#### Montana Department of Transportation Wetland Mitigation Monitoring Report

#### **EASTON RANCH MITIGATION SITE**

#### **Project Overview**

Watershed: Watershed #13 - Upper Yellowstone River Basin

**Monitoring Year: 2024** 

Years Monitored: 15th year of monitoring

Corps Permit Number: NWO-2006-90370-MTB

Monitoring Conducted By: Confluence Consulting Inc.

Dates Monitoring Was Conducted: June 19, 2024

#### **Purpose of the Approved Project:**

The site was constructed to provide 27.41 acres of compensatory wetland mitigation credits for wetland impacts associated with future transportation project-related wetland impacts in Watershed #13 – Upper Yellowstone River Basin. Construction entailed excavating a series of wetland cells and a flood channel that bisects the 34.31-acre mitigation site, which is protected under a perpetual Montana Department of Transportation (MDT) Wetland Conservation Easement. The wetland project was designed to increase flood storage, improve wildlife habitat, and restore riparian and wetland habitat that had been impacted by past agricultural practices within the Shields River Watershed. The project includes creating, restoring, and preserving wetlands as well as establishing a 50-foot upland buffer around the perimeter of the site for the purpose of developing mitigation credits within the Easton Ranch Wetland Conservation Easement.

#### **Site Location:**

**Latitude:** 46.058174 **Longitude:** –110.638937

County: Park Nearest Town: Wilsall, MT

Map Included: See Figure 1, page 12

Mitigation Site Construction Started: 2009 Construction Ended: 2009

Dates of Any Recent Corrective or Maintenance Activities (since previous report):

Activity: Weed spraying was conducted in June and October of 2024.

Specific recommendations for any additional corrective actions: The MDT has an ongoing weed-control program and will continue weed treatments. Soil lifts and riprap installed along the bank of the Shields River in the northwestern corner of the site continue to erode. This bank area is generally dominated by shallow-rooting pasture grasses that provide little resistance to bank erosion. MDT will assess this bank erosion and discuss the potential need for adaptive management actions with the landowner and US Army Corps of Engineers. In addition, five bird boxes are broken or have fallen off their posts and need repair.

**Anticipated Wetland Credit Acres: 27.41** 

Wetland Credit Acres Generated to Date: 14.56

Previous Monitoring Reports: <a href="https://www.mdt.mt.gov/publications/brochures/wetland-">https://www.mdt.mt.gov/publications/brochures/wetland-</a>

mitigation.aspx

## **Requirements:**

**Monitoring Period:** 5 years from construction completion or until concurrence by the US Army Corps of Engineers (USACE).

**Performance Standards:** A summary of performance standards, associated success criteria, and 2024 achievement status for the Easton Ranch site is provided in Table 1.

**Table 1. Summary of Performance Standards** 

Performance Standards	Success Criteria	Criteria Achieved (Y/N)	Discussion
Wetland Characteristics	Meet the three parameter criteria for hydrology, vegetation, and soils as outlined in the 1987 Wetland Delineation Manual and 2010 Mountains, Valleys, Coast Region.	Y	Areas identified as wetland habitat within the mitigation site meet the three parameter criteria.
	Soil saturation present for at least 12.5 percent of the growing season.	Y	All wetland data points met the USACE criteria for wetland hydrology, hydric soils, and vegetation, which reflects wetlands are saturated for 12.5 percent of the growing season.
Wetland Hydrology	Groundwater is filling the depressional wetlands excavated into the upland areas of the site.	Y	Hydrologic indicators observed within the excavated wetlands include high water table, saturation, geomorphic position, and a positive FAC-Neutral test.
	Constructed stream channel is stable.	Υ	The constructed floodplain channel is stable with minimal bank erosion identified throughout the mitigation area.
	Hydric soil conditions present or appear to be forming.	Υ	All constructed wetlands exhibit hydric soil development (e.g., depleted matrix, hydrogen sulfide, and redox dark surface).
Hydric Soil	Soil is sufficiently stable to prevent erosion.	Υ	Disturbed soil is stable and does not exhibit signs of erosion.
	Soil is able to support plant cover.	Υ	Plant cover has continued to develop across disturbed soils.
Hydrophytic Vegetation	Achieved when wetlands delineated as hydrophytic using technical guidelines.	Υ	Areas identified as wetland habitat within the mitigation site support a prevalence of hydrophytic vegetation (OBL, FACW, and FAC).
	Trees and shrubs will be installed and survival assessed.	Y	Trees and shrubs were planted throughout the mitigation site and are assessed during each yearly monitoring visit.
Woody Plants	Scrub/shrub wetlands habitat will be achieved where 30 percent absolute cover by cuttings, planted, and volunteer woody plants is reached within the defined monitoring period or site is showing signs of	Y	Approximately 39 percent of the wetland areas identified within the site are dominated by woody vegetation. Planted woody species were observed with high vigor along the constructed flood channel. Natural recruitment of aspen, willows, and cottonwoods continue to establish across the site. The site has achieved this success criterion because the percent cover of woody plants is greater than 30 percent cover.

Performance Standards	Success Criteria	Criteria Achieved (Y/N)	Discussion
	progression toward that goal at the end of the defined monitoring period.		Woody plant cover greater than 30 percent was not achieved until 2024.
Herbaceous Plants	At least 80 percent ocular vegetation coverage by desirable hydrophytic vegetation.	Y	Desirable hydrophytic vegetation comprises greater than 80 percent of total vegetation cover within delineated wetlands.
Wetland Acreage Development	Provide 27.41 net credit acres for the project area.	N	A total of 14.56 net wetland credit acres has been generated for the mitigation site and includes 12.33 acres of established wetland, 1.64 acres of restored wetland, 0.28 acres of preserved wetland, and 0.98 acres upland buffer, and 0.67-acre debit from project impacts (See Table 7).
	Emergent wetland habitat will be 70–75% of mitigation wetland.	Y	Emergent wetland habitat comprises approximately 61 percent of total wetland areas delineated in 2024. This decrease in cover is due to an increase in scrub-shrub wetland habitat.
Wetland Acreage Development	Scrub/shrub wetland habitat will be 15–20% of wetland area.	Υ	Scrub/shrub wetland habitat comprises approximately 39% of total wetland areas delineated in 2024, exceeding the success criteria of 15-20%.
	Open water will be < 5% of wetland area.	Υ	Open water comprised less than .003% of total wetland areas delineated in 2024. The open water area (<3 feet deep) supports a diversity of submergent plant species and less than 5% emergent vegetation. The intent of this criterion was to minimize the amount of deep openwater habitat greater than 3 feet in depth.
	Considered stable when banks are vegetated with a majority of deep-rooting riparian and wetland plant species.	Υ	Streambanks along the constructed channel are vegetated with a diversity of deep-rooting riparian and wetland plant species.
Floodplain Channel Restoration	Bank stability will be evaluated by reference reach comparison.	Υ	Banks within the constructed floodplain channel are stable and compare to reference reach conditions with no signs of erosion or channel movement.
	Vegetation transect across the floodplain will be monitored.	Υ	Vegetation transect across the floodplain has been monitored yearly and supports a prevalence of species with a root-stability index greater than 6.
	Area visually inspected and photo-documented.	Υ	The results of annual inspection and photo documentation along the Shields River in the northwestern corner of the site are presented in the mitigation monitoring reports.
Bank Stabilization (Shields River)	Stability achieved when the banks are vegetated with a majority of deep-rooting riparian and wetland plant species.	N	In 2024, soil lifts and the riprap installed along the the banks of the Shields River continue to slowly erode away near the northwestern corner of the site. This area has been eroding since a 2013 high flow event damaged the reconstructed bank, and the river downcut several feet at this location.
Upland Buffer	Noxious weeds do not exceed 10 percent cover within upland buffer area.	Y	Noxious weed cover is estimated at less than 5 percent within the upland buffer.

Performance Standards	Success Criteria	Criteria Achieved (Y/N)	Discussion
	Any area disturbed within creditable buffer zone must have at least 50 percent aerial cover of non-weed species by end of monitoring period.	Υ	Disturbed areas have successfully established greater than 50 percent aerial cover by non-weed species.
Weed Control	Less than 5 percent absolute cover of state-listed noxious weed species across the site.	Υ	Absolute cover of state-listed noxious weed species is estimated at 2 percent across the site in 2024.
Fencing	Install wildlife-friendly fencing along the easement boundaries.	Υ	Wildlife-friendly fencing has been removed from the western and southern portions of the easement boundaries to promote wildlife movement across the wetland and the Shields River riparian corridor. The remaining fences are in good condition.
Monitoring	Monitor the site for a minimum period of 5 years or longer as determined by the USACE.	Y	Comprehensive site monitoring has been ongoing for 15 years since the completion of construction activities in 2009.

#### **Summary Data**

**Wetland Delineation** – The total wetland and aquatic habitat acreage delineated in 2024, including pre-existing wetland areas, was 15.12 acres, which is a decrease of 0.51 acre since 2023 (Table 2; Figures A-2 and A-3, Appendix A). The total wetland area at the site ranged from a low in 2010 of 11.53 acres to a high of 15.99 acres in 2021 with 15.12 acres delineated in 2024. Overall, the wetland acreage within the Easton site showed a slight decline of approximately 0.51 acres between 2023 and 2024. The decrease in wetland coverage occurring in the NE corner of the project site is likely due to the dry conditions seen caused by the ongoing drought conditions and below average precipitation in the region from 2022 to present.

In 2020, the USACE (N. Green, personal communication, May 6, 2020) 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." In accordance with this recent USACE guidance, open water accounted for 0.05-acre of the mitigation site in 2024.

Table 2. Upland, Wetland & Aquatic Habitat Acreage Delineated in 2024 at the Easton Ranch Site

Habitat Type	2024 Acreage
Uplands	19.19
Wetlands &	
Aquatic Habitat	
Emergent	9.16
Scrub-Shrub	5.91
Open Water	0.05
Subtotal	15.12
Project Area	34.31

**Vegetation** – A total of 179 plant species were identified on the site from 2010 through 2024. Vegetation communities were identified by species composition and dominance. The following three upland and ten wetland vegetation community types were identified and mapped in 2024:

- Upland Type 10 Bromus inermis/Populus tremuloides
- Upland Type 13 Bromus inermis/Phleum pratense
- Upland Type 18 Lotus corniculatus/Phleum pratense
- Wetland Type 4 Salix spp.
- Wetland Type 5 Populus balsamifera
- Wetland Type 7 Aquatic Macrophytes
- Wetland Type 11 Juncus spp.
- Wetland Type 12 Eleocharis palustris/Typha latifolia
- Wetland Type 14 Juncus spp./Populus balsamifera
- Wetland Type 15 Juncus spp./Salix spp.
- Wetland Type 20 Lotus corniculatus/Populus balsamifera
- Wetland Type 21 Carex spp./Juncus spp.
- Wetland Type 24 *Phleum pratense*

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 in Figure A-3 (Appendix A). The most prevalent upland community within the site is Upland Type 13 – *Bromus inermis/Phleum pratense*, while the most prevalent wetland community is Wetland Type 11 – *Juncus spp*.

Vegetation cover was measured along three transects in 2024 (Figure A-2, Appendix A). Details of each transect are provided in the site monitoring form in Appendix B. Photographs of the transect endpoints are provided in Appendix C. Table 3 summarizes the data for Transect T-1. Transect 1 is 1,376 feet long; runs south to north across the east side of the site (Figure A-2, Appendix A); and intersects Upland Types (UT) 10, 13, and 18 and Wetland Types (WT) 7, 11, 14, 15, and 21. In 2024, 33.4 percent of the transect intercepted wetland habitat, a decrease from 58.2 percent in 2023. Total number of vegetation species and upland species increased by three while hydrophytic species stayed the same. Total vegetative cover has remained relatively constant at 90–91 percent from 2020 to 2024.

Table 3. Data Summary for T-1 From 2010 and 2020 Through 2024 at the Easton Ranch Site

Monitoring Year	2010	2020	2021	2022	2023	2024
Transect Length (feet)	1,376	1,376	1,376	1,376	1,376	1,376
Vegetation Community Transitions Along Transect	11	13	17	17	17	16
Vegetation Communities Along Transect	3	9	12	12	9	8
Hydrophytic Vegetation Communities Along Transect	1	5	7	7	6	5
Total Vegetative Species	33	54	53	62	60	63
Total Hydrophytic Species	15	38	40	42	43	43
Total Upland Species	18	16	13	19	17	20
Estimated % Total Vegetative Cover	65	90	91	91	91	91
Estimated % Unvegetated	35	10	9	9	9	9
% Transect Length Comprising Hydrophytic Vegetation Communities	28	42.2	61.7	61.7	58.2	33.4
% Transect Length Comprising Upland Vegetation Communities	70	57.8	38.3	38.3	41.8	66.6
% Transect Length Comprising Unvegetated Open Water	2.5	0.0	0.0	0	0.0	0.0
% Transect Length Comprising Mud Flat	0.0	0.0	0.0	0	0.0	0.0

Data collected on T-2 (Wetland Mitigation Site Monitoring form, Appendix B) are summarized in Table 4. T-2 is 1,333 feet long, runs north to south across the west side of the site, and intersects Upland Types 13 and 18 and Wetland Types 7, 11, 14, 15, and 21. Hydrophytic vegetation communities comprised 61 percent of the transect in 2024, a 3.7 percent decrease since 2023. Total vegetative species decreased by one in 2024 due to the loss of one upland species. Total vegetative cover has remained relatively constant at 90–91 percent from 2020 to 2024.

Table 4. Data Summary for T-2 From 2010 and 2020 Through 2024 at the Easton Ranch Site

Monitoring Year	2010	2020	2021	2022	2023	2024
Transect Length (feet)	1,333	1,333	1,333	1,333	1,333	1,333
Vegetation Community Transitions Along Transect	11	13	11	11	10	10
Vegetation Communities Along Transect	4	9	9	9	7	7
Hydrophytic Vegetation Communities Along Transect	2	6	6	6	5	5
Total Vegetative Species	35	61	60	61	61	60
Total Hydrophytic Species	17	46	47	45	46	46
Total Upland Species	18	15	13	17	15	14
Estimated % Total Vegetative Cover	65	90	91	91	91	91
Estimated % Unvegetated	35	10	9	9	9	9
% Transect Length Comprising Hydrophytic Vegetation Communities	38.7	46.5	61.7	61.7	64.7	61.0
% Transect Length Comprising Upland Vegetation Communities	61.3	53.5	38.3	38.3	35.3	39.0
% Transect Length Comprising Unvegetated Open Water	0.0	0.0	0.0	0.0	0	0
% Transect Length Comprising Mud Flat	0.0	0.0	0.0	0.0	0	0

Data collected on T-3 (Wetland Mitigation Site Monitoring form, Appendix B) are summarized in Table 5. T-3 is 732 feet long and runs west to east across the south end of the site. The transect intersects Upland Type 13 and Wetland Types 11, 14, and 15. In 2024, T-3 gained an additional wetland community. Approximately 55 percent of the transect crossed wetland habitat in 2024, returning to a similar coverage as in 2022. The total number of species increased by four, with the addition of four wetland species. Total vegetative cover has remained relatively constant at 90–91 percent from 2020 to 2024.

Table 5. Data Summary for T-3 From 2010 and 2020 Through 2024 at the Easton Ranch Site

Monitoring Year	2010	2020	2021	2022	2023	2024
Transect Length (feet)	732	732	732	732	732	732
Vegetation Community Transitions Along Transect	11	6	6	6	6	7
Vegetation Communities Along Transect	3	4	4	4	3	4
Hydrophytic Vegetation Communities Along Transect	1	2	2	2	2	3
Total Vegetative Species	24	29	27	27	28	32
Total Hydrophytic Species	11	19	19	19	19	23
Total Upland Species	13	10	8	8	9	9
Estimated % Total Vegetative Cover	65	90	91	91	91	91
Estimated % Unvegetated	35	10	9	9	9	9
% Transect Length Comprising Hydrophytic Vegetation Communities	45	54.8	54.5	54.5	57.8	54.9
% Transect Length Comprising Upland Vegetation Communities	55	45.2	45.5	45.5	42.2	45.1
% Transect Length Comprising Unvegetated Open Water	0.0	0.0	0.0	0.0	0	0
% Transect Length Comprising Mud Flat	0.0	0.0	0.0	0.0	0	0

Several hundred cuttings and containerized plant materials were planted along the constructed flood channel to increase channel stability. A thorough inventory of planted woody species is no longer possible 15 years after construction because it is difficult to identify planted versus naturally occurring trees and shrubs. The difficulty in counting the planted materials was largely due to the success of natural recruitment on the site. In 2021, approximately four red-osier dogwood (*Cornus alba*), 51 narrow-leaf willow (*Salix exigua*), 99 speckled alder (*Alnus incana*), and 85 willow cuttings were identified as surviving. During the 2024 monitoring event, only healthy trees and shrubs were observed, so it can be assumed all the woody species counted in 2021 were surviving in 2024.

The abundance and canopy cover of woody volunteer species continues to increase across the site. Quaking aspen (*Populus tremuloides*) saplings are thriving and spreading along the north and northeastern project boundaries. Volunteer speckled alder, narrow-leaf willow, and balsam poplar (*Populus balsamifera*) were noted along the channel and are establishing well. Volunteer narrow-leaf willow, Bebb's willow (*Salix bebbiana*), and yellow willow (*Salix lutea*) have increased in areas outside of the channel and were observed in abundance within Wetland Type (WT) 11, WT14, WT15, and WT21 across the site. Salix spp. coverage has increased noticeably in the southeastern region of the site. Young cottonwoods were also observed within WT14, WT18, and WT21 along Transects 1 and 2 and around the perimeter of WT5 and WT14 in the western and southern portions of the project area. Speckled alder and red-osier dogwood were primarily observed along or within the excavated channel. Despite many of the younger saplings experiencing substantial herbivory by deer and moose across the site, total scrub-shrub wetland cover has increased by 1.52 acres in 2024.

During the June 2024 monitoring, infestations of Canada thistle (*Cirsium arvense*), a Priority 2B noxious weed in Montana, were identified (Figure A-3, Appendix A). Many Canada thistle infestations found in 2023 were eradicated. However, new infestations were seen in 2024, keeping the number of infestations consistent with 2023 at 14 populations. Several of the infestations were rated as trace (< 1%), other infestations were rated low (1%–5%), and three infestations were rated moderate (6%-25%). Canada thistle infestations were found in both upland and wetland habitats. Canada thistle was observed in WT's 11, 14, 15, 20, 21, 24 and UT 10, 13, and 18. Infestations of gypsy-flower (*Cynoglossum officinale*), a Priority 2B noxious weed in Montana, were observed in 2024 (Figure A-3, Appendix A). All gypsy-flower infestations were rated as occurrences trace and located in UTs 13 and 18. A trace number of the noxious weed sulphur cinquefoil (*Potentilla recta*), a Priority 2B noxious weed in Montana, was found in the southcentral portion of the site. Overall, MDT's annual weed management efforts have effectively controlled the spread of noxious weed populations across the site. Bird's-foot trefoil (*Lotus corniculatus*) has significantly decreased in 2024 due to vegetation management efforts. MDT's ongoing weed-management program conducted weed management actions in June and October of 2024.

**Hydrology** – The hydrology for the site is supplied from multiple sources, including a shallow seasonal groundwater table, direct precipitation, surface runoff, flood flows from the adjacent Shields River, and surface-water flows from two sources in the northcentral and northeastern corners of the site. The surface-water flows into the northcentral portion of the site, emanating from an old flood channel draining a beaver pond complex to the north of the Easton site along the northcentral boundary fence. Irrigation flows are diverted from an existing irrigation feeder ditch located at the northeastern corner of the mitigation site. These sources of surface flow were not flowing during the June 2024 site visit. Approximately 3% of the site was inundated during the 2024 monitoring event, a 2% increase from 2023. During the 2024 visit the depressional areas in the south and east-central portions of the site were inundated as well as some of the wetland cells. However, the wetlands cells in the northeastern portion of the site were not inundated as irrigation flows had not been diverted into the site by the landowner. Inundation depths ranged from 0.1 to 1.5 feet across the site. As in 2023, there was no evidence of overland flows from the adjacent Shields River within Transect 2 or the overflow channel. The overflow channel remained well-vegetated, and the channel bottom remained stable. On the day of monitoring, the Shields River reached a gage height of 2.86 feet according to the USGS gage near Wilsall, MT (06192980).

**Soils** – Paired soil pits were excavated at ten locations within the mitigation area. The mitigation site was mapped as containing the Meadowcreek and Nesda loam soil series by the Natural Resources Conservation Service (NRCS, 2024a), which are not classified as hydric soils (Figure A-2, Appendix A). Soil textures within wetland soil pits ranged from silty clay loam to sandy loam. Hydric soil indicators were observed within all wetland soil pits and included the following indicators: depleted matrix, hydrogen sulfide, and redox dark surface.

Soil textures within upland soil pits ranged from silty clay loam to clay loam. Upland point DP03u had hydric soil indicators but lacked hydrophytic vegetation and wetland hydrology. The area in which DP03u was sampled was previously wetland, explaining the presence of relict hydric soils. The USACE wetland determination data forms in Appendix B provide additional field observations for the paired data points.

**Photographs** – Photographs taken at photo points 1–7 (PP1 to PP7), transect endpoints, and paired data points are provided in Appendix C, with comparisons between 2024 and the first year of monitoring. Please refer to previous year's monitoring reports for all previous annual photographs. https://www.mdt.mt.gov/publications/brochures/wetland-mitigation.aspx

**Functional Assessment** – The 2024 results of the functional assessments are summarized in Table 6. Montana Wetland Assessment Method (MWAM) forms for the Easton Ranch Site are provided in Appendix B. Since monitoring began in 2010, the site has been divided into three Assessment Areas (AA) for the purpose of functional assessment. Creation, Restoration, and Preservation AAs all rate as Category II wetlands with moderate to high ratings for many parameters, including MT Natural Heritage Program Species Habitat, General Wildlife Habitat, Flood Attenuation, Short- and Long-Term Surface-Water Storage, Sediment/Nutrient/Toxicant Removal, and Production Export/Food Chain Support.

Table 6. Montana Wetland Assessment Method Summary for the Easton Ranch Site

Function and Value Parameters From the	2024	2024	2024
2008 Montana Wetland Assessment Method	Restoration	Preservation	Creation
Listed/Proposed Threatened & Endangered (T&E) Species Habitat	Low (0.1)	Low (0.1)	Low (0.1)
Montana Natural Heritage Program Species (MTNHP) Habitat	High (0.9)	High (0.9)	High (0.9)
General Wildlife Habitat	Mod (0.7)	High (0.7)	High (0.9)
General Fish/Aquatic Habitat	NA	NA	NA
Flood Attenuation	Mod (0.6)	High (0.9)	High (0.8)
Short- and Long-Term, Surface-Water Storage	Mod (0.6)	Mod (0.6)	High (0.8)
Sediment/Nutrient/Toxicant Removal	High (1.0)	High (1.0)	High (0.9)
Sediment/Shoreline Stabilization	High (0.9)	NA	High (0.9)
Production Export/Food Chain Support	Mod (0.7)	Mod (0.7)	High (1.0)
Groundwater Discharge/Recharge	Mod (0.7)	Mod (0.7)	Mod (0.7)
Uniqueness	Mod (0.4)	Mod (0.4)	Mod (0.6)
Recreation/Education Potential (bonus points)	NA	NA	NA
Actual Points/Possible Points	6.60 / 10	6.00 / 9	7.60 / 10
% of Possible Score Achieved	66%	67%	76%
Overall Category	II	II	II

**Wildlife** – Seventeen bird species were again identified at the site in 2024, including two Bald Eagles (*Haliaeetus leucocephalus*) (Site Monitoring Form Appendix B). In addition to the bird species, white-tailed deer (*Odocoileus virginianus*) and a yellow-bellied marmot (*Marmota flaviventris*) were observed during the 2024 monitoring visit.

**Stream Bank Stabilization** — During the spring 2013 high-flow event, significant bank erosion occurred immediately upstream of PP4B. This erosion exposed the riprap and undermined the riprap and coirwrapped soil lifts along an approximately 85-foot-long reconstructed bank, which caused significant loss of soil and willow cuttings. Photo point PP4B, located at the south end of the reconstructed bank, had to be relocated because of bank erosion and woody debris accumulation. Additional bank erosion has been noted since the dramatic lateral cutting event of 2013, and this bank section remains exposed and vulnerable. The 2018 runoff period was supported by above-average precipitation in June. From 2019 through 2024, bank erosion continued along the downstream (south) portion of the 85-foot-long bank and resulted in areas of undercutting and loss of finer textured subsoils. Photographs showing the bank erosion are provided in Appendix C.

**Functional Units Summary** – The 2024 functional units summary is summarized in Table 7. A total of 106.21 functional units were generated at the Easton site after applying the appropriate mitigation ratios to the 2024 wetland acreage and multiplying that value by the points generated from the assessment area. Functional units have decreased in 2024 due to the decrease in wetland acreage and lack of structural diversity in the restored and preserved wetlands.

Table 7. Summary of Functional Units for Easton wetland mitigation site

Mitigation Type	2024 Delineated Acreage	Ratio	2024 Mitigation Credit Acres	MWAM Actual Points	Functional Units
Restoration (Re-establishment)	1.64	1:1	1.64	6.60	10.82
Preservation	1.10	4:1	0.28	6.00	1.68
Establishment (Creation)	12.33	1:1	12.33	7.60	93.71
Functional Units (Mitigation Credit Acres × Actual Points)					106.21

Credit Summary — Table 8 summarizes the estimated wetland credits based on the USACE-approved credit ratios and the wetland delineation completed in June 2024. Proposed mitigation included creating 24.95 acres of emergent and shrub/scrub wetlands, reestablishing a 1.56-acre flood channel, preserving 1.10 acres of pre-existing wetland and maintaining 6.43 acres of upland buffer. Proposed wetland credits for the project site totaled 27.41 credit acres, which accounted for 0.67 acres of temporary impacts associated with constructing the mitigation wetland. The total mitigation credit estimated in 2024 totaled 14.56 credit acres, which is slightly less than observed in 2023. The site is approximately 12.85 acres short of the original goal of 27.41 credit acres. This shortfall is caused by the anticipated wetland acreage not developing as planned in the site's eastern, west central, and southwest portions of the site.

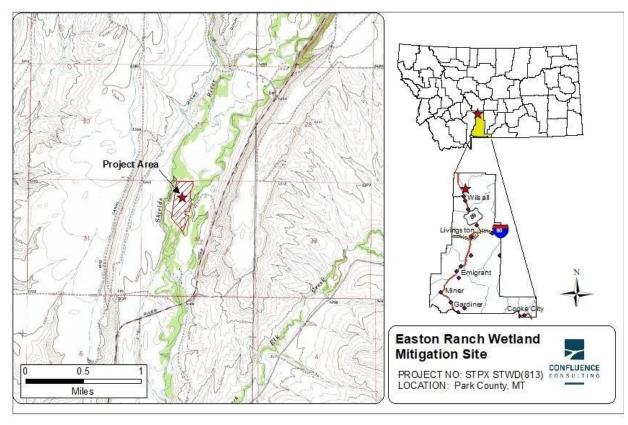
Table 8. Wetland Mitigation Credits Estimated for the Easton Ranch Site (2021–2024)

Proposed Mitigation Features	Compensatory Mitigation Type	USACE Mitigation Ratios	Anticipated Final Credit Acreages	Proposed Final Wetland Credits (Acres)	2021 Wetland Acreages	2021 Credit Estimated (Acres)	2022 Wetland Acreages	2022 Credit Estimated (Acres)	2023 Wetland Acreages	2023 Credit Estimated (Acres)	2024 Wetland Acreages	2024 Credit Estimated (Acres)
Creation of palustrine emergent wetland via shallow excavation	Establishment (Creation)	1:1	24.95	24.95	13.25	13.25	13.24	13.24	12.84	12.84	12.33	12.33
Reestablishment of relic flood channel	Restoration (Reestablishment)	1:1	1.56	1.56	1.64	1.64	1.64	1.64	1.64	1.64	1.64	1.64
Preservation of existing shrub/scrub and palustrine emergent wetland	Preservation	4:1	1.10	0.28	1.10	0.28	1.10	0.28	1.10	0.28	1.10	0.28
Establish a 50- foot-wide upland buffer on the perimeter of the site <sup>a</sup>	Upland Buffer	5:1	6.43	1.29	5.07	1.01	4.77	0.95	4.92	0.98	4.89	0.98
Temporary Project impacts			-0.67	-0.67	-0.67	-0.67	-0.67	-0.67	-0.67	-0.67	-0.67	-0.67
	Total Mitigation Cred	lit Acres:	-	27.41		15.51		15.44		15.07		14.56

<sup>&</sup>lt;sup>a</sup> Upland buffer around perimeter of site does not include wetland areas.

#### Maps, Plans, Photos

Figure 1. Site Location Map



**Project Area Maps/Figures:** See Appendix A (Figure A-2 – 2024 Monitoring Activity Locations; Figure A-3 – 2024 Mapped Site Features; and Figure A-4 – 2024 Wetland Delineation)

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

Plant List: See Appendix B (Table B-1)

**Photos:** See Appendix C

**Plans:** See Appendix D of 2018 Easton Monitoring Report found at this link: <a href="https://www.mdt.mt.gov/publications/brochures/wetland-mitigation.aspx">https://www.mdt.mt.gov/publications/brochures/wetland-mitigation.aspx</a>

### **Conclusions**

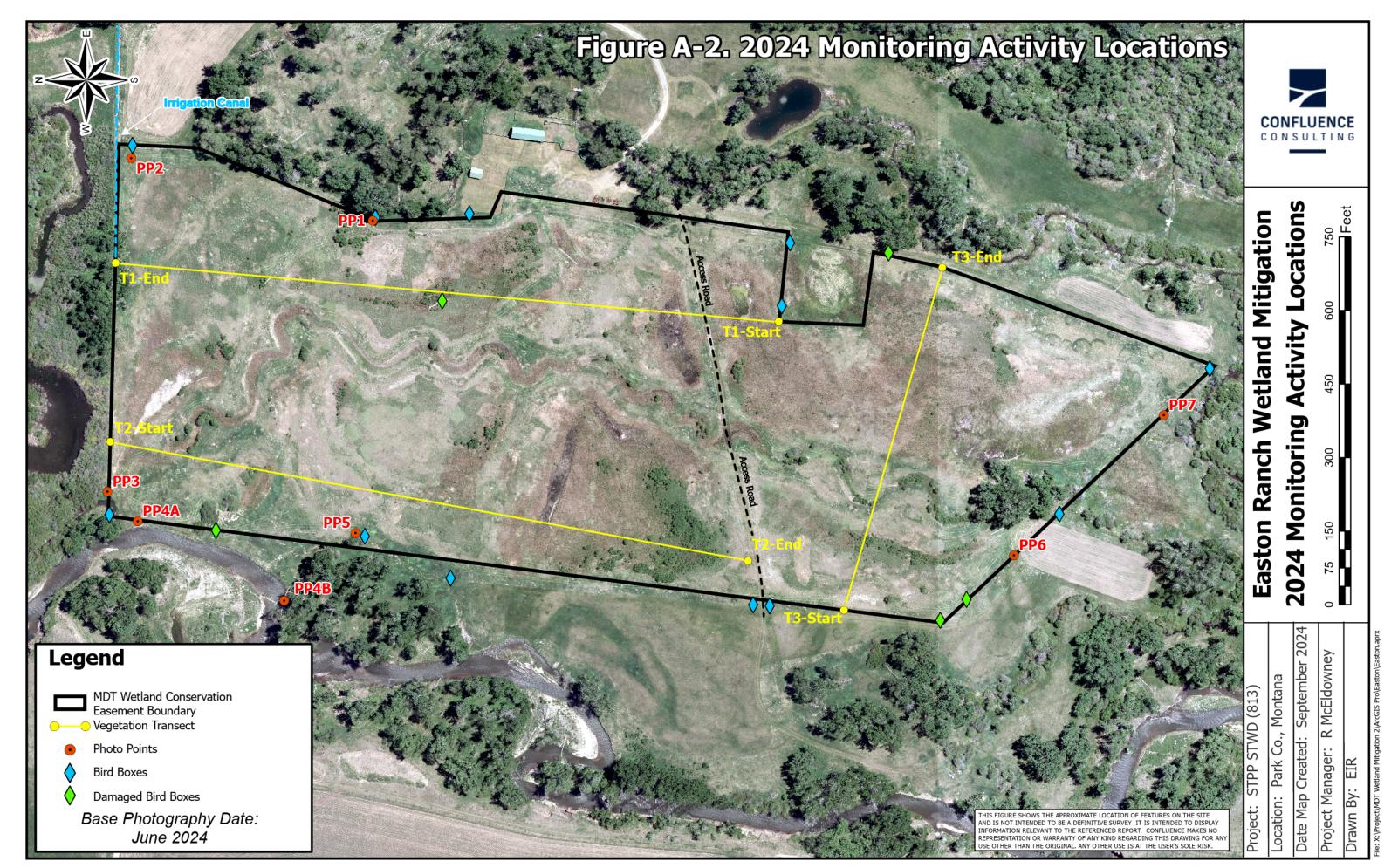
Based on the results of the fifteenth year of monitoring, the mitigation site is continuing an upward trend toward a diverse wetland ecosystem. The site meets all performance standards except for wetland acreage development and bank stabilization (deep-rooting riparian vegetation establishment). MDT will coordinate with the US Army Corps of Engineers to discuss meeting these performance standards and potential adaptive management actions.

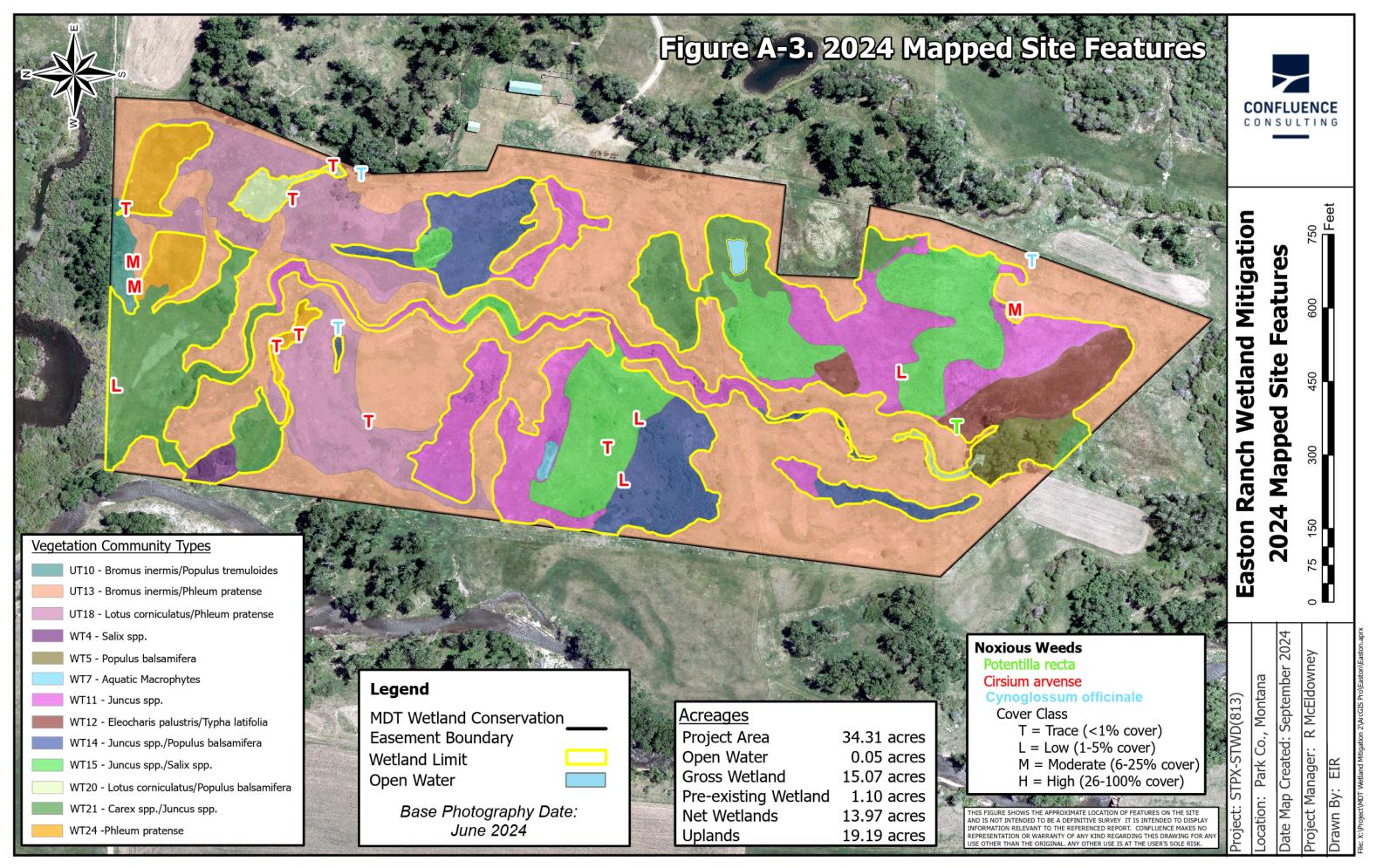
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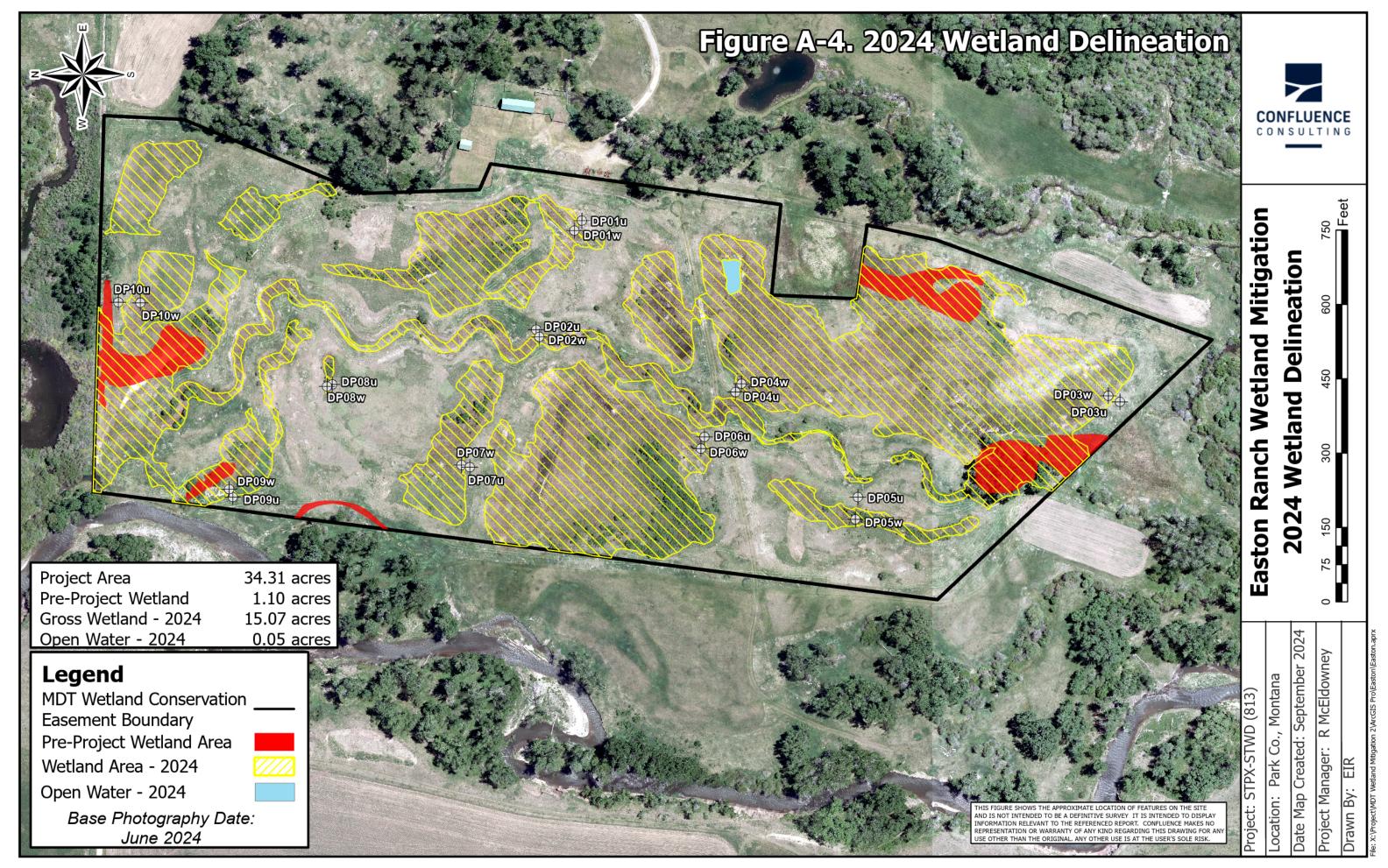
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# APPENDIX A PROJECT AREA MAPS

MDT Wetland Mitigation Monitoring Easton Ranch Park County, Montana







# APPENDIX B MONITORING FORMS

MDT Wetland Mitigation Monitoring Easton Ranch Park County, Montana

### MDT WETLAND MITIGATION SITE MONITORING FORM

Project Site: <u>Laston</u> Assessment Date/Time 6/19/
Person(s) conducting the assessment: E Reynaud, J Trilling, R Cutler
Weather: 78 degrees, sunny, clear Location: Northeast of Wilsall
MDT District: Butte Milepost: NA
Legal Description: T <u>4N</u> R <u>9E</u> Section(s) 32 NW 1/4
Initial Evaluation Date: 8/25/2010 Monitoring Year: 15 #Visits in Year: 1
Size of Evaluation Area: 34.31 (acres)
Land use surrounding wetland:
Agriculture, Shields River, Scrub/Shrub and Forested Riparian corridors.
HYDROLOGY
Surface Water Source: High groundwater, periodic overbank flow from the Shields River, irrigation
Inundation: Average Depth:0.2 (ft) Range of Depths:0.1-1.5 (ft)
Percent of assessment area under inundation:3 %
Depth at emergent vegetation-open water boundary:0.3 (ft)
If assessment area is not inundated then are the soils saturated within 12 inches of surface: Yes_
Other evidence of hydrology on the site (ex. – drift lines, erosion, stained vegetation, etc:
Soil saturation, high water table, geomorphic position, positive FAC-Neutral test
Groundwater Monitoring Wells
Record depth of water surface below ground surface, in feet.
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:
iyurology Notes.
Saturation within wetland cells was more prevalent than the 2023 monitoring event. This was likely caused by significant rain/snow events that occurred shortly before the 2024 monitoring. In general, saturation was much more prevalent within the southern portion of the site.

#### **VEGETATION COMMUNITIES**

Site Easton

(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 # 4 Community Type: Salix spp. /

Species	Cover class	Species	Cover class
Carex nebrascensis	2	Elymus repens	2
Mentha arvensis	1	Phalaris arundinacea	3
Phleum pratense	1	Ribes inerme	1
Ribes lacustre	2	Salix bebbiana	3
Salix drummondiana	3	Salix lasiandra	3
Scirpus microcarpus	1	Urtica dioica	1

**Acres** 

<u>0.14</u>

#### **Comments:**

Preserved scrub-shrub community along the banks of the Shields River. Dominated by Salix drummondiana and Salix lasiandra. Salix bebbiana cover increased in 2024.

Community # 5 Community Type: Populus balsamifera / Acres 0.41

Species	Cover class	Species	Cover class
Bromus inermis	2	Cirsium arvense	2
Glyceria striata	2	Populus angustifolia	4
Populus balsamifera	4	Salix bebbiana	2
Salix lasiandra	2	Scirpus microcarpus	1
Scutellaria lateriflora	2		

#### **Comments:**

Preserved forested wetland area along the southern project boundary.

