	evious ins	spections),	if available:	
Remarks:								
No ovida	anno of weet	and byd	Irology obco	nuo d				
ino evide	ence or weti	and nyd	lrology obse	vea.				

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

Project/Site: US93 N Peterson	Ci	ty/County	Lake Co	unty	Sampling Date: 2024-07-02
Applicant/Owner: MDT				State: Montana	Sampling Point: DP01w
Investigator(s): E Reynaud	Se	ection, To	wnship, Rar	nge: S35 T19N R20W	
Landform (hillslope, terrace, etc.): Valley Floor					
Subregion (LRR): E 44A					
Soil Map Unit Name: 22 - Colake silt loam, 0 to 1 pe				NWI classifica	<u> </u>
Are climatic / hydrologic conditions on the site typical for the					
Are Vegetation, Soil, or Hydrology	•			· ·	resent? Yes No
Are Vegetation, Soil, or Hydrology				eded, explain any answers	
SUMMARY OF FINDINGS – Attach site map					
Hydrophytic Vegetation Present? Yes I		1	· ·	<u> </u>	
Hydric Soil Present? Yes I	No		e Sampled		
Wetland Hydrology Present? Yes I	No	with	in a Wetlan	ıd? Yes	No
Remarks:					
Wetland point taken within Vegetation Community 2. (moderate drought).	The U.S. Drou	ıght Moni	tor Index f	rom Lake County, MT du	ıring the site visit was D1
VEGETATION – Use scientific names of plan	nts.				
30 ft r		Dominant		Dominance Test works	sheet:
Tree Stratum (Plot size: 30 ft r) 1.	% Cover			Number of Dominant Sp That Are OBL, FACW, o	
2.					
3				Total Number of Domina Species Across All Strate	•
4		- Total Co		Percent of Dominant Spe	
Sapling/Shrub Stratum (Plot size: 15 ft r)		- Total Co	VCI	That Are OBL, FACW, o	(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
1				Prevalence Index work Total % Cover of:	
2					x 1 = 35
3					x 2 = 90
4					x 3 = 0
5				FACU species 0	
Herb Stratum (Plot size: 5 ft r)	=	= Total Co	ver		x 5 = 50
1. Phalaris arundinacea	45	~	FACW	Column Totals: 90	(A) <u>175</u> (B)
2. Carex utriculata	35	~	OBL	Prevalence Index	
3. Brassica juncea	10		UPL	Hydrophytic Vegetation	
4				✓ 1 - Rapid Test for H	
5				✓ 2 - Dominance Test	is >50%
6				✓ 3 - Prevalence Index	x is ≤3.0 ¹
7					daptations ¹ (Provide supporting
8					or on a separate sheet)
9				5 - Wetland Non-Va	scular Plants hytic Vegetation ¹ (Explain)
10					and wetland hydrology must
11	~~			be present, unless distur	
Woody Vine Stratum (Plot size:)	<u> </u>	Total Cov	er er		
1				Hydrophytic	
2.				Vegetation	, ,
	=			Present? Yes	No
% Bare Ground in Herb Stratum 10					
Remarks:			_		_
Evidence of hydrophytic vegetation inc prevalence index less than or equal to	•	ositive	rapid te	st, a positive dom	inance test, and a
prevalence index less triall of Equal to	J.U.				

US Army Corps of Engineers

SOIL Sampling Point: DP01w

Profile Desc	cription: (Describe	to the dep	oth needed to docu	nent the	indicator	or confir	m the abso	ence of indicat	tors.)
Depth	Matrix			x Feature			_		
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²			Remarks
0 - 12	10YR 4/1	98	10YR 4/6	2	<u> </u>	PL	Silty Clay I	Loam	
-									
-				<u> </u>					
				-	-				
					_				
						-			
	-		-				_		
			=Reduced Matrix, CS			ed Sand G			=Pore Lining, M=Matrix.
-		cable to all	LRRs, unless othe		ted.)				oblematic Hydric Soils ³ :
Histosol	` '		Sandy Redox (2 cm Muck (A	•
	pipedon (A2)		Stripped Matrix		·1) (avaan	MIDA 4		Red Parent Ma	, ,
	istic (A3) en Sulfide (A4)		Loamy Mucky I Loamy Gleyed			IWILKAT)	Other (Explain	Dark Surface (TF12)
	d Below Dark Surfac	ce (A11)	✓ Depleted Matrix		۷)			Otriei (Explain	i iii i Keiliaiks)
	ark Surface (A12)	()	Redox Dark Su)		³ Inc	dicators of hydro	ophytic vegetation and
Sandy N	Mucky Mineral (S1)		Depleted Dark	Surface (F7)			-	ogy must be present,
	Gleyed Matrix (S4)		Redox Depress	ions (F8)	ı		I	unless disturbe	d or problematic.
Restrictive	Layer (if present):								
Type:									
Depth (in	ches):						Hydric	Soil Present?	Yes No
Remarks:									
	nt redoximo ion further th	•		s com	mon w	ithin o	deplete	ed matrix.	Cobbles restricted
	acv								
HYDROLO									
_	drology Indicators						_		
-	•	one require	d; check all that appl		(50) (-	cators (2 or more required)
	Water (A1)		Water-Sta		` , `	xcept	-		ned Leaves (B9) (MLRA 1, 2,
_	ater Table (A2)			1, 2, 4A,	and 4B)			4A, and	•
✓ Saturati	` ,		Salt Crust	` '	oo (D12)		-		atterns (B10)
·	Marks (B1) nt Deposits (B2)		Aquatic In Hydrogen		, ,		·-		n Water Table (C2) Visible on Aerial Imagery (C9)
	posits (B3)		Oxidized F		, ,	Living Ro	_	Geomorphic	
	at or Crust (B4)		Oxidized Presence		-	-		Shallow Aqu	
	posits (B5)		Recent Iro		•	,		FAC-Neutra	
	Soil Cracks (B6)		Stunted or						Mounds (D6) (LRR A)
	ion Vis ble on Aerial	Imagery (B				, (e Hummocks (D7)
	y Vegetated Concav				,		_		,
Field Obser	vations:		· · · · · · · · · · · · · · · · · · ·						
Surface Wat	ter Present?	res	No Depth (in	ches):					
Water Table			No Depth (in						
Saturation P	resent?		No Depth (in				tland Hydr	ology Present	? Yes <u>/</u> No
	pillary fringe) corded Data (strean	n gauge, m	onitoring well, aerial	photos, p	revious ins	pections)), if availabl	e:	
	·		-						
Remarks:									
Evidenc	e of wetland	hydrol	ogy includes	soil s	aturati	on, ge	eomorp	hic positi	ion, and a positive
FAC-Ne	utral test.								

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

Project/Site: US93 N Peterson		City/County	: Lake Co	unty Sampling Date: 2024-07-02
Applicant/Owner: MDT		-		Mantana
• •		Section. To	wnship. Rar	nge: S35 T19N R20W
Landform (hillslope, terrace, etc.): Valley Floor				
, ,			•	Long: -114.1006652 Datum: NAD 83
Soil Map Unit Name: 143 - Ronan silty clay loam, 4 t				
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 SUMMARY OF FINDINGS – Attach site map				eded, explain any answers in Remarks.)
Hydrophytic Vegetation Present? Yes N			9 00	Journal of Hames State Control of Hames State
Hydric Soil Present? Yes N		Is th	ne Sampled	
Wetland Hydrology Present? Yes N	lo 🔽	with	in a Wetlan	d? Yes No
Remarks:		<u> </u>		
Upland point taken 16 ft away from wetland point in no the site visit was D1 (moderate drought).	rthwest po	rtion of sit	te. The U.S.	Drought Monitor Index from Lake County, MT during
VEGETATION – Use scientific names of plan	ıts.			
	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 ft r	% Cover	Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC: 1 (A)
2				Total Number of Dominant
3				Species Across All Strata: 3 (B)
4				Percent of Dominant Species
Sapling/Shrub Stratum (Plot size: 15 ft r	-	= Total Co	over	That Are OBL, FACW, or FAC: 33.33 (A/B)
1				Prevalence Index worksheet:
2.				Total % Cover of: Multiply by:
3				OBL species $0 \times 1 = 0$
4				FACW species $\frac{0}{50}$ $x = \frac{0}{150}$ FAC species $x = \frac{0}{150}$
5				FAC species 50
		= Total Co	over	UPL species 10
Herb Stratum (Plot size: 5 ft r) 1. Poa pratensis	50		EAC	Column Totals: 100 (A) 360 (B)
2 Pascopyrum smithii			FACU	
3 Sisymbrium altissimum	15		FACU	Prevalence Index = B/A = 3.60
Thlaspi arvense	10		UPL	Hydrophytic Vegetation Indicators:
5. Galium aparine	8		FACU	1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50%
6. Lactuca serriola	2		FACU	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
	100	= Total Co	ver	be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size:)				
1				Hydrophytic Vegetation
2		= Total Co		Present? Yes No V
% Bare Ground in Herb Stratum 0		- 10tal C0	v CI	
Remarks:				
Vegetation community did not meet	any hy	drophy	tic vege	etation indicators.

