Montana Department of Transportation Wetland Mitigation Monitoring Report

FORSYTH – NORTHWEST MITIGATION SITES: FORSYTH WEST, MIDDLE, AND EAST

Project Overview

MDT Project: STTP 14 (9)259, UPN #4059

Watershed: Watershed #14 - Middle Yellowstone

Monitoring Year: 2022

Years Monitored: 10th year of monitoring

Corps Permit Number: NWO-2002-90-599 and NWO-2006-90676 MTB

Monitoring Conducted By: Confluence Consulting Inc. for MDT Dates Monitoring Was Conducted: May 31st - June 2nd, 2022

Purpose of the Approved Project:

The Forsyth – Northwest (FNW) sites were developed to mitigate for a cumulative total of 8.98 acres of wetland impacts associated with two Montana Department of Transportation (MDT) highway construction projects: (1) the Volborg – North and South project, constructed in 2004, and (2) the FNW project, constructed in 2012. Wetland compensatory mitigation ratios from the Montana Regulatory Program of the US Army Corps of Engineers, dated April 2005, were used to determine the anticipated mitigation credits outlined in the approved wetland mitigation plan, which indicated that the project could earn 11.79 acres of wetland mitigation credit. Four individual mitigation sites in close proximity to each other were constructed as part of this project and include the Treasure County Line, Forsyth West, Forsyth Middle, and Forsyth East. Monitoring at the Treasure County Line site was completed in 2017, this report encompasses only the three remaining Forsyth sites where monitoring continued in 2022.

Site Locations:

West site - Latitude: 46.33927, Longitude: -106.876743 Middle site - Latitude: 46.323159, Longitude: -106.843010 East site - Latitude: 46.31969, Longitude: -106.83657

County: Rosebud Nearest Town: Forsyth, MT

Map Included: Yes, Figure 1

Mitigation Site Construction Started: Spring 2012 Construction Ended: Fall 2012 Dates of Any Recent Corrective or Maintenance Activities (since previous report):

Activity: None Date: NA

Specific recommendations for corrective actions: Continue to treat noxious weed, especially at the

Middle site.

Anticipated Wetland Credit Acres: 11.79

Wetland Credit Acres Generated to Date: 4.74

Wetland Acreage within the Project Area: 3.18

Mudflat Acreage within the Project Area: 0.51

Open Water within the Project Area: 8.26 acres

Previous Monitoring Reports:

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

Monitoring Period: 5 years from construction completion or until concurrence by the US Army Corps of Engineers (USACE). The monitoring period was extended because of adaptive management actions in 2017 to repair a failed dike structure at the FNW-West mitigation site.

<u>Requirements</u> (from approved mitigation plan, banking instrument, or Department of Army (DA) permit conditions)

Summary of Performance Standards: Formal performance standards were not developed as part of the mitigation plan for these sites. All three sites have developed wetland habitat as intended and contain wetland vegetation, hydric soils, and indicators of wetland hydrology. All of the sites are stable, have less than 5 percent total noxious weed cover. The East and Middle sites are functioning as designed, but the West site has recently lost wetland acreage due to a change in how the USACE is awarding credit for the palustrine aquatic bed wetland type.

Summary Data: Combined West, Middle, and East Sites

Wetland Delineation – The total wetland acreage delineated at the three FNW sites in 2022 was 3.18 acres of palustrine emergent wetland. Additionally, 8.26-acres of open water and 0.51-acres of mud flat were mapped at the FNW-West site. No open water or mud flats were identified at the Middle or East sites. Across the three sites, wetland area and open water increased by 0.35 and 0.66 acres respectively, when compared to 2021 acreages (Table 1; Figures A-3 and A-4, Appendix A).

The adaptive management strategies implemented in 2017 (repair of a breached dike) at the FNW-West site has resulted in broader inundation across the site, and in response to the inundation, some areas that were previously delineated as wetland were delineated as open water in 2020, 2021, and 2022. More open water was observed in 2022 than in 2021, likely due to heavy spring precipitation. Several areas delineated as mudflat habitat in 2021 were inundated in 2022, therefore the increased inundation at the site lead to a reduction on mudflat acreage in 2022. The increased inundation also resulted in minor expansions of the wetland boundaries in the southwestern portion of the site (Table 1).

In 2020, the USACE provided guidance on open water, defining it as, "areas of open water of any depth with less than 5% rooted emergent vegetation, no vegetation, submerged non-rooted vegetation, and/or submerged vegetation rooted in the substrate that does not extend above the water surface" (Green 2022). Options to assign credit acres for open water and mud flat habitats are still pending, and therefore wetland acreage credited to this site 2020-2022 is significantly less than what was reported in 2019 and earlier.

Table 1. Wetland Habitat Acreages Delineated at the FNW Sites (2015 and 2020–2022)

	2015	2020 (acres)		2021 (acres)			2022 (acres)		
Site	(acres)	Wetland	Open Water	Wetland	Open Water	Mud flat	Wetland	Open Water	Mud flat	
FNW- West	6.01	1.61	8.90	1.66	7.60	1.36	1.86	8.26	0.51	
FNW- Middle	0.49	0.58	-	0.58	-	-	0.58	-	-	
FNW- East	0.46	0.60	-	0.59	-	-	0.74	-	-	
Total	6.96	2.79	8.9	2.83	7.6	1.36	3.18	8.26	0.51	

Functional Assessment – The FNW-East and Middle sites are considered Category III wetlands, and the FNW- West site is a Category II wetland (Table 2), that received MWAM scores of 68.18%, 42.14%, and 46.88% respectively. All three sites generated a combined total of 84.22 Functional Units in 2022 (Appendix B), which is an increase of 1.72 functional units since 2021.

Photographs – Photographs were taken at all three FNW sites in 2022 and are provided in Appendix C. The photographs taken at permanent photo points, transect endpoints, and data points are presented alongside photos from the first year of monitoring. Please refer to previous years' monitoring reports for photographs from all other years (https://www.mdt.mt.gov/publications/brochures/wetland-mitigation.aspx).

Wildlife — Wildlife species that were observed directly or indirectly at the three monitoring sites during the 2022 field surveys are listed in the Wetland Mitigation Site Monitoring forms for each site (Appendix B). Many bird species were observed at the West site, some birds were observed at the East site, and no birds were observed at the Middle site.

Table 2. 2022 Montana Wetland Assessment Method (MWAM) Functional Value Summary for the Forsyth Northwest Sites. Values shown are the actual functional points scored by each site.

Function and Value Parameters From the 2008 Montana Wetland Assessment Method	FNW- West	FNW- Middle	FNW- East
Listed/Proposed Threatened & Endangered (T&E) Species Habitat	Low (0.0)	Low (0.0)	Low (0.0)
Montana Natural Heritage Program (MTNHP) Species Habitat	High (0.9)	High (0.9)	High (0.9)
General Wildlife Habitat	Exceptional (1)	Mod (0.4)	Mod (0.4)
General Fish/Aquatic Habitat	Low (0.3)	N/A	N/A
Flood Attenuation	Mod (0.6)	N/A	N/A
Short- and Long-Term, Surface-Water Storage	High (1)	Low (0.3)	Low (0.3)
Sediment/Nutrient/Toxicant Removal	Mod (0.7)	High (0.8)	High (0.8)
Sediment/Shoreline Stabilization	Mod (0.7)	NA	N/A
Production Export/Food Chain Support	High (0.8)	Low (0.3)	Mod (0.4)
Groundwater Discharge/Recharge	High (1)	N/A	Mod (0.7)
Uniqueness	Low (0.3)	Low (0.2)	Low (0.2)
Recreation/Education Potential (bonus points)	High (0.2)	Low (0.05)	Low (0.05)
Actual Points/Possible Points	7.5/11	2.95/7	3.75/8
% of Possible Score Achieved	68.18%	42.14%	46.88%
Overall Category	II	III	III

⁽a) Assessment area included wetland, open water, and mud flats.

Summary Data: Specific to the FNW-West Site

FNW-West Site Vegetation — Nine vegetation communities, identified based on plant composition and dominance, were mapped on the FNW–West site in 2022. This site underwent extensive change following repair of the dike and subsequent flooding of the site in 2018 and 2019 and is now largely inundated with open water. There have been significant changes in the vegetation communities as a result of the flooding as much of the vegetation has died off in the inundated areas, including woody species such as cottonwood and willow. These changes have led to shifts in plant community composition and include changes in dominance within some of the previously mapped community types, the elimination of a few previously observed community types, and the addition of Wetland Type 18 — Hordeum jubatum/Typha spp. in 2020, and Wetland Type 19 — Mudflats in 2021. Wetland community types are found in the mudflats and fringes around the open water or in areas that are shallow enough to support emergent vegetation. Inundated areas with less than 5% cover of emergent vegetation are represented by Wetland Type 17 — Open Water/Aquatic Macrophytes. The Mudflat Community was created to classify previously inundated areas that were exposed in 2021 and 2022 and have less than 5% vegetative cover. Upland Type 20 — Thlaspi arvense/Lepidium perfoliatum was

established in 2022, to reflect an area on the southeast portion of the site that was dominated by these annual species.

The community composition for each community type is provided in full detail on the Wetland Mitigation Site Monitoring forms (Appendix B), and the community boundaries are shown on Figure A-3 (Appendix A). The following vegetation community types were identified at the FNW-West mitigation site in 2022:

- Upland Type 1 Bromus tectorum/Sarcobatus vermiculatus
- Upland Type 5 Symphoricarpos albus/Pascopyrum smithii
- Upland Type 6 Pascopyrum smithii/Bromus tectorum
- Wetland Type 8 Typha latifolia/Eleocharis palustris
- Wetland Type 16 Alopecurus arundinaceus/Hordeum jubatum
- Wetland Type 17 Open Water/Aquatic Macrophytes.
- Wetland Type 18 Hordeum jubatum/Typha spp.
- Wetland Type 19 Mudflat
- Upland Type 20 Thlaspi arvense/Lepidium perfoliatum

Vegetation cover was measured along two transects in 2022 (Tables 3 & 4; Figure A-2, Appendix A). Table 3 summarizes the data for T-1 which is 282 feet long and intersects Upland Type 6, Wetland Type 18, and aquatic communities 19 (mudflat), and 17 (open water). The amount of open water along T-1 decreased from 89% to 88% between 2021 and 2022 and mudflat coverage increased from 2% to 4%. The total amount of vegetation increased by 1% and bare ground decreased and increased by 1% (Table 3).

Table 3. Data Summary for T-1 From 2016 Through 2022 at the FNW-West Site

Monitoring Year	2016	2017	2018	2019	2020	2021	2022
Transect Length (feet)	282	282	282	282	282	282	282
Vegetation Community Transitions Along Transect	7	5	1	1	2	3	2
Vegetation Communities Along Transect	5	5	1	1	2	3	2
Hydrophytic Vegetation Communities Along Transect	4	2	0	1	1	1	1
Total Vegetative Species	26	18	5	4	9	7	8
Total Hydrophytic Species	5	4	0	1	3	1	1
Total Upland Species	21	14	5	4	6	6	7
Estimated % Total Vegetative Cover	90	46	5	10	3	3	4
Estimated % Unvegetated	10	54	95	65	97	97	96
% Transect Length Comprising Hydrophytic Vegetation Communities	37	34	0	30	3	4	3
% Transect Length Comprising Upland Vegetation Communities	63	66	5	5	5	5	5
% Transect Length Comprising Unvegetated Open Water	0	0	95	65	92	89	88
% Transect Length Comprising of Mudflat	0	0	0	0	0	2	4

T-2 is 261 feet long and intersects Upland Types 5 and 6, and Wetland Types 19 (mudflat), and 17 (open water). Eighty-five percent of the transect crossed open water habitat in 2022, and 5% crossed mudflat. Total vegetative cover along the transect was 5% (Table 4).

Detailed data collected along each transect are provided in the Wetland Mitigation Site Monitoring form in Appendix B. Photographs of the transect end points are provided in Appendix C.

Ten noxious weed patches were mapped at FNW-West in 2022, which is an increase of 2 patches since 2022. All noxious weed patches were comprised of two Priority 2B species. Canada thistle (*Cirsium arvense*) was observed in low and moderate cover classes at seven locations, and two moderately sized patches of leafy spurge (*Euphorbia esula*) were observed. One salt cedar (*Tamarix chinensis*) that had been identified in previous years appears to have been eradicated (Figure A-3; Appendix A). The two new noxious weed patches were comprised of Canada thistle, and two Canada thistle patches increased in size and percent cover. The amount of leafy spurge cover on the southeast portion of the site also increased from trace to moderate cover. Across all plant communities, a total of 84 plant species have been identified on the site from 2013 through 2022 (Table B-1; Appendix B).

Table 4. Data Summary for T-2 From 2016 Through 2022 at the FNW-West Site

Monitoring Year		2017	2018	2019	2020	2021	2022
Transect Length (feet)	261	261	261	261	261	261	261
Vegetation Community Transitions Along Transect	2	3	2	2	3	3	3
Vegetation Communities Along Transect	3	4	3	3	3	2	2
Hydrophytic Vegetation Communities Along Transect	1	2	1	1	1	1	0
Total Vegetative Species	28	19	13	15	19	20	21
Total Hydrophytic Species	8	9	4	5	6	7	6
Total Upland Species	20	10	9	10	13	13	15
Estimated % Total Vegetative Cover	82	92	20	20	3	3	5
Estimated % Unvegetated	13	8	80	80	97	97	95
% Transect Length Comprising Hydrophytic Vegetation Communities	87	87	90	90	2	3	0
% Transect Length Comprising Upland Vegetation Communities	13	13	10	10	7	7	10
% Transect Length Comprising Unvegetated Open Water	0	0	0	0	91	87	85
% Transect Length Comprising of Mudflat	0	0	0	0	0	5	5

FNW-West Site Hydrology – The main source of hydrology at the FNW-West site is surface runoff from precipitation events in the East Spring Coulee, which flows directly into the site. Additional hydrology is provided by a seasonally high groundwater table and flood flows from nearby Big Porcupine Creek. The mitigation site likely received heavy runoff from Big Porcupine Creek and East Spring Coulee in the spring of 2022, which was unusually wet.

Indicators of wetland hydrology observed at the FNW-West site included inundation on aerial imagery, oxidized rhizospheres on living roots, geomorphic position, salt crusts, saturation, high water table, and surface water.

FNW-West Site Soils — Soil test pits were excavated at eight locations (DP01-04w and DP01-04u; Appendix A). Test pits at DP01-03w and DP01-03u were located in areas originally mapped as the Marvan silty clay soil series (NRCS 2022), where DP04w and 04 were located in areas originally mapped as the Borollic Camborthids-Ustic Torriorthents complex. Nearly all soil horizons had matrix colors on the 5Y or 2.5Y soil color charts, and textures ranged from silty clay to sandy clay loam. Wetland soils contained 2-50% redoximorphic features in the form of concentrations and depletions. The only hydric soil indicator observed was depleted matrix.

Summary Data: Specific to FNW-Middle Site

FNW-Middle Site Vegetation – Vegetation communities were identified based on plant composition and dominance. The following vegetation community types were identified at FNW-Middle in 2022:

- Upland Type 3 Pascopyrum smithii/Elymus canadensis
- Wetland Type 5 Hordeum jubatum/Eleocharis palustris

The community composition for each community type is provided in full detail on the Wetland Mitigation Site Monitoring form (Appendix B), and the community boundaries are shown on Figure A-6 (Appendix A). Fourteen occurrences of Priority 2B noxious weeds, Canada thistle (*Cirsium arvense*) and field bindweed (*Convolvulus arvensis*), were observed at the site in 2022. Cover classes of the weed infestations ranged from trace to moderate (Figure A-6, Appendix A) with two previously observed patching increasing from trace to low cover. Field bindweed cover increased notably between 2021 and 2022. A total of 61 plant species were identified on the site from 2013 through 2022 (for a comprehensive plant list, see Table B-2; Appendix B).

Vegetation cover was measured along one transect (T-1) at FNW-Middle in 2022 (Figure A-5, Appendix A). T-1 is 50 feet long and intersects Upland Type 3 and Wetland Type 5. Twenty-eight percent of the transect crossed wetland habitat in 2022, the number of hydrophytic species observed increased by one, and the amount of hydrophytic species cover increased by 1% since 2021. The vegetation along the slopes of the swale was more hydrophytic than what was observed in the last two years. Twenty-three species were observed along T-1 in 2022, and the total amount of vegetative cover increased by 3% (Table 5). Detailed data collected along T-1 are provided in the Wetland Mitigation Site Monitoring form in Appendix B. Photographs of the transect end points are provided in Appendix C.

Table 5. Data Summary for T-1 From 2016 Through 2022 at the FNW-Middle Site

Monitoring Year	2016	2017	2018	2019	2020	2021	2022
Transect Length (feet)	50	50	50	50	50	50	50
Vegetation Community Transitions Along Transect	2	2	2	2	2	2	2
Vegetation Communities Along Transect	2	2	2	2	2	2	2
Hydrophytic Vegetation Communities Along Transect	1	1	1	1	1	1	1
Total Vegetative Species	11	17	17	16	24	22	23
Total Hydrophytic Species	3	4	5	4	11	6	7
Total Upland Species	8	13	12	12	13	16	16
Estimated % Total Vegetative Cover	85	83	85	85	85	85	87
Estimated % Unvegetated	15	17	15	15	15	15	13
% Transect Length Comprising Hydrophytic Vegetation Communities	30	38	38	38	24	24	28
% Transect Length Comprising Upland Vegetation Communities	70	62	62	62	76	76	72
% Transect Length Comprising Unvegetated Open Water	0	0	0	0	0	0	0
% Transect Length Comprising of Mudflat	0	0	0	0	0	0	0

FNW-Middle Site Hydrology – This site is situated near an abandoned meander bend that is associated with Big Porcupine Creek. The site may experience occasional flooding during high flows in Big Porcupine Creek but is not intended to exhibit perennial hydrology because of its proximity to Montana Highway 12. The excavated depression was likely saturated earlier in the year, but was not inundated or saturated on June 1st, 2022 when the field survey was completed. Hydrologic indicators that were observed at this site included drift deposits, water-stained leaves, oxidized rhizospheres on living roots, surface soil cracks, positive FAC-neutral test results, and geomorphic position.

FNW-Middle Site Soils – Soil test pits were examined at two locations (DP01w and DP01u; Figure A-5, Appendix A), and both locations were within what was originally mapped as the Harlem silty clay soil series by the NRCS (2022). DP01w is located in the excavated depression near the east end of the site within Wetland Type 5, *Hordeum jubatum/Eleocharis paulustris*. The soil profile revealed two inches of a dark greyish brown (2.5Y 4/2) clay that had 10% redoximorphic concentrations, over 14+ inches of greyish brown (2.5Y 5/2) clay with 5% redoximorphic concentrations in the matrix. This soil meets the qualifications for the Depleted Matrix Hydric Soil Indicator. DP01u is located in Upland Type 3 – *Pascopyrum smithii/Elymus canadensis*. The soil profile revealed two inches of olive brown (2.5Y 4/3) silty clay loam on top of 14+ inches of a dark greyish brown (2.5Y 4/2) clay. No hydric soil indicators were observed within the upland sample pit.

Summary Data: Specific to FNW-East Site

FNW-East Site Vegetation – Vegetation communities were identified based on plant composition and dominance. The following vegetation community types were identified in 2022:

- Upland Type 3 Pascopyrum smithii/Elymus spp.
- Wetland Type 4 Hordeum jubatum/Eleocharis palustris.

The community composition for each community type is provided in full detail on the Wetland Mitigation Site Monitoring form (Appendix B), and community boundaries are shown on Figure A-3 (Appendix A).

A total of 59 plant species were identified on the site from 2013 through 2022 (for a comprehensive plant list, see Table B-3; Appendix B). Infestations of one Priority 2B noxious weed, field bindweed (*Convolvulus arvensis*) were mapped in three locations (Figure A-9, Appendix A). Saltcedar (*Tamarix chinensis*) had previously been mapped at this site but appears to have been eradicated. No woody plants were installed at the FNW-East site. However, mature cottonwoods and willows adjacent to the site appear to be acting as a source population for the cottonwood and willow seedlings that have begun to colonize the site.

Vegetation cover was measured along two transects (T-1 and T-2) at FNW-East in 2022 (Figure A-8, Appendix A). T-1 is 125 feet long and intersects Upland Type 3, and Wetland Type 4. Fifty-two percent of the transect crossed wetland habitat and total vegetative cover was 96%, which is an increase of 1% since 2022. The number of vegetative species and hydrophytic species observed along the transect increased by 1 since 2021 (Table 6). Detailed data collected along each transect are provided in the Wetland Mitigation Site Monitoring form in Appendix B. Photographs of the transect end points are provided in Appendix C.

T-2 is 181 feet long and intersects Upland Type 3 and Wetland Type 4. In 2022, sixty percent of the transect crossed wetland habitat in 2021, which was consistent with 2021. The number of hydrophytic species observed along the transect increased by one, and the total number of upland species observed increased by 2. Total vegetative cover has remained constant at 98 percent from 2017 to 2022 (Table 7).

FNW-East Site Hydrology – The FNW-East site is very similar to the FNW-Middle site. The main sources of hydrology at the FNW-East site are shallow groundwater, direct precipitation, and surface runoff from adjacent uplands. Old meander scars of Big Porcupine Creek with relict and contemporary wetland characteristics are located directly adjacent to the site. Hydrologic indicators that were observed at this site included oxidized rhizospheres on living roots, surface soil cracks, geomorphic position, and a vegetation community that passes the FAC-neutral test.

FNW-East Site Soils — Soil test pits were examined in eight locations (DP01-04w and DP01-04u; Appendix A), and all locations were within what was originally mapped as the Harlem silty clay soil series (NRCS 2022). All dominant matrix colors were found on the 2.5Y soil color chart. Wetland soils contained 2-10% redoximorphic concentrations in and up to 30% depletions and has textures ranging from sandy

clay to clay. Two of the upland soil pits qualified for the depleted matrix hydric soil indicator but he sample plot did not contain evidence of wetland hydrology or hydrophytic vegetation. The hydric soil indicators observed within the upland plots indicate that the wetlands may be expanding within this created wetland though there is insufficient evidence to support expanding the wetland boundary at this time.

Table 6. Data Summary for T-1 From 2016 Through 2022 at the FNW-East Site

Monitoring Year		2017	2018	2019	2020	2021	2022
Transect Length (feet)	125	125	125	125	125	125	125
Vegetation Community Transitions Along Transect	2	2	2	2	2	2	2
Vegetation Communities Along Transect	2	2	2	2	2	2	2
Hydrophytic Vegetation Communities Along Transect	1	1	1	1	1	1	1
Total Vegetative Species	22	17	17	16	16	14	15
Total Hydrophytic Species	9	7	7	7	4	2	2
Total Upland Species	11	10	10	9	12	12	13
Estimated % Total Vegetative Cover	90	95	95	95	95	95	96
Estimated % Unvegetated	10	5	5	5	5	5	4
% Transect Length Comprising Hydrophytic Vegetation Communities	50	50	52	52	52	52	52
% Transect Length Comprising Upland Vegetation Communities	50	50	48	48	48	48	48
% Transect Length Comprising Unvegetated Open Water	0	0	0	0	0	0	0
% Transect Length Comprising of Mudflat	0	0	0	0	0	0	0

Table 7. Data Summary for T-2 From 2016 Through 2022 at the FNW-East Site

Monitoring Year		2017	2018	2019	2020	2021	2022
Transect Length (feet)	181	181	181	181	181	181	181
Vegetation Community Transitions Along Transect	2	2	2	2	2	2	2
Vegetation Communities Along Transect	2	2	2	2	2	2	2
Hydrophytic Vegetation Communities Along Transect	1	1	1	1	1	1	1
Total Vegetative Species	26	11	14	15	10	12	15
Total Hydrophytic Species	6	4	6	6	2	3	4
Total Upland Species	20	7	8	9	8	9	11
Estimated % Total Vegetative Cover	94	98	98	98	98	98	98
Estimated % Unvegetated	6	2	2	2	2	2	2
% Transect Length Comprising Hydrophytic Vegetation Communities	44	55	55	55	55	60	60
% Transect Length Comprising Upland Vegetation Communities	56	45	45	45	45	40	40
% Transect Length Comprising Unvegetated Open Water	0	0	0	0	0	0	0
% Transect Length Comprising of Mudflat	0	0	0	0	0	0	0

Mitigation Credit Summary: All Sites

The three FNW sites produced 4.62 credit acres combined in 2022. However, the number of credit acres earned does not include any credits for either the open water or the mud flats that are present at the FNW West site. Once credit ratios are determined for these two habitat types, the site will likely receive additional credit acres. Options to include open water and mudflats in the mitigation crediting scheme require approval from USACE and are currently pending. Given that crediting ratios are unknown for

these two habitat types, the FNW mitigation sites will need to earn an additional 8.33 credits to satisfy the 12.95 debits acres created by the Volborg – North and South and Forsyth Northwest construction projects (Table 8).

Table 8. 2022 Credit/Debit Summary for the Forsyth – Northwest Project

Project Site	Actual Acres	Туре	Debit Ratio	Debit Acres
	1.71	Creation Credit	1:1	1.71
NAV. ALGUE	1.29	Preservation Credit	4:1	0.32
West Site (Site 1)	3.01	Upland Buffer Credit	5:1	0.60
(Site 1)	8.26	Open Water Credit ^a	TBD	TBD
	0.51	Mud Flat Credit ^a	TBD	TBD
Middle Site	0.58	Creation Credit	1:1	0.58
(Site 2)	1.22	Upland Buffer Credit	5:1	0.24
East Site	0.74	Creation Credit	1:1	0.74
(Site 3)	2.00	Upland Buffer Credit	5:1	0.40
Total	19.32	To	otal Credits	4.62

⁽a) Open water and mud flat credit ratio and associated credit acreage are to be determined (TBD)

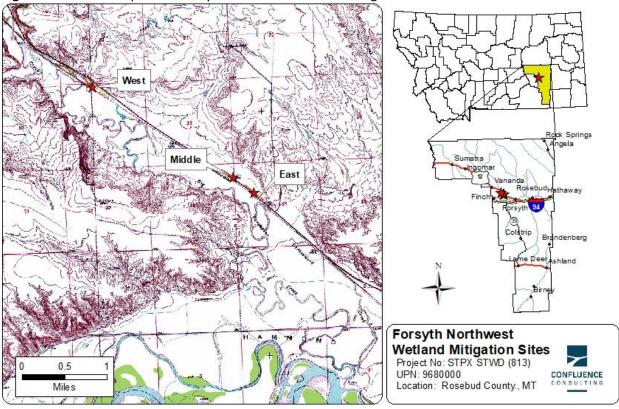
Conclusions

Formal performance standards were not developed as part of the mitigation plan for the FNW sites. All three sites have developed wetland habitat as intended and positive indicators of wetland vegetation, hydric soils, and wetland hydrology have been consistently observed across all monitoring years. All sites are stable and have less than 5 percent total noxious weed cover.

All three FNW sites were wetter in 2022 than in the previous two years. The FNW-West site contained more open water in 2022 than in 2021, and this change resulted in a site-wide reduction of mudflat habitat due to increased inundation. Additionally, some habitat previously mapped as mudflat transitioned into PEM wetland due to increased wetland vegetation growth. These Community Type shifts were not reflected in the data collected along the vegetation transects due to the transects not overlapping the locations where these changes were observed. The FNW-Middle and East sites exhibited vegetation community shifts which resulted in more hydrophytic species cover, and more obvious hydric soil indicators. The wetland area in FNW-East site also expanded by 0.15 acres in 2022. These changes are likely the result of large amounts of precipitation experienced in the spring of 2022, and the corresponding drought cessation. Should similar conditions persist over the next year, the wetland acreage is likely to increase again in 2023.

Maps, Plans, Photos

Figure 1. Location map of the Forsyth Northwest wetland mitigation sites.



Project Area Maps/Figures: See Appendix A.

Data Forms: See Appendix B (Site Monitoring form, Table B-1: plant list, USACE data forms, and MWAM forms).

Photos: See Appendix C.

Plans: See Appendix D of 2013 Forsyth Northwest Monitoring Report located on the MDT website at this link:

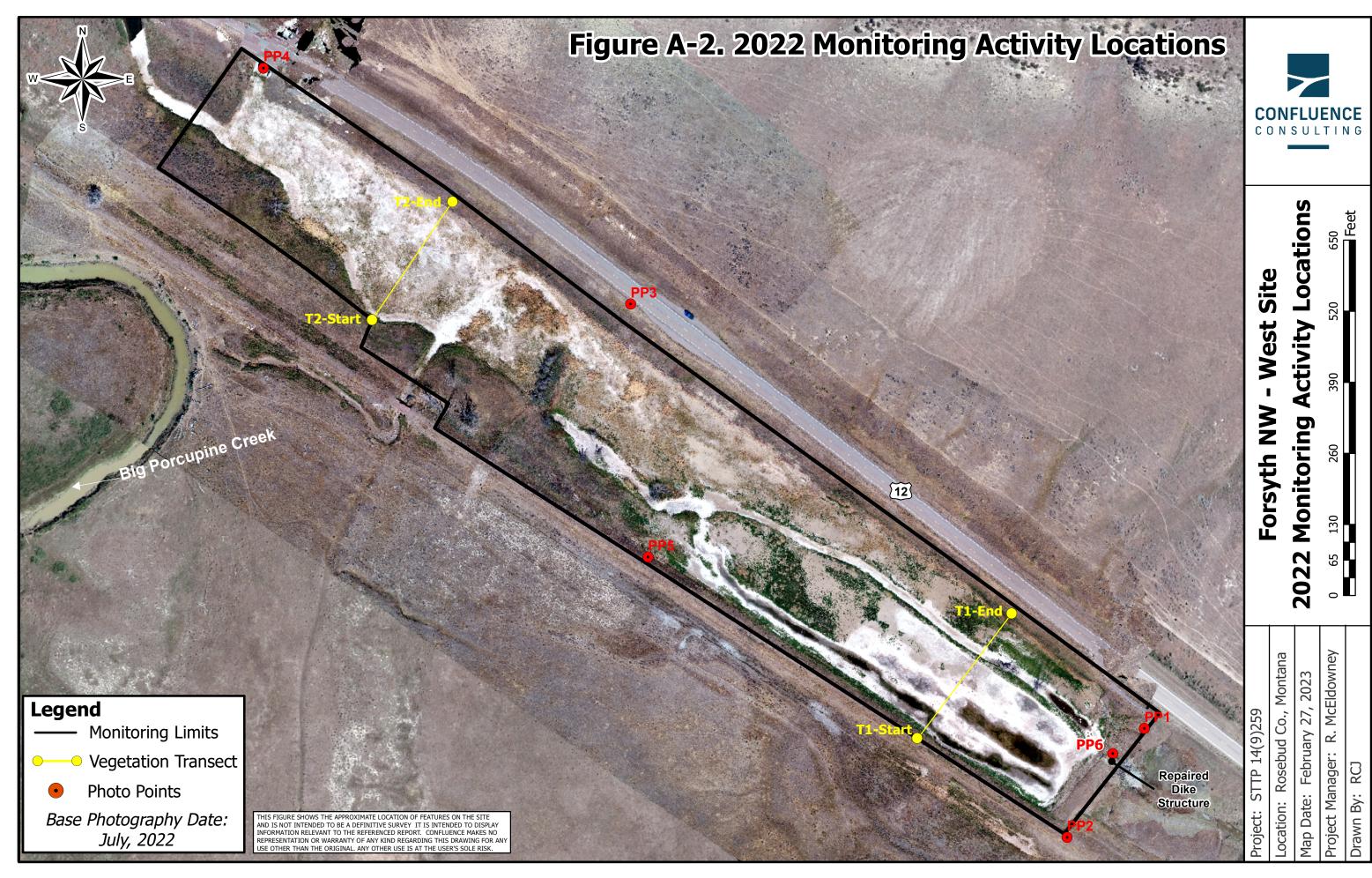
https://www.mdt.mt.gov/publications/brochures/wetland-mitigation.aspx