Community #	<b>7</b> Community Type:	Aquatic macrophytes /	Acres	<u>0.09</u>
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Species	Cover class	Species	Cover class
Algae, green	3	Alopecurus geniculatus	0
Bare Ground	2	Beckmannia syzigachne	1
Carex nebrascensis	0	Carex pellita	1
Carex utriculata	2	Cornus alba	0
Eleocharis palustris	2	Glyceria grandis	1
Hippuris vulgaris	0	Juncus balticus	2
Juncus effusus	2	Juncus ensifolius	0
Mentha arvensis	1	Open Water	4
Ranunculus aquatilis	0	Ranunculus gmelinii	0
Ruppia maritima	1	Salix lutea	1
Schoenoplectus pungens	1	Scirpus microcarpus	1
Typha latifolia	2	·	

This CT consists of two cells. The eastern cell qualifies as Open Water because it contains less than 5% emergent vegetation, while the western cell contains more than 5% rooted emergent vegetation and therefore does not qualify as Open Water.

Community #	10	Community Type:	Bromus inermis / Populus tremuloides	Acres	0.2
$\sigma$		Ochimicality Type.	Bromas mermis / r opaias tremaiolaes	70103	0.2

Species	Cover class	Species	Cover class
Agrostis stolonifera	1	Bromus inermis	4
Carum carvi	1	Cirsium arvense	0
Dactylis glomerata	2	Elymus repens	1
Leymus cinereus	1	Lotus corniculatus	1
Phleum pratense	3	Poa palustris	1
Poa pratensis	1	Populus balsamifera	0
Populus tremuloides	3	Taraxacum officinale	1
Trifolium pratense	1		

#### **Comments:**

Small CT along the northern project boundary.

Community # 11 Community Type: Juncus spp. / Acres 4.05

Species	Cover class	Species	Cover class
Agrostis stolonifera	1	Alopecurus arundinaceus	1
Alopecurus pratensis	1	Bare Ground	1
Bromus inermis	1	Carex aquatilis	1
Carex atherodes	1	Carex bebbii	1
Carex nebrascensis	1	Carex utriculata	2
Carum carvi	1	Cirsium arvense	1
Deschampsia caespitosa	0	Equisetum arvense	2
Juncus balticus	4	Juncus effusus	2
Juncus ensifolius	0	Juncus longistylis	2
Juncus tenuis	0	Lotus corniculatus	2
Lysimachia ciliata	0	Mentha arvensis	0
Phalaris arundinacea	1	Phleum pratense	1
Poa palustris	1	Poa pratensis	1
Populus balsamifera	1	Salix bebbiana	1
Salix lutea	1	Schedonorus pratensis	0
Scirpus microcarpus	1	Solidago gigantea	0
Stachys pilosa	1		

#### **Comments:**

The coverage of This CT decreased in 2024 primarily due to the expansion of Wetland Type 15 Juncus spp./Salix spp. Similarly to the rest of the site, Lotus corniculatus has decreased due to vegetation management. This CT contains a wide diversity of native wetland vegetation.

Community # 12 Community Type: Eleocharis palustris / Typha latifolia Acres 0.95

Species	Cover class	Species	Cover class
Agrostis stolonifera	1	Alopecurus pratensis	1
Beckmannia syzigachne	1	Carex aquatilis	1
Carex utriculata	2	Eleocharis palustris	1
Glyceria elata	1	Juncus balticus	1
Mentha arvensis	1	Phalaris arundinacea	1
Ruppia maritima	1	Typha latifolia	4

#### **Comments:**

The coverage of This CT decreased slightly in 2024.

Community # 13 Community Type	: Bromus inermis / Phleum pratense	<b>A</b> cres <u>14</u>
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Species	Cover class	Species	Cover class
Achillea millefolium	0	Agrostis stolonifera	1
Alopecurus arundinaceus	0	Alopecurus pratensis	0
Alyssum alyssoides	0	Bare Ground	1
Bromus arvensis	0	Bromus ciliatus	0
Bromus inermis	3	Camelina microcarpa	1
Carex nebrascensis	0	Carum carvi	1
Cirsium arvense	1	Dactylis glomerata	1
Elymus repens	2	Equisetum arvense	0
Glycyrrhiza lepidota	0	Juncus balticus	1
Leymus cinereus	1	Lotus corniculatus	3
Lysimachia ciliata	0	Medicago sativa	0
Melilotus officinalis	0	Phalaris arundinacea	0
Phleum pratense	3	Poa palustris	1
Poa pratensis	2	Populus balsamifera	1
Ranunculus macounii	0	Salix exigua	1
Salix lutea	0	Schedonorus pratensis	0
Sisyrinchium idahoense	0	Stachys pilosa	0
Taraxacum officinale	1	Thlaspi arvense	0
Trifolium hybridum	1	Trifolium pratense	1

This CT makes up the majority of upland acreage in the site. The coverage has continued to increase from 2023 to 2024.

Community # <u>14</u>	- Communit	y Type:	Juncus spp.	/ Populus balsamifera	Acres	2.12
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Species	Cover class	Species	Cover class
Agrostis stolonifera	1	Alnus incana	1
Alopecurus arundinaceus	1	Bare Ground	1
Carex nebrascensis	1	Carex pachystachya	1
Carex pellita	1	Carex utriculata	1
Carum carvi	0	Carum carvi	0
Cirsium arvense	0	Deschampsia caespitosa	1
Elymus repens	0	Equisetum arvense	1
Juncus balticus	4	Juncus effusus	2
Lotus corniculatus	1	Mentha arvensis	1
Phleum pratense	1	Poa palustris	2
Poa pratensis	0	Populus angustifolia	1
Populus balsamifera	4	Potentilla gracilis	0
Salix bebbiana	1	Salix boothii	1
Salix drummondiana	1	Salix exigua	1
Salix lasiandra	0	Salix lutea	2
Sinapis arvensis	0	Sisyrinchium idahoense	0
Symphyotrichum subspicatum	0	Taraxacum officinale	0
Trifolium hybridum	0	Trifolium pratense	0

No open water was observed in this CT in 2024. Significant herbivory was observed on the cottonwoods which is stunting the vertical growth. Nevertheless, there are large stands of cottonwoods and saplings throughout the vegetation community.

Community #	15	<b>Community Type:</b>	Juncus spp. / Salix spp.	Acres	3.24
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Species	Cover class	Species	Cover class
Agrostis stolonifera	0	Alnus incana	1
Bare Ground	1	Carex nebrascensis	2
Carex pachystachya	0	Carex pellita	0
Carex utriculata	1	Carum carvi	0
Cicuta douglasii	1	Cirsium arvense	0
Juncus balticus	4	Juncus effusus	1
Juncus tenuis	1	Lotus corniculatus	0
Mentha arvensis	1	Phalaris arundinacea	0
Poa palustris	0	Populus balsamifera	2
Potentilla anserina	1	Salix bebbiana	1
Salix boothii	0	Salix drummondiana	1
Salix exigua	1	Salix lasiandra	1
Salix lutea	3	Scirpus microcarpus	1
Sisyrinchium idahoense	0	Stachys pilosa	1
Taraxacum officinale	0		

Although herbivory is stunting vertical growth of woody species, this CT increased 1.79 acres in 2024.

Community # 18 Community Typ	Lotus corniculatus / Phleum pratense	<b>Acres</b> <u>3.35</u>	<u>)</u>
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Species	Cover class	Species	Cover class
Achillea millefolium	0	Agrostis stolonifera	1
Alnus incana	1	Alopecurus arundinaceus	2
Bare Ground	1	Bromus carinatus	0
Bromus inermis	0	Bromus tectorum	0
Camelina microcarpa	1	Carex pachystachya	1
Carex pellita	1	Carum carvi	2
Elymus repens	3	Elymus trachycaulus	0
Equisetum arvense	1	Juncus balticus	2
Leymus cinereus	1	Lotus corniculatus	3
Medicago lupulina	1	Melilotus officinalis	0
Open Water	0	Phalaris arundinacea	0
Phleum pratense	3	Poa palustris	0
Poa pratensis	2	Populus balsamifera	1
Rumex salicifolius	0	Salix exigua	1
Schedonorus pratensis	1	Solidago lepida	0
Stachys pilosa	0	Taraxacum officinale	1
Thlaspi arvense	1	Tragopogon dubius	0
Trifolium hybridum	2	Trifolium pratense	1

Upland CT first identified in 2018, mainly across the northern portion of site. In 2021 it was thought much of this CT in the northeastern portion of the project area was transitioning to wetland, however during the 2023 and 2024 monitoring events, wetlands in this area did not increase.

Community # 20 Community Type: Lotus corniculatus / Populus balsamifera Acres 0.29

Species	Cover class	Species	Cover class
Agrostis stolonifera	1	Elymus repens	2
Equisetum arvense	1	Lotus corniculatus	4
Phleum pratense	3	Populus balsamifera	3
Salix exigua	1		

#### **Comments:**

A CT mapped in 2019 in the northeastern corner of the project area replacing a small area within CT 18. There are many young cottonwoods in this CT and it is anticipated this CT will expand slowly in the future. However, there was no noticeable change in this CT from 2023.

Community #	21	Community Type:	Carex spp. / Juncus spp.	Acres	2.95
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Species	Cover class	Species	Cover class
Agrostis stolonifera	2	Alopecurus arundinaceus	1
Bare Ground	3	Calamagrostis canadensis	1
Carex aquatilis	1	Carex atherodes	2
Carex bebbii	1	Carex microptera	1
Carex nebrascensis	1	Carex pachystachya	3
Carex pellita	3	Carex utriculata	1
Carum carvi	0	Cirsium arvense	0
Dactylis glomerata	0	Deschampsia caespitosa	1
Eleocharis palustris	0	Elymus repens	1
Epilobium ciliatum	1	Equisetum arvense	1
Glyceria grandis	1	Juncus balticus	4
Juncus effusus	1	Juncus ensifolius	0
Juncus longistylis	1	Juncus tenuis	1
Lotus corniculatus	1	Lysimachia ciliata	0
Mentha arvensis	1	Open Water	1
Phalaris arundinacea	0	Phleum pratense	1
Poa palustris	0	Poa pratensis	1
Populus balsamifera	1	Ranunculus macounii	0
Salix bebbiana	1	Salix exigua	1
Salix lasiandra	0	Salix lutea	1
Scirpus microcarpus	1	Stachys pilosa	1
Taraxacum officinale	0	Typha latifolia	1
Comments:			

No changes were seen in the vegetation species composition of the community.

Community #	<u>24</u>	<b>Community Type:</b>	Phleum pratense /	Acres	0.86
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Species	Cover class	Species	Cover class
Agrostis stolonifera	1	Alnus incana	1
Alopecurus arundinaceus	2	Bare Ground	1
Bromus carinatus	0	Bromus inermis	1
Camelina microcarpa	1	Carex pachystachya	1
Carex pellita	1	Carum carvi	2
Cirsium arvense	1	Elymus repens	3
Equisetum arvense	1	Juncus balticus	2
Leymus cinereus	1	Lotus corniculatus	3
Medicago lupulina	1	Melilotus officinalis	0
Phleum pratense	4	Poa palustris	0
Poa pratensis	2	Populus balsamifera	1
Rumex salicifolius	0	Salix exigua	1
Schedonorus pratensis	1	Solidago lepida	0
Stachys pilosa	0	Taraxacum officinale	1
Thlaspi arvense	1	Trifolium hybridum	2
Trifolium pratense	1		

Transitional wetland CT primarily along the northern end of Transect 1 created in 2023. Cover of this community decreased in 2024 due to growth by CT18 Lotus corniculatus/Phleum pratense.

**Total Vegetation Community Acreage** 

32.65

## **VEGETATION TRANSECTS**

Easton	D		
Transect Numbe	r:1 Compass Direction from Sta		rt: <u>5</u>
Interval Data: Ending Station	65 Community Type:	Carex spp. / Juncus spp.	
Species	Cover class	Species	Cover clas
Agrostis stolonifera	1	Brassica kaber	0
Carex nebrascensis	1	Carex pachystachya	1
Carex pellita	1	Carex utriculata	1
Cirsium arvense	0	Elymus repens	1
Epilobium ciliatum	0	Equisetum arvense	1
Juncus balticus	4	Juncus longistylis	1
Juncus tenuis	1	Mentha arvensis	1
Poa pratensis	1	Stachys pilosa	1
Ending Station	93 Community Type:	Aquatic macrophytes /	
Species	Cover class	Species	Cover clas
Algae, green	3	Carex nebrascensis	(
Carex pellita	1	Carex utriculata	2
Eleocharis palustris	1	Glyceria grandis	•
Hippuris vulgaris	0	Juncus balticus	2
Juncus effusus	1	Juncus ensifolius	•
Mentha arvensis	1	Open Water	2
Ranunculus aquatilis	1	Ranunculus gmelinii	•
Salix lutea	1	Typha latifolia	2
Ending Station	137 Community Type:	Carex spp. / Juncus spp.	
Species	Cover class	Species	Cover clas
Agrostis stolonifera	0	Carex aquatilis	2
Carex nebrascensis	1	Carex utriculata	2
Epilobium ciliatum	1	Juncus balticus	4
Juncus effusus	1	Juncus ensifolius	(
Mentha arvensis	0	Open Water	•
Phleum pratense	0	Poa palustris	(
Poa pratensis	0	Salix bebbiana	•
Salix lutea	1		

Ending Station	182	Community Type:	Bromus inermis / Phleum pratense	
Species		Cover class	Species	Cover class
Agrostis stolonifera		1	Bare Ground	1
Brassica kaber		0	Bromus inermis	5
Carex nebrascensis		1	Chenopodium album	0
Cirsium arvense		1	Dactylis glomerata	1
Elymus repens		2	Leymus cinereus	0
Lotus corniculatus		1	Phleum pratense	2
Poa palustris		0	Poa pratensis	3
Sinapis arvensis		0	Taraxacum officinale	0
Thlaspi arvense		0		
Ending Station	288	Community Type:	Carex spp. / Juncus spp.	
Species		Cover class	Species	Cover class
Agrostis stolonifera		1	Alopecurus arundinaceus	1
Carex aquatilis		2	Carex utriculata	2
Carum carvi		0	Epilobium ciliatum	0
Equisetum arvense		1	Juncus balticus	4
Juncus effusus		2	Lotus corniculatus	1
Open Water		1	Poa pratensis	1
Populus balsamifera		1	Salix bebbiana	1
Salix lutea		1	Scirpus microcarpus	1
Taraxacum officinale		0	Typha latifolia	2
Ending Station	468	Community Type:	Bromus inermis / Phleum pra	tense
Species		Cover class	Species	Cover class
Achillea millefolium		0	Agrostis stolonifera	2
Alopecurus arundinaceus		1	Brassica kaber	0
Bromus inermis		4	Carex nebrascensis	2
Carum carvi		2	Cirsium arvense	1
Elymus repens		1	Equisetum arvense	3
Juncus balticus		1	Leymus cinereus	1
Lotus corniculatus		1	Melilotus officinalis	0
Phleum pratense		3	Poa pratensis	2
Populus balsamifera		1	Taraxacum officinale	1
Trifolium hybridum		1	Trifolium pratense	1

Ending Station	509	Community Type:	Juncus spp. /	
Species		Cover class	Species	Cover class
Alopecurus arundinaceus		1	Alopecurus pratensis	1
Bare Ground		1	Carex nebrascensis	1
Carex pachystachya		1	Cirsium arvense	0
Juncus balticus		4	Juncus effusus	2
Juncus tenuis		0	Phalaris arundinacea	0
Phleum pratense		1	Poa palustris	1
Poa pratensis		1	Schedonorus pratensis	1
Ending Station	552	Community Type:	Bromus inermis / Phleum prat	tense
Species		Cover class	Species	Cover class
Agrostis stolonifera		1	Alopecurus arundinaceus	3
Brassica kaber		1	Carex pachystachya	1
Carum carvi		1	Cynoglossum officinale	1
Elymus repens		1	Equisetum arvense	1
Lotus corniculatus		2	Phleum pratense	2
Poa palustris		1	Poa pratensis	3
Populus balsamifera		1	Rumex salicifolius	1
Stachys pilosa		1	Thlaspi arvense	2
Trifolium hybridum		1		
Ending Station	662	Community Type:	Juncus spp. / Populus balsamifera	
Species		Cover class	Species	Cover class
Agrostis stolonifera		1	Alopecurus arundinaceus	2
Bare Ground		1	Carex pachystachya	1
Carex pellita		1	Carum carvi	1
Elymus repens		1	Equisetum arvense	1
Juncus balticus		3	Juncus effusus	1
Lotus corniculatus		3	Phalaris arundinacea	0
Phleum pratense		1	Poa palustris	1
Poa pratensis		1	Populus balsamifera	2
Potentilla gracilis		0	Salix lutea	1
Taraxacum officinale		0		

Ending Station	728	Community Type:	Juncus spp. / Salix spp.	
Species		Cover class	Species	Cover class
Alnus incana		2	Carex pachystachya	1
Carex pellita		1	Carum carvi	1
Cirsium arvense		0	Juncus balticus	4
Lotus corniculatus		2	Phalaris arundinacea	1
Populus balsamifera		4	Potentilla gracilis	0
Salix bebbiana		2	Salix boothii	2
Salix exigua		2	Stachys pilosa	0
Taraxacum officinale		0		
Ending Station	1005	Community Type:	Lotus corniculatus / Phleum pratense	
Species		Cover class	Species	Cover class
Achillea millefolium		0	Alnus incana	1
Bare Ground		2	Brassica kaber	0
Bromus inermis		2	Bromus tectorum	0
Camelina microcarpa		0	Carum carvi	2
Elymus repens		0	Elymus trachycaulus	3
Equisetum arvense		1	Juncus balticus	3
Leymus cinereus		1	Lotus corniculatus	3
Medicago lupulina		1	Phalaris arundinacea	1
Phleum pratense		3	Poa pratensis	2
Populus balsamifera		1	Rumex salicifolius	1
Taraxacum officinale		1	Tragopogon dubius	0
Trifolium hybridum		1	Trifolium pratense	1
Ending Station	1032	Community Type:	Bromus inermis / Phleum pr	atense
Species		Cover class	Species	Cover class
Bare Ground		1	Bromus inermis	4
Carum carvi		2	Cirsium arvense	0
Cornus alba		0	Elymus repens	1
Equisetum arvense		1	Juncus balticus	0
Leymus cinereus		3	Lotus corniculatus	1
Medicago Iupulina		1	Phleum pratense	2
Poa pratensis		2	Taraxacum officinale	1
Trifolium pratense		2		

Ending Station	1147	Community Type:	Lotus corniculatus / Phleur	m pratense
Species		Cover class	Species	Cover class
Bare Ground		1	Brassica kaber	0
Bromus inermis		2	Carum carvi	2
Cirsium arvense		1	Elymus repens	4
Equisetum arvense		2	Leymus cinereus	1
Lotus corniculatus		2	Phleum pratense	3
Poa pratensis		2	Taraxacum officinale	1
Ending Station	1172	Community Type:	Bromus inermis / Phleum	pratense
Species		Cover class	Species	Cover class
Bare Ground		1	Brassica kaber	0
Bromus inermis		2	Carum carvi	2
Cirsium arvense		1	Elymus repens	4
Equisetum arvense		1	Leymus cinereus	1
Lotus corniculatus		1	Phleum pratense	3
Poa pratensis		2	Taraxacum officinale	1
Ending Station	1307	Community Type:	Lotus corniculatus / Phleur	n pratense
Species		Cover class	Species	Cover class
Bare Ground		1	Bromus inermis	1
Carum carvi		2	Cirsium arvense	1
Elymus repens		4	Equisetum arvense	2
Leymus cinereus		1	Lotus corniculatus	2
Phalaris arundinacea		0	Phleum pratense	3
Poa palustris		0	Poa pratensis	2
Taraxacum officinale		1		
Ending Station	1333	Community Type:	Bromus inermis / Phleum	pratense
Species		Cover class	Species	Cover class
Agrostis stolonifera		1	Bromus inermis	3
Carum carvi		0	Elymus repens	2
Leymus cinereus		1	Lotus corniculatus	1
Phleum pratense		3	Poa pratensis	1
		4		
Taraxacum officinale		1		

Ending Station	1376 Community Type:	Bromus inermis / Populus tremuloides
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Species	Cover class	Species	Cover class
Agrostis stolonifera	1	Bromus inermis	4
Carum carvi	2	Dactylis glomerata	2
Elymus repens	1	Equisetum arvense	1
Leymus cinereus	1	Lotus corniculatus	1
Phleum pratense	3	Poa pratensis	2
Populus balsamifera	1	Populus tremuloides	4
Rosa woodsii	0	Taraxacum officinale	2

### Transect Notes:

In 2024, no ponded water was observed within this transect. Similar to previous years, the cells in the northern portion of the transect exhibit marginal wetland development. In 2021 it was thought wetlands in this area may expand but since then no wetland expansion has been observed.

Transect Number: 2 Compass Direction from Start: 185

**Interval Data:** 

Ending Station	140 Community Type:	Carex spp. / Juncus spp.

Species	Cover class	Species	Cover class
Alopecurus arundinaceus	1	Bare Ground	1
Brassica kaber	0	Bromus inermis	1
Carex atherodes	1	Carex bebbii	1
Carex nebrascensis	2	Carex pellita	2
Carex utriculata	3	Cirsium arvense	1
Eleocharis palustris	1	Elymus repens	3
Equisetum arvense	1	Glyceria grandis	0
Juncus balticus	4	Juncus longistylis	1
Juncus tenuis	1	Leymus cinereus	0
Lotus corniculatus	1	Lysimachia ciliata	0
Phalaris arundinacea	1	Phleum pratense	2
Poa palustris	1	Poa pratensis	1
Poa pratensis	1	Salix bebbiana	1
Salix exigua	0	Salix lasiandra	1
Salix lutea	1	Scirpus microcarpus	2
Taraxacum officinale	1	Typha latifolia	0

Ending Station 262 Community Type: Bromus inermis / Phleum pratense

	=== Commanity Typo.		<u>'</u>
Species	Cover class	Species	Cover class
Agrostis stolonifera	1	Bare Ground	1
Bromus inermis	4	Carum carvi	1
Cirsium arvense	1	Elymus repens	3
Elymus trachycaulus	1	Equisetum arvense	2
Juncus balticus	1	Leymus cinereus	1
Lotus corniculatus	0	Lysimachia ciliata	0
Medicago sativa	0	Phleum pratense	3
Poa pratensis	3	Populus balsamifera	1
Sisyrinchium idahoense	0	Stachys pilosa	1
Taraxacum officinale	2	Thlaspi arvense	0
Trifolium pratense	0		

Ending Station	358 Community Type:	Carex spp. / Juncus spp.	
Species	Cover class	Species	Cover class
Agrostis stolonifera	0	Bare Ground	1
Carex microptera	1	Carex pellita	1
Carex utriculata	1	Cirsium arvense	1
Equisetum arvense	1	Juncus balticus	3
Juncus tenuis	1	Lotus corniculatus	2
Lysimachia ciliata	1	Phleum pratense	1
Poa palustris	2	Poa pratensis	1
Populus balsamifera	3	Ranunculus macounii	0
Salix bebbiana	2	Salix lutea	1
Scirpus microcarpus	1	Stachys pilosa	1
Taraxacum officinale	1		
Ending Station	629 Community Type:	Lotus corniculatus / Phleum	pratense
Species	Cover class	Species	Cover class
Alyssum alyssoides	0	Bare Ground	2
Bromus carinatus	0	Bromus inermis	3
Camelina microcarpa	0	Carex pellita	0
Carum carvi	2	Elymus repens	3
Equisetum arvense	1	Juncus balticus	1
Leymus cinereus	1	Lotus corniculatus	3
Lysimachia ciliata	0	Medicago lupulina	1
Melilotus officinalis	1	Phalaris arundinacea	0
Phleum pratense	3	Populus balsamifera	1
Schedonorus pratensis	1	Solidago lepida	1
Taraxacum officinale	1	Thlaspi arvense	1
Trifolium hybridum	1	Trifolium pratense	1
Ending Station	758 Community Type:	Juncus spp. /	
Species	Cover class	Species	Cover class
Agrostis stolonifera	1	Bare Ground	0
Brassica kaber	0	Carex bebbii	1
Carex pachystachya	1	Carum carvi	0
Juncus balticus	4	Juncus effusus	1
Juncus tenuis	1	Lotus corniculatus	2
Lysimachia ciliata	1	Phalaris arundinacea	0
Phleum pratense	1	Poa palustris	1
Poa pratensis	2	Populus balsamifera	2
Salix bebbiana	1	Salix lutea	1
Solidago gigantea	1		

Ending Station	820 Community Type:	Bromus inermis / Phleum pratense	
Species	Cover class	Species	Cover class
Bare Ground	1	Bromus inermis	4
Carum carvi	1	Cirsium arvense	0
Elymus repens	1	Juncus balticus	1
Lotus corniculatus	1	Phleum pratense	2
Poa pratensis	3	Taraxacum officinale	1
Trifolium pratense	2		
Ending Station	888 Community Type:	Juncus spp. /	
Species	Cover class	Species	Cover class
Carex aquatilis	1	Carex utriculata	1
Equisetum arvense	1	Juncus balticus	4
Juncus effusus	2	Lotus corniculatus	2
Mentha arvensis	1	Poa palustris	2
Poa pratensis	1	Salix bebbiana	1
Scirpus microcarpus	1	Stachys pilosa	0
Ending Station	915 Community Type:	Aquatic macrophytes /	
Species	Cover class	Species	Cover class
Species Carex pellita	Cover class	Species Carex utriculata	Cover class
-	Cover class 1	•	
Carex pellita	Cover class  1 1 0	Carex utriculata	2
Carex pellita Eleocharis palustris	1 1	Carex utriculata Juncus balticus	2
Carex pellita Eleocharis palustris Juncus ensifolius	1 1 0	Carex utriculata Juncus balticus Open Water	2 0 3
Carex pellita Eleocharis palustris Juncus ensifolius Salix bebbiana	1 1 0 0	Carex utriculata Juncus balticus Open Water	2 0 3
Carex pellita Eleocharis palustris Juncus ensifolius Salix bebbiana Scirpus microcarpus	1 1 0 0	Carex utriculata Juncus balticus Open Water Schoenoplectus pungens	2 0 3
Carex pellita Eleocharis palustris Juncus ensifolius Salix bebbiana Scirpus microcarpus Ending Station	1 1 0 0 0 0 1055 Community Type:	Carex utriculata Juncus balticus Open Water Schoenoplectus pungens Juncus spp. / Salix spp.	2 0 3 2
Carex pellita Eleocharis palustris Juncus ensifolius Salix bebbiana Scirpus microcarpus Ending Station Species	1 1 0 0 0 0 1055 Community Type:	Carex utriculata Juncus balticus Open Water Schoenoplectus pungens  Juncus spp. / Salix spp.  Species	2 0 3 2
Carex pellita Eleocharis palustris Juncus ensifolius Salix bebbiana Scirpus microcarpus  Ending Station  Species Agrostis stolonifera	1 0 0 0 0 1055 Community Type: Cover class	Carex utriculata Juncus balticus Open Water Schoenoplectus pungens  Juncus spp. / Salix spp.  Species Alnus incana	2 0 3 2 <b>Cover class</b>
Carex pellita Eleocharis palustris Juncus ensifolius Salix bebbiana Scirpus microcarpus  Ending Station Species Agrostis stolonifera Bare Ground	1 1 0 0 0 0 1055 Community Type: Cover class 1 1	Carex utriculata Juncus balticus Open Water Schoenoplectus pungens  Juncus spp. / Salix spp.  Species Alnus incana Carex nebrascensis	2 0 3 2 <b>Cover class</b> 1 1
Carex pellita Eleocharis palustris Juncus ensifolius Salix bebbiana Scirpus microcarpus  Ending Station  Species Agrostis stolonifera Bare Ground Carex utriculata	1 0 0 0 0 1055 Community Type: Cover class 1 1 2	Carex utriculata Juncus balticus Open Water Schoenoplectus pungens  Juncus spp. / Salix spp.  Species Alnus incana Carex nebrascensis Cirsium arvense	2 0 3 2 <b>Cover class</b> 1 1
Carex pellita Eleocharis palustris Juncus ensifolius Salix bebbiana Scirpus microcarpus  Ending Station Species Agrostis stolonifera Bare Ground Carex utriculata Juncus balticus	1 0 0 0 0 1055 Community Type: Cover class 1 1 2 4	Carex utriculata Juncus balticus Open Water Schoenoplectus pungens  Juncus spp. / Salix spp.  Species Alnus incana Carex nebrascensis Cirsium arvense Juncus effusus	2 0 3 2 <b>Cover class</b> 1 1 0
Carex pellita Eleocharis palustris Juncus ensifolius Salix bebbiana Scirpus microcarpus  Ending Station  Species Agrostis stolonifera Bare Ground Carex utriculata Juncus balticus Juncus tenuis	1 0 0 0 0 1055 Community Type: Cover class 1 1 2 4 1	Carex utriculata Juncus balticus Open Water Schoenoplectus pungens  Juncus spp. / Salix spp.  Species Alnus incana Carex nebrascensis Cirsium arvense Juncus effusus Mentha arvensis	2 0 3 2 <b>Cover class</b> 1 1 0 1
Carex pellita Eleocharis palustris Juncus ensifolius Salix bebbiana Scirpus microcarpus  Ending Station Species Agrostis stolonifera Bare Ground Carex utriculata Juncus balticus Juncus tenuis Poa palustris	1 1 0 0 0 0 0 1055 Community Type:  Cover class 1 1 1 2 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Carex utriculata Juncus balticus Open Water Schoenoplectus pungens  Juncus spp. / Salix spp.  Species Alnus incana Carex nebrascensis Cirsium arvense Juncus effusus Mentha arvensis Populus balsamifera	2 0 3 2 <b>Cover class</b> 1 1 0 1 1 2
Carex pellita Eleocharis palustris Juncus ensifolius Salix bebbiana Scirpus microcarpus  Ending Station  Species Agrostis stolonifera Bare Ground Carex utriculata Juncus balticus Juncus tenuis Poa palustris Potentilla anserina	1 1 0 0 0 0 1055 Community Type:  Cover class 1 1 2 4 1 1 1 0	Carex utriculata Juncus balticus Open Water Schoenoplectus pungens  Juncus spp. / Salix spp.  Species Alnus incana Carex nebrascensis Cirsium arvense Juncus effusus Mentha arvensis Populus balsamifera Salix bebbiana	2 0 3 2 <b>Cover class</b> 1 1 0 1 1 2 4

Ending Station	1268	Community Type:	Juncus spp. / Populus balsamifera
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Species	Cover class	Species	Cover class
Agrostis stolonifera	2	Alnus incana	1
Carex utriculata	1	Juncus balticus	3
Juncus effusus	1	Lotus corniculatus	2
Mentha arvensis	1	Poa palustris	3
Populus balsamifera	4	Salix bebbiana	4
Salix drummondiana	2	Salix lasiandra	3
Symphyotrichum subspicatu	0		

Ending Station 1333 Community Type: Bromus inermis / Phleum pratense

Species	Cover class	Species	Cover class
Alyssum alyssoides	2	Bare Ground	2
Bromus inermis	4	Elymus repens	1
Leymus cinereus	0	Lotus corniculatus	1
Phleum pratense	3	Poa pratensis	2
Populus balsamifera	1	Schedonorus pratensis	1
Taraxacum officinale	1	Tragopogon dubius	0
Trifolium pratense	1		

## **Transect Notes:**

No open water was observed along this transect in 2024. Palustrine scrub-shrub communities are increasing in cover. Salix spp. along this transect exhibited heavy browsing.

Interval Data:	·		
<b>Ending Station</b>	127 Community Type:	Bromus inermis / Phleum	pratense
Species	Cover class	Species	Cover class
Alyssum alyssoides	0	Bromus arvensis	0
Bromus inermis	3	Camelina microcarpa	0
Carum carvi	2	Elymus repens	1
Equisetum arvense	0	Juncus balticus	0
Leymus cinereus	1	Lotus corniculatus	3
Phleum pratense	2	Poa pratensis	2
Populus balsamifera	1	Taraxacum officinale	1
Trifolium hybridum	1	Trifolium pratense	2
Ending Station	163 Community Type:	Juncus spp. / Populus bal	samifera
Species	Cover class	Species	Cover class
Agrostis stolonifera	0	Carum carvi	1
Equisetum arvense	1	Juncus balticus	4
Lotus corniculatus	2	Phleum pratense	1
Populus balsamifera	3	Salix bebbiana	2
Salix lutea	1	Taraxacum officinale	1
Trifolium hybridum	1		
Ending Station	215 Community Type:	Bromus inermis / Phleum	pratense
Species	Cover class	Species	Cover class
Bromus inermis	4	Carum carvi	1
Dactylis glomerata	0	Elymus repens	2
Equisetum arvense	1	Juncus balticus	1
Leymus cinereus	1	Lotus corniculatus	1
Phleum pratense	2	Poa pratensis	2
Taraxacum officinale	1	Thlaspi arvense	0
Ending Station	227 Community Type:	Juncus sp. / Populus balsa	amifera
Species	Cover class	Species	Cover class
Bare Ground	1	Brassica kaber	0
Carex utriculata	2	Carum carvi	2
Cirsium arvense	2	Equisetum arvense	2
Juncus balticus	1	Lotus corniculatus	1
Phleum pratense	1	Poa palustris	1
Poa pratensis	1	Populus balsamifera	5
Salix lutea	1	Taraxacum officinale	1

Transect Number: 3 Compass Direction from Start: 95

Ending Station	316 Community Type:	Bromus inermis / Phleum p	oratense
Species	Cover class	Species	Cover class
Brassica kaber	0	Bromus inermis	4
Carum carvi	1	Dactylis glomerata	0
Elymus repens	3	Equisetum arvense	1
Juncus balticus	1	Lotus corniculatus	1
Phleum pratense	2	Poa pratensis	2
Taraxacum officinale	1	Thlaspi arvense	1
Trifolium pratense	1		
Ending Station	542 Community Type:	Juncus spp. /	
Species	Cover class	Species	Cover class
Brassica kaber	0	Carex nebrascensis	0
Carex pachystachya	1	Carex utriculata	3
Carum carvi	1	Cirsium arvense	1
Equisetum arvense	1	Juncus balticus	5
Juncus longistylis	1	Leymus cinereus	0
Lotus corniculatus	1	Poa pratensis	1
Populus balsamifera	1	Salix bebbiana	1
Salix lutea	1	Solidago gigantea	1
Ending Station	670 Community Type:	Juncus spp. / Salix spp.	
Species	Cover class	Species	Cover class
Carex nebrascensis	1	Carex pellita	1
Carex utriculata	1	Cirsium arvense	0
Equisetum arvense	1	Juncus balticus	4
Juncus ensifolius	1	Lotus corniculatus	1
Lysimachia ciliata	1	Populus balsamifera	1
Potentilla anserina	0	Salix bebbiana	3
Salix lutea	2	Solidago gigantea	0
Ending Station	732 Community Type:	Bromus inermis / Phleum p	oratense
Species	Cover class	Species	Cover class
Agrostis stolonifera	1	Bromus inermis	4
Carum carvi	1	Dactylis glomerata	0
Elymus repens	2	Equisetum arvense	1
Lotus corniculatus	1	Phleum pratense	2
Poa pratensis	2	Taraxacum officinale	1
	3	i ai axacui ii oi iicii iale	
Trifolium pratense	1	raraxacum omcinale	ľ

## **Transect Notes:**

Juncus spp./Salix spp. community type has expanded into T-3. As seen in the other two transects, Bromus inermis cover has increased and Lotus corniculatus cover has decreased in 2024.

### PLANTED WOODY VEGETATION SURVIVAL

### Easton

Planting Type	#Planted	#Alive N	Notes
Narrow-leaf willow	250	51	
Red-osier dogwood	250	4	
Thinleaf alder	500	99	
Willow cuttings	200	85	

### Comments

Woody shrubs were counted along and adjacent to the floodplain channel. After 15 years, deciphering planted versus volunteer willows was difficult and therefore best professional judgement was used. Many of the larger thinleaf alder were 8 to 10 ft tall, robust, and thriving where planted. The number of red-osier dogwoods observed continued to decrease, and appear stunted with new growth occurring at the base potentially as a result of herbivory and/or drought. A high percent of woody vegetation cover is provided by Populus balsamifera volunteers that have appeared across the site in the last few years, especially in Juncus spp. communities. A substantial amount of herbivory was noted on the smaller shrubs throughout the site.

### WILDLIFE

Birds
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Were man-made nesting structures installed?	Yes
If yes, type of structure: Bird boxes	
How many?17	
Are the nesting structures being used?	Yes
Do the nesting structures need repairs?	Yes

## **Nesting Structure Comments:**

Of the 17 installed bird boxes, many were occupied, likely by house wrens or contained twigs and nesting debris. One box (located between PP4a and PP5) was missing from the fencepost. The bird box along T-1, as well as the box north of the end of T-3, were on the ground and need to be resecured. The two boxes at the southwest corner of the project area are still in need of repair. The bird box in the northwest corner has been repaired since 2023.

Species	#Observed	Behavior	Habitat
American Crow	2	L	
American Robin	2	L	
Bald Eagle	2	FO, N	
Eastern Kingbird	1	L	
House Wren	6	FO	
Killdeer	1	F	
Least Flycatcher	1	L	
Mourning Dove	2	L	
Pelican	6	FO	
Red-Tailed Hawk	2	FO	
Red-Winged Blackbird	25	FO, F, L	
Sandhill Crane	2	F	
Savannah Sparrow	2	FO	
Tree Swallow	10	FO	
Wilson's Snipe	5	F, L	
Yellow-Headed Blackbi	rd 4	L	
Yellow Warbler	3	L	

#### **Bird Comments**

Eagle nest outside of the southwestern portion of project was occupied during the 2024 monitoring visit. The pair of Bald Eagles were observed soaring over the site.

#### **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**

Species # Observed Tracks Scat Burrows Comments

White-Tailed Deer 4 Yes Yes No Observed grazing

Yellow-Bellied Marmot 1 No Yes No Seen

Wildlife Comments:

Site utilized by diversity of bird and wildlife species.

### **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	46.058465	-110.637811			
DP01w	46.058506	-110.637891			
DP02u	46.058709	-110.638683			
DP02w	46.058691	-110.63874			
DP03u	46.055473	-110.63919			
DP03w	46.055538	-110.639143			
DP04u	46.057601	-110.639156			
DP04w	46.057569	-110.639089			
DP05u	46.056916	-110.639977			
DP05w	46.056927	-110.640154			
DP06u	46.057769	-110.639517			
DP06w	46.057788	-110.639609			
DP07u	46.059065	-110.639784			
DP07w	46.059111	-110.639768			
DP08u	46.059833	-110.639142			
DP08w	46.059861	-110.639159			
DP09u	46.060374	-110.640049			
DP09w	46.060394	-110.639987			
DP10u	46.061023	-110.638513			
DP10w	46.060901	-110.638515			
PP1	46.059727	-110.637505		East boundary	
PP2	46.061028	-110.637207		Northeast corner	
PP3	46.061188	-100.639848		Northeast corner	
PP4	46.050705	-110.640434		Shields bank	
PP4	46.060993	-110.640121		Shields bank	
PP5	46.059883	-110.640404		West boundary	
PP6	46.056175	-110.64048	B-26	Southwest corner	

PP7	46.055286	-110.639137	Southeast corner
T-1 End	46.060627	-110.637779	View of CT 10 and 13
T-1 Start	46.057281	-110.638306	View of CT 21
T-2 End	46.057594	-110.640343	View of CT 13
T-2 Start	46.060139	-110.639229	View of CT 21
T-3 End	46.056114	-110.637924	View of CT 13
T-3 Start	46.056984	-110.640656	View of CT 13

## **Comments:**

# **ADDITIONAL ITEMS CHECKLIST**

	Hydrology
✓ ✓ Iines,	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
<b>⊻</b> Ma	p vegetation community boundaries
✓ Coı	mplete Vegetation Transects
	Soils
✓ As:	sess soils
	Wetland Delineations
<b>✓</b> Suppl	Delineate wetlands according to applicable USACE protocol (1987 form or
<b>✓</b>	ement) Delineate wetland – upland boundary onto aerial photograph.
Wetla	nd Delineation Comments
To	tal wetland acreage decreased 0.51 acres since 2023.
	Functional Assessments
<b>✓</b> 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? Yes

If yes, do they need to be repaired? Yes

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.

Bank erosion was noted along the Shields River in the northwest portion of the project area. A few bird boxes (see wildlife section) need repair.

Project/Site: Easton Ranch	(	Citv/County:	Park Cou	unty Sampling Date: 2024-06-19
Applicant/Owner: MDT				State: Montana Sampling Point: DP01u
				nge: S32 T4N R9E
Landform (hillslope, terrace, etc.): Berm				
				Long: -110.6378111 Datum: NAD 83
Soil Map Unit Name: 155A - Meadowcreek, rarely floode				
Are climatic / hydrologic conditions on the site typical for this				<u> </u>
	-			Normal Circumstances" present? Yes No
Are Vegetation, Soil, or Hydrology si				· — —
Are Vegetation, Soil, or Hydrology n  SUMMARY OF FINDINGS – Attach site map s				eded, explain any answers in Remarks.)  ocations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No				
Hydric Soil Present? Yes No	·		e Sampled	
Wetland Hydrology Present? Yes No		withi	in a Wetlan	d? Yes No
Remarks:				
Upland data point taken near easterr	n borde	r of site	<b>)</b> .	
VEGETATION – Use scientific names of plant	ts.			
- 30 ftr	Absolute	Dominant		Dominance Test worksheet:
Tree Stratum (Plot size: 30 ft r )		Species?		Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
2				Total Number of Dominant
3				Species Across All Strata: 2 (B)
4		= Total Co	ver	Percent of Dominant Species That Are OBL, FACW, or FAC: 50.00 (A/B)
Sapling/Shrub Stratum (Plot size: 15 ft r )				Prevalence Index worksheet:
1				Total % Cover of: Multiply by:
2				OBL species $0 \times 1 = 0$
3				FACW species <u>3</u> x 2 = <u>6</u>
4 5				FAC species <u>45</u>
J		= Total Co	/er	FACU species 15 x 4 = 60
Herb Stratum (Plot size: 5 ft r )		. Total oo	voi	UPL species $0 \times 5 = 0$
1. Alopecurus pratensis	40		FAC	Column Totals: <u>63</u> (A) <u>201</u> (B)
2. Taraxacum officinale	15		FACU	Prevalence Index = B/A = 3.19
3. Poa pratensis	5		FAC	Hydrophytic Vegetation Indicators:
4. Juncus balticus			FACW	1 - Rapid Test for Hydrophytic Vegetation
5				2 - Dominance Test is >50%
6				3 - Prevalence Index is ≤3.0 <sup>1</sup>
7				4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
8				5 - Wetland Non-Vascular Plants <sup>1</sup>
9				Problematic Hydrophytic Vegetation¹ (Explain)
10.				Indicators of hydric soil and wetland hydrology must
11	~~	= Total Cov		be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size: 30 ft r )		_ 10ta1 00v	Ci	
1				Hydrophytic
2				Vegetation Present? Yes No
% Bare Ground in Herb Stratum 37		= Total Cov	er	i i eseiit: i es NO
Remarks:				
No hydrophytic vegetation observed	•			

SOIL Sampling Point: DP01u

Profile Desc Depth	cription: (Describe Matrix	to the dept	h needed to document the indicator or on Redox Features	confirm the	e apsence	or indicators.)
(inches)	Color (moist)	%		Loc²	Texture	Remarks
0 - 10	10YR 2/2	100			lay Loam	
					,	
		- <del></del>				
-						
		<del></del>				
17			Deduced Matrix 00 Occurred as October 1	0	21	ation Di Bon Linion M Matrix
			Reduced Matrix, CS=Covered or Coated S  RRs, unless otherwise noted.)	Sand Grains		ration: PL=Pore Lining, M=Matrix.  rs for Problematic Hydric Soils <sup>3</sup> :
Histosol			Sandy Redox (S5)			n Muck (A10)
	pipedon (A2)	-	Stripped Matrix (S6)			Parent Material (TF2)
	istic (A3)	_	Loamy Mucky Mineral (F1) (except MI	ILRA 1)		Shallow Dark Surface (TF12)
Hydroge	en Sulfide (A4)	-	Loamy Gleyed Matrix (F2)		Othe	er (Explain in Remarks)
	d Below Dark Surfac	ce (A11)	Depleted Matrix (F3)			
	ark Surface (A12)		Redox Dark Surface (F6)			rs of hydrophytic vegetation and
	Mucky Mineral (S1)	-	Depleted Dark Surface (F7)			nd hydrology must be present,
	Bleyed Matrix (S4)  Layer (if present):	-	Redox Depressions (F8)		unies	s disturbed or problematic.
	Layer (II present).					
	ches):		<del></del>		lydric Soil	Present? Yes No
Remarks:	ones)		<del></del>		iyano oon	1100m: 100 140
HYDROLO						
	drology Indicators		; check all that apply)		Sacar	idary Indicators (2 or more required)
		one required				<del></del>
	Water (A1) ater Table (A2)		Water-Stained Leaves (B9) (exce MLRA 1, 2, 4A, and 4B)	ерт	vv	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
Saturati			Salt Crust (B11)		D	rainage Patterns (B10)
	larks (B1)		Aquatic Invertebrates (B13)			ry-Season Water Table (C2)
	nt Deposits (B2)		Hydrogen Sulfide Odor (C1)			aturation Visible on Aerial Imagery (C9)
	posits (B3)		Oxidized Rhizospheres along Livi	ina Roots (		• , , ,
	at or Crust (B4)		Presence of Reduced Iron (C4)			hallow Aquitard (D3)
_	oosits (B5)		Recent Iron Reduction in Tilled S	Soils (C6)		AC-Neutral Test (D5)
	Soil Cracks (B6)		Stunted or Stressed Plants (D1) (			aised Ant Mounds (D6) (LRR A)
Inundati	on Vis ble on Aerial	Imagery (B7	) Other (Explain in Remarks)		Fr	rost-Heave Hummocks (D7)
Sparsely	y Vegetated Concav	e Surface (B	38)			
Field Obser	vations:					
Surface Wat			No Depth (inches):			
Water Table	Present?	/es N	No Depth (inches):			
Saturation P		res N	No Depth (inches):	Wetland	Hydrology	Present? Yes No
(includes cap Describe Re	oillary fringe) corded Data (strean	n dalide moi	nitoring well, aerial photos, previous inspec	ctions) if a	vailable:	
_ 5501.50 1 (0	Data (otrodi	. 5-350, 11101	g, ac.iai priotoc, proviodo irispet	o,, ii ai		
Remarks:						
	noo of watter	d bydral	agy observed			
ino evide	nce or wellar	iu riyardi	ogy observed.			