SOIL Sampling Point: DP02u

0-8 10YR 3/1 100 Sitty Clay Loam	Depth	Matrix	 -	Redox Features	3	_
Type: C-Concentration, D-Depletion, RM-Reduced Matrix, CS-Covered or Coaled Sand Grains. Type: C-Concentration, D-Depletion, RM-Reduced Matrix, CS-Covered or Coaled Sand Grains. Thistosic (A1)			<u>%</u>	Color (moist) % Type ¹ Lo		
Type: C=Concentration. D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. *Location: PL=Pore Lining, M=Matrix. Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histose (A1)	0 - 8 <u>10Y</u>	R 3/1	100		Silty Clay Lo	am
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histos (A1)						
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histos (A1)	-					
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histos (A1)						
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histos (A1)			·			
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histos (A1)						
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histos (A1)	_ -					
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histos (A1)	<u> </u>					
Hightosol (A1)						
Histosol (A1) Sandy Redox (S5) 2 cm Muck (A10) Red Parent Material (TF2) Sirriped Matrix (S6) Red Parent Material (TF2) Very Shallow Dark Surface (A10) Loamy Mucky Mineral (F1) (except MLRA 1) Very Shallow Dark Surface (TF12) Depleted Below Dark Surface (A11) Depleted Matrix (F2) Other (Explain in Remarks) Depleted Matrix (F2) Depleted Dark Surface (A12) Redox Dark Surface (F6) Popleted Matrix (F3) Indicators of hydrophytic vegetation and wetland hydrology must be present. Sandy Gleyed Matrix (S4) Redox Depressions (F8) wetland hydrology must be present. Unless disturbed or problematic. Restrictive Layer (if present): Type: Hydric Soil Present? Yes No Vermarks: No hydric soil indicators observed. Cobbles restricted excavation further than 8". YPROLOGY Wetland Hydrology Indicators: Permary Indicators (minimum of one required; check all that apply) Surface Water (A1) Water Stalined Leaves (B9) (except Mutra (A2) And 4B) Water Table (A2) Agualic Invertebrates (B13) Drina patterns (B10) Surface Side (B4) Record or C4) Saturation (A3) Saturation (A3) Saturation (A3) Saturation (A3) Saturation (A3) Saturation Presence of Reduced Iron (C4) Saturation (Visible on Aerial Imagery (C4) Surface (C5) Surface (C6) Surface (C7) Surfac	Type: C=Concentr	ation, D=Dep	letion, RM=I	Reduced Matrix, CS=Covered or Coated Sai	nd Grains. 2	² Location: PL=Pore Lining, M=Matrix.
Histic Epipedon (A2) Stripped Matrix (S8) Red Parent Material (TF2) Black Histic (A3) Loamy Mucky Mineral (F1) (except MLRA 1) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Redox Dark Surface (F5) Sandy Mucky Mineral (S1) Depleted Matrix (F3) Thick Dark Surface (A12) Redox Dark Surface (F6) Sandy Mucky Mineral (S1) Depleted Dark Surface (F6) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Sandy Mucky Mineral (S1) Redox Depressions (F8) Unless disturbed or problematic. Restrictive Layer (if present): Type: Deptin (inches): Hydric Soil Present? Yes No YPROLOGY Wetland Hydrology Indicators Surface Water (A1) Water Stained Leaves (B9) (except Water Marks (B1) Depleted Leaves (B9) (except Water Marks (B1) Depleted Leaves (B13) Depleted Eaves (B13) Depleted Eaves (B13) Depleted Parks (B1) Depleted Dark (B11) Depleted Dark (B11) Depleted Dark (B11) Depleted Dark (B11) Depleted Darks (B11) Depleted Dark (B11) Depleted Darks (B13) Depleted Darks (B14) Depleted Darks (B15) Depleted Darks (B16) Depleted Darks (B17) Depleted Darks (B18) Depleted Darks (B18) Depleted Darks (B19) (Except Water Table (A2) Depleted Darks (B19) (Except Water Table (A2) Depleted Darks (B19) (Except Water Table (A2) Depleted Darks (B19) Depleted Da	Hydric Soil Indicat	ors: (Applic	able to all L	RRs, unless otherwise noted.)	Indic	cators for Problematic Hydric Soils ³ :
Black Histic (A3)	Histosol (A1)		_	Sandy Redox (S5)	2	2 cm Muck (A10)
Hydrogen Sulfide (A4)	Histic Epipedon	(A2)	-	Stripped Matrix (S6)	F	Red Parent Material (TF2)
Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thick Dark Surface (A12) Redox Dark Surface (F6) Thick Dark Surface (A12) Pedect Dark Surface (F7) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Sandy Gleyed Matrix (S4) Redox Depressions (F8) Restrictive Layer (if present): Type: Depth (inches): Depth (inches): Depth (inches): Depth (inches): No hydric soil indicators observed. Cobbles restricted excavation further than 8". Primary Indicators (minimum of one required: check all that apply) Surface Water (A1) High Water Table (A2) Water-Stained Leaves (B9) (except Hydrogen Sulfide Odor (C1) Sediment Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B3) Surface Soil Cracks (B6) Iron Deposits (B5) Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (inch	Black Histic (A3	5)	=	Loamy Mucky Mineral (F1) (except MLR	RA 1) \	Very Shallow Dark Surface (TF12)
Thick Dark Surface (A12)			-		(Other (Explain in Remarks)
			e (A11)		3 .	
Sandy Gleyed Matrix (S4) Redox Depressions (F8) unless disturbed or problematic. Restrictive Layer (if present):		. ,	=			
Restrictive Layer (if present): Type: Depth (inches): Remarks: No hydric soil indicators observed. Cobbles restricted excavation further than 8". INDEPTHY (inches): No hydric soil indicators observed. Cobbles restricted excavation further than 8". INDEPTHY (inches): No hydric soil indicators observed. Cobbles restricted excavation further than 8". INDEPTHY (inches): No hydric soil indicators observed. Cobbles restricted excavation further than 8". INDEPTHY (inches): No hydric soil indicators observed. Cobbles restricted excavation further than 8". INDEPTHY (inches): No hydric soil present? Yes No Popth (inches): No hydric soil present			-			
Type:			_	Redox Depressions (F8)	ur	niess disturbed or problematic.
Depth (inches):		• ,				
Properties (B1) Water Marks (B1) Water Marks (B1) Water Marks (B1) Aquatic Invertebrates (B13) Sediment Deposits (B2) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Surface Soil Cracks (B6) Sourface Soil Cracks (B6) Sourface Soil Cracks (B6) Sourface Water (A1) Water Table Present? Water Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Aquatic Invertebrates (B13) Drainage Patterns (B10) Drainage Patterns (B10) Drainage Patterns (B10) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation (Visible on Aerial Imagery (C2) Saturation (Visible on Aerial Imagery (C3) Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Water Marks: Wetland Hydrology Present? Yes No Wetland Hydrology Prese	ivoe				11	Dell Bussesson Van
Value					HVaric 3	
Surface Water (A1)	Depth (inches): _ Remarks: No hydric soi		ors obs	erved. Cobbles restricted e		
High Water Table (A2) Saturation (A3) Salt Crust (B11) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Vis ble on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Saturation Present? Yes No Wetland Hydrology Present?	Depth (inches): _ Remarks: No hydric soi YDROLOGY Wetland Hydrology	I indicat				
Saturation (A3) Salt Crust (B11) Drainage Patterns (B10) Water Marks (B1) Aquatic Invertebrates (B13) Dry-Season Water Table (C2) Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Saturation Visible on Aerial Imagery (C 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) Prost-Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Frost-Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8) No Depth (inches): Water Table Present?	Depth (inches): _ Remarks: No hydric soi YDROLOGY Wetland Hydrology	I indicat			excavation	further than 8".
Water Marks (B1) Aquatic Invertebrates (B13) Dry-Season Water Table (C2) Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Saturation Visible on Aerial Imagery (C 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 Vis ble 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): Water Table Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Cincludes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Depth (inches): _ Remarks: No hydric soi YDROLOGY Wetland Hydrology Primary Indicators (inches):	I indicat		check all that apply)	excavation	further than 8".
Sediment Deposits (B2)	Depth (inches): _ Remarks: No hydric soi YDROLOGY Wetland Hydrology Primary Indicators (i	I indicat Indicators: minimum of contacts		check all that apply) Water-Stained Leaves (B9) (excep	excavation	further than 8". econdary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
Drift Deposits (B3)	Depth (inches): _ Remarks: No hydric soi YDROLOGY Wetland Hydrology Primary Indicators (i Surface Water (High Water Tab Saturation (A3)	I indicators: minimum of contact (A1) le (A2)		check all that apply) Water-Stained Leaves (B9) (excep MLRA 1, 2, 4A, and 4B) Salt Crust (B11)	excavation Se	further than 8". econdary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10)
Algal Mat or Crust (B4)	Depth (inches): _ Remarks: No hydric soi YDROLOGY Wetland Hydrology Primary Indicators (i Surface Water (High Water Tab Saturation (A3)	I indicators: minimum of contact (A1) le (A2)		check all that apply) Water-Stained Leaves (B9) (excep MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13)	excavation Se	further than 8". econdary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10)
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 Vis ble 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): Water Table Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Depth (inches): _ Remarks: No hydric soi YDROLOGY Wetland Hydrology Primary Indicators (i Surface Water (i High Water Tab Saturation (A3) Water Marks (B	I indicators: minimum of contact (A2) 1)		check all that apply) Water-Stained Leaves (B9) (excep MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13)	excavation Set	further than 8". econdary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2)
Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Inundation Vis ble 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): Wetland Hydrology Present? Yes No Person Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	Depth (inches): _ Remarks: No hydric soi YDROLOGY Wetland Hydrology Primary Indicators (i Surface Water (High Water Tab Saturation (A3) Water Marks (B Sediment Depo Drift Deposits (B	I indicators: minimum of co A1) lle (A2) 1) sits (B2) 33)		check all that apply) Water-Stained Leaves (B9) (excep	excavation Set g Roots (C3)	further than 8". econdary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9, Geomorphic Position (D2)
Inundation Vis ble 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): Wetland Hydrology Present? Yes No Depth (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	Depth (inches): _ Remarks: No hydric soi YDROLOGY Wetland Hydrology Primary Indicators (i Surface Water (i High Water Tab Saturation (A3) Water Marks (B Sediment Depo Drift Deposits (E Algal Mat or Cri	Indicators: minimum of co A1) le (A2) 1) sits (B2) 33) ust (B4)		check all that apply) Water-Stained Leaves (B9) (excep	excavation Set The second se	further than 8". econdary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3)
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): Simplify the present inches is Simplify to the present inches is Simplify the present inches is	Depth (inches): _ Remarks: No hydric soi YDROLOGY Wetland Hydrology Primary Indicators (i Surface Water (High Water Tab Saturation (A3) Water Marks (B Sediment Depo Drift Deposits (E Algal Mat or Cru Iron Deposits (E	Indicators: minimum of co (A1) lle (A2) 1) sits (B2) 33) ust (B4) 35)		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	excavation Set g Roots (C3) Is (C6)	further than 8". econdary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9, Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Percentage Concepts and Concepts and Concepts are also present in the concepts and concepts are also present in the con	Depth (inches): _ Remarks: No hydric soi YDROLOGY Wetland Hydrology Primary Indicators (ii Surface Water (ii High Water Tab Saturation (A3) Water Marks (B Sediment Depo Drift Deposits (ii Algal Mat or Cru Iron Deposits (E Surface Soil Cru	I indicators: minimum of co (A1) lle (A2) 1) sits (B2) 33) ust (B4) 85) acks (B6)	ne required:	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 Stunted or Stressed Plants (D1) (Li	excavation Set g Roots (C3) gls (C6) RR A)	further than 8". econdary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9, 54 Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	Depth (inches): _ Remarks: No hydric soi YDROLOGY Wetland Hydrology Primary Indicators (i Surface Water (High Water Tab Saturation (A3) Water Marks (B Sediment Depo Drift Deposits (I Algal Mat or Cri Iron Deposits (E Surface Soil Cri Inundation Visit	I indicators: minimum of co A1) lle (A2) 1) sits (B2) 33) ust (B4) 35) acks (B6) ble on Aerial	ne required; magery (B7	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 Stunted or Stressed Plants (D1) (LI	excavation Set g Roots (C3) gls (C6) RR A)	further than 8". econdary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9, 54 Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Outline Scapillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	Depth (inches): _ Remarks: No hydric soi YDROLOGY Wetland Hydrology Primary Indicators (i Surface Water (i High Water Tabe Saturation (A3) Water Marks (Billian Benoment Depoil Deposits (ii Algal Mat or Crulinon Deposits (ii Surface Soil Crulinundation Visital Sparsely Vegeti	Indicators: minimum of co A1) le (A2) 1) sits (B2) 33) ust (B4) B5) acks (B6) ble on Aerial I ated Concave	ne required; magery (B7	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 Stunted or Stressed Plants (D1) (LI	excavation Set g Roots (C3) gls (C6) RR A)	further than 8". econdary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9, 54 Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Saturation Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	Depth (inches): _ Remarks: No hydric soi YDROLOGY Wetland Hydrology Primary Indicators (i	I indicators: minimum of co A1) le (A2) 1) sits (B2) 33) ust (B4) B5) acks (B6) ble on Aerial I ated Concavo	magery (B7	check all that apply) Water-Stained Leaves (B9) (excep	excavation Set g Roots (C3) gls (C6) RR A)	further than 8". econdary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9, 54 Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	Depth (inches): _ Remarks: No hydric soi YDROLOGY Wetland Hydrology Primary Indicators (i	Indicators: minimum of contain (MA) le (A2) 1) sits (B2) 33) ust (B4) 85) acks (B6) ble on Aerial (MA) ated Concave is: ent?	magery (B7 e Surface (B	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 Stunted or Stressed Plants (D1) (LI Other (Explain in Remarks) Depth (inches):	excavation Set g Roots (C3) gls (C6) RR A)	further than 8". econdary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9, 54 Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	Depth (inches): _ Remarks: No hydric soi YDROLOGY Wetland Hydrology Primary Indicators (ii Surface Water (ii High Water Tab Saturation (A3) Water Marks (B Sediment Depo Drift Deposits (Ii Iron Deposits (E Surface Soil Cri Inundation Vis b Sparsely Veget Field Observations Surface Water Pres	I indicators: minimum of contains (B2) 33) ust (B4) 35) acks (B6) ole on Aerial (B4) ated Concave	magery (B7) e Surface (B) es N es N	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 Stunted or Stressed Plants (D1) (LI Other (Explain in Remarks) Depth (inches): Depth (inches):	g Roots (C3)	further than 8". econdary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9, Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
	Depth (inches): _ Remarks: No hydric soi YDROLOGY Wetland Hydrology Primary Indicators (i Surface Water (High Water Tab Saturation (A3) Water Marks (B Sediment Depo Drift Deposits (E Algal Mat or Cri Iron Deposits (E Surface Soil Cri Inundation Vis b Sparsely Veget Field Observations Surface Water Present Saturation Present?	I indicators: Ind	magery (B7) e Surface (B) es N es N	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 Stunted or Stressed Plants (D1) (LI Other (Explain in Remarks) Depth (inches): Depth (inches):	g Roots (C3)	further than 8". econdary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9, Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
No evidence of wetlend by dreleny, absorbed	Depth (inches): _ Remarks: No hydric soi YDROLOGY Wetland Hydrology Primary Indicators (ii Surface Water (ii High Water Tab Saturation (A3) Water Marks (B Sediment Depo Drift Deposits (B Algal Mat or Cru Iron Deposits (E Surface Soil Cru Iron Deposits (E Surface Soil Cru Inundation Vis B Sparsely Veget Field Observations Surface Water Present Saturation Present? (includes capillary free	I indicators: minimum of contains (B2) 33) ust (B4) 35) acks (B6) ole on Aerial (B4) ated Concave	magery (B7) e Surface (B) es N es N	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 Stunted or Stressed Plants (D1) (LI Other (Explain in Remarks) Depth (inches): Depth (inches):	g Roots (C3)	further than 8". econdary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9, Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
	Depth (inches): _ Remarks: No hydric soi YDROLOGY Wetland Hydrology Primary Indicators (i Surface Water (High Water Tab Saturation (A3) Water Marks (B Sediment Depo Drift Deposits (E Algal Mat or Cru Iron Deposits (E Surface Soil Cra Inundation Vis b Sparsely Veget Field Observations Surface Water Present Saturation Present? (includes capillary frodescribe Recorded)	I indicators: minimum of contains (B2) 33) ust (B4) 35) acks (B6) ole on Aerial (B4) ated Concave	magery (B7) e Surface (B) es N es N	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 Stunted or Stressed Plants (D1) (LI Other (Explain in Remarks) Depth (inches): Depth (inches):	g Roots (C3)	further than 8". econdary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9, Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)

Project/Site: US93 N Peterson	(City/Count	y: Lake Coi	unty Sampling	Date: 2024-07-02
Applicant/Owner: MDT		-	, <u> </u>	Mantana	
	Ş	Section. To	ownship. Rar	ge: S35 T19N R20W	
Landform (hillslope, terrace, etc.): Valley Floor					Slope (%): 1
				Long: -114.1007193	
Soil Map Unit Name: 22 - Colake silt loam, 0 to 1 pero					
Are climatic / hydrologic conditions on the site typical for this					
				Normal Circumstances" present?	Van V Na
Are Vegetation, Soil, or Hydrology si					
Are Vegetation, Soil, or Hydrology no SUMMARY OF FINDINGS – Attach site map s				eded, explain any answers in Rema ecations, transects, import	
Hydrophytic Vegetation Present? Yes No)				
Hydric Soil Present? Yes No			he Sampled	Area 🗸 🗸	
Wetland Hydrology Present? Yes No		Wit	hin a Wetlan	d? Yes No	
Remarks:					
Wetland point taken near inundated area. The U.S. Droudrought).	ught Monit	or Index f	rom Lake Co	ounty, MT during the site visit wa	as D1 (moderate
VEGETATION – Use scientific names of plant	s.				
30 ft r	Absolute		t Indicator	Dominance Test worksheet:	
	% Cover			Number of Dominant Species	2
1				That Are OBL, FACW, or FAC:	<u>2</u> (A)
2				Total Number of Dominant	3 (B)
3				Species Across All Strata:	3 (B)
7.			over	Percent of Dominant Species That Are OBL, FACW, or FAC:	66.66 (A/B)
Sapling/Shrub Stratum (Plot size: 15 ft r	-	rotal o	0101	Prevalence Index worksheet:	(A/B)
1				Total % Cover of:	Multiply by:
2				OBL species 18 x 1	
3				FACW species 0 x 2	
4					3 = 120
5	·				12
Herb Stratum (Plot size: 5 ft r)		= Total C	over	UPL species 23 x 5	5 = <u>115</u>
1. Geum macrophyllum	35		FAC	Column Totals: 84 (A)	<u>265</u> (B)
2. Amsinckia menziesii	15	~	UPL	Prevalence Index = B/A =	3.15
3. Typha latifolia	15		OBL	Hydrophytic Vegetation Indicat	
4. Brassica juncea	5		UPL	1 - Rapid Test for Hydrophyti	
5. Cirsium arvense	5		FAC	✓ 2 - Dominance Test is >50%	
6. Agastache urticifolia	3		FACU	3 - Prevalence Index is ≤3.0 ¹	
7. Thlaspi arvense	3		UPL	4 - Morphological Adaptation	
8. Veronica americana	3		OBL	data in Remarks or on a s	•
9				5 - Wetland Non-Vascular Pla	
10				Problematic Hydrophytic Veg 1Indicators of hydric soil and wetla	
11	~ 4	T-4-1 O		be present, unless disturbed or pr	
Woody Vine Stratum (Plot size:)		= Total Co	over	·	
1				Hydrophytic	
2				Vegetation	
		= Total Co		Present? Yes	NO
% Bare Ground in Herb Stratum 16 Remarks:					
Evidence of hydrophytic vegetation i	nclude	s a pos	sitive do	minance test.	