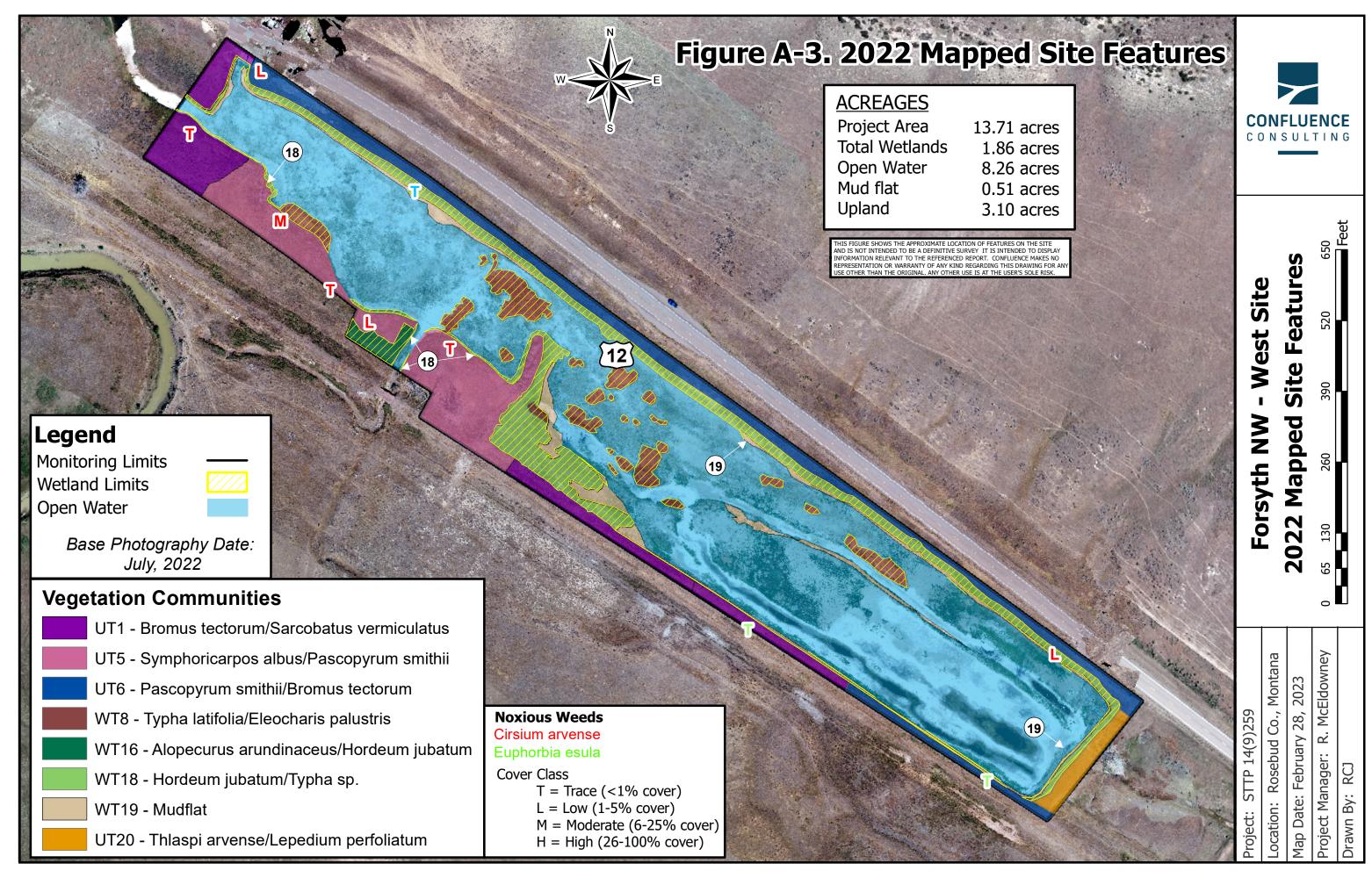
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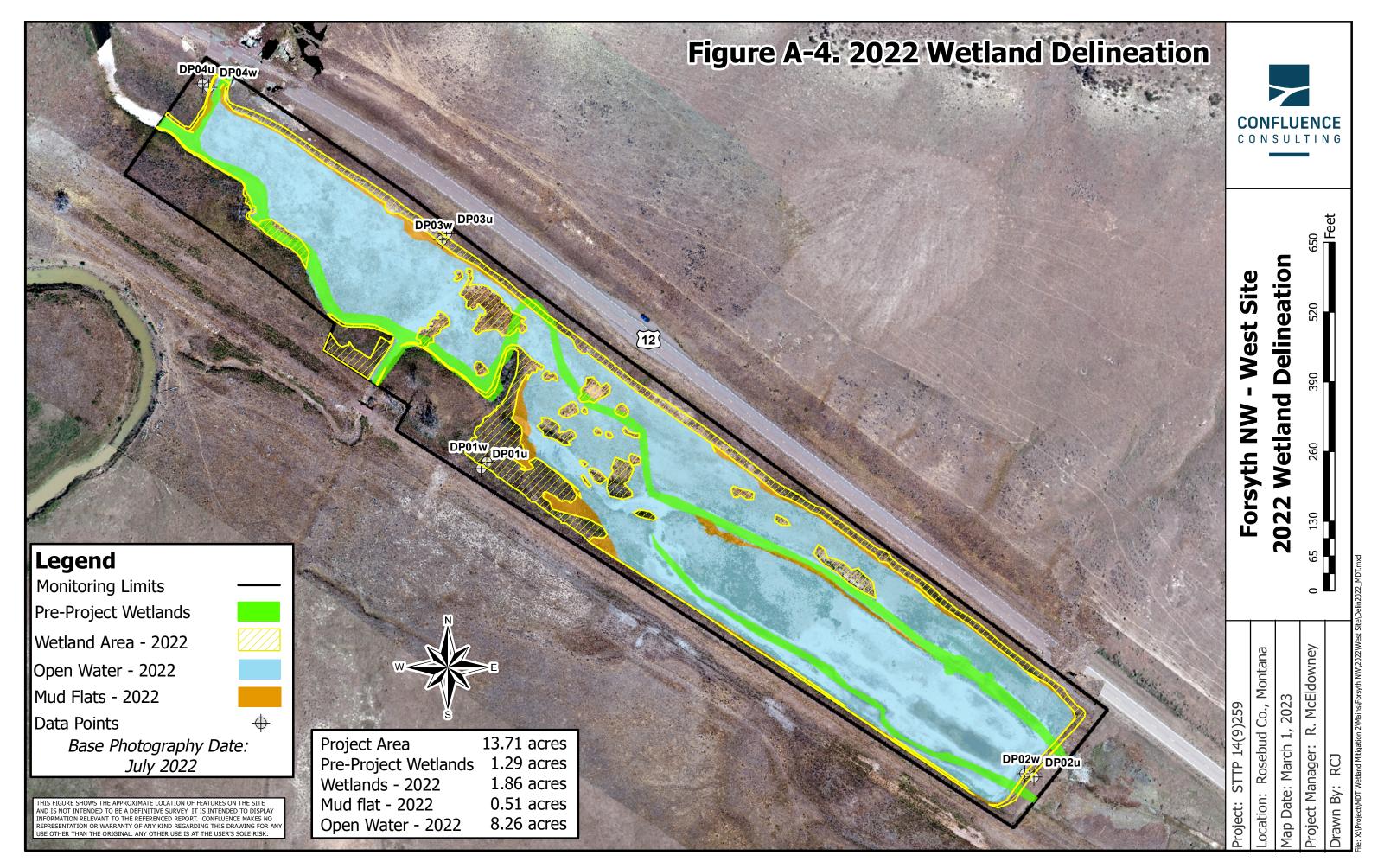
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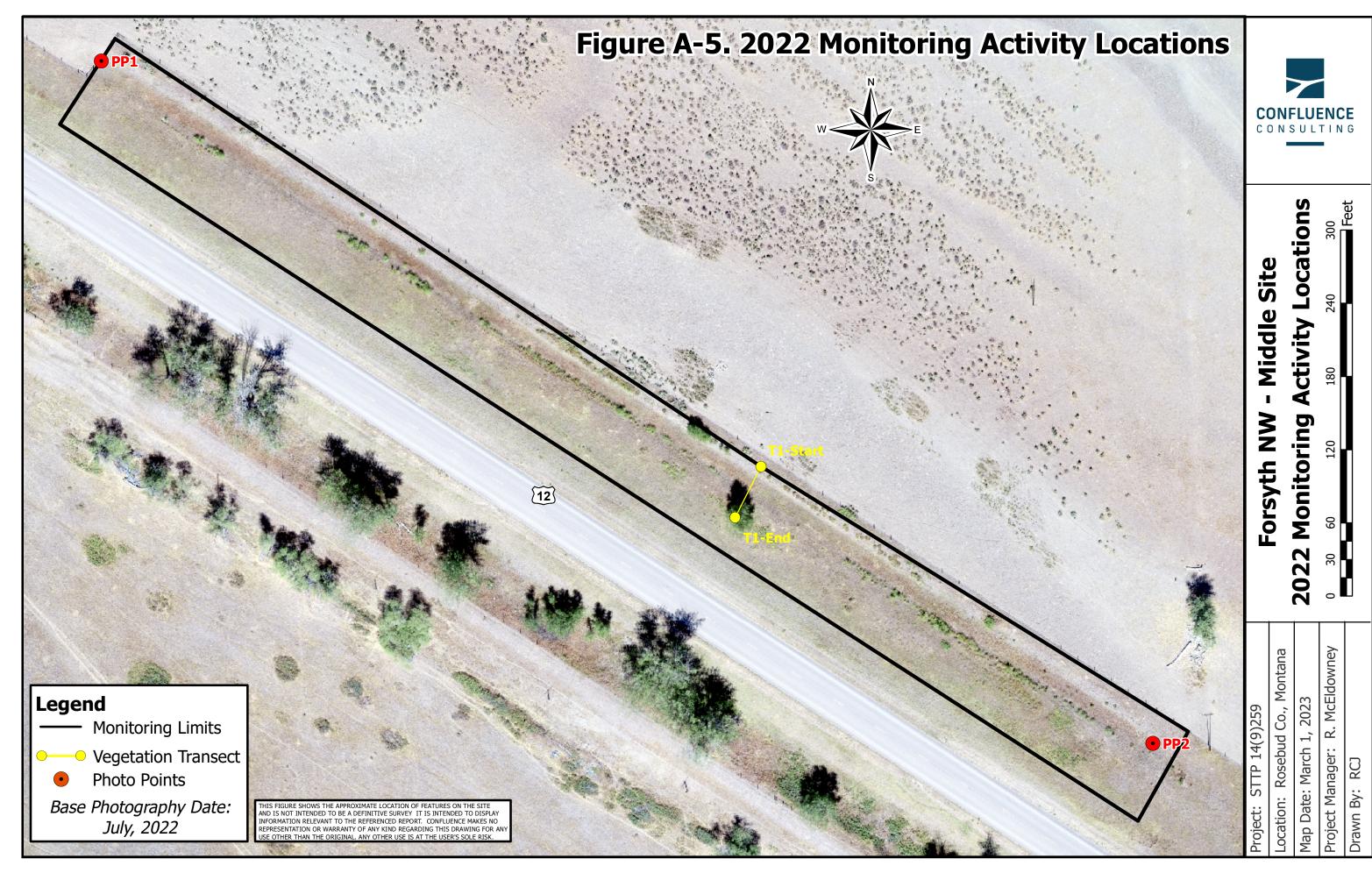
APPENDIX A PROJECT AREA MAPS

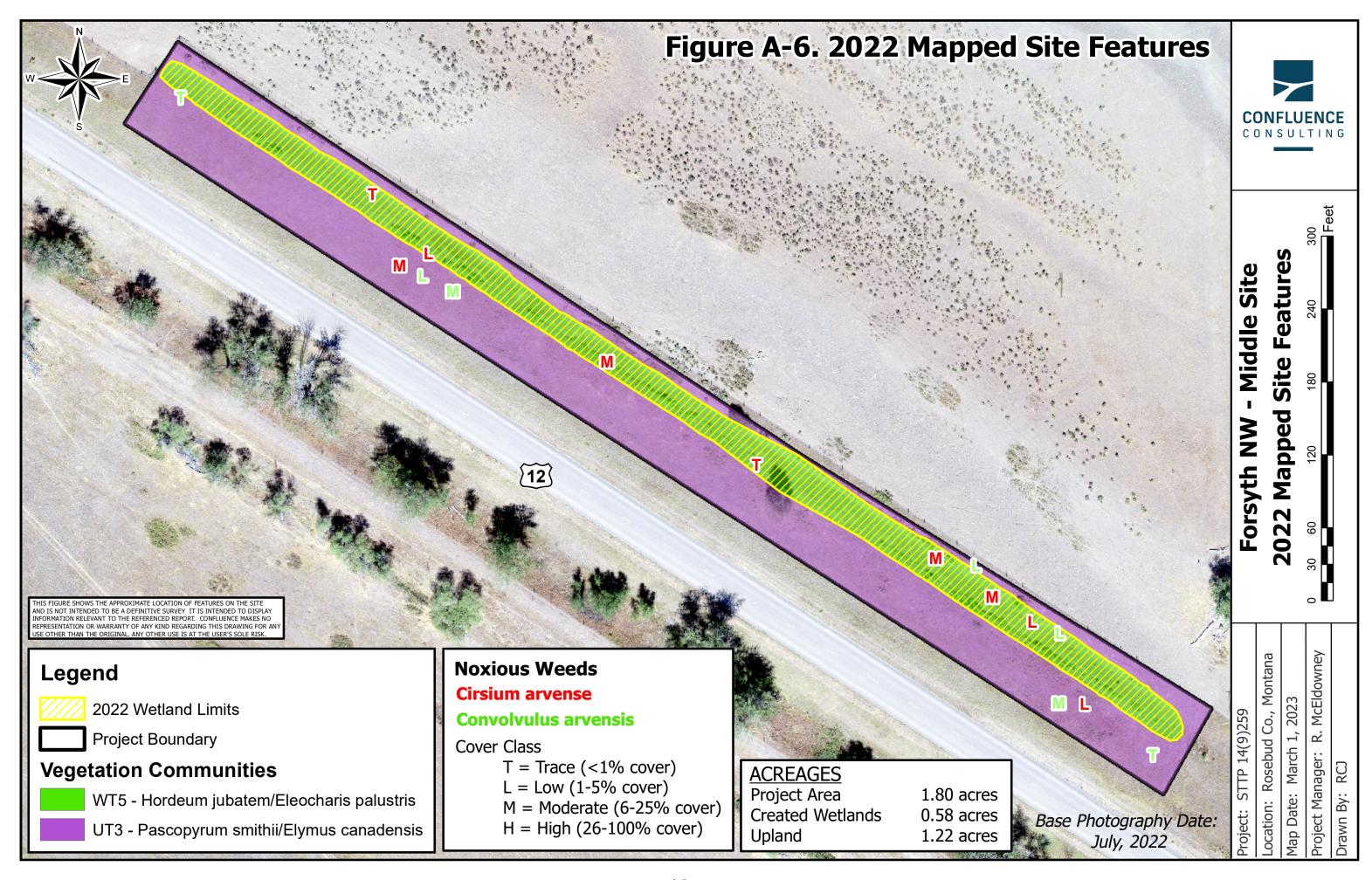
MDT Wetland Mitigation Monitoring Forsyth Northwest – West, Middle, and East Sites Rosebud County, Montana

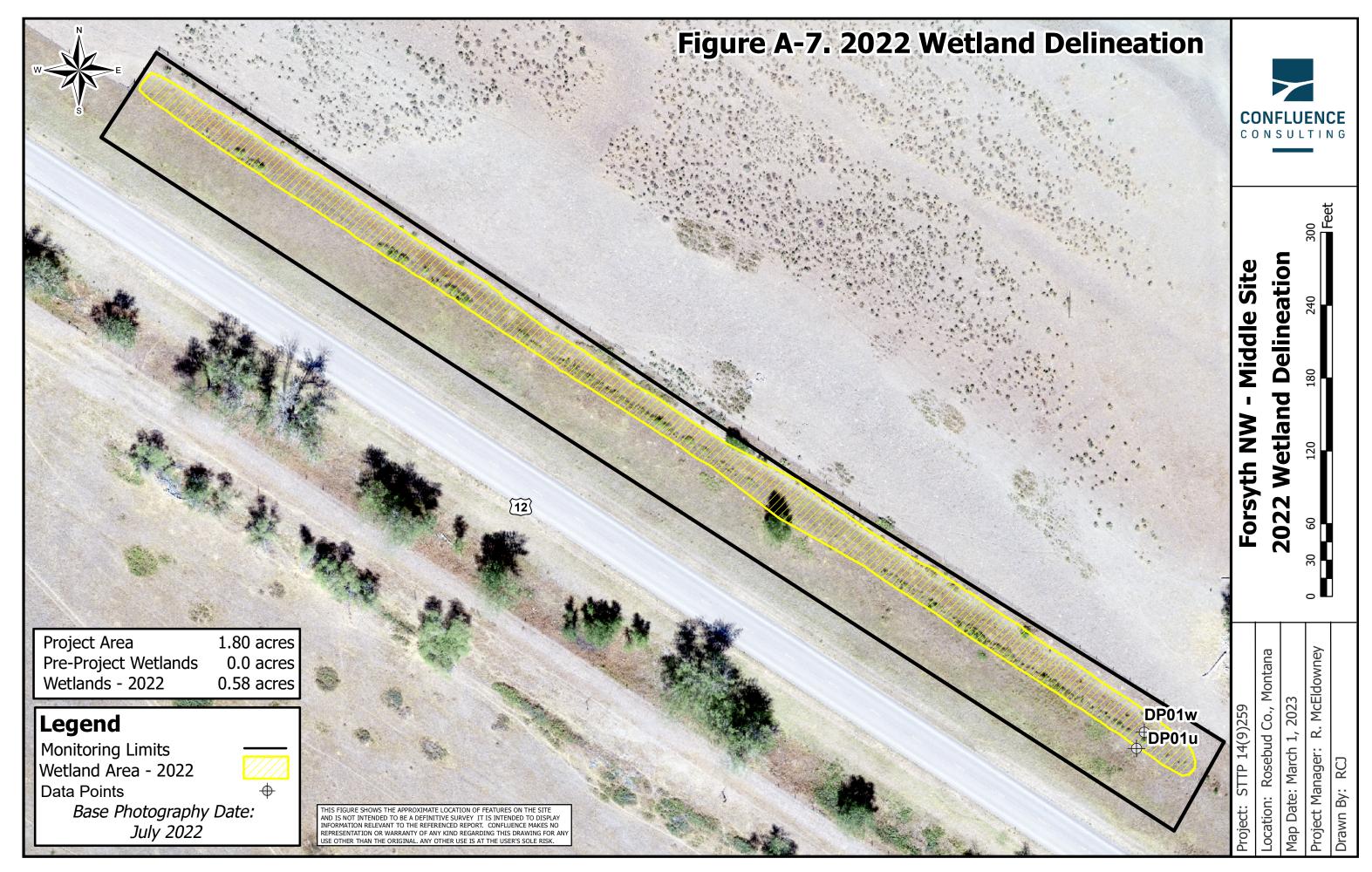


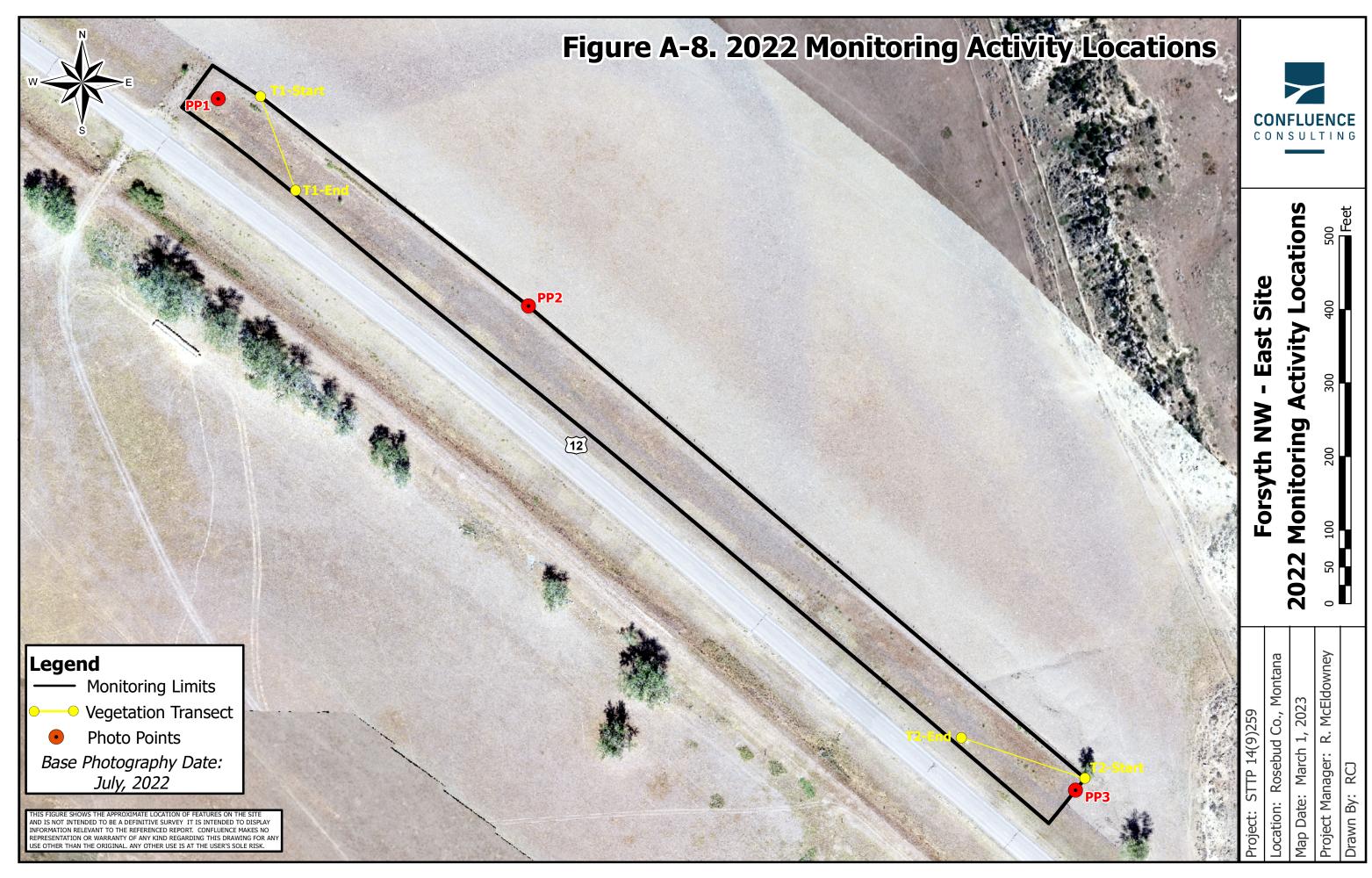


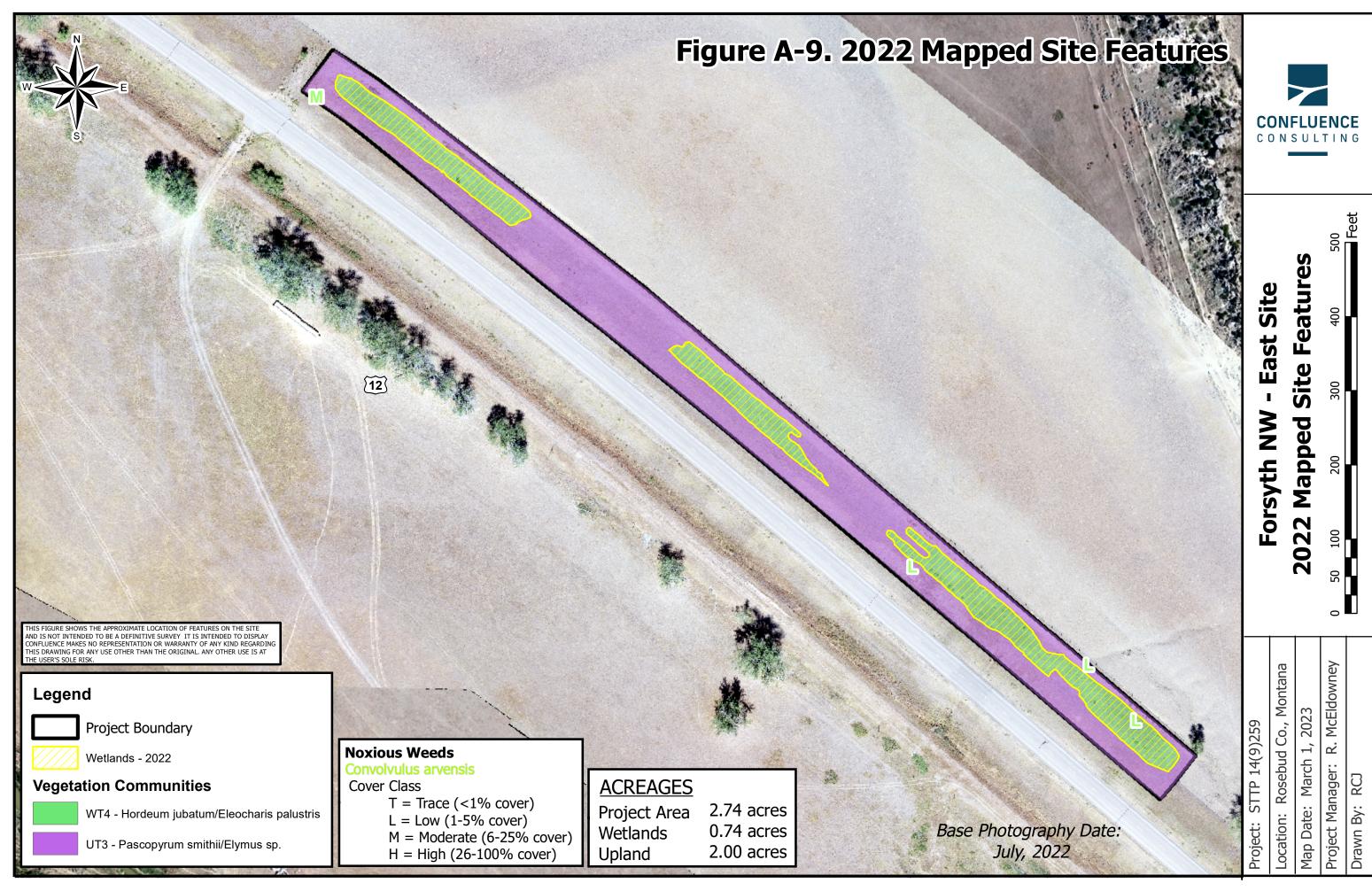


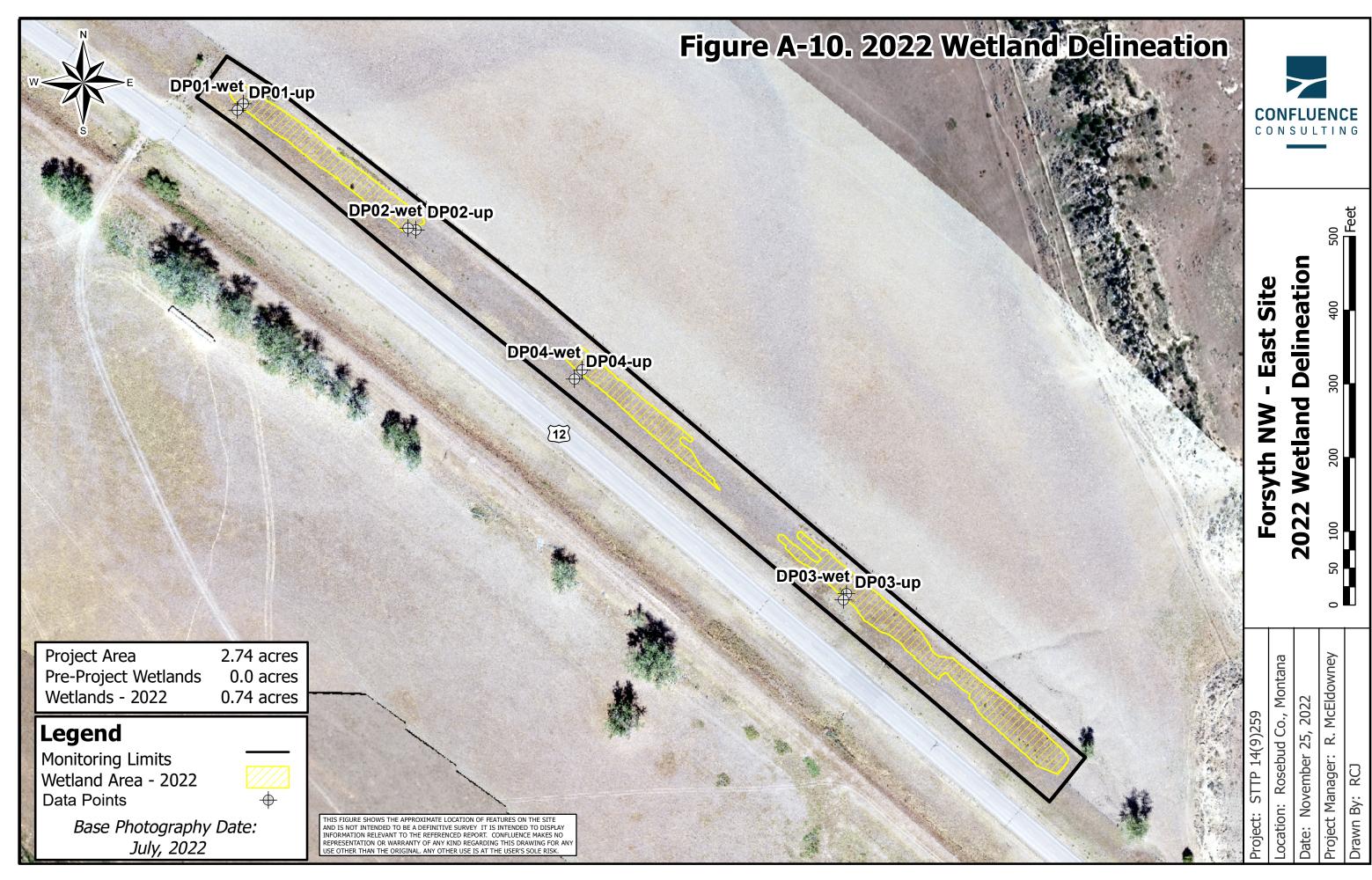












APPENDIX B MONITORING FORMS

MDT Wetland Mitigation Monitoring Forsyth Northwest – West, Middle, and East Sites Rosebud County, Montana

Project/Site: Forsyth NW (East)	Ci	ty/County: Rosebud		Sampling Da	ate: 6/1/2022
Applicant/Owner: MDT					
Investigator(s): R Jones		ection, Township, Rar	ge: 34	7N	39E
Landform (hillslope, terrace, etc.): Hillside					Slope (%): 36
Subregion (LRR): LRR G					
Soil Map Unit Name: 98: Harlem Silty Clay, 0 to 2 percentage	ent slopes, o	occasionally flooded	NIVA/I cla	esification. Not m	apped
Are climatic / hydrologic conditions on the site typical for this					
Are Vegetation, Soil, or Hydrology s					. ✓ Na □
Are Vegetation, Soil, or Hydrology r	ignificantly di	sturbed? Are i	Normal Circumstant	es present? Yes	, NO
SUMMARY OF FINDINGS – Attach site map					
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Remarks: This point is located adjacent to SP01w or		Is the Sampled within a Wetlan	Area d? Yes		
VEGETATION - Use scientific names of plan		ile southwest of the	e welland cell.		
Absolute	Domiant	Indicator	Dominance Tes	t worksheet	
Ties Stratum 1 lot 3/20 (50 1 oot radius) % Cover.	Species?	Status	Number of Domin that are OBL, FA		0 (A)
			Total Number of Species Across A		1 (B)
Sapling/Shrub Stratum Plot size (15 Foot Radius)			Percent of Domir That Are OBL, F		0.0 % (A/B)
<u>Japhing/Onlub Stratum</u> 1 lot 3/20 (15 1 oot readius)			Prevalence Inde	x worksheet	
			Total % Co		Multiply by:
			OBL species	0 X1	0
			FACW species FAC species	0 X2 2 X3	6
			FACU species		240
Herbaceous Stratum Plot size (5 Foot Radius) Bromus tectorum 2		NL	UPL species	2 X5	10
Bromus tectorum 2 Lactuca serriola 2		FAC	Column Totals	64 (A)	256 (B)
Pascopyrum smithii 50		FACU			4.00
Poa pratensis 5	<u> </u>	FACU		Index = B/A =	
Thlaspi arvense 5		FACU		getation Indicator Test for Hydrophy	
				nance Test is >50%	-
			l _	lence Index is <= 3	
				nological Adaptatio g data in remarks	`
			5 - Wetlar	nd Non-Vascular F	Plants
			☐ Problema	itic Hydrophytic Ve	egetation (Explain)
Woody Vine Stratum Plot size (30 Foot Radius)			Indicators of hydric present, unless dis	sil and wetland h	ydrology must be
Percent Bare Ground 36			Hydrophytic Veg Present?	-	□ NO 🗹
Remarks: The sample location is dominated by facultative-upl	and species	, and there is no ev	idence of a hydro	phytic plant con	nmunity present.

SOIL Sampling Point: DP-01u Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Matrix Redox Features % Loc² Color (moist) Type¹ Texture Color (moist) (inches) 0-03 4/2 100 2.5Y Sandy Clay Loam 03-16+ 100 2.5Y 4/2 Clay ²Location: PL=Pore Lining, M=Matrix. ¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils³: Histosol (A1) Sandy Gleyed Matrix (S4) 1 cm Muck (A9) (**LRR I, J**) Histic Epipedon (A2) Sandy Redox (S5) Coast Prairie Redox (A16) (LRR F, G, H) Black Histic (A3) Stripped Matrix (S6) Dark Surface (S7) (LRR G) Loamy Mucky Mineral (F1) Hydrogen Sulfide (A4) High Plains Depressions (F16) Loamy Gleyed Matrix (F2) Stratified Layers (A5) (LRR F) (LRR H outside of MLRA 72 & 73) \perp 1 cm Muck (A9) (LRR F, G, H) Depleted Matrix (F3) Reduced Vertic (F18) Redox Dark Surface (F6) Red Parent Material (TF2) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Very Shallow Dark Surface (TF12) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Redox Depressions (F8) Other (Explain in Remarks) High Plains Depressions (F16) ³Indicators of hydrophytic vegetation and 2.5 cm Mucky Peat or Peat (S2) (LRR G, H) 5 cm Mucky Peat or Peat (S3) (LRR F) (MLRA 72 & 73 of LRR H) wetland hydrology must be present. unless disturbed or problematic. Restrictive Layer (if present): Type: Hydric Soil Present? Depth (inches): Remarks: No hydric soil indicators observed. **HYDROLOGY** Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Secondary Indicators (minimum of two required) Surface Water (A1) Salt Crust (B11) Surface Soil Cracks (B6) High Water Table (A2) Aquatic Invertebrates (B13) Sparsely Vegetated Concave Surface (B8) Hydrogen Sulfide Odor (C1) Saturation (A3) Drainage Patterns (B10) Water Marks (B1) Dry-Season Water Table (C2) Oxidized Rhizospheres on Living Roots (C3) Oxidized Rhizospheres on Living Roots (C3) Sediment Deposits (B2) (where tilled) Drift Deposits (B3) (where not tilled) Crayfish Burrows (C8) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Saturation Visible on Aerial Imagery (C9) Iron Deposits (B5) Thin Muck Surface (C7) Geomorphic Position (D2) Inundation Visible on Aerial Imagery (B7) FAC-Neutral Test (D5) Other (Explain in Remarks) Water-Stained Leaves (B9) Frost-Heave Hummocks (D7) (LRR F) Field Observations: Yes No Depth (inches): Surface Water Present? Yes ____ No ___ Depth (inches): Water Table Present? Wetland Hydrology Present? Yes No Yes ____ No ___ Depth (inches): _____ Saturation Present? (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: No evidence of wetland hydrology observed.

Project/Site: Forsyth NW (East)	City/County: Rosebud	Sampling Date:6/1/20)22
		State: Montana Sampling Point: DP-01w	
Investigator(s): R Jones			
Landform (hillslope, terrace, etc.): Swale			1
		Long: -106.83866 Datum: NAD 83	
Soil Map Unit Name: 98: Harlem Silty Clay, 0 to 2 percent slopes	s, occasionally flooded	NWI classification: Not mapped	
Are climatic / hydrologic conditions on the site typical for this time of ye			
Are Vegetation, Soil, or Hydrology significantly			
Are Vegetation, Soil, or Hydrology naturally pr	oblematic? (If nee	ded explain any answers in Remarks.)	
SUMMARY OF FINDINGS – Attach site map showing			etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Yes No No Remarks: This is a second of the		d? Yes <u>V</u> No <u> </u>	
Remarks: This point is located in a PEM, depressional wetland	I at the west end of the	exavated wetland cell.	
VEGETATION - Use scientific names of plant Absolute Domian	t Indicator		
<u>Tree Stratum</u> Plot size (30 Foot Radius) Absolute Domian Species		Dominance Test worksheet	ļ
		Number of Dominant Species that are OBL, FACW or FAC: 2 (A)	
		Total Number of Dominant Species Across All Strata: 2 (B)	
Carling/Chruh Ctratum Diot cizo (15 Foot Padius)		Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0 % (A/B))
Sapling/Shrub Stratum Plot size (15 Foot Radius)		Prevalence Index worksheet Total % Cover of: Multiply by:	
		OBL species 20 X 1 20	_
		FACW species 45 X 2 90	
		FAC species 2 X 3 6	
Herbaceous Stratum Plot size (5 Foot Radius)		FACU species 1 X 4 4	
Alopecurus arundinaceus 45	FACW	UPL species 0 X 5 0	
Eleocharis palustris 20	OBL	Column Totals 68 (A) 120 ((B)
Lactuca serriola 2	FAC	Prevalence Index = B/A = 1.76	
Thlaspi arvense 1	FACU	Hydrophytic Vegetation Indicators	
		1 - Rapid Test for Hydrophytic Vegetation	
		✓ 2 - Dominance Test is >50%	
		✓ 3 - Prevalence Index is <= 3.0	
		 4 - Morphological Adaptations (Provide supporting data in remarks or on separate sheet. 	
		5 - Wetland Non-Vascular Plants	
		Problematic Hydrophytic Vegetation (Explain	n)
Woody Vine Stratum Plot size (30 Foot Radius)		Indicators of hydric sil and wetland hydrology must be present, unless disturbed or problematic for #3, 4, 5.	e
	ľ	Hydrophytic Vegetation Present? Yes V NO	
Percent Bare Ground 32 Remarks:		Present:	
Evidence of a hydrophytic plant community is present in a po	sitive dominance test a	and a low prevalence index.	

SOIL Sampling Point: DP-01w Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Matrix Redox Features Color (moist) Color (moist) Loc² Type Texture (inches) Remarks 0-02 4/2 7 С 2.5 93 2.5YR 3/6 M, PL Clay 02-16+ 2.5Y С 4/2 7.5YR 4/4 2 68 M Clay 02 - 16 +5G 4/1 30 D M Clay ²Location: PL=Pore Lining, M=Matrix. ¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils³: Histosol (A1) 1 cm Muck (A9) (**LRR I, J**) Sandy Gleyed Matrix (S4) Histic Epipedon (A2) Sandy Redox (S5) Coast Prairie Redox (A16) (LRR F, G, H) Black Histic (A3) Stripped Matrix (S6) Dark Surface (S7) (LRR G) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) High Plains Depressions (F16) ✓ Loamy Gleyed Matrix (F2) Stratified Layers (A5) (LRR F) (LRR H outside of MLRA 72 & 73) \perp 1 cm Muck (A9) (LRR F, G, H) Depleted Matrix (F3) Reduced Vertic (F18) Redox Dark Surface (F6) Red Parent Material (TF2) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Very Shallow Dark Surface (TF12) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Redox Depressions (F8) Other (Explain in Remarks) High Plains Depressions (F16) ³Indicators of hydrophytic vegetation and 2.5 cm Mucky Peat or Peat (S2) (LRR G, H) 5 cm Mucky Peat or Peat (S3) (LRR F) (MLRA 72 & 73 of LRR H) wetland hydrology must be present. unless disturbed or problematic. Restrictive Layer (if present): Type: Hydric Soil Present? Depth (inches): Remarks: Prominent redoximorphic concentrations common within the depleted and gleyed matrix. **HYDROLOGY** Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Secondary Indicators (minimum of two required) Surface Water (A1) Salt Crust (B11) ✓ Surface Soil Cracks (B6) High Water Table (A2) Aguatic Invertebrates (B13) Sparsely Vegetated Concave Surface (B8) Saturation (A3) Hydrogen Sulfide Odor (C1) Drainage Patterns (B10) Water Marks (B1) Dry-Season Water Table (C2) Oxidized Rhizospheres on Living Roots (C3) ✓ Oxidized Rhizospheres on Living Roots (C3) (where tilled) Sediment Deposits (B2) Drift Deposits (B3) (where not tilled) Crayfish Burrows (C8) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Saturation Visible on Aerial Imagery (C9) Iron Deposits (B5) Thin Muck Surface (C7) Geomorphic Position (D2) Inundation Visible on Aerial Imagery (B7) FAC-Neutral Test (D5) Other (Explain in Remarks) Water-Stained Leaves (B9) Frost-Heave Hummocks (D7) (LRR F) Field Observations: Yes No Depth (inches): Surface Water Present? Yes No Depth (inches): Water Table Present? Wetland Hydrology Present? Yes No Yes ____ No ____ Depth (inches): ___ Saturation Present? (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Evidence of wetland hydrology present in oxidized rhizospheres, surface soil cracks, a geomorphic position that supports wetland hydrology, and a positive FAC-neutral test.