Project/Site: Easton Ranch	(	City/Cou	nty: Park Co	unty	Sampling Date: 2024-06-19
-		-	-	State: Montana S	· -
• •				nge: S32 T4N R9E	. •
Landform (hillslope, terrace, etc.): Swale			-	•	Slope (%): 5
Subregion (LRR): E 44B					
Soil Map Unit Name: 155A - Meadowcreek, rarely floode					
Are climatic / hydrologic conditions on the site typical for this					-
Are Vegetation, Soil, or Hydrology si					
Are Vegetation, Soil, or Hydrology na					
SUMMARY OF FINDINGS – Attach site map s					
Hydrophytic Vegetation Present? Yes No	)				
			s the Sampled vithin a Wetla		No
Wetland Hydrology Present? Yes No	<u> </u>	**	Titiliii a Wetia	165	
Remarks:			_		
Sample point located within wetland	cell, ve	geta	tion com	munity 11.	
VEGETATION – Use scientific names of plant	s.				
Tree Stratum (Plot size: 30 ft r			ant Indicator s? Status	Dominance Test worksh	
1				Number of Dominant Spe That Are OBL, FACW, or	
2				Total Number of Dominar	nt .
3				Species Across All Strata	4
4				Percent of Dominant Spe	ecies
Sapling/Shrub Stratum (Plot size: 15 ft r		= Total	Cover	That Are OBL, FACW, or	FAC: 100.00 (A/B)
1. Salix lutea	5	~	OBL	Prevalence Index works	sheet:
2.				Total % Cover of:	
3				OBL species 30	x 1 = 30
4					x 2 = 70
5				· -	$x = \frac{60}{x = 4}$
	5	= Total	Cover		x 5 = 0
Herb Stratum (Plot size: 5 ft r )	25	.,	EAC\\\	Column Totals: 85	(A) 160 (B)
1. Juncus balticus 2. Carex utriculata	35 25		<u>FACW</u> OBL		(-)
3 Alopecurus arundinaceus	20		FAC	Prevalence Index =	· · · · · · · · · · · · · · · · · · ·
° .	<u> </u>			Hydrophytic Vegetation	
4.       5.				1 - Rapid Test for Hy  2 - Dominance Test i	
6.				✓ 3 - Prevalence Index	
7.				<del></del>	aptations <sup>1</sup> (Provide supporting
8					or on a separate sheet)
9				5 - Wetland Non-Vas	
10					nytic Vegetation <sup>1</sup> (Explain)
11				<sup>1</sup> Indicators of hydric soil a be present, unless disturb	and wetland hydrology must
Woody Vine Stratum (Plot size: 30 ft r )	80	= Total (	Cover	be present, unless distant	
1				I hadaa ahadia	
2.				Hydrophytic Vegetation	.4
				Present? Yes	No
% Bare Ground in Herb Stratum 20	-				_
Remarks:					
Evidence of wetland hydrophytic vegeta	ition inc	ludes	a positiv	e dominance test a	nd a prevalence
index less than 3.					

US Army Corps of Engineers

SOIL Sampling Point: DP01w

	(Describe to	tile acpui	needed to docur	nent the i	naicator	or contirn	n the absence	of indicators.)
Depth	Matrix			x Feature				•
(inches) Colo	or (moist)	%	Color (moist)	%	_Type <sup>1</sup>	Loc <sup>2</sup>	<u>Texture</u>	Remarks
<u>0 - 17</u> <u>10YR</u>	3/1	98 7	.5R 4/6	2	С	PL	Clay Loam	
-								
-								
					-			
<del></del>				. ———				
-								
<sup>1</sup> Type: C=Concentrate	tion. D=Deple	tion. RM=Re	educed Matrix. CS	S=Covered	or Coate	ed Sand G	rains. <sup>2</sup> Lo	cation: PL=Pore Lining, M=Matrix.
Hydric Soil Indicato								ors for Problematic Hydric Soils <sup>3</sup> :
Histosol (A1)	`		_ Sandy Redox (		,			m Muck (A10)
Histic Epipedon (	(A2)		_ Stripped Matrix					d Parent Material (TF2)
Black Histic (A3)			_ Loamy Mucky N			MLRA 1)	Ver	y Shallow Dark Surface (TF12)
Hydrogen Sulfide		_	_ Loamy Gleyed		)		Oth	er (Explain in Remarks)
Depleted Below I			_ Depleted Matrix	. ,			3	
Thick Dark Surfa			Redox Dark Su	` ,	·=·			ors of hydrophytic vegetation and
Sandy Mucky Mil		_	_ Depleted Dark S		7)			and hydrology must be present, ss disturbed or problematic.
Sandy Gleyed Market Restrictive Layer (if		_	_ Redox Depress	10115 (1 0)			unie	ss disturbed of problematic.
Type:	presenty.							
Depth (inches):			_				Hydric Sci	Present? Yes V No No
Remarks:			<u>—</u>				Tiyunc 301	Tresent: resNO
Nemarks.								
The redox dar	rk surfac	e indica	ator is met v	with d	istinct	redox	imorphic	concentrations.
HYDROLOGY								
HYDROLOGY Wetland Hydrology	Indicators:							
		e required; c	heck all that appl	y)			Seco	ndary Indicators (2 or more required)
Wetland Hydrology	ninimum of one	e required; o	check all that appl		es (B9) (e	xcept		ndary Indicators (2 or more required) Vater-Stained Leaves (B9) (MLRA 1, 2,
Wetland Hydrology Primary Indicators (m	ninimum of one	e required; o	Water-Sta			xcept		
Wetland Hydrology Primary Indicators (m Surface Water (A	ninimum of one	e required; c	Water-Sta	ined Leav 1, 2, 4A, a		xcept	V	Vater-Stained Leaves (B9) (MLRA 1, 2,
Wetland Hydrology Primary Indicators (m Surface Water (A High Water Table	ninimum of one A1) e (A2)	e required; c	Water-Sta	ined Leav <b>1, 2, 4A,</b> a (B11)	and 4B)	xcept	V [	Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Orainage Patterns (B10) Ory-Season Water Table (C2)
Wetland Hydrology Primary Indicators (m Surface Water (A High Water Table Saturation (A3)	ninimum of one A1) e (A2)	e required; o	Water-Stal MLRA Salt Crust Aquatic In Hydrogen	ined Leavent, 2, 4A, and (B11) vertebrate Sulfide Oct	and 4B) s (B13) dor (C1)		V [	Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Orainage Patterns (B10) Ory-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)
Wetland Hydrology Primary Indicators (m Surface Water (A High Water Table Saturation (A3) Water Marks (B1 Sediment Deposits (B3)	ninimum of one A1) e (A2) ) its (B2) 3)	e required; o	Water-Star MLRA Salt Crust Aquatic In Hydrogen Oxidized F	ined Leav 1, 2, 4A, a (B11) vertebrate Sulfide Oo Rhizosphe	s (B13) dor (C1) res along	Living Roo	\\ \text{C3)}	Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Orainage Patterns (B10) Ory-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2)
Wetland Hydrology Primary Indicators (m Surface Water (A High Water Table Saturation (A3) Water Marks (B1 Sediment Depositions Drift Deposits (B3 Algal Mat or Crust	ninimum of one A1) e (A2) ) its (B2) 3) st (B4)	e required; c	Water-Stal MLRA Salt Crust Aquatic In Hydrogen Oxidized F Presence	ined Leavined Leavine	s (B13) dor (C1) res along	Living Roo 1)	\\ [ \ [	Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Orainage Patterns (B10) Ory-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3)
Wetland Hydrology Primary Indicators (m Surface Water (A High Water Table Saturation (A3) Water Marks (B1 Sediment Deposit Drift Deposits (B3 Algal Mat or Crus Iron Deposits (B8	ninimum of one A1) e (A2) ) its (B2) 3) st (B4)	e required; o	Water-Stal MLRA Salt Crust Aquatic Int Hydrogen Oxidized F Presence Recent Iro	ined Leave 1, 2, 4A, a (B11) vertebrate Sulfide Oo Rhizosphe of Reduce n Reducti	s (B13) dor (C1) res along d Iron (Co	Living Roc 4) d Soils (C6	V [ [ [ [ S] S] S	Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Orainage Patterns (B10)  Ory-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)
Wetland Hydrology Primary Indicators (m Surface Water (A High Water Table Saturation (A3) Water Marks (B1 Sediment Deposit Drift Deposits (B3 Algal Mat or Crus Iron Deposits (B5 Surface Soil Crac	ninimum of one (A1) (A1) (A2) (A2) (A3) (A3) (A4) (A4) (A5) (A5) (A6) (A6) (A6) (A6) (A7) (A7) (A7) (A7) (A7) (A7) (A7) (A7		Water-Stal MLRA Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro Stunted or	ined Leave 1, 2, 4A, a (B11) vertebrate Sulfide Oo Rhizosphe of Reduce n Reducti Stressed	s (B13) dor (C1) res along d Iron (Co on in Tille Plants (D	Living Roc 4) d Soils (C6	V E S S S)	Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)
Wetland Hydrology Primary Indicators (m Surface Water (A High Water Table Saturation (A3) Water Marks (B1 Sediment Deposit Algal Mat or Crus Iron Deposits (B3 Surface Soil Crac Inundation Vis ble	ninimum of one (A1) e (A2) ) its (B2) (B4) (B6) cks (B6) e on Aerial Im	agery (B7)	Water-Star MLRA Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro Stunted or Other (Exp	ined Leave 1, 2, 4A, a (B11) vertebrate Sulfide Oo Rhizosphe of Reduce n Reducti Stressed	s (B13) dor (C1) res along d Iron (Co on in Tille Plants (D	Living Roc 4) d Soils (C6	V E S S S)	Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Orainage Patterns (B10)  Ory-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)
Wetland Hydrology Primary Indicators (m Surface Water (A High Water Table Saturation (A3) Water Marks (B1 Sediment Deposits Drift Deposits (B3 Algal Mat or Crus Iron Deposits (B5 Surface Soil Crac Inundation Vis ble Sparsely Vegetat	ninimum of one A1) e (A2) ) its (B2) 3) st (B4) 5) cks (B6) e on Aerial Im ted Concave S	agery (B7)	Water-Star MLRA Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro Stunted or Other (Exp	ined Leave 1, 2, 4A, a (B11) vertebrate Sulfide Oo Rhizosphe of Reduce n Reducti Stressed	s (B13) dor (C1) res along d Iron (Co on in Tille Plants (D	Living Roc 4) d Soils (C6	V E S S S)	Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)
Wetland Hydrology Primary Indicators (m Surface Water (A High Water Table Saturation (A3) Water Marks (B1 Sediment Deposits (B3 Algal Mat or Crus Iron Deposits (B6 Surface Soil Crac Inundation Vis ble Sparsely Vegetat Field Observations:	ninimum of one A1) e (A2) ) its (B2) 3) st (B4) 5) cks (B6) e on Aerial Im ted Concave S	agery (B7) Surface (B8)	Water-Star MLRA Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro Stunted or Other (Exp	ined Leave 1, 2, 4A, a (B11) vertebrate Sulfide Oo Rhizosphe of Reduce n Reducti Stressed blain in Re	s (B13) dor (C1) res along d Iron (C- on in Tille Plants (D marks)	Living Roo 4) d Soils (C6 1) (LRR A	V E S S S)	Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)
Wetland Hydrology Primary Indicators (m Surface Water (A High Water Table Saturation (A3) Water Marks (B1 Sediment Deposits Drift Deposits (B3 Algal Mat or Crus Iron Deposits (B5 Surface Soil Crac Inundation Vis ble Sparsely Vegetat	ninimum of one A1) e (A2) ) its (B2) 3) st (B4) 5) cks (B6) e on Aerial Im ted Concave S	agery (B7) Surface (B8)	Water-Stai MLRA Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro Stunted or Other (Exp	ined Leave 1, 2, 4A, a (B11) vertebrate Sulfide Or Rhizosphe of Reduce n Reducti Stressed plain in Re	s (B13) dor (C1) res along d Iron (Co on in Tille Plants (D marks)	Living Roo 4) d Soils (C6 1) (LRR A	V E S S S)	Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)
Wetland Hydrology Primary Indicators (m Surface Water (A High Water Table Saturation (A3) Water Marks (B1 Sediment Deposits (B3 Algal Mat or Crus Iron Deposits (B3 Surface Soil Crac Inundation Vis ble Sparsely Vegetat Field Observations: Surface Water Present	ninimum of one A1) e (A2) ) its (B2) 3) st (B4) 5) cks (B6) e on Aerial Im ted Concave S nt? Yes ? Yes	agery (B7) Surface (B8) S No S No	Water-Stai MLRA Salt Crust Aquatic Int Hydrogen Oxidized F Presence Recent Iro Stunted or Other (Exp	ined Leave 1, 2, 4A, a (B11) vertebrate Sulfide Oo Rhizosphe of Reduce in Reducti Stressed blain in Re	s (B13) dor (C1) res along d Iron (Coon in Tille Plants (Dimarks)	Living Roc 4) d Soils (C6 1) (LRR A	V C C S S S)	Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)
Wetland Hydrology Primary Indicators (m Surface Water (A High Water Table Saturation (A3) Water Marks (B1 Sediment Deposits (B3 Algal Mat or Crus Iron Deposits (B3 Surface Soil Crac Inundation Vis ble Sparsely Vegetal Field Observations: Surface Water Present Saturation Present?	ninimum of one A1) e (A2) ) its (B2) 3) st (B4) 5) cks (B6) e on Aerial Im ted Concave S nt? Yes Yes	agery (B7) Surface (B8) S No S No	Water-Stai MLRA Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro Stunted or Other (Exp	ined Leave 1, 2, 4A, a (B11) vertebrate Sulfide Oo Rhizosphe of Reduce in Reducti Stressed blain in Re	s (B13) dor (C1) res along d Iron (Coon in Tille Plants (Dimarks)	Living Roc 4) d Soils (C6 1) (LRR A	V C C S S S)	Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)
Wetland Hydrology Primary Indicators (m  Surface Water (A  High Water Table Saturation (A3) Water Marks (B1 Sediment Deposits (B3 Algal Mat or Crus Iron Deposits (B3 Surface Soil Crac Inundation Vis ble Sparsely Vegetal Field Observations: Surface Water Present Saturation Present? (includes capillary frir	ninimum of one A1) e (A2) ) its (B2) 3) st (B4) 5) cks (B6) e on Aerial Im ted Concave S nt? Yes yes nge)	agery (B7) Surface (B8) S No S No	Water-Stai MLRA Salt Crust Aquatic Int Hydrogen Oxidized F Presence Recent Iro Stunted or Other (Exp	ined Leave 1, 2, 4A, a (B11) vertebrate Sulfide Oo Rhizosphe of Reduce n Reducti Stressed blain in Re ches): ches):	s (B13) dor (C1) res along d Iron (C- on in Tille Plants (D marks)	Living Roc 4) d Soils (C6 1) (LRR A	\\ \text{C3} \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)
Wetland Hydrology Primary Indicators (m Surface Water (A High Water Table Saturation (A3) Water Marks (B1 Sediment Deposits (B3 Algal Mat or Crus Iron Deposits (B3 Surface Soil Crac Inundation Vis ble Sparsely Vegetal Field Observations: Surface Water Present Saturation Present?	ninimum of one A1) e (A2) ) its (B2) 3) st (B4) 5) cks (B6) e on Aerial Im ted Concave S nt? Yes yes nge)	agery (B7) Surface (B8) S No S No	Water-Stai MLRA Salt Crust Aquatic Int Hydrogen Oxidized F Presence Recent Iro Stunted or Other (Exp	ined Leave 1, 2, 4A, a (B11) vertebrate Sulfide Oo Rhizosphe of Reduce n Reducti Stressed blain in Re ches): ches):	s (B13) dor (C1) res along d Iron (C- on in Tille Plants (D marks)	Living Roc 4) d Soils (C6 1) (LRR A	\\ \text{C3} \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)
Wetland Hydrology Primary Indicators (m  Surface Water (A  High Water Table Saturation (A3) Water Marks (B1 Sediment Deposits (B3 Algal Mat or Crus Iron Deposits (B3 Surface Soil Crac Inundation Vis ble Sparsely Vegetal Field Observations: Surface Water Present Saturation Present? (includes capillary frir	ninimum of one A1) e (A2) ) its (B2) 3) st (B4) 5) cks (B6) e on Aerial Im ted Concave S nt? Yes yes nge)	agery (B7) Surface (B8) S No S No	Water-Stai MLRA Salt Crust Aquatic Int Hydrogen Oxidized F Presence Recent Iro Stunted or Other (Exp	ined Leave 1, 2, 4A, a (B11) vertebrate Sulfide Oo Rhizosphe of Reduce n Reducti Stressed blain in Re ches): ches):	s (B13) dor (C1) res along d Iron (C- on in Tille Plants (D marks)	Living Roc 4) d Soils (C6 1) (LRR A	\\ \text{C3} \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)
Wetland Hydrology Primary Indicators (m Surface Water (A High Water Table Saturation (A3) Water Marks (B1 Sediment Deposits (B3 Algal Mat or Crus Iron Deposits (B3 Surface Soil Crac Inundation Vis ble Sparsely Vegetal Field Observations: Surface Water Present Saturation Present? (includes capillary frir Describe Recorded Describe Recorded Describe Remarks:	ninimum of one A1) e (A2) ) its (B2) 3) st (B4) 5) cks (B6) e on Aerial Im ted Concave so nt? Yes Yes Yes nge) Data (stream g	agery (B7) Surface (B8) S No S No S No auge, monif	Water-Star MLRA Salt Crust Aquatic Int Hydrogen Oxidized F Presence Recent Iro Stunted or Other (Exp	ches):chotos, pr	s (B13) dor (C1) res along d Iron (C- on in Tille Plants (D marks)	Living Roo 4) d Soils (Co 1) (LRR A Wetl	\\ Dts (C3) \( \bullet \) (C3) \(	Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Orainage Patterns (B10)  Ory-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Seomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)
Wetland Hydrology Primary Indicators (m Surface Water (A High Water Table Saturation (A3) Water Marks (B1 Sediment Deposits (B3 Algal Mat or Crus Iron Deposits (B3 Surface Soil Crac Inundation Vis ble Sparsely Vegetal Field Observations: Surface Water Present Saturation Present? (includes capillary frir Describe Recorded Describe Recorded Describe Remarks:	ninimum of one A1) e (A2) ) its (B2) 3) st (B4) 5) cks (B6) e on Aerial Im ted Concave so nt? Yes Yes Yes nge) Data (stream g	agery (B7) Surface (B8) S No S No S No auge, monif	Water-Star MLRA Salt Crust Aquatic Int Hydrogen Oxidized F Presence Recent Iro Stunted or Other (Exp	ches):chotos, pr	s (B13) dor (C1) res along d Iron (C- on in Tille Plants (D marks)	Living Roo 4) d Soils (Co 1) (LRR A Wetl	\\ Dts (C3) \( \bullet \) (C3) \(	Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)
Wetland Hydrology Primary Indicators (m Surface Water (A High Water Table Saturation (A3) Water Marks (B1 Sediment Deposits (B3 Algal Mat or Crus Iron Deposits (B3 Surface Soil Crac Inundation Vis ble Sparsely Vegetal Field Observations: Surface Water Present Saturation Present? (includes capillary frir Describe Recorded Describe Recorded Describe Remarks:	ninimum of one A1) e (A2) ) its (B2) 3) st (B4) 5) cks (B6) e on Aerial Im ted Concave so nt? Yes Yes Yes nge) Data (stream g	agery (B7) Surface (B8) S No S No S No auge, monif	Water-Star MLRA Salt Crust Aquatic Int Hydrogen Oxidized F Presence Recent Iro Stunted or Other (Exp	ches):chotos, pr	s (B13) dor (C1) res along d Iron (C- on in Tille Plants (D marks)	Living Roo 4) d Soils (Co 1) (LRR A Wetl	\\ Dts (C3) \( \bullet \) (C3) \(	Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Orainage Patterns (B10)  Ory-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Seomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)

Project/Site: Easton Ranch	(	City/County	<sub>v:</sub> Park Cou	unty Sa	ampling Date: 2024-06-19
Applicant/Owner: MDT		-		State: Montana Sa	· · · ·
• •				nge: S32 T4N R9E	r 5 - 1 <u></u>
Landform (hillslope, terrace, etc.): Berm					Slope (%): 5
Subregion (LRR): E 44B					
Soil Map Unit Name: 155A - Meadowcreek, rarely floods	<u> </u>			-	
Are climatic / hydrologic conditions on the site typical for this					
	-				sent? Yes <u> </u>
Are Vegetation, Soil, or Hydrology s					
Are Vegetation, Soil, or Hydrology n  SUMMARY OF FINDINGS – Attach site map				eded, explain any answers i	
Hydrophytic Vegetation Present? Yes N	o <i>v</i>			· · · · · · · · · · · · · · · · · · ·	
Hydric Soil Present? Yes N	lo Is the Sampled Area				
Wetland Hydrology Present? Yes N	o <u> </u>	with	hin a Wetlan	id? Yes	. No
Remarks:					
Upland point taken 16 feet upgradier	nt of we	etland p	point in	central area of sit	e.
VEGETATION – Use scientific names of plan	ts.				
7. 0. 1. 10. 11. 30 ft r	Absolute		t Indicator	Dominance Test worksho	eet:
Tree Stratum (Plot size: 30 ft r )	% Cover			Number of Dominant Spec That Are OBL, FACW, or F	
2				Total Number of Dominant	
3				Species Across All Strata:	<u>1</u> (B)
4	- <u></u>	= Total Co	over	Percent of Dominant Spec That Are OBL, FACW, or F	
Sapling/Shrub Stratum (Plot size: 15 ft r )				Prevalence Index worksh	` ` '
1			<del></del>	Total % Cover of:	Multiply by:
2			· ——	OBL species 0	x 1 = <u>0</u>
3					x 2 = 0
4			- ——	FAC species 25	x 3 = <u>75</u>
J		= Total Co	over	FACU species 0	
Herb Stratum (Plot size: 5 ft r )	-	- Total Ot	3701		x 5 = 300
1. Bromus inermis	60		UPL	Column Totals: 85	(A) <u>375</u> (B)
2. Poa pratensis	15		FAC	Prevalence Index =	B/A = <u>4.41</u>
3. Alopecurus arundinaceus	10		FAC	Hydrophytic Vegetation	Indicators:
4				1 - Rapid Test for Hyd	rophytic Vegetation
5				2 - Dominance Test is	
6				3 - Prevalence Index i	
7					ptations <sup>1</sup> (Provide supporting on a separate sheet)
8				5 - Wetland Non-Vasc	· · ·
9 10				Problematic Hydrophy	
11.				l .	nd wetland hydrology must
111.	0.5	= Total Co		be present, unless disturbe	, 0,
Woody Vine Stratum (Plot size: 30 ft r )		_ 10ta1 00	, v Ci		
1				Hydrophytic	
2				Vegetation Present? Yes	No <u> </u>
0/ Para Cround in Horb Stratum 15		= Total Co	ver	Fresent: 16S_	NO
% Bare Ground in Herb Stratum 15  Remarks:					
	_4	.1			
Hydrophytic vegetation is not dominant	at samp	DIE SITE.			

SOIL Sampling Point: DP02u

		-	oth needed to document the indi	icator or confirm t	he absence of	indicators.)	
Depth (inches)	Color (moist)	<u>«</u>	Redox Features Color (moist) % 1	ype <sup>1</sup> Loc <sup>2</sup>	Texture	Remarks	
0 - 16	10YR 3/2	100	70 1		Clay Loam	Romano	
	-						
-							
¹Type: C=C	oncentration, D=D	Depletion, RM	=Reduced Matrix, CS=Covered or	Coated Sand Grai	ns. <sup>2</sup> Locatio	on: PL=Pore Lining, M	=Matrix.
• •		•	LRRs, unless otherwise noted.			or Problematic Hydri	
Histosol	` '		Sandy Redox (S5)		2 cm M	uck (A10)	
	oipedon (A2)		Stripped Matrix (S6)			rent Material (TF2)	
	istic (A3)		Loamy Mucky Mineral (F1) (	except MLRA 1)		nallow Dark Surface (T	F12)
	en Sulfide (A4)	faco (A11)	Loamy Gleyed Matrix (F2)		Other (F	Explain in Remarks)	
	d Below Dark Sur ark Surface (A12)	, ,	<ul><li>Depleted Matrix (F3)</li><li>Redox Dark Surface (F6)</li></ul>		<sup>3</sup> Indicators o	of hydrophytic vegetation	on and
_	lucky Mineral (S1		Depleted Dark Surface (F7)			nydrology must be pres	
-	Bleyed Matrix (S4)		Redox Depressions (F8)			sturbed or problematic	
	Layer (if present					·	
Type:							
Depth (in	ches):				Hydric Soil Pre	esent? Yes	No
Remarks:				L			
HYDROLO Wetland Hy	GY drology Indicato	rs:					
Primary Indi	cators (minimum o	of one require	d; check all that apply)		Secondar	ry Indicators (2 or more	e required)
Surface	Water (A1)		Water-Stained Leaves	(B9) (except	Wate	er-Stained Leaves (B9)	(MLRA 1, 2,
High Wa	ater Table (A2)		MLRA 1, 2, 4A, and	4B)	4/	A, and 4B)	
Saturati	on (A3)		Salt Crust (B11)		Drain	nage Patterns (B10)	
	larks (B1)		Aquatic Invertebrates (F			Season Water Table (C	
	nt Deposits (B2)		Hydrogen Sulfide Odor	` '		ration Visible on Aerial	Imagery (C9)
	posits (B3)		Oxidized Rhizospheres				
	at or Crust (B4)		Presence of Reduced I			ow Aquitard (D3)	
	oosits (B5)		Recent Iron Reduction			Neutral Test (D5)	DD A)
	Soil Cracks (B6)	al Imagani (D	Stunted or Stressed Pla			ed Ant Mounds (D6) (L	
	on Vis ble on Aeri			irks)	FIOSI	-Heave Hummocks (D	7)
Field Obser	Vegetated Conc	ave Sunace (	,50)				
Surface Wat		Yes	No Depth (inches):				
Water Table			No Depth (inches):				
Saturation P			No Depth (inches):		nd Hydrology Pi	resent? Yes	No 🗸
(includes ca	oillary fringe)						. 110
		am gauge, m	onitoring well, aerial photos, previo	ous inspections), if	available:		
Remarks:							
No evide	nce of wetla	and hydro	ology observed.				
		,	J.				

Project/Site: Easton Ranch	(	City/Count	y: Park Cou	unty	Sampling Date: _	2024-06-19
Applicant/Owner: MDT	_		,	State: Montana		
	Ş	Section, T	ownship, Rar	nge: S32 T4N R9E		
Landform (hillslope, terrace, etc.): Swale			·	-	∋ Slo¹	pe (%): 2
Subregion (LRR): E 44B			,			
Soil Map Unit Name: 155A - Meadowcreek, rarely floode						
Are climatic / hydrologic conditions on the site typical for this						
Are Vegetation, Soil, or Hydrologysi	-					/ No
Are Vegetation, Soil, or Hydrologyn				eded, explain any answer		110
SUMMARY OF FINDINGS – Attach site map s						atures, etc.
Hydrophytic Vegetation Present? Yes No	)					
l ,	·		he Sampled hin a Wetlan		No	
Wetland Hydrology Present? Yes No		WIL	iiii a wellali	ur res	NO	-
Remarks:						
Data point located in wide ditch/wate	erway. I	No wa	ter pres	ent at the time o	of monitorin	ıg.
VEGETATION – Use scientific names of plant	s.					
Tree Stratum (Plot size: 30 ft r			t Indicator	Dominance Test works	sheet:	
1	% Cover			Number of Dominant Sp That Are OBL, FACW, o		(A)
2				Total Number of Domina	ant	
3				Species Across All Strat		(B)
4				Percent of Dominant Sp		_
Sapling/Shrub Stratum (Plot size: 15 ft r )	-	= Total C	over	That Are OBL, FACW, o	<u> </u>	) (A/B)
1				Prevalence Index work		
2				Total % Cover of: OBL species 15	Multiply x 1 = 15	<u>y by:</u>
3					x 1 = 10 x 2 = 140	<del></del> )
4				FAC species 1	x 3 = 3	
5				FACU species 0	x 4 = 0	
Herb Stratum (Plot size: 5 ft r		= Total C	over	UPL species 0	x 5 = 0	
1. Juncus balticus	70	~	FACW	Column Totals: 86	(A) <u>158</u>	(B)
2. Carex nebrascensis	15		OBL	Prevalence Index	= R/Δ = 1.83	
3. Poa pratensis	1		FAC	Hydrophytic Vegetatio		
4				✓ 1 - Rapid Test for H		ation
5				✓ 2 - Dominance Test	t is >50%	
6				✓ 3 - Prevalence Inde	x is ≤3.0 <sup>1</sup>	
7				4 - Morphological A	daptations <sup>1</sup> (Prov	ide supporting
8				data in Remarks 5 - Wetland Non-Va	s or on a separate	sneet)
9				9 - Welland Non-va		(Evolain)
10				Indicators of hydric soil		
11	00	= Total Co		be present, unless distu		
Woody Vine Stratum (Plot size: 30 ft r )		- Total Cc	) VCI			
1				Hydrophytic		
2				Vegetation Present? Yes	s No	
% Bare Ground in Herb Stratum 14		= Total Co	over	riesent: Tes	, NU	
Remarks:				<u> </u>		
Evidence of hydrophytic vegetation inclu	udec e n	ocitivo	ranid ta	et a nocitivo don	ninanco tost	and a
prevalence index less than or equal to 3	-	Jositive	apiu le	οι, α ρυσιτίνε μυπ	mianice lest	, and a

US Army Corps of Engineers

SOIL Sampling Point: DP02w

Profile Desc	ription: (Describe	to the de	oth needed to docu	ment the	indicator	or confirm	n the absei	ence of indicators.)
Depth	Matrix			ox Feature				
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc²	Texture	
0 - 16	10YR 4/1	90	10YR 3/6	10	<u>C</u>	<u>M</u>	Clay Loa	am
-								
						· ——	-	
-								
1T C-C-		DM	-Dadwaad Matrix C				!	21 anations DI - Dans Lining M-Matrix
			=Reduced Matrix, C LRRs, unless other			ed Sand Gr		<sup>2</sup> Location: PL=Pore Lining, M=Matrix.  cators for Problematic Hydric Soils <sup>3</sup> :
Histosol		cable to all			ieu.)			· ·
	oipedon (A2)		Sandy Redox Stripped Matrix					2 cm Muck (A10) Red Parent Material (TF2)
Black His			Loamy Mucky	. ,	1) (excen	t MI RA 1)		Very Shallow Dark Surface (TF12)
	n Sulfide (A4)		Loamy Gleyed			T WILLYA I)		Other (Explain in Remarks)
	d Below Dark Surfac	ce (A11)	✓ Depleted Matri		<i>-</i> )			Citici (Explain in Remarks)
	ark Surface (A12)	50 (7111)	Redox Dark Si	. ,	)		<sup>3</sup> Indi	icators of hydrophytic vegetation and
	fucky Mineral (S1)		Depleted Dark	•	•			vetland hydrology must be present,
-	Bleyed Matrix (S4)		Redox Depres					inless disturbed or problematic.
	_ayer (if present):		<u> </u>					'
Type:								
	ches):						Hydric S	Soil Present? Yes No
Remarks:								
HYDROLO	GY							
Wetland Hyd	drology Indicators	:						
Primary Indic	cators (minimum of	one require	ed; check all that app	oly)			Se	econdary Indicators (2 or more required)
Surface	Water (A1)		Water-Sta	ained Leav	ves (B9) (	except		Water-Stained Leaves (B9) (MLRA 1, 2,
High Wa	iter Table (A2)		MLRA	1, 2, 4A,	and 4B)			4A, and 4B)
✓ Saturation	on (A3)		Salt Crus	t (B11)				Drainage Patterns (B10)
Water M	arks (B1)		Aquatic Ir	nvertebrate	es (B13)			Dry-Season Water Table (C2)
Sedimer	nt Deposits (B2)		Hydroger	Sulfide C	dor (C1)			_ Saturation Visible on Aerial Imagery (C9)
Drift Dep	oosits (B3)		Oxidized	Rhizosphe	eres along	Living Roo	ots (C3) 👱	Geomorphic Position (D2)
Algal Ma	at or Crust (B4)		Presence	of Reduc	ed Iron (C	4)		_ Shallow Aquitard (D3)
Iron Dep	osits (B5)		Recent In	on Reduct	ion in Tille	ed Soils (C6	6) <u>~</u>	FAC-Neutral Test (D5)
Surface	Soil Cracks (B6)		Stunted of	r Stressed	d Plants (E	01) ( <b>LRR A</b>	.)	_ Raised Ant Mounds (D6) (LRR A)
Inundation	on Vis ble on Aerial	Imagery (E		plain in R				_ Frost-Heave Hummocks (D7)
Sparsely	Vegetated Concav	e Surface	(B8)					
Field Observ	vations:							
Surface Water	er Present?	Yes	No Depth (ir	nches):				
Water Table	Present?	res	No Depth (in	nches):				
Saturation Pr			No Depth (in				and Hydro	ology Present? Yes <u>✓</u> No
(includes cap	oillary fringe)						•	
Describe Red	corded Data (strean	n gauge, m	onitoring well, aerial	photos, p	revious in	spections),	ıt available	9:
Remarks:								
	<b>.</b>	L				•		Literatura de la companya de la comp
Evidence	e of wetland	nydro	logy includes	s soll s	aturat	ion, ge	omorph	hic position, and a positive
FAC-Net	utral test.							

Project/Site: Easton Ranch	(	City/Cou	nty: Park Cou	unty Sampling Date: 2024-06-19
Applicant/Owner: MDT	-	•	,	State: Montana Sampling Point: DP03u
Investigator(s): J Trilling	;	Section,	Township, Rar	· · · · · · · · · · · · · · · · · · ·
Landform (hillslope, terrace, etc.): Terrace				
, ,			•	Long: -110.6391898 Datum: NAD 83
Soil Map Unit Name: 600B - Nesda loam, 0 to 4 perc				
Are climatic / hydrologic conditions on the site typical for this				
Are Vegetation, Soil, or Hydrologys				
Are Vegetation, Soil, or Hydrology n				eded, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map				
Hydrophytic Vegetation Present? Yes No	o_ <b>/</b>			
	0		the Sampled	
Wetland Hydrology Present? Yes New	o	W	ithin a Wetlan	id? fes No
Remarks:				
Upland point taken near southern bo	rder of	site.		
VEGETATION – Use scientific names of plan	ts.			
Tree Stratum (Plot size: 30 ft r			ant Indicator s? Status	Dominance Test worksheet:
1				Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
2.				
3				Total Number of Dominant Species Across All Strata: 2 (B)
4				Percent of Dominant Species
Sapling/Shrub Stratum (Plot size: 15 ft r		= Total	Cover	That Are OBL, FACW, or FAC: 50.00 (A/B)
1				Prevalence Index worksheet:
2.			<del></del>	Total % Cover of: Multiply by:
3				OBL species $\frac{0}{0}$ $x 1 = \frac{0}{0}$
4.				FACW species $\frac{0}{46}$ $x = \frac{0}{138}$
5				FAC species $\frac{46}{0}$ $x = \frac{138}{0}$ FACU species $\frac{46}{0}$ $x = \frac{138}{0}$
Li i con a c		= Total	Cover	UPL species 35
Herb Stratum (Plot size: 5 ft r )  1. Elymus repens	46	~	FAC	Column Totals: <u>81</u> (A) <u>313</u> (B)
2. Bromus inermis	25		UPL	
3.	-			Prevalence Index = B/A = 3.86  Hydrophytic Vegetation Indicators:
4				1 - Rapid Test for Hydrophytic Vegetation
5				2 - Dominance Test is >50%
6				3 - Prevalence Index is ≤3.0 <sup>1</sup>
7				4 - Morphological Adaptations <sup>1</sup> (Provide supporting
8				data in Remarks or on a separate sheet)
9				5 - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
10			<u> </u>	Indicators of hydric soil and wetland hydrology must
11	0.4	= Total (	Cover	be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size: 30 ft r	<u> </u>	- TOLAT	Covei	
1			<u> </u>	Hydrophytic
2				Vegetation Present? Yes No
% Rare Ground in Horb Stratum 19		= Total	Cover	1 1036III: 163 NO NO
% Bare Ground in Herb Stratum 19  Remarks:				
	0 0055:	dor-	اعتماله مناط	outio
Vegetation did not meet criteria to be	e consi	uerec	a nyuropr	iyuc.