SOIL Sampling Point: DP02w

Depth	iption: (Describ Matrix	e to the de	-	x Featur	es			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0 - 8	10YR 4/2	100					Silty Clay Loam	
8 - 14	10YR 4/2	98	10YR 3/6	2	С	М	Silty Clay Loam	
				-				
						· ——		
				<u> </u>				
-								
				-				
¹Type: C=Cor	ncentration D=De	nletion RN	- ∕I=Reduced Matrix, C	S=Cover	ed or Coate	ed Sand Gr	ains ² l oc	ation: PL=Pore Lining, M=Matrix.
			II LRRs, unless other			ou curiu cir		rs for Problematic Hydric Soils ³ :
Histosol (Sandy Redox (·		2 cm	Muck (A10)
	pedon (A2)		Stripped Matrix	,				Parent Material (TF2)
Black Hist			Loamy Mucky N		F1) (excep	t MLRA 1)		Shallow Dark Surface (TF12)
Hydrogen	Sulfide (A4)		Loamy Gleyed	Matrix (F	2)		Othe	r (Explain in Remarks)
	Below Dark Surfa	ice (A11)	✓ Depleted Matrix				•	
	k Surface (A12)		Redox Dark Su	,	,			rs of hydrophytic vegetation and
-	ucky Mineral (S1)		Depleted Dark					nd hydrology must be present,
	eyed Matrix (S4)		Redox Depress	sions (F8)		unless	s disturbed or problematic.
	ayer (if present):							
								v V N
• •	nes):						Hydric Soil	Present? Yes No
Prominen		orphic c	concentration	s com	nmon w	vithin d	epleted m	natrix.
Prominen HYDROLOG Wetland Hydr	SY rology Indicators	s:			nmon w	vithin d		
Prominen HYDROLOG	SY rology Indicators	s:	ed; check all that appl	y)			Secon	dary Indicators (2 or more required)
Prominen HYDROLOG Wetland Hydi Primary Indica Surface V	SY rology Indicator: ators (minimum of Vater (A1)	s:	ed; check all that appl Water-Sta	y) ined Lea	ıves (B9) (6		Secon	dary Indicators (2 or more required) ater-Stained Leaves (B9) (MLRA 1, 2,
Prominen HYDROLOG Wetland Hydi Primary Indica Surface W High Wate	rology Indicators stors (minimum of Vater (A1) er Table (A2)	s:	ed; check all that appl Water-Sta MLRA	y) ined Lea 1, 2, 4A			<u>Secon</u> W	dary Indicators (2 or more required) ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
Prominen HYDROLOG Wetland Hydro Primary Indica Surface W High Wate Saturation	rology Indicators ators (minimum of Vater (A1) er Table (A2) n (A3)	s:	ed; check all that appl Water-Sta MLRA Salt Crust	y) ined Lea 1, 2, 4A (B11)	ıves (Β9) (ε , and 4Β)		<u>Secon</u> W Di	dary Indicators (2 or more required) ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) rainage Patterns (B10)
Prominen HYDROLOG Wetland Hydro Primary Indica Surface W High Wate V Saturation Water Ma	rology Indicators ators (minimum of Vater (A1) er Table (A2) n (A3) arks (B1)	s:	ed; check all that appl Water-Sta MLRA Salt Crust Aquatic In	y) ined Lea 1, 2, 4A (B11) vertebra	ives (B9) (6 , and 4B)		<u>Secon</u> W Di Di	dary Indicators (2 or more required) ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2)
Prominen Wetland Hydro Primary Indica Surface W High Water Saturation Water Ma Sediment	rology Indicators ators (minimum of Vater (A1) er Table (A2) n (A3) urks (B1) Deposits (B2)	s:	ed; check all that appl Water-Sta MLRA Salt Crust Aquatic In Hydrogen	y) ined Lea 1, 2, 4A (B11) vertebra Sulfide (ves (B9) (6, and 4B) tes (B13) Odor (C1)	except	Secon W Di Di Di Si	dary Indicators (2 or more required) ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (C9)
Prominen Wetland Hydi Primary Indica Surface W High Wate V Saturatior Water Ma Sediment Drift Depo	rology Indicators stors (minimum of Vater (A1) er Table (A2) n (A3) rrks (B1) Deposits (B2) osits (B3)	s:	ed; check all that appl Water-Sta MLRA Salt Crust Aquatic In Hydrogen Oxidized F	y) ined Lea 1, 2, 4A (B11) vertebra Sulfide (Rhizosph	tes (B13) Odor (C1) teres along	except Living Roo	Secon W Di Di Si ts (C3) <u> </u>	dary Indicators (2 or more required) ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) ecomorphic Position (D2)
Prominen HYDROLOG Wetland Hydi Primary Indica Surface W High Wate Saturation Water Ma Sediment Drift Depo	rology Indicators stors (minimum of Vater (A1) er Table (A2) n (A3) rrks (B1) Deposits (B2) osits (B3) or Crust (B4)	s:	ed; check all that appl Water-Sta MLRA Salt Crust Aquatic In Hydrogen Oxidized F Presence	y) ined Lea 1, 2, 4A (B11) vertebra Sulfide (Rhizosph of Reduce	tes (B13) Odor (C1) Deres along Ced Iron (C	except Living Roo 4)	Secon W Di Di Si ts (C3) <u>v</u> Gi Si	dary Indicators (2 or more required) ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) eomorphic Position (D2) nallow Aquitard (D3)
Prominen HYDROLOG Wetland Hydro Primary Indica Surface W High Wate V Saturation Water Ma Sediment Drift Depo	rology Indicators ators (minimum of Vater (A1) er Table (A2) n (A3) rrks (B1) Deposits (B2) osits (B3) or Crust (B4) osits (B5)	s:	ed; check all that appl Water-Sta MLRA Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro	y) ined Lea 1, 2, 4A (B11) vertebra Sulfide (Rhizosph of Reduc	tes (B13) Odor (C1) Heres along Ced Iron (C	except Living Roo 4) d Soils (C6	Secon W Di Di Si ts (C3) <u> </u>	dary Indicators (2 or more required) ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) recomorphic Position (D2) rallow Aquitard (D3) AC-Neutral Test (D5)
Prominen HYDROLOG Wetland Hydro Primary Indica Surface W High Wate Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo Surface S	rology Indicators ators (minimum of Vater (A1) er Table (A2) n (A3) arks (B1) Deposits (B2) osits (B3) or Crust (B4) osits (B5) soil Cracks (B6)	s: one requir	ed; check all that appl Water-Sta MLRA Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro Stunted or	y) ined Lea 1, 2, 4A (B11) vertebra Sulfide (Rhizosph of Reduc	tes (B9) (6, and 4B) tes (B13) Odor (C1) teres along ted Iron (C tion in Tille ted Plants (E	except Living Roo 4)	Secon W Di Si ts (C3) F/ Ri Ri Ri Secon	dary Indicators (2 or more required) ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) reomorphic Position (D2) rallow Aquitard (D3) AC-Neutral Test (D5) raised Ant Mounds (D6) (LRR A)
Prominen Wetland Hydro Primary Indica Surface W High Water V Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo Surface S Inundation	rology Indicators ators (minimum of Vater (A1) er Table (A2) n (A3) nrks (B1) Deposits (B2) osits (B3) or Crust (B4) osits (B5) soil Cracks (B6) n Vis ble on Aeria	s: one require	ed; check all that appl Water-Sta MLRA Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro Stunted or 37) Other (Exp	y) ined Lea 1, 2, 4A (B11) vertebra Sulfide (Rhizosph of Reduc	tes (B9) (6, and 4B) tes (B13) Odor (C1) teres along ted Iron (C tion in Tille ted Plants (E	except Living Roo 4) d Soils (C6	Secon W Di Si ts (C3) F/ Ri Ri Ri Secon	dary Indicators (2 or more required) ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) ecomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5)
Prominen HYDROLOG Wetland Hydi Primary Indica Surface W High Water Vater Ma Sediment Drift Depo Algal Mat Iron Depo Surface S Inundation Sparsely	rology Indicators stors (minimum of Vater (A1) er Table (A2) n (A3) rrks (B1) Deposits (B2) osits (B3) or Crust (B4) osits (B5) soil Cracks (B6) n Vis ble on Aeria Vegetated Conca	s: one require	ed; check all that appl Water-Sta MLRA Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro Stunted or 37) Other (Exp	y) ined Lea 1, 2, 4A (B11) vertebra Sulfide (Rhizosph of Reduc	tes (B9) (6, and 4B) tes (B13) Odor (C1) teres along ted Iron (C tion in Tille ted Plants (E	except Living Roo 4) d Soils (C6	Secon W Di Si ts (C3) F/ Ri Ri Ri Secon	dary Indicators (2 or more required) ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) reomorphic Position (D2) rallow Aquitard (D3) AC-Neutral Test (D5) raised Ant Mounds (D6) (LRR A)
Prominen Wetland Hydi Primary Indica Surface W High Wate Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo Surface S Inundation Sparsely W	rology Indicators stors (minimum of Vater (A1) er Table (A2) n (A3) rks (B1) Deposits (B2) sits (B3) or Crust (B4) sits (B5) soil Cracks (B6) n Vis ble on Aeria Vegetated Conca	one require	ed; check all that appl Water-Sta MLRA Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro Stunted or 37) Other (Exp.	y) ined Lea 1, 2, 4A (B11) vertebra Sulfide (Rhizosph of Reduce on Reduce r Stresse blain in F	tes (B9) (es, and 4B) tes (B13) Odor (C1) teres along ced Iron (Cotton in Tille d Plants (ER)	except Living Roo 4) ad Soils (C6 01) (LRR A)	Secon W Di Si ts (C3) F/ Ri Ri Ri Secon	dary Indicators (2 or more required) ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) reomorphic Position (D2) rallow Aquitard (D3) AC-Neutral Test (D5) raised Ant Mounds (D6) (LRR A)
Prominen HYDROLOG Wetland Hydro Primary Indica Surface W High Wate Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo Surface S Inundation Sparsely Field Observa Surface Water	rology Indicators stors (minimum of Vater (A1) er Table (A2) n (A3) rks (B1) Deposits (B2) posits (B3) or Crust (B4) posits (B5) soil Cracks (B6) n Vis ble on Aeria Vegetated Conca ations: r Present?	s: one require I Imagery (I	ed; check all that appl Water-Sta MLRA Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro Stunted or Other (Exp	y) ined Lea 1, 2, 4A (B11) vertebra Sulfide (Rhizosph of Reduce r Stresse blain in F	tes (B9) (e, and 4B) tes (B13) Odor (C1) teres along ced Iron (C tion in Tille d Plants (E Remarks)	except Living Roo 4) d Soils (C6 01) (LRR A)	Secon W Di Si ts (C3) F/ Ri Ri Ri Secon	dary Indicators (2 or more required) ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) reomorphic Position (D2) rallow Aquitard (D3) AC-Neutral Test (D5) raised Ant Mounds (D6) (LRR A)
Prominen Wetland Hydro Primary Indica Surface W High Water Water Ma Sediment Drift Depo Algal Mat Iron Depo Surface S Inundation Sparsely Field Observa Surface Water	rology Indicators ators (minimum of Vater (A1) er Table (A2) n (A3) nrks (B1) Deposits (B2) posits (B3) or Crust (B4) posits (B5) noil Cracks (B6) n Vis ble on Aeria Vegetated Conca ations: r Present?	one require I Imagery (I ve Surface Yes Yes	ed; check all that appl Water-Sta MLRA Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro Stunted or Stunted or Other (Exp (B8)	y) ined Lea 1, 2, 4A (B11) vertebra Sulfide (Rhizosph of Reduct on Reduct r Stresse blain in F	tes (B9) (6, and 4B) tes (B13) Odor (C1) teres along ted Iron (C tion in Tille ted Plants (E Remarks)	Except Living Roo 4) ad Soils (C6 01) (LRR A)	Secon W Di Sits (C3)	dary Indicators (2 or more required) ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) eomorphic Position (D2) nallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A) ost-Heave Hummocks (D7)
Prominen Wetland Hydro Primary Indica Surface W High Water Water Ma Sediment Drift Depo Algal Mat Iron Depo Surface S Inundation Sparsely Field Observa Surface Water Water Table F Saturation Pre	rology Indicators ators (minimum of Vater (A1) er Table (A2) n (A3) nrks (B1) Deposits (B2) osits (B3) or Crust (B4) osits (B5) soil Cracks (B6) n Vis ble on Aeria Vegetated Conca ations: r Present? ersent?	one require I Imagery (I ve Surface Yes Yes	ed; check all that appl Water-Sta MLRA Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro Stunted or Other (Exp	y) ined Lea 1, 2, 4A (B11) vertebra Sulfide (Rhizosph of Reduct on Reduct r Stresse blain in F	tes (B9) (6, and 4B) tes (B13) Odor (C1) teres along ted Iron (C tion in Tille ted Plants (E Remarks)	Except Living Roo 4) ad Soils (C6 01) (LRR A)	Secon W Di Sits (C3)	dary Indicators (2 or more required) ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) eomorphic Position (D2) nallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A)
Prominen HYDROLOG Wetland Hydro Primary Indica Surface W High Wate Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo Surface S Inundation Sparsely Field Observa Surface Water Water Table F Saturation Pre (includes capil	rology Indicators ators (minimum of Vater (A1) er Table (A2) n (A3) arks (B1) Deposits (B2) posits (B3) or Crust (B4) posits (B5) soil Cracks (B6) n Vis ble on Aeria Vegetated Conca ations: r Present? ersent? elsent? llary fringe)	one require I Imagery (I ve Surface Yes Yes Yes	ed; check all that appl Water-Sta MLRA Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro Stunted or Stunted or Other (Exp (B8) No Depth (in	y) ined Lea 1, 2, 4A (B11) vertebra Sulfide (Rhizosph of Reduct on Reduct on Stresse plain in F ches): ches): ches): ches):	tes (B9) (6, and 4B) tes (B13) Odor (C1) teres along ted Iron (C tition in Tille d Plants (E Remarks)	Living Roo 4) d Soils (C6 01) (LRR A)	Secon W Di	dary Indicators (2 or more required) ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) eomorphic Position (D2) nallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A) ost-Heave Hummocks (D7)
Prominen Wetland Hydi Primary Indica Surface W High Water Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo Surface S Inundation Sparsely Field Observa Surface Water Water Table F Saturation Pre (includes capil Describe Reco	rology Indicators ators (minimum of Vater (A1) er Table (A2) n (A3) arks (B1) Deposits (B2) posits (B3) or Crust (B4) posits (B5) soil Cracks (B6) n Vis ble on Aeria Vegetated Conca ations: r Present? ersent? elsent? llary fringe)	one require I Imagery (I ve Surface Yes Yes Yes	ed; check all that appl Water-Sta MLRA Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro Stunted or Other (Exp (B8) No Depth (in No Depth (in	y) ined Lea 1, 2, 4A (B11) vertebra Sulfide (Rhizosph of Reduct on Reduct on Stresse plain in F ches): ches): ches): ches):	tes (B9) (6, and 4B) tes (B13) Odor (C1) teres along ted Iron (C tition in Tille d Plants (E Remarks)	Living Roo 4) d Soils (C6 01) (LRR A)	Secon W Di	dary Indicators (2 or more required) ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) reomorphic Position (D2) nallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A) ost-Heave Hummocks (D7)
HYDROLOG Wetland Hydro Primary Indica Surface W High Water Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo Surface S Inundation Sparsely Field Observa Surface Water Water Table F Saturation Pre (includes capil	rology Indicators ators (minimum of Vater (A1) er Table (A2) n (A3) arks (B1) Deposits (B2) posits (B3) or Crust (B4) posits (B5) soil Cracks (B6) n Vis ble on Aeria Vegetated Conca ations: r Present? ersent? elsent? llary fringe)	one require I Imagery (I ve Surface Yes Yes Yes	ed; check all that appl Water-Sta MLRA Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro Stunted or Other (Exp (B8) No Depth (in No Depth (in	y) ined Lea 1, 2, 4A (B11) vertebra Sulfide (Rhizosph of Reduct on Reduct on Stresse plain in F ches): ches): ches): ches):	tes (B9) (6, and 4B) tes (B13) Odor (C1) teres along ted Iron (C tition in Tille d Plants (E Remarks)	Living Roo 4) d Soils (C6 01) (LRR A)	Secon W Di	dary Indicators (2 or more required) ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) eomorphic Position (D2) nallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A) ost-Heave Hummocks (D7)
Prominen HYDROLOG Wetland Hydi Primary Indica Surface W High Water Saturation Algal Mat Iron Depo Surface S Inundation Sparsely Water Table F Saturation Pre (includes capil Describe Reco	rology Indicators ators (minimum of Vater (A1) er Table (A2) n (A3) nrks (B1) Deposits (B2) osits (B3) or Crust (B4) osits (B5) soil Cracks (B6) n Vis ble on Aeria Vegetated Conca ations: r Present? esent? elary fringe) orded Data (strea	I Imagery (I ve Surface Yes Yes Yes The surface of	ed; check all that appl Water-Sta MLRA Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro Stunted or 37) Other (Exp (B8) No Depth (in No Depth (in No Depth (in nonitoring well, aerial	y) ined Lea 1, 2, 4A (B11) vertebra Sulfide (Rhizosph of Reduce on Reduce r Stresse plain in F ches): _ ches): _ ches): _ photos,	tes (B9) (es, and 4B) tes (B13) Ddor (C1) teres along ted Iron (C) tition in Tille d Plants (E) Remarks)	Living Roo 4) ed Soils (C6 b1) (LRR A) Wetla spections),	Secon W Di Sits (C3)	dary Indicators (2 or more required) ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) eomorphic Position (D2) nallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A) ost-Heave Hummocks (D7)
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Project/Site: US93 N Peterson	(City/County:	Lake Co	unty Sampling Date: 2024-07-02
Applicant/Owner: MDT		-		Mandana
Investigator(s): E Reynaud	Ç	Section, To	wnship, Rar	nge: S35 T19N R20W
Landform (hillslope, terrace, etc.): Valley Floor				
, , ,			•	Long: -114.1011104 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 Hydrology si				Normal Circumstances" present? Yes No
Are Vegetation, Soil, or Hydrologyn				
SUMMARY OF FINDINGS – Attach site map				eded, explain any answers in Remarks.) ocations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No	· ·	<u> </u>		
Hydric Soil Present? Yes No			e Sampled	
Wetland Hydrology Present? Yes No		with	in a Wetlan	d? Yes No V
Remarks:				
Upland point taken 22 ft uphill of lower wetland point number during the site visit was D1 (moderate drought).	ear northei	n border o	of site. The	U.S. Drought Monitor Index from Lake County, MT
VEGETATION – Use scientific names of plant	s.			
30 ft r	Absolute			Dominance Test worksheet:
	% Cover			Number of Dominant Species
1				That Are OBL, FACW, or FAC: 1 (A)
2				Total Number of Dominant Species Across All Strata: 2 (B)
3				Species Across All Strata: 2 (B)
7.		= Total Co	ver	Percent of Dominant Species That Are OBL, FACW, or FAC: 50.00 (A/B)
Sapling/Shrub Stratum (Plot size: 15 ft r		. 010. 00		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 40 x 3 = 120
5				FACU species <u>57</u> x 4 = <u>228</u>
Herb Stratum (Plot size: 5 ft r)	-	= Total Co	ver	UPL species 0 x 5 = 0
1. Pascopyrum smithii	45		FACU	Column Totals: <u>97</u> (A) <u>348</u> (B)
2. Poa pratensis	40		FAC	Prevalence Index = B/A = 3.58
3. Lactuca serriola	8		FACU	Hydrophytic Vegetation Indicators:
4. Galium aparine	4		FACU	1 - Rapid Test for Hydrophytic Vegetation
5				2 - Dominance Test is >50%
6	-			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 Problematic Hydrophytic Vegetation ¹ (Explain)
10				Indicators of hydric soil and wetland hydrology must
11	^-	Total Car		be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size:)	37	= Total Cov	er	
1				Hydrophytic
2				Vegetation
		= Total Cov	er	Present? Yes No
% Bare Ground in Herb Stratum 3				
Remarks:			_	
Vegetation community did not meet	any hyd	drophyt	ic vege	etation indicators.