Project/Site: Forsyth NW (East)	City/County: Rosebud		_ Sampling Date: _	6/1/2022
Applicant/Owner: MDT			_ Sampling Point: <u> </u>	
• •	Section, Township, Rang		N 39E	
Landform (hillslope, terrace, etc.): Swale	Local relief (concave, co	onvex, none): flat	Slop	pe (%):3
Subregion (LRR): LRR G	Lat: 46.320438	Long:	06.837783 _{Datu}	m: NAD 83
Soil Map Unit Name: 98: Harlem Silty Clay, 0 to 2 percer	nt slopes, occasionally flooded	NWI classifi	cation: Not mappe	ed
Are climatic / hydrologic conditions on the site typical for this				
Are Vegetation, Soil, or Hydrology sig	gnificantly disturbed? Are "N	lormal Circumstances"	present? Yes	No
Are Vegetation, Soil, or Hydrology na	turally problematic? (If nee	ded, explain any answ	ers in Remarks.)	
SUMMARY OF FINDINGS – Attach site map s				atures, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Remarks: This is a PEM, depressional wetland located	within a Wetland	l? Yes	✓ No □	-
VEGETATION - Use scientific names of plant				
Tree Street and Plot size (20 Feet Redive) Absolute	Domiant Indicator	Dominance Test wo	rksheet	
Tree Stratum Plot size (30 Foot Radius) % Cover:	Species? Status	Number of Dominant that are OBL, FACW	Species	2 _(A)
		Total Number of Dom Species Across All S		2 (B)
Sapling/Shrub Stratum Plot size (15 Foot Radius)		Percent of Dominant That Are OBL, FACV		0 % (A/B)
		Prevalence Index w Total % Cover of OBL species FACW species FAC species	of: Mu 10 X1 32 X2 0 X3	110 64 0
Herbaceous Stratum Plot size (5 Foot Radius)		FACU species	10 X4	40
Alopecurus arundinaceus 25	✓ FACW	UPL species		0
Eleocharis palustris 10	✓ OBL	Column Totals	52 (A)	114 (B)
Hordeum jubatum 5	FACW	Prevalence Inde	ex = B/A =	2.19
Juncus balticus 2	FACW FACU	Hydrophytic Vegeta		
Pascopyrum smithii 5 Poa pratensis 5	FACU FACU		st for Hydrophytic Ve	egetation
roa praterioio	<u> </u>		ce Test is >50%	
		✓ 3 - Prevalenc	e Index is <= 3.0	
		supporting da sheet.	gical Adaptations (P ata in remarks or on Non-Vascular Plants	ı separate
		☐ Problematic H	Hydrophytic Vegetat	tion (Explain)
Woody Vine Stratum Plot size (30 Foot Radius)		Indicators of hydric sil a present, unless disturb		
Percent Bare Ground 48		Hydrophytic Vegeta Present?	Yes 🗸	NO \square
Remarks:				
Evidence of a hydrophytic plant community present ir	າ a positive dominance test and	d a prevalence index	c below three.	

SOIL Sampling Point: DP-02w Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Redox Features Loc² Color (moist) Color (moist) Texture (inches) 0-02 2.5YR 4/2 100 Clay 02-12 7.5YR С PL2.5Y 4/2 5/8 5 Clay 95 12-16+ 2.5Y 4/3 93 7.5YR 4/6 70 CS Fine Sandy Clay ²Location: PL=Pore Lining, M=Matrix. ¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils³: Histosol (A1) 1 cm Muck (A9) (**LRR I, J**) Sandy Gleyed Matrix (S4) Histic Epipedon (A2) Sandy Redox (S5) Coast Prairie Redox (A16) (LRR F, G, H) Black Histic (A3) Stripped Matrix (S6) Dark Surface (S7) (LRR G) Loamy Mucky Mineral (F1) High Plains Depressions (F16) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Stratified Layers (A5) (LRR F) (LRR H outside of MLRA 72 & 73) ✓ Depleted Matrix (F3) \perp 1 cm Muck (A9) (LRR F, G, H) Reduced Vertic (F18) Redox Dark Surface (F6) Red Parent Material (TF2) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Very Shallow Dark Surface (TF12) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Redox Depressions (F8) Other (Explain in Remarks) High Plains Depressions (F16) ³Indicators of hydrophytic vegetation and 2.5 cm Mucky Peat or Peat (S2) (LRR G, H) 5 cm Mucky Peat or Peat (S3) (LRR F) (MLRA 72 & 73 of LRR H) wetland hydrology must be present. unless disturbed or problematic. Restrictive Layer (if present): Type: Hydric Soil Present? Depth (inches): Remarks: Prominent redoximorphic concentrations common in the depleted matrix. **HYDROLOGY** Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Secondary Indicators (minimum of two required) Surface Water (A1) Salt Crust (B11) ✓ Surface Soil Cracks (B6) High Water Table (A2) Aquatic Invertebrates (B13) Sparsely Vegetated Concave Surface (B8) Hydrogen Sulfide Odor (C1) Saturation (A3) Drainage Patterns (B10) Water Marks (B1) Dry-Season Water Table (C2) Oxidized Rhizospheres on Living Roots (C3) Oxidized Rhizospheres on Living Roots (C3) Sediment Deposits (B2) (where tilled) Drift Deposits (B3) (where not tilled) Crayfish Burrows (C8) ✓ Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Saturation Visible on Aerial Imagery (C9) Iron Deposits (B5) Thin Muck Surface (C7) Geomorphic Position (D2) Inundation Visible on Aerial Imagery (B7) FAC-Neutral Test (D5) Other (Explain in Remarks) ✓ Water-Stained Leaves (B9) Frost-Heave Hummocks (D7) (LRR F) Field Observations: Yes No Depth (inches): Surface Water Present? Yes Depth (inches): Water Table Present? Wetland Hydrology Present? Yes No Yes ____ No ____ Depth (inches): _____ Saturation Present? (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Evidence of wetland hydrology observed in algal mats and water stained leaves, as well as surface soil cracks.

Project/Site: Forsyth NW (East)		City/County: Rosel	bud	Sampling Date: 6/1/2022
Applicant/Owner: MDT			State: Montana	
Investigator(s): R Jones				
Landform (hillslope, terrace, etc.): Hills				
				06.835472 _{Datum:} NAD 83
Soil Map Unit Name: 98: Harlem Silty				
Are climatic / hydrologic conditions on t				
Are Vegetation, Soil, or	Hydrology significan	tly disturbed? A	re "Normal Circumstances" p	present? Yes <u>V</u> No <u> </u>
Are Vegetation, Soil, or	Hydrology naturally	problematic? (I	f needed, explain any answe	rs in Remarks.)
SUMMARY OF FINDINGS - A	ttach site map showi	ng sampling poir	ıt locations, transects	, important features, etc.
		within a We	etland? Yes	No
VEGETATION - Use scientific	c names of plant			
<u>Tree Stratum</u> Plot size (30 Foot	Absolute Domi		Dominance Test wor	rksheet
1100 3120 (30 1 000	Radius) % Cover: Speci	es? Status	Number of Dominant that are OBL, FACW	
			Total Number of Dom Species Across All St	0
Sapling/Shrub Stratum Plot size	(15 Foot Radius)		Percent of Dominant S That Are OBL, FACW	
<u></u>	(10 1 001 1 1 1 1 1 1 1 1		Prevalence Index wo	orksheet
			Total % Cover of	
			OBL species FACW species	-
			FAC species	2 X3 6
Harte and Otractions District	(F. Frat Dadius)			67 X 4 268
Herbaceous Stratum Plot size Lactuca serriola	(5 Foot Radius)	FAC	UPL species	0 X 5 0
Pascopyrum smithii	30	FACU	Column Totals	69 (A) 274 (B)
Poa compressa	20	FACU	Prevalence Inde	
Poa pratensis	10	FACU		X 5//X
Schedonorus pratensis	2 🗌	FACU	Hydrophytic Vegetat	t for Hydrophytic Vegetation
Thlaspi arvense	5 🗌	FACU		e Test is >50%
				e Index is <= 3.0
				ical Adaptations (Provide ta in remarks or on separate
			5 - Wetland N	on-Vascular Plants
			Problematic H	ydrophytic Vegetation (Explain)
Woody Vine Stratum Plot size	(30 Foot Radius)		Indicators of hydric sil a	and wetland hydrology must be ed or problematic for #3, 4, 5.
Percent Bare Ground 31			Hydrophytic Vegetat Present?	·
Percent Bare Ground 31 Remarks:				
The site is dominated by upland fa	acultative species.			

SOIL Sampling Point: DP-03u Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Matrix Redox Features Color (moist) Loc² <u>Texture</u> Color (moist) (inches) 0-04 2.5Y 4/2 Clay 04-16+ 2.5Y 5/2 90 2.5Y 4/1 10 \Box M Clay ²Location: PL=Pore Lining, M=Matrix. ¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils³: Histosol (A1) 1 cm Muck (A9) (**LRR I, J**) Sandy Gleyed Matrix (S4) Histic Epipedon (A2) Sandy Redox (S5) Coast Prairie Redox (A16) (LRR F, G, H) Black Histic (A3) Stripped Matrix (S6) Dark Surface (S7) (LRR G) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) High Plains Depressions (F16) Loamy Gleyed Matrix (F2) Stratified Layers (A5) (LRR F) (LRR H outside of MLRA 72 & 73) \perp 1 cm Muck (A9) (LRR F, G, H) Depleted Matrix (F3) Reduced Vertic (F18) Redox Dark Surface (F6) Red Parent Material (TF2) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Very Shallow Dark Surface (TF12) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Redox Depressions (F8) Other (Explain in Remarks) High Plains Depressions (F16) ³Indicators of hydrophytic vegetation and 2.5 cm Mucky Peat or Peat (S2) (LRR G, H) 5 cm Mucky Peat or Peat (S3) (LRR F) (MLRA 72 & 73 of LRR H) wetland hydrology must be present. unless disturbed or problematic. Restrictive Layer (if present): Type: Hydric Soil Present? Depth (inches): Remarks: No hydric soil indicators observed. **HYDROLOGY** Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Secondary Indicators (minimum of two required) Surface Water (A1) Salt Crust (B11) Surface Soil Cracks (B6) High Water Table (A2) Aquatic Invertebrates (B13) Sparsely Vegetated Concave Surface (B8) Hydrogen Sulfide Odor (C1) Saturation (A3) Drainage Patterns (B10) Water Marks (B1) Dry-Season Water Table (C2) Oxidized Rhizospheres on Living Roots (C3) Oxidized Rhizospheres on Living Roots (C3) Sediment Deposits (B2) (where tilled) Drift Deposits (B3) (where not tilled) Crayfish Burrows (C8) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Saturation Visible on Aerial Imagery (C9) Iron Deposits (B5) Thin Muck Surface (C7) Geomorphic Position (D2) Inundation Visible on Aerial Imagery (B7) FAC-Neutral Test (D5) Other (Explain in Remarks) Water-Stained Leaves (B9) Frost-Heave Hummocks (D7) (LRR F) Field Observations: Yes No Depth (inches): Surface Water Present? Yes ____ No ___ Depth (inches): Water Table Present? Wetland Hydrology Present? Yes No Yes ____ No ____ Depth (inches): ____ Saturation Present? (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: No evidence of wetland hydrology observed.

Project/Site: Forsyth NW (East)	City/County: Rosebud	Sam	oling Date:6/1/2022
		State: Montana Samp	
Investigator(s): R Jones			
Landform (hillslope, terrace, etc.): Swale			
Subregion (LRR): LRR G Lat:			
Soil Map Unit Name: 98: Harlem Silty Clay, 0 to 2 percent slopes			
Are climatic / hydrologic conditions on the site typical for this time of ye			
Are Vegetation, Soil, or Hydrology significantly			
Are Vegetation, Soil, or Hydrology significantly Are Vegetation, Soil, or Hydrology naturally pro	disturbed? Are inc	imal Circumstances present	(? Yes <u> </u>
SUMMARY OF FINDINGS – Attach site map showing		ations, transects, imp	Ortant Teatures, etc.
Hydrophytic Vegetation Present? Yes No	Is the Sampled A		
Hydric Soil Present? Wetland Hydrology Present? Yes ✓ No ☐ No ☐	within a Wetland?	? Yes <u> </u>	No
Wetland Hydrology Present? Yes V NO U			
Remarks: This point is located in a PEM, depressional wetland	on the southeast side	of the excavated wetland	cell.
			<u></u>
VEGETATION - Use scientific names of plant Absolute Domiant	Indicator		
Tree Stratum Plot size (30 Foot Radius) Absolute Bolliant Species Species		Dominance Test workshee	
		Number of Dominant Specie that are OBL, FACW or FAC	
		Total Number of Dominant Species Across All Strata:	1 (B)
Sapling/Shrub Stratum Plot size (15 Foot Radius)		Percent of Dominant Specie That Are OBL, FACW, or FA	AC: 100.0 % (A/B)
		Prevalence Index workshe Total % Cover of:	eet Multiply by:
		OBL species 10 X	
		FACW species 35 X	
		FAC species 10 X	
Herbaceous Stratum Plot size (5 Foot Radius)		FACU species 2 X	
Alopecurus arundinaceus 30	FACW	UPL species 0 X	(5 0
Eleocharis palustris 10	OBL	Column Totals 57	(A) 118 (B)
Hordeum jubatum 5	FACW	Prevalence Index = B/A	A = 2.07
Lactuca serriola 10	FAC	Hydrophytic Vegetation Inc	dicators
Pascopyrum smithii 2	FACU		drophytic Vegetation
		✓ 2 - Dominance Test	is >50%
		✓ 3 - Prevalence Index	is <= 3.0
		4 - Morphological Ad	lantations (Provide
		supporting data in re	emarks or on separate
		sheet.	
		☐ 5 - Wetland Non-Vas	cular Plants
Plant (CO Frat Pullius)		Problematic Hydroph	nytic Vegetation (Explain)
Woody Vine Stratum Plot size (30 Foot Radius)		ndicators of hydric sil and we resent, unless disturbed or p	
Percent Bare Ground 43		Hydrophytic Vegetation Present?	Yes ☑ NO □
Percent Bare Ground 43 Remarks:		11000	
Evidence of a hydrophytic plant community present in a positi	ve dominance test and	a prevalence index of les	s than 3.

SOIL Sampling Point: DP-03w Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Matrix Redox Features % Color (moist) Color (moist) Loc² Type Texture (inches) Remarks 0-05 83 10Y 10 2.5Y 4/2 4/1 \Box Clay M 0-05 2.5YR 5/8 7 С M Clay 05-16+2.5Y 4/2 75 2.5YR 4/8 5 С M Clay 05-16+ 20 2.5Y 4/1 D M Clay ²Location: PL=Pore Lining, M=Matrix. ¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils³: Histosol (A1) 1 cm Muck (A9) (**LRR I, J**) Sandy Gleyed Matrix (S4) Histic Epipedon (A2) Sandy Redox (S5) Coast Prairie Redox (A16) (LRR F, G, H) Black Histic (A3) Stripped Matrix (S6) Dark Surface (S7) (LRR G) Loamy Mucky Mineral (F1) Hydrogen Sulfide (A4) High Plains Depressions (F16) Loamy Gleyed Matrix (F2) Stratified Layers (A5) (LRR F) (LRR H outside of MLRA 72 & 73) ✓ Depleted Matrix (F3) \perp 1 cm Muck (A9) (LRR F, G, H) Reduced Vertic (F18) Redox Dark Surface (F6) Red Parent Material (TF2) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Very Shallow Dark Surface (TF12) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Redox Depressions (F8) Other (Explain in Remarks) High Plains Depressions (F16) ³Indicators of hydrophytic vegetation and 2.5 cm Mucky Peat or Peat (S2) (LRR G, H) 5 cm Mucky Peat or Peat (S3) (LRR F) (MLRA 72 & 73 of LRR H) wetland hydrology must be present. unless disturbed or problematic. Restrictive Layer (if present): Type: Hydric Soil Present? Depth (inches): Remarks: Prominent redoximorphic concentrations common in the depleted matrix. **HYDROLOGY** Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Secondary Indicators (minimum of two required) Surface Water (A1) Salt Crust (B11) ✓ Surface Soil Cracks (B6) High Water Table (A2) Aguatic Invertebrates (B13) Sparsely Vegetated Concave Surface (B8) Saturation (A3) Hydrogen Sulfide Odor (C1) Drainage Patterns (B10) Water Marks (B1) Dry-Season Water Table (C2) Oxidized Rhizospheres on Living Roots (C3) Oxidized Rhizospheres on Living Roots (C3) Sediment Deposits (B2) (where tilled) Drift Deposits (B3) (where not tilled) Crayfish Burrows (C8) ✓ Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Saturation Visible on Aerial Imagery (C9) Iron Deposits (B5) Thin Muck Surface (C7) Geomorphic Position (D2) Inundation Visible on Aerial Imagery (B7) FAC-Neutral Test (D5) Other (Explain in Remarks) ✓ Water-Stained Leaves (B9) Frost-Heave Hummocks (D7) (LRR F) Field Observations: Yes No Depth (inches): Surface Water Present? Yes ____ No ___ Depth (inches): Water Table Present? Wetland Hydrology Present? Yes No Yes ____ No ___ Depth (inches): ___ Saturation Present? (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Alongside algal mats, water stained leaves, surface soil cracks, and the geomorphic position of the point, the flow pattern at the sample point provided evidence of wetland hydrology.

Project/Site: Forsyth NW (East)	City/County: Rosebud	Sampling	Date: 6/1/2022
Applicant/Owner: MDT			
Investigator(s): R Jones			
Landform (hillslope, terrace, etc.): Swale			
Subregion (LRR): LRR G Lat:			
Soil Map Unit Name: 98: Harlem Silty Clay, 0 to 2 percent slop	es. occasionally flooded	NOT	mapped
Are climatic / hydrologic conditions on the site typical for this time of			Паррод
Are Vegetation, Soil, or Hydrology significan	itly disturbed? Are "No	rmal Circumstances" present? Y	es <u> </u>
Are Vegetation, Soil, or Hydrology naturally	problematic? (If need	ed, explain any answers in Remar	rks.)
SUMMARY OF FINDINGS – Attach site map showi	ng sampling point loo	ations, transects, importa	ant features, etc.
Hydrophytic Vegetation Present? Yes No	─ Is the Sampled A	roa	
Hydric Soil Present? Yes No		? YesNo _	✓
Wetland Hydrology Present? Yes No 🔽	_ Within a vectoria	103140	
Remarks: Upland sample point adjacent to DP-04w.			
VEGETATION - Use scientific names of plant			
Tree Stratum Plot size (30 Foot Radius) % Cover Spec		Dominance Test worksheet	
Tree Stratum Piot size (30 Foot Radius) % Cover: Spec	ies? Status	Number of Dominant Species that are OBL, FACW or FAC:	0 _(A)
		Total Number of Dominant Species Across All Strata:	1 (B)
Capling/Chart Charters Diet size (45 Feet Dedice)		Percent of Dominant Species That Are OBL, FACW, or FAC:	0.0 % (A/B)
Sapling/Shrub Stratum Plot size (15 Foot Radius)		Prevalence Index worksheet	
		Total % Cover of:	Multiply by:
		OBL species 0 X 1	0
		FACW species 0 X 2	0
		FAC species 6 X 3 FACU species 49 X 4	18
Herbaceous Stratum Plot size (5 Foot Radius)		UPL species 0 X 5	196 0
Chenopodium album 5	FACU		
Lactuca serriola 5	FAC	Column Totals 55 (A)	
Lepidium perfoliatum 1	FAC	Prevalence Index = B/A =	3.89
Pascopyrum smithii 30	FACU	Hydrophytic Vegetation Indicat	
Sisymbrium altissimum 4 Thlaspi arvense 10	FACU FACU	☐ 1 - Rapid Test for Hydropl	
Thiaspi aivense	1700	2 - Dominance Test is >50	0%
		3 - Prevalence Index is <=	= 3.0
		4 - Morphological Adaptat supporting data in remark	
		sheet.	-
		☐ 5 - Wetland Non-Vascular	Plants
Was du Vina Chrahum Platains (200 Fact Padius)		☐ Problematic Hydrophytic \	√egetation (Explain)
Woody Vine Stratum Plot size (30 Foot Radius)		ndicators of hydric sil and wetland present, unless disturbed or proble	
Percent Bare Ground 45		Hydrophytic Vegetation Ye	es NO 🗸
Remarks:			
The sample site is populated by facultative upland species	, and lacks a hydrophytic	vegetation indicator.	

SOIL Sampling Point: DP-04u Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Matrix Redox Features Loc2 Color (moist) Color (moist) Texture Remarks (inches) 0-02 Soil is very dry. 2.5Y 4/3 Clay Loam 02-08 2.5Y 4/2 Clay 08-17 2.5Y 4/2 95 5YR 4/6 5 C M Clay ²Location: PL=Pore Lining, M=Matrix. ¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils³: Histosol (A1) 1 cm Muck (A9) (**LRR I, J**) Sandy Gleyed Matrix (S4) Histic Epipedon (A2) Sandy Redox (S5) Coast Prairie Redox (A16) (LRR F, G, H) Black Histic (A3) Stripped Matrix (S6) Dark Surface (S7) (LRR G) Loamy Mucky Mineral (F1) Hydrogen Sulfide (A4) High Plains Depressions (F16) Loamy Gleyed Matrix (F2) Stratified Layers (A5) (LRR F) (LRR H outside of MLRA 72 & 73) ✓ Depleted Matrix (F3) \perp 1 cm Muck (A9) (LRR F, G, H) Reduced Vertic (F18) Redox Dark Surface (F6) Red Parent Material (TF2) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Very Shallow Dark Surface (TF12) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Redox Depressions (F8) Other (Explain in Remarks) High Plains Depressions (F16) ³Indicators of hydrophytic vegetation and 2.5 cm Mucky Peat or Peat (S2) (LRR G, H) 5 cm Mucky Peat or Peat (S3) (LRR F) (MLRA 72 & 73 of LRR H) wetland hydrology must be present. unless disturbed or problematic. Restrictive Layer (if present): Type: Hydric Soil Present? Depth (inches): Remarks: Relict redoximorphic concentrations common within the depleted matrix. **HYDROLOGY** Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Secondary Indicators (minimum of two required) Surface Water (A1) Salt Crust (B11) Surface Soil Cracks (B6) High Water Table (A2) Aquatic Invertebrates (B13) Sparsely Vegetated Concave Surface (B8) Hydrogen Sulfide Odor (C1) Saturation (A3) Drainage Patterns (B10) Water Marks (B1) Dry-Season Water Table (C2) Oxidized Rhizospheres on Living Roots (C3) Oxidized Rhizospheres on Living Roots (C3) Sediment Deposits (B2) (where tilled) Drift Deposits (B3) (where not tilled) Crayfish Burrows (C8) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Saturation Visible on Aerial Imagery (C9) Iron Deposits (B5) Thin Muck Surface (C7) Geomorphic Position (D2) Inundation Visible on Aerial Imagery (B7) FAC-Neutral Test (D5) Other (Explain in Remarks) Water-Stained Leaves (B9) Frost-Heave Hummocks (D7) (LRR F) Field Observations: Yes No Depth (inches): Surface Water Present? Yes Depth (inches): Water Table Present? Wetland Hydrology Present? Yes No Yes ____ No ___ Depth (inches): ___ Saturation Present? (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: No evidence of wetland hydrology observed.

Project/Site: Forsyth NW (East)		City/County: Ros	sebud	Sampling Date: 6/1/202
Applicant/Owner: MDT			State: Montana	Sampling Point: DP-04w
		Section, Townshi		N 39E
Landform (hillslope, terrace, etc.): Swale		Local relief (cond	cave convex none) flat	
Subregion (LRR): LRR G	L at:	2660 Teller (661) 46.3	19879 Long: -1	106.836857 Datum: NAD 83
Soil Map Unit Name: 98: Harlem Silty C	lav. 0 to 2 percent slop	es. occasionally fl	looded	Batting Not mapped
-				
Are climatic / hydrologic conditions on the				
Are Vegetation, Soil, or Hy	drology significar	tly disturbed?	Are "Normal Circumstances"	present? Yes Vo No
Are Vegetation, Soil, or Hy	drology naturally	problematic?	(If needed, explain any answ	ers in Remarks.)
SUMMARY OF FINDINGS - Atta	ach site map showi	ng sampling po	oint locations, transect	s, important features, et
Hydrophytic Vegetation Present?	Yes _ V No	─ Is the Sar	npled Area	
Hydric Soil Present?	Yes No		Wetland? Yes	✓ No □
Wetland Hydrology Present?		_		
Remarks: PEM, depressional wetland	I located in center porti	on of excavated w	etland cell.	
VEGETATION - Use scientific r	names of plant			
Tree Stratum Plot size (30 Foot Ra	Absolute Domi		Dominance Test wo	
Tiee Ottatum Tiot Size (50 Tiot Tid	dius) % Cover: Spec	es? Status	Number of Dominan that are OBL, FACW	
			Total Number of Dor Species Across All S	
Sapling/Shrub Stratum Plot size (1	5 Foot Radius)		Percent of Dominant That Are OBL, FACV	
Oupmigrom as out at an	o root radias,		Prevalence Index w	
			Total % Cover OBL species	of: Multiply by: 10 X 1 10
			FACW species	
			FAC species	
Herbaceous Stratum Plot size (5 Foot Radius)		FACU species	15 X 4 60
Alopecurus arundinaceus	35 V	FACW	UPL species	0 X 5 0
Chenopodium album	5 🗆	FACU	Column Totals	71 (A) 163 (E
Eleocharis palustris	10	OBL	Prevalence Ind	$ex = B/\Delta = 2.30$
Hordeum jubatum	10 🗸	FACW	Hydrophytic Vegeta	
Lactuca serriola	1 📗	FAC		st for Hydrophytic Vegetation
Pascopyrum smithii	10	FACU		ce Test is >50%
				ce Index is <= 3.0
				gical Adaptations (Provide ata in remarks or on separate
			☐ 5 - Wetland N	Non-Vascular Plants
			Problematic I	Hydrophytic Vegetation (Explain)
Woody Vine Stratum Plot size (30 Foot Radius)			and wetland hydrology must be ped or problematic for #3, 4, 5.
Percent Bare Ground 29			Hydrophytic Vegeta Present?	ation Yes 🗸 NO 🗌
Remarks:				
With a high proportion of facultative- dominance test and a prevalence in		pecies, evidence	of a hydrophytic plant com	munity includes a positive

SOIL Sampling Point: DP-04w Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Matrix Redox Features Color (moist) Color (moist) Loc² Type Texture (inches) 4/2 0-05 2 C 2.5Y 98 2.5YR 4/4 M, PL Clay 05-11 Clay 2.5Y 4/2 80 10Y 4/1 20 \Box M 11-16 2.5Y 4/3 90 7.5YR 4/6 10 CS Fine Sandy Clay ²Location: PL=Pore Lining, M=Matrix. ¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils³: Histosol (A1) 1 cm Muck (A9) (**LRR I, J**) Sandy Gleyed Matrix (S4) Histic Epipedon (A2) Sandy Redox (S5) Coast Prairie Redox (A16) (LRR F, G, H) Black Histic (A3) Stripped Matrix (S6) Dark Surface (S7) (LRR G) Loamy Mucky Mineral (F1) High Plains Depressions (F16) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Stratified Layers (A5) (LRR F) (LRR H outside of MLRA 72 & 73) \perp 1 cm Muck (A9) (LRR F, G, H) Depleted Matrix (F3) Reduced Vertic (F18) Redox Dark Surface (F6) Red Parent Material (TF2) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Very Shallow Dark Surface (TF12) Thick Dark Surface (A12) ✓ Redox Depressions (F8) Sandy Mucky Mineral (S1) Other (Explain in Remarks) High Plains Depressions (F16) ³Indicators of hydrophytic vegetation and 2.5 cm Mucky Peat or Peat (S2) (LRR G, H) 5 cm Mucky Peat or Peat (S3) (LRR F) (MLRA 72 & 73 of LRR H) wetland hydrology must be present. unless disturbed or problematic. Restrictive Layer (if present): Type: Hydric Soil Present? Depth (inches): Remarks: Prominent redoximorphic concentrations common along pore linings and within the depleted matrix. **HYDROLOGY** Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Secondary Indicators (minimum of two required) Surface Water (A1) Salt Crust (B11) ✓ Surface Soil Cracks (B6) High Water Table (A2) Aguatic Invertebrates (B13) Sparsely Vegetated Concave Surface (B8) Hydrogen Sulfide Odor (C1) Saturation (A3) Drainage Patterns (B10) Water Marks (B1) Dry-Season Water Table (C2) Oxidized Rhizospheres on Living Roots (C3) Oxidized Rhizospheres on Living Roots (C3) Sediment Deposits (B2) (where tilled) ✓ Drift Deposits (B3) (where not tilled) Crayfish Burrows (C8) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Saturation Visible on Aerial Imagery (C9) Iron Deposits (B5) Thin Muck Surface (C7) Geomorphic Position (D2) Inundation Visible on Aerial Imagery (B7) FAC-Neutral Test (D5) Other (Explain in Remarks) Water-Stained Leaves (B9) Frost-Heave Hummocks (D7) (LRR F) Field Observations: Yes No Depth (inches): Surface Water Present? Yes ____ No ___ Depth (inches): Water Table Present? Wetland Hydrology Present? Yes No Yes ____ No ___ Depth (inches): ____ Saturation Present? (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Evidence of wetland hydrology observed in the presence of surface cracks and drift debris.

Project/Site: Forsyth NW (East)	City/County: Rosebud		Sampling Date:	6/1/202	22
Applicant/Owner: MDT					
Investigator(s): R Jones					
Landform (hillslope, terrace, etc.): Swale					-3
Subregion (LRR): LRR G Lat:					
Soil Map Unit Name: 98: Harlem Silty Clay, 0 to 2 percent slopes		NIVA/I alaasifia	Not mapr	ned	_
Are climatic / hydrologic conditions on the site typical for this time of ye		INVVI CIASSIIIC	auon.		_
				7 [7
Are Vegetation, Soil, or Hydrology significantly	disturbed? Are "No	mai Circumstances″ p	resent? Yes	<u>□</u> No _ □	_
Are Vegetation, Soil, or Hydrology naturally pr	oblematic? (If need	ed, explain any answe	rs in Remarks.)		
SUMMARY OF FINDINGS – Attach site map showing	sampling point loc	ations, transects	, important fo	eatures, et	tc.
Hydrophytic Vegetation Present? Yes No	Is the Sampled Ar	ea			
Hydric Soil Present? Yes No		Yes	No ✓		
Wetland Hydrology Present? Yes No V					
Remarks: Upland sample point within swale just outside of we	tland boundary from DP	-02wet.			
VEGETATION - Use scientific names of plant					
Tree Stratum Plot size (30 Foot Radius) Absolute Domiar % Cover: Species		Dominance Test wor	ksheet		
70 COVOI. OPECIO		Number of Dominant S that are OBL, FACW o		0 _(A)	
		Total Number of Domi Species Across All St		1 (B)	
Sapling/Shrub Stratum Plot size (15 Foot Radius)		Percent of Dominant S That Are OBL, FACW		0.0 % (A/B)	
<u></u>		Prevalence Index wo	rksheet		
		Total % Cover o		Multiply by:	_
		OBL species	0 X1 7 X2	0	
		FACW species FAC species	1 X3	3	
			40 X4	160	
Herbaceous Stratum Plot size (5 Foot Radius)		UPL species	0 X5	0	
Alopecurus arundinaceus 5	FACW FACW	Column Totals	18 (A)	177 (E	B)
Lactuca serriola 1	FAC			3.69	-,
Pascopyrum smithii 40	FACII	Prevalence Index		3.03	
1 decopyrum emmum	17.00	Hydrophytic Vegetat	ion Indicators for Hydrophytic \	Vagatation	
			• • •	vegetation	
		2 - Dominance			
		3 - Prevalence	e Index is <= 3.0		
			cal Adaptations (a in remarks or o		
			on-Vascular Plant	ts	
			ydrophytic Vegeta		١,
Woody Vine Stratum Plot size (30 Foot Radius)		dicators of hydric sil a esent, unless disturbe	nd wetland hydro	ology must be	•
Devent Para Crawad 50		Hydrophytic Vegetat Present?	•	NO 🔽	
Percent Bare Ground 52 Remarks:					_
No evidence of a hydrophytic plant community observed.					

SOIL Sampling Point: DP-02u Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Matrix Redox Features Color (moist) Loc² Color (moist) Texture (inches) Type 0 - 16 +C 2.5Y 4/2 99 2.5YR Clay M ²Location: PL=Pore Lining, M=Matrix. ¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils³: Histosol (A1) 1 cm Muck (A9) (LRR I, J) Sandy Gleyed Matrix (S4) Histic Epipedon (A2) Sandy Redox (S5) Coast Prairie Redox (A16) (LRR F, G, H) Stripped Matrix (S6) Dark Surface (S7) (LRR G) Black Histic (A3) Loamy Mucky Mineral (F1) High Plains Depressions (F16) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Stratified Layers (A5) (LRR F) (LRR H outside of MLRA 72 & 73) \perp 1 cm Muck (A9) (**LRR F, G, H**) Depleted Matrix (F3) Reduced Vertic (F18) Redox Dark Surface (F6) Red Parent Material (TF2) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Very Shallow Dark Surface (TF12) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Redox Depressions (F8) Other (Explain in Remarks) High Plains Depressions (F16) ³Indicators of hydrophytic vegetation and 2.5 cm Mucky Peat or Peat (S2) (LRR G, H) 5 cm Mucky Peat or Peat (S3) (LRR F) (MLRA 72 & 73 of LRR H) wetland hydrology must be present. unless disturbed or problematic. Restrictive Layer (if present): Type: Hydric Soil Present? Depth (inches): Remarks: No hydric soil indicators observed. **HYDROLOGY** Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Secondary Indicators (minimum of two required) Surface Water (A1) Salt Crust (B11) ✓ Surface Soil Cracks (B6) High Water Table (A2) Aquatic Invertebrates (B13) Sparsely Vegetated Concave Surface (B8) Hydrogen Sulfide Odor (C1) Saturation (A3) Drainage Patterns (B10) Dry-Season Water Table (C2) Oxidized Rhizospheres on Living Roots (C3) Water Marks (B1) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) (where tilled) Drift Deposits (B3) (where not tilled) Crayfish Burrows (C8) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Saturation Visible on Aerial Imagery (C9) Iron Deposits (B5) Thin Muck Surface (C7) Geomorphic Position (D2) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) FAC-Neutral Test (D5) Water-Stained Leaves (B9) Frost-Heave Hummocks (D7) (LRR F) Field Observations: Yes No Depth (inches): Surface Water Present? Yes No Depth (inches): Water Table Present? Wetland Hydrology Present? Yes No Saturation Present? Yes ____ No ___ Depth (inches): ___ (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Limited evidence of wetland hydrology present in surface soil cracks, however the lack of hydrophytic vegetation and hydric soil indicators imply that the plot location does not have saturated soils long or frequently enough to be considered a wetland.