DP03H

rofile Description: (Describe	e to the de	•			or commi	n the absence (	or indicators.)
Depth Matrix inches) Color (moist)	%	Color (moist)	ox Feature %	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0 - 10 10YR 3/1	100			1,700		Clay Loam	romano
0 - 17 10YR 3/1	98	10YR 3/3	2	С	М	Clay Loam	
-							
-							
-							
-							
-							
-	_		_				
ype: C=Concentration, D=De	pletion, RM	/=Reduced Matrix, C	S=Covere	d or Coate	ed Sand G	rains. <sup>2</sup> Loca	ation: PL=Pore Lining, M=Matrix.
ydric Soil Indicators: (Appli	cable to al	I LRRs, unless othe	rwise not	ed.)			rs for Problematic Hydric Soils <sup>3</sup> :
_ Histosol (A1)		Sandy Redox (	S5)			2 cm	Muck (A10)
_ Histic Epipedon (A2)		Stripped Matrix	(S6)				Parent Material (TF2)
_ Black Histic (A3)		Loamy Mucky I			t MLRA 1)	Very	Shallow Dark Surface (TF12)
_ Hydrogen Sulfide (A4)		Loamy Gleyed	•	2)		Othe	r (Explain in Remarks)
Depleted Below Dark Surfa	ce (A11)	Depleted Matri	. ,			2	
_ Thick Dark Surface (A12)		✓ Redox Dark Su	` '				rs of hydrophytic vegetation and
_ Sandy Mucky Mineral (S1)		Depleted Dark		=7)			nd hydrology must be present,
_ Sandy Gleyed Matrix (S4) estrictive Layer (if present):		Redox Depress	sions (F8)			unless	s disturbed or problematic.
Type:							
Depth (inches):						Hydric Soil I	Present? Yes No
						,	
emarks: Ithough this data p egetation. For this		•	-				* * *
Ithough this data pegetation. For this	reason	•	-				
Ithough this data pegetation. For this TOROLOGY	reason	the redox fea	atures			to be relic	
Ithough this data pegetation. For this 'DROLOGY'	reason	the redox fea	atures	are th	ought	to be relic	dary Indicators (2 or more required)
Ithough this data pegetation. For this 'DROLOGY'  Vetland Hydrology Indicators (minimum of	reason	the redox fea	atures	are th	ought	to be relic	dary Indicators (2 or more required)
Ithough this data pregetation. For this  'DROLOGY  Vetland Hydrology Indicators rimary Indicators (minimum of _ Surface Water (A1)	reason	the redox fea	ly) nined Leav	are th	ought	to be relic	dary Indicators (2 or more required) ater-Stained Leaves (B9) (MLRA 1, 2
Ithough this data p egetation. For this  /DROLOGY /etland Hydrology Indicators rimary Indicators (minimum of _ Surface Water (A1) _ High Water Table (A2) _ Saturation (A3)	reason	the redox fea	ly) ained Leav 1, 2, 4A,	res (B9) (eand 4B)	ought	Secon	dary Indicators (2 or more required) ater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) rainage Patterns (B10)
Ithough this data pegetation. For this  DROLOGY  Tetland Hydrology Indicators  rimary Indicators (minimum of  Surface Water (A1)  High Water Table (A2)	reason	the redox fea	ly) hined Leav 1, 2, 4A, 3 (B11) evertebrate	res (B9) (e and 4B)	ought	Secon  W  Dr	dary Indicators (2 or more required) ater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2)
Ithough this data pregetation. For this  CDROLOGY  Vetland Hydrology Indicators rimary Indicators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	reason	ed; check all that app Water-Sta MLRA Salt Crust Aquatic In Hydrogen	ly) sined Leav 1, 2, 4A, 3 (B11) evertebrate Sulfide O	res (B9) (e and 4B) es (B13) dor (C1)	ought	Secon  W  Dr  Dr  Sa	dary Indicators (2 or more required) ater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (C
Ithough this data pregetation. For this Pagetation. For this Pagetation. For this Pagetation. For this Pagetation. For this Pagetation of Pagetation (A)    Water Marks (B1)    Sediment Deposits (B2)    Drift Deposits (B3)	reason	ed; check all that app  Water-Sta  MLRA  Salt Crust  Aquatic In  Hydrogen  Oxidized I	atures  ly)  ained Leav  1, 2, 4A, 4  (B11)  evertebrate  Sulfide O  Rhizosphe	res (B9) (e and 4B) es (B13) dor (C1) eres along	except  Living Roo	Secon W Dr Dr Sa ots (C3) Ge	dary Indicators (2 or more required) ater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (Ceeomorphic Position (D2)
Ithough this data pregetation. For this  DROLOGY  Vetland Hydrology Indicators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	reason	the redox fea	atures  ly)  ained Leav  1, 2, 4A,  (B11)  evertebrate  Sulfide O  Rhizosphe  of Reduce	res (B9) (e and 4B) es (B13) dor (C1) eres along ed Iron (C-	except Living Root	Secon W: Dr Dr Dr Se ots (C3) Ge Sr	dary Indicators (2 or more required) ater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (Ceemorphic Position (D2) nallow Aquitard (D3)
Ithough this data p egetation. For this  'DROLOGY  Iteland Hydrology Indicators rimary Indicators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	reason	the redox fea	ly) ained Leav 1, 2, 4A, 3 (B11) evertebrate Sulfide O Rhizosphe of Reduce on Reduct	res (B9) (e and 4B) es (B13) dor (C1) eres along ed Iron (C-ion in Tille	except  Living Root 4) d Soils (Co	Secon W Dr Dr Dr Sa ots (C3) Ge Sr 6) FA	dary Indicators (2 or more required) ater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (Ceomorphic Position (D2) nallow Aquitard (D3) AC-Neutral Test (D5)
Ithough this data pegetation. For this  'DROLOGY  Tetland Hydrology Indicators  rimary Indicators (minimum of  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)	reason	ed; check all that app  Water-Sta  MLRA  Salt Crust  Aquatic In  Hydrogen  Oxidized I  Presence  Recent Iro  Stunted o	ly) sined Leav 1, 2, 4A, 3 (B11) evertebrate Sulfide O Rhizosphe of Reduce on Reduce r Stressed	res (B9) (e and 4B) es (B13) dor (C1) eres along ed Iron (C-ion in Tille	except  Living Root 4) d Soils (Co	Secon W Dr Dr Sa ots (C3) Ga Sr 6) FA	dary Indicators (2 or more required) ater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (Ceeomorphic Position (D2) nallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A)
Ithough this data pregetation. For this egetation. For this egetation is egetation for the egetation of the egeta	reason s: one require	the redox fea	ly) sined Leav 1, 2, 4A, 3 (B11) evertebrate Sulfide O Rhizosphe of Reduce on Reduce r Stressed	res (B9) (e and 4B) es (B13) dor (C1) eres along ed Iron (C-ion in Tille	except  Living Root 4) d Soils (Co	Secon W Dr Dr Sa ots (C3) Ga Sr 6) FA	dary Indicators (2 or more required) ater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (Ceomorphic Position (D2) nallow Aquitard (D3) AC-Neutral Test (D5)
Ithough this data p egetation. For this  /DROLOGY /etland Hydrology Indicators rimary Indicators (minimum of _ Surface Water (A1) _ High Water Table (A2) _ Saturation (A3) _ Water Marks (B1) _ Sediment Deposits (B2) _ Drift Deposits (B3) _ Algal Mat or Crust (B4) _ Iron Deposits (B5) _ Surface Soil Cracks (B6) _ Inundation Vis ble on Aeria	reason s: one require	the redox fea	ly) sined Leav 1, 2, 4A, 3 (B11) evertebrate Sulfide O Rhizosphe of Reduce on Reduce r Stressed	res (B9) (e and 4B) es (B13) dor (C1) eres along ed Iron (C-ion in Tille	except  Living Root 4) d Soils (Co	Secon W Dr Dr Sa ots (C3) Ga Sr 6) FA	dary Indicators (2 or more required) ater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (Ceeomorphic Position (D2) nallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A)
Ithough this data pregetation. For this  CDROLOGY  Vetland Hydrology Indicators rimary Indicators (minimum of Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Vis ble on Aerial  Sparsely Vegetated Concarield Observations:	reason s: one require l Imagery (Eve Surface	the redox fea	atures  ly)  ained Leav  1, 2, 4A,  (B11)  evertebrate Sulfide O Rhizosphe of Reduce on Reduct r Stressed plain in Re	res (B9) (e and 4B) es (B13) dor (C1) eres along ed Iron (C-ion in Tille I Plants (Demarks)	except Living Roo 4) d Soils (CG	Secon W Dr Dr Sa ots (C3) Ga Sr 6) FA	dary Indicators (2 or more required) ater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (Ceeomorphic Position (D2) nallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A)
Ithough this data pregetation. For this  DROLOGY  Vetland Hydrology Indicators rimary Indicators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Vis ble on Aeria Sparsely Vegetated Concardield Observations: urface Water Present?	reason  I Imagery (I ve Surface  Yes	the redox fea	atures  ly)  ained Leav  1, 2, 4A,  (B11)  avertebrate Sulfide O Rhizosphe of Reduce on Reduct on Reduct r Stressed plain in Re	res (B9) (e and 4B) es (B13) dor (C1) eres along ed Iron (C-ion in Tille I Plants (Demarks)	except  Living Roo 4) d Soils (Co	Secon W Dr Dr Sa ots (C3) Ga Sr 6) FA	dary Indicators (2 or more required) ater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (Ceeomorphic Position (D2) nallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A)
Ithough this data pregetation. For this Pegetation. For this Pegetation (A) Petaland Hydrology Indicators (minimum of Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Vis ble on Aerial  Sparsely Vegetated Concardicted Observations:  urface Water Present?  Vater Table Present?	reason  S:  one require  I Imagery (Eve Surface  Yes  Yes	the redox fea	ly) sined Leav 1, 2, 4A, 3 (B11) evertebrate Sulfide O Rhizosphe of Reduce on Reduct or Stressed plain in Re	res (B9) (e and 4B) es (B13) dor (C1) eres along ed Iron (C-ion in Tille I Plants (Demarks)	Living Root 4) d Soils (Co	Secon	dary Indicators (2 or more required) ater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (Ceeomorphic Position (D2) nallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A)
Ithough this data pregetation. For this  //DROLOGY //etland Hydrology Indicators rimary Indicators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Vis ble on Aeria Sparsely Vegetated Concardield Observations: urface Water Present?	reason  S: One require  Ve Surface  Yes Yes Yes Yes	the redox fea	ly) sined Leav 1, 2, 4A, 3 (B11) evertebrate Sulfide O Rhizosphe of Reduct on Reduct or Stressed plain in Re aches): aches): aches): aches):	res (B9) (e and 4B) res (B13) res (B13) res along red Iron (Cr ion in Tille I Plants (Dr remarks)	Living Root 4) d Soils (Co	Secon	dary Indicators (2 or more required) ater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (Ceeomorphic Position (D2) nallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A) ost-Heave Hummocks (D7)
Ithough this data p egetation. For this  /DROLOGY /etland Hydrology Indicators rimary Indicators (minimum of _ Surface Water (A1) _ High Water Table (A2) _ Saturation (A3) _ Water Marks (B1) _ Sediment Deposits (B2) _ Drift Deposits (B3) _ Algal Mat or Crust (B4) _ Iron Deposits (B5) _ Surface Soil Cracks (B6) _ Inundation Vis ble on Aerial _ Sparsely Vegetated Concar ield Observations: urface Water Present? //ater Table Present? aturation Present? includes capillary fringe)	reason  S: One require  Ve Surface  Yes Yes Yes Yes	the redox fea	ly) sined Leav 1, 2, 4A, 3 (B11) evertebrate Sulfide O Rhizosphe of Reduct on Reduct or Stressed plain in Re aches): aches): aches): aches):	res (B9) (e and 4B) res (B13) res (B13) res along red Iron (Cr ion in Tille I Plants (Dr remarks)	Living Root 4) d Soils (Co	Secon	dary Indicators (2 or more required) ater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (Ceeomorphic Position (D2) nallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A) ost-Heave Hummocks (D7)
Ithough this data p egetation. For this  /DROLOGY /etland Hydrology Indicators rimary Indicators (minimum of _ Surface Water (A1) _ High Water Table (A2) _ Saturation (A3) _ Water Marks (B1) _ Sediment Deposits (B2) _ Drift Deposits (B3) _ Algal Mat or Crust (B4) _ Iron Deposits (B5) _ Surface Soil Cracks (B6) _ Inundation Vis ble on Aerial _ Sparsely Vegetated Concar ield Observations: urface Water Present? //ater Table Present? aturation Present? includes capillary fringe)	reason  S: One require  Ve Surface  Yes Yes Yes Yes	the redox fea	ly) sined Leav 1, 2, 4A, 3 (B11) evertebrate Sulfide O Rhizosphe of Reduct on Reduct or Stressed plain in Re aches): aches): aches): aches):	res (B9) (e and 4B) res (B13) res (B13) res along red Iron (Cr ion in Tille I Plants (Dr remarks)	Living Root 4) d Soils (Co	Secon	dary Indicators (2 or more required) ater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (Ceeomorphic Position (D2) nallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A) ost-Heave Hummocks (D7)
Ithough this data pregetation. For this  CDROLOGY  Vetland Hydrology Indicators rimary Indicators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Vis ble on Aeria Sparsely Vegetated Concardield Observations: urface Water Present? Vater Table Present? aturation Present? includes capillary fringe) escribe Recorded Data (streat	reason  i: one require  l Imagery (E ve Surface Yes Yes Yes m gauge, m	the redox fea	atures  ly)  ained Leav  1, 2, 4A,  (B11)  overtebrate  Sulfide O  Rhizosphe of Reduce on Reduct or Stressed plain in Re  aches):  aches):  photos, pr	res (B9) (e and 4B) res (B13) res (B13) res along red Iron (Cr ion in Tille I Plants (Dr remarks)	Living Root 4) d Soils (Co	Secon	dary Indicators (2 or more required) ater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (Ceeomorphic Position (D2) nallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A) ost-Heave Hummocks (D7)

Project/Site: _Easton Ranch	(	Citv/Countv	Park Co	unty	Sampling Date: 2024-06-19
Applicant/Owner: MDT		. , ,			Sampling Point: DP03w
		Section To	wnshin Ra	nge: S32 T4N R9E	
Landform (hillslope, terrace, etc.): Depression				=	Slope (%)· 3
Subregion (LRR): E 44B					
Soil Map Unit Name: 600B - Nesda Ioam, 0 to 4 per					
Are climatic / hydrologic conditions on the site typical for this					
Are Vegetation, Soil, or Hydrology s					
Are Vegetation, Soil, or Hydrology r					
SUMMARY OF FINDINGS – Attach site map		samplin	g point l	ocations, transects,	important features, etc.
Hydrophytic Vegetation Present? Yes N	0	lo th	e Sampled	I Aron	
Hydric Soil Present? Yes V			in a Wetlar		No
Wetland Hydrology Present? Yes N Remarks:	0				<u> </u>
			•-		
Wetland data point taken near south	ern bor	der of	site.		
VEGETATION – Use scientific names of plan	ts.				
•	Absolute	Dominant	Indicator	Dominance Test works	sheet:
Tree Stratum (Plot size: 30 ft r	% Cover			Number of Dominant Sp	pecies _
1				That Are OBL, FACW, o	or FAC: <u>5</u> (A)
2				Total Number of Domina	
3				Species Across All Strat	ta: <u>5</u> (B)
4		= Total Co		Percent of Dominant Sp	
Sapling/Shrub Stratum (Plot size: 15 ft r )		_ = 10tai CC	VEI	That Are OBL, FACW, o	(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
1. Salix bebbiana	5		FACW	Prevalence Index work  Total % Cover of:	
2. Salix exigua	3		FACW		<u>Multiply by:</u> x 1 = 21
3				FACW species 18	
4					x 3 = 36
5				· ·	x 4 = 0
Herb Stratum (Plot size: 5 ft r )	8	= Total Co	ver		x 5 = 0
1. Carex utriculata	20	~	OBL		(A) <u>93</u> (B)
2. Alopecurus arundinaceus	10	~	FAC	Prevalence Index	- D/A - 182
3. Juncus balticus	10	~	FACW	Hydrophytic Vegetatio	
4. Equisetum arvense	2		FAC	1 - Rapid Test for H	
<sub>5.</sub> Typha latifolia	1		OBL	✓ 2 - Dominance Test	, , ,
6				✓ 3 - Prevalence Inde	
7					daptations <sup>1</sup> (Provide supporting
8					or on a separate sheet)
9		-		5 - Wetland Non-Va	
10					ohytic Vegetation <sup>1</sup> (Explain)
11	42			be present, unless distu	and wetland hydrology must rbed or problematic.
Woody Vine Stratum (Plot size: 30 ft r )	43	= Total Co	/er	• •	·
1				Hydrophytic	
2.				Vegetation	<b>.</b>
		= Total Co	/er	Present? Yes	S No
% Bare Ground in Herb Stratum 57					
Remarks:					

Bare ground is comprised of dead vegetation from previous year. Evidence of hydrophytic vegetation indicated by a positive dominance test and a prevalence index less than or equal to 3.0.

SOIL Sampling Point: DP03w

Profile Desc	ription: (Describe	to the dep	oth needed to docu	ment the	indicator	or confirm	n the absence of indicators	i.)
Depth	Matrix			x Feature				
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	<u>Texture</u>	Remarks
0-8	10YR 3/1	98	10YR 4/4	2	<u>C</u>	<u>M</u>	Clay Loam	
8 - 16	10YR 3/1	96	10YR 4/4	4	<u>C</u>	M	Clay Loam	
-								
_				_	-			
	-		-		-	· ——		<del>-</del>
				_				
-								
¹Type: C=Co	oncentration D=Der	letion RM	=Reduced Matrix, C	S=Covere	d or Coat	ed Sand Gr	rains <sup>2</sup> Location: PL=Pc	ore Lining, M=Matrix.
			LRRs, unless othe			ca oana oi	Indicators for Proble	<u> </u>
Histosol			Sandy Redox (		,		2 cm Muck (A10)	,
·	pipedon (A2)		Stripped Matrix				Red Parent Mater	ial (TF2)
Black Hi			Loamy Mucky I		1) (excep	t MLRA 1)		• •
	n Sulfide (A4)		Loamy Gleyed			,	Other (Explain in I	
Depleted	d Below Dark Surfac	e (A11)	Depleted Matri	x (F3)				
	ark Surface (A12)		✓ Redox Dark Su				<sup>3</sup> Indicators of hydrophy	
	lucky Mineral (S1)		Depleted Dark				wetland hydrology	
	Bleyed Matrix (S4)		Redox Depress	sions (F8)			unless disturbed or	problematic.
	_ayer (if present):							
Type:								<b>,</b>
Depth (inc	ches):						Hydric Soil Present?	Yes No
Remarks:								
HYDROLO								
_	drology Indicators:		d; check all that app				Cocondan Indicato	ro (2 or more required)
-	•	nie require			(00 (PO) (4		· · · · · · · · · · · · · · · · · · ·	rs (2 or more required)
_	Water (A1)		Water-Sta			except		Leaves (B9) ( <b>MLRA 1, 2,</b>
✓ Filgh Wa	iter Table (A2)		Salt Crust	1, 2, 4A,	and 4B)		<b>4A, and 4B)</b> Drainage Patte	
				` '	oo (D12)		Drainage Falle Dry-Season Wa	, ,
Water M	nt Deposits (B2)		Aquatic In Hydrogen				-	ble on Aerial Imagery (C9)
	posits (B3)		Oxidized I			Living Poo	4	
	at or Crust (B4)		Oxidized i		_	_	Shallow Aquita	
	oosits (B5)		Recent Iro					
	Soil Cracks (B6)		Stunted o			•	· —	
	on Vis ble on Aerial	lmagery (R				) ( <b>LIXIX A</b>	Frost-Heave Hu	
	Vegetated Concav			piaiii iii ix	omano)		1103t-11cave 11t	animocks (D1)
Field Observ		c ourrace (	(00)					
Surface Water		/oc	No Depth (in	chee).				
			No Depth (in					
Water Table			No Depth (in				and Hydrology Present?	vaa V Na
Saturation Proceed (includes cape		es	No Depth (in	cnes): <u>o</u>		vveti	and Hydrology Present?	Yes No
		gauge, m	onitoring well, aerial	photos, p	revious in	spections),	if available:	
Remarks:								
Evidona	o of wotland	hydrol	oay includes	coil c	aturat	ion bio	sh water table a n	ocitive EAC-
	test, and ged	-	-	SOII S	aturat	ion, mg	jh water table, a p	OSITIVE FAC-

Project/Site: Easton Ranch		City/Co	ounty: Par	rk Cou	nty	Sampling D	ate: 202	4-06-19
Applicant/Owner: MDT		-	-		State: Montana			
Investigator(s): R Cutler, E Reynaud					ge: S32 T4N R9E			
Landform (hillslope, terrace, etc.): Berm					-		Slope (%	<sub>5):</sub> 5
Subregion (LRR): E 44B			•		,			
Soil Map Unit Name: 155A - Meadowcreek, rarely floo								
Are climatic / hydrologic conditions on the site typical for t						-		
Are Vegetation, Soil, or Hydrology	-						es 🗸	Νο
Are Vegetation, Soil, or Hydrology					ded, explain any answe			
SUMMARY OF FINDINGS – Attach site map								es etc
		Jamp	pinig po	01111110		, importa	- reatar	
Hydrophytic Vegetation Present? Yes No Hydric Soil Present? Yes No No		Is the Sampled			I Area			
Wetland Hydrology Present? Yes	No 🔽		within a \	Wetland	l? Yes	No		
Remarks:								
Upland point taken 20 feet away fro	om wetla	and r	ooint.					
, ,		<b>.</b>						
VEGETATION – Use scientific names of pla								
Tree Stratum (Plot size: 30 ft r	Absolute <u>% Cover</u>				Dominance Test work			
1				atus	Number of Dominant S That Are OBL, FACW,			(A)
2								_ ( ' ')
3.					Total Number of Domir Species Across All Stra			(B)
4					Percent of Dominant S			_ ` ,
0 15 (0) 1 0) 1 (D) 1 1 15 ft r		= Tota	al Cover		That Are OBL, FACW,		00.00	_ (A/B)
Sapling/Shrub Stratum (Plot size: 15 ft r )					Prevalence Index wor	ksheet:		
1		-			Total % Cover of:		Multiply by:	
2						x 1 =		
4					FACW species 5			
5						x 3 =		
		= Tota	al Cover		·	x 4 =		
Herb Stratum (Plot size: 5 ft r )		_				x 5 =		
1. Alopecurus arundinaceus				-	Column Totals: 85	(A)	250	(B)
2. Poa pratensis	10		FA	-	Prevalence Index	= B/A = 2	.94	
3. Juncus balticus	5			CW_	Hydrophytic Vegetati			
4					1 - Rapid Test for		√egetation	
5					✓ 2 - Dominance Tes			
6					3 - Prevalence Ind		<b>(</b> D	
7 8					4 - Morphological / data in Remark	Adaptations s or on a sec	(Provide si parate shee	upporting t)
9.					5 - Wetland Non-V			,
10.				_	Problematic Hydro			lain)
11.					<sup>1</sup> Indicators of hydric so			/ must
	0.5	= Total	l Cover		be present, unless dist	urbed or prob	olematic.	
Woody Vine Stratum (Plot size: 30 ft r )								
1					Hydrophytic			
2					Vegetation Present? Yes	esI	No	
% Bare Ground in Herb Stratum 15		_	I Cover					
Remarks:								
Domination of FAC vegetation results i	in a positi	ive d	ominar	nce te	est. Upland dete	rminatio	n based	on
absence of hydric soils and wetland hy	-	_ •••		••				

US Army Corps of Engineers

SOIL Sampling Point: DP04u

Depth	Matrix	0,1	Redox Features		D
(inches)	Color (moist)	%	Color (moist) % Type <sup>1</sup> Loc <sup>2</sup>		Remarks
0 - 15	10YR 3/2	100		Clay Loam	
-					
	_				
	-				
					-
-	-				
Type: C=Co	oncentration, D=De	pletion, RM	I=Reduced Matrix, CS=Covered or Coated Sand	l Grains. <sup>2</sup> Lo	cation: PL=Pore Lining, M=Matrix.
Hydric Soil I	ndicators: (Appli	cable to al	I LRRs, unless otherwise noted.)		ors for Problematic Hydric Soils <sup>3</sup> :
Histosol	. ,		Sandy Redox (S5)		m Muck (A10)
	pipedon (A2)		Stripped Matrix (S6)		Parent Material (TF2)
Black Hi			Learny Clayed Matrix (F2)		y Shallow Dark Surface (TF12)
	n Sulfide (A4) I Below Dark Surfa	ce (Δ11)	<ul><li>Loamy Gleyed Matrix (F2)</li><li>Depleted Matrix (F3)</li></ul>	Oui	er (Explain in Remarks)
	rk Surface (A12)	ου (Λ11)	Redox Dark Surface (F6)	<sup>3</sup> Indicato	ors of hydrophytic vegetation and
	lucky Mineral (S1)		Depleted Dark Surface (F7)		and hydrology must be present,
-	leyed Matrix (S4)		Redox Depressions (F8)		ss disturbed or problematic.
Restrictive I	ayer (if present):				
Type:					
Depth (inc	ches):			Hydric Soil	Present? Yes No
				ı	
lo hydri		tors ob	served. Cobbles restricted ex	cavation fu	urther than 15".
lo hydri YDROLO	GY drology Indicators	»:			
No hydri YDROLO Wetland Hyd Primary Indic	GY drology Indicators eators (minimum of	»:	ed; check all that apply)	Seco	ndary Indicators (2 or more required)
YDROLO Wetland Hyd Primary Indic Surface	GY drology Indicators eators (minimum of Water (A1)	»:	ed; check all that apply) Water-Stained Leaves (B9) (except	Seco	ndary Indicators (2 or more required) Vater-Stained Leaves (B9) ( <b>MLRA 1, 2,</b>
Wetland Hyderimary Indicates Surface High Wa	GY drology Indicators eators (minimum of Water (A1) ter Table (A2)	»:	ed; check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	Secol	ndary Indicators (2 or more required) Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
YDROLO Wetland Hyd Primary Indic Surface High Wa Saturatio	GY drology Indicators eators (minimum of Water (A1) ter Table (A2) on (A3)	»:	ed; check all that apply)  Water-Stained Leaves (B9) (except  MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)	<u>Seco</u> V E	ndary Indicators (2 or more required) Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Orainage Patterns (B10)
YDROLO Wetland Hyd Primary Indic Surface High Wa Saturatic Water M	GY drology Indicators sators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1)	»:	ed; check all that apply)  Water-Stained Leaves (B9) (except  MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)	<u>Seco</u> V C	ndary Indicators (2 or more required) Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Orainage Patterns (B10) Ory-Season Water Table (C2)
YDROLO Wetland Hyd Primary Indic Surface High Wa Saturatic Water M Sedimer	GY drology Indicators eators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2)	»:	ed; check all that apply)  Water-Stained Leaves (B9) (except  MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)	Secon V E	ndary Indicators (2 or more required) Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Orainage Patterns (B10) Ory-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9
YDROLO Wetland Hyd Primary Indic Surface High Wa Saturatic Water M Sedimer Drift Dep	drology Indicators eators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) posits (B3)	»:	ed; check all that apply)  Water-Stained Leaves (B9) (except	Secon V C C S Roots (C3) G	ndary Indicators (2 or more required) Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Orainage Patterns (B10) Ory-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9 Geomorphic Position (D2)
YDROLO Wetland Hyd Primary Indic Surface High Wa Saturatic Water M Sedimer Drift Dep Algal Ma	drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) arks (B2) oosits (B3) at or Crust (B4)	»:	ed; check all that apply)  — Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)  — Salt Crust (B11)  — Aquatic Invertebrates (B13)  — Hydrogen Sulfide Odor (C1)  — Oxidized Rhizospheres along Living II  — Presence of Reduced Iron (C4)	Secon V	ndary Indicators (2 or more required) Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Orainage Patterns (B10) Ory-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9 Geomorphic Position (D2) Shallow Aquitard (D3)
YDROLO Wetland Hyd Primary Indic Surface High Wa Saturatic Water M Sedimer Drift Dep Algal Ma	GY  drology Indicators eators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) oosits (B3) at or Crust (B4) oosits (B5)	»:	ed; check all that apply)  Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living (Presence of Reduced Iron (C4)  Recent Iron Reduction in Tilled Soils	Secol  V  L  C  S  Roots (C3)  S  (C6)  F	ndary Indicators (2 or more required) Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Orainage Patterns (B10) Ory-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9 Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)
YDROLO Wetland Hyd Primary Indic Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface	drology Indicators stators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) osits (B3) at or Crust (B4) osits (B5) Soil Cracks (B6)	s: one require	ed; check all that apply)  Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living II  Presence of Reduced Iron (C4)  Recent Iron Reduction in Tilled Soils  Stunted or Stressed Plants (D1) (LRI	Secol  V  L C C C S Roots (C3) S (C6) F R A) F	ndary Indicators (2 or more required) Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Orainage Patterns (B10) Ory-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9 Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
YDROLO Wetland Hyd Primary Indic Surface High Wa Saturatic Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatic	drology Indicators stators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) osits (B3) at or Crust (B4) osits (B5) Soil Cracks (B6) on Vis ble on Aeria	one require	ed; check all that apply)  Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living II  Presence of Reduced Iron (C4)  Recent Iron Reduction in Tilled Soils  Stunted or Stressed Plants (D1) (LRI	Secol  V  L C C C S Roots (C3) S (C6) F R A) F	ndary Indicators (2 or more required) Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Orainage Patterns (B10) Ory-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9 Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)
YDROLO Wetland Hyd Primary Indic Surface High Wa Saturatic Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatic Sparsely	drology Indicators eators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) oosits (B3) at or Crust (B4) oosits (B5) Soil Cracks (B6) on Vis ble on Aerial	one require	ed; check all that apply)  Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living II  Presence of Reduced Iron (C4)  Recent Iron Reduction in Tilled Soils  Stunted or Stressed Plants (D1) (LRI	Secol  V  L C C C S Roots (C3) S (C6) F R A) F	ndary Indicators (2 or more required) Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Orainage Patterns (B10) Ory-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9 Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Wetland Hyden Primary Indice Surface High Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatic Sparsely	drology Indicators eators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) arks (B1) ot Deposits (B2) oosits (B3) at or Crust (B4) oosits (B5) Soil Cracks (B6) on Vis ble on Aerial vegetated Concavations:	one require Imagery (I	ed; check all that apply)  Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living (C4)  Presence of Reduced Iron (C4)  Recent Iron Reduction in Tilled Soils  Stunted or Stressed Plants (D1) (LRI	Secol  V  L C C C S Roots (C3) S (C6) F R A) F	ndary Indicators (2 or more required) Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Orainage Patterns (B10) Ory-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9 Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
No hydri  YDROLO  Wetland Hyd  Primary Indic  Surface  High Wa  Saturatic  Water M  Sedimer  Drift Dep  Algal Ma  Iron Dep  Surface  Inundatic  Sparsely  Field Observice	drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) arks (B1) ot Deposits (B2) oosits (B3) at or Crust (B4) oosits (B5) Soil Cracks (B6) on Vis ble on Aeria of Vegetated Concar vations: er Present?	i: one require Imagery (I	ed; check all that apply)  Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living II  Presence of Reduced Iron (C4)  Recent Iron Reduction in Tilled Soils  Stunted or Stressed Plants (D1) (LRI	Secol  V  L C C C S Roots (C3) S (C6) F R A) F	ndary Indicators (2 or more required) Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Orainage Patterns (B10) Ory-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9 Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
No hydri  YDROLO  Wetland Hyd  Primary Indic  Surface  High Wa  Saturatic  Water M  Sedimer  Drift Dep  Algal Ma  Iron Dep  Surface  Inundatic  Sparsely  Field Observ  Surface Water	drology Indicators stators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) osits (B3) at or Crust (B4) osits (B5) Soil Cracks (B6) on Vis ble on Aeria of Vegetated Concar vations: er Present? Present?	Imagery (Ive Surface Yes	ed; check all that apply)  Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Invertebrate (B13)  Presence of Reduced Iron (C4)  Recent Iron Reduction in Tilled Soils  Stunted or Stressed Plants (D1) (LRI Other (Explain in Remarks)  No Pepth (inches):  Depth (inches):	Secon V  C S Roots (C3) S (C6) F R A) F	ndary Indicators (2 or more required) Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Orainage Patterns (B10) Ory-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
No hydri  YDROLO  Wetland Hyd  Primary Indic  Surface  High Wa  Saturatio  Water M  Sedimer  Drift Dep  Algal Ma  Iron Dep  Surface  Inundatio  Sparsely  Field Observ  Surface Water  Water Table  Saturation Proposition Pro	drology Indicators stators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) osits (B3) at or Crust (B4) osits (B5) Soil Cracks (B6) on Vis ble on Aeria of Vegetated Concar vations: er Present? Present? resent?	Imagery (Ive Surface Yes Yes	ed; check all that apply)  Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living II  Presence of Reduced Iron (C4)  Recent Iron Reduction in Tilled Soils  Stunted or Stressed Plants (D1) (LRII  Other (Explain in Remarks)  No  Depth (inches):  No  Depth (inches):  No  Depth (inches):	Secon V  C C S Roots (C3) S (C6) F R A) F F	ndary Indicators (2 or more required) Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Orainage Patterns (B10) Ory-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9 Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
No hydri  YDROLO  Wetland Hyd  Primary Indic  Surface  High Wa  Saturatio  Water M  Sedimer  Drift Dep  Algal Ma  Iron Dep  Surface  Inundatio  Sparsely  Field Observ  Surface Water  Water Table  Saturation Proposition Pro	drology Indicators stators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) osits (B3) at or Crust (B4) osits (B5) Soil Cracks (B6) on Vis ble on Aeria of Vegetated Concar vations: er Present? Present? resent?	Imagery (Ive Surface Yes Yes	ed; check all that apply)  Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Invertebrate (B13)  Presence of Reduced Iron (C4)  Recent Iron Reduction in Tilled Soils  Stunted or Stressed Plants (D1) (LRI Other (Explain in Remarks)  No Pepth (inches):  Depth (inches):	Secon V  C C S Roots (C3) S (C6) F R A) F F	ndary Indicators (2 or more required) Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Orainage Patterns (B10) Ory-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Wetland Hyden Primary Indice Surface High Wa Saturatice Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatice Sparsely Field Observ Surface Water Water Table Saturation Profice Concepts of the Conc	drology Indicators stators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) osits (B3) at or Crust (B4) osits (B5) Soil Cracks (B6) on Vis ble on Aeria of Vegetated Concar vations: er Present? Present? resent?	Imagery (Ive Surface Yes Yes	ed; check all that apply)  Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living II  Presence of Reduced Iron (C4)  Recent Iron Reduction in Tilled Soils  Stunted or Stressed Plants (D1) (LRII  Other (Explain in Remarks)  No  Depth (inches):  No  Depth (inches):  No  Depth (inches):	Secon V  C C S Roots (C3) S (C6) F R A) F F	ndary Indicators (2 or more required) Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Orainage Patterns (B10) Ory-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
No hydri  YDROLO  Wetland Hyd  Primary Indic  Surface  High Wa  Saturatic  Water M  Sedimer  Drift Dep  Algal Ma  Iron Dep  Surface  Inundatic  Sparsely  Field Observ  Surface Water  Water Table  Saturation Proposition Pro	drology Indicators eators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) oosits (B3) at or Crust (B4) oosits (B5) Soil Cracks (B6) on Vis ble on Aerial of Vegetated Concar vations: er Present? Present? Present? esent? corded Data (strean	Imagery (Ive Surface Yes Yes Yes The gauge, magauge,	ed; check all that apply)  Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living (C1)  Presence of Reduced Iron (C4)  Recent Iron Reduction in Tilled Soils  Stunted or Stressed Plants (D1) (LRICATE)  Other (Explain in Remarks)  (B8)  No  Depth (inches):  Depth (inches):	Secon V  C C S Roots (C3) S (C6) F R A) F F	ndary Indicators (2 or more required) Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Orainage Patterns (B10) Ory-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
No hydri  YDROLO  Wetland Hyd  Primary Indic  Surface  High Wa  Saturatic  Water M  Sedimer  Drift Dep  Algal Ma  Iron Dep  Surface  Inundatic  Sparsely  Field Observ  Surface Water  Water Table  Saturation Proposition Pro	drology Indicators eators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) oosits (B3) at or Crust (B4) oosits (B5) Soil Cracks (B6) on Vis ble on Aerial of Vegetated Concar vations: er Present? Present? Present? esent? corded Data (stream	Imagery (Ive Surface Yes Yes Yes The gauge, magauge,	ed; check all that apply)  Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living II  Presence of Reduced Iron (C4)  Recent Iron Reduction in Tilled Soils  Stunted or Stressed Plants (D1) (LRII  Other (Explain in Remarks)  No  Depth (inches):  No  Depth (inches):  No  Depth (inches):	Secon V  C C S Roots (C3) S (C6) F R A) F F	ndary Indicators (2 or more required) Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Orainage Patterns (B10) Ory-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
No hydri  YDROLO  Wetland Hyd  Primary Indic  Surface  High Wa  Saturatic  Water M  Sedimer  Drift Dep  Algal Ma  Iron Dep  Surface  Inundatic  Sparsely  Field Observ  Surface Water  Water Table  Saturation Proposition Pro	drology Indicators eators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) oosits (B3) at or Crust (B4) oosits (B5) Soil Cracks (B6) on Vis ble on Aerial of Vegetated Concar vations: er Present? Present? Present? esent? corded Data (stream	Imagery (Ive Surface Yes Yes Yes The gauge, magauge,	ed; check all that apply)  Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living (C1)  Presence of Reduced Iron (C4)  Recent Iron Reduction in Tilled Soils  Stunted or Stressed Plants (D1) (LRICATE)  Other (Explain in Remarks)  (B8)  No  Depth (inches):  Depth (inches):	Secon V  C C S Roots (C3) S (C6) F R A) F F	ndary Indicators (2 or more required) Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Orainage Patterns (B10) Ory-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)

Project/Site: Easton Ranch	(	City/Count	y: Park Co	unty sa	ampling Date: 2024-06-19
Applicant/Owner: MDT				State: Montana Sa	ampling Point: DP04w
Investigator(s): R Cutler, E Reynaud	;	Section, To	ownship, Rai	nge: S32 T4N R9E	
Landform (hillslope, terrace, etc.): Swale					Slope (%): 1
Subregion (LRR): E 44B			•	, -	
Soil Map Unit Name: 155A - Meadowcreek, rarely flood					
Are climatic / hydrologic conditions on the site typical for thi				<u></u>	
Are Vegetation, Soil, or Hydrologys	-				
Are Vegetation, Soil, or Hydrology r				eded, explain any answers i	
SUMMARY OF FINDINGS – Attach site map				•	,
Hydrophytic Vegetation Present? Yes N	lo				
Hydric Soil Present? Yes N	lo		he Sampled		
Wetland Hydrology Present? Yes N	lo	Witi	hin a Wetlan	nd? Yes	_ No
Remarks:					
Data point surrounded by browsed S	Salix spp	Э.			
VEGETATION – Use scientific names of plan	its.				
Tree Stratum (Plot size: 30 ft r	Absolute % Cover		t Indicator	Dominance Test worksho	
1				Number of Dominant Spec That Are OBL, FACW, or F	
2.					
3.				Total Number of Dominant Species Across All Strata:	
4				Percent of Dominant Spec	
Ocalica (Oback Otestone (Districe 15 ft r		= Total C	over	That Are OBL, FACW, or F	
Sapling/Shrub Stratum (Plot size: 15 ft r )  1. Salix bebbiana	30	~	FACW	Prevalence Index worksh	neet:
2. Populus balsamifera	10		FAC	Total % Cover of:	Multiply by:
3		-			x 1 = 25
4					x 2 = 180
5		-		FAC species 25	x 3 = <u>75</u>
	40	= Total C	over	FACU species 0 UPL species 0	x 4 = 0 x 5 = 0
Herb Stratum (Plot size: 5 ft r )	00		E A C) A /	Column Totals: 140	(A) 280 (B)
1. Juncus balticus 2. Carex pellita	60 25		FACW OBL		
3. Alopecurus pratensis	12		FAC	Prevalence Index =	
4 Cirsium arvense	3		FAC	Hydrophytic Vegetation	
5				1 - Rapid Test for Hyd  ✓ 2 - Dominance Test is	
6.				✓ 3 - Prevalence Index i	
7.					aptations <sup>1</sup> (Provide supporting
8.				data in Remarks or	r on a separate sheet)
9				5 - Wetland Non-Vaso	
10				Problematic Hydrophy	
11		-		<sup>1</sup> Indicators of hydric soil ar be present, unless disturbe	nd wetland hydrology must ed or problematic
Woody Vine Stratum (Plot size: 30 ft r	100	= Total Co	over		
1				Hydrophytic	
2.				Hydrophytic Vegetation	
				Present? Yes _	No
% Bare Ground in Herb Stratum 0					
Remarks:					
Evidence of hydrophytic vegetation incl	ludes a p	ositive	e domina	nce test and a prev	alence index less
than or equal to 3.0.					

SOIL Sampling Point: DP04w

Depth	cription: (Describe Matrix	to the depth		<b>rent the ir</b> k Features		or confirm	i the absence	of indicators.)
(inches)	Color (moist)	%	Color (moist)	<u> </u>	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0 - 10	10YR 3/2	100					Sandy Clay Loam	
-								
_								
				-				
-								
	oncentration, D=De Indicators: (Appli					ed Sand Gr		cation: PL=Pore Lining, M=Matrix.  prs for Problematic Hydric Soils <sup>3</sup> :
Histoso			Sandy Redox (S		.u.,			m Muck (A10)
	pipedon (A2)	_	Stripped Matrix					Parent Material (TF2)
	istic (A3)	=	_ Loamy Mucky M		) (except	MLRA 1)		y Shallow Dark Surface (TF12)
	en Sulfide (A4)	_	_ Loamy Gleyed N			,		er (Explain in Remarks)
	d Below Dark Surfa	ce (A11)	Depleted Matrix					
	ark Surface (A12)	_	_ Redox Dark Sur					ors of hydrophytic vegetation and
-	Mucky Mineral (S1)	_	Depleted Dark S		7)			and hydrology must be present,
	Gleyed Matrix (S4)		_ Redox Depress	ions (F8)			unles	ss disturbed or problematic.
	Layer (if present):							
	ches):						Hydric Soil	Present? Yes No
Remarks:								
HYDROLO	)GY							
Wetland Hy	drology Indicators	:						
Primary Indi	cators (minimum of	one required;	check all that apply	/)			<u>Seco</u>	ndary Indicators (2 or more required)
Surface	Water (A1)		Water-Stai	ned Leave	es (B9) ( <b>e</b>	xcept	V	Vater-Stained Leaves (B9) (MLRA 1, 2,
<u>✓</u> High Wa	ater Table (A2)		MLRA '	1, 2, 4A, a	nd 4B)			4A, and 4B)
Saturati	on (A3)		Salt Crust	(B11)			0	Prainage Patterns (B10)
Water N	/larks (B1)		Aquatic Inv	ertebrates	s (B13)		[	0ry-Season Water Table (C2)
Sedime	nt Deposits (B2)		<u>✓</u> Hydrogen	Sulfide Od	or (C1)			Saturation Visible on Aerial Imagery (C9)
Drift De	posits (B3)		Oxidized R	hizospher	es along	Living Roo	· · · —	Geomorphic Position (D2)
_	at or Crust (B4)		Presence of				·	shallow Aquitard (D3)
	posits (B5)		Recent Iron			•		AC-Neutral Test (D5)
	Soil Cracks (B6)		Stunted or			1) ( <b>LRR A</b> )		Raised Ant Mounds (D6) (LRR A)
	ion Vis ble on Aerial			lain in Rer	marks)		F	rost-Heave Hummocks (D7)
	y Vegetated Concav	e Surface (B8	3)					
Field Obser		V	V 5- 11 /1	shaa):				
			Depth (inc			_		
Water Table			Depth (inc					
Saturation F	resent? pillary fringe)	Yes V	Depth (inc	thes): U		Wetla	and Hydrolog	y Present? Yes No
	ecorded Data (strear	n gauge, mon	toring well, aerial p	hotos, pre	evious ins	pections),	if available:	
Remarks:								
	a a <b>f</b> wattarad	- ا میراندا	av in alvele -	ما ما م	c+=	۔ احاجہ س	ooil sati	unation oulfidia adam
				•			, son satt	ıration, sulfidic odor,
geomor	phic positior	i, and a p	ositive FAC	-Neut	ral tes	st.		
,	-	·						

Project/Site: Easton Ranch	(	City/Cour	nty: Park Cou	unty Sampling Date: 2024-06-19				
Applicant/Owner: MDT		-	,	Martin				
	,	Section.	Township. Rar	nge: S32 T4N R9E				
Landform (hillslope, terrace, etc.): Terrace								
				Long: -110.6399766 Datum: NAD 83				
Soil Map Unit Name: 155A - Meadowcreek, rarely floods								
Are climatic / hydrologic conditions on the site typical for this				<del>-</del>				
Are Vegetation, Soil, or Hydrologys	-							
Are Vegetation, Soil, or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)  SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.								
Hydrophytic Vegetation Present? Yes N			9					
Hydric Soil Present? Yes N								
Wetland Hydrology Present? Yes N		wi	ithin a Wetlan	nd? Yes No				
Remarks:		<u> </u>						
Upland data point taken near southw	est site	e boui	ndary.					
VEGETATION – Use scientific names of plan	te							
VEGETATION OSC SCIENTING Harnes of plan	Absolute	Domina	ant Indicator	Dominance Test worksheet:				
Tree Stratum (Plot size: 30 ft r			s? Status	Number of Dominant Species				
1				That Are OBL, FACW, or FAC: 1 (A)				
2				Total Number of Dominant				
3				Species Across All Strata: 2 (B)				
4				Percent of Dominant Species				
Sapling/Shrub Stratum (Plot size: 15 ft r )		= Total (	Cover	That Are OBL, FACW, or FAC: 50.00 (A/B)				
1				Prevalence Index worksheet:				
2				Total % Cover of: Multiply by:				
3.				OBL species $0 \times 1 = 0$				
4				FACW species $\frac{0}{50}$ $x = \frac{0}{150}$ FAC species $x = \frac{0}{150}$				
5				FAC species $0 \times 3 = 150$ FACU species $0 \times 4 = 0$				
		= Total (	Cover	UPL species 20				
Herb Stratum (Plot size: 5 ft r  1. Elymus repens	40	~	EAC	Column Totals: 70 (A) 250 (B)				
2 Bromus inermis	20		UPL					
3. Poa pratensis	10		FAC	Prevalence Index = B/A = 3.57  Hydrophytic Vegetation Indicators:				
4.	<del></del>			1 - Rapid Test for Hydrophytic Vegetation				
5				2 - Dominance Test is >50%				
6.				3 - Prevalence Index is ≤3.0 <sup>1</sup>				
7				4 - Morphological Adaptations <sup>1</sup> (Provide supporting				
8				data in Remarks or on a separate sheet)				
9				5 - Wetland Non-Vascular Plants <sup>1</sup>				
10	<u> </u>			Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)				
11				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.				
Woody Vine Stratum (Plot size: 30 ft r	70	= Total C	Cover	55 p. 555 ft, difficos distarbed of problematic.				
1				Thirdean hadio				
2.				Hydrophytic Vegetation				
				Present? Yes No				
% Bare Ground in Herb Stratum 30								
Remarks:								
Vegetation does not meet criteria to	be con	sidere	ed hydro <sub>l</sub>	phytic.				