SOIL Sampling Point: DP03u

0-6 10YR 4/1 99 10YR 6/4 1 C M Stry Clay Loam Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. *Location: PL=Pore Lining, M=Matrix, Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils*: Histosca (A1) Sandy, Redox (S5)		Color (:-1)	0/	Color (maist)	dox Featur	T 1	1.0.2	Touture	Domostra
Type: C=Concentration. D=Depletion. RM=Reduced Matrix. CS=Covered or Coated Sand Grains. - Location: PL=Pore Lining, M=Matrix. Indicators: (Applicable to all LRRs, unless otherwise noted.) - Histosol (A1) - Histosol (A1) - Histosol (A1) - Sandy Redox (S5) - Loamy Mucky Mireral (F1) - Black Histor (A3) - Loamy Mucky Mireral (F1) - Depleted Blook Dark Surface (A11) - Depleted Blook Matrix (S1) - Sandy Mucky Mineral (S1) - Sandy Gleyed Matrix (S4) - Redox Dark Surface (F7) - Sandy Gleyed Matrix (S4) - Redox Dark Surface (F7) - Sandy Gleyed Matrix (S4) - Redox Depressions (F6) - Unless disturbed or problematic. - Sandy Gleyed Matrix (S4) - Redox Depressions (F6) - Unless disturbed or problematic. - Sandy Gleyed Matrix (S4) - Redox Depressions (F6) - Unless disturbed or problematic. - Work (Inches): - Water Saline Leaves (B9) (except MLRA 1) - High Water Table (A2) - Water Marks (B1) - Aquatic Invertebrates (B13) - Diri Deposits (B2) - Hydrogen Sulfide Odor (C1) - Presence of Reduced Iron (C4) - Presence of Reduced Iron (C4) - Presence of Reduced Iron (C4) - Iron Deposits (B3) - Outlied Fibrosophics In Time of Solis (C6) - Saluration (Sible on Aerial Imagery (F7) - Other (Explain in Remarks) - Vertain (C1) - Prost-Heave Hummocks (D7) - Shallow Aquaticar (D3) - Frost-Heave Hummocks (D7) - Shallow Aquation (D3) - Frost-Heave Hummocks (D7) - Shallow Aquation (D3) - Frost-Heave Hummocks (D7) - Sturface Water Fresent? - Yes No V Depth (inches): - Wetland Hydrology Present? Yes No V Depth (inches): - Wetland Hydrology Present? Yes No V Depth (inches): - Wetland Hydrology Present? Yes No V Depth (inches): - Wetland Hydrology Present? Yes No V Depth (inches): - Wetland Hydrology Present? Yes No V D	0-6	Color (moist)	%	Color (moist)		Type ¹		<u>Texture</u>	Remarks
ydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosoil (A1) Sandy Redox (S5) 2 cm Muck (A10) Histosoil (A1) Siripped Matrix (S6) 2 cm Muck (A10) Black Histic (A3) Loamy Mucky Mineral (F1) (except MLRA 1) Very Shallow Dark Surface (TF12) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (except MLRA 1) Very Shallow Dark Surface (TF12) Depleted Below Dark Surface (A11) Depleted Matrix (F2) Other (Explain in Remarks) Depleted Below Dark Surface (A12) Redox Dark Surface (F6) Indicators of hydrophytic vegetation and wetland hydrology must be present, sandy Mucky Mineral (S1) Depleted Dark Surface (F7) wetland hydrology must be present, unless disturbed or problematic. Type: Depth (inches): Hydric Soil Present? Yes No Water Stained Leaves (B9) (except Matrix (F3) Porphysiology indicators: minary Indicators (minimum of one required; check all that apply) Surface Water (A1) Water-Stained Leaves (B9) (except Mater Table (A2) MLRA 1, 2, 4A, and 4B) Surface Water (A1) Aquatic Invertebrates (B13) Driange Patterns (B10) Water Marks (B1) Aquatic Invertebrates (B13) Driange Patterns (B10) Water Marks (B1) Aquatic Invertebrates (B13) Dry-Season Water Table (C2) Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Sediment Deposits (B3) Oxidized Ribisospheres along Living Roots (C3) Geomatrin Fest (D5) Recent Iron Reduction in Tilled Soils (C6) FAC-Neutral Test (D5) Surface Soil Cracks (B6) Surface (F6) In Remarks) Frost-Heave Hummocks (D7) Wetland Hydrology Present? Yes No Depth (inches): Under Water Present? Yes No Depth (inches): Under Observations: Under Observa		10YR 4/1	99	10YR 6/4	_ 1	_ <u>C</u>	_ <u>M</u>	Silty Clay Loam	
Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils?: Histosoil (A1)									
ydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosoil (A1) Sandy Redox (S5) Ze cm Muck (A10) Histosoil (A1) Sandy Redox (S5) Ze cm Muck (A10) Black Histic (A2) Loamy Mucky Mineral (F1) (except MLRA 1) Very Shallow Dark Surface (TF12) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thick Dark Surface (A12) Redox Dark Surface (F6) Sandy Mucky Mineral (S1) Depleted Dark Surface (F6) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Wetland Hydrology must be present, unless disturbed or problematic. Type: Depth (inches): Hydric Soil Present? Yes No Water-Stained Leaves (B9) (except Matrix (F3) Porseason Water Table (C2) Surface Water (A1) Water-Stained Leaves (B9) (except Matrix (B1) Porseason Water Table (C2) Surface Water (A1) Aquatic Invertebrates (B13) Diricators (B1) Presented Evaluation And 4B) Water Marks (B1) Aquatic Invertebrates (B13) Diricators (B1) Diricators (B1) Presence of Reduced Iron (C4) Shallow Aquaticator (B2) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Aquatication (B3) Nurface Water (Carchis (B6) Recent In Reduction in Tilled Soils (C6) FAC-Neutral Test (D5) Redox Dark Surface (B8) Water Marks (B1) Research (B10) Presence of Reduced Iron (C4) Shallow Aquitard (D3) For Deposits (B5) Recent Iron Reduction in Remarks) For Stressed Plants (D1) (LRR A) Redox Presence of Reduced Iron (C4) Redox (D3) For Stressed Plants (D1) (LRR A) Redox Present? Yes No Depth (inches): Joint Deposits (B6) Present? Yes No Depth (inches): Joint Deposits (B7) Present? Yes No Depth (inches): Joint Deposits (B7) Present? Yes No Depth (inches): Joint Deposits (B8) Present? Yes No Depth (inches): Joint Deposits (B7) Present? Yes No Depth (inches): Joint Deposits (B8) Present? Yes No Depth	-								
ydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosoil (A1) Sandy Redox (S5) 2 cm Muck (A10) Histosoil (A1) Siripped Matrix (S6) 2 cm Muck (A10) Black Histic (A3) Loamy Mucky Mineral (F1) (except MLRA 1) Very Shallow Dark Surface (TF12) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (except MLRA 1) Very Shallow Dark Surface (TF12) Depleted Below Dark Surface (A11) Depleted Matrix (F2) Other (Explain in Remarks) Depleted Below Dark Surface (A12) Redox Dark Surface (F6) Indicators of hydrophytic vegetation and wetland hydrology must be present, sandy Mucky Mineral (S1) Depleted Dark Surface (F7) wetland hydrology must be present, unless disturbed or problematic. Type: Depth (inches): Hydric Soil Present? Yes No Water Stained Leaves (B9) (except Matrix (F3) Porphysiology indicators: minary Indicators (minimum of one required; check all that apply) Surface Water (A1) Water-Stained Leaves (B9) (except Mater Table (A2) MLRA 1, 2, 4A, and 4B) Surface Water (A1) Aquatic Invertebrates (B13) Driange Patterns (B10) Water Marks (B1) Aquatic Invertebrates (B13) Driange Patterns (B10) Water Marks (B1) Aquatic Invertebrates (B13) Dry-Season Water Table (C2) Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Sediment Deposits (B3) Oxidized Ribisospheres along Living Roots (C3) Geomatrin Fest (D5) Recent Iron Reduction in Tilled Soils (C6) FAC-Neutral Test (D5) Surface Soil Cracks (B6) Surface (F6) In Remarks) Frost-Heave Hummocks (D7) Wetland Hydrology Present? Yes No Depth (inches): Under Water Present? Yes No Depth (inches): Under Observations: Under Observa	-								
Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils?:	_								
Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils?:									
Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils?:							-		
Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils?:									
Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils?:	-					_			
Histosol (A1) Sandy Redox (S5) 2 cm Muck (A10) Red Parent Material (TF2) Stripped Matrix (S6) Red Parent Material (TF2) Agriculture (TF2) Loamy Mucky Mineral (F1) (except MLRA 1) Loamy Micky Mineral (F1) (except MLRA 1) Loamy Micky Mineral (F1) (except MLRA 1) Loamy Sulfide (A4) Loamy Gieyed Matrix (F2) Wet Shallow Dark Surface (TF12) Loamy Gieyed Matrix (F2) Depleted Dark Surface (A12) Loamy Gieyed Matrix (F2) Depleted Dark Surface (A12) Loamy Gieyed Dark Surface (F6) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Sandy Gleyed Matrix (S4) Redox Dark Surface (F6) Wetland Hydrology must be present, unless disturbed or problematic. Sandy Gleyed Matrix (S4) Redox Depressions (F8) Wetland Hydrology must be present, unless disturbed or problematic. Sestrictive Layer (if present): Type: Hydric Soil Present? Yes No Veteral Hydrology Indicators observed. Cobbles restricted excavation further than 6". **TOROLOGY** Vetland Hydrology Indicators: Veteral Hy	Type: C=Co	ncentration, D=De	epletion, RN	1=Reduced Matrix,	CS=Covere	ed or Coat	ted Sand Gra	ains. ² Locatio	on: PL=Pore Lining, M=Matrix.
Histic Epipedon (A2) Stripped Matrix (S8) Red Parent Material (TF2) Black Histic (A3) Loamy Mucky Mineral (F1) (except MLRA 1) Hydrogen Sulfide (A4) Depleted Below Dark Surface (A11) Depleted Matrix (F2) Thick Dark Surface (A12) Redox Dark Surface (F6) Sandy Mucky Mineral (S1) Depleted Dark Surface (F6) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Sandy Gleyed Matrix (S4) Redox Dark Surface (F7) Wetland Hydrology must be present, unless disturbed or problematic. Intestrictive Larger (if present): Type: Depth (inches): Hydric Soil Present? Yes No Popular (Inches): Hydric Soil Present? Yes No Water-Stained Leaves (B9) (except High Water Table (A2) Saturation (A3) Salt Crust (B11) Sediment Deposits (B3) Oxidized Rhizospheries along Living Roots (C3) Geomorphic Position (D2) Algal Mat or Crust (B4) Present? Yes No Presence of Reduced Iron (C4) Saturation Visible on Aerial Imagery (B7) Surface Soil Cracks (B6) Sturface (B8) Surface (B8) Surface (B8) Inches): Water Table Present? Yes No Popular (B7) Wetland Hydrology Indicators: Water-Stained Leaves (B9) (except Water-Stained Leaves (B9) (except Water-Stained Leaves (B9) (multiple Mater Table (A2) Saturation (A3) Salt Crust (B11) Drainage Patterns (B10) Dirit Deposits (B3) Oxidized Rhizospheries along Living Roots (C3) Geomorphic Position (D2) Dirit Deposits (B3) Oxidized Rhizospheries along Living Roots (C3) Saturation Visible on Aerial Imagery (Inches): Sparsely Vegetated Concave Surface (B8) Inundation Vis ble on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave Hummocks (D7) Frost-Heave Hummocks (D7) Presence of Reduced Iron (C4) Raised Ant Mounds (D6) (LRR A) Inundation Vis ble on Aerial Imagery (R7) Other (Explain in Remarks) Frost-Heave Hummocks (D7) Prost-Heave Hummocks (D7) Pro	lydric Soil Ir	ndicators: (Appl	icable to al	I LRRs, unless oth	erwise no	ted.)		Indicators f	or Problematic Hydric Soils ³ :
Black Histic (A3)		. ,							• •
Hydrogen Sulfide (A4)									
Depleted Bellow Dark Surface (A11) Depleted Matrix (F3) Thick Dark Surface (A12) Redox Dark Surface (F6) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) wetland hydrology must be present, unless disturbed or problematic. Restrictive Layer (if present): Type:							ot MLRA 1)		
			200 (A11)			2)		Other (I	explain in Remarks)
			30C (A11)			3)		³ Indicators o	of hydrophytic vegetation and
					`	,			
Restrictive Layer (if present): Type:		• , ,							
Depth (inches):				<u> </u>	-	•			·
PARTICLE SOIL INDICATORS OBSERVED. COBBLES RESTRICTED EXCAVATION FURTHER THAN 6". Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) Water-Stained Leaves (B9) (except High Water Table (A2) Saturation (A3) Salt Crust (B11) Water Marks (B1) Aquatic Invertebrates (B13) Dry-Season Water Table (C2) Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Saturation Visible on Aerial Imagery (C2) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Iron Deposits (B5) Surface Soil Cracks (B6) Spansely Vegetated Concave Surface (B8) Frost-Heave Hummocks (D7) Spansely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Wetland Hydrolog	Type:								
Value	Depth (inc	hes):						Hydric Soil Pre	esent? Yes No 🔽
Value	Remarks:							1	
Surface Water (A1)	Wetland Hyd	rology Indicator							
High Water Table (A2) Saturation (A3) Salt Crust (B11) Drainage Patterns (B10) Dray-Season Water Table (C2) Sediment Deposits (B2) Drift Deposits (B3) Aquatic Invertebrates (B13) Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Vis ble on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Saturation Present? Yes No Depth (inches): Saturation Visible on Aerial Provision (D2) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7) Pepth (inches): Wetland Hydrology Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Pesence of Reduced Iron (C4) Shallow Aquitard (D3) Frost-Heave Hummocks (D7) Wetland Hydrology Present? Yes No Pepth (inches): Baturation Present? Yes No Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Primary Indica	ators (minimum of	ana raaiir						
Saturation (A3) Salt Crust (B11) Drainage Patterns (B10) Water Marks (B1) Aquatic Invertebrates (B13) Dry-Season Water Table (C2) Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Saturation Visible on Aerial Imagery (C1) Saturation Visible on Aerial Imagery (C2) 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) Sturface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Raised Ant Mounds (D6) (LRR A) Prost-Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Frost-Heave Hummocks (D7) Surface Water Present?		Matar (A 1)	one require						
Water Marks (B1) Aquatic Invertebrates (B13) Dry-Season Water Table (C2) Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Saturation Visible on Aerial Imagery (C2) 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 Vis ble 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):	 '	, ,	one require	Water-S	tained Lea		except	Wate	er-Stained Leaves (B9) (MLRA 1, 2,
	High Wat	ter Table (A2)	one require	Water-S	tained Lea		except	Wate	er-Stained Leaves (B9) (MLRA 1, 2, A, and 4B)
Drift Deposits (B3)	High Wat	ter Table (A2) n (A3)	one require	Water-S MLR Salt Cru	tained Lea A 1, 2, 4A, st (B11)	and 4B)	except	Wate 4, Drair	or-Stained Leaves (B9) (MLRA 1, 2, A, and 4B) nage Patterns (B10)
Algal Mat or Crust (B4)	High Wat Saturation Water Ma	ter Table (A2) n (A3) arks (B1)	one require	Water-S MLR Salt Cru Aquatic	tained Lea A 1, 2, 4A, st (B11) Invertebrat	and 4B) es (B13)	except	Wate 4, Drair Dry-S	er-Stained Leaves (B9) (MLRA 1, 2, A, and 4B) nage Patterns (B10) Season Water Table (C2)
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) No Other (Explain in Remarks) Frost-Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No Depth (inches): No No Depth (inches): No No No	High Wat Saturation Water Ma Sediment	ter Table (A2) n (A3) arks (B1) t Deposits (B2)	one require	Water-S MLR Salt Cru Aquatic Hydroge	tained Lea A 1, 2, 4A, st (B11) Invertebrat	and 4B) es (B13) Odor (C1)		Wate 4/ Drair Dry-{	er-Stained Leaves (B9) (MLRA 1, 2, A, and 4B) nage Patterns (B10) Season Water Table (C2) ration Visible on Aerial Imagery (C9
Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Inundation Vis ble 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):	High Wat Saturation Water Ma Sediment Drift Depo	ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3)	one require	Water-S MLR Salt Cru Aquatic Hydroge Oxidized	tained Lea A 1, 2, 4A, st (B11) Invertebrat n Sulfide (d Rhizosph	es (B13) Odor (C1) eres along	g Living Root	Wate Drain Dry-S Satults (C3) Geor	er-Stained Leaves (B9) (MLRA 1, 2, A, and 4B) hage Patterns (B10) Season Water Table (C2) ration Visible on Aerial Imagery (C9 morphic Position (D2)
Inundation Vis ble 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): Wetland Hydrology Present? Yes No Frost-Heave Hummocks (D7)	High Wat Saturatio Water Ma Sediment Drift Depo	ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4)	one require	Water-S MLR Salt Cru Aquatic Hydroge Oxidized Presence	tained Lea A 1, 2, 4A, st (B11) Invertebrat en Sulfide C I Rhizosph e of Reduc	es (B13) Odor (C1) eres along ced Iron (C	g Living Room	Wate Drain Dry-5 Satu ts (C3) Geor Shall	or-Stained Leaves (B9) (MLRA 1, 2, A, and 4B) hage Patterns (B10) Season Water Table (C2) ration Visible on Aerial Imagery (C9) morphic Position (D2) ow Aquitard (D3)
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): Seturation Present? Yes No Depth (inches): Seturation Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Previous inspections), if available: Remarks:	High Wat Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo	ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5)	one require	Water-S MLR Salt Cru Aquatic Hydroge Oxidized Presenc	tained Lea A 1, 2, 4A, st (B11) Invertebraten Sulfide Coll Rhizosph e of Reduction Reduction	es (B13) Odor (C1) eres alonç ced Iron (C	g Living Root (4) ed Soils (C6)	Wate Drain Dry-8 Satuu ts (C3) Geor Shall) FAC-	er-Stained Leaves (B9) (MLRA 1, 2, A, and 4B) lage Patterns (B10) Season Water Table (C2) ration Visible on Aerial Imagery (C9 morphic Position (D2) ow Aquitard (D3) Neutral Test (D5)
Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	High Wat Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo Surface S	ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) Soil Cracks (B6)		Water-S MLR Salt Cru Aquatic Hydroge Oxidized Presenc Recent I Stunted	tained Lea A 1, 2, 4A, st (B11) Invertebrate Sulfide (He Rhizosph e of Reduction Reduction Reduction Stresse	and 4B) es (B13) Odor (C1) eres along ed Iron (C tion in Till d Plants (I	g Living Root (4) ed Soils (C6)	Wate Drain Dry-S Satun ts (C3) Geor Shall) FAC Raise	er-Stained Leaves (B9) (MLRA 1, 2, A, and 4B) hage Patterns (B10) Season Water Table (C2) ration Visible on Aerial Imagery (C9 morphic Position (D2) ow Aquitard (D3) Neutral Test (D5) ed Ant Mounds (D6) (LRR A)
Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	High Water May Sediment Drift Deporation Algal Mater Iron Deporation Surface S	ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) Soil Cracks (B6) on Vis ble on Aeria	ıl Imagery (l	Water-S MLR Salt Cru Aquatic Hydroge Oxidized Presenc Recent I Stunted Other (E	tained Lea A 1, 2, 4A, st (B11) Invertebrate Sulfide (He Rhizosph e of Reduction Reduction Reduction Stresse	and 4B) es (B13) Odor (C1) eres along ed Iron (C tion in Till d Plants (I	g Living Root (4) ed Soils (C6)	Wate Drain Dry-S Satun ts (C3) Geor Shall) FAC Raise	er-Stained Leaves (B9) (MLRA 1, 2, A, and 4B) hage Patterns (B10) Season Water Table (C2) ration Visible on Aerial Imagery (C9 morphic Position (D2) ow Aquitard (D3) Neutral Test (D5) ed Ant Mounds (D6) (LRR A)
Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Saturation Present	High Wat Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo Surface S Inundatio Sparsely	ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) Soil Cracks (B6) on Vis ble on Aeria Vegetated Conca	ıl Imagery (l	Water-S MLR Salt Cru Aquatic Hydroge Oxidized Presenc Recent I Stunted Other (E	tained Lea A 1, 2, 4A, st (B11) Invertebrate Sulfide (He Rhizosph e of Reduction Reduction Reduction Stresse	and 4B) es (B13) Odor (C1) eres along ed Iron (C tion in Till d Plants (I	g Living Root (4) ed Soils (C6)	Wate Drain Dry-S Satun ts (C3) Geor Shall) FAC Raise	er-Stained Leaves (B9) (MLRA 1, 2, A, and 4B) hage Patterns (B10) Season Water Table (C2) ration Visible on Aerial Imagery (C9 morphic Position (D2) ow Aquitard (D3) Neutral Test (D5) ed Ant Mounds (D6) (LRR A)
Saturation Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Saturation Present? Yes No Saturation Present? Yes No No Saturation Present? Yes	High Wat Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo Surface S Inundatio Sparsely Field Observ	ter Table (A2) In (A3)	il Imagery (I ve Surface	Water-S MLR Salt Cru Aquatic Hydroge Oxidized Presenc Recent I Stunted 37) Other (E	tained Lea A 1, 2, 4A, st (B11) Invertebrate on Sulfide Cand d Rhizosphate e of Reduction Reductio	and 4B) es (B13) Odor (C1) eres along eed Iron (C tion in Till d Plants (I demarks)	g Living Roof (24) ed Soils (C6) (D1) (LRR A)	Wate Drain Dry-S Satun ts (C3) Geor Shall) FAC Raise	er-Stained Leaves (B9) (MLRA 1, 2, A, and 4B) hage Patterns (B10) Season Water Table (C2) ration Visible on Aerial Imagery (C9 morphic Position (D2) ow Aquitard (D3) Neutral Test (D5) ed Ant Mounds (D6) (LRR A)
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	High Water Marker Marke	ter Table (A2) In (A3)	il Imagery (I ve Surface Yes	Water-S MLR Salt Cru Aquatic Hydroge Oxidized Presenc Recent I Stunted 37) Other (E	tained Lea A 1, 2, 4A, st (B11) Invertebrat en Sulfide C I Rhizosph e of Reduc ron Reduc or Stresse explain in R	and 4B) es (B13) Odor (C1) eres along ed Iron (C tion in Till d Plants (I	g Living Roof (4) ed Soils (C6) D1) (LRR A)	Wate Drain Dry-S Satun ts (C3) Geor Shall) FAC Raise	er-Stained Leaves (B9) (MLRA 1, 2, A, and 4B) hage Patterns (B10) Season Water Table (C2) ration Visible on Aerial Imagery (C9 morphic Position (D2) ow Aquitard (D3) Neutral Test (D5) ed Ant Mounds (D6) (LRR A)
Remarks:	High Wat Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo Surface S Inundatio Sparsely Field Observ Surface Water	ter Table (A2) In (A3) In (A3) In (A3) In (A3) In (A3) It Deposits (B2) It Deposits (B3) It or Crust (B4) It or Crust (B4) It or Crust (B6) It or Crust (B6) In Vis ble on Aeria Ivegetated Concar Iver Present?	Il Imagery (I ve Surface Yes Yes	Water-S MLR Salt Cru Aquatic Hydroge Oxidized Presenc Recent I Stunted 37) Other (E	tained Lea A 1, 2, 4A, st (B11) Invertebrate an Sulfide Cold Rhizosph e of Reduction Reduction Reduction Stresse explain in Reduction Stresse explain in Reduction Stresse	es (B13) Ddor (C1) eres along ded Iron (C tion in Till d Plants (I emarks)	g Living Roof (24) ed Soils (C6) (D1) (LRR A)	Wate A, Drain Dry-S Satun ts (C3) Geor Shall) FAC Raise Frost	er-Stained Leaves (B9) (MLRA 1, 2, A, and 4B) lage Patterns (B10) Season Water Table (C2) ration Visible on Aerial Imagery (C9 morphic Position (D2) ow Aquitard (D3) Neutral Test (D5) led Ant Mounds (D6) (LRR A) -Heave Hummocks (D7)
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No evidence of wetland hydrology observed.	High Wat Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo Surface S Inundatio Sparsely Field Observ Surface Wate Water Table F Saturation Pre (includes capi Describe Rec	ter Table (A2) In (A3)	Il Imagery (I ve Surface Yes Yes Yes	Water-S MLR. Salt Cru Aquatic Hydroge Oxidized Presenc Recent I Stunted 37) Other (E (B8) No Depth (No Depth (tained Lea A 1, 2, 4A, st (B11) Invertebrate an Sulfide Control de Reduction Reduction Reduction Reduction Respective in Respective inches): inches): inches): inches): inches): inches): inches):	and 4B) es (B13) Odor (C1) eres along ed Iron (C tion in Till d Plants (I emarks)	g Living Roof (4) ed Soils (C6) (D1) (LRR A)	Wate Drain Dry-S Satun ts (C3) Geor Shall) FAC Raise Frost	er-Stained Leaves (B9) (MLRA 1, 2, A, and 4B) lage Patterns (B10) Season Water Table (C2) ration Visible on Aerial Imagery (C9 morphic Position (D2) ow Aquitard (D3) Neutral Test (D5) led Ant Mounds (D6) (LRR A) -Heave Hummocks (D7)
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Project/Site: US93 N Peterson	C	ity/Count	_{y:} Lake Co	ounty Sampling Date: 2024-07-02
Applicant/Owner: MDT		-	-	State: Montana Sampling Point: DP03w
				nge: S35 T19N R20W
Landform (hillslope, terrace, etc.): Waterway				
Subregion (LRR): E 44A			,	,
Soil Map Unit Name: 143 - Ronan silty clay loam, 4				
				_
Are climatic / hydrologic conditions on the site typical for the	-			
Are Vegetation, Soil, or Hydrology				'Normal Circumstances" present? Yes No
Are Vegetation, Soil, or Hydrology	naturally prob	lematic?	(If ne	eeded, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map	showing s	samplir	ng point le	ocations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes	No			
Hydric Soil Present? Yes			he Sampled hin a Wetlan	
Wetland Hydrology Present? Yes	No	With	IIII a Wellai	IU: 165 NO
Remarks:				NT dominantha site visit van D4 (van danste
Sample point taken in wetland peninsula. The U.S. Dr drought).	ougnt Monitoi	r Index fi	rom Lake Co	ounty, MT during the site visit was DT (moderate
VEGETATION – Use scientific names of pla	nts.			
30 ft r	Absolute			Dominance Test worksheet:
Tree Stratum (Plot size: 30 ft r) 1	% Cover			Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
2.				Total Number of Dominant
3				Species Across All Strata: 1 (B)
4		= Total C	over	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 60 x 1 = 60
3				FACW species $0 \times 2 = 0$
4				FAC species $0 \times 3 = 0$
5		T-4-1 O		FACU species <u>20</u> x 4 = <u>80</u>
Herb Stratum (Plot size: 5 ft r	=	= Total Co	over	UPL species 10 x 5 = 50
1. Carex nebrascensis	60	~	OBL	Column Totals: <u>90</u> (A) <u>190</u> (B)
2. Galium aparine	10		FACU	Prevalence Index = B/A = 2.11
3. Leucanthemum vulgare	10		FACU	Hydrophytic Vegetation Indicators:
4. Brassica juncea	5		UPL	✓ 1 - Rapid Test for Hydrophytic Vegetation
5. Thlaspi arvense	5		UPL	✓ 2 - Dominance Test is >50%
6				✓ 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:)	90 =	Total Co	over	
1				Hydrophytic
2.				Vegetation
			over	Present? Yes No No
% Bare Ground in Herb Stratum 10				
Remarks:				
Evidence of hydrophytic vegetation inc	cludes a p	ositive	rapid te	est, a positive dominance test, and a
prevalence index less than or equal to	3.0.			