Project/Site: Forsyth NW (Middle)		City/C	county: Rosebud		Sampling Da	ate:6/	1/2022
Applicant/Owner: MDT				_{State:} Montan	a Sampling Po	oint: <u>DP-01</u>	u
Investigator(s): R Jones							
Landform (hillslope, terrace, etc.): Swale							: 3
	Lat: _						
Soil Map Unit Name: 98: Harlem Silty Clay	. 0 to 2 percent slo	oes		All All alace	eification: PABF	h	
Are climatic / hydrologic conditions on the site							
	_						
Are Vegetation, Soil, or Hydro	logy significal	ntly distur	bed? Are "Noi	mal Circumstances	s" present? Yes	3 <u> </u>	∘
Are Vegetation, Soil, or Hydro	logy naturally	problem	atic? (If neede	d, explain any ans	wers in Remarks	s.)	
SUMMARY OF FINDINGS – Attack	n site map show	ing san	npling point loca	ations, transec	ts, importar	nt feature	s, etc.
	es 🔲 No 🔽	_	Is the Sampled Ar	ea			
	es No 🗸		within a Wetland?		□ No ✓	•	
	es No 🔽	_					
Remarks: Upland sample point adjacent	to DP-01w						
VEGETATION - Use scientific nan	-						
Tree Stratum Plot size (30 Foot Radius	Absolute Dom s) % Cover: Spec		ndicator status	Dominance Test v	vorksheet		
	, о остон. орос			Number of Domina that are OBL, FAC\		0 (A)	
				Total Number of Do Species Across All		3 (B)	
Sapling/Shrub Stratum Plot size (15	Foot Radius)			Percent of Domina That Are OBL, FAC		0.0 % ((A/B)
Rosa woodsii	45	FA	CU	Prevalence Index	worksheet		
Symphoricarpos albus	15		PL	Total % Cove		Multiply b	y:
				OBL species	-	0	_
				FACW species FAC species	0 X2 5 X3	15	_
				•		404	=
Herbaceous Stratum Plot size (5		-		UPL species		75	
Lactuca serriola Pascopyrum smithii	5 <u> </u>	FAC FAC		Column Totals	121 (A)	494	(B)
Poa pratensis	40 v	FA					08
Taraxacum officinale	10	FA	211	Prevalence Inc			U0
Thlaspi arvense	5	FA		Hydrophytic Vege			
				_	est for Hydrophy		on
					nce Test is >50%		
				☐ 3 - Prevaler	nce Index is <= 3	3.0	
					ogical Adaptatio data in remarks	`	
					Non-Vascular F	Dlanta	
Woody Vine Stratum Plot size (30	Foot Padius)			□ Problematic	Hydrophytic Ve	getation (Ex	xplain)
Woody Ville Stratum Flot Size (50	Foot Radius)			dicators of hydric s esent, unless distu			
Percent Bare Ground 39				Hydrophytic Vege Present?	tation Yes	□ NO	✓
Remarks:							
No evidence of a hydrophytic plant com	nmunity observed.						

SOIL Sampling Point: DP-01u Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Redox Features <u>L</u>oc² Color (moist) Texture Color (moist) (inches) 0-02 2.5Y 4/3 Silty Clay Loam 02-16+ 2.5Y 4/2 Clay ²Location: PL=Pore Lining, M=Matrix. ¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils³: Histosol (A1) Sandy Gleyed Matrix (S4) 1 cm Muck (A9) (**LRR I, J**) Histic Epipedon (A2) Sandy Redox (S5) Coast Prairie Redox (A16) (LRR F, G, H) Black Histic (A3) Stripped Matrix (S6) Dark Surface (S7) (LRR G) Loamy Mucky Mineral (F1) Hydrogen Sulfide (A4) High Plains Depressions (F16) Loamy Gleyed Matrix (F2) Stratified Layers (A5) (LRR F) (LRR H outside of MLRA 72 & 73) \perp 1 cm Muck (A9) (LRR F, G, H) Depleted Matrix (F3) Reduced Vertic (F18) Redox Dark Surface (F6) Red Parent Material (TF2) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Very Shallow Dark Surface (TF12) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Redox Depressions (F8) Other (Explain in Remarks) High Plains Depressions (F16) ³Indicators of hydrophytic vegetation and 2.5 cm Mucky Peat or Peat (S2) (LRR G, H) 5 cm Mucky Peat or Peat (S3) (LRR F) (MLRA 72 & 73 of LRR H) wetland hydrology must be present. unless disturbed or problematic. Restrictive Layer (if present): Type: Hydric Soil Present? Depth (inches): Remarks: No hydric soil indicators observed. **HYDROLOGY** Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Secondary Indicators (minimum of two required) Surface Water (A1) Salt Crust (B11) Surface Soil Cracks (B6) High Water Table (A2) Aquatic Invertebrates (B13) Sparsely Vegetated Concave Surface (B8) Hydrogen Sulfide Odor (C1) Saturation (A3) Drainage Patterns (B10) Water Marks (B1) Dry-Season Water Table (C2) Oxidized Rhizospheres on Living Roots (C3) Oxidized Rhizospheres on Living Roots (C3) Sediment Deposits (B2) (where tilled) Drift Deposits (B3) (where not tilled) Crayfish Burrows (C8) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Saturation Visible on Aerial Imagery (C9) Iron Deposits (B5) Thin Muck Surface (C7) Geomorphic Position (D2) Inundation Visible on Aerial Imagery (B7) FAC-Neutral Test (D5) Other (Explain in Remarks) Water-Stained Leaves (B9) Frost-Heave Hummocks (D7) (LRR F) Field Observations: Yes No Depth (inches): Surface Water Present? Yes ____ No ___ Depth (inches): Water Table Present? Wetland Hydrology Present? Yes No Yes ____ No ___ Depth (inches): _____ Saturation Present? (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: No evidence of wetland hydrology observed.

Project/Site: Forsyth NW (Middle)	City/County: Ro	sebud	Sampling Date: _	6/1/2022
Applicant/Owner: MDT		State: Montan	a Sampling Point:	DP-01w
Investigator(s): R Jones	Section, Townsh	ip, Range:34	7N 39E	
Landform (hillslope, terrace, etc.); Swale	Local relief (cor	cave, convex, none); flat	Slo	pe (%):1
Subregion (LRR): LRR G Lat:	46.3	22321 Long:	-106.841281 _{Datu}	m: NAD 83
Soil Map Unit Name: 98: Harlem Silty Clay, 0 to 2 percent slo	pes	NWI class	sification: PABFh	
Are climatic / hydrologic conditions on the site typical for this time of	f year? Yes 🔽	No (If no, explain in	n Remarks.)	
Are Vegetation, Soil, or Hydrology significa				No
Are Vegetation, Soil, or Hydrology naturally	problematic?	(If needed, explain any ans	wers in Remarks.)	
SUMMARY OF FINDINGS – Attach site map show				atures, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Remarks: PEM, depressional wetland located in excavated	Is the Sa	mpled Area Netland? Yes		
VEGETATION - Use scientific names of plant	woulding com.			
Tree Stratum Plot size (30 Foot Radius) Absolute Dom		Dominance Test v	vorksheet	
Tree Stratum Plot size (30 Foot Radius) % Cover: Spec	cies? Status	Number of Domina that are OBL, FAC		5 (A)
		Total Number of Do Species Across All		7 (B)
Sapling/Shrub Stratum Plot size (15 Foot Radius)		Percent of Domina That Are OBL, FAC		.4 % (A/B)
Salix lutea 2	FACW	Prevalence Index		
		Total % Cove		ultiply by:
		FACW species		24
		FAC species	5 X3	15
Herbaceous Stratum Plot size (5 Foot Radius)		FACU species		60
Eleocharis palustris 10	OBL	UPL species		0
Hordeum jubatum 5	FACW	Column Totals	42 (A)	109 (B)
Juncus balticus 5		Prevalence In	dex = B/A =	2.60
Lactuca serriola 5		Hydrophytic Vege	tation Indicators	
Pascopyrum smithii 10 Poa pratensis 5 ✓		_ ·	est for Hydrophytic V	egetation
1 0a praterisis	TACO		nce Test is >50%	
		✓ 3 - Prevaler	nce Index is <= 3.0	
		supporting	ogical Adaptations (F data in remarks or or	
		sheet.	Non Verrulan Dianti	_
			Non-Vascular Plants	
Woody Vine Stratum Plot size (30 Foot Radius)			: Hydrophytic Vegeta	, , ,
			il and wetland hydrol irbed or problematic f	
Percent Bare Ground 60		Hydrophytic Vege Present?	tation Yes 🗹	NO \square
Remarks: Evidence of hydrophytic vegetation present in a positive d	ominance test and	a prevalence index below	v 3.	

SOIL Sampling Point: DP-01w Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Matrix Redox Features Color (moist) Color (moist) Loc² Type Texture (inches) 0-02 4/3 10 С 2.5Y 90 2.5YR 4/6 Clay M 02-16+ С 2.5Y 5/2 7.5YR 4/6 5 PL, M 95 Clay ²Location: PL=Pore Lining, M=Matrix. ¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils³: Histosol (A1) 1 cm Muck (A9) (**LRR I, J**) Sandy Gleyed Matrix (S4) Histic Epipedon (A2) Sandy Redox (S5) Coast Prairie Redox (A16) (LRR F, G, H) Black Histic (A3) Stripped Matrix (S6) Dark Surface (S7) (LRR G) Loamy Mucky Mineral (F1) High Plains Depressions (F16) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Stratified Layers (A5) (LRR F) (LRR H outside of MLRA 72 & 73) ✓ Depleted Matrix (F3) \perp 1 cm Muck (A9) (LRR F, G, H) Reduced Vertic (F18) Redox Dark Surface (F6) Red Parent Material (TF2) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Very Shallow Dark Surface (TF12) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Redox Depressions (F8) Other (Explain in Remarks) High Plains Depressions (F16) ³Indicators of hydrophytic vegetation and 2.5 cm Mucky Peat or Peat (S2) (LRR G, H) 5 cm Mucky Peat or Peat (S3) (LRR F) (MLRA 72 & 73 of LRR H) wetland hydrology must be present. unless disturbed or problematic. Restrictive Layer (if present): Type: Hydric Soil Present? Depth (inches): Remarks: Prominent redoximorphic features common in the depleted matrix. **HYDROLOGY** Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Secondary Indicators (minimum of two required) Surface Water (A1) Salt Crust (B11) ✓ Surface Soil Cracks (B6) High Water Table (A2) Aquatic Invertebrates (B13) Sparsely Vegetated Concave Surface (B8) Hydrogen Sulfide Odor (C1) Saturation (A3) Drainage Patterns (B10) Water Marks (B1) Dry-Season Water Table (C2) Oxidized Rhizospheres on Living Roots (C3) ✓ Oxidized Rhizospheres on Living Roots (C3) Sediment Deposits (B2) (where tilled) ✓ Drift Deposits (B3) (where not tilled) Crayfish Burrows (C8) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Saturation Visible on Aerial Imagery (C9) Iron Deposits (B5) Thin Muck Surface (C7) Geomorphic Position (D2) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) ▼ FAC-Neutral Test (D5) ✓ Water-Stained Leaves (B9) Frost-Heave Hummocks (D7) (LRR F) Field Observations: Yes No Depth (inches): Surface Water Present? Yes No Depth (inches): Water Table Present? Wetland Hydrology Present? Yes No Saturation Present? Yes ____ No ___ Depth (inches): ___ (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Evidence of wetland hydrology present in drift deposits, water stained leaves, oxidized rhizospheres along living roots, and cracks in the soil surface.

Project/Site: Forsyth NW (West)	City/County: Rosebud	Sampling	Date: 6/2/2022
		State: Montana Sampling	
Investigator(s): R Jones			
Landform (hillslope, terrace, etc.): Hillside	Local relief (concave or		
Subregion (LRR): LRR G Lat:		-106 87545	Slope (%)2
Soil Map Unit Name: 138: Marvan silty clay, 0 to 2 percent slope			Парреа
Are climatic / hydrologic conditions on the site typical for this time of ye			
Are Vegetation, Soil, or Hydrology significantly	disturbed? Are "N	Iormal Circumstances" present?	res <u> </u>
Are Vegetation, Soil, or Hydrology naturally pro	oblematic? (If nee	ded, explain any answers in Rema	ırks.)
SUMMARY OF FINDINGS – Attach site map showing	sampling point lo	cations, transects, import	ant features, etc.
Hydrophytic Vegetation Present? Yes No V Hydric Soil Present? Yes No V Wetland Hydrology Present? Yes No V Remarks: Upland sample plot located next to the old railroad of	within a Wetland	d? Yes 🔲 No _	<u> </u>
VEGETATION - Use scientific names of plant			
Tree Stratum Plot size (30 Foot Radius) Absolute Domian % Cover: Species		Dominance Test worksheet	
, in the second		Number of Dominant Species that are OBL, FACW or FAC:	0 (A)
		Total Number of Dominant Species Across All Strata:	2 (B)
Sapling/Shrub Stratum Plot size (15 Foot Radius)		Percent of Dominant Species That Are OBL, FACW, or FAC:	0.0 % (A/B)
(10		Prevalence Index worksheet	
		Total % Cover of:	Multiply by:
		OBL species 0 X 1 FACW species 0 X 2	0
		FAC species 10 X3	30
Herbaceous Stratum Plot size (5 Foot Radius)		FACU species 78 X 4	312
Herbaceous Stratum Plot size (5 Foot Radius) Bromus tectorum 2	NL	UPL species 2 X 5	10
Iva axillaris 10	FAC	Column Totals 90 (A	352 (B)
Pascopyrum smithii 30	FACU	Prevalence Index = B/A =	3.91
Poa pratensis 40 🗸	FACU	Hydrophytic Vegetation Indica	
Sisymbrium altissimum 8	FACU	1 - Rapid Test for Hydrog	
		2 - Dominance Test is >5	
		3 - Prevalence Index is <	
		4 - Morphological Adapta supporting data in remark sheet.	
		5 - Wetland Non-Vascula	ır Plants
		Problematic Hydrophytic	Vegetation (Explain)
Woody Vine Stratum Plot size (30 Foot Radius)		Indicators of hydric sil and wetland present, unless disturbed or proble	d hydrology must be
P 1 P 2 P		Hydrophytic Vegetation	es NO
Percent Bare Ground 10 Remarks:		i resent:	
No evidence of hydrophytic vegetation present.			

SOIL Sampling Point: DP-01u Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Redox Features Loc² Color (moist) Color (moist) Texture Remarks (inches) 0-05 10YR 2/1 Sandy Loam Soil very dry. 05-16+ 2.5Y 4/3 Sandy Clay ²Location: PL=Pore Lining, M=Matrix. ¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils³: Histosol (A1) Sandy Gleyed Matrix (S4) 1 cm Muck (A9) (**LRR I, J**) Histic Epipedon (A2) Sandy Redox (S5) Coast Prairie Redox (A16) (LRR F, G, H) Black Histic (A3) Stripped Matrix (S6) Dark Surface (S7) (LRR G) Loamy Mucky Mineral (F1) Hydrogen Sulfide (A4) High Plains Depressions (F16) Loamy Gleyed Matrix (F2) Stratified Layers (A5) (LRR F) (LRR H outside of MLRA 72 & 73) \perp 1 cm Muck (A9) (LRR F, G, H) Depleted Matrix (F3) Reduced Vertic (F18) Redox Dark Surface (F6) Red Parent Material (TF2) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Very Shallow Dark Surface (TF12) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Redox Depressions (F8) Other (Explain in Remarks) High Plains Depressions (F16) ³Indicators of hydrophytic vegetation and 2.5 cm Mucky Peat or Peat (S2) (LRR G, H) 5 cm Mucky Peat or Peat (S3) (LRR F) (MLRA 72 & 73 of LRR H) wetland hydrology must be present. unless disturbed or problematic. Restrictive Layer (if present): Type: Hydric Soil Present? Depth (inches): Remarks: No hydric soil indicators observed. Charcoal in pit. **HYDROLOGY** Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Secondary Indicators (minimum of two required) Surface Water (A1) Salt Crust (B11) Surface Soil Cracks (B6) High Water Table (A2) Aquatic Invertebrates (B13) Sparsely Vegetated Concave Surface (B8) Hydrogen Sulfide Odor (C1) Saturation (A3) Drainage Patterns (B10) Water Marks (B1) Dry-Season Water Table (C2) Oxidized Rhizospheres on Living Roots (C3) Oxidized Rhizospheres on Living Roots (C3) Sediment Deposits (B2) (where tilled) Drift Deposits (B3) (where not tilled) Crayfish Burrows (C8) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Saturation Visible on Aerial Imagery (C9) Iron Deposits (B5) Thin Muck Surface (C7) Geomorphic Position (D2) Inundation Visible on Aerial Imagery (B7) FAC-Neutral Test (D5) Other (Explain in Remarks) Water-Stained Leaves (B9) Frost-Heave Hummocks (D7) (LRR F) Field Observations: Yes No Depth (inches): Surface Water Present? Yes ____ No ___ Depth (inches): _ Water Table Present? Wetland Hydrology Present? Yes No Yes ____ No ___ Depth (inches): _____ Saturation Present? (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: No evidence of wetland hydrology observed.

Project/Site: Forsyth NW (West) Applicant/Owner: MDT Investigator(s): R Jones Section, Township, Range: 29 7N 39E Landform (hillslope, terrace, etc.): Swale Local relief (concave, convex, none): flat Slope (** Subregion (LRR): LRR G Lat: 46.338301 Long: -106.875412 Datum: J Soil Map Unit Name: 138: Marvan silty clay, 0 to 2 percent slopes Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.) Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important feature. Hydrophytic Vegetation Present? Yes No (If no within a Wetland? Yes No No (If no within a Wetland? Yes No (If no within a Wetland? Yes No (If no within a Wetland? Yes (If no within a	
Landform (hillslope, terrace, etc.): Swale Local relief (concave, convex, none): flat Slope (Subregion (LRR): LRR G Lat: 46.338301 Long: -106.875412 Datum: INVI classification: Not mapped Soil Map Unit Name: 138: Marvan silty clay, 0 to 2 percent slopes Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.) Are Vegetation Not mapped Are "Normal Circumstances" present? Yes Are "Normal Circumstances" present? Yes Are "Normal Circumstances" present? Yes Mo Sulmany answers in Remarks.) SUMMARY OF FINDINGS — Attach site map showing sampling point locations, transects, important feature Hydrophytic Vegetation Present? Hydrophytic Vegetation Present? Hydrophytic Vegetation Present? Yes No No No Wetland? Wetland Hydrology Present? Yes No Wetland Hydrology Present? Yes No	
Landform (hillslope, terrace, etc.): Swale Local relief (concave, convex, none): flat Slope (Subregion (LRR): LRR G Lat: 46.338301 Long: -106.875412 Datum: INVI classification: Not mapped Soil Map Unit Name: 138: Marvan silty clay, 0 to 2 percent slopes Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.) Are Vegetation Not mapped Are "Normal Circumstances" present? Yes Are "Normal Circumstances" present? Yes Are "Normal Circumstances" present? Yes Mo Sulmany answers in Remarks.) SUMMARY OF FINDINGS — Attach site map showing sampling point locations, transects, important feature Hydrophytic Vegetation Present? Hydrophytic Vegetation Present? Hydrophytic Vegetation Present? Yes No No No Wetland? Wetland Hydrology Present? Yes No Wetland Hydrology Present? Yes No	
Subregion (LRR): LRR G	%): C
Soil Map Unit Name: 138: Marvan silty clay, 0 to 2 percent slopes NWI classification: Not mapped Are climatic / hydrologic conditions on the site typical for this time of year? Yes	VAD 83
Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.) Are Vegetation, Soil, or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes Are Vegetation, Soil, or Hydrology naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important feature. Hydrophytic Vegetation Present? Yes No Is the Sampled Area within a Wetland? Yes No Remarks: PEM depressional wetland plot, located in expanded wetland area in southern-central portion of the site.	
Are Vegetation, Soil, or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes Are Vegetation, Soil, or Hydrology naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS — Attach site map showing sampling point locations, transects, important feature	
Are Vegetation, Soil, or Hydrology naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important feature. Hydrophytic Vegetation Present? Yes No Is the Sampled Area within a Wetland? Yes No Wetland Hydrology Present? Yes No Within a Wetland? Yes No Remarks: PEM depressional wetland plot, located in expanded wetland area in southern-central portion of the site.	No \square
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important feature. Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Yes V No	
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Yes V No V Is the Sampled Area within a Wetland? Wetland? Wetland Present? Yes V No V N	res. etc.
Hydric Soil Present? Wetland Hydrology Present? Yes V No Within a Wetland? Wetland? Yes No	
Wetland Hydrology Present? Yes No Remarks: PEM depressional wetland plot, located in expanded wetland area in southern-central portion of the site.	
Remarks: PEM depressional wetland plot, located in expanded wetland area in southern-central portion of the site.	
VEGETATION - Use scientific names of plant	
VEGETATION - Use scientific names of plant	
·	
Tree Stratum Plot size (30 Foot Radius) Absolute Domiant Indicator Species? Status Dominance Test worksheet	
Number of Dominant Species	A)
Total Number of Dominant	, В)
Sapling/Shrub Stratum Plot size (15 Foot Radius) Percent of Dominant Species That Are OBL, FACW, or FAC:	′₀ (A/B)
Prevalence Index worksheet	
Total % Cover of:Multiple	y by:
OBL species 35 X1 35	
FACW species 40 X 2 80 FAC species 0 X 3 0	
FACU species 17 X 4 68	
Herbaceous Stratum Plot size (5 Foot Radius) UPL species 0 X 5	
Alopecurus arundinaceus 20 FACW Bassia scoparia 5 FACU Column Totals 92 (A) 18	3 (B)
Circium arvence	1.99
Cyrtorhyncha cymhalaria 35 V ORI	1.99
Hardours interture	4:
Pascopyrum smithii 10 FACU 1 - Rapid Test for Hydrophytic Veget 2 - Dominance Test is >50%	auon
✓ 2 - Dornmance Test is >50% ✓ 3 - Prevalence Index is <= 3.0	
4 - Morphological Adaptations (Provi supporting data in remarks or on se	
sheet.	arato
☐ 5 - Wetland Non-Vascular Plants	
Problematic Hydrophytic Vegetation	(Explain)
Woody Vine Stratum Plot size (30 Foot Radius) Indicators of hydric sil and wetland hydrology present, unless disturbed or problematic for #	
Hydrophytic Vegetation Yes V NO	
Percent Bare Ground 8 Remarks:)
Evidence of hydrophytic vegetation includes a positive dominance test and a prevalence index below three.) [

SOIL Sampling Point: DP-01w Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Matrix Redox Features Color (moist) Loc² Color (moist) Type¹ Texture (inches) 0-04 5YR 25 С 10YR 4/1 75 4/6 M, PL Clay M, PL 04-07 2.5Y С 4/1 7.5YR 4/4 10 60 Clay 10Y 04-07 3/1 30 D M Clay 07-16+ 2.5Y 4/3 7.5YR 3/3 5 С M, PL Sandy Clay Loam 95 ²Location: PL=Pore Lining, M=Matrix. ¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils³: Histosol (A1) 1 cm Muck (A9) (**LRR I, J**) Sandy Gleyed Matrix (S4) Histic Epipedon (A2) Sandy Redox (S5) Coast Prairie Redox (A16) (LRR F, G, H) Black Histic (A3) Stripped Matrix (S6) Dark Surface (S7) (LRR G) Loamy Mucky Mineral (F1) High Plains Depressions (F16) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Stratified Layers (A5) (LRR F) (LRR H outside of MLRA 72 & 73) ✓ Depleted Matrix (F3) 1 cm Muck (A9) (**LRR F, G, H**) Reduced Vertic (F18) Redox Dark Surface (F6) Red Parent Material (TF2) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Very Shallow Dark Surface (TF12) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Redox Depressions (F8) Other (Explain in Remarks) ☐ High Plains Depressions (F16) ³Indicators of hydrophytic vegetation and 2.5 cm Mucky Peat or Peat (S2) (LRR G, H) 5 cm Mucky Peat or Peat (S3) (LRR F) (MLRA 72 & 73 of LRR H) wetland hydrology must be present. unless disturbed or problematic. Restrictive Layer (if present): Type: Hydric Soil Present? Yes _ ✓ Depth (inches): Remarks: Many prominent redoximorphic concentrations prominent within the depleted matrix and along pore linings **HYDROLOGY** Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Secondary Indicators (minimum of two required) Surface Water (A1) Salt Crust (B11) Surface Soil Cracks (B6) High Water Table (A2) Aguatic Invertebrates (B13) Sparsely Vegetated Concave Surface (B8) Saturation (A3) Hydrogen Sulfide Odor (C1) Drainage Patterns (B10) Water Marks (B1) Dry-Season Water Table (C2) Oxidized Rhizospheres on Living Roots (C3) ✓ Oxidized Rhizospheres on Living Roots (C3) Sediment Deposits (B2) (where tilled) Drift Deposits (B3) (where not tilled) Crayfish Burrows (C8) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Saturation Visible on Aerial Imagery (C9) Iron Deposits (B5) Thin Muck Surface (C7) Geomorphic Position (D2) ✓ Inundation Visible on Aerial Imagery (B7) FAC-Neutral Test (D5) Other (Explain in Remarks) Water-Stained Leaves (B9) Frost-Heave Hummocks (D7) (LRR F) Field Observations: Yes No Depth (inches): Surface Water Present? Yes ____ No ___ Depth (inches): _ Water Table Present? Wetland Hydrology Present? Yes No Yes ____ No ___ Depth (inches): ____ Saturation Present? (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Evidence of wetland hydrology present in inundation seen on aerials, oxidized rhizospheres on roots, a postive FACneutral test, and a geomorphic position that supports wetland hydrology.

Project/Site: Forsyth NW (West) City/County: F	Rosebud Sampling Date: 6/2/2022
	State: Montana Sampling Point: DP-02u
Investigator(s): R Jones Section, Town	
Landform (hillslope, terrace, etc.): Flat Local relief (co	
	5.336647 Long:106.871571 Datum: NAD 83
Soil Map Unit Name: 138: Marvan silty clay, 0 to 2 percent slopes	
Are climatic / hydrologic conditions on the site typical for this time of year? Yes	No. (If no explain in Demarks)
Are Climatic / hydrologic conditions on the site typical for this time of year? Yes Are Vegetation, Soil, or Hydrology significantly disturbed?	
Are Vegetation, Soil, or Hydrology naturally problematic?	
SUMMARY OF FINDINGS – Attach site map showing sampling	point locations, transects, important features, etc.
11 -1 - 0 - 1 D 10	Sampled Area a Wetland? Yes No
VEGETATION - Use scientific names of plant	
Absolute Domiant Indicator	Dominance Test worksheet
Tree Stratum Plot size (30 Foot Radius) % Cover: Species? Status	Number of Dominant Species that are OBL, FACW or FAC:
	Total Number of Dominant Species Across All Strata: 2 (B)
Sapling/Shrub Stratum Plot size (15 Foot Radius)	Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0 % (A/B)
Supringramus Character (10 Contracter)	Prevalence Index worksheet Total % Cover of: Multiply by:
	OBL species 0 X1 0
	FACW species 0 X 2 0 FAC species 15 X 3 45
	FACU species 40 X 4 160
Herbaceous Stratum Plot size (5 Foot Radius) Bromus tectorum 5 NL	UPL species 5 X 5 25
Bromus tectorum 5 NL Chenopodium album 2 FACU	Column Totals 60 (A) 230 (B)
Lepidium perfoliatum 15 ✓ FAC	
Pascopyrum smithii 10 FACU	Trovalonco mask 2011
Thlaspi arvense 28 ✓ FACU	Hydrophytic Vegetation Indicators 1 - Rapid Test for Hydrophytic Vegetation
	2 - Dominance Test is >50%
	☐ 3 - Prevalence Index is <= 3.0
	 4 - Morphological Adaptations (Provide supporting data in remarks or on separate sheet.
	5 - Wetland Non-Vascular Plants
	Problematic Hydrophytic Vegetation (Explain)
Woody Vine Stratum Plot size (30 Foot Radius)	Indicators of hydric sil and wetland hydrology must be present, unless disturbed or problematic for #3, 4, 5.
Percent Bare Ground 40	Hydrophytic Vegetation Yes □ NO ✓
Remarks:	
Vegetation dominated by facultative upland and facultative species, and do	pes not pass any hydrophytic vegetation tests.

SOIL Sampling Point: DP-02u Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Matrix Redox Features Color (moist) Loc² Color (moist) Texture (inches) 0-02 2.5Y 4/2 Clay 02-16+ 2.5Y 4/3 Silty Clay ²Location: PL=Pore Lining, M=Matrix. ¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils³: Histosol (A1) 1 cm Muck (A9) (**LRR I, J**) Sandy Gleyed Matrix (S4) Histic Epipedon (A2) Sandy Redox (S5) Coast Prairie Redox (A16) (LRR F, G, H) Black Histic (A3) Stripped Matrix (S6) Dark Surface (S7) (LRR G) Loamy Mucky Mineral (F1) High Plains Depressions (F16) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Stratified Layers (A5) (LRR F) (LRR H outside of MLRA 72 & 73) \perp 1 cm Muck (A9) (LRR F, G, H) Depleted Matrix (F3) Reduced Vertic (F18) Redox Dark Surface (F6) Red Parent Material (TF2) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Very Shallow Dark Surface (TF12) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Redox Depressions (F8) Other (Explain in Remarks) High Plains Depressions (F16) ³Indicators of hydrophytic vegetation and 2.5 cm Mucky Peat or Peat (S2) (LRR G, H) 5 cm Mucky Peat or Peat (S3) (LRR F) (MLRA 72 & 73 of LRR H) wetland hydrology must be present. unless disturbed or problematic. Restrictive Layer (if present): Type: Hydric Soil Present? Depth (inches): Remarks: No hydric soil indicator observed. **HYDROLOGY** Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Secondary Indicators (minimum of two required) Surface Water (A1) Salt Crust (B11) ✓ Surface Soil Cracks (B6) High Water Table (A2) Aquatic Invertebrates (B13) Sparsely Vegetated Concave Surface (B8) Hydrogen Sulfide Odor (C1) Saturation (A3) Drainage Patterns (B10) Water Marks (B1) Dry-Season Water Table (C2) Oxidized Rhizospheres on Living Roots (C3) Oxidized Rhizospheres on Living Roots (C3) Sediment Deposits (B2) (where tilled) Drift Deposits (B3) (where not tilled) Crayfish Burrows (C8) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Saturation Visible on Aerial Imagery (C9) Iron Deposits (B5) Thin Muck Surface (C7) Geomorphic Position (D2) Inundation Visible on Aerial Imagery (B7) FAC-Neutral Test (D5) Other (Explain in Remarks) Water-Stained Leaves (B9) Frost-Heave Hummocks (D7) (LRR F) Field Observations: Yes No Depth (inches): Surface Water Present? Yes ____ No ___ Depth (inches): Water Table Present? Wetland Hydrology Present? Yes No Yes ____ No ___ Depth (inches): _____ Saturation Present? (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Surface cracks are present due to water temporarily overflowing onto the dike. Otherwise, no indicators of wetland hydrology were observed.

Project/Site: Forsyth NW (West)	City/County: Rosebud	Sampling D)ate:6/2/2022
Applicant/Owner: MDT			
Investigator(s): R Jones			
Landform (hillslope, terrace, etc.): Toeslope			
Subregion (LRR): LRR G Lat:			
Soil Map Unit Name: 138: Marvan silty clay, 0 to 2 percent slope		Not re	nanned
Are climatic / hydrologic conditions on the site typical for this time of y			Парроц
Are Vegetation, Soil, or Hydrology significantly	disturbed? Are "Norm	ial Circumstances" present? Ye	:s <u> </u>
Are Vegetation, Soil, or Hydrology naturally pr	oblematic? (If needed	, explain any answers in Remark	(s.)
SUMMARY OF FINDINGS – Attach site map showing	sampling point locat	ions, transects, importa	nt features, etc.
Hydrophytic Vegetation Present? Yes No			
Hydric Soil Present? Yes 🔽 No 🗌		Yes <u>V</u> No _	
Wetland Hydrology Present? Yes Ves No			
Remarks: PEM, depressional wetland plot located between di	ke and open water on the	eastern portion of the excava	ated cell.
VEGETATION - Use scientific names of plant			
Tree Stratum Plot size (30 Foot Radius) Absolute Domiar		ominance Test worksheet	
Tree Stratum Plot size (30 Foot Radius) % Cover: Species	N	umber of Dominant Species at are OBL, FACW or FAC:	2 (A)
		otal Number of Dominant pecies Across All Strata:	3 (B)
Sapling/Shrub Stratum Plot size (15 Foot Radius)		ercent of Dominant Species hat Are OBL, FACW, or FAC:	66.7 % (A/B)
<u>Japinigroni ab Otratum</u>	Pi	revalence Index worksheet	
		Total % Cover of:	Multiply by:
		BL species 30 X 1	30
		ACW species 5 X 2 AC species 0 X 3	0
		ACU species 10 X4	40
Herbaceous Stratum Plot size (5 Foot Radius)	l u	PL species 0 X 5	0
Chenopodium album 10	FACU	olumn Totals 45 (A)	80 (B)
Chenopodium rubrum 10 Eleocharis palustris 20	OBL C		
Eleocharis palustris 20 Hordeum jubatum 5	FACW/	Prevalence Index = B/A =	1.78
Hordeum Jabatum 5	H ₂	ydrophytic Vegetation Indicato	
		1 - Rapid Test for Hydroph	
		✓ 2 - Dominance Test is >50°	
		✓ 3 - Prevalence Index is <=	3.0
		 4 - Morphological Adaptation supporting data in remarks sheet. 	
		5 - Wetland Non-Vascular I	Plants
Woody Vine Stratum Plot size (30 Foot Radius)		☐ Problematic Hydrophytic Ve	,
	pres	icators of hydric sil and wetland h sent, unless disturbed or problem	
Percent Bare Ground 55		ydrophytic Vegetation resent? Yes	NO 🗆
Remarks:			
Evidence of hydrophytic vegetation is present in both a posit	ve dominance test and a _l	prevalence index below 3.	