SOIL Sampling Point: DP05u

		-	th needed to document the Redox Featur		irm the absence of	indicators.)
Depth (inches)	Matrix Color (moist)	<u> </u>	Color (moist) %		 Texture	Remarks
0 - 18	10YR 3/2	100			Clay Loam	
	-		· · · · · · · · · · · · · · · · · · ·			
				_,		
-						
¹Type: C=C	oncentration D=C	enletion RM	=Reduced Matrix, CS=Cover	ed or Coated Sand	Grains <sup>2</sup> Locati	on: PL=Pore Lining, M=Matrix.
•		•	LRRs, unless otherwise no			for Problematic Hydric Soils <sup>3</sup> :
Histosol			Sandy Redox (S5)	·		fuck (A10)
	pipedon (A2)		Stripped Matrix (S6)			arent Material (TF2)
	istic (A3)		Loamy Mucky Mineral (I	F1) (except MLRA		hallow Dark Surface (TF12)
	en Sulfide (A4)		Loamy Gleyed Matrix (F	<sup>5</sup> 2)	Other	(Explain in Remarks)
	d Below Dark Surf	, ,	Depleted Matrix (F3)		3	
_	ark Surface (A12)		Redox Dark Surface (F6	•		of hydrophytic vegetation and hydrology must be present,
-	Mucky Mineral (S1 Gleyed Matrix (S4)		<ul><li>Depleted Dark Surface</li><li>Redox Depressions (F8</li></ul>			listurbed or problematic.
	Layer (if present)			,	unicss (	notaribod or problematic.
Type:	_uyo. ( p. oco)					
Depth (in					Hydric Soil Pr	esent? Yes No
Remarks:	,		<del></del>		,	
HYDROLO Wetland Hy	GY drology Indicato	rs:				
Primary Indi	cators (minimum o	of one require	d; check all that apply)		Seconda	ary Indicators (2 or more required)
	Water (A1)		Water-Stained Lea			er-Stained Leaves (B9) (MLRA 1, 2
_	ater Table (A2)		MLRA 1, 2, 4A,	and 4B)		A, and 4B)
Saturati	` '		Salt Crust (B11)	(D46)		nage Patterns (B10)
	larks (B1)		Aquatic Invertebrat			Season Water Table (C2)
	nt Deposits (B2)		Hydrogen Sulfide (	, ,		ration Visible on Aerial Imagery (CS
	posits (B3) at or Crust (B4)		<ul><li>Oxidized Rhizosph</li><li>Presence of Reduce</li></ul>			
	at or Crust (B4) posits (B5)		Recent Iron Reduc			llow Aquitard (D3) -Neutral Test (D5)
	Soil Cracks (B6)		Stunted or Stresse			ed Ant Mounds (D6) ( <b>LRR A</b> )
	on Vis ble on Aeri	al Imagerv (R				st-Heave Hummocks (D7)
	y Vegetated Conc		, <u> </u>	- ·· <del>···</del> /	100	217
Field Obser	-		,			
Surface Wat		Yes	No Depth (inches):			
Water Table			No Depth (inches):			
Saturation P			No Depth (inches):		etland Hvdrologv F	Present? Yes No
(includes cap	pillary fringe)			_		
Describe Re	corded Data (stre	am gauge, mo	onitoring well, aerial photos, p	previous inspection:	s), if available:	
Remarks:						
No evide	ence of wet	tland hvo	drology observed.			

Project/Site: Easton Ranch	(	City/County	Park Co	unty Sampling Date: 2024-06-19		
Applicant/Owner: MDT	State: Montana Sampling Point: DP05w					
				nge: S32 T4N R9E		
Landform (hillslope, terrace, etc.): Depression						
				Long: -110.6401538 Datum: NAD 83		
Soil Map Unit Name: 155A - Meadowcreek, rarely floode						
Are climatic / hydrologic conditions on the site typical for this						
Are Vegetation, Soil, or Hydrology si				_		
Are Vegetation, Soil, or Hydrology n						
SUMMARY OF FINDINGS – Attach site map	showing	samplin	g point le	ocations, transects, important features, etc.		
1	·	le th	a Samplad	Area		
	No Is the Sample within a Wetla					
Wetland Hydrology Present? Yes No Remarks:	·					
	II	ى مار	46	la and an of aits		
Data point taken within a wetland ce	ıı near t	ne sou	tnwest	border of site.		
VEGETATION – Use scientific names of plant	ts.					
20 ft r	Absolute			Dominance Test worksheet:		
	% Cover			Number of Dominant Species		
1				That Are OBL, FACW, or FAC: 4 (A)		
2				Total Number of Dominant Species Across All Strata: 4 (B)		
3				Species Across All Strata: 4 (B)		
4		= Total Co	ver	Percent of Dominant Species That Are OBL_FACW_or FAC: 100.00 (A/B)		
Sapling/Shrub Stratum (Plot size: 15 ft r )		- 10(a) 00	VCI	That Are OBL, FACW, or FAC: 100.00 (A/B)  Prevalence Index worksheet:		
Populus balsamifera	30		FAC			
2. Salix bebbiana	10		FACW			
3. Salix exigua	2		FACW	FACW species $\frac{37}{x^2} = \frac{74}{x^2}$		
4. Salix lutea	2		OBL	FAC species 70 x 3 = 210		
5				FACU species 7		
Herb Stratum (Plot size: 5 ft r )	44	= Total Co	ver	UPL species 0 x 5 = 0		
1. Juncus balticus	25	~	FACW	Column Totals: <u>131</u> (A) <u>329</u> (B)		
2. Lotus corniculatus	20	~	FAC	Prevalence Index = B/A = 2.51		
3. Carex pellita	10		OBL	Hydrophytic Vegetation Indicators:		
4. Poa pratensis	10		FAC	1 - Rapid Test for Hydrophytic Vegetation		
5. Elymus repens	10		FAC	∠ 2 - Dominance Test is >50%		
6. Taraxacum officinale	7		FACU	✓ 3 - Prevalence Index is ≤3.0 <sup>1</sup>		
7. Carex nebrascensis	5		OBL	4 - Morphological Adaptations <sup>1</sup> (Provide supporting		
8				data in Remarks or on a separate sheet)		
9				5 - Wetland Non-Vascular Plants <sup>1</sup>		
10				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must		
11	0.7	T-4-1 0-1		be present, unless disturbed or problematic.		
Woody Vine Stratum (Plot size: 30 ft r	07	= Total Cov	/er			
1	<u> </u>			Hydrophytic		
2				Vegetation		
W P O		= Total Cov	ver .	Present? Yes No		
% Bare Ground in Herb Stratum 13  Remarks:						
		•••				
Presence of hydrophytic vegetation indi	cated b	y positi	ve domi	nance test and a prevalence index less		
than or equal to 3.0.						

US Army Corps of Engineers

SOIL Sampling Point: DP05w

Profile Desc	cription: (Describ	e to the de	pth needed to docu	ment the	indicator	or confi	rm the abse	sence of indicators.)		
Depth	Matrix			ox Feature		. 2				
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	_Loc <sup>2</sup>	Textur			
0-4	10YR 4/1	100					Clay Lo			
4 - 10	10YR 4/2	98	10YR 4/4	2	С	M	Sandy Lo	Loam		
				_						
-										
_				_						
				_	· ——	-	_			
							_			
			-							
-	_									
			1=Reduced Matrix, C			ed Sand		<sup>2</sup> Location: PL=Pore Lining, M=Matrix.		
_		licable to al	I LRRs, unless othe		ed.)			dicators for Problematic Hydric Soils <sup>3</sup> :		
Histosol	(A1) pipedon (A2)		Sandy Redox ( Stripped Matrix				2 cm Muck (A10) Red Parent Material (TF2)			
	istic (A3)		Suipped Matrix		1) (except	· MI RA				
	en Sulfide (A4)		Loamy Gleyed	•			.,	Other (Explain in Remarks)		
	d Below Dark Surf	ace (A11)	✓ Depleted Matri.		,			- ,		
	ark Surface (A12)		Redox Dark Su	` '				<sup>3</sup> Indicators of hydrophytic vegetation and		
	Mucky Mineral (S1)	1	Depleted Dark		=7)			wetland hydrology must be present,		
	Gleyed Matrix (S4)  Layer (if present)	-	Redox Depress	sions (F8)			Ι	unless disturbed or problematic.		
	Layer (ii present)	•								
Type:	oboo):						Lludria	c Soil Present? Yes No		
Remarks:	ches):						пуштс	C SOII Fresent? Tes NO		
	•		centrations c er than 10".	ommo	n with	in the	e deplet	ted matrix. Cobbles		
HYDROLO	GY									
	drology Indicator	· ·								
			ed; check all that app	lv)			Ş	Secondary Indicators (2 or more required)		
	Water (A1)		Water-Sta		es (B9) ( <b>e</b>	xcept		Water-Stained Leaves (B9) (MLRA 1, 2,		
·	ater Table (A2)			1, 2, 4A,	, , ,	хоорг	4A, and 4B)			
✓ Saturation	• • •		Salt Crust		,		Drainage Patterns (B10)			
Water M	Water Marks (B1) Aquatic Invertebrates (B13)						Dry-Season Water Table (C2)			
Sedimer	Sediment Deposits (B2) Hydrogen Sulfide Odor (C1)						Saturation Visible on Aerial Imagery (C9)			
Drift Dep	Drift Deposits (B3) Oxidized Rhizospheres along Living Roc						oots (C3)	Geomorphic Position (D2)		
Algal Mat or Crust (B4) Presence of Reduced Iron (C4)						_	Shallow Aquitard (D3)			
	Iron Deposits (B5) Recent Iron Reduction in Tilled Soils (C6							FAC-Neutral Test (D5)		
Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A							Raised Ant Mounds (D6) (LRR A)			
	on Vis ble on Aeria		· — ·	plain in Re	emarks)		_	Frost-Heave Hummocks (D7)		
	y Vegetated Conca	ave Surface	(B8)							
Field Obser		V	No. V Double (in	-1 > -						
Surface Wat			No Depth (in							
Water Table			No Depth (in							
Saturation Present? Yes No Depth (inches): 0 Wetland Hydrology Present? Yes No Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:										
Remarks:										
Evidence	e of wetland	d hvdro	logy includes	soil s	aturati	on. a	eomorn	ohic position, and a positive		
	utral test.	, 3, 0	97			-··, છ	p			

Project/Site: Easton Ranch	(	City/County	Park Cou	unty	Sampling Date: 2	2024-06-19
Applicant/Owner: MDT		,		State: Montana	· -	
	(	Section, To	wnship, Rar	nge: S32 T4N R9E		
Landform (hillslope, terrace, etc.): Floodplain				_	Slop	e (%): 1
Subregion (LRR): E 44B			•	•	•	
Soil Map Unit Name: 155A - Meadowcreek, rarely floode						
Are climatic / hydrologic conditions on the site typical for this						
Are Vegetation, Soil, or Hydrologysi	_					No
Are Vegetation, Soil, or Hydrologyn				eded, explain any answe		110
SUMMARY OF FINDINGS – Attach site map s						atures etc
Hydrophytic Vegetation Present? Yes No			g ponit it			
Hydric Soil Present? Yes No		Is th	e Sampled			
Wetland Hydrology Present? Yes No	·	with	in a Wetlan	d? Yes	No	
Remarks:						
Upland point located between two wetla	nds tha	t are lov	wer in el	evation.		
\						
VEGETATION – Use scientific names of plant		D i t	la dia tao	Daminana Taat want	ah a at	
Tree Stratum (Plot size: 30 ft r	% Cover	Dominant Species?		Dominance Test work  Number of Dominant Sp		
1				That Are OBL, FACW, of		(A)
2				Total Number of Domin		
3				Species Across All Stra	^	(B)
4				Percent of Dominant Sp	pecies	
Sapling/Shrub Stratum (Plot size: 15 ft r )		= Total Co	ver	That Are OBL, FACW, o		(A/B)
1				Prevalence Index work		
2.				Total % Cover of:		by:
3.				-	$x 1 = \frac{2}{0}$	
4					x 2 = 0 $x 3 = 114$	
5				FAC species 38 FACU species 0		
Herb Stratum (Plot size: 5 ft r )		= Total Co	ver	UPL species 60	x 5 = 300	
1. Bromus inermis	60	~	UPL	Column Totals: 100	(A) 416	(B)
2. Elymus repens	20		FAC	Prevalence Index	- D/A - 416	
3. Poa pratensis	15		FAC	Hydrophytic Vegetation		
4. Equisetum arvense	3		FAC	1 - Rapid Test for H		tion
5. Carex nebrascensis	2		OBL	2 - Dominance Tes		
6				3 - Prevalence Inde	ex is ≤3.0 <sup>1</sup>	
7				4 - Morphological A	daptations <sup>1</sup> (Provid	de supporting
8					s or on a separate s	sneet)
9				5 - Wetland Non-Va		(Evolain)
10.				Indicators of hydric soil		
11.	400	= Total Cov	/or	be present, unless distu		
Woody Vine Stratum (Plot size: 30 ft r		- Total Cov	<i>/</i> CI			
1				Hydrophytic		
2				Vegetation Present? Yes	s No	/
% Bare Ground in Herb Stratum0		= Total Cov	ver .	. 1030111: 16:	· NO	
Remarks:						
	atatia =					
Data point dominated by upland vege	ะเลแดก.					

B-51

SOIL Sampling Point: DP06u

	1 - 2 -
0 17 10VD 2/2 100	ype <sup>1</sup> Loc <sup>2</sup> Texture Remarks
0 - 17 <u>10YR 3/2</u> <u>100</u>	Silty Clay Loam
-	
-	
_ <del>`</del>	<del></del>
_ <del>-</del>	
-	
	<u> </u>
1T	
<sup>1</sup> Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Charles Sail Indicators, (Applicable to all LPRs, unless otherwise noted)	^
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	•
Histosol (A1) Sandy Redox (S5)	2 cm Muck (A10) Red Parent Material (TF2)
Histic Epipedon (A2) Black Histic (A3) Stripped Matrix (S6) Loamy Mucky Mineral (F1) (e	
Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2)	Other (Explain in Remarks)
Depleted Below Dark Surface (A11) Depleted Matrix (F3)	Other (Explain in remains)
Thick Dark Surface (A12) Redox Dark Surface (F6)	<sup>3</sup> Indicators of hydrophytic vegetation and
Sandy Mucky Mineral (S1)  Depleted Dark Surface (F7)	wetland hydrology must be present,
Sandy Gleyed Matrix (S4) Redox Depressions (F8)	unless disturbed or problematic.
Restrictive Layer (if present):	
Type:	
Depth (inches):	Hydric Soil Present? Yes No
Remarks:	
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required)
Wetland Hydrology Indicators:  Primary Indicators (minimum of one required; check all that apply)  Surface Water (A1)  Water-Stained Leaves (E	B9) (except Water-Stained Leaves (B9) (MLRA 1, 2,
Wetland Hydrology Indicators:  Primary Indicators (minimum of one required; check all that apply)  Surface Water (A1) High Water Table (A2)  Water-Stained Leaves (B)  MLRA 1, 2, 4A, and 4	B9) (except Water-Stained Leaves (B9) (MLRA 1, 2, 4B)
Wetland Hydrology Indicators:  Primary Indicators (minimum of one required; check all that apply)  Surface Water (A1) High Water Table (A2) Saturation (A3) MLRA 1, 2, 4A, and 4 Salt Crust (B11)	B9) (except Water-Stained Leaves (B9) (MLRA 1, 2, 4B) Drainage Patterns (B10)
Wetland Hydrology Indicators:  Primary Indicators (minimum of one required; check all that apply)  Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)  MLRA 1, 2, 4A, and 4 Salt Crust (B11) Aquatic Invertebrates (B	B9) (except  Water-Stained Leaves (B9) (MLRA 1, 2,  4B)  4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)
Wetland Hydrology Indicators:  Primary Indicators (minimum of one required; check all that apply)  Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)  Wetland Hydrogen Sulfide Odor (	B9) (except  Water-Stained Leaves (B9) (MLRA 1, 2,  4B)  4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  (C1)  Saturation Visible on Aerial Imagery (C9)
Wetland Hydrology Indicators:  Primary Indicators (minimum of one required; check all that apply)  Surface Water (A1) High Water Table (A2) Saturation (A3) Salt Crust (B11) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)  Wetland Hydrogen Sulfide Odor (Oxidized Rhizospheres and Communications)  Water Marks (B1) Aquatic Invertebrates (B1) Mydrogen Sulfide Odor (Oxidized Rhizospheres and Coxidized Rhizospheres an	B9) (except  4B)  4A, and 4B)  Drainage Patterns (B10)  13)  (C1)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  along Living Roots (C3)  Geomorphic Position (D2)
Wetland Hydrology Indicators:  Primary Indicators (minimum of one required; check all that apply)  Surface Water (A1) High Water Table (A2) Saturation (A3) Salt Crust (B11) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)  Presence of Reduced Indicators: Water All that apply) Water All that apply)  MLRA 1, 2, 4A, and 4 Salt Crust (B11) Aquatic Invertebrates (B Hydrogen Sulfide Odor ( Oxidized Rhizospheres a	B9) (except  4B)  4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  (C1)  Saturation Visible on Aerial Imagery (C9)  along Living Roots (C3)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Saturation (D2)  Shallow Aquitard (D3)
Wetland Hydrology Indicators:  Primary Indicators (minimum of one required; check all that apply)  Surface Water (A1) High Water Table (A2) Saturation (A3) Salt Crust (B11) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)  Water Marks (B5) Recent Iron Reduction in	B9) (except  4B)  4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  along Living Roots (C3)  Geomorphic Position (D2)  On (C4)  Tilled Soils (C6)  Water-Stained Leaves (B9) (MLRA 1, 2,  4A, and 4B)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Saturation Visible on Aerial Imagery (C9)  April (C4)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)
Wetland Hydrology Indicators:  Primary Indicators (minimum of one required; check all that apply)  Surface Water (A1)	B9) (except  4B)  4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  (C1)  Saturation Visible on Aerial Imagery (C9)  along Living Roots (C3)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  along Living Roots (C3)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  along Living Roots (C3)  Shallow Aquitard (D3)  Tilled Soils (C6)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)
Wetland Hydrology Indicators:  Primary Indicators (minimum of one required; check all that apply)  Surface Water (A1) High Water Table (A2) Saturation (A3) Salt Crust (B11) Water Marks (B1) Sediment Deposits (B2) Hydrogen Sulfide Odor ( Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Vis ble on Aerial Imagery (B7) Water Marks (B1) Aquatic Invertebrates (B Hydrogen Sulfide Odor ( Drift Deposits (B3) Recent Iron Reduction in Remarks	B9) (except  4B)  4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  (C1)  Saturation Visible on Aerial Imagery (C9)  along Living Roots (C3)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  along Living Roots (C3)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  along Living Roots (C3)  Shallow Aquitard (D3)  Tilled Soils (C6)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)
Wetland Hydrology Indicators:  Primary Indicators (minimum of one required; check all that apply)  Surface Water (A1)	B9) (except  4B)  4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  (C1)  Saturation Visible on Aerial Imagery (C9)  along Living Roots (C3)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  along Living Roots (C3)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  along Living Roots (C3)  Shallow Aquitard (D3)  Tilled Soils (C6)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)
Wetland Hydrology Indicators:  Primary Indicators (minimum of one required; check all that apply)  Surface Water (A1) High Water Table (A2) Saturation (A3) Salt Crust (B11) Water Marks (B1) Sediment Deposits (B2) Hydrogen Sulfide Odor ( Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Vis ble on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8)  Water Marks (B1) Aquatic Invertebrates (B Hydrogen Sulfide Odor ( Oxidized Rhizospheres a Recent Iron Reduction in Stunted or Stressed Plar Other (Explain in Remarks)  Field Observations:	Water-Stained Leaves (B9) (MLRA 1, 2, 4B)  4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  along Living Roots (C3)  Geomorphic Position (D2)  on (C4)  Tilled Soils (C6)  Tilled Soils (C6)  Raised Ant Mounds (D6) (LRR A)  ks)  Water-Stained Leaves (B9) (MLRA 1, 2,  4A, and 4B)  Drainage Patterns (B10)  Saturation Visible on Aerial Imagery (C9)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)
Wetland Hydrology Indicators:  Primary Indicators (minimum of one required; check all that apply)  Surface Water (A1) High Water Table (A2) Saturation (A3) Salt Crust (B11) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Vis ble on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A)
Wetland Hydrology Indicators:  Primary Indicators (minimum of one required; check all that apply)  Surface Water (A1)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A) and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  along Living Roots (C3)  Geomorphic Position (D2)  Shallow Aquitard (D3)  Tilled Soils (C6)  Tilled Soils (C6)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)
Wetland Hydrology Indicators:  Primary Indicators (minimum of one required; check all that apply)  Surface Water (A1) High Water Table (A2) Saturation (A3) Salt Crust (B11) Aquatic Invertebrates (B Hydrogen Sulfide Odor (Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Vis ble on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8)  Field Observations:  Surface Water Present? Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches):	Water-Stained Leaves (B9) (MLRA 1, 2,  4B)  4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  along Living Roots (C3)  Geomorphic Position (D2)  Shallow Aquitard (D3)  Tilled Soils (C6)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)
Wetland Hydrology Indicators:  Primary Indicators (minimum of one required; check all that apply)  Surface Water (A1) High Water Table (A2) Saturation (A3) Salt Crust (B11) Aquatic Invertebrates (B Hydrogen Sulfide Odor (Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Vis ble on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8)  Field Observations:  Surface Water Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches):  Saturation Present? Yes No Depth (inches):  (includes capillary fringe)	B9) (except  4B)  4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  along Living Roots (C3)  Geomorphic Position (D2)  Shallow Aquitard (D3)  Tilled Soils (C6)  FAC-Neutral Test (D5)  nts (D1) (LRR A)  Frost-Heave Hummocks (D7)  Wetland Hydrology Present? Yes No
Wetland Hydrology Indicators:  Primary Indicators (minimum of one required; check all that apply)  Surface Water (A1) High Water Table (A2) Saturation (A3) Salt Crust (B11) Aquatic Invertebrates (B Hydrogen Sulfide Odor (Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Vis ble on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8)  Field Observations:  Surface Water Present? Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches):	B9) (except  4B)  4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  along Living Roots (C3)  Geomorphic Position (D2)  Shallow Aquitard (D3)  Tilled Soils (C6)  FAC-Neutral Test (D5)  nts (D1) (LRR A)  Frost-Heave Hummocks (D7)  Wetland Hydrology Present? Yes No
Primary Indicators (minimum of one required; check all that apply)  Surface Water (A1)	B9) (except  4B)  4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  along Living Roots (C3)  Geomorphic Position (D2)  Shallow Aquitard (D3)  Tilled Soils (C6)  FAC-Neutral Test (D5)  nts (D1) (LRR A)  Frost-Heave Hummocks (D7)  Wetland Hydrology Present? Yes No
Wetland Hydrology Indicators:  Primary Indicators (minimum of one required; check all that apply)  Surface Water (A1) High Water Table (A2) Saturation (A3) Salt Crust (B11) Aquatic Invertebrates (B Hydrogen Sulfide Odor (Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Vis ble on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8)  Field Observations:  Surface Water Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Includes capillary fringe)	B9) (except  4B)  4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  along Living Roots (C3)  Geomorphic Position (D2)  Shallow Aquitard (D3)  Tilled Soils (C6)  FAC-Neutral Test (D5)  nts (D1) (LRR A)  Frost-Heave Hummocks (D7)  Wetland Hydrology Present? Yes No
Wetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that apply)         Surface Water (A1)       Water-Stained Leaves (B         High Water Table (A2)       MLRA 1, 2, 4A, and 4         Saturation (A3)       Salt Crust (B11)         Water Marks (B1)       Aquatic Invertebrates (B         Sediment Deposits (B2)       Hydrogen Sulfide Odor (         Drift Deposits (B3)       Oxidized Rhizospheres at (B4)         Iron Deposits (B5)       Recent Iron Reduction in (B4)         Surface Soil Cracks (B6)       Stunted or Stressed Plan (B7)         Inundation Vis ble on Aerial Imagery (B7)       Other (Explain in Remarks)         Sparsely Vegetated Concave Surface (B8)         Field Observations:         Surface Water Present?       Yes No Depth (inches):         Water Table Present?       Yes No Depth (inches):         Saturation Present?       Yes No Depth (inches):         (includes capillary fringe)         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous previo	B9) (except  4B)  4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  along Living Roots (C3)  Geomorphic Position (D2)  Shallow Aquitard (D3)  Tilled Soils (C6)  FAC-Neutral Test (D5)  nts (D1) (LRR A)  Frost-Heave Hummocks (D7)  Wetland Hydrology Present? Yes No
Wetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that apply)         Surface Water (A1)       Water-Stained Leaves (B         High Water Table (A2)       MLRA 1, 2, 4A, and 4         Saturation (A3)       Salt Crust (B11)         Water Marks (B1)       Aquatic Invertebrates (B         Sediment Deposits (B2)       Hydrogen Sulfide Odor (         Drift Deposits (B3)       Oxidized Rhizospheres at (B4)         Iron Deposits (B5)       Recent Iron Reduction in (B4)         Surface Soil Cracks (B6)       Stunted or Stressed Plan (B7)         Inundation Vis ble on Aerial Imagery (B7)       Other (Explain in Remarkster)         Sparsely Vegetated Concave Surface (B8)         Surface Water Present?       Yes No Depth (inches):         Water Table Present?       Yes No Depth (inches):         Saturation Present?       Yes No Depth (inches):         Saturation Present?       Yes No Depth (inches):         (includes capillary fringe)         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous)	B9) (except  4B)  4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  along Living Roots (C3)  Geomorphic Position (D2)  Shallow Aquitard (D3)  Tilled Soils (C6)  FAC-Neutral Test (D5)  nts (D1) (LRR A)  Frost-Heave Hummocks (D7)  Wetland Hydrology Present? Yes No
Wetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that apply)         Surface Water (A1)       Water-Stained Leaves (B         High Water Table (A2)       Salt Crust (B11)         Saturation (A3)       Salt Crust (B11)         Sediment Deposits (B2)       Hydrogen Sulfide Odor (         Drift Deposits (B3)       Oxidized Rhizospheres at (B1)         Intro Deposits (B5)       Recent Iron Reduction in (B4)         Surface Soil Cracks (B6)       Stunted or Stressed Plane (Explain in Remarks)         Sparsely Vegetated Concave Surface (B8)         Field Observations:         Surface Water Present?       Yes No Depth (inches):         Saturation Present?       Yes No Depth (inches):         Saturation Present?       Yes No Depth (inches):         (includes capillary fringe)         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous properties are properties.	B9) (except  4B)  4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  along Living Roots (C3)  Geomorphic Position (D2)  Shallow Aquitard (D3)  Tilled Soils (C6)  Tilled Soils (C6)  Raised Ant Mounds (D6) (LRR A)  Riss)  Wetland Hydrology Present? Yes  No  V  Wetland Hydrology Present? Yes  No

Project/Site: Easton Ranch	(	City/Coun	nty: Park Co	unty s	Sampling Date: 2024-06-19
Applicant/Owner: MDT		State: Montana S	Sampling Point: DP06w		
Investigator(s): R Cutler, E Reynaud	Γownship, Ra	nge: S32 T4N R9E			
Landform (hillslope, terrace, etc.): Valley Floor			Slope (%): 1		
Subregion (LRR): E 44B			•	,	
Soil Map Unit Name: 155A - Meadowcreek, rarely flood					
Are climatic / hydrologic conditions on the site typical for thi	s time of year	ar? Yes	✓ No	(If no, explain in Rer	marks.)
Are Vegetation, Soil, or Hydrologys	-				
Are Vegetation, Soil, or Hydrology				eded, explain any answers	
SUMMARY OF FINDINGS – Attach site map					•
Hydrophytic Vegetation Present? Yes N	lo				
	lo		the Sampled		
Wetland Hydrology Present? Yes N	lo	Wi	thin a Wetlar	nd? Yes	No
Remarks:					
Data point taken in southeast portion	n of site	<b>).</b>			
VEGETATION – Use scientific names of plan	nts.				
- 30 ft r			nt Indicator	Dominance Test worksl	neet:
Tree Stratum (Plot size: 30 ft r			? Status	Number of Dominant Spe	
1				That Are OBL, FACW, or	FAC: <u>3</u> (A)
2				Total Number of Dominar	
3				Species Across All Strata	a: <u>3</u> (B)
		= Total C	Cover	Percent of Dominant Spe That Are OBL, FACW, or	
Sapling/Shrub Stratum (Plot size: 15 ft r				Prevalence Index works	
1. Salix bebbiana			FACW	Total % Cover of:	
2. Populus balsamifera	_ 7		FAC		x 1 = 7
3					x 2 = 156
4					x 3 = 54
5	15	T-4-1.0			x 4 = 0
Herb Stratum (Plot size: 5 ft r)	10	= Total C	Jover	UPL species 0	x 5 = 0
1. Juncus balticus	70		FACW	Column Totals: 103	(A) <u>217</u> (B)
2. Poa pratensis	10		FAC	Prevalence Index =	= B/A = 2.10
3. Carex utriculata	7		OBL	Hydrophytic Vegetation	
4. Alopecurus arundinaceus	_ 1		FAC	1 - Rapid Test for Hy	
5				✓ 2 - Dominance Test i	is >50%
6				✓ 3 - Prevalence Index	is ≤3.0 <sup>1</sup>
7					aptations <sup>1</sup> (Provide supporting
8					or on a separate sheet)
9				5 - Wetland Non-Vas	nytic Vegetation <sup>1</sup> (Explain)
10.					and wetland hydrology must
11	00	- Total C		be present, unless disturb	
Woody Vine Stratum (Plot size: 30 ft r		= Total C	OVEI		
1.				Hydrophytic	
2				Vegetation	✓ No
% Para Ground in Horh Stratum 12		= Total C	over	Fresent 16S	NO
% Bare Ground in Herb Stratum 12  Remarks:					
	ludaa a		o dom::	noo toet end a mar	volonoo indovileee
Evidence of hydrophytic vegetation inc	iuaes a p	JOSITIV	e domina	nce test and a pre	valence index less
than or equal to 3.0.					

SOIL Sampling Point: DP06w

Profile Desc	ription: (Describe	to the dep	oth needed to docu	ment the	indicator	or confirm	n the absence of indicators	i.)	
Depth	Matrix			x Feature					
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	<u>Texture</u>	Remarks	
0 - 5	10YR 4/1	98	10YR 4/4	2	С	M	Clay Loam		
5 - 15	10YR 4/1	97	10YR 4/4	3	<u>C</u>	M	Clay Loam		
-									
_									
				_	_	· ——			
1Typo: C=C	ncontration D=Don	lotion DM	=Reduced Matrix, C	S=Covere	d or Coat	od Sand Gr	rains <sup>2</sup> Location: DL=Do	ore Lining, M=Matrix.	
			LRRs, unless othe			eu Sanu Gi	Indicators for Proble		
Histosol			Sandy Redox (		,		2 cm Muck (A10)	<b>,</b>	
	pipedon (A2)		Stripped Matrix				Red Parent Mater	ial (TF2)	
Black Hi			Loamy Mucky I		1) (oveen	4 MI D A 1\	· · · · · · · · · · · · · · · · · · ·	• •	
	, ,		Loamy Gleyed			t WILIA I)	Other (Explain in		
	n Sulfide (A4) d Below Dark Surfac	- (Δ11)	✓ Depleted Matri:		۷)		Other (Explain in	Remarks)	
	ark Surface (A12)	e (ATT)	Redox Dark Su		`		<sup>3</sup> Indicators of hydroph	utic vocatation and	
	fucky Mineral (S1)		Redox Dark St	,	,		wetland hydrology		
	Gleyed Matrix (S4)		Redox Depress		•		unless disturbed or	·	
	_ayer (if present):		Redux Depless	510115 (1 0)			unless disturbed of	problematic.	
Type:	Layer (ii present).								
	ches):						Hydric Soil Present?	Yes No	
Remarks:	51100).						Tryuno con i resent.	100	
HYDROLO	· 		centrations v	VICIIII		Pictod	THUCHA.		
Wetland Hy	drology Indicators:								
			d; check all that app	lv)			Secondary Indicato	rs (2 or more required)	
-	Water (A1)		Water-Sta	•	/es (B9) (	excent		Leaves (B9) ( <b>MLRA 1, 2,</b>	
	iter Table (A2)			1, 2, 4A,		жоорг	4A, and 4B)		
Saturation	, ,		Salt Crust		anu 46)		Drainage Patte		
	, ,			` '	- (D40)			, ,	
Water M			Aquatic In				Dry-Season Wa		
	nt Deposits (B2)		Hydrogen					ole on Aerial Imagery (C9)	
	oosits (B3)		Oxidized I		_	_			
	at or Crust (B4)		Presence				Shallow Aquita		
Iron Dep	osits (B5)		Recent Iro	on Reduct	ion in Tille	ed Soils (C6	FAC-Neutral Te	est (D5)	
Surface	Soil Cracks (B6)		Stunted o	r Stressed	d Plants (E	01) ( <b>LRR A</b>	) Raised Ant Mo	unds (D6) (LRR A)	
Inundation	on Vis ble on Aerial	lmagery (E	37) Other (Ex	plain in R	emarks)		Frost-Heave Hu	ummocks (D7)	
Sparsely	Vegetated Concave	e Surface	(B8)						
Field Obser			. ,						
Surface Wate	er Present? Y	'es	No Depth (in	iches):					
Water Table			No Depth (in						
Saturation P			No Depth (in				and Hydrology Present?	Yes No	
(includes car	oillary fringe)								
Describe Re	Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:								
Damada									
Remarks:									
Evidence	e of wetland	hydrol	logy includes	geon	orphi	c positi	on and positive F	AC-Neutral test.	

Project/Site: Easton Ranch	Cir	ty/County:	Park Cou	unty Sampling Date: 2024-06-19		
Applicant/Owner: MDT	State: Montana Sampling Point: DP07u					
Investigator(s): R Cutler, E Reynaud	Se	ection, Tov	vnship, Rar	nge: S32 T4N R9E		
Landform (hillslope, terrace, etc.):	Lo	ocal relief	(concave, c	convex, none): Linear Slope (%): 1		
Subregion (LRR): E 44B	Lat: 46.0		Long: -110.639842 Datum: NAD 83			
Soil Map Unit Name: 155A - Meadowcreek, rarely floode	d-Nesda co	mplex, 0	to 2 perce	ent slopes NWI classification: Not mapped		
Are climatic / hydrologic conditions on the site typical for this	time of year	? Yes	/ No	(If no, explain in Remarks.)		
Are Vegetation, Soil, or Hydrologysi	gnificantly dis	sturbed?	Are "	Normal Circumstances" present? Yes No		
Are Vegetation, Soil, or Hydrologyn	aturally probl	ematic?	(If ne	eded, explain any answers in Remarks.)		
SUMMARY OF FINDINGS - Attach site map	showing s	ampling	point lo و	ocations, transects, important features, etc.		
Hydrophytic Vegetation Present? Yes No		1- 41-	. 0			
Hydric Soil Present? Yes No	) <u> </u>		e Sampled n a Wetlan			
Wetland Hydrology Present? Yes No Remarks:				····		
	ındarı					
Upland point taken near western bou	iliuary.					
VEGETATION – Use scientific names of plant	s.					
Tree Stratum (Plot size: 30 ft r	Absolute I	Dominant Species?		Dominance Test worksheet:		
1				Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)		
2.				Total Number of Dominant		
3				Species Across All Strata: 2 (B)		
4				Percent of Dominant Species		
Sapling/Shrub Stratum (Plot size: 15 ft r )	=	: Total Cov	⁄er	That Are OBL, FACW, or FAC: 50.00 (A/B)		
1				Prevalence Index worksheet:		
2.						
3				FACW species 0 x 2 = 0		
4				FAC species 25		
5				FACU species 5 x 4 = 20		
	=	: Total Cov	/er	UPL species 60 x 5 = 300		
Herb Stratum (Plot size: 5 ft r )  1. Bromus inermis	60	<b>/</b>	UPL	Column Totals: 90 (A) 395 (B)		
2. Poa pratensis	20	<u> </u>	FAC			
3. Equisetum arvense	5		FAC	Prevalence Index = B/A = 4.38		
4 Taraxacum officinale	5		FACU	Hydrophytic Vegetation Indicators:		
				1 - Rapid Test for Hydrophytic Vegetation		
5				2 - Dominance Test is >50%  3 - Prevalence Index is ≤3.0¹		
7				3 - Prevalence index is \$3.0 4 - Morphological Adaptations <sup>1</sup> (Provide supporting		
8.				data in Remarks or on a separate sheet)		
9.				5 - Wetland Non-Vascular Plants <sup>1</sup>		
10				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)		
11.				<sup>1</sup> Indicators of hydric soil and wetland hydrology must		
00.5	90 =	Total Cov	er	be present, unless disturbed or problematic.		
Woody Vine Stratum (Plot size: 30 ft r )						
1				Hydrophytic		
2				Vegetation Present? Yes No		
% Bare Ground in Herb Stratum 10	=	TOTAL COV	31			
Remarks:				,		
Vegetation does not meet criteria red	quired to	be co	nsider	ed hydrophytic.		