US Army Corps of Engineers

SOIL Sampling Point: DP03w

	Color (moist)	%	Color (moist)	%	Type'	Loc ²	Texture	Remarks
	10YR 4/1	100					Silty Clay Loam	·······································
10 - 10	10YR 5/1	98	10YR 4/6	2	_ <u> </u>		Silty Clay Loam	
	1011 3/1	_ 30	10111 4/0				Only Oldy Louin	
- -								
				_				
-								
				_				
				_				
<u> </u>								
			M=Reduced Matrix, C			ed Sand Gr		cation: PL=Pore Lining, M=Matrix.
dric Soil In	dicators: (Appli	cable to a	II LRRs, unless othe	rwise no	oted.)		Indicate	ors for Problematic Hydric Soils ³ :
_ Histosol (A			Sandy Redox	. ,				m Muck (A10)
	pedon (A2)		Stripped Matrix	` '				d Parent Material (TF2)
Black Hist	` '		Loamy Mucky			t MLRA 1)		y Shallow Dark Surface (TF12)
	Sulfide (A4)	(044)	Loamy Gleyed		-2)		Oth	er (Explain in Remarks)
	Below Dark Surfa	ce (A11)	✓ Depleted Matri		6)		3Indicate	ore of hydrophytic vogetation and
	k Surface (A12) ucky Mineral (S1)		Redox Dark Si Depleted Dark	•	,			ors of hydrophytic vegetation and and hydrology must be present,
	eyed Matrix (S4)		Redox Depres					es disturbed or problematic.
	ayer (if present):		Redex Bepree	010110 (1 0	·)			se distance of problemate.
	,							
. , , ,							Hydric Soi	Present? Yes V No
Denth (inch							Tiyano oo	111030H: 103 NO
ominen	t redoximo	rphic o	concentration	s con	nmon w	vithin d	epleted 1	natrix.
ominen DROLOG	t redoximo		concentration	s con	nmon w	rithin d	epleted ı	natrix.
ominen DROLOG etland Hydr	t redoximo	:	concentration		nmon w	rithin d		ndary Indicators (2 or more required)
emarks: Cominen CDROLOG etland Hydr	t redoximo GY rology Indicators ttors (minimum of	:	ed; check all that app	ly)	nmon w		Seco	ndary Indicators (2 or more required)
DROLOG etland Hydr imary Indica Surface W High Wate	et redoximo SY rology Indicators tors (minimum of Vater (A1) er Table (A2)	:	ed; check all that app	ily) ained Lea			Seco	ndary Indicators (2 or more required)
DROLOG etland Hydr imary Indica Surface W High Wate Saturation	rology Indicators stors (minimum of Vater (A1) er Table (A2) n (A3)	:	ed; check all that app Water-Sta MLRA Salt Crus	ly) ained Lea 1, 2, 4A t (B11)	aves (B9) (e , and 4B)		<u>Seco</u> \	ndary Indicators (2 or more required) Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Orainage Patterns (B10)
DROLOG etland Hydr imary Indica Surface W High Wate	rology Indicators stors (minimum of Vater (A1) er Table (A2) n (A3)	:	ed; check all that app Water-Sta MLRA	ly) ained Lea 1, 2, 4A t (B11)	aves (B9) (e , and 4B)		<u>Seco</u> \	ndary Indicators (2 or more required) Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
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DROLOG etland Hydr imary Indica Surface W High Wate Saturation Water Mai Sediment Drift Depo	rology Indicators stors (minimum of Vater (A1) er Table (A2) n (A3) rks (B1) Deposits (B2) osits (B3)	:	ed; check all that app Water-Sta MLRA Salt Crus Aquatic Ir Hydroger Oxidized	ly) ained Lea 1, 2, 4A t (B11) nvertebra s Sulfide (aves (B9) (e, and 4B) tes (B13) Odor (C1) neres along	except Living Roo	Seco V [[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)
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TOMINEN TOROLOG etland Hydreimary Indica Surface W High Water Saturation Water Mai Sediment Drift Depo	redoximo rology Indicators stors (minimum of Vater (A1) er Table (A2) n (A3) rks (B1) Deposits (B2) osits (B3) or Crust (B4)	:	ed; check all that app — Water-Sta MLRA — Salt Crus — Aquatic Ir — Hydroger — Oxidized — Presence	ained Lea 1, 2, 4A t (B11) avertebra Sulfide (Rhizosph of Redu	aves (B9) (e, and 4B) tes (B13) Odor (C1) neres along	except Living Roo 4)	Seco	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)
TOMINEN TOM	redoximo rology Indicators stors (minimum of Vater (A1) er Table (A2) n (A3) rks (B1) Deposits (B2) osits (B3) or Crust (B4)	:	ed; check all that app Water-Sta MLRA Salt Crus Aquatic Ir Hydroger Oxidized Presence Recent Ir Stunted o	ly) ained Lea 1, 2, 4A t (B11) avertebra Sulfide (Rhizosph of Reduce on Reduce r Stresse	aves (B9) (e, and 4B) tes (B13) Odor (C1) neres along ced Iron (C4 ction in Tille	except Living Roo 4) d Soils (C6	Seco	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)
DROLOG etland Hydr imary Indica Surface W High Wate Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo Surface S	rology Indicators stors (minimum of Vater (A1) er Table (A2) n (A3) rks (B1) Deposits (B2) sits (B3) or Crust (B4) sits (B5)	s: one requir	ed; check all that app Water-Sta MLRA Salt Crus Aquatic Ir Hydroger Oxidized Presence Recent Iro Stunted o	ly) ained Lea 1, 2, 4A t (B11) avertebra Sulfide (Rhizosph of Reduce on Reduce r Stresse	aves (B9) (e, and 4B) tes (B13) Odor (C1) neres along ced Iron (C4 ction in Tille	except Living Roo 4) d Soils (C6	Seco	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) FAC-Neutral Test (D5)
DROLOG etland Hydr imary Indica Surface W High Wate Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo Surface S Inundation	rology Indicators stors (minimum of Vater (A1) er Table (A2) n (A3) rks (B1) Deposits (B2) esits (B3) or Crust (B4) esits (B5) oil Cracks (B6)	: one requir	ed; check all that app Water-Sta MLRA Salt Crus Aquatic Ir Hydroger Oxidized Presence Recent Ir Stunted of	ly) ained Lea 1, 2, 4A t (B11) avertebra Sulfide (Rhizosph of Reduce on Reduce r Stresse	aves (B9) (e, and 4B) tes (B13) Odor (C1) neres along ced Iron (C4 ction in Tille	except Living Roo 4) d Soils (C6	Seco	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) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
DROLOG etland Hydr imary Indica Surface W High Water Saturation Water Mal Sediment Drift Depo Algal Mat Iron Depo Surface S Inundatior Sparsely	rology Indicators stors (minimum of Vater (A1) er Table (A2) n (A3) rks (B1) Deposits (B2) sits (B3) or Crust (B4) sits (B5) soil Cracks (B6) n Vis ble on Aerial Vegetated Concar ations:	i: one requir Imagery (ed; check all that app Water-Sta MLRA Salt Crus Aquatic Ir Hydroger Oxidized Presence Recent In Stunted of B7) Other (Ex	ained Lea 1, 2, 4A t (B11) nvertebra Sulfide of Rhizosph of Reduct on Reduct or Stresses plain in F	aves (B9) (e, and 4B) tes (B13) Odor (C1) neres along ced Iron (C- ction in Tille ed Plants (D Remarks)	except Living Roo 4) d Soils (C6	Seco	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) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Emarks: COMINEN CDROLOG etland Hydr imary Indica Surface W High Wate Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo Surface S Inundatior Sparsely Weld Observa	rology Indicators stors (minimum of Vater (A1) er Table (A2) n (A3) rks (B1) Deposits (B2) sits (B3) or Crust (B4) sits (B5) oil Cracks (B6) n Vis ble on Aerial Vegetated Concar ations:	i: one requir Imagery (ve Surface	ed; check all that app Water-Sta MLRA Salt Crus Aquatic Ir Hydroger Oxidized Presence Recent Ir Stunted of B7) (B8) No Pepth (ir	ained Lea 1, 2, 4A t (B11) avertebra Sulfide (Rhizosph of Reduction R	aves (B9) (e, and 4B) tes (B13) Odor (C1) neres along ced Iron (Cation in Tille ad Plants (D Remarks)	Living Roo 4) d Soils (C6 1) (LRR A)	Seco	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) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
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rominen /DROLOG /etland Hydr rimary Indica _ Surface W _ High Wate / Saturation _ Water Ma _ Sediment _ Drift Depo _ Algal Mat _ Iron Depo _ Surface S _ Inundatior _ Sparsely Water Table Positivation Presidudes capil	rology Indicators stors (minimum of Vater (A1) er Table (A2) n (A3) rks (B1) Deposits (B2) sits (B3) or Crust (B4) sits (B5) oil Cracks (B6) n Vis ble on Aerial Vegetated Concar ations: Present? sesent?	Imagery (ve Surface Yes Yes Yes	ed; check all that app Water-Sta MLRA Salt Crus Aquatic Ir Hydroger Oxidized Presence Recent Ir Stunted of Other (Ex	ly) ained Lea 1, 2, 4A t (B11) avertebra Sulfide (Rhizosph of Reductor Reductor Stresse plain in F	aves (B9) (e, and 4B) tes (B13) Odor (C1) neres along ced Iron (C4 ction in Tille ed Plants (D Remarks)	Living Roo 4) d Soils (C6 1) (LRR A)	Seco	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) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)