SOIL Sampling Point: DP-02w Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Matrix Redox Features Color (moist) Loc² Color (moist) Type Texture (inches) 0-05 2.5Y 20 С 2.5YR 4/3 80 3/6 M, PL Silty Clay 05-16+ 2.5Y 4/2 80 3/0 20 \Box Silty Clay Ν M ²Location: PL=Pore Lining, M=Matrix. ¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils³: Histosol (A1) 1 cm Muck (A9) (**LRR I, J**) Sandy Gleyed Matrix (S4) Histic Epipedon (A2) Sandy Redox (S5) Coast Prairie Redox (A16) (LRR F, G, H) Stripped Matrix (S6) Dark Surface (S7) (LRR G) Black Histic (A3) ✓ Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) High Plains Depressions (F16) Loamy Gleyed Matrix (F2) Stratified Layers (A5) (LRR F) (LRR H outside of MLRA 72 & 73) \perp 1 cm Muck (A9) (LRR F, G, H) Depleted Matrix (F3) Reduced Vertic (F18) Redox Dark Surface (F6) Red Parent Material (TF2) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Very Shallow Dark Surface (TF12) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Redox Depressions (F8) Other (Explain in Remarks) High Plains Depressions (F16) ³Indicators of hydrophytic vegetation and 2.5 cm Mucky Peat or Peat (S2) (LRR G, H) 5 cm Mucky Peat or Peat (S3) (LRR F) (MLRA 72 & 73 of LRR H) wetland hydrology must be present. unless disturbed or problematic. Restrictive Layer (if present): Type: Hydric Soil Present? Depth (inches): Remarks: Prominent redoximorphic concentrations common within the first horizon, prominent depletions in the second horizon. **HYDROLOGY** Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Secondary Indicators (minimum of two required) Surface Water (A1) ✓ Salt Crust (B11) Surface Soil Cracks (B6) High Water Table (A2) Aquatic Invertebrates (B13) Sparsely Vegetated Concave Surface (B8) ✓ Saturation (A3) ✓ Hydrogen Sulfide Odor (C1) Drainage Patterns (B10) Water Marks (B1) Dry-Season Water Table (C2) Oxidized Rhizospheres on Living Roots (C3) Oxidized Rhizospheres on Living Roots (C3) Sediment Deposits (B2) (where tilled) Drift Deposits (B3) (where not tilled) Crayfish Burrows (C8) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Saturation Visible on Aerial Imagery (C9) Iron Deposits (B5) Thin Muck Surface (C7) Geomorphic Position (D2) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) ▼ FAC-Neutral Test (D5) Water-Stained Leaves (B9) Frost-Heave Hummocks (D7) (LRR F) Field Observations: Yes No Depth (inches): Surface Water Present? Yes 🗌 No 🔽 Depth (inches): Water Table Present? Wetland Hydrology Present? Yes Yes _ No _ Depth (inches): ___ Saturation Present? (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Saturation to the soil surface and salt crusts indicate wetland hydrology. Surface water was observed within 10 feet of soil

Project/Site: Forsyth NW (West)	City/County: Rosebud		Sampling Date:	6/2/2022
Applicant/Owner: MDT				
Investigator(s): R Jones				
Landform (hillslope, terrace, etc.): Hillside				
Subregion (LRR): LRR G Lat:		· ·		
Lat:		ng:	Not mann	1M: 147 (D 00
Soil Map Unit Name: 138: Marvan silty clay, 0 to 2 percent slope				
Are climatic / hydrologic conditions on the site typical for this time of ye				a 🗆
Are Vegetation, Soil, or Hydrology significantly	disturbed? Are "Non	mal Circumstances" pr	esent? Yes <u></u>	<u> </u>
Are Vegetation, Soil, or Hydrology naturally pr	oblematic? (If neede	d, explain any answers	in Remarks.)	
SUMMARY OF FINDINGS – Attach site map showing	g sampling point loca	tions, transects,	important fe	etures, etc
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Yes No Wetland Hydrology Present? Remarks: United by the second of the	is the Sampled Are	a Yes	No <u> </u>	_
Remarks: Upland sample plot between Highway 12 and wetland VEGETATION - Use scientific names of plant	iu.			
_ Absolute Domian		Oominance Test work	sheet	
Tree Stratum Plot size (30 Foot Radius) % Cover: Species	s? Status N	lumber of Dominant Spat are OBL, FACW or	pecies	0 (A)
		otal Number of Domin Species Across All Stra		2 _(B)
Sapling/Shrub Stratum Plot size (15 Foot Radius)		Percent of Dominant Sp That Are OBL, FACW,		0.0 % (A/B)
Supringistras Gratari	F	revalence Index wor	ksheet	
	-	Total % Cover of:		lultiply by:
		•	0 X1	0
		- '	0 X2 1 X3	3
			7 X4	148
Herbaceous Stratum Plot size (5 Foot Radius)			0 X5	0
Elymus trachycaulus 11	FACU	Column Totals 38	B (A)	151 (B)
Lepidium perfoliatum 1 Pascopyrum smithii 25	FAC FACU			
Pascopyrum smithii 25 Thlaspi arvense 1	FACU	Prevalence Index	= B/A =	3.97
Thiaspi aivense	h	lydrophytic Vegetatio		, , , ,
		☐ 1 - Rapid Test f	, , ,	/egetation
		2 - Dominance		
		☐ 3 - Prevalence I	ndex is <= 3.0	
		4 - Morphologic supporting data sheet.		
		5 - Wetland Nor	ı₋Vascular Plant	re
Woody Vine Stratum Plot size (30 Foot Radius)		☐ Problematic Hydlicators of hydric sil an	d wetland hydro	logy must be
	1	esent, unless disturbed Hydrophytic Vegetation Present?	-	NO 🔽
Percent Bare Ground 61 Remarks:		1036111:		
An upland vegetation community is present at this data point				

SOIL Sampling Point: DP-03u Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Matrix Redox Features Loc² Color (moist) Color (moist) Texture (inches) Remarks 0-01 2.5Y 4/3 Silty Clay Loam 7.5YR 01-11 2.5Y 4/3 99 5/8 1 Clay 11+ Rock/Asphalt bottom ²Location: PL=Pore Lining, M=Matrix. ¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils³: Histosol (A1) 1 cm Muck (A9) (**LRR I, J**) Sandy Gleyed Matrix (S4) Histic Epipedon (A2) Sandy Redox (S5) Coast Prairie Redox (A16) (LRR F, G, H) Black Histic (A3) Stripped Matrix (S6) Dark Surface (S7) (LRR G) Loamy Mucky Mineral (F1) Hydrogen Sulfide (A4) High Plains Depressions (F16) Loamy Gleyed Matrix (F2) Stratified Layers (A5) (LRR F) (LRR H outside of MLRA 72 & 73) 1 cm Muck (A9) (**LRR F, G, H**) Depleted Matrix (F3) Reduced Vertic (F18) Redox Dark Surface (F6) Red Parent Material (TF2) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Very Shallow Dark Surface (TF12) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Redox Depressions (F8) Other (Explain in Remarks) High Plains Depressions (F16) ³Indicators of hydrophytic vegetation and 2.5 cm Mucky Peat or Peat (S2) (LRR G, H) 5 cm Mucky Peat or Peat (S3) (LRR F) (MLRA 72 & 73 of LRR H) wetland hydrology must be present. unless disturbed or problematic. Restrictive Layer (if present): Type: Hydric Soil Present? Depth (inches): Remarks: No hydric soil indicators observed. **HYDROLOGY** Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Secondary Indicators (minimum of two required) Surface Water (A1) Salt Crust (B11) Surface Soil Cracks (B6) High Water Table (A2) Aquatic Invertebrates (B13) Sparsely Vegetated Concave Surface (B8) Hydrogen Sulfide Odor (C1) Saturation (A3) Drainage Patterns (B10) Water Marks (B1) Dry-Season Water Table (C2) Oxidized Rhizospheres on Living Roots (C3) Oxidized Rhizospheres on Living Roots (C3) Sediment Deposits (B2) (where tilled) Drift Deposits (B3) (where not tilled) Crayfish Burrows (C8) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Saturation Visible on Aerial Imagery (C9) Iron Deposits (B5) Thin Muck Surface (C7) Geomorphic Position (D2) Inundation Visible on Aerial Imagery (B7) FAC-Neutral Test (D5) Other (Explain in Remarks) Water-Stained Leaves (B9) Frost-Heave Hummocks (D7) (LRR F) Field Observations: Yes No Depth (inches): Surface Water Present? Yes Depth (inches): Water Table Present? Wetland Hydrology Present? Yes No Yes ____ No ___ Depth (inches): _____ Saturation Present? (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: No evidence of wetland hydrology observed.

Project/Site: Forsyth NW (West)	City/County: Rosebud		Sampling Date: 6/2/20)22
Applicant/Owner: MDT			Sampling Point: DP-03w	
• •	Section, Township, Ran		39E	
Landform (hillslope, terrace, etc.): Toeslope			Slope (%):	2
	Lat: 46.339408			
Soil Map Unit Name: 138: Marvan silty clay, 0 to 2 percer	nt slopes	NWI classific	ation: Not mapped	
Are climatic / hydrologic conditions on the site typical for this t	time of vear? Yes 🔽 No	 (If no, explain in R	emarks.)	
Are Vegetation, Soil, or Hydrology sig				
Are Vegetation, Soil, or Hydrology nat	turally problematic? (If nee	eded explain any answer	rs in Remarks)	
SUMMARY OF FINDINGS – Attach site map sl				atc
		- Language California	, important icatarco, c	
Hydrophytic Vegetation Present? Yes ✓ No Hydric Soil Present? Yes ✓ No Wetland Hydrology Present? Yes ✓ No	within a Wetland	Area d? Yes <u>✔</u>	No	
Remarks: PEM, depressional wetland plot located on t		ıd cell.		
VEGETATION III-s signatification of plant				_
VEGETATION - Use scientific names of plant Absolute	Domiant Indicator	T _ ,		=
		Dominance Test work		Ì
		Number of Dominant S that are OBL, FACW of	or FAC: 3 (A)	
		Total Number of Domi Species Across All Str		
Sapling/Shrub Stratum Plot size (15 Foot Radius)		Percent of Dominant S That Are OBL, FACW,)
Sapining/Siliub Stratum Fiscoles (10 - Section 1.2.2.)		Prevalence Index wo		
		Total % Cover of OBL species	f: Multiply by: 19 X 1 19	-
		· ·	25 X 2 50	
		FAC species	6 X3 18	
Herbaceous Stratum Plot size (5 Foot Radius)		· ·	10 X 4 40	
Chenopodium album 10	✓ FACU	UPL species	0 X 5 0	ĺ
Distichlis spicata 15	✓ FACW	Column Totals 6	60 (A) 127	(B)
Eleocharis palustris 2	OBL	Prevalence Index	0.40	
Hordeum jubatum 10	✓ FACW	Hydrophytic Vegetati		_
Lepidium perfoliatum 3	FAC		for Hydrophytic Vegetation	
Puccinellia nuttalliana 2	OBL	✓ 2 - Dominance	, , ,	
Sarcobatus vermiculatus 3	FAC		Index is <= 3.0	
Schoenoplectus maritimus 15	✓ OBL			
			cal Adaptations (Provide a in remarks or on separate	
			on-Vascular Plants	
Woody Vine Stratum Plot size (30 Foot Radius)		1	drophytic Vegetation (Explai	
Woody ville Stratum 1 101 5120 (50 1 001 hadiao)			nd wetland hydrology must bed or problematic for #3, 4, 5.	
Percent Bare Ground 40		Hydrophytic Vegetati Present?	on Yes 🗹 NO]
Remarks:		<u> </u>		
Evidence of hydrophytic vegetation present in both a	positive dominance test and a	ı prevalence index tha	t is less than 3.	

SOIL Sampling Point: DP-03w Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Matrix Redox Features Color (moist) Color (moist) Loc² Type Texture (inches) 0-05 4/2 7 С 5Y 93 7.5YR 4/6 M, PL Silty Clay 05-11 С Silty Clay 2.5Y 4/3 50 10YR 4/4 20 M 05-11 10Y 4/1 30 D M Silty Clay 11-16+ 2.5Y 4/3 7.5YR 4/6+5/ C, 50 50 M Sandy Clay Loam ²Location: PL=Pore Lining, M=Matrix. ¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils³: Histosol (A1) 1 cm Muck (A9) (**LRR I, J**) Sandy Gleyed Matrix (S4) Histic Epipedon (A2) Sandy Redox (S5) Coast Prairie Redox (A16) (LRR F, G, H) Black Histic (A3) Stripped Matrix (S6) Dark Surface (S7) (LRR G) Loamy Mucky Mineral (F1) High Plains Depressions (F16) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Stratified Layers (A5) (LRR F) (LRR H outside of MLRA 72 & 73) ✓ Depleted Matrix (F3) 1 cm Muck (A9) (**LRR F, G, H**) Reduced Vertic (F18) Redox Dark Surface (F6) Red Parent Material (TF2) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Very Shallow Dark Surface (TF12) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Redox Depressions (F8) Other (Explain in Remarks) ☐ High Plains Depressions (F16) ³Indicators of hydrophytic vegetation and 2.5 cm Mucky Peat or Peat (S2) (LRR G, H) 5 cm Mucky Peat or Peat (S3) (LRR F) (MLRA 72 & 73 of LRR H) wetland hydrology must be present. unless disturbed or problematic. Restrictive Layer (if present): Type: Hydric Soil Present? Yes ✓ No Depth (inches): Remarks: Prominent redoximorphic concentrations common in mottles and along pore linings within the depleted matrix **HYDROLOGY** Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Secondary Indicators (minimum of two required) Surface Water (A1) ✓ Salt Crust (B11) Surface Soil Cracks (B6) High Water Table (A2) Aguatic Invertebrates (B13) Sparsely Vegetated Concave Surface (B8) ✓ Saturation (A3) Hydrogen Sulfide Odor (C1) Drainage Patterns (B10) Water Marks (B1) Dry-Season Water Table (C2) Oxidized Rhizospheres on Living Roots (C3) ✓ Oxidized Rhizospheres on Living Roots (C3) Sediment Deposits (B2) (where tilled) Drift Deposits (B3) (where not tilled) Crayfish Burrows (C8) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Saturation Visible on Aerial Imagery (C9) Iron Deposits (B5) Thin Muck Surface (C7) Geomorphic Position (D2) Inundation Visible on Aerial Imagery (B7) FAC-Neutral Test (D5) Other (Explain in Remarks) Water-Stained Leaves (B9) Frost-Heave Hummocks (D7) (LRR F) Field Observations: Yes ____ No ___ Depth (inches): Surface Water Present? Yes ____ No ___ Depth (inches): _ Water Table Present? Wetland Hydrology Present? Yes No Yes _ No _ Depth (inches): ____ Saturation Present? (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Soil saturation at a depth of 10", salt crusts, the point's geomorphic position, postive FAC-neutral test, and oxidized rhizospheres along living roots indicate wetland hydrology.

Project/Site: Forsyth NW (West)	City/County: Rose	ebud	Sampling Date	e:6/2/2022
Applicant/Owner: MDT		State: Monta	ana Sampling Poin	ıt: DP-04u
Investigator(s): R Jones	Section, Township	o, Range:20	7N 39	9E
Landform (hillslope, terrace, etc.): Hillside				Slope (%):5
Subregion (LRR): LRR G	.at: 46.34	0222 Long:	-106.877354 Da	atum: NAD 83
Subregion (LRR): LRR G Soil Map Unit Name: 36: Borollic Camborthids-Ustic Torric	orthents complex, 0 to 8	percent slop NWI cla	assification: Not map	ped
Are climatic / hydrologic conditions on the site typical for this tir				
Are Vegetation, Soil, or Hydrology sign				✓ No □
Are Vegetation, Soil, or Hydrology natu	rally problematic?	(If needed, explain any a	nswers in Remarks.)	
SUMMARY OF FINDINGS - Attach site map sh				
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Yes No No Remarks:	within a W	etland? Yes	□ No ✓	_
Remarks: Upland sample point adjacent to DP-04w in n VEGETATION - Use scientific names of plant	ortnern-most corner of	the monitoring area.		
Absolute [Domiant Indicator	Dominance Tes	t workshoot	
Tree Stratum Plot size (30 Foot Radius) % Cover: 6	Species? Status	Number of Domi	nant Species	0 (A)
		Total Number of Species Across		1 (B)
Sapling/Shrub Stratum Plot size (15 Foot Radius)		Percent of Domi That Are OBL, F		0.0 % (A/B)
<u>caping on as oraclin</u>		Prevalence Inde Total % Co OBL species FACW species FAC species	over of: 0 X 1	Multiply by: 0 0 30
Herbaceous Stratum Plot size (5 Foot Radius)		FACU species	70 X4	280
Elymus trachycaulus 10	FACU	UPL species		0
Lepidium perfoliatum 10	FAC	Column Totals	80 (A)	310 (B)
Pascopyrum smithii 55 Sisymbrium altissimum 5	▼ FACU	Prevalence	Index = B/A =	3.88
Sisymbrium altissimum 5	FACU_	1 - Rapid 2 - Domii 3 - Preva 4 - Morph supportir sheet. 5 - Wetla	getation Indicators Test for Hydrophytic nance Test is >50% Idence Index is <= 3.0 nological Adaptations ag data in remarks or nd Non-Vascular Pla atic Hydrophytic Vege) s (Provide on separate ints
Woody Vine Stratum Plot size (30 Foot Radius)		Indicators of hydric	c sil and wetland hyd sturbed or problemati	rology must be
Percent Bare Ground 20		Hydrophytic Ve Present?	getation Yes	□ NO 🗹
Remarks: The vegetation community at the sample point is domined to the sample point is domined.	nated by facultative upl	and species.		

SOIL Sampling Point: DP-04u Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Matrix Redox Features % Loc² Color (moist) Texture Color (moist) Remarks (inches) 0-02 100 2.5Y 3/3 Clay Loam Soil very dry 02-16+ 100 2.5Y 4/3 Clay ²Location: PL=Pore Lining, M=Matrix. ¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils³: Histosol (A1) 1 cm Muck (A9) (**LRR I, J**) Sandy Gleyed Matrix (S4) Histic Epipedon (A2) Sandy Redox (S5) Coast Prairie Redox (A16) (LRR F, G, H) Black Histic (A3) Stripped Matrix (S6) Dark Surface (S7) (LRR G) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) High Plains Depressions (F16) Loamy Gleyed Matrix (F2) Stratified Layers (A5) (LRR F) (LRR H outside of MLRA 72 & 73) \perp 1 cm Muck (A9) (LRR F, G, H) Depleted Matrix (F3) Reduced Vertic (F18) Redox Dark Surface (F6) Red Parent Material (TF2) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Very Shallow Dark Surface (TF12) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Redox Depressions (F8) Other (Explain in Remarks) High Plains Depressions (F16) ³Indicators of hydrophytic vegetation and 2.5 cm Mucky Peat or Peat (S2) (LRR G, H) 5 cm Mucky Peat or Peat (S3) (LRR F) (MLRA 72 & 73 of LRR H) wetland hydrology must be present. unless disturbed or problematic. Restrictive Layer (if present): Type: Hydric Soil Present? Depth (inches): Remarks: No hydric soil indicators observed. **HYDROLOGY** Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Secondary Indicators (minimum of two required) Surface Water (A1) Salt Crust (B11) Surface Soil Cracks (B6) High Water Table (A2) Aquatic Invertebrates (B13) Sparsely Vegetated Concave Surface (B8) Hydrogen Sulfide Odor (C1) Saturation (A3) Drainage Patterns (B10) Water Marks (B1) Dry-Season Water Table (C2) Oxidized Rhizospheres on Living Roots (C3) Oxidized Rhizospheres on Living Roots (C3) Sediment Deposits (B2) (where tilled) Drift Deposits (B3) (where not tilled) Crayfish Burrows (C8) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Saturation Visible on Aerial Imagery (C9) Iron Deposits (B5) Thin Muck Surface (C7) Geomorphic Position (D2) Inundation Visible on Aerial Imagery (B7) FAC-Neutral Test (D5) Other (Explain in Remarks) Water-Stained Leaves (B9) Frost-Heave Hummocks (D7) (LRR F) Field Observations: Yes No Depth (inches): Surface Water Present? Yes ____ No ___ Depth (inches): Water Table Present? Wetland Hydrology Present? Yes No Yes ____ No ___ Depth (inches): ____ Saturation Present? (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: No evidence of wetland hydrology observed.

Project/Site: Forsyth NW (West)	city/County: Rosebud	Sampling Date: 6/2/2022
	State: Montana	
		N 39E
Landform (hillslope, terrace, etc.): Toeslope	local relief (concave, convex, none): flat	
Subregion (LRR): LRR G Lat:	46.340203 Long:1	106.877312 Datum: NAD 83
Soil Map Unit Name: 36: Borollic Camborthids-Ustic Torriorthents		
•		•
Are climatic / hydrologic conditions on the site typical for this time of yea		
Are Vegetation, Soil, or Hydrology significantly c	isturbed? Are "Normal Circumstances"	present? Yes Vo No
Are Vegetation, Soil, or Hydrology naturally prob	plematic? (If needed, explain any answ	ers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing	sampling point locations, transect	s, important features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Remarks: PEM, depressional plot located just downstream of the	Is the Sampled Area within a Wetland? Yes e culvert at the northern end of the excav	
VEGETATION - Use scientific names of plant		
Tree Stratum Plot size (30 Foot Radius) Absolute Domiant % Cover: Species?	Indicator Status Dominance Test wo	orksheet
	Number of Dominant that are OBL, FACW	
	Total Number of Don Species Across All S	
Sapling/Shrub Stratum Plot size (15 Foot Radius)	Percent of Dominant That Are OBL, FACV	
Supring, Street, Stree	Prevalence Index w Total % Cover	
	OBL species	70 X1 70
	FACW species	7 X2 14
	FAC species FACU species	3 X3 9 5 X4 20
Herbaceous Stratum Plot size (5 Foot Radius)	UPL species	
Cyrtorhyncha cymbalaria 5	OBL	
Eleocharis palustris 30	FACIL	85 (A) 113 (B)
Elymus canadensis 5	FACU Prevalence Inde	ex = B/A = 1.33
Hordeum jubatum 5 Lepidium perfoliatum 3	FAC Hydrophytic Vegeta	
Salicornia rubra 10	ORI	st for Hydrophytic Vegetation
Schoenoplectus maritimus 25	OBI 2 - Dominand	ce Test is >50%
Spartina pectinata 2	FACW 3 - Prevalence	ce Index is <= 3.0
	4 - Morpholog supporting da sheet.	gical Adaptations (Provide ata in remarks or on separate
Woody Vine Stratum Plot size (30 Foot Radius)		Hydrophytic Vegetation (Explain)
WOODY WHIE GRADUIT		and wetland hydrology must be ped or problematic for #3, 4, 5.
Percent Bare Ground 15	Hydrophytic Vegeta Present?	ation Yes ⊻ NO □
Remarks:		
Evidence for a hydrophytic plant community includes a positive	edominance test and a prevalence index	below three.

SOIL										Sampling Point: DP-04W
Profile Desc	cription: (Describe	to the de	oth neede	d to docur	nent the i	ndicator	or conf	firm the absence of indi	cators.)
Depth		Matrix				x Features		2		
(inches)	Color	(moist)	%	Color	(moist)		_Type [†]	Loc ²	Texture	Remarks
0-04	2.5Y	4/2	60	7.5YR	4/4	40	С	M,PL	Fine Sandy Clay	
04-15	2.5Y	4/3	73	N	4/2	20	D	M	Sandy Clay Loam	
04-15				7.5YR	3/4	7	С	M,PL		
								-		
								-		
¹Type: C=Co	oncentration	on, D=Dep	letion, RM	=Reduce	d Matrix, CS	S=Covered	d or Coat	ed Sanc	d Grains. ² Location:	PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators	s: (Applic	able to al	I LRRs, u	nless other	rwise note	ed.)		Indicators for Pro	oblematic Hydric Soils³:
Histosol	(A1)]	Sandy 0	Gleyed Ma	trix (S4)		1 cm Muck (A	9) (LRR I, J)
Histic Ep	pipedon (A	(2)]	Sandy F	Redox (S5))		Coast Prairie	Redox (A16) (LRR F, G, H)
Black Hi	istic (A3)			_	Stripped	d Matrix (S	6)		Dark Surface	(S7) (LRR G)
Hydroge	en Sulfide	(A4)		_	Loamy	Mucky Min	eral (F1))	High Plains D	epressions (F16)
Stratified	d Layers (A	45) (LRR F	=)		Loamy (Gleyed Ma	atrix (F2)		(LRR H ou	itside of MLRA 72 & 73)
		.RR F, G, I				d Matrix (F	-		Reduced Vert	ic (F18)
		ark Surfac	e (A11)	_	_	Dark Surfa	. ,		Red Parent M	
	ark Surfac					d Dark Su	-	')		Dark Surface (TF12)
_	/lucky Mine			_		Depression			U Other (Explain	
	-	t or Peat (ains Depre				ophytic vegetation and
5 cm Mu	icky Peat	or Peat (S	3) (LRR F)	(ML	RA 72 & 7	3 of LR	R H)		logy must be present,
									unless disturb	ed or problematic.
Restrictive I	Layer (if p	resent):								
Туре:										
Depth (in	ches):								Hydric Soil Preser	nt? Yes 🔽 No 🔲
Remarks: Pi	rominent	redoximo	orphic co	ncentratio	ons preser	nt within t	he depl	eted m	atrix and along pore lir	nings.
			•		•				01	3
HYDROLO	GY									
Wetland Hy	drology lr	ndicators:								
Primary Indic	cators (mir	nimum of o	ne require	d; check a	all that appl	y)			Secondary Indic	cators (minimum of two required)
✓ Surface	Water (A1)			Salt Crust	(B11)			Surface So	il Cracks (B6)
✓ High Wa	ater Table	(A2)			Aquatic In	vertebrates	s (B13)		Sparsely Ve	egetated Concave Surface (B8)
✓ Saturation	on (A3)			П	Hydrogen	Sulfide Oc	dor (C1)		☐ Drainage P	atterns (B10)
Water M	larks (B1)			\Box	Dry-Seaso)	Oxidized R	hizospheres on Living Roots (C3)
_	nt Deposits	s (B2)		✓	Oxidized F					
	posits (B3)					not tilled)		J	Crayfish Bu	•
=	at or Crust				Presence		d Iron (C	(4)		Visible on Aerial Imagery (C9)
	osits (B5)			\vdash	Thin Muck		-	•,	_	c Position (D2)
		on Aerial I	magery (F	27)	Other (Exp				FAC-Neutra	
	itained Lea		inagery (L	,,,	Other (EX		marks)		=	e Hummocks (D7) (LRR F)
Field Obser		1VC3 (D3)							Trost-ricav	C Harrinooks (B7) (ERRT)
			es 🗸	N	D 11- (" -	-1>	3			
Surface Water				No	_ Depth (in					
Water Table Saturation P			es 🗸	No	_ Depth (ind _ Depth (ind	. —	10 0	- "	/etland Hydrology Prese	ent? Yes No
(includes cap	oillary fring	je)								165 NO
Describe Re	corded Da	ita (stream	gauge, m	onitoring	weii, aerial į	pnotos, pre	evious in	spection	ns), if available:	
Remarks	iidona-	f wotler-	bydrel-	ny ipolessi	00 0 bi===	votor t-bl	0.004	otion -	t the soil surface a ===	oitivo EAC poutral tast and
EV	ridence o	ו wetiand ter to a d	ilyarolog onth of 2'	y include ' at the e	es a high v ampling po	vater tabl sint	e, satur	auon ai	une son surrace, а роз	sitive FAC-neutral test, and
Su	aoc wa	.c. to a ut	JP41 01 3	at 1110 S	ampinig po	J.111.				

MDT WETLAND MITIGATION SITE MONITORING FORM

Project Site: Forsyth NW - East	Assessment Date/Time	6/1/2022
Person(s) conducting the assessment: R	. Jones	
Weather: Partly sunny, 85 degrees F	Location: ~8 miles NW of Forsyth	
MDT District: Glendive	Milepost: ~262.3 on US 12	
Legal Description: T <u>7N</u> R <u>39E</u> Section	on(s) <u>34</u>	
Initial Evaluation Date: 8/15/2013 M	onitoring Year: <u>10</u> #Visits in Year: <u>1</u>	
Size of Evaluation Area: 2.74 (acres)		
Land use surrounding wetland:		
Agriculture and US Highway 12.		
	HYDROLOGY	
Surface Water Source: Precipitation, runoff	;	
Inundation: Average Depth:	0 (ft) Range of Depths: 0 (ft)	
Percent of assessment area under inundation	ı: <u>0 %</u>	
Depth at emergent vegetation-open water boເ	undary:0 (ft)	
If assessment area is not inundated then are	the soils saturated within 12 inches of surface:	No
Other evidence of hydrology on the site (ex. –	· drift lines, erosion, stained vegetation, etc <u>:</u>	
Geomorphic position, surface soil cracks, of leaves.	oxidized rhizospheres on living roots, water stained	t
Groundwater Monitoring Wells		
Record depth of water surface below gro	und surface, in feet.	
Additional Activities Checklist:		
Map emergent vegetation-open water boundary on	aerial photograph.	
Observe extent of surface water during each site vis	sit and look for evidence of past surface water	
elevations (drift lines, erosion, vegetation staining, etc.) Use GPS to survey groundwater monitoring well loc	cations if present	
lydrology Notes:	ations, ii present.	
Site was very dry on the day of investigation	า.	

VEGETATION COMMUNITIES

Site Forsyth NW - East

(Cover Class Codes $\mathbf{0} = < 1\%$, $\mathbf{1} = 1-5\%$, $\mathbf{2} = 6-10\%$, $\mathbf{3} = 11-20\%$, $\mathbf{4} = 21-50\%$, $\mathbf{5} = >50\%$)

Community # 3 Community Type: Pascopyrum smithii / Elymus spp. Acres: 2.02

Species	Cover class	Species	Cover class
gropyron cristatum	1	Alopecurus arundinaceus	1
mbrosia psilostachya	0	Bare Ground	3
omus arvensis	1	Bromus japonicus	0
omus tectorum	1	Chenopodium album	1
nvolvulus arvensis	1	Elymus canadensis	1
ymus repens	1	Elymus trachycaulus	2
phorbia esula	0	Grindelia squarrosa	0
deum jubatum	1	Lactuca serriola	1
idium perfoliatum	2	Linum lewisii	0
copyrum smithii	5	Poa compressa	1
a pratensis	2	Populus tremuloides	0
mex crispus	1	Schedonorus pratensis	1
ymbrium altissimum	0	Thlaspi arvense	3
gopogon dubius	1		

Comments:

Significant increase in bare ground and decrease in total cover.

Community # 4 Community Type: Hordeum jubatum / Eleocharis palustris Acres: 0.72

Species	Cover class	Species	Cover class
Alopecurus arundinaceus	3	Alopecurus pratensis	2
Bare Ground	3	Convolvulus arvensis	0
Eleocharis palustris	2	Elymus repens	1
Hordeum jubatum	2	Lactuca serriola	2
Lepidium perfoliatum	1	Pascopyrum smithii	2
Poa compressa	1	Poa pratensis	1
Populus deltoides	1	Puccinellia nuttalliana	0
Rumex crispus	0	Salix fragilis	1
Schedonorus pratensis	1	Schoenoplectus maritimus	0
Spartina pectinata	0	Thlaspi arvense	2
Tragopogon dubius	0		

Comments:

Reduced cover from Hordeum jubatum across site, and increased cover from Pascopyrum smithii in wetlands.

VEGETATION TRANSECTS

Internal Date:				
Interval Data: Ending Station	32	Community Type:	Pascopyrum smithii / Elymu	JS SD.
Species		Cover class	Species	Cover class
Bare Ground		3	Lactuca serriola	1
Lepidium perfoliatum		1	Pascopyrum smithii	5
Schedonorus pratensis		0	Sisymbrium altissimum	0
Thlaspi arvense		2	•	
Ending Station	97	Community Type:	Hordeum jubatum / Eleocha	aris palustris
Species		Cover class	Species	Cover class
Alopecurus arundinaceus		5	Bare Ground	3
Eleocharis palustris		2	Elymus repens	1
Hordeum jubatum		1		
Ending Station	125	Community Type:	Pascopyrum smithii / Elymu	ıs sp.
Species		Cover class	Species	Cover class
Alopecurus arundinaceus		1	Bare Ground	2
Bromus japonicus		0	Bromus tectorum	0
Chenopodium album		2	Convolvulus arvensis	2
Elymus trachycaulus		2	Lactuca serriola	3
Lepidium perfoliatum		1	Pascopyrum smithii	2
Poa compressa		2	Schedonorus pratensis	0
Thlaspi arvense		2		
Transect Notes:				

Transect Number: 2 Compass Direction from Start: 280

Interval Data:

Ending Station 21 Community Type: Pascopyrum smithii / Elymus spp

Species	Cover class	Species	Cover class
Bare Ground	4	Grindelia squarrosa	0
Hordeum jubatum	0	Pascopyrum smithii	5
Poa compressa	1		

Ending Station 130 Community Type: Hordeum jubatum / Eleocharis palustris

Species	Cover class	Species	Cover class
Alopecurus arundinaceus	1	Bare Ground	3
Convolvulus arvensis	1	Eleocharis palustris	3
Hordeum jubatum	0	Lactuca serriola	3
Pascopyrum smithii	3	Poa compressa	3
Puccinellia nuttalliana	1	Salix fragilis	1
Schedonorus pratensis	1	Tragopogon dubius	0

Ending Station 181 Community Type: Pascopyrum smithii / Elymus spp.

Species	Cover class	Species	Cover class
Bare Ground	3	Chenopodium album	0
Lactuca serriola	1	Pascopyrum smithii	5
Poa compressa	2	Rumex crispus	1
Thlaspi arvense	2	Tragopogon dubius	0

Transect Notes:

Increased vegetative cover since 2021, especially from annual forb species. Annual weed cover was highest in areas that had high amounts of bare ground in 2021.

PLANTED WOODY VEGETATION SURVIVAL

Forsyth NW - East

Comments

No planted woody vegetation.

Forsyth NW - East

WILDLIFE

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
Eastern Kingbird	3	L, FO, BP	UP
Meadowlark	2	FO	
Purple Martin	4	L	UP
Western Kingbird	4	L, FO, BP	UP
Bird Comments			

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

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

Mammals and Herptiles

Wildlife Comments:

No wildlife noted during the 2022 field survey.

Forsyth NW - East

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 on the form of the least of the lea			

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	46.320907	-106.838693			
DP01w	46.32093	-106.83866			
DP02u	46.32043	-106.83774			
DP02w	46.320438	-106.837783			
DP03u	46.318974	-106.835472			
DP03w	46.318997	-106.835454			
DP04u	46.319845	-106.836901			
DP04w	46.319879	-106.836857			
PP-1	46.321003	-106.838814	125	Photo Point 1	
PP-2	46.320068	-106.837128	210	Photo Point 2	
PP-3	46.318233	-106.834335	305	Photo Point 3	
T-1 end	46.320297	-106.838493	325	Transect 1 end	
T-1 start	46.321045	-106.838486	145	Transect 1 start	
T-2 end	46.318417	-106.834923	100	Transect 2 end	
T-2 start	46.318336	-106.834175	280	Transect 2 start	

Comments:

ADDITIONAL ITEMS CHECKLIST

	Hydrology				
☐ ☑ lines	Map emergent vegetation/open water boundary on aerial photos. Observe extent of surface water. Look for evidence of past surface water elevations (e.g. drift, 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				
✓ Ma	ap vegetation community boundaries				
✓ Co	emplete Vegetation Transects				
	Soils				
✓ As	ssess soils				
	Wetland Delineations				
☑ Supp	Delineate wetlands according to applicable USACE protocol (1987 form or lement)				
	Delineate wetland – upland boundary onto aerial photograph.				
Wetla	and Delineation Comments				
In	2022, 0.74-acres or wetland were delineated, an increase of 0.14-acres from 2021.				
Functional Assessments					
✓ forms	Complete and attach full MDT Montana Wetland Assessment Method field s.				
Funct	tional Assessment Comments:				
Ca	ategory 3 wetland.				

Maintenance

Were man-made nesting structure installed at this site?

MDT WETLAND MITIGATION SITE MONITORING FORM

Project Site: Forsyth NW - MiddleAssessment Date/Time	6/1/2022
Person(s) conducting the assessment: R. Jones	
Weather: Partly sunny, 85 degrees F Location: ~9 miles NW of Forsyth	
MDT District: Glendive Milepost: ~262 on US 12	_
Legal Description: T <u>7N</u> R <u>39E</u> Section(s) <u>33</u>	
Initial Evaluation Date: 8/15/2013 Monitoring Year: 10_#Visits in Year: 1	
Size of Evaluation Area: 1.8 (acres)	
Land use surrounding wetland: Rangeland with evidence of grazing and Highway 12.	
HYDROLOGY	
Surface Water Source: Precipitation, runoff, and overflow from ditch	
Inundation: Average Depth: 0 (ft) Range of Depths: (f	<u>ft)</u>
Percent of assessment area under inundation:0 %	
Depth at emergent vegetation-open water boundary:0 (ft)	
If assessment area is not inundated then are the soils saturated within 12 inches of surface:	No
Other evidence of hydrology on the site (ex. – drift lines, erosion, stained vegetation, etc <u>:</u>	
Geomorphic position, surface soil cracks, water stained leaves.	
Groundwater Monitoring Wells	
Record depth of water surface below ground surface, in feet.	
Additional Activities Checklist:	
✓ Map emergent vegetation-open water boundary on aerial photograph.	
Observe extent of surface water during each site visit and look for evidence of past surface water	
elevations (drift lines, erosion, vegetation staining, etc.)	
Use GPS to survey groundwater monitoring well locations, if present. Hydrology Notes:	
Site still exhibits more marginal wetland habitat in 2022.	

VEGETATION COMMUNITIES

Site Forsyth NW - Middle

(Cover Class Codes **0** = < 1%, **1** = 1-5%, **2** = 6-10%, **3** = 11-20%, **4** = 21-50%, **5** = >50%)

Community # 3 Community Type: Pascopyrum smithii / Elymus canadensis Acres: 1.22

Species	Cover class	Species	Cover class	
Bare Ground	2	Bromus arvensis	0	
Bromus inermis	2	Bromus tectorum	1	
Chenopodium album	1	Cirsium arvense	2	
Convolvulus arvensis	1	Elymus canadensis	1	
Elymus elymoides	1	Elymus trachycaulus	1	
Grindelia squarrosa	0	Hordeum jubatum	1	
Juncus balticus	1	Lactuca serriola	1	
Linum lewisii	0	Melilotus officinalis	0	
Pascopyrum smithii	4	Poa palustris	1	
Poa pratensis	2	Populus deltoides	1	
Ratibida columnifera	1	Rosa woodsii	1	
Rumex crispus	0	Sarcobatus vermiculatus	1	
Schedonorus pratensis	1	Symphoricarpos albus	2	
Taraxacum officinale	0	Thlaspi arvense	1	
Tragopogon dubius	1			

Comments:

Upland community surrounding wetland swale.