SOIL Sampling Point: DP07u

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)  Histosol (A1) Sandy Redox (S5) 2 cm Muck (A10)  Histosol (A2) Stripped Matrix (S6) Red Parent Material (TF2)  Black Histic (A3) Loamy Mucky Mineral (F1) (except MLRA 1) Very Shallow Dark Surface (TF1: Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Other (Explain in Remarks)  Depleted Below Dark Surface (A11) Depleted Matrix (F3)  Thick Dark Surface (A12) Redox Dark Surface (F6) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) wetland hydrology must be preser unless disturbed or problematic.  Restrictive Layer (if present):  Type: Depth (inches): Nedox Depressions (F8) Hydric Soil Present? Yes Nemarks:  No evidence of hydric soils observed.  HYDROLOGY  Wetland Hydrology Indicators:  Primary Indicators (minimum of one required; check all that apply) Secondary Indicators (2 or more regulation of the property of		Matrix			dox Featur			_	
12-16 10YR 3/2 98 10YR 3/4 2 C M Sity City Leam  10YR 3/2 98 10YR 3/4 2 C M Sity City Leam  10YR 3/2 Sity City Leam  10 Indicators for Problematic Hydric Sity City Leam  10 Leam Mucky Mineral (F1) (except MLRA 1) Sity City City City City City City City C	<u> </u>			Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		Remarks
Type. C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.  Type. C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.  Third Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Sandy Redox (S5) Histosol (A2) Sirped Matrix (S6) Black Histo (A2) Sirped Matrix (S6) Depleted Dark Surface (A11) Depleted Dark Surface (A12) Depleted Below Dark Surface (A11) Depleted Dark Surface (F1) Third Dark Surface (A12) Sandy Mucky Mineral (S1) Depleted Dark Surface (F6) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Sandy Gleyed Matrix (S4) Redox Depressions (F8) Sarticitive Larger (if present): Type: Depth (inches): Hydric Soil Present? Yes	0 - 12							Silty Clay Loam	
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)  Histos (A1)	12 - 16	10YR 3/2	98	10YR 3/4	_ 2	<u> </u>	M	Silty Clay Loam	
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)  Histosol (A1)	-					_			
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)  Histosol (A1)	-								
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)  Histic Epipedon (A2)	-								
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)  Histosol (A1)			_	·		_	_		-
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)  Histosol (A1)					_	<del>-</del>	<del>-</del>		
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)  Histosol (A1)			_						
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)  Histosol (A1)	<del>-</del>								
Histosol (A1) Sandy Redox (S5) 2 cm Muck (A10) Histic Epipedon (A2) Stripped Matrix (S6) Red Parent Material (TF2) Stripped Matrix (S6) Black Histic Epipedon (A2) Stripped Matrix (S6) Plack Histic Epipedon (A2) Loamy Mucky Mineral (F1) (except MLRA 1) Very Shallow Dark Surface (TF1) Plack Surface (A11) Depleted Matrix (F2) Other (Explain in Remarks) Depleted Below Dark Surface (A11) Depleted Matrix (F3) Plack Surface (A12) Redox Dark Surface (F6) Plack Surface (A12) Redox Dark Surface (F6) Plack Surface (A12) Redox Dark Surface (F6) Plack							ted Sand C		eation: PL=Pore Lining, M=Matrix.
Histic Epipedon (A2)	•	`	cable to a	•		ted.)			•
Black Histic (A3)		•			. ,				• •
Hydrogen Sulfide (A4)						-1) ( <b>evc</b> e	nt MIDA 1		
Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thick Dark Surface (A12) Redox Dark Surface (F6) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) wetland hydrology must be preser unless disturbed or problematic.  Restrictive Layer (if present): Type: Depth (inches): Depth (inches): Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) Water-Stained Leaves (B9) (except Water Aab, and 4B) High Water Table (A2) Aquatic Invertebrates (B13) Dringage Patterns (B10) Water Marks (B1) Aquatic Invertebrates (B13) Dry-Season Water Table (C2) Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Saturation Visible on Aerial Imports (B3) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Aquiland (D3) Iron Deposits (B5) Recent Iron Reduction in Tilled Soils (C6) FAC-Neutral Test (D5) Sparsely Vegetated Concave Surface (B8)  Water Table (P7) Other (Explain in Remarks) Frost-Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8)  Wetland Hydrology Indicators:  Wetland Hydrology Indicators:  Water Marks (B1) Shallow Aquilation (D3) Sediment Deposits (B3) Shallow Aquilation (D3) Sediment Deposits (B3) Shallow Aquilation (D3) Sediment Deposits (B3) Shallow Aquilation (D3) Sparsely Vegetated Concave Surface (B8)  Fresence of Reduced Iron (C4) Raised Ant Mounds (D6) (LRR A) Raised Ant Mounds (D6) (LRR A) Raised Ant Mounds (D6) (LRR A) Raised Ant Mounds (D7) Sparsely Vegetated Concave Surface (B8)  Field Observations: Surface Water Present? Yes No V Depth (inches): Water Table Present? Yes No V Depth (inches): Water Table Present? Yes No V Depth (inches): Water Table Present? Yes No V Depth (inches): Wetland Hydrology Present? Yes Surface Remarks:						, ,	pt will tall	-	
Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) wetland hydrology must be preser unless disturbed or problematic. Restrictive Layer (if present):  Type:			ce (A11)			_,			(
Sandy Gleyed Matrix (S4) Redox Depressions (F8) unless disturbed or problematic.  Restrictive Layer (if present):	Thick Dar	k Surface (A12)		Redox Dark S	Surface (F6	5)		<sup>3</sup> Indicato	rs of hydrophytic vegetation and
Restrictive Layer (if present): Type:	-								
Type:				Redox Depre	ssions (F8	)		unles	s disturbed or problematic.
Depth (inches):									
Remarks:  No evidence of hydric soils observed.    IVDROLOGY   Wetland Hydrology Indicators:   Secondary Indicators (2 or more regulated)   Secondary Indicators (2 or more regulated (2)   Water-Table (B3)   MLRA 1, 2, 4A, and 4B)   Secondary Indicators (2 or more regulated (C2)   Secondary Indicators (B10)   Dry-Season Water Table (C2)   Secondary Indicators (B10)   Secondary Indicators (B10)   Dry-Season Water Table (C2)   Secondary Indicators (B10)   Secondary Indicators (B10)   Dry-Season Water Table (C2)   Secondary Indicators (B10)   Secondary Indicators (B10)   Dry-Season Water Table (C2)   Secondary Indicators (B10)   Dry-Season Water Table (C2)   Secondary Indicators (B10)   Secondary Indicators (B10)   Dry-Season Water Table (C2)   Secondary Indicators (B10)   Secondary Indicators (B10)   Dry-Season Water Table (C2)   Secondary Indicators (B10)   Secondary Indicators (B10)   Dry-Season Water Table (C2)   Secondary Indicators (B10)   Dry-Season Water Table (C2)   Secondary Indicators (B10)   Dry-Season Water Table (C2)   Secondary I	· —								
Wetland Hydrology Indicators:  Primary Indicators (minimum of one required; check all that apply)  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Salt Crust (B11)  Drainage Patterns (B10)  Water Marks (B1)  Aquatic Invertebrates (B13)  Dry-Season Water Alel (C2)  Sediment Deposits (B2)  Hydrogen Sulfide Odor (C1)  Saturation Visible on Aerial Imagery (B7)  Surface Soil Cracks (B6)  Sparsely Vegetated Concave Surface (B8)  Field Observations:  Surface Water Present?  Yes  No  Depth (inches):  Wetland Hydrology Present? Yes  No  Depth (inches):  Wetland Hydrology Present? Yes  Mo Depth (inches):  Wetland Hydrology Present? Yes  Metland Hydrology Present? Yes	. `	nes):						Hydric Soil	Present? Yes No
Surface Water (A1)	VDDOL 00								
MLRA 1, 2, 4A, and 4B)  Saturation (A3)  Salt Crust (B11)  Quatic Invertebrates (B13)  Driy-Season Water Table (C2)  Sediment Deposits (B2)  Hydrogen Sulfide Odor (C1)  Saturation Visible on Aerial Imagery (B7)  Surface Soil Cracks (B6)  Inundation Vis ble on Aerial Imagery (B7)  Sparsely Vegetated Concave Surface (B8)  Water Table Present?  Yes  No  Depth (inches):  Water Table (A2)  MLRA 1, 2, 4A, and 4B)  Aquand (B1)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Stunted or Stressed Plants (D1) (LRR A)  Raised Ant Mounds (D6) (LRR A)  Prost-Heave Hummocks (D7)  Depth (inches):  Wetland Hydrology Present? Yes  (includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			::						
Saturation (A3) Salt Crust (B11) Drainage Patterns (B10) Water Marks (B1) Aquatic Invertebrates (B13) Dry-Season Water Table (C2) Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Saturation Visible on Aerial Im Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) Geomorphic Position (D2) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Aquitard (D3) Iron Deposits (B5) Recent Iron Reduction in Tilled Soils (C6) FAC-Neutral Test (D5) Surface Soil Cracks (B6) Recent Iron Reduction in Tilled Soils (C6) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRF Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Frost-Heave Hummocks (D7) Surface Water Present?	Wetland Hyd Primary Indica	rology Indicators ators (minimum of		-					ndary Indicators (2 or more required)
Water Marks (B1) Aquatic Invertebrates (B13) Dry-Season Water Table (C2) Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Saturation Visible on Aerial Imported Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  Aquatic Invertebrates (B13) Dry-Season Water Table (C2) Sediment Deposits (B2) Dry-Season Water Table (C2) Saturation Visible on Aerial Importance (C1) Saturation Visible on Aerial Importance (C2) Shallow Aquitard (D2) Shallow Aquitard (D3) Fac-Neutral Test (D5) Sturface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8)  Field Observations:  Surface Water Present?	Wetland Hyd Primary Indica Surface V	rology Indicators ators (minimum of Vater (A1)		Water-S	tained Lea		(except		/ater-Stained Leaves (B9) (MLRA 1, 2
Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Saturation Visible on Aerial Im Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) Geomorphic Position (D2) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Aquitard (D3) Iron Deposits (B5) Recent Iron Reduction in Tilled Soils (C6) FAC-Neutral Test (D5) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR	Wetland Hyd Primary Indica Surface V High Wat	rology Indicators ators (minimum of Vater (A1) er Table (A2)		Water-S	tained Lea		(except	W	/ater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B)
Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) Geomorphic Position (D2) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Aquitard (D3) Iron Deposits (B5) Recent Iron Reduction in Tilled Soils (C6) FAC-Neutral Test (D5) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRF Inundation Vis ble on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8) Frost-Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8)	Wetland Hyd Primary Indica Surface V High Wat Saturation	rology Indicators ators (minimum of Vater (A1) er Table (A2) n (A3)		Water-S <b>MLR</b> Salt Cru	tained Lea <b>A 1, 2, 4A,</b> st (B11)	and 4B)	(except	W	/ater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) rainage Patterns (B10)
Algal Mat or Crust (B4)	Wetland Hyd Primary Indica Surface V High Wat Saturation Water Ma	rology Indicators ators (minimum of Vater (A1) er Table (A2) n (A3) arks (B1)		Water-S MLR Salt Cru Aquatic	tained Lea A 1, 2, 4A, st (B11) Invertebrat	<b>and 4B)</b> es (B13)		W D D	Vater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2)
Iron Deposits (B5) Recent Iron Reduction in Tilled Soils (C6) FAC-Neutral Test (D5) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR	Wetland Hyd Primary Indica Surface V High Wat Saturation Water Ma	rology Indicators ators (minimum of Vater (A1) er Table (A2) n (A3) arks (B1) t Deposits (B2)		Water-S MLR Salt Cru Aquatic Hydroge	tained Lea A 1, 2, 4A, st (B11) Invertebrat	and 4B) es (B13) Odor (C1)		W D S	Vater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (Ca
Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRF Inundation Vis ble on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8)  Field Observations:  Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Wetland Hydrology Present? Yes (includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  Remarks:	Wetland Hyd Primary Indica Surface V High Wat Saturation Water Ma Sediment Drift Depo	rology Indicators ators (minimum of Vater (A1) er Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3)		Water-S  MLR Salt Cru Aquatic Hydroge Oxidized	tained Lea A 1, 2, 4A, st (B11) Invertebrat n Sulfide ( I Rhizosph	es (B13) Odor (C1) eres alon	g Living Ro	W D S Soots (C3) G	Vater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (Ca eomorphic Position (D2)
Inundation Vis ble on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8)  Field Observations:  Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Wetland Hydrology Present? Yes (includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  Remarks:	Wetland Hyd Primary Indica Surface V High Wat Saturation Water Ma Sediment Drift Depo	rology Indicators ators (minimum of Vater (A1) er Table (A2) n (A3) arks (B1) t Deposits (B2) posits (B3) t or Crust (B4)		Water-S MLR Salt Cru Aquatic Hydroge Oxidized Presence	tained Lea A 1, 2, 4A, st (B11) Invertebrat in Sulfide ( I Rhizosph e of Reduc	es (B13) Odor (C1) eres alon eed Iron (0	g Living Ro	W D S pots (C3) G S	Vater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (Cae eomorphic Position (D2) hallow Aquitard (D3)
Field Observations:  Surface Water Present? Yes No Depth (inches):  Water Table Present? Yes No Depth (inches):  Saturation Present? Yes No Depth (inches):  (includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  Remarks:	Wetland Hyd Primary Indica Surface V High Wat Saturation Water Ma Sediment Drift Depo	rology Indicators ators (minimum of Vater (A1) er Table (A2) n (A3) arks (B1) t Deposits (B2) posits (B3) c or Crust (B4) posits (B5)		Water-S  MLR Salt Cru Aquatic Hydroge Oxidized Presenc Recent I	tained Lea  A 1, 2, 4A, st (B11)  Invertebrat in Sulfide ( I Rhizosph e of Reduc	es (B13) Odor (C1) eres alon eed Iron (C	g Living Ro C4) led Soils (C	W D S Soots (C3) G S S S	Vater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (Caeomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5)
Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  Remarks:	Wetland Hyd Primary Indica Surface V High Wat Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo Surface S	rology Indicators ators (minimum of Vater (A1) er Table (A2) n (A3) arks (B1) t Deposits (B2) posits (B3) or Crust (B4) posits (B5) Goil Cracks (B6)	one require	Water-S MLR Salt Cru Aquatic Hydroge Oxidized Presenc Recent I Stunted	tained Lea A 1, 2, 4A, st (B11) Invertebrat in Sulfide ( I Rhizosph e of Reduc ron Reduc or Stresse	es (B13) Odor (C1) eres alon ed Iron (0 tion in Till d Plants (	g Living Ro C4) led Soils (C	W D S Sots (C3) G S S S S S S S S S S S S S S S S S S S	Vater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (C3 eomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A)
Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Wetland Hydrology Present? Yes (includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  Remarks:	Wetland Hyd Primary Indica Surface V High Wat Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo Surface S Inundatio	rology Indicators ators (minimum of Vater (A1) er Table (A2) n (A3) arks (B1) t Deposits (B2) posits (B3) or Crust (B4) posits (B5) Goil Cracks (B6) n Vis ble on Aerial	one require	Water-S  MLR  Salt Cru  Aquatic  Hydroge  Oxidized  Presenc  Recent I  Stunted  B7)  Other (E	tained Lea A 1, 2, 4A, st (B11) Invertebrat in Sulfide ( I Rhizosph e of Reduc ron Reduc or Stresse	es (B13) Odor (C1) eres alon ed Iron (0 tion in Till d Plants (	g Living Ro C4) led Soils (C	W D S Sots (C3) G S S S S S S S S S S S S S S S S S S S	Vater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (C3 eomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A)
Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Wetland Hydrology Present? Yes (includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  Remarks:	Wetland Hyd Primary Indica Surface V High Wat Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo Surface S Inundatio Sparsely	rology Indicators ators (minimum of Vater (A1) er Table (A2) n (A3) arks (B1) t Deposits (B2) posits (B3) c or Crust (B4) posits (B5) Soil Cracks (B6) n Vis ble on Aerial Vegetated Concav	one require	Water-S  MLR  Salt Cru  Aquatic  Hydroge  Oxidized  Presenc  Recent I  Stunted  B7)  Other (E	tained Lea A 1, 2, 4A, st (B11) Invertebrat in Sulfide ( I Rhizosph e of Reduc ron Reduc or Stresse	es (B13) Odor (C1) eres alon ed Iron (0 tion in Till d Plants (	g Living Ro C4) led Soils (C	W D S Sots (C3) G S S S S S S S S S S S S S S S S S S S	Vater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (C3 eomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A)
Saturation Present? Yes No Depth (inches): Wetland Hydrology Present? Yes (includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  Remarks:	Wetland Hyd Primary Indica Surface V High Wat Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo Surface S Inundatio Sparsely Field Observ	rology Indicators ators (minimum of Vater (A1) er Table (A2) n (A3) arks (B1) t Deposits (B2) posits (B3) or Crust (B4) posits (B5) Soil Cracks (B6) n Vis ble on Aerial Vegetated Concavations:	one require Imagery (I ve Surface	Water-S  MLR  Salt Cru  Aquatic  Hydroge  Oxidized  Presenc  Recent I  Stunted  B7)  Other (E	tained Lea <b>A 1, 2, 4A,</b> st (B11) Invertebrat in Sulfide ( I Rhizosph e of Reduc ron Reduc or Stresse xplain in R	es (B13) Odor (C1) eres alon red Iron (Ction in Till d Plants (emarks)	g Living Ro C4) led Soils (C D1) ( <b>LRR</b> A	W D S Sots (C3) G S S S S S S S S S S S S S S S S S S S	Vater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (C3 eomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A)
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  Remarks:	Wetland Hyd Primary Indica Surface V High Wat Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo Surface S Inundatio Sparsely Field Observ Surface Wate	rology Indicators ators (minimum of Vater (A1) er Table (A2) n (A3) arks (B1) t Deposits (B2) posits (B3) or Crust (B4) posits (B5) Goil Cracks (B6) n Vis ble on Aerial Vegetated Concav ations: r Present?	one require Imagery (I ve Surface	Water-S  MLR  Salt Cru  Aquatic  Hydroge  Oxidized  Presenc  Recent I  Stunted  B7)  Other (E	tained Lea A 1, 2, 4A, st (B11) Invertebrat on Sulfide ( I Rhizosph e of Reduc ron Reduc or Stresse xplain in R	es (B13) Odor (C1) eres alon ed Iron (Ction in Till d Plants (emarks)	g Living Ro C4) led Soils (C D1) ( <b>LRR</b> /	W D S Sots (C3) G S S S S S S S S S S S S S S S S S S S	Vater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (C3 eomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A)
Remarks:	Wetland Hyd Primary Indica Surface V High Wat Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo Surface S Inundatio Sparsely Field Observ Surface Wate Water Table F	rology Indicators ators (minimum of Vater (A1) er Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) or Crust (B4) osits (B5) Soil Cracks (B6) n Vis ble on Aerial Vegetated Concavations: r Present?	Imagery (Ive Surface Yes	Water-S  MLR  Salt Cru  Aquatic  Hydroge  Oxidized  Presend  Recent I  Stunted  B7)  Other (E	tained Lea A 1, 2, 4A, st (B11) Invertebrat In Sulfide (I) Invertebrat In Reduct In Re	es (B13) Odor (C1) eres alon ed Iron (C tion in Till d Plants ( emarks)	g Living Ro C4) led Soils (C D1) ( <b>LRR</b> A	— W — D — D — S Doots (C3) — G — S — S — S — S — S — S — F — F	Vater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (C3 eomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A) rost-Heave Hummocks (D7)
	Wetland Hyd Primary Indica Surface V High Wat Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo Surface S Inundatio Sparsely Field Observ Surface Wate Water Table F Saturation Pre (includes capi	rology Indicators ators (minimum of Vater (A1) er Table (A2) n (A3) arks (B1) t Deposits (B2) posits (B3) or Crust (B4) posits (B5) coil Cracks (B6) n Vis ble on Aerial Vegetated Concavations: r Present? Present?	Imagery (I ve Surface Yes Yes Yes	Water-S  MLR  Salt Cru  Aquatic  Hydroge  Oxidized  Presence  Recent I  Stunted  B7)  Other (E)  (B8)  No  Depth ( No  Depth (	tained Lea A 1, 2, 4A, st (B11) Invertebrat In Sulfide (In Rhizosph Invertebrat In Sulfide (In Reduct In R	es (B13) Odor (C1) eres alon ed Iron (Ction in Till d Plants (emarks)	g Living Rc C4) led Soils (C D1) (LRR /	— W — D — D — S Doots (C3) — G — S — S — S — F — F — F — F — tland Hydrology	Vater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (C3 eomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A) rost-Heave Hummocks (D7)
	Wetland Hyd Primary Indica Surface V High Wat Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo Surface S Inundatio Sparsely Field Observ Surface Wate Water Table F Saturation Pre (includes capi	rology Indicators ators (minimum of Vater (A1) er Table (A2) n (A3) arks (B1) t Deposits (B2) posits (B3) or Crust (B4) posits (B5) coil Cracks (B6) n Vis ble on Aerial Vegetated Concavations: r Present? Present?	Imagery (I ve Surface Yes Yes Yes	Water-S  MLR  Salt Cru  Aquatic  Hydroge  Oxidized  Presence  Recent I  Stunted  B7)  Other (E)  (B8)  No  Depth ( No  Depth (	tained Lea A 1, 2, 4A, st (B11) Invertebrat In Sulfide (In Rhizosph Invertebrat In Sulfide (In Reduct In R	es (B13) Odor (C1) eres alon ed Iron (Ction in Till d Plants (emarks)	g Living Rc C4) led Soils (C D1) (LRR /	— W — D — D — S Doots (C3) — G — S — S — S — F — F — F — F — tland Hydrology	Vater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (C3 eomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A) rost-Heave Hummocks (D7)
No evidence of wetland hydrology observed.	Wetland Hyd Primary Indica Surface V High Wat Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo Surface S Inundatio Sparsely Field Observ Surface Wate Water Table F Saturation Pre (includes capi Describe Reco	rology Indicators ators (minimum of Vater (A1) er Table (A2) n (A3) arks (B1) t Deposits (B2) posits (B3) or Crust (B4) posits (B5) coil Cracks (B6) n Vis ble on Aerial Vegetated Concavations: r Present? Present?	Imagery (I ve Surface Yes Yes Yes	Water-S  MLR  Salt Cru  Aquatic  Hydroge  Oxidized  Presence  Recent I  Stunted  B7)  Other (E)  (B8)  No  Depth ( No  Depth (	tained Lea A 1, 2, 4A, st (B11) Invertebrat In Sulfide (In Rhizosph Invertebrat In Sulfide (In Reduct In R	es (B13) Odor (C1) eres alon ed Iron (Ction in Till d Plants (emarks)	g Living Rc C4) led Soils (C D1) (LRR /	— W — D — D — S Doots (C3) — G — S — S — S — F — F — F — F — tland Hydrology	Vater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (C3 eomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A) rost-Heave Hummocks (D7)
	Wetland Hyd Primary Indica Surface V High Wat Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo Surface S Inundatio Sparsely Field Observ Surface Water Water Table F Saturation Pre (includes capi Describe Reco	rology Indicators ators (minimum of Vater (A1) er Table (A2) n (A3) arks (B1) t Deposits (B2) posits (B3) t or Crust (B4) posits (B5) Goil Cracks (B6) n Vis ble on Aerial Vegetated Concavations: r Present? esent? ellary fringe) orded Data (strear	Imagery (I we Surface Yes Yes Yes	Water-S  MLR  Salt Cru  Aquatic  Hydroge  Oxidized  Presenc  Recent I  Stunted  B7)  Other (E  (B8)  No  Depth (  No  Depth (  nonitoring well, aeria	tained Lea  A 1, 2, 4A, st (B11) Invertebrat in Sulfide (I) I Rhizosph e of Reduc ron Reduc or Stresse xplain in R inches): inches): all photos, p	es (B13) Odor (C1) eres alon ed Iron (Ction in Till d Plants (emarks)	g Living Rc C4) led Soils (C D1) (LRR /	— W — D — D — S Doots (C3) — G — S — S — S — F — F — F — F — tland Hydrology	Vater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (C3 eomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A) rost-Heave Hummocks (D7)
	Wetland Hyd Primary Indica Surface V High Wat Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo Surface S Inundatio Sparsely Field Observ Surface Wate Water Table F Saturation Pre (includes capi Describe Reco	rology Indicators ators (minimum of Vater (A1) er Table (A2) n (A3) arks (B1) t Deposits (B2) posits (B3) t or Crust (B4) posits (B5) Goil Cracks (B6) n Vis ble on Aerial Vegetated Concavations: r Present? esent? ellary fringe) orded Data (strear	Imagery (I we Surface Yes Yes Yes	Water-S  MLR  Salt Cru  Aquatic  Hydroge  Oxidized  Presenc  Recent I  Stunted  B7)  Other (E  (B8)  No  Depth (  No  Depth (  nonitoring well, aeria	tained Lea  A 1, 2, 4A, st (B11) Invertebrat in Sulfide (I) I Rhizosph e of Reduc ron Reduc or Stresse xplain in R inches): inches): all photos, p	es (B13) Odor (C1) eres alon ed Iron (Ction in Till d Plants (emarks)	g Living Rc C4) led Soils (C D1) (LRR /	— W — D — D — S Doots (C3) — G — S — S — S — F — F — F — F — tland Hydrology	Vater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (C3 eomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A) rost-Heave Hummocks (D7)

Project/Site: Easton Ranch	(	City/Cour	nty: Park Co	unty	Sampling Date: 2024-06-19
Applicant/Owner: MDT				State: Montana	Sampling Point: DP07w
Investigator(s): R Cutler, E Reynaud		Section,	Township, Rai	nge: S32 T4N R9E	
Landform (hillslope, terrace, etc.): Valley Floor		Local rel	lief (concave, o	convex, none): Concave	Slope (%): 0
			,		Datum: NAD 83
Soil Map Unit Name: 155A - Meadowcreek, rarely floo				=	
Are climatic / hydrologic conditions on the site typical for the					·
Are Vegetation, Soil, or Hydrology	-				
Are Vegetation, Soil, or Hydrology				eded, explain any answer	
SUMMARY OF FINDINGS – Attach site map					
Hydrophytic Vegetation Present? Yes	No				
Hydric Soil Present? Yes	No		the Sampled	Area Vaa V	No
	No	w	ithin a Wetlar	id? fes	NO
Remarks:					
Data point taken in southern portion	n of site.				
VEGETATION – Use scientific names of pla					
Tree Stratum (Plot size: 30 ft r			ant Indicator s? Status	Dominance Test works	
1	· · · · · · · · · · · · · · · · · · ·			Number of Dominant Sp That Are OBL, FACW, o	
2				Total Number of Domina	
3				Species Across All Strat	4
4				Percent of Dominant Sp	ecies
Sapling/Shrub Stratum (Plot size: 15 ft r		= Total	Cover	That Are OBL, FACW, o	
1				Prevalence Index work	
2.				Total % Cover of:	
3					$x = \frac{0}{140}$
4					$\times 2 = \frac{140}{54}$
5					
		= Total	Cover	UPL species 0	$x = \frac{0}{x = 0}$
Herb Stratum (Plot size: 5 ft r  1. Juncus balticus	70	./	EACW.	Column Totals: 98	(A) 234 (B)
2 Poa pratensis	10		FACW FAC		
3. Taraxacum officinale	10		FACU	Prevalence Index	
4 Lotus corniculatus	7		FAC	Hydrophytic Vegetatio  1 - Rapid Test for H	
5. Equisetum arvense	1		FAC	✓ 1 - Rapid Test for H	
6.				✓ 3 - Prevalence Inde	
7					daptations <sup>1</sup> (Provide supporting
8				data in Remarks	or on a separate sheet)
9				5 - Wetland Non-Va	
10					ohytic Vegetation <sup>1</sup> (Explain)
11				<sup>1</sup> Indicators of hydric soil be present, unless distu	and wetland hydrology must
Woody Vine Stratum (Plot size: 30 ft r	98	= Total C	Cover	bo prosont, unices distu	Took of problematic.
,					
1 2				Hydrophytic Vegetation	,
	<u> </u>			Present? Yes	s No
Remarks:					
Evidence of hydrophytic vegetation inc	cludes a p	ositiv	e rapid te	est, a positive dom	ninance test, and a
prevalence index less than or equal to	3.0.				

US Army Corps of Engineers

SOIL Sampling Point: DP07w

Profile Desc	ription: (Describ	e to the de	oth needed to docu	ment the	indicator	or confirm	the absen	ce of indicators.)
Depth	Matrix			ox Feature				
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	<u>Texture</u>	Remarks
0 - 10	10YR 3/1	98	10YR 5/8	_ 2	<u>C</u>	M	Clay Loa	<u>m</u>
10 - 16	10YR 3/1	100					Loam	
					-		-	
	-		_		-		-	<u> </u>
-								
	-		_		- (	-		
1- 0.0							. 2	
		•	I=Reduced Matrix, C			ed Sand Gr		Location: PL=Pore Lining, M=Matrix.
-		icable to ai	I LRRs, unless other		tea.)			ators for Problematic Hydric Soils <sup>3</sup> :
Histosol			Sandy Redox					cm Muck (A10)
	ipedon (A2)		Stripped Matri		(1) (aveen	4 MI DA 1\		Red Parent Material (TF2)
Black His	` '		Loamy Mucky			t WILKA 1)		/ery Shallow Dark Surface (TF12)
	n Sulfide (A4) I Below Dark Surfa	aca (A11)	Loamy Gleyed Depleted Matr		۷)		_ `	Other (Explain in Remarks)
	irk Surface (A12)	ace (ATT)	✓ Redox Dark S	. ,	١		<sup>3</sup> Indic	ators of hydrophytic vegetation and
	lucky Mineral (S1)		Depleted Dark	•				etland hydrology must be present,
-	leyed Matrix (S4)		Redox Depres	,	•			lless disturbed or problematic.
	ayer (if present):	<u> </u>	Nodex Bepree	0.01.0 (1 0)				need distanced of problematic.
Type:	, ( p , .							
	ches):						Hydric S	oil Present? Yes V No No
Remarks:							Tiyunc 3	on resent: res No
HYDROLO(	GY							
Wetland Hyd	drology Indicator	s:						
Primary Indic	ators (minimum of	f one require	ed; check all that app	oly)			<u>Se</u>	condary Indicators (2 or more required)
Surface \	Water (A1)		Water-St	ained Leav	/es (B9) (	except		Water-Stained Leaves (B9) (MLRA 1, 2,
High Wa	ter Table (A2)		MLRA	1, 2, 4A,	and 4B)			4A, and 4B)
✓ Saturation	on (A3)		Salt Crus	t (B11)				Drainage Patterns (B10)
Water Ma	arks (B1)		Aquatic I	nvertebrate	es (B13)		<u></u>	Dry-Season Water Table (C2)
	t Deposits (B2)			Sulfide C			' <u></u>	Saturation Visible on Aerial Imagery (C9)
	osits (B3)					Living Roo	ots (C3)	Geomorphic Position (D2)
	t or Crust (B4)			of Reduc	_	_	· /	Shallow Aquitard (D3)
_	osits (B5)					ed Soils (C6	5) <u>~</u>	FAC-Neutral Test (D5)
	Soil Cracks (B6)					01) ( <b>LRR A</b> )		Raised Ant Mounds (D6) (LRR A)
	on Vis ble on Aeria	al Imagery (E		plain in R		, ,		Frost-Heave Hummocks (D7)
Sparsely	Vegetated Conca	ave Surface	(B8)		,			. , ,
Field Observ			. ,					
Surface Water	er Present?	Yes	No Depth (ii	nches):				
Water Table			No Depth (ii					
Saturation Pr			No Depth (ii				and Hydrol	ogy Present? Yes 🗸 No
(includes cap	illary fringe)		onitoring well, aerial		revious in		•	
Remarks:								
Evidonos	of wattan	d bydro	logy includes	s coil s	aturat	ion ac	omorah	nic position, and a positive
	e or wetland utral test.	a riyuro	logy moludes	SOII S	aturat	ion, ge	omorpr	ic position, and a positive

Project/Site: Easton Ranch	(	City/County	<sub>y:</sub> Park Cou	unty Sampling Date: 2024-06-19			
Applicant/Owner: MDT State: Montana Sampling Point: DP08u							
Investigator(s): R Cutler, E Reynaud Section, Township, Range: S32 T4N R9E							
Landform (hillslope, terrace, etc.): Berm Local relief (concave, convex, none): Convex Slope (%): 5							
Subregion (LRR): <u>E 44B</u> Lat: <u>46.0598329</u> Long: <u>-110.6391419</u> Datum: <u>NA</u>							
Soil Map Unit Name: 155A - Meadowcreek, rarely floode							
Are climatic / hydrologic conditions on the site typical for this	s time of yea	ar? Yes	✓ No_	(If no, explain in Remarks.)			
Are Vegetation, Soil, or Hydrologys	ignificantly of	disturbed?	Are "	Normal Circumstances" present? Yes No			
Are Vegetation, Soil, or Hydrologyn							
SUMMARY OF FINDINGS – Attach site map	showing	samplin	ng point lo	ocations, transects, important features, etc.			
Hydrophytic Vegetation Present? Yes No							
Hydric Soil Present? Yes No			he Sampled hin a Wetlan				
Wetland Hydrology Present? Yes No	o <u> </u>			103 <u>103 100 </u>			
Remarks:							
Upland point taken 11 feet away from	n wetiar	na poir	IT.				
VEGETATION – Use scientific names of plan	ts.						
Tree Stratum (Plot size: 30 ft r	Absolute % Cover		t Indicator	Dominance Test worksheet:			
1				Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)			
2.				Total Number of Dominant			
3				Species Across All Strata: 2 (B)			
4				Percent of Dominant Species			
Sapling/Shrub Stratum (Plot size: 15 ft r		= Total Co	over	That Are OBL, FACW, or FAC: 50.00 (A/B)			
1				Prevalence Index worksheet:			
2.				Total % Cover of: Multiply by:			
3				OBL species $0$ $x 1 = 0$ FACW species $0$ $x 2 = 0$			
4	<u> </u>			FAC species $\frac{3}{15}$ $\frac{2}{x^3} = \frac{45}{45}$			
5				FACU species 2 x 4 = 8			
Harb Chrotum (Diet sings 5 ft r		= Total Co	over	UPL species 58 x 5 = 290			
Herb Stratum (Plot size: 5 ft r )  1. Bromus inermis	55	~	UPL	Column Totals: <u>75</u> (A) <u>343</u> (B)			
2. Lotus corniculatus	15	<u> </u>	FAC				
3 Potentilla recta	3		UPL	Prevalence Index = B/A = 4.57  Hydrophytic Vegetation Indicators:			
4. Taraxacum officinale	2		FACU	1 - Rapid Test for Hydrophytic Vegetation			
5				2 - Dominance Test is >50%			
6.				3 - Prevalence Index is ≤3.0 <sup>1</sup>			
7				4 - Morphological Adaptations <sup>1</sup> (Provide supporting			
8				data in Remarks or on a separate sheet)			
9				5 - Wetland Non-Vascular Plants <sup>1</sup>			
10	. ———			Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)			
11				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.			
Woody Vine Stratum (Plot size: 30 ft r	75	= Total Co	ver	be present, unless distarbed of presidentialis.			
1				Hydrophytic			
2.				Vegetation			
				Present? Yes No			
% Bare Ground in Herb Stratum 25							
Remarks:							
Vegetation does not meet criteria ne	eded to	be co	nsidere	d hydrophytic.			

SOIL Sampling Point: DP08u

Profile Desc Depth	cription: (Descri Matrix		pth needed to doc Re	ument the dox Feature		r or contirn	n the absence o	indicators.)
(inches)	Color (moist)		Color (moist)	<u> </u>	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0 - 15	10YR 3/3	95	10YR 4/6	5	С	М	Clay Loam	
-	_	<u> </u>						
							<del></del> -	
		<del></del>			_		<del></del>	
					_			
_								
-								
¹Type: C=C	oncentration, D=D	Depletion RN	/I=Reduced Matrix,	CS=Covere	ed or Coat	ted Sand G	rains. <sup>2</sup> Loca	tion: PL=Pore Lining, M=Matrix.
• •		•	II LRRs, unless oth					s for Problematic Hydric Soils <sup>3</sup> :
Histosol			Sandy Redox		,			Muck (A10)
	pipedon (A2)		Stripped Mat	, ,				Parent Material (TF2)
Black Hi	istic (A3)		Loamy Muck			ot MLRA 1)	-	Shallow Dark Surface (TF12)
	en Sulfide (A4)		Loamy Gleye		2)		Other	(Explain in Remarks)
	d Below Dark Sur	, ,	Depleted Mat		• • • • • • • • • • • • • • • • • • • •		31	of budrophytic versteller and
_	ark Surface (A12) /lucky Mineral (S1		Redox Dark S Depleted Dar					s of hydrophytic vegetation and d hydrology must be present,
-	Bleyed Matrix (S4)		Redox Depre					disturbed or problematic.
	Layer (if present				<u>,                                      </u>		1555	
Type:		•						
Depth (in							Hydric Soil F	resent? Yes No
Remarks:	, -		<u> </u>				1	
HYDROLO Wetland Hy	GY drology Indicato	rs:						
Primary India	cators (minimum d	of one require	ed; check all that ap	ply)			Second	lary Indicators (2 or more required)
	Water (A1)		Water-S	tained Lea	ves (B9) (	except	Wa	ter-Stained Leaves (B9) (MLRA 1, 2,
_	ater Table (A2)			A 1, 2, 4A,	and 4B)			4A, and 4B)
Saturation	` '		Salt Cru					ainage Patterns (B10)
	larks (B1)		Aquatic				-	y-Season Water Table (C2)
	nt Deposits (B2)		Hydroge		, ,			turation Visible on Aerial Imagery (C9
	posits (B3)					_		omorphic Position (D2)
	at or Crust (B4)		Present					allow Aquitard (D3)
	Soil Cracks (B6)		Recent Stunted					C-Neutral Test (D5) ised Ant Mounds (D6) (LRR A)
	on Vis ble on Aeri	ial Imagen/				OI) (LKK A		est-Heave Hummocks (D7)
· · · · · · · · · · · · · · · · · · ·	y Vegetated Conc		, ,	-Apialli III N	omarks)		110	Stricave riginilions (DI)
Field Obser		Curiace	()					
Surface Wat		Yes	No Depth	inches).				
Water Table			No Depth (					
Saturation P			No Depth				land Hydrology	Present? Yes No
(includes car	oillary fringe)						, ,,	. 1000IR. 100 NO
		am gauge, n	nonitoring well, aeria	al photos, p	revious in	spections),	if available:	
Remarks:								
No evide	ence of we	tland hv	drology pres	sent				
			5.0g, p. 6.					

Project/Site: Easton Ranch	(	City/Coun	nty: Park Co	unty	Sampling Date: 2024-06-19
Applicant/Owner: MDT		State: Montana	Sampling Point: DP08w		
Investigator(s): R Cutler, E Reynaud	Township, Ra	nge: S32 T4N R9E			
Landform (hillslope, terrace, etc.): Ditch					Slope (%): 2
Subregion (LRR): E 44B					
Soil Map Unit Name: 155A - Meadowcreek, rarely flood					
Are climatic / hydrologic conditions on the site typical for th	is time of yea	ar? Yes	✓ No	(If no, explain in Re	emarks.)
Are Vegetation, Soil, or Hydrology	-				
Are Vegetation, Soil, or Hydrology				eded, explain any answers	
SUMMARY OF FINDINGS – Attach site map					
Hydrophytic Vegetation Present? Yes N	No				
Hydric Soil Present? Yes N	No		the Sampled		No
	No	WI	thin a Wetlar	id? Yes	NO
Remarks:					
Data point located in population of F	Populus	spp.			
VEGETATION – Use scientific names of plan	nts.				
Tree Stratum (Plot size: 30 ft r			nt Indicator ? Status	Dominance Test works	
1				Number of Dominant Sp That Are OBL, FACW, o	
2.				Total Number of Domina	
3				Species Across All Strata	
4				Percent of Dominant Spe	ecies
Sapling/Shrub Stratum (Plot size: 15 ft r )		= Total (	Cover	That Are OBL, FACW, o	
1. Populus balsamifera	50	~	FAC	Prevalence Index work	sheet:
2				Total % Cover of:	
3					x 1 = 0
4.				FAC species 90	
5				I AC species	x 3 = 270
	50	= Total 0	Cover		x = 4 x = 0
Herb Stratum (Plot size: 5 ft r )	40	.,	E A C\A/	Column Totals: 131	(A) 354 (B)
Juncus balticus     Lotus corniculatus	<u>40</u> 35		FACW FAC		
3 Elymus repens	_ <del>55</del>		FAC	Prevalence Index	
4 Taraxacum officinale	- <del>1</del>		FACU	Hydrophytic Vegetation 1 - Rapid Test for H	
5		-		✓ 2 - Dominance Test	
6				✓ 3 - Prevalence Index	
7.				<del></del>	daptations <sup>1</sup> (Provide supporting
8				data in Remarks	or on a separate sheet)
9				5 - Wetland Non-Va	
10					hytic Vegetation <sup>1</sup> (Explain)
11	0.4			'Indicators of hydric soil be present, unless distur	and wetland hydrology must
Woody Vine Stratum (Plot size: 30 ft r	81	= Total C	Cover	p 11 2 mg and	- h
1				Hydrophytic	
2.				Vegetation	•
				Present? Yes	No
% Bare Ground in Herb Stratum 19					
Remarks:		• - •			
Evidence of hydrophytic vegetation inc	iudes a p	ositiv	e domina	nce test and a pre	valence index less
than or equal to 3.0.					

SOIL Sampling Point: DP08w

Profile Desc	ription: (Describ	e to the de	pth needed to docu	ment the	indicator	or confirm	n the absen	ce of indicators.)
Depth	Matrix			x Feature		. 2		
(inches)	Color (moist)		Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	<u>Texture</u>	
0 - 4	10YR 3/1	100					Silty Clay Loa	<u> </u>
4 - 10	10YR 4/2	98	10YR 5/8	2	<u>C</u>	PL / M	Sandy Clay Loa	<u> </u>
-								
				_				
			-		. ———		-	
					· <del></del>		-	
				_	· ——			
				_	·			
			1=Reduced Matrix, C			ed Sand Gr		Location: PL=Pore Lining, M=Matrix.
-		licable to al	I LRRs, unless othe		ed.)			ators for Problematic Hydric Soils <sup>3</sup> :
Histosol	(A1) pipedon (A2)		Sandy Redox ( Stripped Matrix					cm Muck (A10) Red Parent Material (TF2)
-	istic (A3)		Suipped Matrix		1) (except	MIRA1)		/ery Shallow Dark Surface (TF12)
	en Sulfide (A4)		Loamy Gleyed	•		,		Other (Explain in Remarks)
	d Below Dark Surf	ace (A11)	<u>✓</u> Depleted Matri		,			
	ark Surface (A12)		Redox Dark Su	` '				ators of hydrophytic vegetation and
	Mucky Mineral (S1)		Depleted Dark	•	=7)			etland hydrology must be present,
	Gleyed Matrix (S4)  Layer (if present)	•	Redox Depress	sions (F8)			un	less disturbed or problematic.
Type:	Layer (ii present)	•						
· · · · ·	ches):		<u></u>				Hydric S	oil Present? Yes V No
Remarks:	CIIC3).						Tiyane o	On 1 resent: 1es140
	nt redoximo	•		s com	mon w	rithin d	epleted	I matrix. Cobbles restricted
HYDROLO	GY							
	drology Indicator		ed; check all that app	lv)			So	condary Indicators (2 or more required)
-	Water (A1)	i one require	ed, check all that app Water-Sta		ros (B0) (a	vcont	<u> </u>	Water-Stained Leaves (B9) (MLRA 1, 2,
	ater Table (A2)			1, 2, 4A,		xcept		4A, and 4B)
Saturation			Salt Crust		una 45)			Drainage Patterns (B10)
	larks (B1)		Aquatic In	` '	es (B13)			Dry-Season Water Table (C2)
Sedimer	nt Deposits (B2)		Hydrogen					Saturation Visible on Aerial Imagery (C9)
Drift Dep	posits (B3)		✓ Oxidized I	Rhizosphe	res along	Living Roo	ots (C3) 🔽	Geomorphic Position (D2)
Algal Ma	at or Crust (B4)		Presence	of Reduce	ed Iron (C	4)		Shallow Aquitard (D3)
Iron Dep	oosits (B5)		Recent Iro	on Reduct	ion in Tille	d Soils (C6	3)	FAC-Neutral Test (D5)
	Soil Cracks (B6)					1) ( <b>LRR A</b>		Raised Ant Mounds (D6) (LRR A)
	on Vis ble on Aeria		· —	plain in Re	emarks)			Frost-Heave Hummocks (D7)
	Vegetated Conca	ave Surface	(B8)					
Field Obser		.,	🗸 5					
Surface Wat			No Depth (in					
Water Table			No Depth (in					5 10 W W N
Saturation P (includes cap Describe Re	oillary fringe)		No Depth (in nonitoring well, aerial					ogy Present? Yes V No No
Remarks:								
Fyidence	e of wetland	d hydro	logy includes	ovidi:	zed rhi	zosnh	eres alo	ong living roots, and
	ohic positio	-	logy molades	, OXIGIZ	-04 1111	200piii	C1 C3 G10	

Project/Site: Easton Ranch	C	ity/County:	Park Cou	unty	Sampling Date: 2024-06-19
Applicant/Owner: MDT				State: Montana	Sampling Point: DP09u
Investigator(s): R Cutler, E Reynaud	S	Section, Tov	wnship, Rar	nge: S32 T4N R9E	
Landform (hillslope, terrace, etc.): Floodplain				=	Slope (%): 1
Subregion (LRR): E 44B					
Soil Map Unit Name: 155A - Meadowcreek, rarely floode				· · ·	
Are climatic / hydrologic conditions on the site typical for this					
Are Vegetation, Soil, or Hydrologysi	-				
Are Vegetation, Soil, or Hydrologyna	aturally prob	lematic?	(If ne	eded, explain any answei	rs in Remarks.)
SUMMARY OF FINDINGS - Attach site map s	showing	samplin	g point lo	ocations, transects	, important features, etc.
Hydrophytic Vegetation Present? Yes No					
Hydric Soil Present? Yes No	·		e Sampled in a Wetlan		No 🗸
Wetland Hydrology Present? Yes No	·	With	III a Wellali		
Remarks:					
Upland point taken near western bor	der of s	ite.			
VEGETATION – Use scientific names of plant	s.				
Tree Stratum (Plot size: 30 ft r	Absolute % Cover	Dominant		Dominance Test works	
1				Number of Dominant Sp That Are OBL, FACW, of	
2					(*,
3				Total Number of Domina Species Across All Strat	4
4				Percent of Dominant Sp	
Sapling/Shrub Stratum (Plot size: 15 ft r )		= Total Cov	ver	That Are OBL, FACW, of	
				Prevalence Index work	ksheet:
1 2					Multiply by:
3.					x 1 = 2
4.				20	x 2 = 0
5.				FAC species 30	x 3 = 90
- 6		= Total Cov	ver		x = 4 = 0 x = 5 = 340
Herb Stratum (Plot size: 5 ft r	0.5		LIBI	UPL species 68 Column Totals: 100	
1. Bromus inermis	65		UPL	Column Totals. 100	(A) <u>432</u> (B)
2. Elymus repens 3. Poa pratensis	15 15		FAC FAC	Prevalence Index	
Thlaspi arvense	3		UPL	Hydrophytic Vegetatio	
5 Carex nebrascensis	2		OBL	1 - Rapid Test for H	
6				2 - Dominance Tes	
7.					Adaptations <sup>1</sup> (Provide supporting
8					s or on a separate sheet)
9.				5 - Wetland Non-Va	ascular Plants <sup>1</sup>
10				Problematic Hydror	ohytic Vegetation¹ (Explain)
11					l and wetland hydrology must
W 1 15 01 1 10 11 20 ft r	100 =	Total Cov	er	be present, unless distu	nued or problematic.
Woody Vine Stratum (Plot size: 30 ft r					
1				Hydrophytic Vegetation	
2					s No
% Bare Ground in Herb Stratum 0					
Remarks:					
Vegetation does not meet criteria ne	eded to	be co	nsidere	d hydrophytic.	

SOIL Sampling Point: DP09u

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

Project/Site: Easton Ranch	(	City/County	: Park Cou	unty	Sampling Date: 2024-06-19
Applicant/Owner: MDT				State: Montana	Sampling Point: DP09w
Investigator(s): R Cutler, E Reynaud		Section, To	ownship, Rar	nge: S32 T4N R9E	
Landform (hillslope, terrace, etc.): Depression					Slope (%): <u>5</u>
Subregion (LRR): E 44B	Lat: 46.	0603945	5	Long: -110.6399866	Datum: NAD 83
Soil Map Unit Name: 155A - Meadowcreek, rarely floode					
Are climatic / hydrologic conditions on the site typical for this	time of yea	ar? Yes	<b>✓</b> No _	(If no, explain in Re	emarks.)
Are Vegetation, Soil, or Hydrology si					
Are Vegetation, Soil, or Hydrology na	aturally prob	blematic?	(If ne	eded, explain any answei	rs in Remarks.)
SUMMARY OF FINDINGS - Attach site map s	showing	samplin	g point lo	ocations, transects	, important features, etc.
Hydrophytic Vegetation Present? Yes No	)				
			ne Sampled nin a Wetlan		No
Wetland Hydrology Present? Yes No		WILI	iiii a vveiiaii	ur res	NO
Remarks:					
Data point taken near southern borde	er adjad	cent to	Shields	River.	
VEGETATION – Use scientific names of plant	s.				
Tree Stratum (Plot size: 30 ft r	Absolute % Cover		Indicator Status	Dominance Test works	
1				Number of Dominant Sp That Are OBL, FACW, o	• • • • • •
2				Total Number of Domina	
3				Species Across All Stra	^
4				Percent of Dominant Sp	pecies
Sapling/Shrub Stratum (Plot size: 15 ft r		= Total Co	over	That Are OBL, FACW, o	
1. Salix bebbiana	5	V	FACW	Prevalence Index worl	ksheet:
2.			· <u> </u>	Total % Cover of:	
3.				OBL species 50	x 1 = 50
4.					x 2 = 70
5				· -	x 3 = 0
	_	= Total Co	over	· <del>_</del>	x 4 = 0
Herb Stratum (Plot size: 5 ft r			0.01	UPL species 0  Column Totals: 85	x = 0 (A) 120 (B)
1. Carex utriculata 2. Phalaris arundinacea	50		OBL	Column Totals. 00	(A) <u>120</u> (B)
			FACW	Prevalence Index	
3				Hydrophytic Vegetation	
4				1 - Rapid Test for F	
5 6				✓ 2 - Dominance Tes	
7.				3 - Prevalence Inde     Marphological A	adaptations¹ (Provide supporting
8.				data in Remarks	s or on a separate sheet)
9				5 - Wetland Non-Va	ascular Plants <sup>1</sup>
10.				Problematic Hydrop	ohytic Vegetation¹ (Explain)
11					and wetland hydrology must
20.64	80	= Total Co	ver	be present, unless distu	irbed or problematic.
Woody Vine Stratum (Plot size: 30 ft r					
1				Hydrophytic Vegetation	
2				Present? Yes	s No
% Bare Ground in Herb Stratum 20		- 10ta1 C0	v CI		
Remarks:					
Evidence of hydrophytic vegetation inclu	udes a p	ositive	domina	nce test, a positiv	e rapid test, and a
prevalence index less than or equal to 3	-				

US Army Corps of Engineers

SOIL Sampling Point: DP09w

Profile Desc	ription: (Describ	e to the de	pth needed to docu	ment the	indicator	or confirm	the absence	of indicators.)	
Depth	Matrix		_	ox Feature					
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	<u>Texture</u>	Remark	(S
0 - 5	10YR 3/2	100					Clay Loam		
5 - 15	10YR 3/1	98	10YR 4/4	2	С	M	Sandy Clay Loam		
-									
					-	-			
									,
			· -						
				_					
-									
¹Type: C=Co	ncentration D=De	epletion RM	1=Reduced Matrix, C	S=Covere	d or Coat	ed Sand Gr	rains <sup>2</sup> l oc	ation: PL=Pore Lining	M=Matrix
			I LRRs, unless other					rs for Problematic Hy	
Histosol			Sandy Redox (		•			· Muck (A10)	
	ipedon (A2)		Stripped Matrix					Parent Material (TF2)	
Black His			Loamy Mucky	Mineral (F	1) (excep	t MLRA 1)	Very	Shallow Dark Surface	e (TF12)
Hydrogei	n Sulfide (A4)		Loamy Gleyed	Matrix (F2	2)		Othe	er (Explain in Remarks	)
Depleted	Below Dark Surfa	ice (A11)	Depleted Matri	x (F3)					
	rk Surface (A12)		✓ Redox Dark Sugar	urface (F6)	)		<sup>3</sup> Indicato	rs of hydrophytic vege	tation and
	ucky Mineral (S1)		Depleted Dark					nd hydrology must be	
	eyed Matrix (S4)		Redox Depres	sions (F8)			unless	s disturbed or problem	atic.
Restrictive L	ayer (if present):								
Type:									
Depth (inc	hes):						Hydric Soil	Present? Yes 🔽	No
Remarks:									
HYDROLOG	GY rology Indicators	S:							
Primary Indic	ators (minimum of	one require	ed; check all that app	oly)			Secon	dary Indicators (2 or n	nore required)
Surface \	Water (A1)		Water-Sta	ained Leav	es (B9) (	except	W	ater-Stained Leaves (	B9) ( <b>MLRA 1, 2,</b>
	er Table (A2)		MLRA	1, 2, 4A,	and 4B)	•		4A, and 4B)	
✓ Saturatio			Salt Crus		•		Dr	rainage Patterns (B10	)
Water Ma	, ,			vertebrate	es (B13)			ry-Season Water Tabl	
	t Deposits (B2)			Sulfide O				aturation Visible on Ae	
Drift Dep	osits (B3)					Living Roc	ots (C3) 🔽 G	eomorphic Position (D	2)
	t or Crust (B4)			of Reduce	-	_		nallow Aquitard (D3)	
_	osits (B5)		·		•	ed Soils (C6		AC-Neutral Test (D5)	
	Soil Cracks (B6)					01) ( <b>LRR A</b>		aised Ant Mounds (D6	) (LRR A)
Inundatio	n Vis ble on Aeria	l Imagery (E	37) Other (Ex	plain in Re	emarks)		Fr	ost-Heave Hummocks	s (D7)
Sparsely	Vegetated Conca	ve Surface	(B8)						
Field Observ	ations:								
Surface Water	r Present?	Yes	No Depth (ir	nches):					
Water Table I	Present?	Yes	No Depth (ir	nches):					
Saturation Pr			No Depth (ir			Wetla	and Hydrology	Present? Yes	No
(includes cap	illary fringe)						-		
Describe Rec	orded Data (strea	m gauge, m	nonitoring well, aerial	photos, pi	revious in	spections),	if available:		
Damanila									
Remarks:									
Evidence	of wetland	d hydro	logy includes	s soil s	aturat	ion, ge	omorphic	position, and	a positive
FAC-Neu	ıtral test.								