Project/Site: US93 N Peterson	(Citv/Count	v: Lake Co	ounty Sampling Date: 2024-07-02
Applicant/Owner: MDT		-	-	State: Montana Sampling Point: DP04u
				inge: S35 T19N R20W
Landform (hillslope, terrace, etc.): Valley Floor				
				Long: -114.1008962 Datum: NAD 83
Soil Map Unit Name: 22 - Colake silt loam, 0 to 1 pe				
Are climatic / hydrologic conditions on the site typical for the				
Are Vegetation, Soil, or Hydrology				
Are Vegetation, Soil, or Hydrology	naturally pro	blematic?	(If ne	eeded, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map	showing	samplir	ng point l	ocations, transects, important features, etc.
Hydrophytic Vegetation Present?	No			
Hydric Soil Present? Yes	No 🔽		he Sampled hin a Wetlar	
Wetland Hydrology Present? Yes	No	WILI	illi a vvetiai	iu: 165 NO
Remarks:	I.C. Duamaka			aka Caumtu. NAT duning the site visit was D1
Upland point taken 25 ft uphill of wetland point. The land (moderate drought).	J.S. Drougnt	Monitor i	naex from L	Lake County, MT during the site visit was DT
<u> </u>	nto			
VEGETATION – Use scientific names of pla	Absolute	Dominan	nt Indicator	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
3.				Species Across All Strata: 3 (B)
4				Percent of Dominant Species
Sapling/Shrub Stratum (Plot size: 15 ft r)		= Total C	over	That Are OBL, FACW, or FAC: 66.66 (A/B)
1. Symphoricarpos albus	15	~	FACU	Prevalence Index worksheet:
2. Alnus incana	10	~	FACW	Total % Cover of: Multiply by:
3		-		OBL species $\frac{12}{10}$ x 1 = $\frac{12}{100}$
4				FACW species $\frac{10}{50}$ $\times 2 = \frac{20}{150}$
5.				FAC species 50 $\times 3 = 150$
	25	= Total C	over	FACU species 25 x 4 = 100 UPL species 10 x 5 = 50
Herb Stratum (Plot size: 5 ft r)	50		E40	
1. Poa palustris 2. Brassica juncea			FAC	
3. Carex nebrascensis	<u>10</u>		OBL	Prevalence Index = B/A = 3.10
Pascopyrum smithii	10		FACU	Hydrophytic Vegetation Indicators:
5 Myosotis laxa	- 10	-	OBL	1 - Rapid Test for Hydrophytic Vegetation
6.				✓ 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 ¹
7.				3 - Prevalence index is ≤3.0 4 - Morphological Adaptations¹ (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
	82	= 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 18		_= Total Co	vei	
Remarks:				
Upland point is dominated by FAC vegetation re	esulting in a	a positive	e dominan	ce test. However, the sample point lacked
hydric soil development and is not supported b	-	-		

US Army Corps of Engineers

SOIL Sampling Point: DP04u

O-16 10YR 3/2 100 siny city city city city city city city cit	y Loam Remarks
"Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1)	y Loam
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1)	
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Sandy Redox (S5) Stripped Matrix (S6) Black Histic (A3) Loamy Mucky Mineral (F1) (except MLRA 1) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thick Dark Surface (A12) Redox Dark Surface (F6) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Sandy Gleyed Matrix (S4) Redox Depressions (F8) Restrictive Layer (if present): Type: Depth (inches): Remarks: No hydric soil indicators observed. Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) Water Table (A2) Salt Crust (B11) High Water Table (A2) Salt Crust (B11) Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Drift Deposits (B3) Oxided Rhizospheres along Living Roots (C3) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Indudation Vis ble on Aerial Imagery (B7) Other (Explain in Remarks) Water Table Present? Yes No Depth (inches): Wetland Hydrones): Water Table Present? Yes No Depth (inches): Wetland Hydrones) Saturation Present? Yes No Depth (inches): Wetland Hydrones): Wetland Hydroness (B3) Depth (inches): Depth (inches): Depth (inches): Wetland Hydroness)	
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1)	
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Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1)	21
Histosol (A1) Sandy Redox (S5) Histic Epipedon (A2) Stripped Matrix (S6) Black Histic (A3) Loamy Mucky Mineral (F1) (except MLRA 1) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thick Dark Surface (A12) Redox Dark Surface (F6) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Sandy Gleyed Matrix (S4) Redox Depressions (F8) Restrictive Layer (if present): Type: Depth (inches): Type: Depth (inches): Depth (inches): Wetland Hydrology Indicators observed. IYDROLOGY Wetland Hydrology Indicators: Primary Indicators (Minimum of one required; check all that apply) Surface Water (A1) Water Table (A2) Saturation (A3) Salt Crust (B11) Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Iron Deposits (B5) Recent Iron Reduction in Tilled Soils (C6) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Inundation Vis ble on Aerial Imagery (B7) Other (Explain in Remarks) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No Pepth (inches): Water Table Present? Yes No Pepth (inches): Wetland Hydrogen Sulfide Odor (C1) Other (Explain in Remarks) Wetland Hydrogen Sulfide Odor (C1) Other (Explain in Remarks)	² Location: PL=Pore Lining, M=Matrix.
Histic Epipedon (A2) Black Histic (A3) Loamy Mucky Mineral (F1) (except MLRA 1) Loamy Gleyed Matrix (F2) Depleted Bellow Dark Surface (A11) Depleted Bellow Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S6) Black Histic (A3) Loamy Gleyed Matrix (F2) Depleted Bellow Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Redox Dark Surface (F6) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Redox Dark Surface (F6) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Redox Dark Surface (F6) Sandy Mucky Mineral (S1) Self Sandy Mucky Mineral (F1) (except MLRA 1) Hydrogen Surface (F6) Sandy Mucky Mineral (F1) (except MLRA 1) Self Matrix (F3) Water Surface (F6) Sandy Mucky Mineral (F1) (except MLRA 1) Self Matrix (F3) Water Surface (F6) Salf Surface (F7) Self Sandy Mucky Mineral (F1) (except MLRA 1) Self Matrix (F3) Water Surface (F7) Self Surface (F7) Self Surface (F7) Self Matrix (F3) Standy Mucky Mineral (F1) (except MLRA 1) Loamy Gleyet Matrix (F3) Standy Mucky Mineral (F1) (except MLRA 1) Self Surface (F7) Self Matrix (F3) Standy Mucky Mineral (F1) (except MLRA 1) Self Matrix (F3) Self Matr	dicators for Problematic Hydric Soils ³ :
Black Histic (A3)	_ 2 cm Muck (A10)
Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thick Dark Surface (A12) Redox Dark Surface (F6) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Sandy Gleyed Matrix (S4) Redox Depressions (F8) Restrictive Layer (if present): Type: Depth (inches): Depth (inches): Depth (inches): Wetland Hydrology Indicators Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Saturation (A3) Salt Crust (B11) Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Drift Deposits (B3) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Iron Deposits (B5) Recent Iron Reduction in Tilled Soils (C6) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Inundation Vis ble on Aerial Imagery (B7) Other (Explain in Remarks) Field Observations: Surface Water Present? Yes No Poeth (inches): Wetland Hydrology Indicators Wetland Hydrology Indicators Hydrology Indicators Hydrology Indicators Water Table (A2) Algorithm (F3) Squarion (A3) Salt Crust (B1) Aquatic Invertebrates (B13) Aquatic Invertebrates (B13) Aquatic Invertebrates (B13) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Iron Deposits (B5) Recent Iron Reduction in Tilled Soils (C6) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Inundation Vis ble on Aerial Imagery (B7) Other (Explain in Remarks) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No Poeth (inches): Water Table Present? Yes No Poeth (inches): Wetland Hy	Red Parent Material (TF2) Very Shallow Dark Surface (TF12)
Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thick Dark Surface (A12) Redox Dark Surface (F6) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Sandy Gleyed Matrix (S4) Redox Depressions (F8) Restrictive Layer (if present): Type: Depth (inches): Hydric Soil indicators observed. Public Matrix (Matrix (Other (Explain in Remarks)
Thick Dark Surface (A12)	
Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Sandy Gleyed Matrix (S4) Redox Depressions (F8) Restrictive Layer (if present):	ndicators of hydrophytic vegetation and
Sandy Gleyed Matrix (S4) Redox Depressions (F8) Restrictive Layer (if present):	wetland hydrology must be present,
Type:	unless disturbed or problematic.
Depth (inches):	
Remarks: No hydric soil indicators observed. IYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Vis ble on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No V Depth (inches): Wetland Hy Wetland Hy Wetland Hy Wetland Hy Wetland Hy	
Remarks: No hydric soil indicators observed. IYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1)	ic Soil Present? Yes No 🚩
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Vis ble on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No Depth (inches): Wetland Hy	
Surface Water (A1) Water-Stained Leaves (B9) (except High Water Table (A2) Saturation (A3) Salt Crust (B11) Water Marks (B1) Aquatic Invertebrates (B13) Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Iron Deposits (B5) Recent Iron Reduction in Tilled Soils (C6) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Inundation Vis ble on Aerial Imagery (B7) Other (Explain in Remarks) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Wetland Hy	
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Vis ble on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Water Table Present? Yes No MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks) Poepth (inches): Water Table Present? Yes No Depth (inches): Wetland Hy	Secondary Indicators (2 or more required)
Saturation (A3) Salt Crust (B11) Water Marks (B1) Aquatic Invertebrates (B13) Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Iron Deposits (B5) Recent Iron Reduction in Tilled Soils (C6) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Inundation Vis ble on Aerial Imagery (B7) Other (Explain in Remarks) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Wetland Hy	Water-Stained Leaves (B9) (MLRA 1, 2,
	4A, and 4B)
Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Iron Deposits (B5) Recent Iron Reduction in Tilled Soils (C6) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Inundation Vis ble on Aerial Imagery (B7) Other (Explain in Remarks) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Wetland Hy	Drainage Patterns (B10)
Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Iron Deposits (B5) Recent Iron Reduction in Tilled Soils (C6) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Inundation Vis ble on Aerial Imagery (B7) Other (Explain in Remarks) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Wetland Hy	Dry-Season Water Table (C2)
Algal Mat or Crust (B4)	Saturation Visible on Aerial Imagery (C9)
Iron Deposits (B5)	Geomorphic Position (D2)
Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Inundation Vis ble on Aerial Imagery (B7) Other (Explain in Remarks) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Wetland Hy	
Inundation Vis ble on Aerial Imagery (B7) Other (Explain in Remarks) 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): Wetland Hy	Shallow Aquitard (D3)
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): Wetland Hy	Shallow Aquitard (D3)FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Wetland Hy	
Surface Water Present? Yes No V Depth (inches): Water Table Present? Yes No V Depth (inches): Wetland Hy Saturation Present? Yes No V Depth (inches): Wetland Hy	FAC-Neutral Test (D5)
Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Wetland Hy	FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Wetland Hy	FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Saturation Present? Yes No Depth (inches): Wetland Hy	FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
	FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
(includes capillary fringe)	FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available	FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
	FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Remarks:	FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
No evidence of wetland hydrology observed.	FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
no evidence of wetland hydrology observed.	FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
	FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)

Project/Site: US93 N Peterson	C	City/County	: Lake Co	unty Sampling Date: 202	4-07-02
Applicant/Owner: MDT		-		State: Montana Sampling Point: DPC	
Investigator(s): E Reynaud					
Landform (hillslope, terrace, etc.): Valley Floor					%): 1
				Long: -114.1008596 Datum: N	
Soil Map Unit Name: 22 - Colake silt loam, 0 to 1 perc					
Are climatic / hydrologic conditions on the site typical for this					
Are Vegetation, Soil, or Hydrology signature.				Normal Circumstances" present? Yes	No
Are Vegetation, Soil, or Hydrology na	aturally prob	olematic?	(If ne	eded, explain any answers in Remarks.)	
SUMMARY OF FINDINGS – Attach site map s	showing	samplin	g point le	ocations, transects, important featu	res, etc.
Hydrophytic Vegetation Present? Yes No)			_	
			ne Sampled nin a Wetlan		
Wetland Hydrology Present? Yes No)	With	iiii a wellai	163 160	
Remarks: Wetland point taken near inundated area. The U.S. Droudrought).	ıght Monito	or Index fr	om Lake C	ounty, MT during the site visit was D1 (mode	erate
VEGETATION – Use scientific names of plant	s.				
Tree Stratum (Plot size: 30 ft r	Absolute			Dominance Test worksheet:	
1	% Cover			Number of Dominant Species That Are OBL, FACW, or FAC: 3	(A)
2					(A)
3.				Total Number of Dominant Species Across All Strata: 4	(B)
4					_ ()
		= Total Co		Percent of Dominant Species That Are OBL, FACW, or FAC: 75.00	(A/B)
Sapling/Shrub Stratum (Plot size: 15 ft r) 1. Alnus incana	5	/	FACW	Prevalence Index worksheet:	
			IAOW	Total % Cover of: Multiply by:	·
2				OBL species 25 x 1 = 25	
4				FACW species $\frac{55}{12}$ x 2 = $\frac{110}{2}$	
5.				FAC species $\frac{10}{2}$ $\times 3 = \frac{30}{2}$	
	5	= Total Co	over	FACU species $0 \times 4 = 0$	
Herb Stratum (Plot size: 5 ft r)				UPL species 15 x 5 = 75	
1. Phalaris arundinacea	50		FACW	Column Totals: 105 (A) 240	(B)
2. Brassica juncea	15		UPL	Prevalence Index = B/A = 2.28	
3. Nasturtium officinale	15		OBL	Hydrophytic Vegetation Indicators:	
4. Typha latifolia 5. Cirsium arvense	<u>10</u> 8		OBL	1 - Rapid Test for Hydrophytic Vegetation	1
J	2		FAC	✓ 2 - Dominance Test is >50%	
6. Geum macrophyllum			FAC	✓ 3 - Prevalence Index is ≤3.0 ¹	
7				4 - Morphological Adaptations ¹ (Provide s data in Remarks or on a separate sheet	upporting et)
8 9				5 - Wetland Non-Vascular Plants ¹	
10				Problematic Hydrophytic Vegetation ¹ (Exp	plain)
11.				¹ Indicators of hydric soil and wetland hydrolog	
	100	= Total Co	ver	be present, unless disturbed or problematic.	
Woody Vine Stratum (Plot size:)					
1				Hydrophytic	
2				Vegetation Present? Yes No	
% Bare Ground in Herb Stratum 0		= Total Co	ver		-
Remarks:				<u>I</u>	
Evidence of hydrophytic vegetation inclu	ides a n	ositive	domina	nce test and a prevalence index	less
than or equal to 3.0.	u p	22.0.0	2.2	and a providence mack	
larrant at adiam to are.					