	<u> </u>			
Species	Cover class	Species	Cover class	
Bare Ground	4	Bromus arvensis	1	
Chenopodium album	1	Cirsium arvense	2	
Convolvulus arvensis	1	Deschampsia elongata	1	
Eleocharis palustris	2	Elymus lanceolatus	1	
Elymus repens	1	Elymus trachycaulus	2	
Grindelia squarrosa	1	Hordeum jubatum	1	
Juncus balticus	0	Lactuca serriola	3	
Lepidium perfoliatum	0	Medicago sativa	0	
Nassella viridula	1	Pascopyrum smithii	2	
Poa palustris	1	Poa pratensis	1	
Populus deltoides	1	Puccinellia nuttalliana	2	
Rumex crispus	0	Salix lutea	1	
Schedonorus pratensis	2	Schoenoplectus maritimus	1	
Thlaspi arvense	0	Tragopogon dubius	1	
Comments:				

Community # 5 Community Type: Hordeum jubatum / Eleocharis palustris

This community has been described as CT4 in previous years, but was changed due to Puccinellia nuttalliana being nearly absent, a reduction Eleocharis palustris, and an increase in FAC and FACU species.

Total Vegetation Community Acreage

1.8

Acres:

VEGETATION TRANSECTS

Transect Number: <u>1</u>	Compass D	irection from Start: <u>2</u>	05
Interval Data:			
Ending Station	¹⁴ Community Type:	Pascopyrum smithii / Elymu	us canadensis
Species	Cover class	Species	Cover class
Bare Ground	3	Chenopodium album	1
Convolvulus arvensis	0	Elymus canadensis	1
Grindelia squarrosa	0	Juncus balticus	1
Pascopyrum smithii	3	Schedonorus pratensis	0
Taraxacum officinale	0	Tragopogon dubius	0
Ending Station	28 Community Type:	Hordeum jubatum / Eleoch	aris palustris
Species	Cover class	Species	Cover class
Bare Ground	2	Deschampsia elongata	1
Eleocharis palustris	1	Elymus repens	1
Elymus trachycaulus	0	Hordeum jubatum	1
Juncus balticus	0	Lactuca serriola	1
Lepidium perfoliatum	0	Pascopyrum smithii	1
Poa palustris	0	Poa pratensis	2
Puccinellia nuttalliana	1	Schedonorus pratensis	4
Thlaspi arvense	0	Tragopogon dubius	0
Ending Station	50 Community Type:	Pascopyrum smithii / Elymu	us canadensis
Species	Cover class	Species	Cover class
Bare Ground	3	Elymus trachycaulus	1
Pascopyrum smithii	2	Poa pratensis	3
Populus deltoides	4	Ratibida columnifera	0
Schedonorus pratensis	1	Symphoricarpos albus	2
Transect Notes:			

PLANTED WOODY VEGETATION SURVIVAL

Forsyth NW - Middle

Comments

No planted woody vegetation. Young volunteer cottonwoods doing well around edge of wetland, especially on southeast end.

WILDLIFE

Birds					
Were man-made nes	sting structures	installed? _	No		
If yes, type of structu	re:				_
How many?					
Are the nesting struct	tures being us	ed?	No		
Do the nesting struct	ures need repa	airs?	No		
Nesting Structu	re Comments	::			
Species	#Observed	Behavior		Habitat	
Bird Comments					
No birds observed in 2022					
BEHAVIOR CODES					
BP = One of a breeding pair	r BD = Breeding di	splav F = Foragi	ina FO = Flvover L =	Loafing N = Nesting	
HABITAT CODES		, · · · · · · · · · · · · · · · · ·			

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

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

Mammals and Herptiles

Wildlife Comments:

Very little wildlife or sign of wildlife noted during the 2022 field survey.

Forsyth NW - Middle

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	46.322287	-106.841307		
DP01w	46.322321	-106.841281		
PP-1	46.322174	-106.840996	300	Photo Point 1:
PP-2	46.323803	-106.844337	120	Photo Point 2:
T-1 end	46.322754	-106.842438	25	Transect 1 end:
T-1 start	46.322948	-106.842323	205	Transect 1 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). 	t
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 	
✓ 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	
0.58 acres of wetlands delineated in 2022.	
Functional Assessments	
Complete and attach full MDT Montana Wetland Assessment Method field forms.	
Functional Assessment Comments:	
Category 3 wetland.	

Maintenance

Were man-made nesting structure installed at this site?

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? No
If yes, are the structures in need of repair?
If yes, describe the problems below.
N/A.

MDT WETLAND MITIGATION SITE MONITORING FORM

Project Site: Forsyth NVV - WestAssessment Date/Time	<u> 6/2/2</u> (
Person(s) conducting the assessment: R. Jones	
Weather: Partly sunny, 95 degrees F Location: ~15 miles NW of Forsyth	
MDT District: Glendive Milepost: RP 280 on US 12	
Legal Description: T <u>7N</u> R <u>39E</u> Section(s) 20 & 29	
Initial Evaluation Date: 8/15/2013 Monitoring Year: 10 #Visits in Year: 1	
Size of Evaluation Area: 13.71 (acres)	
Land use surrounding wetland:	
Agriculture, grazing, US 12	
HYDROLOGY	
Surface Water Source: Big Porcupine Cr., E.Spring Coulee, runoff, seasonally high ground water	<u>r</u>
Inundation: Average Depth: 1 (ft) Range of Depths: 0.5-4 (ft)	
Percent of assessment area under inundation: 82 %	
Depth at emergent vegetation-open water boundary: 2 (ft)	
If assessment area is not inundated then are the soils saturated within 12 inches of surface: No)
Other evidence of hydrology on the site (ex. – drift lines, erosion, stained vegetation, etc:	
Majority of the wetland area inundated in 2022. Much of the mudflats observed in 2021 were	
inundated or had developed more vegetation in 2022.	
Groundwater Manitorina Walla	
Groundwater Monitoring Wells	
Record depth of water surface below ground surface, in feet.	
Additional Activities Checklist:	
☐ Map emergent vegetation-open water boundary on aerial photograph.	
Observe extent of surface water during each site visit and look for evidence of past surface water	
elevations (drift lines, erosion, vegetation staining, etc.)	
Use GPS to survey groundwater monitoring well locations, if present.	
Hydrology Notes:	
Hydrologic sources include Big Porcupine Creek, East Spring Coulee, and a high water table.	
Mitigation area receives surface water from East Spring Creek Coulee and from periodic flooding of Big Porcupine Creek. The majority of the site was inudated during the 2022 site visit and wated depth was 6 inches to 1 foot deeper than in 2021. The site supports extended periods of inundatation as is evidenced by drowned woody vegetation and an absence of herbaceous vegetation around the edges of the open water.	_

VEGETATION COMMUNITIES

Site Forsyth NW - West

(Cover Class Codes $\mathbf{0}$ = < 1%, $\mathbf{1}$ = 1-5%, $\mathbf{2}$ = 6-10%, $\mathbf{3}$ = 11-20%, $\mathbf{4}$ = 21-50%, $\mathbf{5}$ = >50%)

Community # 1 Community Type	Bromus tectorum / Sarcobatus vermiculatus	Acres:	<u>0.79</u>
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Species	Cover class	Species	Cover class
Bare Ground	3	Bassia scoparia	1
Bromus inermis	2	Bromus tectorum	4
Chenopodium album	1	Elymus repens	2
uphorbia esula	1	Galium triflorum	0
rdeum jubatum	1	Opuntia polyacantha	0
scopyrum smithii	2	Poa pratensis	1
arcobatus vermiculatus	2	Schedonorus pratensis	2
nlaspi arvense	1	Yucca glauca	0

Comments:

Sarcobartus vermiculatus observed in poor condition.

Cc	mmunity #	5 (Community 7	Гуре:	Symphoricarpos albus / Pascopyrum smithii	Acres:	1.1	8
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Species	Cover class	Species	Cover class
Bare Ground	1	Bassia scoparia	1
Bromus inermis	2	Bromus japonicus	0
Carex sp.	0	Chenopodium album	1
Cirsium arvense	2	Eleocharis lanceolata	1
Elymus repens	3	Glycyrrhiza lepidota	1
Grindelia squarrosa	0	Hordeum jubatum	0
Pascopyrum smithii	0	Poa compressa	1
Poa pratensis	3	Ribes sp.	1
Sarcobatus vermiculatus	1	Symphoricarpos albus	2
Thlaspi arvense	1		

Comments:

Upland community type.

Community #	6	Community Type:	Pascopyrum smithii / Bromus tectorum	Acres:	0.99
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Species	Cover class	Species	Cover class
Achnatherum hymenoides	0	Bare Ground	3
Bassia scoparia	1	Bromus arvensis	1
Bromus japonicus	0	Bromus tectorum	2
Chenopodium album	1	Elymus canadensis	1
Elymus lanceolatus	1	Elymus trachycaulus	1
Euphorbia esula	0	Helianthus annuus	0
Hordeum jubatum	2	Lepidium perfoliatum	2
Linum lewisii	0	Melilotus officinalis	0
Pascopyrum smithii	5	Poa pratensis	0
Sisymbrium altissimum	2	Thlaspi arvense	2
Commenter			

Comments:

Some areas previously classified as CT 6 have transitioned to CT 1 and thus the acreage covered by CT 6 decreased by 0.14 acres in 2022.

Community # 8 Community Type: Typha latifolia / Eleocharis palustris Acres: 0.58

Species	Cover class	Species	Cover class
Eleocharis palustris	2	Open Water	2
Populus deltoides	1	Salix amygdaloides	1
Schoenoplectus acutus	0	Schoenoplectus maritimus	0
Sonchus arvensis	1	Spartina pectinata	1
Typha angustifolia	3	Typha latifolia	4

Comments:

Comments:

CT 8 acreage increased by 0.22 acres since 2021. This shift is reflective of Typha expansion across the site.

Community # 16 Community Type: Alopecurus arundinaceus / Hordeum jubatum Acres: 0.08

Species	Cover class	Species	Cover class
Alopecurus arundinaceus	4	Bare Ground	1
Cirsium arvense	0	Eleocharis lanceolata	0
Elymus repens	0	Glycyrrhiza lepidota	0
Hordeum jubatum	4	Pascopyrum smithii	0
Poa compressa	0	Rumex crispus	3
Sagittaria cuneata	1	Symphoricarpos albus	0

The boundaries of this CT changed slightly in 2022.

Community # 17 Community Type: Open Water / Aquatic macrophytes Acres: 8.26

Species	Cover class	Species	Cover class
Aquatic macrophytes	0	Bare Ground	1
Eleocharis palustris	0	Open Water	5
Schoenoplectus maritimus	1	Typha angustifolia	1
Typha latifolia	1		

Comments:

0.66 acre increase in open water since 2021.

Community # 18 Community Type: Hordeum jubatum / Typha spp. Acres: 1.19

Species	Cover class	Species	Cover class
Bare Ground	4	Chenopodium album	1
Eleocharis palustris	3	Elymus trachycaulus	0
Grindelia squarrosa	1	Hordeum jubatum	2
Open Water	1	Pascopyrum smithii	0
Poa pratensis	0	Polygonum aviculare	0
Populus deltoides	0	Puccinellia nuttalliana	1
Rumex crispus	0	Salicornia rubra	1
Schoenoplectus maritimus	2	Typha angustifolia	2
Typha latifolia	1		

Comments:

This community type was created to replace CT9, Eleocharis palustris/Open Water as a result of the need to classify open water as its own community type, and the need for a new wetland community that fringes open water.

In 2022, the acreage of this CT increased by 0.07 acres.

Community # 19 Community Type: Mudflat / Acres: 0.51

Species	Cover class	Species	Cover class
Bare Ground	5	Chenopodium album	0
Chenopodium rubrum	0	Distichlis spicata	0
Eleocharis palustris	1	Rumex crispus	0
Salicornia rubra	1	Schoenoplectus maritimus	1

Comments:

Mudflats acreage decreased by 0.91 acres in 2022 due to increased inundation and increased growth of emergent plant species in areas previously classified as mudflat.

Community # 20 Community Type:		Thlaspi arvense / Lepidium perfol	iatum Acres:	<u>0.14</u>
Species	Cover class	Species	Cover class	
Bare Ground	2	Chenopodium album	2	
Lepidium perfoliatum	4	Pascopyrum smithii	2	
Sarcobatus vermiculatus	0	Thlaspi arvense	4	
Comments:				
New community type on SE	end of project area.			
Total Vegetation Community Acreage				

VEGETATION TRANSECTS

Transect Number: 1	Compas	s Direction from Start:	<u> 25</u>
Interval Data:			
Ending Station	14 Community Ty	pe: Pascopyrum smithii / Brom	us tectorum
Species	Cover class	Species	Cover class
Bare Ground	1	Bromus tectorum	5
Euphorbia esula	3	Pascopyrum smithii	2
Poa pratensis	1		
Ending Station	264 Community Ty	pe: Open Water / Aquatic mac	rophytes
Species	Cover class	Species	Cover class
Open Water	5		
Ending Station	275 Community Ty	pe: Mudflat /	
Species	Cover class	Species	Cover class
Bare Ground	5	Schoenoplectus maritimus	1
Ending Station	282 Community Ty	pe: Hordeum jubatum / Typha	sp.
Species	Cover class	Species	Cover class
Bare Ground	1	Chenopodium album	4
Elymus trachycaulus	2	Hordeum jubatum	2
Pascopyrum smithii	2	Poa pratensis	1
Schoenoplectus maritimus	1		

Transect Number: 2		_ Compass Di	rection from Start:	25
Interval Data: Ending Station	10	Community Type:	Symphoricarpos albus / Pa	ascopyrum smithii
Species		Cover class	Species	Cover class
Bare Ground		2	Cirsium arvense	1
Eleocharis lanceolata		1	Elymus repens	3
Glycyrrhiza lepidota		0	Grindelia squarrosa	1
Hordeum jubatum		0	Pascopyrum smithii	1
Poa pratensis		2	Symphoricarpos albus	1
Ending Station	232	Community Type:	Open Water / Aquatic mad	crophytes
Species		Cover class	Species	Cover class
Eleocharis palustris		0	Open Water	5
Schoenoplectus maritim	us	1	Typha angustifolia	1
Ending Station	245	Community Type:	Mudflat /	
Species		Cover class	Species	Cover class
Bare Ground		5	Chenopodium album	1
Chenopodium rubrum		0	Salicornia rubra	1
Schoenoplectus maritim	us	1	Unk. Succulent	1
Ending Station	261	Community Type:	Pascopyrum smithii / Bron	nus tectorum
Species		Cover class	Species	Cover class
Bare Ground		1	Bromus arvensis	0
Bromus tectorum		1	Chenopodium album	0
Elymus lanceolatus		1	Elymus trachycaulus	0
Hordeum jubatum		1	Lepidium perfoliatum	3
Pascopyrum smithii		2	Poa pratensis	1
Sisymbrium altissimum		1		
Transect Notes:				
Majority of transect i	s now	inundated.		

PLANTED WOODY VEGETATION SURVIVAL

Forsyth NW - West

Comments

No woody vegetation planted at site. Natural recruitment of cottonwoods and willows is occurring.

Forsyth NW - West

WILDLIFE

Were man-made nesting structures installed?	<u>No</u>
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 Coot	1	F	OW	
American Wigeon	2	F, L	OW, MA	
Cinnamon Teal	3	F, L	OW	
Cliff Swallow	4	FO	UP, OW	
Common Nighthawk	4	FO	UP	
Killdeer	4	F, N	MF, UP	
Mallard	2	F, L	OW, MA	
Mourning Dove	2	L	UP	
Northern Pintail	2	F	OW, MA	
Northern Shoveler	1	F	OW	
Red-winged Blackbird	2	L, N	MA	
Sandpiper Sp.	3	F	MF	
Snipe	8	F	MF	
Vulture sp.	2	FO	UP	
Willet	3	F	MF, MA	
Yellow-headed Blackbird	5	L, F	MA	
Bird Comments				
Many ducks on the site, not	all could be ide	ntified.		

B-65

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

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

Mammals and Herptiles

Wildlife Comments:

A diversity of wildlife and bird species utilize this site.

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	46.338269	-106.875452		
DP01w	46.338301	-106.875412		
DP02u	46.336647	-106.871571		
DP02w	46.336665	-106.871635		
DP03u	46.339438	-106.875645		
DP03w	46.339408	-106.875679		
DP04u	46.340222	-106.877354		
DP04w	46.340203	-106.877312		
PP-1	46.336914	-106.871132	270	Photo Point 1 (Pano):
PP-2	46.336468	-106.871811	350	Photo Point 2 (Pano):
PP-3	46.339088	-106.874611	230	Photo Point 3 (Pano):
PP-4	46.340237	-106.877312	210	Photo Point 4 (Pano):
PP-5	46.337817	-106.874587	45	Photo Point 5 (Pano):
PP-6	46.3368	-106.8714	300	Completed Dike:
PP-6a	46.3368	-106.8714	120	Completed Dike:
T-1 end	46.337456	-106.872063	205	Transect 1 end:
T-1 start	46.33691	-106.872772	25	Transect 1 start:
T-2 end	46.339561	-106.875854	205	Transect 2 end:
T-2 start	46.339001	-106.87645	25	Transect 2 start:

Comments:

ADDITIONAL ITEMS CHECKLIST

	Hydrology
☐ ✓ lines,	Map emergent vegetation/open water boundary on aerial photos. Observe extent of surface water. Look for evidence of past surface water elevations (e.g. drift 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
☑ Ma	p vegetation community boundaries
✓ Cor	mplete Vegetation Transects
	Soils
✓ As:	sess soils
	Wetland Delineations
✓ Suppl	Delineate wetlands according to applicable USACE protocol (1987 form or ement)
	Delineate wetland – upland boundary onto aerial photograph.
Wetla	nd Delineation Comments
	etland boundaries changed drastically since 2020 due to decreased inundation and subsequent velopment of mudflat habitat.
	Functional Assessments
✓ forms.	Complete and attach full MDT Montana Wetland Assessment Method field
Functi	onal Assessment Comments:
Ca	tegory 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? No

If yes, describe the problems below.

The dike appears to be functioning well.

Water flowed over dike at some point within the last year.

MDT Montana Wetland Assessment Form (revised March 2008)

. Project name Forsyth	n NW - East	2. MDT project	t# STI	PP 14(9)259		Control#	9680000
3. Evaluation Date 6/1/20	22 4. Evaluators	R Jones	5. Wetla	and/Site# (s)	Forsyth N	NW - East	
Wetland Location(s): T	7 N R 3	9 E Sec1 34	Т	R		Sec2	
Approx Stationing or Milepos							
atershed 14 - Middle Y	ellowstone Wa	ntershed/County Ro	sebud				
Evaluating Agency	CCI for MDT			8. Wetland	size acres		0.74
Purpose of Evaluation				How assess	ed:	Measured e.g	ı. by GPS
Wetlands potentially affe	ected by MDT project			9. Assesssr			0.74
Mitigation Wetlands: pre	e-construction			(AA) size (ac		Measured e.g	hy GPS
✓ Mitigation Wetlands: pos	st construction			11011 455655	cu.	Weddared e.g	. by Ci C
Other							
10. Classification of Wetlan	d and Aquatic Habitats	s in ΔΔ					
HGM Class (Brinson)	Class (Cowardin)	Modifier (Cow	/ardin)	Water Re	eaime	% of	ΔΔ
epressional	Emergent Wetland	Excavated	, ai aiii,	Seasonal/In		7,00.	100
<u>'</u>	<u> </u>						
Estimated Relative Abund General Condition of AA i. Disturbance: (use matrix be aquatic nuisance vegetation s	elow to determine [circle] a			s for Montana-l		feet of) AA	
12. General Condition of AA i. Disturbance: (use matrix be	elow to determine [circle] a pecies (ANVS) lists)		Predominant of Land mode selection subjections few re		to (within 500 may be ayed or as been g; contains noxious	D feet of) AA Land cultivated or logged; subjet placement, grace hydrological alto	ling, clearing, or eration; high road o ; or noxious weed
2. General Condition of AA i. Disturbance: (use matrix be aquatic nuisance vegetation s Conditions with AA occurs and is managed in predomina grazed, hayed, logged, or otherwise coroads or occupied buildings; and noxiou	elow to determine [circle] a species (ANVS) lists) ain AA antly natural state; is not everted; does not contain	Managed in predominantly natural state; is not grazed, hayed, logged, or otherwise converted; does not contair roads or buildings; and nox	Predominant of Land mode selection subjections few re	conditions adjacen not cultivated, but erately grazed or hatively logged; or hatitively logged; or hatitively to minor clearing bads or buildings;	to (within 500) may be ayed or as been g; contains noxious <=30%.	Land cultivated or logged; subje placement, grac hydrological alt building density or ANVS cover	ect to substantial fil ding, clearing, or eration; high road o ; or noxious weed is >=30%.
General Condition of AA i. Disturbance: (use matrix be aquatic nuisance vegetation s	elow to determine [circle] a species (ANVS) lists) annumber of the species (ANVS) lists) annumber of the species (ANVS) lists) annumber of the species of the species (ANVS) cover is livered; does not contain is weed or ANVS cover is livered or the species of	Managed in predominantly natural state; is not grazed, hayed, logged, or otherwise converted; does not contain roads or buildings; and nox weed or ANVS cover is <=1	Predominant of Land mode select subjections 5%. weed	conditions adjacen not cultivated, but erately grazed or ha tively logged; or ha ct to minor clearing bads or buildings; or ANVS cover is	may be ayed or as been g; contains noxious <=30%.	Land cultivated or logged; subjet placement, grad hydrological alth building density or ANVS cover	ect to substantial fil ding, clearing, or eration; high road o ; or noxious weed is >=30%.
I2. General Condition of AA i. Disturbance: (use matrix be aquatic nuisance vegetation s Conditions with AA occurs and is managed in predomina grazed, hayed, logged, or otherwise corroads or occupied buildings; and noxiou <=15%. AA not cultivated, but may be moderatel selectively logged; or has been subject to placement, or hydrological alteration; co	elow to determine [circle] a species (ANVS) lists) annty natural state; is not elementary and e	Managed in predominantly natural state; is not grazed, hayed, logged, or otherwise converted; does not contair roads or buildings; and nox weed or ANVS cover is <=1 low disturbance moderate	Predominant of Land mode select subjections 5%. weed	conditions adjacen not cultivated, but trately grazed or hat tively logged; or hat to to minor clearing bads or buildings; or ANVS cover is	may be ayed or as been g; contains noxious <=30%.	Land cultivated or logged; subjet placement, grack hydrological althouiding density or ANVS cover	ect to substantial fil fling, clearing, or c; dorn noxious weed is >=30%.
AA occurs and is managed in predomina grazed, hayed, logged, or otherwise corroads or occupied buildings; and noxiou <=15%. AA out cultivated, but may be moderatel selectively logged; or has been subject to placement, or hydrological alteration; conoxious weed or ANVS cover is <=30%. AA cultivated or heavily grazed or logge substantial fill placement, grading, clear high road or building density; or noxious >=30%. Comments: (types of disturbated a wetland.	elow to determine [circle] a species (ANVS) lists) annuty natural state; is not enverted; does not contain is weed or ANVS cover is ly grazed or hayed or to relatively minor clearing, fill ontains few roads or buildings; ed; subject to relatively ing, or hydrological alteration; is weed or ANVS cover is ance. intensity. season vegetatative cover in 20	Managed in predominantly natural state; is not grazed, hayed, logged, or otherwise converted; does not contair roads or buildings; and nox weed or ANVS cover is <=1 low disturbance moderate disturbance high disturbance 1. etc) 22, likely due to high a	Predominant of Land mode select subjections 5%. weed	conditions adjacen not cultivated, but brately grazed or hi tively logged; or hi ct to minor clearing ands or buildings; or ANVS cover is low disturba	to (within 500 may be ayed or as been g; contains noxious <=30%.	Difeet of) AA Land cultivated or logged; subjet placement, grad hydrological althouilding density or ANVS cover moderate high dishiph dishi	ect to substantial filling, clearing, or eration; high road of eration; high road of eration; high road of sort on oxious weed is >=30%. disturbance sturbance
I. Disturbance: (use matrix be aquatic nuisance vegetation s aquatic nuisance vegetation s Conditions with Conditions with AA occurs and is managed in predomina grazed, hayed, logged, or otherwise corroads or occupied buildings; and noxiou <=15%. AA not cultivated, but may be moderatel selectively logged; or has been subject to placement, or hydrological alteration; conoxious weed or ANVS cover is <=30%. AA cultivated or heavily grazed or logge substantial fill placement, grading, clear high road or building density; or noxiou: >=30%. Comments: (types of disturbate A experienced an increase in	elow to determine [circle] a species (ANVS) lists) annuty natural state; is not enverted; does not contain is weed or ANVS cover is ly grazed or hayed or to relatively minor clearing, fill ontains few roads or buildings; ed; subject to relatively ing, or hydrological alteration; is weed or ANVS cover is ance. intensity. season vegetatative cover in 20	Managed in predominantly natural state; is not grazed, hayed, logged, or otherwise converted; does not contair roads or buildings; and nox weed or ANVS cover is <=1 low disturbance moderate disturbance high disturbance 1. etc) 22, likely due to high a	Predominant of Land mode select subjections 5%. weed	conditions adjacen not cultivated, but brately grazed or hi tively logged; or hi ct to minor clearing ands or buildings; or ANVS cover is low disturba	to (within 500 may be ayed or as been g; contains noxious <=30%.	Difeet of) AA Land cultivated or logged; subjet placement, grad hydrological althouilding density or ANVS cover moderate high dishiph dishi	ect to substantial fill filing, clearing, or er tion, high road c er tion noxious weed is >=30%. disturbance sturbance
I. Disturbance: (use matrix be aquatic nuisance vegetation s aquatic nuisance vegetation s Conditions with Conditions and is managed in predomina grazed, hayed, logged, or otherwise corroads or occupied buildings; and noxiou <=15%. An not cultivated, but may be moderatel selectively logged; or has been subject to placement, or hydrological alteration; conoxious weed or ANVS cover is <=30%. An cultivated or heavily grazed or logge substantial fill placement, grading, clear high road or building density; or noxious>=30%. Comments: (types of disturbated an increase in a wetland. i. Prominent noxious, aquations and the prominent noxious, aquatical substantial in the prominent noxious, aquatical substantial in the prominent noxious, aquatical substantial substantial in the prominent noxious, aquatical substantial substanti	elow to determine [circle] a species (ANVS) lists) annuty natural state; is not enverted; does not contain is weed or ANVS cover is ly grazed or hayed or to relatively minor clearing, fill ontains few roads or buildings; ed; subject to relatively ing, or hydrological alteration; is weed or ANVS cover is ance. intensity. season vegetatative cover in 20	Managed in predominantly natural state; is not grazed, hayed, logged, or otherwise converted; does not contair roads or buildings; and nox weed or ANVS cover is <=1 low disturbance moderate disturbance high disturbance 1. etc) 22, likely due to high a	Predominant of Land mode select subjections 5%. weed	conditions adjacen not cultivated, but brately grazed or hi tively logged; or hi ct to minor clearing ands or buildings; or ANVS cover is low disturba	to (within 500 may be ayed or as been g; contains noxious <=30%.	Difeet of) AA Land cultivated or logged; subjet placement, grad hydrological althouilding density or ANVS cover moderate high dishiph dishi	ect to substantial fill filing, clearing, or eration; high road of eration; high road of eration; high road of sor noxious weed is >=30%. disturbance sturbance
I. Disturbance: (use matrix be aquatic nuisance vegetation s aquatic nuisance vegetation s Conditions with Conditions and is managed in predomina grazed, hayed, logged, or otherwise corroads or occupied buildings; and noxiou <=15%. An not cultivated, but may be moderatel selectively logged; or has been subject to placement, or hydrological alteration; conoxious weed or ANVS cover is <=30%. An cultivated or heavily grazed or logge substantial fill placement, grading, clear high road or building density; or noxious>=30%. Comments: (types of disturbated an increase in a wetland. i. Prominent noxious, aquations and the prominent noxious, aquatical substantial in the prominent noxious, aquatical substantial in the prominent noxious, aquatical substantial substantial in the prominent noxious, aquatical substantial substanti	elow to determine [circle] a species (ANVS) lists) antly natural state; is not neerted; does not contain as weed or ANVS cover is ly grazed or hayed or to relatively minor clearing, fill ontains few roads or buildings; and; subject to relatively ing, or hydrological alteration; is weed or ANVS cover is ance. intensity. season vegetatative cover in 20 ic nuisance, other exo	Managed in predominantly natural state; is not grazed, hayed, logged, or otherwise converted; does not contair roads or buildings; and nox weed or ANVS cover is <=1 low disturbance moderate disturbance high disturbance high disturbance 22, likely due to high a tic species: rrounding land use/fr	Predominant of Land mode selections few rewestern weed modes and the selection of the selec	not cultivated, but rately grazed or hitively logged, or his ct to minor clearing bads or buildings; or ANVS cover is low disturbation disturbation disturbation of the coverage of the cover	may be ayed or as been g; contains noxious <=30%.	high dis	ect to substantial filling, clearing, or caration; high road of creation; or noxious weed is >=30%. disturbance sturbance sturbance

13. Structural Diversity: (based on number of "Cowardin" vegetated classes present [do not include unvegetated classes], see #10 Initial Is current management preventing (passive) Modified Existing # of "Cowardin" Vegetated Classes in AA Ratino existence of additional vegetated classes? Rating >= 3 (or 2 if 1 is forested) classes NA NΑ Н 2 (or 1 if forested) classes NA NΑ NA Μ 1 dass, but not a monoculture М YES> L <NO 1 class, monoculture (1 species comprises>=90% of total cover) NA NΑ Comments: Emergent vegetation is dominant but cottonwood saplings are becoming well established. Some portions of the site may eventually transition to PSS. 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 (check one based on definitions contained in instructions): Primary or critical habitat (list species) D S \bigcirc D \bigcirc S Secondary habitat (list Species) Incidental habitat (list species) D S **√** S No usable habitat ii. Rating (use the condusions from i above and the matrix below to arrive at [check] the functional points and rating) Highest Habitat Level doc/primary sus/primary doc/secondary sus/secondary doc/incidental sus/incidental None Functional Points and 1H .9H .8H .7M 31 .1L 0L Rating **USFWS IPaC** Sources for documented use 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 (check one based on definitions contained in instructions): Primary or critical habitat (list species) ● D ○ S Scarlet Ammannia - Ammannia robusta (S2), Western Hog-nosed Snake Secondary habitat (list Species) D S Incidental habitat (list species) ○ D ● S Great Blue Heron (S3) S No usable habitat

ii. Rating (use the conc	lusions from i a	bove and the m	atrix below to arriv	e at [check] the fun	ctional 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	OL
S2 and S3 Species: Functional Points and Rating	.9H	.7M	.6M	5M	.2L	1L	0L

Sources for documented use MTNHP SOC report for T7N R39E reported an Ammannia observation in 2013.

ubstantial (based																			Low			
	on any	of the	followin	ıg [ched	ck]):						Minin	n al (b	ased o	n any of	the follo	wing [check]):					
observations of	f abund	lant wild	dlife #s	or high	ı specie	s diver	sity (dur	ing an	y period	(t	✓ fev	w or n	o wildli	fe obser	vations	during	peak us	se per	iods			
abundant wildli	ife sign	such a	s scat,	tracks,	nest str	ucture	s, game	trails,	etc.		✓ litt	le to r	no wildli	fe sign								
presence of ex	tremely	/ limiting	g habita	at featu	res not	availab	le in the	e surro	unding	area	sp	arse a	adjacer	t upland	I food s	ources						
interviews with	local b	iologist	s with k	nowled	dge of th	e AA					int	terviev	vs with	local bio	ologists	with kr	owledg	e of th	ie AA			
observations of common occur adequate adjact interviews with	f scatte rence c	ered wild of wildlif	dlife gro	oups or such as	r individu s scat, ti	racks, ı		•		•		riods										
ii. Wildlife habit from #13. For cl other in terms of permanent/perel terms]) Structural	lass c f their	over to percer	be con	onside position	ered even	enly di ne AA	istribute (see #	ted, th 10).	ne mos Abbrev	st and le viations	east profession	evale rface	ent veç water	getateo durati	l class ons are	es mu e as fo	st be v	within P/P =	20% of	each	e	
diversity (see #13)				Hig	gh							Mode	erate					Lo	ow			
Class cover distribution (all vegetated classes)		Eve	n			Une	/en			Ever	1			Une	/en			E۱	/en			
Duration of surface water in ≥ 10% of AA	P/P	S/I	T/E	А	P/P	S/I	T/E	Α	P/P	S/I	T/E	Α	P/P	S/I	T/E	Α	P/P	S/I	T/E	Α		
Low disturbance at AA (see #12i)	Е	Е	E	н	Е	Е	Н	н	Е	н	н	М	Е	н	М	м	E	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			L		
High disturbance at AA (see #12i)	М	М	М		м	м		L	М	м	L	L	М	L	L	L		L		L		
iii. Rating (u: Evidence of w							bove a	and t	:he ma	W	'ildlife			[checl			onal p	ooint	s and r	ating)		
			+	E	xcept	onal		_		High	_		+		Mod	lerate	1				Low	1
Cubatantial					1E	-				.9H						8H					.7M	_
					.9H					.7N	1					5M	-		+	_	.3L	+
Substantial Moderate Minimal			+	_																	11	
			1		.6M					.4N	1					2L				_	.1L	
Moderate Minimal Comments		vildlife fe hat			rved d		field s	surve	y. This	.4N s area		se to	the r	oadwa			ikely r	neve	r achie	ve a h		
Moderate Minimal Comments 4D. General Fould be used bestorable due to	wildli ish H by fish o hab	fe hat l abita [i.e., bitat co	t Rati fish u	i ng: (aling)	Asses	uring s this	s functi	ion if	the A	s area A is us	is clo	y fish arrie	or th	eexis]. Iftl	ay and	l will tuation	on is "d	orre I by f	ctable'	' such h use	that th	
Moderate Minimal comments 4D. General Fould be used bestorable due to NA here a	wildli ish H by fish o hab and pr	fe hat labita [i.e., pitat co	t Rati fish u onstra	ating. i ng: (ause is aints,	Asses preclu	uring s this ided h	s functi by pero sired f	ion if ched from	the A d culve a mar	s area A is usert or of	is clo sed by ther b	y fish arrie erspe	orth r, etc. ective	e exis]. If ti [such	ay and ting si ne AA as fis	tuation is no h ent	on is "o t used rapped	corre I by f d in a	ctable'	' such h use	that th	
Moderate Minimal Comments 4D. General Fould be used bestorable due to NA here a Habitat Qua Duration of surface in AA Aquatic hiding / res	wildli ish H by fish o hab and pr ality ar	fe hat labita [i.e., oitat co	t Rati fish u onstra d to 14	ating. ing: (ause is aints, a	Asses precluor is n	uring s this ided tot des	s functi by pero sired f	ion if ched from in AA	the A diculve a mar	s area A is usert or of hagemen	is clo	y fish arrie erspe eat[c	n or the ective	e exis]. If the such	ay and	tuation is no h ent	on is "o t used rapped	corre I by f d in a ting)	ctable' ïsh, fis a cana	such h use], ther	that th is not n check	ral
Moderate Minimal Comments 4D. General Fould be used bestorable due to NA here a Habitat Qua Duration of surface in AA	wildli ish H by fish o hab and pr ality and water	abita [i.e., oceed	t Rati fish u onstra	ating. ing: (ause is aints, a	Asses precluor is n	uring s this ided tot des	s functi by pero sired f	ion if ched from	the A diculve a mar	s area A is usert or of hagemen	is clo sed by ther b ent pe	y fish arrie erspe eat[c	n or the r, etc. ective	e exis]. If the such	ay and	tuation is no h ent	on is "of tused rapped	corre I by f d in a	ctable' ïsh, fis a cana	such h use], ther	that th is not n check	<

i. Habitat Quality and	Known	/ Suspec	ted Fish	Specie	s in A	A (usen	natrix to	arrive a	t[check1	the funct	ional po	ints and	drating)					
Duration of surface water in AA		Per	manent /	Perennial	l			Seasonal / Intermittent					Temporary / Ephemeral					
Aquatic hiding / resting / escape cover	Opt	timal	Adeq	uate	Po	oor	Opti	mal	Ade	quate	Po	or	Opti	mal	Adeo	quate	Po	or
Thermal cover optimal/ suboptimal	0	S	0	S	0	S	0	S	0	S	0	S	0	S	0	S	0	S
FWP Tier I fish species	1E	.9H	.8H	.7M	.6M	.5M	.9H	.8H	.7M	.6M	.5M	.4M	.7M	.6M	.5M	.4M	.3L	.3L
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	.6М	.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 t	ound in AA:									
ii. Modified Rating (NOTE: Modified score ca) Is fish use of the AA significantly reduced by current final MDEQ list of waterbodies in need of fishery or aquatic life support, or do aquatic nuisely yes, reduce score in i above by 0.1: Modified	a culvert, dil f TMDL dev sance plant (ke, or other n elopment wit	man-made s th listed "Pr	obable Imp	aired Úses"	including	g cold or w	varm water	e If	
b) Does the AA contain a documented spawning comments) for native fish or introduced game fis	_	er critical ha		•	he adjusted					
iii. Final Score and Rating: 0 NA	Commer	nts: No fish	habitat e	exists on	site.					
	e and proce	ed to 14F.)					s in AA ar	e not floode	d from in-	
i. Rating (working from top to bottom, use the Estimated or Calculated Entrenchment (Rosge		entrenched			ely entrench		Entrencl	ned-A, F, G	stream	
1994, 1996) % of flooded wetland classified as forested	75%	stream type	es <25%	75%	tream type 25-75%	<25%	75%	types 25-75%	<25%	
and/or scrub/shrub			1		1		1			
AA contains no outlet or restricted outlet AA contains unrestricted outlet	1H	.9H	.6M	.8H	.7M	.5M	.4M	.3L	.2L	
, a contamil and contained and contained	.9H	.8H	.5M	.7M	.6M	.4M	.3L	.2L	.1L	
Slightly Entrenched ER = >2.2		•	Entrenched				ntrenched = 1.0 – 1.4]
C stream type D stream type E stream	n type		am type	Α:	stream type		= 1.0 = 1.4 F stream typ		stream type	1
		7				Ę				
2 x Bankfull D Floodprone width ii. Are ≥10 acres of wetland in the AA subject to within 0.5 mile downstream of the AA (check)? Comments: AA not subject to flooding.	/ Bank width	Bankfull D	Depth (Banki	full Widt Entrence ratio	hment	y floods loc	ated	
14F. Short and Long Term Surface Waupland surface flow, or groundwater flow. 14G.) i. Rating (Working from top to bottom, uwater durations are as follows: P/P = perr 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 Duration of surface water at wetlands within the AA	If no wetta use the ma	ands in the trix below to	AA are su carrive at	bject to flo [check] th	e functiona ent; and T/	onding, alpoints E=tem	dick [and ratir	NA here	and proce	ed to surface
Wetlands in AA flood or pond ≥ 5 out of 10 years	1H	.9Н	.8Н	.81	н .	6M	.5M	.4M	.3L	.2L
	.9H	.8H	.7M	.71	и .	5M	.4M	.3L	.2L	.1L
Wetlands in AA flood or pond < 5 out of 10 years										