Project/Site: Easton Ranch		City/Count	<sub>V:</sub> Park Co	unty	Sampling Date: 2024-06-19
Applicant/Owner: MDT		-	,		Sampling Point: DP10u
• •				nge: S32 T4N R9E	
Landform (hillslope, terrace, etc.): Valley Floor					Slope (%): 2
Subregion (LRR): E 44B					
Soil Map Unit Name: 155A - Meadowcreek, rarely flood					
Are climatic / hydrologic conditions on the site typical for this					<u> </u>
	_				
Are Vegetation, Soil, or Hydrology s					
Are Vegetation, Soil, or Hydrology r SUMMARY OF FINDINGS – Attach site map				eded, explain any answers  ocations, transects,	
Hydrophytic Vegetation Present? Yes N					
Hydric Soil Present? Yes N	o		he Sampled		4
Wetland Hydrology Present? Yes N	o <u> </u>	with	hin a Wetlan	nd? Yes	No
Remarks:		•			
Upland data point taken near northe	rn bord	er of s	ite.		
VEGETATION – Use scientific names of plan	ts.				
Tree Stratum (Plot size: 30 ft r	Absolute		t Indicator	Dominance Test works	heet:
1				Number of Dominant Spo That Are OBL, FACW, or	
2				Total Number of Domina	
3				Species Across All Strata	a: <u>3</u> (B)
4		= Total C	over	Percent of Dominant Spe That Are OBL, FACW, or	
Sapling/Shrub Stratum (Plot size: 15 ft r )  1. Populus tremuloides	5	~	FACU	Prevalence Index work	sheet:
				Total % Cover of:	
2.					x 1 = <u>0</u>
3					x 2 = 0
5				FAC species 45	x 3 = 135
	5	= Total C	over	FACU species 7	
Herb Stratum (Plot size: 5 ft r				UPL species 50	x 5 = 250
1. Bromus inermis				Column Totals: 102	(A) <u>413</u> (B)
2. Elymus repens	30		FAC	Prevalence Index	= B/A = <u>4.04</u>
3. Poa pratensis 4 Taraxacum officinale	<u> 15</u> 2		FAC	Hydrophytic Vegetation	n Indicators:
··· <del>-</del>			FACU	1 - Rapid Test for Hy	
5				2 - Dominance Test	
6				3 - Prevalence Index	
7 8					daptations <sup>1</sup> (Provide supporting or on a separate sheet)
9.				5 - Wetland Non-Va	· · ·
10					hytic Vegetation <sup>1</sup> (Explain)
11.				<sup>1</sup> Indicators of hydric soil	and wetland hydrology must
	97	= Total Co		be present, unless distur	bed or problematic.
Woody Vine Stratum (Plot size: 30 ft r		_			
1				Hydrophytic	
2				Vegetation   Present? Yes	No 🖍
% Bare Ground in Herb Stratum 3		= Total Co	over		
Remarks:				<u> </u>	
Data point dominated by upland veg	etation				

SOIL Sampling Point: DP10u

10	(inches)	Matrix			dox Feature				
10YR 3/1   98   10YR 4/4   2   C   M   Clay Loam				Color (moist)	%	Type'	Loc		Remarks
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.	0 - 12			_				<u> </u>	
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)  Histosol (A1)  Histosol (A1)  Histosol (A1)  Stripped Matrix (S6)  Black Histic (A2)  Stripped Matrix (S6)  Red Parent Material (TF2  Black Histic (A3)  Loamy Mucky Mineral (F1) (except MLRA 1)  Depleted Below Dark Surface (A11)  Depleted Matrix (F2)  Thick Dark Surface (A12)  Sandy Mucky Mineral (F1)  Sandy Mucky Mineral (F1)  Sandy Mucky Mineral (S1)  Depleted Dark Surface (F7)  Sandy Mucky Mineral (S1)  Depleted Dark Surface (F7)  Wetland Hydrology must be unless disturbed or probler  Restrictive Layer (if present):  Type:  Depth (inches):  Depth (inches):  Hydric Soil Indicators Observed.  YDROLOGY  Wetland Hydrology Indicators:  No hydric soil indicators observed.  YDROLOGY  Wetland Hydrology indicators:  No hydric Soil indicators (minimum of one required: check all that apply)  Secondary Indicators (minimum of one required: check all that apply)  Self (A2)  Surface Water (A1)  Water Table (A2)  High Water Table (A2)  MLRA 1, 2, 4A, and 4B)  Water Marks (B1)  Sediment Deposits (B2)  Hydrogen Sulfide Odor (C1)  Sediment Deposits (B2)  Algal Mat or Crust (B4)  Presence of Reduced Iron (C4)  Sparsely Vegetated Concave Surface (B8)  Field Observations:  Surface Soil Cracks (B6)  Jen Long Surface (B8)  Field Observations:  Surface Water Present?  Yes  No  Depth (inches):  Wetland Hydrology Present?  Yes  No  Depth (inches):  Wetland Hydrology Present?  Yes  No  Depth (inches):  Wetland Hydrology Present?  Yes  Metland H	12 - 18	10YR 3/1	_ 98	10YR 4/4	2	<u>C</u>	М	Clay Loam	
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)  Histosol (A1)  Histosol (A1)  Histosol (A1)  Stripped Matrix (S6)  Black Histic (A2)  Stripped Matrix (S6)  Red Parent Material (TF2  Black Histic (A3)  Loamy Mucky Mineral (F1) (except MLRA 1)  Depleted Below Dark Surface (A11)  Depleted Matrix (F2)  Thick Dark Surface (A12)  Sandy Mucky Mineral (F1)  Sandy Mucky Mineral (F1)  Sandy Mucky Mineral (S1)  Depleted Dark Surface (F7)  Sandy Mucky Mineral (S1)  Depleted Dark Surface (F7)  Wetland Hydrology must be unless disturbed or probler  Restrictive Layer (if present):  Type:  Depth (inches):  Depth (inches):  Hydric Soil Indicators Observed.  YDROLOGY  Wetland Hydrology Indicators:  No hydric soil indicators observed.  YDROLOGY  Wetland Hydrology indicators:  No hydric Soil indicators (minimum of one required: check all that apply)  Secondary Indicators (minimum of one required: check all that apply)  Self (A2)  Surface Water (A1)  Water Table (A2)  High Water Table (A2)  MLRA 1, 2, 4A, and 4B)  Water Marks (B1)  Sediment Deposits (B2)  Hydrogen Sulfide Odor (C1)  Sediment Deposits (B2)  Algal Mat or Crust (B4)  Presence of Reduced Iron (C4)  Sparsely Vegetated Concave Surface (B8)  Field Observations:  Surface Soil Cracks (B6)  Jen Long Surface (B8)  Field Observations:  Surface Water Present?  Yes  No  Depth (inches):  Wetland Hydrology Present?  Yes  No  Depth (inches):  Wetland Hydrology Present?  Yes  No  Depth (inches):  Wetland Hydrology Present?  Yes  Metland H	-						- · <u></u>		
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)  Histosol (A1)  Histosol (A1)  Histosol (A1)  Stripped Matrix (S6)  Black Histic (A2)  Stripped Matrix (S6)  Red Parent Material (TF2  Black Histic (A3)  Loamy Mucky Mineral (F1) (except MLRA 1)  Depleted Below Dark Surface (A11)  Depleted Matrix (F2)  Thick Dark Surface (A12)  Sandy Mucky Mineral (F1)  Sandy Mucky Mineral (F1)  Sandy Mucky Mineral (S1)  Depleted Dark Surface (F7)  Sandy Mucky Mineral (S1)  Depleted Dark Surface (F7)  Wetland Hydrology must be unless disturbed or probler  Restrictive Layer (if present):  Type:  Depth (inches):  Depth (inches):  Hydric Soil Indicators Observed.  YDROLOGY  Wetland Hydrology Indicators:  No hydric soil indicators observed.  YDROLOGY  Wetland Hydrology indicators:  No hydric Soil indicators (minimum of one required: check all that apply)  Secondary Indicators (minimum of one required: check all that apply)  Self (A2)  Surface Water (A1)  Water Table (A2)  High Water Table (A2)  MLRA 1, 2, 4A, and 4B)  Water Marks (B1)  Sediment Deposits (B2)  Hydrogen Sulfide Odor (C1)  Sediment Deposits (B2)  Algal Mat or Crust (B4)  Presence of Reduced Iron (C4)  Sparsely Vegetated Concave Surface (B8)  Field Observations:  Surface Soil Cracks (B6)  Jen Long Surface (B8)  Field Observations:  Surface Water Present?  Yes  No  Depth (inches):  Wetland Hydrology Present?  Yes  No  Depth (inches):  Wetland Hydrology Present?  Yes  No  Depth (inches):  Wetland Hydrology Present?  Yes  Metland H	-								
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)  Histic Epipedon (A2)  Histic Epipedon (A2)  Stripped Matrix (S6)  Red Parent Material (TF2  Black Histic (A3)  Loamy Mucky Mineral (F1) (except MLRA 1)  Depleted Below Dark Surface (A11)  Depleted Matrix (F3)  Thick Dark Surface (A12)  Sandy Mucky Mineral (F1)  Sandy Mucky Mineral (F3)  Thick Dark Surface (A12)  Sandy Mucky Mineral (S1)  Sandy Mucky Mineral (S1)  Depleted Dark Surface (F7)  Sandy Gleyed Matrix (S4)  Redox Depressions (F8)  Wetland Hydrology must be unless disturbed or probler  Restrictive Layer (if present):  Type:  Depth (inches):  Depth (inches):  Wetland Hydrology Indicators  No hydric Soil indicators observed.  Wetland Hydrology Indicators:  No hydric Soil indicators observed.  Wetland Hydrology Indicators:  No hydric Soil indicators (A2)  MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Salt Crust (B11)  Sediment Deposits (B2)  Hydrogen Sulfide Odor (C1)  Salturation (A3)  Salt Crust (B11)  Sediment Deposits (B2)  Algal Mat or Crust (B4)  Presence of Reduced Iron (C4)  Sparsely Vegetated Concave Surface (B8)  Field Observations:  Surface Water Present?  Yes  No  Other (Explain in Remarks)  Secondary Indicators (2 or  Water-Stained Leaves  4A, and 4B)  Aquatic Invertebrates (B13)  Dry-Season Water Table (Na)  Algal Mat or Crust (B4)  Presence of Reduced Iron (C4)  Sparsely Vegetated Concave Surface (B8)  Stunted or Stressed Plants (D1) (LRR A)  Raised Ant Mounds (D  Inundation Vis ble on Aerial Imagery (B7)  Sparsely Vegetated Concave Surface (B8)  Field Observations:  Surface Water Present?  Yes  No  Depth (inches):  Water Table Present?  Yes  No  Depth (inches):  Wetland Hydrology Present?  Yes  Metland Hydrology Present?  Yes  Depth (inches):  Wetland Hydrology Present?  Yes  Depth (inches):  Wetland Hydrology Present?  Yes  M	-								
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)  Histocol (A1)  Histocol (A1)  Sandy Redox (S5)  Red Parent Material (TF2  Black Histic (A2)  Black Histic (A3)  Loamy Mucky Mineral (F1) (except MLRA 1)  Depleted Below Dark Surface (A11)  Depleted Matrix (F3)  Thick Dark Surface (A12)  Sandy Mucky Mineral (F1)  Sandy Mucky Mineral (F1)  Sandy Mucky Mineral (F1)  Sandy Mucky Mineral (F1)  Sandy Gleyed Matrix (S4)  Redox Dark Surface (F7)  Sandy Gleyed Matrix (S4)  Restrictive Layer (if present):  Type:  Depth (inches):  Depth (inches):  Primary Indicators Observed.   Wetland Hydrology Indicators:  Primary Indicators (minimum of one required: check all that apply)  Surface Water (A1)  Hydric Soil indicators (Multiplicators (B11)  Salt Crust (B11)  Salt Crust (B11)  Salt Crust (B11)  Seciment Deposits (B2)  Hydrogen Sulfide Odor (C1)  Aquatic Invertebrates (B13)  Algal Mat or Crust (B4)  Presence of Reduced Iron (C4)  Sparsey Vegetated Concave Surface (B8)  Field Observations:  Surface Water Present?  Yes  No  Popth (inches):  Surface Water Present?  Yes  No  Wetland Hydrology Present?  Yes  Wetland Hydrology Present?  Wetland Hydrology Indicators:  Water-Stained Leaves  4A, and 4B)  Aquatic Invertebrates (B13)  Dry-Season Water Table (A2)  Algal Mat or Crust (B4)  Presence of Reduced Iron (C4)  Shallow Aqualard (D3)  Surface Soil Cracks (B6)  Stunted or Stressed Plants (D1) (LRR A)  Raised Ant Mounds (D  Inundation Vis ble on Aerial Imagery (B7)  Other (Explain in Remarks)  Frost-Heave Hummoch  Sparsely Vegetated Concave Surface (B8)  Field Observations:  Surface Water Present?  Yes  No  Depth (inches):  Water Table Present?  Yes  No  Depth (inches):  Water Table Present?  Yes  No  Depth (inches):  Water Alable (A2)  Wetland Hydrology Present?  Yes  Metland Hydrology Present?  Yes  Metland Hydrology Present?  Yes  Metland Hydrology Present?  Yes  Metland Hydrology Present?  Yes  Saturation Previous inspections), if available:							-		
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)  Histocol (A1)  Histocol (A1)  Sandy Redox (S5)  Red Parent Material (TF2  Black Histic (A2)  Black Histic (A3)  Loamy Mucky Mineral (F1) (except MLRA 1)  Depleted Below Dark Surface (A11)  Depleted Matrix (F3)  Thick Dark Surface (A12)  Sandy Mucky Mineral (F1)  Sandy Mucky Mineral (F1)  Sandy Mucky Mineral (F1)  Sandy Mucky Mineral (F1)  Sandy Gleyed Matrix (S4)  Redox Dark Surface (F7)  Sandy Gleyed Matrix (S4)  Restrictive Layer (if present):  Type:  Depth (inches):  Depth (inches):  Primary Indicators Observed.   Wetland Hydrology Indicators:  Primary Indicators (minimum of one required: check all that apply)  Surface Water (A1)  Hydric Soil indicators (Multiplicators (B11)  Salt Crust (B11)  Salt Crust (B11)  Salt Crust (B11)  Seciment Deposits (B2)  Hydrogen Sulfide Odor (C1)  Aquatic Invertebrates (B13)  Algal Mat or Crust (B4)  Presence of Reduced Iron (C4)  Sparsey Vegetated Concave Surface (B8)  Field Observations:  Surface Water Present?  Yes  No  Popth (inches):  Surface Water Present?  Yes  No  Wetland Hydrology Present?  Yes  Wetland Hydrology Present?  Wetland Hydrology Indicators:  Water-Stained Leaves  4A, and 4B)  Aquatic Invertebrates (B13)  Dry-Season Water Table (A2)  Algal Mat or Crust (B4)  Presence of Reduced Iron (C4)  Shallow Aqualard (D3)  Surface Soil Cracks (B6)  Stunted or Stressed Plants (D1) (LRR A)  Raised Ant Mounds (D  Inundation Vis ble on Aerial Imagery (B7)  Other (Explain in Remarks)  Frost-Heave Hummoch  Sparsely Vegetated Concave Surface (B8)  Field Observations:  Surface Water Present?  Yes  No  Depth (inches):  Water Table Present?  Yes  No  Depth (inches):  Water Table Present?  Yes  No  Depth (inches):  Water Alable (A2)  Wetland Hydrology Present?  Yes  Metland Hydrology Present?  Yes  Metland Hydrology Present?  Yes  Metland Hydrology Present?  Yes  Metland Hydrology Present?  Yes  Saturation Previous inspections), if available:		-							
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)  Histic Epipedon (A2)  Histic Epipedon (A2)  Stripped Matrix (S6)  Red Parent Material (TF2  Black Histic (A3)  Loamy Mucky Mineral (F1) (except MLRA 1)  Depleted Below Dark Surface (A11)  Depleted Matrix (F3)  Thick Dark Surface (A12)  Sandy Mucky Mineral (F1)  Sandy Mucky Mineral (F3)  Thick Dark Surface (A12)  Sandy Mucky Mineral (S1)  Sandy Mucky Mineral (S1)  Depleted Dark Surface (F7)  Sandy Gleyed Matrix (S4)  Redox Depressions (F8)  Wetland Hydrology must be unless disturbed or probler  Restrictive Layer (if present):  Type:  Depth (inches):  Depth (inches):  Wetland Hydrology Indicators  No hydric Soil indicators observed.  Wetland Hydrology Indicators:  No hydric Soil indicators observed.  Wetland Hydrology Indicators:  No hydric Soil indicators (A2)  MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Salt Crust (B11)  Sediment Deposits (B2)  Hydrogen Sulfide Odor (C1)  Salturation (A3)  Salt Crust (B11)  Sediment Deposits (B2)  Algal Mat or Crust (B4)  Presence of Reduced Iron (C4)  Sparsely Vegetated Concave Surface (B8)  Field Observations:  Surface Water Present?  Yes  No  Other (Explain in Remarks)  Secondary Indicators (2 or  Water-Stained Leaves  4A, and 4B)  Aquatic Invertebrates (B13)  Dry-Season Water Table (Na)  Algal Mat or Crust (B4)  Presence of Reduced Iron (C4)  Sparsely Vegetated Concave Surface (B8)  Stunted or Stressed Plants (D1) (LRR A)  Raised Ant Mounds (D  Inundation Vis ble on Aerial Imagery (B7)  Sparsely Vegetated Concave Surface (B8)  Field Observations:  Surface Water Present?  Yes  No  Depth (inches):  Water Table Present?  Yes  No  Depth (inches):  Wetland Hydrology Present?  Yes  Metland Hydrology Present?  Yes  Depth (inches):  Wetland Hydrology Present?  Yes  Depth (inches):  Wetland Hydrology Present?  Yes  M		-		_					
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)  Histic Epipedon (A2)  Sandy Redox (S5)  Histic Epipedon (A2)  Stripped Matrix (S6)  Red Parent Material (TF2  Black Histic (A3)  Loamy Mucky Mineral (F1) (except MLRA 1)  Very Shallow Dark Surface Hydrogen Sulfide (A4)  Loamy Gleyed Matrix (F2)  Thick Dark Surface (A11)  Thick Dark Surface (A12)  Sandy Mucky Mineral (F1)  Sandy Mucky Mineral (F1)  Sandy Gleyed Matrix (S4)  Redox Dark Surface (F7)  Sandy Gleyed Matrix (S4)  Restrictive Layer (if present):  Type:  Depth (inches):  Type:  Depth (inches):  Wetland Hydrology Indicators  Primary Indicators (minimum of one required: check all that apply)  Surface Water (A1)  Water Stained Leaves (B9) (except  Hydric Soil Present? Yes  Hydrogen Sulfide (A2)  MIRA 1, 2, 4A, and 4B)  Saturation (A3)  Salt Crust (B11)  Water Marks (B1)  Sediment Deposits (B2)  Hydrogen Sulfide Codor (C1)  Salting Matrix (B4)  Presence of Reduced Iron (C4)  Shallow Aquitar (D3)  Algal Mat or Crust (B4)  Iron Deposits (B3)  Oxidized Rizospheres along Living Roots (C3)  Sourface Soil Cracks (B6)  Sourface Water Present?  Yes  No  Depth (inches):  Water Table Present?  Yes  No  Depth (inches):  Water Ala Matrix (F2)  Wetland Hydrology Present?  Yes  Metland Hydrology Present?  Yes  Metland Hydrology Present?  Yes  Metland Hydrology Present?  Yes  Sourface Roded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	<del>-</del>								
Histosol (A1)							ed Sand G		ation: PL=Pore Lining, M=Matrix.
Histic Epipedon (A2) Stripped Matrix (S6) Red Parent Material (TF2 Black Histic (A3) Loamy Mucky Mineral (F1) (except MLRA 1) Very Shallow Dark Surface (Hydrogen Sulfide (A4) Loamy Mucky Mineral (F2) Other (Explain in Remark Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thick Dark Surface (A12) Redox Dark Surface (F6) Thick Dark Surface (A12) Redox Dark Surface (F6) Thick Dark Surface (A12) Redox Dark Surface (F7) Wetland hydrology must be unless disturbed or problet (F7) Wetland hydrology must be unless disturbed or problet (F7) Wetland hydrology from the problet (F7) Wetland hydrology Indicators:    Popth (inches):	•	`	cable to all	•		ted.)			•
		• •			, ,				• •
Hydrogen Sulfide (A4)						1) (excen	t MIRA 1		
Depleted Below Dark Surface (A11)							t inches	·	
Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) wetland hydrology must be unless disturbed or problet Restrictive Layer (if present):  Type:			ce (A11)			,		_	, , ,
Sandy Gleyed Matrix (S4) Redox Depressions (F8) unless disturbed or problet Restrictive Layer (if present):  Type: Depth (inches): Hydric Soil Present? Yes Remarks:  No hydric soil indicators observed.	Thick Da	rk Surface (A12)		Redox Dark S	Surface (F6	j)			rs of hydrophytic vegetation and
Restrictive Layer (if present):  Type: Depth (inches): Remarks:  No hydric soil indicators observed.    Hydric Soil Present? Yes	-								nd hydrology must be present,
Type:				Redox Depre	ssions (F8	)		unless	s disturbed or problematic.
Depth (inches):									
Remarks:  No hydric soil indicators observed.    Value	· · —								
Wetland Hydrology Indicators:  Primary Indicators (minimum of one required; check all that apply)  Secondary Indicators (2 or.  Surface Water (A1)  Water-Stained Leaves (B9) (except  High Water Table (A2)  Saturation (A3)  Salt Crust (B11)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Oxidized Rhizospheres along Living Roots (C3)  Geomorphic Position (I)  Algal Mat or Crust (B4)  Presence of Reduced Iron (C4)  Surface Soil Cracks (B6)  Inundation Vis ble on Aerial Imagery (B7)  Sparsely Vegetated Concave Surface (B8)  Field Observations:  Surface Water Present?  Yes  No  Depth (inches):  Wetland Hydrology Present? Yes  No  Depth (inches):  Wetland Hydrology Present? Yes  No  Depth (inches):  Wetland Hydrology Present? Yes  No  Depth (inches):  Wetland Hydrology Present? Yes  Metland Hydrology Present? Yes		cnes):						Hydric Soil	Present? Yes No
Surface Water (A1)	Wetland Hyd	drology Indicators							
High Water Table (A2)  Saturation (A3)  Salt Crust (B11)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Vis ble on Aerial Imagery (B7)  Sparsely Vegetated Concave Surface (B8)  Field Observations:  Surface Water Present?  Water Table Present?  Yes  No  Depth (inches):  Water Table Reductions)  Saturation (C4)  Shallow Aquitard (D3)  Algal Mat or Crust (B4)  Presence of Reduced Iron (C4)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Stunted or Stressed Plants (D1) (LRR A)  Raised Ant Mounds (D  Other (Explain in Remarks)  Frost-Heave Hummock  Water Table Present?  Yes  No  Depth (inches):  Water Table Present?  Yes  No  Depth (inches):  Wetland Hydrology Present?  Yes  (includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  Remarks:			one require	ed; check all that ap	nlv)				
Saturation (A3) Salt Crust (B11) Drainage Patterns (B10) Water Marks (B1) Aquatic Invertebrates (B13) Dry-Season Water Table Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Saturation Visible on A Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) Geomorphic Position (I Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Aquitard (D3) Iron Deposits (B5) Recent Iron Reduction in Tilled Soils (C6) FAC-Neutral Test (D5) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave Hummock Sparsely Vegetated Concave Surface (B8)  Field Observations:  Surface Water Present? Yes No Depth (inches):  Water Table Present? Yes No Depth (inches):  Saturation Present? Yes No Depth (inches):  Saturation Present? Yes No Poepth (inches):  Saturation Present? Yes No Poepth (inches): Wetland Hydrology Present? Yes (includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:									dary Indicators (2 or more required)
Water Marks (B1) Aquatic Invertebrates (B13) Dry-Season Water Table Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Saturation Visible on A Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) Geomorphic Position (I	High M/-	ter Table (A2)			tained Lea		except		ater-Stained Leaves (B9) (MLRA 1, 2
	_	(40)		MLR	tained Lea A 1, 2, 4A,		except	W	ater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B)
Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) Geomorphic Position (I	Saturatio			MLR Salt Cru	tained Lea <b>A 1, 2, 4A,</b> st (B11)	and 4B)	except	W	ater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) rainage Patterns (B10)
Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Aquitard (D3) Iron Deposits (B5) Recent Iron Reduction in Tilled Soils (C6) FAC-Neutral Test (D5) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D Inundation Vis ble on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave Hummock Sparsely Vegetated Concave Surface (B8)  Field Observations:  Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Wetland Hydrology Present? Yes (includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  Remarks:	Saturatio	arks (B1)		MLR Salt Cru Aquatic	tained Lea A 1, 2, 4A, st (B11) Invertebrat	and 4B) es (B13)	except	W Dr Dr	ater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2)
Iron Deposits (B5) Recent Iron Reduction in Tilled Soils (C6) FAC-Neutral Test (D5) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D Inundation Vis ble on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave Hummock Sparsely Vegetated Concave Surface (B8)  Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Wetland Hydrology Present? Yes (includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  Remarks:	Saturation Water Mater Mater Mater Mater Mater	arks (B1) it Deposits (B2)		MLR Salt Cru Aquatic Hydroge	tained Lea A 1, 2, 4A, st (B11) Invertebraten Sulfide C	and 4B) es (B13) Odor (C1)		W Dr Sa	ater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (CS
Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D Inundation Vis ble on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave Hummock Sparsely Vegetated Concave Surface (B8)  Field Observations:  Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Wetland Hydrology Present? Yes (includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  Remarks:	Saturation Water Mater Material Materia	arks (B1) at Deposits (B2) posits (B3)		MLR Salt Cru Aquatic Hydroge Oxidized	itained Lea A 1, 2, 4A, st (B11) Invertebraten Sulfide C d Rhizosph	es (B13) Odor (C1) eres along	ı Living Ro	W Dr Dr Sa ots (C3) Ge	ater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (CS eomorphic Position (D2)
Sparsely Vegetated Concave Surface (B8)  Field Observations:  Surface Water Present? Yes No Depth (inches):  Water Table Present? Yes No Depth (inches):  Saturation Present? Yes No Depth (inches):  (includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  Remarks:	Saturation Water Market Sedimen Drift Dep Algal Ma	arks (B1) at Deposits (B2) posits (B3) at or Crust (B4)		MLR Salt Cru Aquatic Hydroge Oxidized Presend	tained Lea A 1, 2, 4A, st (B11) Invertebrat en Sulfide C d Rhizosph ee of Reduc	es (B13) Odor (C1) eres along ed Iron (C	ı Living Ro	W Dr Dr Sa ots (C3) Ge	ater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (CS) ecomorphic Position (D2) nallow Aquitard (D3)
Field Observations:  Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  Remarks:	Saturation Water Marker Marker Marker Sedimen Drift Dep Algal Ma	arks (B1) It Deposits (B2) It or Crust (B4) It or (B5)		MLR Salt Cru Aquatic Hydroge Oxidized Presend Recent	tained Lea <b>A 1, 2, 4A,</b> st (B11) Invertebrate an Sulfide C d Rhizosph are of Reduction Reduction	es (B13) Odor (C1) eres along ed Iron (C	J Living Roo (4) ed Soils (Co	W Dr Dr Sa ots (C3) Ge Sh 6) FA	ater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (C9 eomorphic Position (D2) nallow Aquitard (D3) AC-Neutral Test (D5)
Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  Remarks:	Saturatio Water M Sedimen Drift Dep Algal Ma Iron Dep Surface	arks (B1)  It Deposits (B2)  Posits (B3)  It or Crust (B4)  Posits (B5)  Soil Cracks (B6)	Imagery (E	MLR Salt Cru Aquatic Hydroge Oxidized Presend Recent Stunted	tained Lea A 1, 2, 4A, st (B11) Invertebrate Sulfide C d Rhizosph e of Reduction Reduction Reduction Stresser	es (B13) Odor (C1) eres along ed Iron (C tion in Tille d Plants (I	J Living Roo (4) ed Soils (Co	W Dr Dr Sa ots (C3) Ga St 6) FA	ater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (CS eomorphic Position (D2) nallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A)
Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Wetland Hydrology Present? Yes (includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  Remarks:	Saturatio Water M Sedimen Drift Dep Algal Ma Iron Dep Surface S Inundatio	arks (B1)  Int Deposits (B2)  Int or Crust (B4)  Int or Crust (B4)  Int or Crust (B5)  Int or Cracks (B6)  Int or Cracks (B6)  Int or Cracks (B6)  Int or Cracks (B6)		MLR Salt Cru Aquatic Hydroge Oxidized Presend Recent Stunted Other (E	tained Lea A 1, 2, 4A, st (B11) Invertebrate Sulfide C d Rhizosph e of Reduction Reduction Reduction Stresser	es (B13) Odor (C1) eres along ed Iron (C tion in Tille d Plants (I	J Living Roo (4) ed Soils (Co	W Dr Dr Sa ots (C3) Ga St 6) FA	ater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (CS eomorphic Position (D2) nallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A)
Saturation Present? Yes No Depth (inches): Wetland Hydrology Present? Yes (includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  Remarks:	Saturatio Water M Sedimen Drift Dep Algal Ma Iron Dep Surface S Inundatio Sparsely	arks (B1)  Int Deposits (B2)  Int or Crust (B4)  Int or Crust (B4)  Int or Crust (B5)  Soil Cracks (B6)  Int or Vis ble on Aerial  Int vegetated Concave		MLR Salt Cru Aquatic Hydroge Oxidized Presend Recent Stunted Other (E	tained Lea A 1, 2, 4A, st (B11) Invertebrate Sulfide C d Rhizosph e of Reduction Reduction Reduction Stresser	es (B13) Odor (C1) eres along ed Iron (C tion in Tille d Plants (I	J Living Roo (4) ed Soils (Co	W Dr Dr Sa ots (C3) Ga St 6) FA	ater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (CS eomorphic Position (D2) nallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A)
(includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  Remarks:	Saturatio Water M Sedimen Drift Dep Algal Ma Iron Dep Surface S Inundatio Sparsely	arks (B1)  Int Deposits (B2)  Int or Crust (B4)  Int or Crust (B4)  Int or Crust (B5)  Soil Cracks (B6)  Int or Vis ble on Aerial  Int vegetated Concavitations:	e Surface	MLR Salt Cru Aquatic Hydroge Oxidized Presend Recent Stunted The Company of the C	A 1, 2, 4A, st (B11) Invertebraten Sulfide Cd Rhizospher of Reduction Reductor Stresser	es (B13) Odor (C1) eres along ed Iron (C tion in Tille d Plants (E emarks)	J Living Roo (4) ed Soils (Co (21) (LRR A	W Dr Dr Sa ots (C3) Ga St 6) FA	ater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (CS eomorphic Position (D2) nallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A)
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  Remarks:	Saturation Water Manager Sediment Drift Dep Algal Manager Iron Dep Surface Surface Sparsely Field Observ Surface Water	arks (B1) at Deposits (B2) posits (B3) at or Crust (B4) osits (B5) Soil Cracks (B6) on Vis ble on Aerial vegetated Concav vations: er Present?	ve Surface	MLR Salt Cru Aquatic Hydroge Oxidized Presend Recent Stunted Other (E	tained Lea A 1, 2, 4A, st (B11) Invertebrate an Sulfide C d Rhizosph are of Reduct fron Reduct or Stresse explain in R	es (B13) Dodor (C1) eres along ed Iron (C tion in Tille d Plants (I emarks)	J Living Roo (4) ed Soils (Co (1) (LRR A	W Dr Dr Sa ots (C3) Ga St 6) FA	ater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (CS eomorphic Position (D2) nallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A)
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	Saturatio Water Manager Sedimen Drift Dep Algal Manager Surface Surface Surface Surface Water Table Saturation Pr (includes cap	arks (B1)  at Deposits (B2)  posits (B3)  at or Crust (B4)  posits (B5)  Soil Cracks (B6)  por Vis ble on Aerial  at Vegetated Concave  vations:  er Present?  Present?  pesent?	Yes Yes Yes	MLR Salt Cru Aquatic Hydroge Oxidized Presend Recent Stunted Other (E)  No Depth ( No Depth (	tained Lea A 1, 2, 4A, st (B11) Invertebrate an Sulfide C d Rhizosph be of Reduct fron Reduct or Stresse explain in R (inches): (inches): (inches): (inches): (inches): (inches): (inches): (inches):	es (B13) Dodor (C1) eres along ed Iron (C tion in Tille d Plants (I emarks)	J Living Root 4) ed Soils (Co 01) (LRR A	W Dr Dr Sa ots (C3) Ga Sh 6) FA \(\) Ra Fr	ater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (CS eomorphic Position (D2) nallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A) ost-Heave Hummocks (D7)
	Saturatio Water Manager Sedimen Drift Dep Algal Manager Surface Surface Surface Surface Water Table Saturation Pr (includes cap	arks (B1)  at Deposits (B2)  posits (B3)  at or Crust (B4)  posits (B5)  Soil Cracks (B6)  por Vis ble on Aerial  at Vegetated Concave  vations:  er Present?  Present?  pesent?	Yes Yes Yes	MLR Salt Cru Aquatic Hydroge Oxidized Presend Recent Stunted Other (E)  No Depth ( No Depth (	tained Lea A 1, 2, 4A, st (B11) Invertebrate an Sulfide C d Rhizosph be of Reduct fron Reduct or Stresse explain in R (inches): (inches): (inches): (inches): (inches): (inches): (inches): (inches):	es (B13) Dodor (C1) eres along ed Iron (C tion in Tille d Plants (I emarks)	J Living Root 4) ed Soils (Co 01) (LRR A	W Dr Dr Sa ots (C3) Ga Sh 6) FA \(\) Ra Fr	ater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (CS eomorphic Position (D2) nallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A) ost-Heave Hummocks (D7)
No evidence of wetland hydrology observed.	Saturatio Water Manager Sediment Sediment Drift Dep Algal Manager Iron Dep Surface Surface Surface Water Water Table Saturation Pr (includes cap Describe Recommendation)	arks (B1)  at Deposits (B2)  posits (B3)  at or Crust (B4)  posits (B5)  Soil Cracks (B6)  por Vis ble on Aerial  at Vegetated Concave  vations:  er Present?  Present?  pesent?	Yes Yes Yes	MLR Salt Cru Aquatic Hydroge Oxidized Presend Recent Stunted Other (E)  No Depth ( No Depth (	tained Lea A 1, 2, 4A, st (B11) Invertebrate an Sulfide C d Rhizosph be of Reduct fron Reduct or Stresse explain in R (inches): (inches): (inches): (inches): (inches): (inches): (inches): (inches):	es (B13) Dodor (C1) eres along ed Iron (C tion in Tille d Plants (I emarks)	J Living Root 4) ed Soils (Co 01) (LRR A	W Dr Dr Sa ots (C3) Ga Sh 6) FA \(\) Ra Fr	ater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (CS eomorphic Position (D2) nallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A) ost-Heave Hummocks (D7)
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Project/Site: Easton Ranch		City/Co	ounty	Park Cou	unty	Sampling Da	te: 2024-	-06-19
Applicant/Owner: MDT	_	•			State: Montana			
Investigator(s): J Trilling		Section	n, To	wnship, Rar	nge: S32 T4N R9E			
Landform (hillslope, terrace, etc.): Depression					=	<del></del>	Slope (%):	2
Subregion (LRR): E 44B								
Soil Map Unit Name: 155A - Meadowcreek, rarely floor					=			
Are climatic / hydrologic conditions on the site typical for th							• •	
Are Vegetation, Soil, or Hydrology	-						✓ N	0
Are Vegetation, Soil, or Hydrology					eded, explain any answer			
SUMMARY OF FINDINGS – Attach site map								s, etc.
Hydrophytic Vegetation Present? Yes I	No		-		·	<u> </u>		
	No			e Sampled				
Wetland Hydrology Present? Yes I	No		with	in a Wetlan	d? Yes	No		
Remarks:		-						
Wetland point taken near northern b	order o	f site	e.					
VEGETATION – Use scientific names of plan	nts.							
Tree Stratum (Plot size: 30 ft r	Absolute % Cover				Dominance Test work			
1					Number of Dominant Sp That Are OBL, FACW, of	pecies or FAC 2		(A)
2.								( )
3.					Total Number of Domin- Species Across All Stra	ant ta: <u>2</u>		(B)
4								, ,
0 11 (0) 1 0 1 (0) 1 15 ft m		_ = Tota	al Co	ver	Percent of Dominant Sp That Are OBL, FACW, of		0.00	(A/B)
Sapling/Shrub Stratum (Plot size: 15 ft r  1. Salix bebbiana	5	,	,	FACW	Prevalence Index work	ksheet:		
				TACV	Total % Cover of:	Μι	ultiply by:	_
2						x 1 = _		_
4.					FACW species 65	x 2 =	130	_
5.						x 3 = _		_
	5	= Tota	al Co	ver	_	x 4 = _		_
Herb Stratum (Plot size: 5 ft r )					UPL species 0	x 5 = _	186	(D)
1. Juncus balticus	60			FACW	Column Totals: 87	(A)	100	(B)
2. Elymus repens 3 Carex pellita	<u>15</u> 			FAC	Prevalence Index			_
Lotus corniculatus	$-\frac{3}{2}$			OBL FAC	Hydrophytic Vegetation			
5					1 - Rapid Test for F		egetation	
6.					<ul><li>✓ 2 - Dominance Tes</li><li>✓ 3 - Prevalence Inde</li></ul>			
7.					4 - Morphological A		Provide eun	norting
8.					data in Remarks			
9					5 - Wetland Non-Va	ascular Plants	, <sup>1</sup>	
10					Problematic Hydrop	ohytic Vegetat	tion¹ (Expla	in)
11					<sup>1</sup> Indicators of hydric soil			must
Manda Vina Chaham (District 30 ft r	82	_= Tota	I Cov	/er	be present, unless distu	nueu or proble	emauc.	
Woody Vine Stratum (Plot size: 30 ft r )								
1					Hydrophytic Vegetation			
2		= Tota			Present? Yes	s No	o	
% Bare Ground in Herb Stratum 18	_	1014	00	, OI				
Remarks:								
Evidence of hydrophytic vegetation inc	ludes a i	posit	ive	rapid te	st, a positive don	ninance t	est, and	la

US Army Corps of Engineers

prevalence index less than or equal to 3.0.