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SOIL Sampling Point: DP04w

		e to the depth	n needed to document the indicator or	confirm	the absence	e of indicators.)
Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist) % Type ¹	Loc ²	Texture	Remarks
0 - 18	10YR 3/1		70 1790			Sulfidic odor present at bottom of soil pit.
						<u> </u>
						-
-						
-						
1T C-C			Dadward Matrix CC-Covered at Control C		: 21	action. DI -Dave Lining M-Matrix
			Reduced Matrix, CS=Covered or Coated S RRs, unless otherwise noted.)	sand Gra		cation: PL=Pore Lining, M=Matrix. ors for Problematic Hydric Soils ³ :
Histosol			Sandy Redox (S5)			m Muck (A10)
	pipedon (A2)	_	Stripped Matrix (S6)			d Parent Material (TF2)
	istic (A3)	_	Loamy Mucky Mineral (F1) (except M	LRA 1)		ry Shallow Dark Surface (TF12)
	en Sulfide (A4)	_	Loamy Gleyed Matrix (F2)	,		ner (Explain in Remarks)
Deplete	d Below Dark Surfa	ace (A11) _	Depleted Matrix (F3)			
	ark Surface (A12)	_	Redox Dark Surface (F6)			ors of hydrophytic vegetation and
-	Mucky Mineral (S1)	_	Depleted Dark Surface (F7)			and hydrology must be present,
	Gleyed Matrix (S4) Layer (if present):		Redox Depressions (F8)		unles	ss disturbed or problematic.
	, , ,					
Type:	-h \				Hudda Cai	I Dunganta Van V
Depth (in Remarks:	cries).		<u> </u>		Hydric Soi	I Present? Yes No No
HYDROLO						
•	drology Indicator		abada all that anni d		C	adam Indiantam (2 an mana na minad)
		one required;	check all that apply)			Indary Indicators (2 or more required)
	Water (A1)		Water-Stained Leaves (B9) (exce	ept	v	Water-Stained Leaves (B9) (MLRA 1, 2,
✓ Saturati	ater Table (A2)		MLRA 1, 2, 4A, and 4B) Salt Crust (B11)		-	4A, and 4B) Drainage Patterns (B10)
·	larks (B1)		Aquatic Invertebrates (B13)			Dry-Season Water Table (C2)
	nt Deposits (B2)		✓ Hydrogen Sulfide Odor (C1)			Saturation Visible on Aerial Imagery (C9)
	posits (B3)		Oxidized Rhizospheres along Liv	ina Roots		Geomorphic Position (D2)
	at or Crust (B4)		Presence of Reduced Iron (C4)			Shallow Aquitard (D3)
_	posits (B5)		Recent Iron Reduction in Tilled S	oils (C6)		FAC-Neutral Test (D5)
	Soil Cracks (B6)		Stunted or Stressed Plants (D1) (Raised Ant Mounds (D6) (LRR A)
Inundati	on Vis ble on Aeria	I Imagery (B7)	Other (Explain in Remarks)		F	Frost-Heave Hummocks (D7)
Sparsel	y Vegetated Conca	ve Surface (B	8)			
Field Obser	vations:					
Surface Wat	er Present?	Yes N	o Depth (inches):			
Water Table	Present?	Yes N	o Depth (inches):			
Saturation P (includes ca	oillary fringe)		o Depth (inches): 10			y Present? Yes V No No
Describe Re	corded Data (strea	m gauge, mon	itoring well, aerial photos, previous inspec	ctions), if	available:	
Remarks:						
Evidenc	e of wetland	d hydrolo	gy includes soil saturation	n, aeo	morphic	position, hydrogen
			AC-Neutral test.	, 900		

Project/Site: US93 N Peterson	(City/County	Lake Co	unty	Sampling Date:	2024-07-02
Applicant/Owner: MDT				14	· -	
	9			nge: S35 T19N R20W		
Landform (hillslope, terrace, etc.): Toeslope				=		oe (%): 1
Subregion (LRR): E 44A						
Soil Map Unit Name: 22 - Colake silt loam, 0 to 1 pero						
Are climatic / hydrologic conditions on the site typical for this						
Are Vegetation, Soil, or Hydrology si				Normal Circumstances" p		, No
	-					NO
Are Vegetation, Soil, or Hydrology na SUMMARY OF FINDINGS – Attach site map s			•	eded, explain any answe	,	atures etc
Hydrophytic Vegetation Present? Yes No			g point it		,portant 10	
Hydric Soil Present? Yes No		Is th	e Sampled		_	
Wetland Hydrology Present? Yes No	·	with	in a Wetlan	d? Yes	No	
Remarks:		II.				
Upland point taken 24 ft away from wetland point in cersite visit was D1 (moderate drought).	ntral area o	of site. The	e U.S. Drou	ght Monitor Index from	Lake County, MT	during the
VEGETATION – Use scientific names of plant	s.					
30 ft r	Absolute		Indicator	Dominance Test work	sheet:	
Tree Stratum (Plot size: 30 ft r) 1	% Cover			Number of Dominant Sp That Are OBL, FACW, of		(A)
2				Total Number of Domin		
3				Species Across All Stra	ıta: <u>1</u>	(B)
4		= Total Co		Percent of Dominant Sp That Are OBL, FACW, o) (A/B)
Sapling/Shrub Stratum (Plot size: 15 ft r)				Prevalence Index wor	ksheet:	
1				Total % Cover of:	Multiph	y by:
2					x 1 = 0	
4				FACW species 0		
5.					x 3 = 225	
		= Total Co	ver		x 4 = 40	
Herb Stratum (Plot size: 5 ft r)					x 5 = 50	
1. Poa pratensis	60		FAC	Column Totals: 95	(A) <u>315</u>	(B)
2. Elymus repens	10		FAC	Prevalence Index	= B/A = <u>3.31</u>	
3. Galium aparine	10		FACU	Hydrophytic Vegetation		
4. Thlaspi arvense 5. Cirsium arvense	<u>10</u>	-	UPL	1 - Rapid Test for H		ation
			FAC	✓ 2 - Dominance Tes		
6				3 - Prevalence Inde		
7				4 - Morphological A	Adaptations' (Provi s or on a separate	
8 9				5 - Wetland Non-Va	•	J. 1991,
10				Problematic Hydro		(Explain)
11.				¹ Indicators of hydric soi		
	95	= Total Co	ver	be present, unless distu	urbed or problemat	tic.
Woody Vine Stratum (Plot size:)						
1				Hydrophytic		
2				Vegetation Present? Yes	s No	
% Bare Ground in Herb Stratum 5		= Total Co	ver			-
Remarks:						
Sample point is dominated by FAC vegetation res	sultina in s	a positiv <i>e</i>	e dominan	ce test. However the	e sample point	lacked
evidence of hydric soil development and is not su	-	-				

US Army Corps of Engineers

SOIL Sampling Point: DP05u

Depth	Matrix		Redox Features			
(inches)	Color (moist)	%	Color (moist) % Type ¹	Loc ²	Texture	Remarks
0 - 8	10YR 2/1	100			Silty Clay Loam	
-			·			
_						
		_	·			
			·			
-			·			
-						
Type: C=Co	ncentration D=De	nletion RN		Sand Gra	ins ² l ocat	ion: PL=Pore Lining, M=Matrix.
, ,			I LRRs, unless otherwise noted.)	Odrid Ord		for Problematic Hydric Soils ³ :
Histosol ((A1)		Sandy Redox (S5)		2 cm N	/luck (A10)
	ipedon (A2)		Stripped Matrix (S6)		Red P	arent Material (TF2)
Black His	stic (A3)		Loamy Mucky Mineral (F1) (except N	MLRA 1)	Very S	hallow Dark Surface (TF12)
	n Sulfide (A4)		Loamy Gleyed Matrix (F2)		Other	(Explain in Remarks)
	Below Dark Surfa	ce (A11)	Depleted Matrix (F3)		3	
	rk Surface (A12)		Redox Dark Surface (F6)			of hydrophytic vegetation and
-	ucky Mineral (S1) leyed Matrix (S4)		Depleted Dark Surface (F7)Redox Depressions (F8)			hydrology must be present, disturbed or problematic.
	ayer (if present):		Redux Depressions (1 6)		uniess (disturbed of problematic.
Type:						
• •	hoo):				Hydric Soil P	resent? Yes No
Remarks:	:hes):				nyunc son Fi	resent? Yes No
YDROLOG	GY					
Wetland Hyd	Irology Indicators				2	
Wetland Hyd Primary Indica	Irology Indicators ators (minimum of		ed; check all that apply)			ary Indicators (2 or more required)
Wetland Hyd Primary Indica Surface V	Irology Indicators ators (minimum of Water (A1)		Water-Stained Leaves (B9) (exc	cept	Wat	er-Stained Leaves (B9) (MLRA 1, 2
Wetland Hyd Primary Indica Surface V High Wat	Irology Indicators ators (minimum of Water (A1) ter Table (A2)		Water-Stained Leaves (B9) (exc MLRA 1, 2, 4A, and 4B)	cept	Wat	er-Stained Leaves (B9) (MLRA 1, 2
Wetland Hyd Primary Indica Surface V High Wat Saturatio	Irology Indicators ators (minimum of Water (A1) ter Table (A2) n (A3)		Water-Stained Leaves (B9) (exc MLRA 1, 2, 4A, and 4B) Salt Crust (B11)	cept	Wat Dra	er-Stained Leaves (B9) (MLRA 1, 2 IA, and 4B) inage Patterns (B10)
Wetland Hyd Primary Indica Surface V High Wat Saturatio Water Ma	Irology Indicators ators (minimum of Water (A1) ter Table (A2) in (A3) arks (B1)		Water-Stained Leaves (B9) (exc MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13)	cept	Wat Dra Dry-	er-Stained Leaves (B9) (MLRA 1, 2 IA, and 4B) inage Patterns (B10) -Season Water Table (C2)
Wetland Hyd Primary Indica Surface V High Wat Saturatio Water Ma	Irology Indicators ators (minimum of Water (A1) ter Table (A2) in (A3) arks (B1) t Deposits (B2)		 Water-Stained Leaves (B9) (exc MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) 		Wat Dra Dry. Sati	er-Stained Leaves (B9) (MLRA 1, 2 IA, and 4B) inage Patterns (B10) Season Water Table (C2) uration Visible on Aerial Imagery (CS
Wetland Hyd Primary Indica Surface V High Wat Saturatio Water Ma Sediment Drift Depri	Irology Indicators ators (minimum of Water (A1) ter Table (A2) in (A3) arks (B1) t Deposits (B2) osits (B3)		 Water-Stained Leaves (B9) (exc MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Li 	iving Roots	Wat Dra Dry Sati s (C3) Geo	rer-Stained Leaves (B9) (MLRA 1, 2 IA, and 4B) inage Patterns (B10) Season Water Table (C2) uration Visible on Aerial Imagery (CS proorphic Position (D2)
Wetland Hyd Primary Indica Surface N High Wat Saturatio Water Ma Sediment Drift Depo	Irology Indicators ators (minimum of Water (A1) ter Table (A2) in (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4)		 Water-Stained Leaves (B9) (exc MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Li Presence of Reduced Iron (C4) 	iving Roots	Wat Dra Dry Satu s (C3) Gec Sha	er-Stained Leaves (B9) (MLRA 1, 2 IA, and 4B) inage Patterns (B10) -Season Water Table (C2) uration Visible on Aerial Imagery (CS emorphic Position (D2) Illow Aquitard (D3)
Wetland Hyd Primary Indica Surface V High Wat Saturatio Water Ma Sediment Drift Depo	Irology Indicators ators (minimum of Water (A1) ter Table (A2) in (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5)		Water-Stained Leaves (B9) (exc MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Li Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled	iving Roots Soils (C6)	Wat Dra Dry Satu s (C3) Gec Sha FAC	er-Stained Leaves (B9) (MLRA 1, 2 IA, and 4B) inage Patterns (B10) Season Water Table (C2) uration Visible on Aerial Imagery (C9) imorphic Position (D2) Ilow Aquitard (D3) C-Neutral Test (D5)
Wetland Hyd Primary Indica Surface V High Wat Saturatio Water Ma Sediment Drift Depr Algal Mat Iron Depo	Irology Indicators ators (minimum of Water (A1) ter Table (A2) in (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) Soil Cracks (B6)	one requir	Water-Stained Leaves (B9) (exc MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Li Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Stunted or Stressed Plants (D1)	iving Roots Soils (C6)	Wat Dra Dry Satu s (C3) Gec Sha FAC Rais	er-Stained Leaves (B9) (MLRA 1, 2 IA, and 4B) inage Patterns (B10) Season Water Table (C2) uration Visible on Aerial Imagery (C9 omorphic Position (D2) Illow Aquitard (D3) C-Neutral Test (D5) sed Ant Mounds (D6) (LRR A)
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Project/Site: US93 N Peterson	(City/Coun	nty: Lake Co	unty	Sampling Date: 2024-07-02
Applicant/Owner: MDT				State: Montana	Sampling Point: DP05w
Investigator(s): E Reynaud	;	Section, ⁻	Township, Rar	nge: S35 T19N R20W	1
Landform (hillslope, terrace, etc.): Valley Floor					
					Datum: NAD 83
Soil Map Unit Name: 22 - Colake silt loam, 0 to 1 pe					
Are climatic / hydrologic conditions on the site typical for the					
Are Vegetation, Soil, or Hydrology					resent? Yes No
Are Vegetation, Soil, or Hydrology	naturally prol	blematic?		eded, explain any answer	
SUMMARY OF FINDINGS – Attach site map					
Hydrophytic Vegetation Present? Yes	No				
	No		the Sampled thin a Wetlan	Area	No
	No	W	ullil a vvellal		
Remarks: Sample point taken within Vegetation Community 8. (moderate drought).	The U.S. Dro	ught Mo	nitor Index fr	om Lake County, MT du	ring the site visit was D1
VEGETATION – Use scientific names of pla					
Tree Stratum (Plot size: 30 ft r			nt Indicator ? Status	Dominance Test works	
1				Number of Dominant Sp That Are OBL, FACW, o	
2.					
3.				Total Number of Domina Species Across All Strat	4
4				Percent of Dominant Sp	nacias
Sapling/Shrub Stratum (Plot size: 15 ft r		= Total (Cover	That Are OBL, FACW, o	
1				Prevalence Index work	sheet:
2.				Total % Cover of:	
3.					x 1 = 9
4				T	x 2 = 150
5.					x 3 = 0
- 6		= Total (Cover	FACU species 0 UPL species 10	x = 4 = 0 x = 5 = 50
Herb Stratum (Plot size: 5 ft r	7-		E 4 0)4/	Column Totals: 94	$\chi_5 = \frac{30}{(A)}$ (B)
1. Phalaris arundinacea			FACW	Column Totals. 34	(A) <u>203</u> (B)
2. Brassica juncea 3. Veronica americana	<u>10</u>		UPL	Prevalence Index	
Carex utriculata	$-\frac{3}{3}$	-	OBL OBL	Hydrophytic Vegetatio	
5. Myosotis laxa	_ 3		OBL	1 - Rapid Test for H	
6		-		✓ 2 - Dominance Test✓ 3 - Prevalence Inde	
7					adaptations¹ (Provide supporting
8.					s or on a separate sheet)
9.				5 - Wetland Non-Va	ascular Plants ¹
10				Problematic Hydrop	ohytic Vegetation ¹ (Explain)
11					and wetland hydrology must
	~ 4	= Total C	Cover	be present, unless distu	rbed or problematic.
Woody Vine Stratum (Plot size:)					
1				Hydrophytic Vegetation	
2				Present? Yes	s No
% Bare Ground in Herb Stratum 6		– rotai C	OVEI		
Remarks:					
Evidence of hydrophytic vegetation inc	cludes a r	ositiv	e rapid te	st, a positive don	ninance test, and a
prevalence index less than or equal to	-		•		,