Comments: AA subject to ponding following large precipitation or runoff events.

i. Rating (working from top to bot = low])	tom, use the matr	ix below to arriv	/e at [check] the	functional poir	nts and rating [H	= high, M =	moderate, or L
Sediment, nutrient, and toxicant input levels within AA	to deliver lev compounds at le not substantiall sources of nu	urrounding land us rels of sediments, evels such that oth y impaired. Minor utrients or toxicants trophication prese	nutrients, or ler functions are sedimentation, s, or signs of	developme nutrients, or to with potential compounds su	on MDEQ list of wa ent for "probable ca exicants or AA rece to deliver high leve to that other function tation, sources of r	uses" related to eives or surround els of sediment ons are substa nutrients or toxi	osediment, nding land use s, nutrients, or ntially impaired.
% cover of wetland vegetation in AA Evidence of flooding / ponding in AA	≥ 70%		< 70%	≥ 7	70%		70%
- ,	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: Vegetation cover incomments: 14H Sediment/Shoreline Stabilization drainage, or on the shoreline of a stand	1: (Applies only if A	A occurs on or wi					
proceed to 14l.) i. Rating (working from top to bottom,	· ,	ŕ					
% Cover of wetland streambank or	use the matrix belo		rface water adjacent		*/		
shoreline by species with stability ratings of ≥6 (see Appendix F).	Permanent / Pere	nnial	Seasonal / Intermitte	ent	Temporary / Epheme	ral	
≥ 65%	1H		.9Н		.7M		
35-64%	.7M		.6M		.5M		
< 35%	.3L		.2L		.1L		
14l. Production Export/Food Chai i. Level of Biological Activity (synt General Fish Habitat G		I fish habitat rating	gs [check])				
Rating (14D.iii.) E/H	M	Mat Rating (140	L L				
E/H H	н		М				
М	М		М				
M	M		L				
L							
N/A H	M		L				
ii. Rating (Working from top to bottom wetland component in the AA; Factor B subsurface outlet; the final three rows p [see instructions for further definitions of	n, use the matrix bel = level of biologica pertain to duration of f these terms].)	I activity rating fro f surface water in	heck] the functiona om above (14I.i.); I the AA, where P/I	Factor C = wheth	er or not the AA core as previously de	ontains a surfa fined, and A =	ice or
ii. Rating (Working from top to bottom wetland component in the AA; Factor B subsurface outlet; the final three rows p [see instructions for further definitions of A Vegetated component >5 a B High Moderate	n, use the matrix bel = level of biologica sertain to duration of f these terms].) acres Low	I activity rating fro f surface water in Vegetated High	heck] the functions om above (14I.i.); I the AA, where P/I component 1-5 acres Moderate	Factor C = wheth P, S/I, and T/E ar	er or not the AA core as previously de Vegetated com High Mod	ontains a surfa fined, and A = ponent <1 acre erate	ace or · "absent"
ii. Rating (Working from top to bottom wetland component in the AA; Factor B subsurface outlet; the final three rows p [see instructions for further definitions of A Vegetated component >5 a B High Moderate C Yes No Yes No	n, use the matrix bel = level of biologica pertain to duration of these terms].) acres Low Yes No	I activity rating frof surface water in Vegetated High Yes No Ye	heck] the functions om above (14I.i.); I the AA, where P/I component 1-5 acres Moderate	Factor C = wheth P, S/I, and T/E ar	vegetated com High Mod No Yes	ontains a surfa fined, and A = ponent <1 acre erate No Yes	Low No
ii. Rating (Working from top to bottom wetland component in the AA; Factor B subsurface outlet; the final three rows p [see instructions for further definitions of A Vegetated component >5 a B High Moderate	n, use the matrix bel = level of biological pertain to duration of f these terms].) acres Low Yes No Yes	I activity rating fro f surface water in Vegetated High	heck] the functions om above (14I.i.); I the AA, where P/I component 1-5 acres Moderate	Factor C = wheth P, S/I, and T/E ar	vegetated com High Mod No Yes	ontains a surfa fined, and A = ponent <1 acre erate	Low No
ii. Rating (Working from top to bottom wetland component in the AA; Factor B subsurface outlet; the final three rows p [see instructions for further definitions of A Vegetated component >5 a B High Moderate C Yes No Yes No	n, use the matrix bel = level of biological pertain to duration of these terms].) acres Low Yes No .6M .4M	I activity rating frof surface water in Vegetated High Yes No Ye	heck] the functional or above (14I.i.); I the AA, where P/I component 1-5 acres Moderate es No Yes	Factor C = wheth P, S/I, and T/E ar Low No Yes M .3L .8H	er or not the AA care as previously de Vegetated com High Mod No Yes 6M .6M	ontains a surfa fined, and A = ponent <1 acre erate No Yes	Low No .2L
ii. Rating (Working from top to bottom wetland component in the AA; Factor B subsurface outlet; the final three rows p [see instructions for further definitions of A Vegetated component >5 a B High Moderate C Yes No Yes No PPP 1E .7H .8H .5M	n, use the matrix bel = level of biologica ertain to duration of these terms].) acres Low Yes No .6M .4M .5M .3L .	I activity rating frof surface water in Vegetated High Yes No Yes 9H 6M .7 8H .5M .6I	heck] the functional or above (14I.i.); I the AA, where P/I component 1-5 acres Moderate es No Yes	Factor C = wheth P, S/I, and T/E ar Low No Yes A 3L 8H A 2L 7H	er or not the AA care as previously de Vegetated com High Mod No Yes 6M 6M .5M .5M	ontains a surfa fined, and A = ponent <1 acre erate No Yes .4M .3L	Low No 2L 2L

B-75

Comments:

14J. Groundwater Discharge/Recharge: (check the appropriate indicators in i & ii below) i. Discharge Indicators ii. Recharge Indicators Permeable substrate present without underlying impeding layer The AA is a slope wetland Springs or seeps are known or observed Wetland contains inlet but no outlet Vegetation growing during domant season/drought Stream is a known 'losing' stream; discharge volume decreases Wetland occurs at the toe of a natural slope Other: Seeps are present at the wetland edge AA permanently flooded during drought periods Wetland contains an outlet, but no inlet Shallow water table and the site is saturated to the surface Other: AA hydrologically connected to a historic oxbow. iii. Rating (use the information from i and ii above and the table below to arrive at [check] the functional points and rating) Duration of saturation at AA Wetlands <u>FROM GROUNDWATER</u> <u>DISCHARGE OR WITH WATER</u> THAT IS RECHARGING THE GROUNDWATER SYSTEM Criteria P/P S/I None Groundwater Discharge or Recharge 1H .7M .4M .1L Insufficient Data/Information NA Comments: Ponding was observed on site in 2014, but not observed since. 14K. Uniqueness: i. Rating (working from top to bottom, use the matrix below to arrive at [check] the functional points and rating) AA does not contain previously AA contains fen, bog, warm springs cited rare types and structural AA does not contain previously Replacement potential or mature (>80 yr-old) forested diversity (#13) is high or contains cited rare types or associations wetland or plant association listed plant association listed as "S2" by and structural diversity (#13) is as "S1" by the MTNHP the MTNHP low-moderate Estimated relative abundant abundant abundant commo rare rare common rare common abundance (#11) Low disturbance at AA 1H .9H .8H .8H .6M .5M .5M .4M .3L (#12i) Moderate disturbance at .9H H8. .7M .7M .5M .4M .4M .3L .2L AA (#12i) High disturbance at AA .8H .6M .6M .2L .7H .4M .3L .3L .1L (#12i) Comments: AA is part of a roadside ditch. 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: (check) Y $N \odot$ (if 'Yes' continue with the evaluation; if 'No' then click **V** NA here and proceed to the overall summary and rating page) Check categories that apply to the AA: 🗹 Educational/scientific study; 🔲 Consumptive rec.; 🗹 Non-consumptive rec.; ___Other iii. Rating (use the matrix below to arrive at [check] the functional points and rating) Known or Potential Recreation or Education Area Known Potential Public ownership or public easement with general public access (no permission required) .2H .15H Private ownership with general public access (no permission required) .15H .1M Private or public ownership without general public access, or requiring permission for public access .1M 051 Comments: AA small, adjacent to highway, and with little to no recreation or education potential. **General Site Notes** Wetland area increased by 0.14 acres since 2021.

FUNCTION & VALUE SUMMARY & OVERALL RATING FOR WETLAND/SITE #(S): Forsyth NW - East

Function & Value Variables	Rating	Actual Functional Points	Possible Functional Points	Functional Units: (Actual Points x Estimated AA Acreage)	Indicate the four most prominent functions with an asterisk (*)
A. Listed/Proposed T&E Species Habitat	L	0	1		
B. MT Natural Heritage Program Species Habitat	Н	.9	1		V
C. General Wildlife Habitat	М	.4	1		
D. General Fish Habitat	NA	0	0		
E. Flood Attenuation	NA	0	0		
F. Short and Long Term Surface Water Storage	L	.3	1		
G. Sediment/Nutrient/Toxicant Removal	Н	.8	1		✓
H. Sediment/Shoreline Stabilization	NA	0	0		
Production Export/Food Chain Support	М	.4	1		
J. Groundwater Discharge/Recharge	М	.7	1		~
K. Uniqueness	L	.2	1		
L. Recreation/Education Potential (bonus points)	L	.05	NA		
Totals:		3.75	8		
Percent of Possible Score			46.88 %		

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

OVERALL ANALYSIS AREA RATING: (check appropriate category based on the criteria outlined above)

1 11 111 10

MDT Montana Wetland Assessment Form (revised March 2008)

1. Project name Forsyth NW - Middle	2. MDT project	# ST	PP 14(9)259	Control# 9680000
3. Evaluation Date 6/1/2022 4. Evaluators	R Jones	5. Wetl	and/Site# (s) Forsyth	NW - Middle
6. Wetland Location(s): T 7 N R 3	9 E Sec1 33	Т	7 N R 39 E	Sec2 34
Approx Stationing or Mileposts ~262 on US 12				
Watershed 4 - Middle Yellowstone Wa	atershed/County Ro	sebud		
7. Evaluating Agency CCI for MDT			8. Wetland size acres	s 0.58
Purpose of Evaluation			How assessed:	Measured e.g. by GPS
☐ Wetlands potentially affected by MDT project			9. Assesssment area	
☐ Mitigation Wetlands: pre-construction			(AA) size (acres)	0.00
✓ Mitigation Wetlands: post construction			How assessed:	Measured e.g. by GPS
Other				
one				
10. Classification of Wetland and Aquatic Habitats	s in AA			
HGM Class (Brinson) Class (Cowardin)	Modifier (Cow	ardin)	Water Regime	% of AA
Depressional Emergent Wetland	Excavated		Seasonal/Intermittent	100
11. Estimated Relative Abundance Abundant				
 General Condition of AA Disturbance: (use matrix below to determine [circle] a aquatic nuisance vegetation species (ANVS) lists) 	ppropriate response – see	instruction	ns for Montana-listed noxio	us weed and
aquatic husance vegetation species (ATTO) lists)	F	redominant	conditions adjacent to (within 50	0 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 noxic weed or ANVS cover is <=18	mode selec subjections ous few r	not cultivated, but may be erately grazed or hayed or ctively logged; or has been ect to minor clearing; contains oads or buildings; noxious of 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 <=30%.	moderate <u>disturbance</u>	mo	oderate 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, seasor Site is adjacent to a highway. The adjacent right-of-way		weeds a	nd plowed.	
ii. Prominent noxious, aquatic nuisance, other exo				
No Tamarix was observed on site. Canada thistle and	field bindweed have in	creased a	and Euphorbia esula obs	served in 2020.
iii. Provide brief descriptive summary of AA and su AA very similar to Forsyth NW - East, only smaller. AA includes agriculture (grazing) and highway.			dside depression paralle	l to US 12. Surrounding land

13. Structural Diversity: (based on number of "Cowardin" vegetated classes present [do not include unvegetated classes], see #10 Modified Initial Is current management preventing (passive) Existing # of "Cowardin" Vegetated Classes in AA Ratino existence of additional vegetated classes? Rating >= 3 (or 2 if 1 is forested) classes NA NΑ Н 2 (or 1 if forested) classes NA NΑ NA Μ 1 dass, but not a monoculture М YES> L <NO 1 class, monoculture (1 species comprises>=90% of total cover) NA NΑ NA L Comments: PEM wetland 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 (check one based on definitions contained in instructions): Primary or critical habitat (list species) D S \bigcirc D \bigcirc S Secondary habitat (list Species) Incidental habitat (list species) D S **√** S No usable habitat ii. Rating (use the condusions from i above and the matrix below to arrive at [check] the functional points and rating) Highest Habitat Level doc/primary sus/primary doc/secondary sus/secondary doc/incidental sus/incidental None Functional Points and 1H .9H .8H .7M 31 .1L 0L Rating **USFWS IPaC** Sources for documented use 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 (check one based on definitions contained in instructions): Primary or critical habitat (list species) ● D ○ S Scarlet Ammannia - Ammannia robusta (S2) D S Secondary habitat (list Species) Incidental habitat (list species) ○ D ● S Great Blue Heron (S3) S No usable habitat ii. Rating (use the conclusions from i above and the matrix below to arrive at [check] 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 .7M .2L 0L 1H .8H .6M .1L Rating S2 and S3 Species:

	Functional Points a Rating	and	.9H	.7M	.6M	.5M	.2L	1L	OL
_	ources for ocumented use	MTNHP	SOC report	for T7N R39E re	eported an Amma	nnia observation i	n 2013.		

							•												Low				
u bstantial (based	d on any	of the	followin	ıg [che	ck]):						Minir	nal (b	ased or	n any of	of the follo	owing !	[check]):					_
observations	of abund	lant wil	.dlife #s	or high	n specie	s diver	sity (du	ıring ar	ıy period	1)	✓ fe	w or n	ıo wildlif	fe obse	ervations	during	j peak ι	ıse per	riods				
abundant wild	life sign	such a	ıs scat,	tracks	, nest st	.ructure	s, gam	e trails	, etc.		✓ litt	.tle to r	no wildlii	ife sign									
presence of e	xtremely	/ limitin	g habita	at featu	ures not	availab	le in thعاد	ie surro	unding :	area	sr	parse r	adjacer	ıt uplan	d food so	ources	j						
interviews with	n local b	iologist	ເຣ with k	knowle	dge of th	ne AA					in	terviev	ws with	local bid	iologists	with kr	nowled	ge of th	ne AA				
oderate (based of	of scatte	ered wild	ldlife gro	oups or	r individu			•	•	٥.		eriods											
common occu			_		s scat, ı	racks, i	nest su	ructure	s, game	trails, e	tc.												
☐ adequate adja					· 56/																		
interviews with		•					tom (heck:	annrop:	riate A	∆ attril	hutes	in ma	trix to	arrive s	rt ratir	na Sti	ructur	al diver	eitv is			
from #13. For one other in terms of the other in terms of termanent/perecterms])	class co	over to percer	o be co	onside	ered eve ion of the	venly di the AA	distribu \ (see #	uted, th #10).	he most Abbrev	st and le	least pr s for su	revale urface	ent veg e water	getated r duration	d class ions are	ses mu e as fo	ust be ollows:	within : P/P =	n 20% o =	of each			
Structural diversity (see #13)				Hiç	gh							Mod	derate					L	_ow				
Class cover distribution (all vegetated classes)		Eve	∍n			Unev	ven			Eve	∍n	_ 		Une	ven	_		E	ven				
Duration of surface water in ≥ 10% of AA	P/P	S/I	T/E	А	P/P	S/I	T/E	А	P/P	S/I	T/E	А	P/P	S/I	T/E	А	P/P	S/I	T/E	А			
Low disturbance at AA (see #12i)	Е	Е	Е	н	Е	E	н	н	Е	Н	Н	м	Е	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		М	М	L		М	м	L		м		L	L	L	L	L	L			
iii. Rating (u Evidence of w				<u>ins fro</u>	<u>om i a</u>	nd ii a	above	and i	the ma						k] the s rating		<u>iional</u>	<u>point</u>	s and ı	rating)			_
				F	Except	ional		匚	_	High		_				derate	е			_	Low		_
Substantial					1E			4		.91	Н					.8H					.7M	<u>_</u>	
Moderate					.9H	1				.71	VI _					.5M					.3L	1	_
Minimal					.6M					.41	М					.2L					.1L		
comments			e sign o bitat ra			uring	field	surve	y. This	area	is clo	se to	the r	oadwa	ay and	l lliw t	likely	neve	er achie	eve a h	nigh		_
4D. General in puld be used lestorable due in NA here a	by fish to hab	ı [i.e., oitat co	, fish u onstra	use is aints,	preclu	uded l	by per	erched	d culve	ert or o	other b	barrie	er, etc.	.]. If th	the AA	is no	ot used	d by f	fish, fis	sh use	is not		
Habitat Qua		d Kno	own /S					in AA	(usem	ıatrix to	arrive د					points	and ra	ating)	-				
in AA				Pr	emanen	it / Pere	ennial					Seas	onal / ır	ntermitte	<u>int</u>		-		Tem	nporary /	/ Epheme	ral	4
Aquatic hiding / re escape cover	sting/		Optima			dequate	3	Pod	or	Or	ptimal		Adeq	uate		Poor		Optir	mal	Ade	quate	Po	900
Aquatic hiding / re			Optima O			i	e S	Poo	oor S	Op O	ptimal S	\pm	Adequ	quate S	0		s	Optin O	imal S	Ade	quate S	O Po	,oc

. Habitat Quality and	IXIIOWII	, o uspec	teu i isi	Opoole	70 111 747	1 (4001	1011111110	armro a	t [o no ont		ionai po	into and	i racing)					
Duration of surface water in AA		Pei	manent /	Perennial	l			Se	easonal / I	ntermitten	t			Tem	porary/	Epheme	eral	
Aquatic hiding / resting / escape cover	Opt	imal	Adeq	uate	Po	oor	Opti	mal	Ade	quate	Po	or	Opti	mal	Adeo	quate	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	.3L
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	.6М	.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

ii. Modified Rating (NOTE: Modified score of a) Is fish use of the AA significantly reduced by current final MDEQ list of waterbodies in need of fishery or aquatic life support, or do aquatic nui yes, reduce score in i above by 0.1: Modified	annot exce a culvert, d of TMDL de sance plant	ed 1 or be les like, or other n velopment wit	nan-made : h listed "Pr	structure or obable Imp	paired Úses'	including	cold or w	arm water	ne If	
b) Does the AA contain a documented spawning comments) for native fish or introduced game five final Score and Rating:	sh?	her critical had Y • N nts: Not ap	If yes, a	•	he adjusted					
14E. Flood Attenuation: (Applies only to wet channel or overbank flow, click ✓ NA he		ect to flooding eed to 14F.)	via in-chan	nel or over	bank flow. I	f wetland	s in AA ar	e not floode	ed from in-	
i. Rating (working from top to bottom, use the Estimated or Calculated Entrenchment (Rosae		ow to arrive at ly entrenched			l points and ely entrench		Entrenc	hed-A, F, G	stream	
1994, 1996)	oligiti.	stream type			stream type	icu – D	Littlefici	types	Stream	
% 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	.9Н	.8Н	.5M	.7M	.6M	.4M	.3L	.2L	.1L	
Slightly Entrenched ER = >2.2		•	Entrenched 41 – 2.2	ı			ntrenched = 1.0 – 1.4			
C stream type D stream type E strea	m type	B strea	am type	A	stream type	F	stream typ	pe G	stream type	
Floodprone width ii. Are ≥10 acres of wetland in the AA subject t within 0.5 mile downstream of the AA (check)? Comments: AA not subject to flooding	/ Ban widt	h	Vega	man A	Bank	Entrenc ratio	h hment	oy floods loo	cated	
 14F. Short and Long Term Surface Waupland surface flow, or groundwater flow. 14G.) i. Rating (Working from top to bottom, water durations are as follows: P/P = perfurther definitions of these terms].) 	If nowet use the ma	lands in the atrix below to	AA are su carrive at	bject to fl [check] th	ooding or p	oonding, al points	dick [and ratir	NA here	and proce	ed to surface
Estimated maximum acre feet of water contained in wetlands within the AA that are subject to periodic flooding or ponding		>5 acre feet			1.1 to 5	acre feet			≤1 acre foot	
Duration of surface water at wetlands within the AA	P/P	S/I	T/E	P/I		S/I	T/E	P/P		

Comments:

AA subject to ponding from snowmelt, precipitation and overland flow from adjacent roads and uplands.

= low]])	rking from to		tom, use	the ma	atrix b	elow to	arrive a	t [check]] the fu		<u> </u>		<u> </u>			
	ent, nutrien within AA	nt, and toxicant	input	to compo not s	deliver lounds at substantia urces of	e vels o levels ally imp nutrien	of sedim such th paired. I	and use w lents, nutri lat other fu Minor sedi xicants, or	ents, or inctions a mentation	re i, c	deve nutrients with pot ompoun	lopment s, or toxi ential to ds such	for "prob cants or deliver b that other tion, sou	oable ca AA reconigh leve er functi rces of	uses" relaced eives or sed els of sed ons are s nutrients	ated to surround liments, substant or toxica	d of TMDL sediment, ling land use nutrients, o ially impaire ants, or sign
% cove	er of wetlan	nd vegetation in	ı AA	2	<u>ε</u> 70%	eutroph	ication	present. < 70°	%			≥ 70		ophicati	on prese	nt. < 70)%
Eviden	ce of flood	ling / ponding i	n AA	Yes	N	0	Υe	es	No		Yes		No)	Yes		No
AA cor	ntains no o i	or restricted ou	ıtlet	1H		Н	.71	1	.5M		.5N		.41		.3L		.2L
AA cor	ntains unre	estricted outle	t	.9H	.7		.61	м	.4M		.4N		.3		.2L		.1L
14H Se	ediment/S	Enclosed bases	oilization	ı: (Applie	es only if	· AA oc	curs or	n or within	the bank							de	
procee	ed to 14I.)	he shoreline of ing from top to			•		•						ck 🔽	NA he	ere and		
% Cove	er of wetland	d streambank or						n of surface									
	ee Appendix	s with stability ra ix F).	tings	Perma	anent / Pe	rennial		Sea	sonal / Inte	ermittent		Te	mporary	Epheme	eral		
					1H				.9H				.7	М			
≥ 65%																	
≥ 65% 35-64%)				.7M				.6M					5M			
35-64% < 35%	1	Not applicab	le.		.7M .3L				.6M					5M			
35-64% < 35% Commo	ents: Production	ion Export/Fo	od Chaiı rity (synt G	hesis of v	.3L rt: vildlife a	abitat		(14C.iii.)	.2L								
35-64% < 35% Commo	ents:	ion Export/Fo	od Chai rity (synt G E/H	hesis of v	.3L rt: vildlife a	abitat M		(14C.iii.) L	.2L								
35-64% < 35% Commo	ents: Production evel of Bion neral Fish Rating (14E	ion Export/Fo	od Chair rity (synt G E/H H	hesis of v	.3L rt: vildlife an ildlife H	abitat M		(14C.iii.) L	.2L								
35-64% < 35% Commo	ents: Production evel of Bioneral Fish Rating (14E) E/H M	ion Export/Fo	od Chair	hesis of v	.3L .3L vildlife as ildlife H	M I		(14C.iii.) L	.2L								
35-64% < 35% Commo	ents: Production evel of Biotemeral Fish Rating (14E E/H M	ion Export/Fo	od Chair rity (synt G E/H H	hesis of v	.3L rt: vildlife al ildlife H	M I		(14C.iii.) L	.2L								
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14J. Groundwater Discharge/Recharge: (check the appropriate indicators in i & ii below) i. Discharge Indicators ii. Recharge Indicators Permeable substrate present without underlying impeding layer The AA is a slope wetland Springs or seeps are known or observed Wetland contains inlet but no outlet Vegetation growing during domant season/drought Stream is a known 'losing' stream; discharge volume decreases Wetland occurs at the toe of a natural slope Other Seeps are present at the wetland edge AA permanently flooded during drought periods Wetland contains an outlet, but no inlet Shallow water table and the site is saturated to the surface Other: iii. Rating (use the information from i and ii above and the table below to arrive at [check] the functional points and rating) Duration of saturation at AA Wetlands <u>FROM GROUNDWATER</u> <u>DISCHARGE OR WITH WATER</u> THAT IS RECHARGING THE GROUNDWATER SYSTEM Criteria P/P S/I None Groundwater Discharge or Recharge 1H .7M .4M .1L Insufficient Data/Information NA Comments: AA w/out permeable substrate, holds surface water eventually lost to evaporation. 14K. Uniqueness: i. Rating (working from top to bottom, use the matrix below to arrive at [check] the functional points and rating) AA does not contain previously AA contains fen, bog, warm springs cited rare types and structural AA does not contain previously Replacement potential or mature (>80 yr-old) forested diversity (#13) is high or contains cited rare types or associations wetland or plant association listed plant association listed as "S2" by and structural diversity (#13) is as "S1" by the MTNHP the MTNHP low-moderate Estimated relative abundant abundant abundant commo rare rare common rare common abundance (#11) Low disturbance at AA 1H .9H .8H .8H .6M .5M .5M .4M .3L (#12i) Moderate disturbance at .9H H8. .7M .7M .5M .4M .4M .3L .2L AA (#12i) High disturbance at AA .6M .2L .8H .7H .6M .4M .3L .3L .1L (#12i) Comments: Habitat within AA typical of roadside ditch. 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: (check) Y $N \odot$ (if 'Yes' continue with the evaluation; if 'No' then click **V** NA here and proceed to the overall summary and rating page) Check categories that apply to the AA: 🗹 Educational/scientific study; 🔲 Consumptive rec.; 🗹 Non-consumptive rec.; ___Other iii. Rating (use the matrix below to arrive at [check] the functional points and rating) Known or Potential Recreation or Education Area Known Potential Public ownership or public easement with general public access (no permission required) .2H .15H Private ownership with general public access (no permission required) .15H .1M Private or public ownership without general public access, or requiring permission for public access .1M .05L Comments: AA small, adjacent to highway, and with little to no recreation or education potential. **General Site Notes** Increase in noxious weed cover in 2022.

$\textbf{FUNCTION \& VALUE SUMMARY \& OVERALL RATING FOR WETLAND/SITE \#(S):} \quad \boxed{\texttt{Forsyth NW - Middle}}$

Function & Value Variables	Rating	Actual Functional Points	Possible Functional Points	Functional Units: (Actual Points x Estimated AA Acreage)	Indicate the four most prominent functions with an asterisk (*)
A. Listed/Proposed T&E Species Habitat	L	0	1		
B. MT Natural Heritage Program Species Habitat	Н	.9	1		✓
C. General Wildlife Habitat	М	.4	1		✓
D. General Fish Habitat	NA	0	0		
E. Flood Attenuation	NA	0	0		
F. Short and Long Term Surface Water Storage	L	.3	1		V
G. Sediment/Nutrient/Toxicant Removal	Н	.8	1		~
H. Sediment/Shoreline Stabilization	NA	0	0		
Production Export/Food Chain Support	L	.3	1		
J. Groundwater Discharge/Recharge	NA	0	0		
K. Uniqueness	L	.2	1		
L. Recreation/Education Potential (bonus points)	L	.05	NA		
Totals:		2.95	7		
Percent of Possible Score			42.14 %		

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

OVERALL ANALYSIS AREA RATING: (check appropriate category based on the criteria outlined above)

I II III	IV
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MDT Montana Wetland Assessment Form (revised March 2008)

Wetland Location(s): T	. Project name Forsy	th NW - West		2. MDT I	project#	ST	PP 14(9)259 Control# 968000					
atershed	3. Evaluation Date 6/2/2	2022 4. Evaluators	R Jor	nes	5.	Wet	land/Site# (s)	Forsyth	NW - We	est		
A middle Yellowstone Watershed/County Rosebud	. Wetland Location(s): T	7 N R :	39 E	Sec1	20	т	7 N R	39 E	Sec2	29		
Evaluating Agency CCI for MDT Rosebud			2					00 -				
Purpose of Evaluation Wetlands potentially affected by MDT project Mitigation Wetlands: pre-construction Mitigation Wetlands: pre-construction Mitigation Wetlands: post construction Mitigation Wetlands: post construction Other O. Classification of Wetland and Aquatic Habitats in AA RGM Class (Brinson) Class (Cowardin) Modiffier (Cowardin) Water Regime Werine Emergent Wetland Excavated Permanent/Perennial 13.4 Verine Unconsolidated Bottom Excavated Permanent/Perennial 13.4 Permanent/Perennial 13.4 Permanent/Perennial 81.6 Wetrine Unconsolidated Bottom Impounded Permanent/Perennial 81.6 Permanent/Perennial 81.6 A I. Disturbance: (see matrix below to determine (prote) appropriate response—see instructions for Montana-listed noxious weed and appeals in historice viogetation species (ANVS) lists) Precionized condition of AA I. Disturbance: (see matrix below to determine (prote) appropriate response—see instructions for Montana-listed noxious weed and appeals in listenance with the convention of the second contain reads or buildings; and noxious weed or ANVS cover is exploit. Accurs and is managed in predominantly habitral state is not research (see matrix below to determine protein protein to protein protein to protein protein protein to protein prote			atersh	ned/Count	y Roseb	ud						
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Militaglion Wetlands: post construction	Mitigation Wetlands: p	re-construction						•	Measure	edeaby (GPS	
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verine Unconsolidated Bottom Excavated Permanent/Perennial 5 Unconsolidated Bottom Impounded Permanent/Perennial 5 Estimated Relative Abundance Common 2. 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) lists) Predominant conditions adjacent to (within 500 feet of) AA Managed in predominantly natural state; is not grazed, hayed, logged, or otherwise converted, does not contain roads or buildings, and noxious weed or ANVS cover is ~50%. A occurs and is managed in predominantly natural state; is not grazed, hayed, logged, or driverwise converted, does not contain roads or coupled buildings; and noxious weed or ANVS cover is ~50%. A occurs and is managed in predominantly natural state; is not grazed, hayed, logged, or driverwise converted, does not contain roads or occupied buildings; and noxious weed or ANVS cover is ~50%. A occurs and is managed in predominantly natural state; is not grazed, hayed, logged, or driverwise converted, does not contain roads or occupied buildings; and noxious weed or ANVS cover is ~50%. I ow disturbance low disturbance low disturbance moderate disturbance high disturbance	· , , , , , , , , , , , , , , , , , , ,	-				in)	_			% of AA		
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Estimated Relative Abundance Common	verine	Unconsolidated Botton	n	Excavat	ed		Permanent/	Perennial			5	
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selectively logged; or has been subject to relatively minor clearing, fill blacement, or hydrological alteration; contains few roads or buildings; and continuous weed or ANVS cover is <=30%. As cultivated or heavily grazed or logged; subject to relatively substantial fill placement, grading, clearing, or hydrological alteration; high disturbance high road or building density; or noxious weed or ANVS cover is bigh road or building density; or noxious weed or ANVS cover is bigh disturbance high	grazed, hayed, logged, or otherwise co	onverted; does not contain	I	ow disturl	oance	Г	low disturba	ance	mod	erate dist	urbance	
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Cirsium arvense, Euphorbia esula		· · · · · · · · · · · · · · · · · · ·	otic sp	ecies:								
. Provide brief descriptive summary of AA and surrounding land use/habitat	•											
	i. Provide brief descriptive	summary of AA and s	urrour	nding land	l use/habi	tat						

B-85

and rangeland that supports livestock grazing.

13. Structural Diversity: (based on number of "Cowardin" vegetated classes present [do not include unvegetated classes], see #10 Modified Initial Is current management preventing (passive) Existing # of "Cowardin" Vegetated Classes in AA Ratino existence of additional vegetated classes? Rating >= 3 (or 2 if 1 is forested) classes NA NΑ Н 2 (or 1 if forested) classes NA NΑ NA Μ 1 dass, but not a monoculture М <NO YES> L 1 class, monoculture (1 species comprises>=90% of total cover) NA NΑ NA L Comments: Emergent wetland surrounding an open water area. 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 (check one based on definitions contained in instructions): Primary or critical habitat (list species) D S \bigcirc D \bigcirc S Secondary habitat (list Species) Incidental habitat (list species) D S **√** S No usable habitat ii. Rating (use the condusions from i above and the matrix below to arrive at [check] the functional points and rating) Highest Habitat Level doc/primary sus/primary doc/secondary sus/secondary doc/incidental sus/incidental None Functional Points and 1H .9H .8H .7M 31 .1L 0L Rating USFWS IPaC Sources for documented use 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 (check one based on definitions contained in instructions): Primary or critical habitat (list species) D
 S Ammannia robusta (S2) D S Secondary habitat (list Species) Incidental habitat (list species) ○ **D** ○ **S** Great Blue Heron (S3) No usable habitat ii. Rating (use the conclusions from i above and the matrix below to arrive at [check] the functional points and rating) sus/primary Highest Habitat Level doc/primary doc/secondary sus/secondary doc/incidental sus/incidental None S1 Species: Functional Points and .7M 0L 1H .8H .6M .2L .1L Rating S2 and S3 Species: Functional Points and .7M .6M .5M .2L 0L .9H .1L Ratina

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S	ources for	Amm	nannia observe	d within AA in 2	019.			
d	ocumented use							
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																			Subs	stantia	al		
u bstantial (based	d on any	of the f	followin	ıg [che	ck]):						Minir	nal (b	ased or	ก any of	f the follo	owing!	[check]):					_
observations of	of abunda	ant wil	dlife #s	or hig!	n specie	s diver	sity (du	ring ar	ıy period	1)	fe	w or r	ıo wildlif	fe obser	rvations	durinç	j peak ι	ıse per	iods				
abundant wild	ااife sign ؛	such a	ıs scat, '	tracks	, nest st	ructure	∌s, gam∉	e trails	, etc.		lit	itle to r	no wildlif	ıfe sign									
presence of e	xtremely	limitine	g habita	at featı	ures not	availah	ລle in th	e surro	unding	area	sr	parse :	adjacen	nt upland	d food so	ources	ذ						
interviews with	h local bi	ologist	ts with k	knowle	edge of t	he AA					ir	ıtervie [,]	ws with	local bi	iologists	with k	.nowled	ge of th	ne AA				
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oderate (based o	-			-																			
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common occu	urrence of	f wildlif	fe sign :	such a	ıs scat, †	racks,	nest str	ucture	s, game	trails, e	∌tc.												
adequate adja	acent upla	and for	od sour	ces																			
interviews with	n local bir	ologist [,]	is with k	knowle	dge of t	he AA																	
ii. Wildlife habi from #13. For o other in terms o permanent/pere terms])	class co	over to percen	o be co nt com	onside ipositi	ered ev ion of th	venly d the AA	distribut A (see #	ited, th #10).	he most Abbrev	st and le	least pr s for su	revale urface	ent veg e water	getated r duration	d class ions are	ses mu e as fo	ust be of	within : P/P =	1 20% of =	of each			
Structural diversity (see #13)				Hi	igh							Mod	derate					L	-ow				
Class cover distribution (all vegetated classes)		Eve	en			Une	ven			Eve	∍n	l		Une	ven			E	ven				
Duration of Surface water in ≥ 10% of AA	P/P	S/I	T/E	А	P/P	S/I	T/E	А	P/P	S/I	T/E	А	P/P	S/I	T/E	А	P/P	S/I	T/E	A			
Low disturbance at AA (see #12i)	Е	Е	E	н	Е	Е	н	н	Е	Н	Н	М	Е	Н	M	М	E	Н	М	м			
Moderate disturbance at AA (see #12i)	н	Н	Н	н	н	Н	Н	М	н	Н	М	М	Н	М	М	٦	н	М	L	L			
High disturbance at AA (see #12i)	М	м	М		М	М	L	L	М	М	L		М		L	L	L	L	L	L			
iii. Rating (υ Evidence of w					om i aı Except			and t	the ma		Vildlife				s rating			point	s and r	rating)) Low	<u> </u>	-
Substantial			T		1E					.9F						.8H					.7M		-
Moderate					.9H			\vdash		.7N						.5M				-	.3L		-
Minimal				_	.6M	_		一	—	.4N	_				_	.2L					.1L		-
omments	The s	ite w	as full	l of w	/aterfo	wl an	d sho	rebiro	ls duri	ng the	€ 2022	2 site	visit.	Turtle	s and	frog	s were	e alsc	o obser	rved.			_
4D. General F	by fish to habit	[i.e., i	fish us onstra	use is aints,	preclu or is r	uded l	by per esired	rched	d culve	ert or o	other b	bar rie	er, etc.	:.]. If th	he AA	is no	ot used	d by f	fish, fis	sh use	is not		
estorable due i NA here a Habitat Qua	·			,		ish Sp	necies	in AA	(usem	natrix to) arrive	at [c	heck ti	he func	tional	oints	and re	nting)					-
NA here a	iality and			Suspe		·		in AA	(usen	natrix tı	o arrive			he func		points	and r	ating)	Tem	porary/	/ Ephemera	al	Į
Habitat Qua Duration of surface in AA Aquatic hiding / re- escape cover	ality and se water esting /			Suspe Pe	ected F	·	ennial	Poo	,		o arrive			ntermitte	ent	points Poor	and r	ating) Optir			/ Ephemera	ral Po	10
Habitat Qua Duration of surface in AA Aquatic hiding / res	ality and se water esting /	d Kno	own / S	Suspe Pe	ected F	nt / Pere	ennial		,			Seaso	sonal / In	ntermitte	ent	Poor	s and ra	<i>y</i> ,) (i

ptimal	Adeq	uate	Po	or	0 "											
				101	Opti	mal	Adeo	quate	Po	or	Optii	mal	Aded	luate	Po	or
S	0	S	0	S	0	S	0	S	0	S	0	S	0	S	0	S
.9H	.8H	.7M	.6M	.5M	.9H	.8H	.7M	.6M	.5M	.4M	.7M	.6M	.5M	.4M	.3L	.3L
.8H	.7M	.6M	.5M	.5M	.8H	.7M	.6M	.5M	.4M	.4M	.6M	.5M	.4M	.3L	.2L	.2L
.7М	.6М	.5M	.5M	.4M	.7M	.6M	.5M	.4M	.4M	.3L	.5M	.4M	.3L	.2L	.2L	.1L
.5M	.5M	.4M	.4M	.3L	.4M	.4M	.4M	.3L	.3L	.2L	.2L	.2L	.2L	.1L	.1L	.1L
	.9H .8H	.9H .8H .7M .6M	.9H .8H .7M .6M .5M	.9H .8H .7M .6M .8H .7M .6M .5M .7M .6M .5M	.9H .8H .7M .6M .5M .8H .7M .6M .5M .5M .7M .6M .5M .5M .4M	.9H .8H .7M .6M .5M .9H .8H .7M .6M .5M .5M .8H .7M .6M .5M .5M .4M .7M	.9H .8H .7M .6M .5M .9H .8H .8H .7M .6M .5M .5M .8H .7M .7M .6M .5M .5M .4M .7M .6M	.9H .8H .7M .6M .5M .9H .8H .7M .8H .7M .6M .5M .5M .8H .7M .6M .7M .6M .5M .5M .4M .7M .6M .5M	.9H .8H .7M .6M .5M .9H .8H .7M .6M .8H .7M .6M .5M .5M .8H .7M .6M .5M .7M .6M .5M .5M .4M .7M .6M .5M .4M	.9H .8H .7M .6M .5M .9H .8H .7M .6M .5M .8H .7M .6M .5M .5M .8H .7M .6M .5M .4M .7M .6M .5M .5M .4M .7M .6M .5M .4M .4M	.9H .8H .7M .6M .5M .9H .8H .7M .6M .5M .4M .8H .7M .6M .5M .5M .8H .7M .6M .5M .4M .4M .7M .6M .5M .5M .4M .7M .6M .5M .4M .4M .3L	.9H .8H .7M .6M .5M .9H .8H .7M .6M .5M .4M .7M .8H .7M .6M .5M .5M .5M .8H .7M .6M .5M .4M .4M .6M .7M .6M .5M .5M .4M .7M .6M .5M .4M .4M .3L .5M	.9H .8H .7M .6M .5M .9H .8H .7M .6M .5M .4M .7M .6M .8H .7M .6M .5M .5M .5M .8H .7M .6M .5M .4M .4M .6M .5M .7M .6M .5M .5M .4M .7M .6M .5M .4M .4M .3L .5M .4M	.9H .8H .7M .6M .5M .9H .8H .7M .6M .5M .4M .7M .6M .5M .8H .7M .6M .5M .5M .8H .7M .6M .5M .4M .4M .6M .5M .4M .7M .6M .5M .5M .4M .5M .5M .4M .3L .5M .4M .3L	.9H .8H .7M .6M .5M .9H .8H .7M .6M .5M .4M .7M .6M .5M .4M .4M .4M .6M .5M .4M .3L .7M .6M .5M .5M .4M .7M .6M .5M .4M .4M .3L .5M .4M .3L .2L	.9H .8H .7M .6M .5M .9H .8H .7M .6M .5M .4M .7M .6M .5M .4M .3L .8H .7M .6M .5M .5M .8H .7M .6M .5M .4M .4M .4M .6M .5M .4M .3L .2L .7M .6M .5M .5M .4M .7M .6M .5M .4M .3L .5M .4M .3L .2L .2L

Sources used for identifying fish sp. potentially	found in AA	l <i>:</i>								
ii. Modified Rating (NOTE: Modified score c a) Is fish use of the AA significantly reduced by current final MDEQ list of waterbodies in need of fishery or aquatic life support, or do aquatic nuis yes, reduce score in i above by 0.1: Modified	a culvert, de of TMDL devisance plant	like, or other r velopment wit	man-made s ith listed "Pr	structure or obable Imp	paired Use	s" includin	g cold or v	varm water	he If	
b) Does the AA contain a documented spawning comments) for native fish or introduced game fis	• ~	ther critical ha		e (i.e., sand add 0.1 to t Modifed	he adjuste					
iii. Final Score and Rating: .3 L	Comme			ed to pro	vide fish	habitat,			. While the s	
14E. Flood Attenuation: (Applies only to wet channel or overbank flow, click NA her		ect to flooding seed to 14F.)	via in-chan	nel or over	bank flow.	If wetland	ds in AA ar	e not floode	ed from in-	
i. Rating (working from top to bottom, use the										
Estimated or Calculated Entrenchment (Rosge 1994, 1996)	n Slightl	ly entrenched stream type		l	ely entrene stream type		Entrenc	hed-A, F, G types	stream	
% of flooded wetland classified as forested and/or scrub/shrub	75%	, , , , , , , , , , , , , , , , , , ,		75%	25-75%		75%	25-75%	<25%	
AA contains no outlet or restricted outlet	_1H	.9H	.6M	.8H	.7M	.5M	.4M	.3L	.2L	
AA contains unrestricted outlet	.9Н	.8H	.5M	.7M	.6M	.4M	.3L	.2L	.1L	
Slightly Entrenched ER = >2.2		ER = 1.	y Entrenched 1.41 – 2.2			EF	Entrenched R = 1.0 – 1.4			
C stream type D stream type E stream	m type	B stream	eam type	A	stream type		F stream ty	pe G	stream type	
Floodprone width ii. Are ≥10 acres of wetland in the AA subject to within 0.5 mile downstream of the AA (check)? Comments: The site provides flood atternal to the comments of the AA (check)?	/ Banl widt to flooding A Y	Bankfull Dikfull th AND are man-	Depth Company of the	res which i	Ban = may be sig	ratio gnificantly	th chment damaged b	by floods loo	cated	
 14F. Short and Long Term Surface Wa upland surface flow, or groundwater flow. 14G.) i. Rating (Working from top to bottom, uwater durations are as follows: P/P = per further definitions of these terms].) 	. If no weth use the ma	dands in the atrix below to	AA are su	bject to flo [check] th	ooding or ne functio	r ponding	, dick [s and ratir	NA here	e and proce	eed to
Estimated maximum acre feet of water contained in wetlands within the AA that are subject to periodic		>5 acre feet			1.1 to	5 acre feet			≤1 acre foot	
flooding or ponding Duration of surface water at wetlands within the AA	P/P	S/I	T/E	P/F	,	S/I	T/E	P/P	S/I	T/E
		+	+	_				-		

turtner definitions of these terms].)				_					
Estimated maximum acre feet of water contained in wetlands within the AA that are subject to periodic flooding or ponding		>5 acre feet		1.	1 to 5 acre feet			≤1 acre foot	
Duration of surface water at wetlands within the AA	P/P	S/I	T/E	P/P	S/I	T/E	P/P	S/I	T/E
Wetlands in AA flood or pond ≥ 5 out of 10 years	1H	.9H	.8Н	.8Н	.6M	.5M	.4M	.3L	.2L
Wetlands in AA flood or pond < 5 out of 10 years	.9H	.8H	.7М	.7M	.5M	.4M	.3L	.2L	.1L

Comments:

Site has been moved into the perennial category due to consistant inundation over the last three years.

throug	gh influ	nent/Nu x of sur	trient/1 face or	「oxican ground	t Rete	ntion a or direc	nd Ren t input.	n oval: If no v	(Applie vetland:	s to wetl s in the A	ands w \A are	vith pote subject	ntial to to sucl	receiven input,	sedim click	nents, nu	utrients A here	, ortoxic and proc	ants beed
to 14	H.) ating (v											-		-				oderate,	
Sedim	1) eent, nutr within A.		l toxicant	tinput	com	to delive pounds substan	levels of at levels tially im of nutrier	of sedim such th paired. N	ents, nut at other Jinorseo kicants, o	with poter trients, or functions dimentations or signs of	are on,	nutrient with po compour	lopmen s, or tox tential to nds such	t for "pro icants or o deliver o that oth ation, sou	bable can AA reconstruction AA high lever functions arces of	auses" rel eives or sections are s	ated to s surround diments, substant or toxica	d of TMDI sediment, ling land u nutrients, ially impai ants, or si	use or ired.
	er of wet					≥ 70%	cuttopi	lication	< 71	0%			≥ 70		ортпоат	ion piese	< 70)%	
Evider	nce of flo	oding/p	onding i	n AA	Yes		No	Ye	s	No		Yes	i	N	0	Ye	s	No	
AA co	ntains no	or rest	ricted o	utlet	11	ļ .	8H	.71	м	.5M		.5N	1	.4	М	.3L		.2L	1
AA co	ntains ur	nrestrict	ed outle	t	.91	1 .	7M	.61	и	.4M	1	.41	1	.3	L	.21		.1L	П
14H S draina		deline	eated w	etlands oilization	. Cove	has in	if AA o	d in the	wetlan	2021; we d fringe, n the ban action. I	but wa ks or a	river, stre	the m	udflat a other na	reas. tural or			ome	
i. Rat	tina (wo	rkina fro	m top to	bottom.	use the	matrix I	pelow to	arrive a	at [check] the fund	tional p	oints and	d rating)						
% Cove	er of wetla	and strea	mbank or		400 1110	maan	JOIOW 10			e water ad									
	ne by spe see Appe i		stability ra	tings	Perr	manent / I	Perennial		Se	easonal / In	termitten	nt	Т	emporary	/ Ephem	eral			
≥ 65%						1H				.9H	1				7M				
35-64%	ő					.71	1			.61	1				5M				
< 35%						.3L				.21	-				.1L				
<u>i. L</u>	Produ	ction Ex	xport/Fo	e mudfl od Chai vity (synt	n Supp	f wildlife				,									
	neral Fis Rating (*		at	G E/H	eneral \	Wildlife	Habitat M	Rating	(14C.iii	.) L									
	E/I			Н	1		н			м									
	M			Н			М			М									
	L			М			м			L									
	N/	A		Н			М			L									
wetlan subsur [see in A B	nd comportace out	onent in tlet; the t ns for fur Vegi	the AA; final thre ther def etated com Mod	Factor B e rows p initions c ponent >5 a erate	= level pertain to of these acres	of biologo duration terms].)	gical act n of sur	ivity rati face wa Veg ligh	ng from ter in the getated con	ck] the fur above (14 e AA, whe	4I.i.); Fa ere P/P, acres	actor C = S/I, and	whethe T/E are	r or not t as previ	he AA of iously d	contains a efined, a mponent <1 derate	a surfacend A = "	e or absent"	
C D/D	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No I	
P/P	1E	.7H	.8H	.5M	.6M	.4M	.9H	.6M	.7H	.4M	.5M	.3L	.8H	.6M	.6M	.4M	.3L	.2L	
S/I	.9H	.6M	.7H	.4M	.5M	.3L	.8H	.5M	.6M	.3L	.4M	.2L	.7H	.5M	.5M	.3L	.3L	.2L	
T/E/A	.8H	.5M	.6M	.3L	.4M	.2L	.7H	.4M	.5M	.2L	.3L	.1L	.6M	.4M	.4M	.2L	.2L	.1L	
olant co control).	ver, ≤ 15 ere an av	5% noxid verage ≥ ii above	ous weed 50 foot- and adju	d or ANV wide veg ust rating	S cover getated accord	r, and the upland b ingly:	at is not uffer an lodifie	subject ound ≥ 7 d Ratir	ed to pe 75% of th	0.1.) Veg riodic me he AA ciro 8H	chanica c <i>umfere</i>	I mowing	orclea		ess for		.1		
Comm	ents:	Uplan	d buffer	betwee	en north	nern bo	undary	of AA	and hig	hway gre	eater th	nan 50ft.							

14J. Groundwater Discharge/Recharge: (check the appropriate indicators in i & ii below) i. Discharge Indicators ii. Recharge Indicators Permeable substrate present without underlying impeding layer The AA is a slope wetland Springs or seeps are known or observed Wetland contains inlet but no outlet Vegetation growing during dormant season/drought Stream is a known 'losing' stream; discharge volume decreases Wetland occurs at the toe of a natural slope Other: Seeps are present at the wetland edge AA permanently flooded during drought periods Wetland contains an outlet, but no inlet Shallow water table and the site is saturated to the surface ___Other: iii. Rating (use the information from i and ii above and the table below to arrive at [check] the functional points and rating) Duration of saturation at AA Wetlands <u>FROM GROUNDWATER</u> <u>DISCHARGE OR WITH WATER</u> THAT IS RECHARGING THE GROUNDWATER SYSTEM Criteria P/P S/I None Groundwater Discharge or Recharge 1H .7M .4M .1L Insufficient Data/Information NA Comments: Site hydrology is combination of seasonally high groundwater table and runoff. Water is held on the site via an impoundment 14K. Uniqueness: i. Rating (working from top to bottom, use the matrix below to arrive at [check] the functional points and rating) AA does not contain previously AA contains fen, bog, warm springs cited rare types and structural AA does not contain previously Replacement potential or mature (>80 yr-old) forested diversity (#13) is high or contains cited rare types or associations wetland or plant association listed and structural diversity (#13) is plant association listed as "S2" by as "S1" by the MTNHP the MTNHP low-moderate Estimated relative abundant abundant abundant commo common rare rare common rare abundance (#11) Low disturbance at AA 1H .9H .8H .8H .6M .5M .5M .3L .4M (#12i) Moderate disturbance at .9H H8. .7M .7M .5M .4M .4M .3L .2L AA (#12i) High disturbance at AA .2L .8H .7H .6M .6M .4M .3L .3L .1L (#12i) Comments: AA is becoming less structurally diverse as vegetation intolerant of inundation dies off. 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: (check) Y $N\bigcirc$ (if 'Yes' continue with the evaluation; if 'No' then click NA here and proceed to the overall summary and rating page) Check categories that apply to the AA: 🗹 Educational/scientific study; 🔲 Consumptive rec.; 🗹 Non-consumptive rec.; ___Other iii. Rating (use the matrix below to arrive at [check] the functional points and rating) Known or Potential Recreation or Education Area Known Potential Public ownership or public easement with general public access (no permission required) .2H .15H Private ownership with general public access (no permission required) .15H .1M Private or public ownership without general public access, or requiring permission for public access .1M 051 Comments: Property is owned by MDT, and is easily accessible. Potential exists for bird and wildife viewing opportunites. **General Site Notes** Site provided highly valuable habitat to shorebirds and waterfowl during 2022.

FUNCTION & VALUE SUMMARY & OVERALL RATING FOR WETLAND/SITE #(S): Forsyth NW - West

Function & Value Variables	Rating	Actual Functional Points	Possible Functional Points	Functional Units: (Actual Points x Estimated AA Acreage)	Indicate the four most prominent functions with an asterisk (*)
A. Listed/Proposed T&E Species Habitat	L	0	1		
B. MT Natural Heritage Program Species Habitat	Н	.9	1		
C. General Wildlife Habitat	E	1	1		~
D. General Fish Habitat	L	.3	1		
E. Flood Attenuation	М	.6	1		
F. Short and Long Term Surface Water Storage	Н	1	1		~
G. Sediment/Nutrient/Toxicant Removal	М	.7	1		
H. Sediment/Shoreline Stabilization	М	.7	1		
Production Export/Food Chain Support	Н	.8	1		>
J. Groundwater Discharge/Recharge	Н	1	1		~
K. Uniqueness	L	.3	1		
L. Recreation/Education Potential (bonus points)	Н	.2	NA		
Totals:		7.5	11		
Percent of Possible Score			68.18 %		

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

OVERALL ANALYSIS AREA RATING: (check appropriate category based on the criteria outlined above)

1 11	III	IV
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Table B-1. 2022 Plant Species List – FWN-West.

Scientific Names	Common Names	GP Indicator Status ^(a)
Agropyron cristatum	Crested Wheatgrass	UPL
Algae, green	Algae, green	OBL
Alisma triviale	Northern Water-Plantain	OBL
Alopecurus arundinaceus	Creeping Meadow-Foxtail	FACW
Alopecurus pratensis	Field Meadow-Foxtail	FACW
Ambrosia psilostachya	Perennial Ragweed	FACU
Ammannia robusta	Grand Redstem	OBL
Artemisia frigida	Fringed Sage	UPL
Bassia scoparia	Mexican-Fireweed	FACU
Bromus arvensis	Japanese Brome	UPL
Bromus carinatus	California Brome	UPL
Bromus inermis	Smooth Brome	UPL
Bromus tectorum	Cheatgrass	UPL
Chenopodium album	Lamb's-Quarters	FACU
Chorispora tenella	Crossflower	UPL
Convolvulus arvensis	Field Bindweed	UPL
Descurainia pinnata	Western tansymustard	UPL
Descurainia sophia	Herb Sophia	UPL
Echinochloa crus-galli	Large Barnyard Grass	FAC
Eleocharis palustris	Common Spike-Rush	OBL
Elymus canadensis	Nodding Wild Rye	FACU
Elymus repens	Creeping Wild Rye	FACU
Elymus sp.	Wild Rye	UPL
Elymus trachycaulus	Slender Wild Rye	FACU
Euphorbia esula	Leafy Spurge	UPL
Filago arvensis	Field Fluffweed	UPL
Glyceria elata	Tall Manna Grass	OBL
Grindelia squarrosa	Curly-Cup Gumweed	UPL
Helianthus annuus	Common Sunflower	FACU
Hesperostipa comata	Needle-and-Thread	UPL
Hordeum jubatum	Fox-Tail Barley	FACW
Lactuca serriola	Prickly Lettuce	FAC
Lepidium perfoliatum	Clasping Pepperwort	FAC
Linum lewisii	Prairie Flax	UPL
Medicago sativa	Alfalfa	UPL
Melilotus officinalis	Yellow Sweet-Clover	FACU
Muhlenbergia asperifolia	Alkali Muhly	FACW
Pascopyrum smithii	Western-Wheat Grass	FACU
Poa compressa	Flat-stem Blue Grass	FACU
Poa pratensis	Kentucky Blue Grass	FACU
Polygonum aviculare	Yard Knotweed	FACU

Table B-1. 2022 Plant Species List – FWN-West.

Scientific Names	Common Names	GP Indicator Status ^(a)
Populus deltoides	Eastern Cottonwood	FAC
Puccinellia nuttalliana	Nuttall's Alkali Grass	OBL
Ratibida columnifera	Prairie Coneflower	UPL
Rumex acetosella	Common Sheep Sorrel	FAC
Rumex crispus	Curly Dock	FAC
Sagittaria cuneata	Arum-Leaf Arrowhead	OBL
Salix exigua	Narrow-Leaf Willow	FACW
Salix fragilis	Fragile Willow	FAC
Schedonorous pratensis	Meadow False Rye Grass	FACU
Schoenoplectus maritimus	Saltmarsh Club-Rush	OBL
Sisymbrium altissimum	Tall Hedge-Mustard	FACU
Solanum rostratum	Buffalo Bur	UPL
Spartina pectinata	Freshwater Cord Grass	FACW
Tamarix chinensis	Salt-cedar	UPL
Taraxacum officinale	Common Dandelion	FACU
Thlaspi arvense	Field Pennycress	FACU
Tragopogon dubius	Meadow Goat's-beard	UPL
Typha angustifolia	Narrow-Leaf Cat-Tail	OBL
Typha latifolia	Broad-Leaf Cat-Tail	OBL
Veronica sp.	Speedwell	UPL

⁽a) 2020 NWPL (USACE 2020)

New species identified in 2022 are **bolded**.

Table B-2. 2022 Plant Species List – FWN- Middle.

Scientific Names	Common Names	GP Indicator Status ^(a)
Alisma triviale	Northern Water-Plantain	OBL
Alopecurus pratensis	Field Meadow-Foxtail	FACW
Ambrosia psilostachya	Perennial Ragweed	FACU
Ammannia robusta	Grand Redstem	OBL
Avena fatua	Wild Oats	UPL
Bassia scoparia	Mexican-Fireweed	FACU
Bromus arvensis	Japanese Brome	UPL
Bromus carinatus	California Brome	UPL
Bromus inermis	Smooth Brome	UPL
Bromus tectorum	Cheatgrass	UPL
Chenopodium album	Lamb's-Quarters	FACU
Cirsium arvense	Canadian Thistle	FACU
Convolvulus arvensis	Field Bindweed	UPL
Deschampsia caespitosa	Tufted Hair Grass	FACW
Deschampsia elongata	Slender Hair Grass	FAC
Echinochloa crus-galli	Large Barnyard Grass	FAC
Eleocharis palustris	Common Spike-Rush	OBL
Elymus canadensis	Nodding Wild Rye	FACU
Elymus elymoides	Western-Bottlebrush grass	FACU
Elymus lanceolatus	Streamside Wild Rye	FACU
Elymus repens	Creeping Wild Rye	FACU
Elymus trachycaulus	Slender Wild Rye	FACU
Euphorbia esula	Leafy Spurge	UPL
Filago arvensis	Field Fluffweed	UPL
Glyceria grandis	American Manna Grass	OBL
Grindelia squarrosa	Curly-Cup Gumweed	UPL
Helianthus annuus	Common Sunflower	FACU
Hordeum jubatum	Fox-Tail Barley	FACW
Lactuca serriola	Prickly Lettuce	FAC
Lepidium perfoliatum	Clasping Pepperwort	FAC
Linum lewisii	Prairie Flax	UPL
Melilotus officinalis	Yellow Sweet-Clover	FACU
Muhlenbergia asperifolia	Alkali Muhly	FAC
Nassella viridula	Barkworth Green Needlegrass	UPL
Panicum capillare	Common Panic Grass	FAC
Pascopyrum smithii	Western-Wheat Grass	FACU
Poa compressa	Flat-Stem Blue Grass	FACU
Poa palustris	Fowl Blue Grass	FACW
Poa pratensis	Kentucky Blue Grass	FACU
Polygonum aviculare	Yard Knotweed	FACU
Populus deltoides	Eastern Cottonwood	FAC

Table B-2. 2022 Plant Species List – FWN- Middle.

Scientific Names	Common Names	GP Indicator Status ^(a)
Alisma triviale	Northern Water-Plantain	OBL
Alopecurus pratensis	Field Meadow-Foxtail	FACW
Ambrosia psilostachya	Perennial Ragweed	FACU
Ammannia robusta	Grand Redstem	OBL
Avena fatua	Wild Oats	UPL
Bassia scoparia	Mexican-Fireweed	FACU
Bromus arvensis	Japanese Brome	UPL
Bromus carinatus	California Brome	UPL
Bromus inermis	Smooth Brome	UPL
Puccinellia nuttalliana	Nuttall's Alkali Grass	OBL
Ratibida columnifera	Prairie Coneflower	UPL
Rosa arkansana	Prairie Rose	FACU
Rumex acetosella	Common Sheep Sorrel	FAC
Rumex crispus	Curly Dock	FAC
Salix amygdaloides	Peach-Leaf Willow	FACW
Salix exigua	Narrow-Leaf Willow	FACW
Salix fragilis	Fragile Willow	FAC
Salix lutea	Yellow Willow	FACW
Sarcobatus vermiculatus	Greasewood	FAC
Schedonorus pratensis	Meadow False Rye Grass	FACU
Schoenoplectus maritimus	Saltmarsh Club-Rush	OBL
Setaria pumila	Yellow Bristle Grass	FACU
Solanum rostratum	Buffalo Bur	UPL
Symphoricarpos albus	Common Snowberry	UPL
Tamarix chinensis	Salt-cedar	UPL
Thlaspi arvense	Field Pennycress	FACU
Tragopogon dubius	Meadow Goat's-beard	UPL
Typha latifolia	Broad-Leaf Cat-Tail	OBL
Xanthium strumarium	Rough Cockleburr	FAC

⁽a) 2020 NWPL (USACE 2020)

Table B-3. 2022 Plans Species List – FNW-East.

Scientific Names	Common Names	GP Indicator Status ^(a)
Agropyron cristatum	Crested Wheatgrass	UPL
Algae, green	Algae, green	UPL
Alisma triviale	Northern Water-Plantain	OBL
Alopecurus arundinaceus	Creeping Meadow-Foxtail	FACW
Alopecurus pratensis	Field Meadow-Foxtail	FACW
Ambrosia psilostachya	Perennial Ragweed	FACU
Ammannia robusta	Grand Redstem	OBL
Artemisia frigida	Fringed Sage	UPL
Bassia scoparia	Mexican-Fireweed	FACU
Bromus arvensis	Japanese Brome	UPL
Bromus carinatus	California Brome	UPL
Bromus inermis	Smooth Brome	UPL
Bromus tectorum	Cheatgrass	UPL
Chenopodium album	Lamb's-Quarters	FACU
Convolvulus arvensis	Field Bindweed	UPL
Descurainia sophia	Herb Sophia	UPL
Echinochloa crus-galli	Large Barnyard Grass	FAC
Eleocharis palustris	Common Spike-Rush	OBL
Elymus canadensis	Nodding Wild Rye	FACU
Elymus repens	Creeping Wild Rye	FACU
Elymus sp.	Wild Rye	UPL
Elymus trachycaulus	Slender Wild Rye	FACU
Euphorbia esula	Leafy Spurge	UPL
Filago arvensis	Field Fluffweed	UPL
Glyceria elata	Tall Manna Grass	OBL
Grindelia squarrosa	Curly-Cup Gumweed	UPL
Helianthus annuus	Common Sunflower	FACU
Hesperostipa comata	Needle-and-Thread	UPL
Hordeum jubatum	Fox-Tail Barley	FACW
Lactuca serriola	Prickly Lettuce	FAC
Lepidium perfoliatum	Clasping Pepperwort	FAC
Linum lewisii	Prairie Flax	UPL
Medicago sativa	Alfalfa	UPL
Melilotus officinalis	Yellow Sweet-Clover	FACU
Muhlenbergia asperifolia	Alkali Muhly	FACW
Pascopyrum smithii	Western-Wheat Grass	FACU
Poa compressa	Flat-stem Blue Grass	FACU
Poa pratensis	Kentucky Blue Grass	FACU
Polygonum aviculare	Yard Knotweed	FACU
Populus deltoides	Eastern Cottonwood	FAC
Puccinellia nuttalliana	Nuttall's Alkali Grass	OBL

Table B-3. 2022 Plans Species List – FNW-East.

Ratibida columnifera	Prairie Coneflower	UPL
Rumex acetosella	Common Sheep Sorrel	FAC
Rumex crispus	Curly Dock	FAC
Sagittaria cuneata	Arum-Leaf Arrowhead	OBL
Salix exigua	Narrow-Leaf Willow	FACW
Salix fragilis	Fragile Willow	FAC
Schedonorous pratensis	Meadow False Rye Grass	FACU
Schoenoplectus maritimus	Saltmarsh Club-Rush	OBL
Sisymbrium altissimum	Tall Hedge-Mustard	FACU
Solanum rostratum	Buffalo Bur	UPL
Spartina pectinata	Freshwater Cord Grass	FACW
Tamarix chinensis	Salt-cedar	UPL
Taraxacum officinale	Common Dandelion	FACU
Thlaspi arvense	Field Pennycress	FACU
Tragopogon dubius	Meadow Goat's-beard	UPL
Typha angustifolia	Narrow-Leaf Cat-Tail	OBL
Typha latifolia	Broad-Leaf Cat-Tail	OBL
Veronica sp.	Speedwell	UPL

⁽a) 2020 NWPL (USACE 2020)

APPENDIX C PROJECT AREA PHOTOGRAPHS

MDT Wetland Mitigation Monitoring Forsyth Northwest – West, Middle, and East Sites Rosebud County, Montana

Forsyth Northwest – West Site: Photo Point Photographs



Photo Point 1: Located near NE Corner of SE End; Bearing 270 degrees; Year 2013



Photo Point 1: Located near NE Corner of SE End; Bearing 270 degrees; Year 2022



Photo Point 2: Located near SW Corner of SE End; Bearing 350 degrees; Year 2013



Photo Point 2: Located near SW Corner of SE End; Bearing 350 degrees; Year 2022

Forsyth Northwest - West Site: Photo Point Photographs



Photo Point 3: Located near NE side near middle of site; Bearing 230 degrees; Year 2013



Photo Point 3: Located near NE side near middle of site; Bearing 230 degrees; Year 2022



Photo Point 4: Located near NE corner of NW end; Bearing 210 degrees; Year 2013



Photo Point 4: Located near NE corner of NW end; Bearing 210 degrees; Year 2022

Forsyth Northwest - West Site: Photo Point Photographs



Photo Point 5: Located near SW side near middle of site; Bearing 45 degrees; Year 2013



Photo Point 5: Located near SW side near middle of site; Bearing 45 degrees; Year 2022



Photo Point 6 Bearing: 300 degrees

Location: Center of new dike Year: 2017



Photo Point 6 Bearing: 120 degrees

Location: Center of new dike Year: 2017



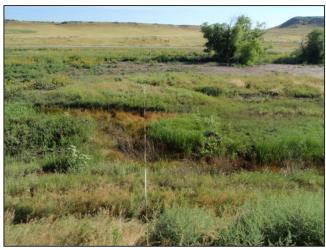
Photo Point 6 Bearing: 300 degrees



Photo Point 6 Bearing: 120 degrees

Location: Center of new dike

Forsyth Northwest – West Site: Transect Photographs



Transect 1: Start Bearing: 25 degrees

Location: SE end of site Year: 2013



Transect 1: Start Location: SE end of site Bearing: 25 degrees Year: 2022



Transect 1: End Bearing: 205 degrees



Year: 2013



Transect 1: End Location: SE end Bearing: 205 degrees Year: 2022



Transect 2: Start Bearing: 25 degrees

Location: NW End Year: 2013



Transect 2: Start Bearing: 25 degrees Year: 2022

Forsyth Northwest – West Site: Transect and Data Point Photographs



Transect 2: End Bearing: 205 degrees

Location: Northwest End Year: 2013



Transect 2: End Bearing: 205 degrees

Location: Northwest End Year: 2022



Data Point: DP01w Year: 2022



Location: S side of site

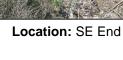
Year: 2022

Location: S side of site



Data point: DP02w

Year: 2022





Data point: DP02u

Forsyth Northwest - West Site: Data Point Photographs



Data Point: DP03w Year: 2022





Data Point: DP03u **Bearing:** 25 degrees

Location: N side of site **Year:** 2022



Data Point: DP04w Year: 2022

Location: NW Corner



Data Point: DP04u

Year: 2022

Location: NW Corner

Forsyth Northwest - Middle: Photo Point and Transect Photographs



Photo Point: 1 Bearing: 120 degrees

Location: Northwest End

Year: 2013



Photo Point: 1 Bearing: 120 degrees

Location: Northwest End Year: 2022



Photo Point: 2 Bearing: 300 degrees

Location: Southeast end

Year: 2013



Photo Point: 2 Bearing: 300 degrees

Location: Southeast end Year: 2022



Transect 1: Start Bearing: 205 degrees

Location: Middle of Site Year: 2013



Transect 1: Start Bearing: 205 degrees

Location: Middle of Site

Forsyth Northwest - Middle: Transect and Data Point Photographs



Transect 1: End Bearing: 25 degrees

Location: Middle of Site

Year: 2013



Transect 1: End Bearing: 25 degrees

Location: Middle of Site

Year: 2022



Data Point: DP01w **Year:** 2022

Location: Southeast end



Data Point: DP01u

Year: 2022

Location: Southeast end

Forsyth Northwest - East Site: Photo Point Photographs



Photo Point: 1
Bearing: 125 degrees

Location: NW end of site **Year** 2013



Photo Point: 1 Bearing: 125 degrees

Location: NW end of site

Year: 2022



Photo Point 2: Located near Center of Site; Bearing 210 degrees; Year 2013



Photo Point 2: Located near Center of Site; Bearing 210 degrees; Year 2022



Photo Point: 3

Location: SE end of site

Bearing: 305 degrees Year: 2013



Photo Point: 3

Location: SE end of site

Bearing: 305 degrees Year: 2022

Forsyth Northwest – East Site: Transect Photographs



Transect 1: Start Bearing: 145 degrees



Location: Northwest End Year: 2013



Bearing: 145 degrees



Year: 2022



Transect 1: End Bearing: 325 degrees



Location: Northwest End Year: 2013



Transect 1: End Location: Northwest End Bearing: 325 degrees Year: 2022



Transect 2: Start Bearing: 280 degrees



Location: Southeast End

Year: 2013



Transect 2: Start Bearing: 280 degrees

Location: Southeast End

Forsyth Northwest – East Site: Transect and Data Point Photographs



Transect 2: End Bearing:100 degrees

Location: Southeast End Year: 2013



Transect 2: End Bearing: 100 degrees

Location: Northwest End

Year: 2022



Data point: DP01w Year: 2022

Location: Northwest End



Year: 2022





Data point: DP02w Year: 2022

Location: Northwest Side



Data point: DP02u

Location: Northwest Side

Forsyth Northwest – East Site: Data Point Photographs



Data point: DP03w Year: 2022



Data point: DP03u Year: 2022

Location: Southeast Side

Data point: DP04w Year: 2022

Location: Middle of site

Location: Southeast Side



Data point: DP04u

Location: Middle of site

Year: 2022