US Army Corps of Engineers

SOIL Sampling Point: DP05w

Profile Desc	cription: (Describ	e to the dept	h needed to docu	ment the	indicator	or confirm	the absence o	f indicators.)
Depth	Matrix			ox Feature				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks
0 - 8	10YR 4/1	98	10YR 4/6	2	С	M	Silty Clay Loam	
-								
_								
		<u> </u>		_	-			
				_				
			Reduced Matrix, C			ed Sand Gr		tion: PL=Pore Lining, M=Matrix.
-			LRRs, unless othe		ed.)			s for Problematic Hydric Soils ³ :
Histosol	• •	,	Sandy Redox (Muck (A10)
	pipedon (A2) istic (A3)		Stripped Matrix Loamy Mucky	. ,	1) (evcen	· MI DA 1\		Parent Material (TF2) Shallow Dark Surface (TF12)
	en Sulfide (A4)		Loamy Gleyed			I WILKA I)		(Explain in Remarks)
	d Below Dark Surfa	ace (A11)	✓ Depleted Matri		-/		00	
Thick Da	ark Surface (A12)		Redox Dark Su	urface (F6))		³ Indicators	s of hydrophytic vegetation and
-	Mucky Mineral (S1)		Depleted Dark		- 7)			d hydrology must be present,
	Gleyed Matrix (S4)		Redox Depress	sions (F8)			unless	disturbed or problematic.
_	Layer (if present):							
Type:	-h \						Undein Cail D	June 2 Van V
	ches):						Hydric Soil P	resent? Yes No No
Remarks:								
Promine	nt redoximo	orphic co	ncentration	s com	mon w	ithin d	epleted m	atrix. Cobbles restricted
excavati	on further t	han 8".						
	OV							
HYDROLO								
	drology Indicator			1			C	landiantana (2 an mana na suina d)
	•	rone required	; check all that app		.a. (DO) (a			ary Indicators (2 or more required)
	Water (A1) ater Table (A2)		Water-Sta			xcept		ter-Stained Leaves (B9) (MLRA 1, 2,
✓ Saturati	, ,		Salt Crust	1, 2, 4A, (anu 46)			4A, and 4B) ainage Patterns (B10)
<u> </u>	larks (B1)		Aquatic In	` '	es (B13)			y-Season Water Table (C2)
	nt Deposits (B2)		Hydrogen					turation Visible on Aerial Imagery (C9)
	posits (B3)					Living Roc		omorphic Position (D2)
	at or Crust (B4)		Presence		_	_		allow Aquitard (D3)
	posits (B5)					d Soils (C6		C-Neutral Test (D5)
Surface	Soil Cracks (B6)		Stunted o	r Stressed	l Plants (D	1) (LRR A) Rai	sed Ant Mounds (D6) (LRR A)
Inundati	on Vis ble on Aeria	ıl Imagery (B7) Other (Ex	plain in Re	emarks)		Fro	st-Heave Hummocks (D7)
Sparsel	y Vegetated Conca	ive Surface (E	38)					
Field Obser								
Surface Wat	er Present?		No Depth (in					
Water Table	Present?		No <u> </u>					
Saturation P		Yes N	No Depth (in	nches): <u>8</u>		Wetla	and Hydrology	Present? Yes V No No
	oillary fringe) corded Data (strea	m dalide mo	nitoring well, aerial	nhotos ni	revious ins	spections)	if available:	
B G G G I I G	oordod Bata (otrod	iii gaago, iiio	intolling won, donal	priotoc, pr	Ovious in	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	ii availabio.	
Remarks:								
	£1	ا المناط		!!				a a state as a second a second
		a nyarolo	ogy includes	SOII S	aturati	on, ge	omorphic	position, and a positive
FAC-Ne	utral test.							

MDT Montana Wetland Assessment Form (revised March 2008)

8. Wetland size:

9. Assessment area (AA):

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

3. Evaluation Date: 07/01/2024 4. Evaluator(s): E Reynaud 5. Wetlands/Site #(s): AA-1

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

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

iii. Watershed:

Watershed Name, County: Flathead, Lake

7. a. Evaluating Agency: CCI for MDT

b. Purpose of Evaluation:

Wetlands potentially affected by MDT project

Mitigation wetlands; pre-construction

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	I	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)

3.460 acres (measured)

3.460 acres (measured)

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)

	Predomin	ant conditions adjacent to (within 500 t	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 existence of additiona		Modified Rating
>= 3 (or 2 if 1 is forested) classes	Н	NA	NA	NA
2 (or 1 if forested) classes	М	NA	NA	NA
1 class, but not a monoculture	М	< NO	YES>	L
1 class, monoculture (1 species comprises >= 90% of total cover)	L	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 h

Grizzly Bear(D)

Incidental habitat (list species)
North American Wolverine(S)
Canada Lynx(S)
Monarch Butterfly(S)

ii. Rating (use the conclusions from i above and the matrix below to arrive at [circle] the functional points and rating)

Highest Habitat Level	doc/primary	sus/primary	doc/secondary	sus/secondary	doc/incidental	sus/incidental	None
Functional Points and Rating	1H	.9H	.8M	.7M	.3L	.1L	0L

Sources for documented use (e.g. observations, records, etc): Documented occurrence (CSKT Wildlife staff observation 2017/2018). Suspected occurrence (USFWS IPaC, 2024).

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(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, 2024).

14C. General Wildlife Habitat Rating:

i. Evidence of overall wildlife use in the AA (circle substantial, moderate, or low based on supporting evidence):

·	,,
Substantial (based on any of the following [check]): observations of abundant wildlife #s or high species diversity (during any period) abundant wildlife sign such as scat, tracks, nest structures, game trails, etc. presence of extremely limiting habitat features not available in the surrounding area interviews with local biologists with knowledge of the AA	Minimal (based on any of the following [check]): few or no wildlife observations during peak use periods little to no wildlife sign sparse adjacent upland food sources interviews with local biologists with knowledge of the AA
Moderate (based on any of the following [check]):	
X observations of scattered wildlife groups or individuals or relatively few species during	peak periods
	- 4 -

- X common occurrence of wildlife sign such as scat, tracks, nest structures, game trails, 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)		Ev	en			Uneven			Even			Uneven				Even				
Duration of surface water in >=10% of AA	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	P/P	S/I	T/E	Α
Low disturbance at AA (see #12i)	E	E	Е	Н	E	E	Н	Н	Е	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)

				37							
Evidence of wildlife use (i)	Wildlife habitat features rating (ii)										
Evidence of wildlife use (i)	Exceptional	High	Moderate	Moderate							
Substantial	1E	.9H	.8H	.7M							
Moderate	.9Н	.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.

2

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						Seasonal / Intermittent						Temporary / Ephemeral					
Aquatic hiding / resting / escape cover	Opt	imal	Adeo	luate	Po	or	Opt	imal	Adeo	quate	Po	or	Opt	imal	Adec	juate	Po	oor	
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, 2022, and 2024.

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)		entrenche stream typ			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		Entrenched ER = 1.0 – 1.4	
C stream type	D stream type	E stream type	B stream type	A stream type	F stream type	G stream type

ii. Are ≥10 acres of wetland in the AA subject to flooding AND are man-made features which may be significantly damaged by floods located within 0.5 mile downstream of the AA (circle)? Comments: 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.

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- **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 fe	et	1.11	to 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])

3 \					•	0.	,	47
Sediment, nutrient, and toxicant input levels within AA	AA receives or surrounding land use with potential to deliver levels of sediments, nutrients, or compounds at levels such that other functions are not substantially impaired. Minor sedimentation, sources of nutrients or toxicants, or signs of eutrophication present.			developmen nutrients, or t use with po nutrients, o substantially	t for "probable of toxicants or AA of tential to deliver of compounds so of impaired. Major	waterbodies in r causes" related receives or sur- er 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	ow.
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 3.46 acres of emergent wetland with a developing scrubshrub component. The AA includes a permanent/perennial stream channel and surface water outlet.

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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 Permeable substrate pre Springs or seeps are known or observed Wetland contains inlet but Vegetation growing during dormant season/drought Stream is a known 'losing Wetland occurs at the toe of a natural slope Other: AA permanently flooded during drought periods Wetland contains an outlet, but no inlet Shallow water table and the site is saturated to the surface X Other: Seeps are present at the wetland edge							no outlet		
iii. Rating (use the information from i	and ii ahovo	and the table	bolow to arr	ivo at [circlo]	the functions	al points and	rating)		
iii. Nating (use the information from the	and ii above	Duration	of saturation	on at AA We	tlands <i>FROI</i>	M GROUNDY ECHARGING	VATER		
Criteria	Ī	P/P		S/I	Т		None	1	
Groundwater Discharge or Rechar	rge	1H		.7M	.4M		.1L	1	
Insufficient Data/Information	3			N//	Α			1	
Comments: Majority of site hydrolog 14K. Uniqueness: i. Rating (working from top to bottom,							r north and s	south of the c	reek.
Replacement potential	or matu wetland c	ontains fen, bog, warm springs mature (>80 yr-old) forested and or plant association listed as "S1" by the MTNHP		rare types (#13) is	AA does not contain previously cite rare types and structural diversity (#13) is high or contains plant association listed as "S2" by the MTNHP		AA does not contain pre rare types or associa structural diversity (#1 moderate		tions ánd
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
<30% in all areas of the component is included in 14L. Recreation/Education Potential i. Is the AA a known or potential recoverall summary and rating page.	High disturbance at AA (#12i) .8H .7M .6M .6M .4M .3L .3L .3L .1L .6D Comments: Wetland types are common in this watershed. Scrub-shrub habitat cannot be demonstrated in a data point as the shrub/sapling stratum is <30% in all areas of the site. However, the woody habitat provides structural diversity and important habitat for wildlife. Therefore, a PSS component is included in the assessment. 14L. Recreation/Education Potential: (affords "bonus" points if AA provides recreation or education opportunity) i. Is the AA a known or potential rec./ed. site: (circle) X (if 'Yes' continue with the evaluation; if 'No' then mark NA and proceed to the overall summary and rating page) ii. Check categories that apply to the AA: X Educational/scientific study; Consumptive rec.; Non-consumptive rec.; Other:								
Known or Potential Recreation or Ed	lucation Are	ea				T	Known	Potential	7
			access (no i	permission	required)		.2H	.15H	1
Public ownership or public easement with general public access (no permission required) Private ownership with general public access (no permission required)						.15H	.1M	7	
Private or public ownership without general public access, or requiring permission for public access .1M .05L							┪		
Comments: Site has the potential for			5, 51 15quiii	ig porimoon	n rei public			.002	_
General Site Notes									
Wetland acreage at the mitigation sit	e decrease	d 0.05 acre in	the 2024 mo	nitoring ever	nt.				

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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	2.77	
B. MT Natural Heritage Program Species Habitat	L	0.10	1	0.35	
C. General Wildlife Habitat	Н	0.90	1	3.11	*
D. General Fish Habitat	L	0.30	1	1.04	
E. Flood Attenuation	М	0.60	1	2.08	
F. Short and Long Term Surface Water Storage	Н	0.80	1	2.77	
G. Sediment/Nutrient/Toxicant Removal	Н	1.00	1	3.46	*
H. Sediment/Shoreline Stabilization	Н	1.00	1	3.46	*
I. Production Export/Food Chain Support	Н	0.80	1	2.77	
J. Groundwater Discharge/Recharge	Н	1.00	1	3.46	*
K. Uniqueness	М	0.40	1	1.38	
L. Recreation/Education Potential (bonus points)	Н	0.15	1	0.52	
Totals: Percent of Possible Score		7.85	11.00 71%	27.17	

Category I Wetland: (must satisfy one of the following criteria; otherwise go to Category II) Score of 1 functional point for Listed/Proposed Threatened or Endangered Species; or Score of 1 functional point for Uniqueness; or Score of 1 functional point for Flood Attenuation and answer to Question 14E.ii is "yes"; or Percent of possible score > 80% (round to nearest whole #).
Category II Wetland: (Criteria for Category I not satisfied and meets any one of the following criteria; otherwise go to Category IV) Score of 1 functional point for MT Natural Heritage Program Species Habitat; or Score of .9 or 1 functional point for General Wildlife Habitat; or Score of .9 or 1 functional point for General Fish Habitat; or "High" to "Exceptional" ratings for both General Wildlife Habitat and General Fish/Aquatic Habitat; or Score of .9 functional point for Uniqueness; or Percent of possible score > 65% (round to nearest whole #).
Category III Wetland: (Criteria for Categories I, II, or IV not satisfied)
Category IV Wetland: (Criteria for Categories I or II are not satisfied and all of the following criteria are met; otherwise go to Category III) "Low" rating for Uniqueness; andVegetated wetland component 1 acre (do not include upland vegetated buffer); andPercent of possible score 35% (round to nearest whole #).

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OVERALL ANALYSIS AREA RATING: II

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

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 Table B-1. US93 N Peterson Mitigation Site Comprehensive Vegetation Species List 2008-2024

Scientific Name	Common Name	WMVC Wetland Indicator ^(a)
Achillea millefolium	Common Yarrow	FACU
Agastache urticifolia	Nettleleaf Giant Hyssop	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
Galium aparine	Cleavers	FACU
Geum macrophyllum	Large-Leaf Avens	FAC

Glyceria grandis	American Manna Grass	OBL
Helianthus pauciflorus	Stiff Sunflower	UPL
Hordeum jubatum	Fox-Tail Barley	FAC
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

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
Thinopyrum intermedium	Intermediate Wheatgrass	UPL
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 2024 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



Bearing: 135 degrees



Location: PP1 Year: 2024



Photo Point: 2 Bearing: 35 degrees



Location: PP2 photo 1 Year: 2017

Location: PP1



Photo Point: 2 Bearing: 35 degrees

Location: PP2 photo 1 Year: 2024



Photo Point: 2 Bearing: 110 degrees

Location: PP2 photo 2 Year: 2017



Photo Point: 2 Bearing: 110 degrees

Location: PP2 photo 2 Year: 2024

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: 2024



Photo Point: 5 Bearing: 175 degrees



Location: Wetland boundary Year: 2017



Photo Point: 5 Bearing: 175 degrees





Photo Point: 6 Bearing: 315 degrees

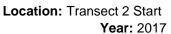




Photo Point: 6 Bearing: 315 degrees

Location: Transect 2 Start Year: 2024

US93 Peterson: Photo Point Photographs



Photo Point: 7 Bearing: 5 degrees



Photo Point: 7 Bearing: 5 degrees



Location: PP7 photo 1 Year: 2024



Photo Point: 7 Bearing: 267 degrees



Location: PP7 photo 2 Year: 2020



Photo Point: 7 Bearing: 267 degrees



Location: PP7 photo 2 Year: 2024



Photo Point: 8 Bearing: 34 degrees

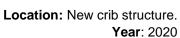




Photo Point: 8 Bearing: 34 degrees

Location: New crib structure. Year: 2024

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: 2024



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



Location: T-1 End Year: 2017

Location: T-1 Start



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

Location: T-1 End Year: 2024



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: 2024



Photo Point: T-2 End Bearing: 315 degrees

Location: T-2 End Year: 2020



Photo Point: T-2 End Bearing: 315 degrees

Location: T-2 End Year: 2024

US93 Peterson: Data Point Photographs



Data Point: DP01w

Year: 2024



Data Point: DP02w

Year: 2024



Data Point: DP03w

Year: 2024



Data Point: DP01u

Year: 2024



Data Point: DP02u

Year: 2024



Data Point: DP03u



Data Point: DP04w

Year: 2024



Data Point: DP05w

Year: 2024



Data Point: DP04u

Year: 2024



Data Point: DP05u

US93 Peterson: Additional Site Photographs



Additional Photo 1. View of downstream log crib structure (log crib #1) facing south across the channel.



Additional Photo 3. View of upstream log crib structure (log crib #3) facing south across the channel.



Additional Photo 2. View of middle log crib structure (log crib #2) facing south across the channel.



Additional Photo 4. Example photo of water movement at log crib structure (log crib #2) in the central portion of the project site.