SOIL Sampling Point: DP10w

Profile Descr	iption: (Describe	to the de	oth needed to docur	nent the	indicator	or confirm	the absence of ind	icators.)	
Depth	Matrix			x Feature					
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	<u>Texture</u>	Remarks	
0 - 9	10YR 4/1	95	10YR 4/6	5	<u>C</u>	M	Clay Loam		
9 - 14	10YR 4/1	90	7.5YR 4/4	10	<u>C</u>	M	Clay Loam		
14 - 18	10YR 4/1	90	7.5YR 4/4	10	С	М	Sandy Clay Loam		_
-					-				_
		_		-	_				
		_					·		_
			-	-	-				
1T C-C-		DN	I-Dadwaad Matrix Ct				21	DI -Dava Linina M-	-NA-staire
			I=Reduced Matrix, CS I LRRs, unless othe			ed Sand Gr		PL=Pore Lining, M= Problematic Hydric	
Histosol (		Jabic to ai	Sandy Redox (		icu.,		2 cm Muck		
	pedon (A2)		Stripped Matrix					t Material (TF2)	
Black His			Loamy Mucky I	` '	1) (excen	t MI RA 1)		ow Dark Surface (TF	:12)
	n Sulfide (A4)		Loamy Gleyed		, , .	· IIILIKA I)	•	lain in Remarks)	12)
	Below Dark Surface	ce (A11)	✓ Depleted Matrix		<b>~</b> )		Other (Exp	iaiii iii remans)	
	rk Surface (A12)	(, (, 1)	Redox Dark Su		)		<sup>3</sup> Indicators of h	ydrophytic vegetatio	n and
	ucky Mineral (S1)		Depleted Dark	`	,			rology must be pres	
-	eyed Matrix (S4)		Redox Depress				-	rbed or problematic.	
	ayer (if present):				<u>'</u>		1	. zou er prodiematie	
Type:	., ( p								
Depth (inc	hes):						Hydric Soil Prese	nt? Yes 🗸	No
Remarks:	,								
HYDROLOG	GY rology Indicators	•							
-			ed; check all that appl	v)			Secondary Ir	ndicators (2 or more	required)
	Vater (A1)	ono roquire	Water-Sta		/es (R9) (e	excent		tained Leaves (B9)	
	er Table (A2)			1, 2, 4A,		жоорі		ind 4B)	(11121174 1, 2,
✓ Saturatio			Salt Crust		and 4b)			e Patterns (B10)	
· · · · · · · · · · · · · · · · · · ·	, ,				(D40)		_		2)
Water Ma			Aquatic In					son Water Table (Ca on Visible on Aerial	
· · · · · · · · · · · · · · · · · · ·	t Deposits (B2)		Hydrogen			Lista a Das	<del></del>		magery (C9)
	osits (B3)				-	Living Roo		phic Position (D2)	
_	t or Crust (B4)		Presence		•	•		Aquitard (D3)	
	osits (B5)					ed Soils (C6		utral Test (D5)	3B A\
· · · · · · · · · · · · · · · · · · ·	Soil Cracks (B6)					01) ( <b>LRR A</b> )		Ant Mounds (D6) (Li	,
	n Vis ble on Aerial			olain in R	emarks)		Frost-He	eave Hummocks (D7	( )
	Vegetated Concav	e Surface	(B8)						
Field Observ									
Surface Wate			No Depth (in						
Water Table F			No Pepth (in						
Saturation Pro (includes capi		Yes	No Depth (in	ches): 10	)	Wetla	and Hydrology Pres	ent? Yes	No
		n gauge, m	onitoring well, aerial	photos, p	revious ins	spections),	if available:		
Remarks:					-				
Evidence	of wetland	hydro	logy includes	soil s	aturati	ion, ged	omorphic pos	ition, and a p	oositive
FAC-Neu		-							

## MDT Montana Wetland Assessment Form (revised March 2008)

1. Project Name: Easton Ranch 2. MDT Project #: STPP STWD (813) Control #: 9680000

3. Evaluation Date: 06/19/2024 4. Evaluator(s): E Reynaud 5. Wetlands/Site #(s): Creation 6. Wetland Location(s): i. Legal: T4N,R9E,32 Latitude/Longitude: 46.0584, -110.638189:

6. Wetland Location(s): i. Legal: T4N,R9E,32 Latitude/Locationing or Mileposts: NA

iii. Watershed: 13

Watershed Name, County: Upper Yellowstone, Park

7. a. Evaluating Agency: Confluence Consulting

b. Purpose of Evaluation:

1. Wetlands potentially affected by MDT project

2. Mitigation wetlands; pre-construction

8. Wetland size: 12.330 acres (measured)

3. X Mitigation wetlands; post-construction

9. Assessment area (AA): 12.330 acres (measured)

**4.** Other:

#### 10. Classification of Wetland and Aquatic Habitats in AA

HGM Class (Brinson)	Class (Cowardin)	Modifier (Cowardin)	Water Regime	% of AA	
D	AB	E	SI	1.00	
R	EM	Е	SI	69.00	
R	SS	E	SI	30.00	

Abbreviations: (see manual for definitions)

HGM Classes: Riverine (R), Depressional (D), Slope (S), Mineral Soil Flats (MSF), Organic Soil Flats (OSF), Lacustrine Fringe (LF); Cowardin Classes: Rock Bottom (RB), Unconsolidated bottom (UB), Aquatic Bed (AB), Unconsolidated Shore (US), Moss-lichen Wetland (ML), Emergent Wetland (EM), Scrub-Shrub Wetland (SS), Forested Wetland (FO)

**Modifiers:** Excavated (**E**), Impounded (**I**), Diked (**D**), Partly Drained (**PD**), Farmed (**F**), Artificial (**A**)

Water Regimes: Permanent / Perennial (PP), Seasonal / Intermittent (SI), Temporary / Ephemeral (TE)

11. Estimated relative abundance: (of similarly classified sites within the same Major Montana Watershed Basin, see definitions) COMMON

### 12. General condition of AA:

i. Disturbance: (use matrix below to determine [circle] appropriate response – see instructions for Montana-listed noxious weed and aquatic nuisance vegetation species (ANVS) list)

	Predomin	ant conditions adjacent to (within 500 t	feet of) AA	
Conditions within AA	Managed in predominantly natural state; is not grazed, hayed, logged, or otherwise converted; does not contain roads or buildings; and noxious weed or ANVS cover is >=15%.	Land not cultivated, but may be moderately grazed or hayed or selectively logged; or has been subject to minor clearing; contains few roads or buildings; noxious weed or ANVS cover is <= 30%.	Land cultivated or heavily grazed or logged; subject to substantial fill placement, grading, clearing, or hydrological alteration; high road or building density; or noxious weed or ANVS cover is > 30%.	
AA occurs and is managed in predominantly natural state; is not grazed, hayed, logged, or otherwise converted; does not contain roads or occupied buildings; and noxious weed or ANVS cover is <= 15%.	low disturbance	low disturbance	moderate disturbance	
AA not cultivated, but may be moderately grazed or hayed or selectively logged; or has been subject to relatively minor clearing, fill placement, or hydrological alteration; contains few roads or buildings; noxious weed or ANVS cover is <=	moderate disturbance	moderate disturbance	high disturbance	
AA cultivated or heavily grazed or logged; subject to relatively substantial fill placement, grading, clearing, or hydrological alteration; high road or building density; or noxious weed or ANVS cover is > 30%.	high disturbance	high disturbance	high disturbance	

Comments: (types of disturbance, intensity, season, etc.): Limited agriculture (hay) and a few ranch structures to the east. Undeveloped riparian corridor and herbaceous uplands to north, south, and west. A new house was built west of the Shield River on an upland terrace. Three species of noxious weeds were present within the AA. The AA is managed in a natural state, as are most of the lands within 500 feet of the AA ii. Prominent noxious, aquatic nuisance, & other exotic vegetation species: Cirsium arvense, Cynoglossum officinale, and Potentilla recta iii. Provide brief descriptive summary of AA and surrounding land use/habitat: The AA consists of five constructed wetland cells. The lowest contours of the wetland cells are seasonally inundated and have developed wetland characteristics. The majority of higher elevations within the site lack wetland characteristics and support upland plant communities. The cells are bordered by limited agriculture (hay and food plots) and an undeveloped riparian corridor.

13. Structural Diversity: (based on number of "Cowardin" vegetated classes present [do not include unvegetated classes], see #10 above)

Existing # of "Cowardin" Vegetated Classes in AA		Is current management existence of additional	Modified Rating	
>= 3 (or 2 if 1 is forested) classes	Н	NA	NA	NA
2 (or 1 if forested) classes		NA	NA	NA
1 class, but not a monoculture	М	< NO	YES>	L
1 class, monoculture (1 species comprises >= 90% of total cover)	L	NA	NA	NA

Comments: The AA consists of palustrine emergent wetlands (PEM), scrub-shrub (young PSS), and an aquatic bed at the east central portion of the AA.

1

#### SECTION PERTAINING to FUNCTIONS & VALUES ASSESSMENT

### 14A. Habitat for Federally Listed or Proposed Threatened or Endangered Plants or Animals:

i. AA is Documented (D) or Suspected (S) to contain (circle one based on definitions contained in instructions):

Incidental habitat (list species) Primary or critical habitat (list species) Secondary habitat (list species)

Monarch Butterfly(S)

Canada Lynx (LT), North American North American Wolverine(S)

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

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

Sources for documented use (e.g. observations, records, etc): USFWS IPAC 2024

14B. Habitat for plant or animals rated S1, S2, or S3 by the Montana Natural Heritage Program: (not including species listed in14A above)

i. AA is Documented (D) or Suspected (S) to contain (circle one based on definitions contained in instructions):

Primary or critical habitat (list species) Secondary habitat (list species) Incidental habitat (list species)

Bobolink (D) - S2S3

Golden Eagle(D) - S2S3

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

Highest Habitat Level	doc/primary	sus/primary	doc/secondary	sus/secondary	doc/incidental	sus/incidental	None
S1 Species: Functional Points and Rating	1H	.8H	.7M	.6M	.2L	.1L	0L
<b>S2 and S3 Species:</b> Functional Points and Rating	.9Н	.7M	.6M	.5M	.2L	.1L	0L

Sources for documented use (e.g. observations, records, etc): MTNHP, 2024 and 2019-2024 field observations. Bobolink nesting on site documented by MDT staff. Golden eagle observed in 2023, bald eagle observed in 2024.

### 14C. General Wildlife Habitat Rating:

interviews with local biologists with knowledge of the AA

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

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

ii. Wildlife habitat features (Working from top to bottom, circle appropriate AA attributes in matrix to arrive at rating. Structural diversity is from #13. For class cover to be considered evenly distributed, the most and least prevalent vegetated classes must be within 20% of each other interms of their percent composition of the AA (see #10). Abbreviations for surface water durations are as follows: P/P = permanent/perennial; S/I = seasonal/intermittent; T/E = temporary/ephemeral; and A = absent [see instructions for further definitions of these terms])

Structural diversity (see #13)		High				Moderate							Low							
Class cover distribution (all vegetated classes)		Ev	en			Une	even			Ev	en			Une	even			Ev	en	
Duration of surface water in >=10% of AA	P/P	S/I	T/E	Α	P/P	S/I	T/E	Α	P/P	S/I	T/E	Α	P/P	S/I	T/E	Α	P/P	S/I	T/E	Α
Low disturbance at AA (see #12i)	Е	E	Е	Н	Е	E	Н	Н	Е	Н	Н	М	Ε	Н	М	М	Ε	Н	М	М
<b>Moderate</b> disturbance at AA (see #12i)	Н	Н	Н	Н	Н	Н	Н	М	Н	Н	М	М	Н	М	М	L	Н	М	L	L
High disturbance at AA (see #12i)	М	М	М	L	М	М	L	L	М	М	L	L	М	L	L	L	L	L	L	L

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

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

Comments:

There is a bald eagle (Haliaeetus leucocephalus) nest directly southwest of the site on the west side of the Shields River. During the 2024 monitoring, the nest was in use. The project site is within the primary habitat zone for bald eagles. In 2024 observed white-tailed deer and many bird species.

2

**14D. General Fish Habitat Rating:** (Assess this function if the AA is used by fish or the existing situation is "correctable" such that the AA could be used by fish [i.e., fish use is precluded by perched culvert or other barrier, etc.]. If the AA is not used by fish, fish use is not restorable due to habitat constraints, or is not desired from a management perspective [such as fish entrapped in a canal], then mark **X NA** and proceed to 14E.)

Type of Fishery: Cold Water (CW) \_\_\_ Warm Water (WW) \_\_ Use the CW or WW guidelines in the user manual to complete the matrix

i. Habitat Quality and Known / Suspected Fish Species in AA (use matrix to arrive at [circle] the functional points and rating)

Duration of surface water in AA	Permanent / Perennial				Seasonal / Intermittent					Temporary / Ephemeral								
Aquatic hiding / resting / escape cover	Opti	imal	Adeo	quate	Po	oor	Opt	imal	Adeo	quate	Po	or	Opt	imal	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	.2L
FWP Tier II or Native Game fish species	.9H	.8H	.7M	.6M	.5M	.5M	.8H	.7M	.6M	.5M	.4M	.4M	.6M	.5M	.4M	.3L	.2L	.2L
FWP Tier III or Introduced Game fish	.8H	.7M	.6M	.5M	.5M	.4M	.7M	.6M	.5M	.4M	.4M	.3L	.5M	.4M	.3L	.2L	.2L	.1L
FWP Non-Game Tier IV or No fish species	.5M	.5M	.5M	.4M	.4M	.3L	.4M	.4M	.4M	.3L	.3L	.2L	.2L	.2L	.2L	.1L	.1L	.1L

Sources used for identifying fish sp. potentially found in AA:

- ii. Modified Rating (NOTE: Modified score cannot exceed 1 or be less than 0.1)
- a) Is fish use of the AA significantly reduced by a culvert, dike, or other man-made structure or activity or is the waterbody included on the current final MDEQ list of waterbodies in need of TMDL development with listed "Probable Impaired Uses" including cold or warm water fishery or aquatic life support, or do aquatic nuisance plant or animal species (see Appendix E) occur in fish habitat?

  If yes, reduce score in i above by 0.1.
- b) Does the AA contain a documented spawning area or other critical habitat feature (i.e., sanctuary pool, upwelling area, etc.- specify in comments) for native fish or introduced game fish? If yes, add 0.1 to the adjusted score in i or iia.
- iii. Final Score and Rating: NA Comments: Wetland cells are isolated from Shields River with no fish habitat present.
- **14E. Flood Attenuation:** (Applies only to wetlands subject to flooding via in-channel or overbank flow. If wetlands in AA are not flooded from in-channel or overbank flow, mark \_\_\_\_ **NA** and proceed to 14F.)
- i. Rating (working from top to bottom, use the matrix below to arrive at [circle] the functional points and rating)

Estimated or Calculated Entrenchment (Rosgen 1994, 1996)	, ,	entrenche stream typ			ely entrend stream type		Entrenched-A, F, G stream types		
% of flooded wetland classified as forested and/or scrub/shrub	75%	25-75%	<25%	75%	25-75%	<25%	75%	25-75%	<25%
AA contains no outlet or restricted outlet	1H	.9H	.6M	.8H	.7M	.5M	.4M	.3L	.2L
AA contains unrestricted outlet	.9H	.8H	.5M	.7M	.6M	.4M	.3L	.2L	.1L

Entrenchment ratio (ER) estimation – see User's Manual for additional guidance. Entrenchment ratio = (flood-prone width)/(bankfull width) Flood-prone width = estimated horizontal projection of where 2 x maximum bankfull depth elevation intersects the floodplain on each side of the stream.

133 /	28 =	4.75
Flood-prone width	Bankfull width	Entrenchment ratio



SI	ightly Entrenche ER = >2.2	d	Moderately Entrenched ER = 1.41 – 2.2	Entrenched ER = 1.0 - 1.4			
C stream type	D stream type	E stream type	B stream type	A stream type	F stream type	G stream type	
	****	1				<b>—</b>	

ii. Are ≥10 acres of wetland in the AA subject to flooding AND are man-made features which may be significantly damaged by floods located within 0.5 mile downstream of the AA (circle)? X Comments: AA receives overbank flow from Shields River during high flow events and houses located within 5 miles downstream.

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- **14F. Short and Long Term Surface Water Storage:** (Applies to wetlands that flood or pond from overbank or in-channel flow, precipitation, upland surface flow, or groundwater flow. If no wetlands in the AA are subject to flooding or ponding, **NA** and proceed to 14G.)
- i. Rating (Working from top to bottom, use the matrix below to arrive at [circle] the functional points and rating. Abbreviations for surface water durations are as follows: P/P = permanent/perennial; S/I = seasonal/intermittent; and T/E = temporary/ephemeral [see instructions for further definitions of these terms].)

Estimated maximum acre feet of water contained in wetlands within the AA that are subject to periodic flooding or ponding	>:	5 acre fe	et	1.1 t	to 5 acre	feet	<=1 acre foot		
Duration of surface water at wetlands within the AA	P/P	S/I	T/E	P/P	S/I	T/E	P/P	S/I	T/E
Wetlands in AA flood or pond >= 5 out of 10 years	1H	.9H	.8H	.8H	.6M	.5M	.4M	.3L	.2L
Wetlands in AA flood or pond < 5 out of 10 years	.9H	.8H	.7M	.7M	.5M	.4M	.3L	.2L	.1L

Comments: (12.33 acre wetland) \* (1 ft. max depth at high water) = 12.33 acre feet

**14G. Sediment/Nutrient/Toxicant Retention and Removal:** (Applies to wetlands with potential to receive sediments, nutrients, or toxicants through influx of surface or ground water or direct input. If no wetlands in the AA are subject to such input, **NA** and proceed to 14H.)

i. Rating (working from top to bottom, use the matrix below to arrive at [circle] the functional points and rating [H=high, M=moderate, or L=low])

Sediment, nutrient, and toxicant input levels within AA	AA receives or surrounding land use with potential to deliver levels of sediments, nutrients, or compounds at levels such that other functions are not substantially impaired. Minor sedimentation, sources of nutrients or toxicants, or signs of eutrophication present.				developmen nutrients, or t use with po nutrients, o substantially	t for "probable of coxicants or AA otential to delive or compounds so or impaired. Majo	waterbodies in recauses" related receives or surer high levels of uch that other for sedimentations of eutrophical	to sediment, rounding land sediments, unctions are n, sources of
% cover of wetland vegetation in AA	>=	70%	< 7	′0%	>=	70%	< 7	0%
Evidence of flooding / ponding in AA	Yes No Yes No			Yes	No	Yes	No	
AA contains no or restricted outlet	1H .8H .7M .5M			.5M	.4M	.3L	.2L	
AA contains unrestricted outlet	<b>.9H</b> .7M .6M .4M			.4M	.3L	.2L	.1L	

Comments: There was evidence of ponding and flooding in 2024. Some of the low-lying areas were saturated during the 2024 monitoring event.

**14H Sediment/Shoreline Stabilization:** (Applies only if AA occurs on or within the banks or a river, stream, or other natural or man-made drainage, or on the shoreline of a standing water body which is subject to wave action. If 14H does not apply, **NA** and proceed to 14I.)

i. Rating (working from top to bottom, use the matrix below to arrive at [circle] the functional points and rating)

		1 07							
% Cover of wetland streambank or	Duration of surface water adjacent to rooted vegetation								
shoreline by species with stability ratings of >=6 (see <b>Appendix F</b> ).	Permanent / Perennial	Seasonal / Intermittent	Temporary / Ephemeral						
>= 65%	1H	.9Н	.7M						
35-64%	.7M	.6M	.5M						
35%	.3L	.2L	.1L						

Comments: One small open water area in the east central portion of the project area was observed in 2024. Deep-rooted species observed in 2024 include willows, bulrush, spikerush, sedges, and rushes.

### 14I. Production Export/Food Chain Support:

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

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

ii. Rating (Working from top to bottom, use the matrix below to arrive at [circle] the functional points and rating. Factor A = acreage of vegetated wetland component in the AA; Factor B = level of biological activity rating from above (14l.i.); Factor C = whether or not the AA contains a surface or subsurface outlet; the final three rows pertain to duration of surface water in the AA, where P/P, S/I, and T/E are as previously defined, and A = "absent" [see instructions for further definitions of these terms].)

Α		Vegetat	ed comp	onent >	5 acres		Vegetated component 1-5 acres						Vegetat	ted com	ponent <	onent < 1 acre						
В	Hi	gh	Mode	erate	Lo	)W	Hi	gh	Mode	erate	Lo	w	Hi	gh	Mod	erate	Lo	ow				
С	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No				
P/P	1H	.7M	.8H	.5M	.6M	.4M	.9H	.6M	.7M	.4M	.5M	.3L	.8H	.6M	.6M	.4M	.3L	.2L				
S/I	.9H	.6M	.7M	.4M	.5M	.3L	.8H	.5M	.6M	.3L	.4M	.2L	.7M	.5M	.5M	.3L	.3L	.2L				
T/E/A	.8H	.5M	.6M	.3L	.4M	.2L	.7M	.4M	.5M	.2L	.3L	.1L	.6M	.4M	.4M	.2L	.2L	.1L				

iii. Modified Rating (NOTE: Modified score cannot exceed 1 or be less than 0.1.) Vegetated Upland Buffer (VUB): Area with >= 30% plant cover, = 15% noxious weed or ANVS cover, and that is not subjected to periodic mechanical mowing or clearing (unless for weed control).

a) Is there an average >= 50 foot-wide vegetated upland buffer around >= 75% of the AA circumference?

X If yes, add 0.1 to the score in ii above.

iv. Final Score and Rating: 1.00H
Comments: Vegetated area greater than 5 acres with a moderate level of biological activity and seasonal hydrology.

i. Discharge Indicators		i. Recharge	Indicators						
The AA is a slope wetland					•		ent without u	nderlying imp	eding laver
Springs or seeps are known	or observed				Vetland conta			iacitying iilip	caning layer
Vegetation growing during do		n/drought						harge volume	decreases
Wetland occurs at the toe of		_			Other:	lown looning	otream, also	narge volume	deoreases
AA permanently flooded duri		•			ouici.				
Wetland contains an outlet. b		Criods							
X Shallow water table and the		ted to the sur	face						
Other:	ono io oatara	104 10 1110 041	1400						
iii. Rating (use the information from i	and ii above	and the table	below to arr	ive at [circle]	the functions	al points and	rating)		
				on at AA We			<u> </u>	1	
DISCHARGE OR WITH WATER THAT IS RECHARGING									
			<u>G</u> l	<u>ROUNDWAT</u>	TER SYSTEM	1			
Criteria		P/P		S/I	Т		None	1	
Groundwater Discharge or Rechar	rge	1H		.7M	.4M		.1L	]	
Insufficient Data/Information				N//	A	-		]	
Comments: Soils saturated or moist	across most	of the constr	ucted wetlan	nds in 2024.				-	
44K Haimmanaa									
14K. Uniqueness:			unio at Fainal	-1 4b - £4i		-l			
i. Rating (working from top to bottom,	use the mati	ix below to a	rrive at [circie	r –	•		1		
	AA contains	s fen, bog, wa	arm springs		t contain pre		AA does no	t contain pre	viously cited
Replacement potential	or mature	e (>80 yr-old)	forested		and structur high or conta			es or associa	
Replacement potential		plant associ			on listed as "		structura	I diversity (#1	<ol><li>is low-</li></ol>
	as "S	S1" by the MT	NHP		MTNHP	o_		moderate	
Estimated relative abundance (#11)	rare	common	abundant	rare	common	abundant	rare	common	abundant
Low disturbance at AA (#12i)	1H	.9H	.8H	.8H	.6M	.5M	.5M	.4M	.3L
Moderate disturbance at AA (#12i)	.9H	.8H	.7M	.7M	.5M	.4M	.4M	.3L	.2L
High disturbance at AA (#12i)	.8H	.7M	.6M	.6M	.4M	.3L	.3L	.2L	.1L
Comments: Trees and shrubs are es	stablishing w	ell across the	AA. Howeve	er, saplings a	ire experienc	ing significar	it herbivory w	hich is stunti	ng growth.
Site disturbance is low.									
14L. Recreation/Education Potentia	I: (affords "bo	onus" points i	f AA provide	s recreation	or education	opportunity)			
i. Is the AA a known or potential rec							rk <b>X NA</b> aı	nd proceed to	the .
overall summary and rating pa		′ <del></del> `			•			•	
ii. Check categories that apply to the	ne AA:	Educational/s	scientific stud	dy: Cons	sumptive rec	.; Non-c	onsumptive	rec.;	
,		Other:		· —	·	<i></i>	•	ŕ	
iii. Rating:		01101							
Known or Potential Recreation or Ed	lucation Arac						Known	Dotontial	
			accoss (no i	normicsion	roquirod)		Known .2H	Potential .15H	
Private ownership with general put					on for public	200055	.1M	.1M .05L	
Comments: Landowner does not allo					on for public	access	. I IVI	.UUL	_
Comments. Landowner does not and	ow public dol	oces or cuulo	anomai use Ui	uic site.					
General Site Notes									
The site is developing into a product	ive wetland s	vstem. Howe	ever. scrub-s	hrub commu	nities have be	een stunted b	ov heavy her	bivorv.	
and a product		, , , , , , , , , , , , , , , , , , , ,	,				. , ,		

**14J. Groundwater Discharge/Recharge:** (check the appropriate indicators in i & ii below)

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## FUNCTION & VALUE SUMMARY & OVERALL RATING FOR WETLAND/SITE #(S): Creation

Function & Value Variables	Rating	Actual Functional Points	Possible Functional Points	Functional Units: (Actual Points x Wetland Acreage)	Indicate the four most prominent functions with an asterisk (*)
A. Listed/Proposed T&E Species Habitat	L	0.10	1	1.23	
B. MT Natural Heritage Program Species Habitat	Н	0.90	1	11.10	*
C. General Wildlife Habitat	Н	0.90	1	11.10	*
D. General Fish Habitat	NA				
E. Flood Attenuation	Н	0.80	1	9.86	
F. Short and Long Term Surface Water Storage	Н	0.80	1	9.86	
G. Sediment/Nutrient/Toxicant Removal	Н	0.90	1	11.10	*
H. Sediment/Shoreline Stabilization	Н	0.90	1	11.10	
I. Production Export/Food Chain Support	Н	1.00	1	12.33	*
J. Groundwater Discharge/Recharge	М	0.70	1	8.63	
K. Uniqueness	М	0.60	1	7.40	
L. Recreation/Education Potential (bonus points)	NA				
Totals:		7.60	10.00	93.71	
Percent of Possible Score			76%		

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### OVERALL ANALYSIS AREA RATING: II

Summary Comments: AA contains a diversity of habitats and wildlife.

## MDT Montana Wetland Assessment Form (revised March 2008)

1. Project Name: Easton Ranch 2. MDT Project #: STPP STWD (813) Control #: 9680000

3. Evaluation Date: 06/19/2024 4. Evaluator(s): E Reynaud 5. Wetlands/Site #(s): Preservation

6. Wetland Location(s): i. Legal: T4N,R9E,32 Latitude/Longitude: 46.059037, -110.63809:

ii. Approx. Stationing or Mileposts: NA

iii. Watershed: 13

Watershed Name, County: Upper Yellowstone, Park

7. a. Evaluating Agency: Confluence Consulting

b. Purpose of Evaluation:

1. Wetlands potentially affected by MDT project

2. Mitigation wetlands; pre-construction

8. Wetland size:
1.100 acres (measured)

9. Assessment area (AA):
1.100 acres (measured)

**4.** Other:

#### 10. Classification of Wetland and Aquatic Habitats in AA

HGM Class (Brinson)	Class (Cowardin)	Modifier (Cowardin)	Water Regime	% of AA
R	EM	NA	SI	70.00
R	SS	NA	SI	30.00

Abbreviations: (see manual for definitions)

**HGM Classes:** Riverine (**R**), Depressional (**D**), Slope (**S**), Mineral Soil Flats (**MSF**), Organic Soil Flats (**OSF**), Lacustrine Fringe (**LF**);

Cowardin Classes: Rock Bottom (RB), Unconsolidated bottom (UB), Aquatic Bed (AB), Unconsolidated Shore (US), Moss-lichen Wetland (ML), Emergent Wetland (EM), Scrub-Shrub Wetland (SS), Forested Wetland (FO)

**Modifiers:** Excavated (**E**), Impounded (**I**), Diked (**D**), Partly Drained (**PD**), Farmed (**F**), Artificial (**A**)

Water Regimes: Permanent / Perennial (PP), Seasonal / Intermittent (SI), Temporary / Ephemeral (TE)

11. Estimated relative abundance: (of similarly classified sites within the same Major Montana Watershed Basin, see definitions)

COMMON

### 12. General condition of AA:

i. Disturbance: (use matrix below to determine [circle] appropriate response – see instructions for Montana-listed noxious weed and aquatic nuisance vegetation species (ANVS) list)

	Predomin	ant conditions adjacent to (within 500 t	feet of) AA
Conditions within AA	Managed in predominantly natural state; is not grazed, hayed, logged, or otherwise converted; does not contain roads or buildings; and noxious weed or ANVS cover is >=15%.	Land not cultivated, but may be moderately grazed or hayed or selectively logged; or has been subject to minor clearing; contains few roads or buildings; noxious weed or ANVS cover is <= 30%.	Land cultivated or heavily grazed or logged; subject to substantial fill placement, grading, clearing, or hydrological alteration; high road or building density; or noxious weed or ANVS cover is > 30%.
AA occurs and is managed in predominantly natural state; is not grazed, hayed, logged, or otherwise converted; does not contain roads or occupied buildings; and noxious weed or ANVS cover is <= 15%.	low disturbance	low disturbance	moderate disturbance
AA not cultivated, but may be moderately grazed or hayed or selectively logged; or has been subject to relatively minor clearing, fill placement, or hydrological alteration; contains few roads or buildings; noxious weed or ANVS cover is <=	moderate disturbance	moderate disturbance	high disturbance
AA cultivated or heavily grazed or logged; subject to relatively substantial fill placement, grading, clearing, or hydrological alteration; high road or building density; or noxious weed or ANVS cover is > 30%.	high disturbance	high disturbance	high disturbance

**Comments:** (types of disturbance, intensity, season, etc.): AA consists of existing riverine PFO/PSS/PEM wetlands located adjacent to the created depressional wetlands and flood channel. AA and adjacent areas are managed in a natural state, disturbance is low.

ii. Prominent noxious, aquatic nuisance, & other exotic vegetation species: Cirsium arvense, Cynoglossum officinale

iii. Provide brief descriptive summary of AA and surrounding land use/habitat: AA contains small areas of existing PFO/PSS/PEM wetlands located at the northwest (Shields River) and southcentral ends of the mitigation area. The existing PFO/PEM habitat located at the southern end of the AA receives direct hydrologic inputs from the created flood channel. Both wetland features are bordered by created wetlands and the Shields River riparian corridor.

13. Structural Diversity: (based on number of "Cowardin" vegetated classes present [do not include unvegetated classes], see #10 above)

Existing # of "Cowardin" Vegetated Classes in AA	Initial Rating	Is current management existence of additiona		Modified Rating
>= 3 (or 2 if 1 is forested) classes	Н	NA	NA	NA
2 (or 1 if forested) classes	М	NA	NA	NA
1 class, but not a monoculture	М	< NO	YES>	L
1 class, monoculture (1 species comprises >= 90% of total cover)	L	NA	NA	NA

Comments: PEM and PSS vegetated communities are present on site.

#### SECTION PERTAINING to FUNCTIONS & VALUES ASSESSMENT

### 14A. Habitat for Federally Listed or Proposed Threatened or Endangered Plants or Animals:

i. AA is Documented (D) or Suspected (S) to contain (circle one based on definitions contained in instructions):

Incidental habitat (list species) Primary or critical habitat (list species) Secondary habitat (list species) Monarch Butterfly(S)

Canada Lynx (LT), North American North American Wolverine(S)

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

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

Sources for documented use (e.g. observations, records, etc): USFWS IPAC 2024

interviews with local biologists with knowledge of the AA

14B. Habitat for plant or animals rated S1, S2, or S3 by the Montana Natural Heritage Program: (not including species listed in14A above)

i. AA is Documented (D) or Suspected (S) to contain (circle one based on definitions contained in instructions):

Primary or critical habitat (list species) Secondary habitat (list species) Incidental habitat (list species)

Bobolink (D) - S2S3

Golden Eagle(D) - S2S3

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

Highest Habitat Level	doc/primary	sus/primary	doc/secondary	sus/secondary	doc/incidental	sus/incidental	None
S1 Species: Functional Points and Rating	1H	.8H	.7M	.6M	.2L	.1L	0L
<b>S2 and S3 Species:</b> Functional Points and Rating	.9Н	.7M	.6M	.5M	.2L	.1L	0L

Sources for documented use (e.g. observations, records, etc): MTNHP, 2024 and 2019-2024 field observations. Bobolink nesting on site documented by MDT staff. Golden eagle observed in 2023. Two bald eagles were observed onsite 14C. General Wildlife Habitat Rating: in 2024.

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

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

ii. Wildlife habitat features (Working from top to bottom, circle appropriate AA attributes in matrix to arrive at rating. Structural diversity is from #13. For class cover to be considered evenly distributed, the most and least prevalent vegetated classes must be within 20% of each other interms of their percent composition of the AA (see #10). Abbreviations for surface water durations are as follows: P/P = permanent/perennial; S/I = seasonal/intermittent; T/E = temporary/ephemeral; and A = absent [see instructions for further definitions of these terms])

Structural diversity (see #13)		High						Moderate							Low					
Class cover distribution (all vegetated classes)		Ev	en			Une	even			Ev	en			Une	even			Ev	en	
Duration of surface water in >=10% of AA	P/P	S/I	T/E	Α	P/P	S/I	T/E	Α	P/P	S/I	T/E	Α	P/P	S/I	T/E	Α	P/P	S/I	T/E	Α
Low disturbance at AA (see #12i)	Е	E	Е	Н	Е	E	Н	Н	Е	Н	Н	М	Ε	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	М	L	L
<b>High</b> disturbance at AA (see #12i)	М	М	М	L	М	М	L	L	М	М	L	L	М	L	L	L	L	L	L	L

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

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

Moderate use of site by moose, deer, and many bird species. There is a bald eagle (Haliaeetus leucocephalus) nest directly Comments: southwest of the site on the west side of the Shields River. Nest was in use by bald eagle pair during 2024 monitoring.

2

**14D. General Fish Habitat Rating:** (Assess this function if the AA is used by fish or the existing situation is "correctable" such that the AA could be used by fish [i.e., fish use is precluded by perched culvert or other barrier, etc.]. If the AA is not used by fish, fish use is not restorable due to habitat constraints, or is not desired from a management perspective [such as fish entrapped in a canal], then mark **X NA** and proceed to 14E.)

Type of Fishery: Cold Water (CW) Warm Water (WW) Use the CW or WW guidelines in the user manual to complete the matrix

i. Habitat Quality and Known / Suspected Fish Species in AA (use matrix to arrive at [circle] the functional points and rating)

Duration of surface water in AA	Permanent / Perennial					Seasonal / Intermittent						Temporary / Ephemeral						
Aquatic hiding / resting / escape cover	Opti	Optimal		Adequate		Poor		imal	Adeo	quate	Po	or	Opt	imal	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	.2L
FWP Tier II or Native Game fish species	.9H	.8H	.7M	.6M	.5M	.5M	.8H	.7M	.6M	.5M	.4M	.4M	.6M	.5M	.4M	.3L	.2L	.2L
FWP Tier III or Introduced Game fish	.8H	.7M	.6M	.5M	.5M	.4M	.7M	.6M	.5M	.4M	.4M	.3L	.5M	.4M	.3L	.2L	.2L	.1L
FWP Non-Game Tier IV or No fish species	.5M	.5M	.5M	.4M	.4M	.3L	.4M	.4M	.4M	.3L	.3L	.2L	.2L	.2L	.2L	.1L	.1L	.1L

Sources used for identifying fish sp. potentially found in AA:

- ii. Modified Rating (NOTE: Modified score cannot exceed 1 or be less than 0.1)
- a) Is fish use of the AA significantly reduced by a culvert, dike, or other man-made structure or activity or is the waterbody included on the current final MDEQ list of waterbodies in need of TMDL development with listed "Probable Impaired Uses" including cold or warm water fishery or aquatic life support, or do aquatic nuisance plant or animal species (see Appendix E) occur in fish habitat? If yes, reduce score in i above by 0.1.
- b) Does the AA contain a documented spawning area or other critical habitat feature (i.e., sanctuary pool, upwelling area, etc.- specify in comments) for native fish or introduced game fish? If yes, add 0.1 to the adjusted score in i or iia.
- iii. Final Score and Rating: NA Comments: No fish habitat within AA
- **14E. Flood Attenuation:** (Applies only to wetlands subject to flooding via in-channel or overbank flow. If wetlands in AA are not flooded from in-channel or overbank flow, mark **NA** and proceed to 14F.)
- i. Rating (working from top to bottom, use the matrix below to arrive at [circle] the functional points and rating)

		-1			- 3/				
Estimated or Calculated Entrenchment (Rosgen 1994, 1996)	, ,	entrenche stream typ			ely entrend stream type		Entrenched-A, F, G stream types		
% of flooded wetland classified as forested and/or scrub/shrub	75%	25-75%	<25%	75%	25-75%	<25%	75%	25-75%	<25%
AA contains no outlet or restricted outlet	1H	.9H	.6M	.8H	.7M	.5M	.4M	.3L	.2L
AA contains unrestricted outlet	.9H	.8H	.5M	.7M	.6M	.4M	.3L	.2L	.1L

**Entrenchment ratio (ER) estimation** – see User's Manual for additional guidance. Entrenchment ratio = (flood-prone width)/(bankfull width) Flood-prone width = estimated horizontal projection of where 2 x maximum bankfull depth elevation intersects the floodplain on each side of the stream.

133 /	28 =	4.75
Flood-prone	Bankfull	Entrenchment ratio
width	width	(ER)



SI	ightly Entrenche ER = >2.2	d	Moderately Entrenched ER = 1.41 – 2.2		Entrenched ER = 1.0 - 1.4	
C stream type	D stream type	E stream type	B stream type	A stream type	F stream type	G stream type
				-		<b>—</b>

ii. Are ≥10 acres of wetland in the AA subject to flooding AND are man-made features which may be significantly damaged by floods located within 0.5 mile downstream of the AA (circle)? X Comments: Approximately 30% of the preservation AA contains PFO and/or PSS wetland with surface water outlet to the south into the relict channel that empties into the nearby Shields River. The Shields River is slightly entrenched at this location. Houses located within 0.5 miles

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- **14F. Short and Long Term Surface Water Storage:** (Applies to wetlands that flood or pond from overbank or in-channel flow, precipitation, upland surface flow, or groundwater flow. If no wetlands in the AA are subject to flooding or ponding, **NA** and proceed to 14G.)
- i. Rating (Working from top to bottom, use the matrix below to arrive at [circle] the functional points and rating. Abbreviations for surface water durations are as follows: P/P = permanent/perennial; S/I = seasonal/intermittent; and T/E = temporary/ephemeral [see instructions for further definitions of these terms].)

Estimated maximum acre feet of water contained in wetlands within the AA that are subject to periodic flooding or ponding	>:	5 acre fe	et	1.1 t	to 5 acre	feet	<=	1 acre fo	oot
Duration of surface water at wetlands within the AA	P/P	S/I	T/E	P/P	S/I	T/E	P/P	S/I	T/E
Wetlands in AA flood or pond >= 5 out of 10 years	1H	.9H	.8H	.8H	.6M	.5M	.4M	.3L	.2L
Wetlands in AA flood or pond < 5 out of 10 years	.9H	.8H	.7M	.7M	.5M	.4M	.3L	.2L	.1L

Comments: (1.10 acre of preserved wetland) x (approximate average of 1.0 ft. of inundation during high water) = 1.10 acre feet

**14G. Sediment/Nutrient/Toxicant Retention and Removal:** (Applies to wetlands with potential to receive sediments, nutrients, or toxicants through influx of surface or ground water or direct input. If no wetlands in the AA are subject to such input, **NA** and proceed to 14H.)

i. Rating (working from top to bottom, use the matrix below to arrive at [circle] the functional points and rating [H=high, M=moderate, or L=low])

Sediment, nutrient, and toxicant input levels within AA	potential to or compour are no sedimentat	deliver levels nds at levels ot substantia ion, sources	unding land s of sediment such that oth lly impaired. of nutrients o phication pres	ts, nutrients, er functions Minor or toxicants,	developmen nutrients, or t use with po nutrients, o substantially	n MDEQ list of value for "probable of toxicants or AA otential to deliver compounds so impaired. Majo oxicants, or signal."	causes" related receives or surner high levels of uch that other fuor sedimentation	to sediment, rounding land sediments, unctions are n, sources of
% cover of wetland vegetation in AA	>= 7	70%	< 7	′0%	>= 7	70%	< 7	0%
Evidence of flooding / ponding in AA	Yes	No	Yes	No	Yes	No	Yes	No
AA contains no or restricted outlet	1H	.8H	.7M	.5M	.5M	.4M	.3L	.2L
AA contains unrestricted outlet	.9H	.7M	.6M	.4M	.4M	.3L	.2L	.1L

Comments: Hydrophytic vegetation cover exceeds 70%. AA contains restricted outlet.

**14H Sediment/Shoreline Stabilization:** (Applies only if AA occurs on or within the banks or a river, stream, or other natural or man-made drainage, or on the shoreline of a standing water body which is subject to wave action. If 14H does not apply, **X NA** and proceed to 14I.)

i. Rating (working from top to bottom, use the matrix below to arrive at [circle] the functional points and rating)

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

Comments: No shoreline in the project area.

### 14I. Production Export/Food Chain Support:

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

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

ii. Rating (Working from top to bottom, use the matrix below to arrive at [circle] the functional points and rating. Factor A = acreage of vegetated wetland component in the AA; Factor B = level of biological activity rating from above (14I.i.); Factor C = whether or not the AA contains a surface or subsurface outlet; the final three rows pertain to duration of surface water in the AA, where P/P, S/I, and T/E are as previously defined, and A = "absent" [see instructions for further definitions of these terms].)

Α		Vegetat	ed com	onent >	5 acres		Vegetated component 1-5 acres						Vegetated component < 1 acre						
В	Hi	gh	Mode	erate	Lo	W	Hi	gh	Mode	erate	Lo	w	Hi	gh	Mode	erate	Lo	W	
С	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	
P/P	1H	.7M	.8H	.5M	.6M	.4M	.9H	.6M	.7M	.4M	.5M	.3L	.8H	.6M	.6M	.4M	.3L	.2L	
S/I	.9H	.6M	.7M	.4M	.5M	.3L	.8H	.5M	.6M	.3L	.4M	.2L	.7M	.5M	.5M	.3L	.3L	.2L	
T/E/A	.8H	.5M	.6M	.3L	.4M	.2L	.7M	.4M	.5M	.2L	.3L	.1L	.6M	.4M	.4M	.2L	.2L	.1L	

iii. Modified Rating (NOTE: Modified score cannot exceed 1 or be less than 0.1.) Vegetated Upland Buffer (VUB): Area with >= 30% plant cover, = 15% noxious weed or ANVS cover, and that is not subjected to periodic mechanical mowing or clearing (unless for weed control).

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a) Is there an average >= 50 foot-wide vegetated upland buffer around >= 75% of the AA circumference?

X If yes, add 0.1 to the score in ii above.

iv. Final Score and Rating: 0.70M Comments: A restricted surface water outlet is present to the south.

i. Discharge Indicators					ii. Recharge	Indicators			
The AA is a slope wetland					-		ent without u	nderlying imp	eding laye
Springs or seeps are known	or observed				Wetland conta	ains inlet but	no outlet		
Vegetation growing during do	ormant seas	on/drought			Stream is a ki	nown 'losing'	stream; disc	harge volume	decrease
Wetland occurs at the toe of	a natural slo	оре			Other:				
AA permanently flooded duri		periods							
Wetland contains an outlet, b									
X Shallow water table and the	site is satura	ated to the su	rface						
Other:									
ii. Rating (use the information from i	and ii ahove	and the table	helow to arr	ive at [circle	of the function:	al points and	rating)		
	and ii above				etlands <i>FROI</i>			7	
					R THAT IS R				
			<u>GI</u>	ROUNDWA	TER SYSTEM	<u>//</u>		1	
Criteria	T T	P/P		S/I	Т		None	7	
Groundwater Discharge or Recha	rge	1H		.7M	.4M		.1L		
Insufficient Data/Information			•		/A	-		]	
comments: Shallow groundwater ta	ble docume	nted in the lov	ver elevations	s of depress	sional wetland	s and the exc	avated cha	nnel.	
4K. Uniqueness:									
Rating (working from top to bottom,	use the ma	trix below to a	rrive at [circle	e] the functi	onal points an	d rating)			
				AA does n	ot contain pre	viously cited	l		
		ns fen, bog, w re (>80 yr-old			s and structur			ot contain pre es or associat	
Replacement potential		o <b>r</b> plant assoc			high or conta			al diversity (#1	
		S1" by the M		associat	ion listed as " MTNHP	S2" by the		moderate	,
Estimated relative abundance (#11)	rare	common	abundant	rare	common	abundant	rare	common	abundar
Low disturbance at AA (#12i)	1H	.9H	.8H	.8H	.6M	.5M	.5M	.4M	.3L
Moderate disturbance at AA (#12i)	.9H	.8H	.7M	.7M	.5M	.4M	.4M	.3L	.2L
High disturbance at AA (#12i)	.8H	.7M	.6M	.6M	.4M	.3L	.3L	.2L	.1L
<b>Comments:</b> Site disturbance is low	and structur	al diversity is	moderate.		-	-	-	-	-
41 Bearestian/Education Batantia	I. /offordo "h	anua" nainta	if AA provide	a raaraatian	or advantion	opportunitu)			
4L. Recreation/Education Potentia Is the AA a known or potential rec	•		•				· V NA a	and procood to	tho
overall summary and rating pa		(	ii 163 Contin	ue with the	evaluation, ii	No themma		ina proceed to	Tile
. Check categories that apply to the	• ,	Educational/	scientific stud	dv. Coi	nsumptive rec	· Non-c	onsumptive	rec ·	
. Oneok outegones that apply to the		Other:	oolontino otac	.y,	iodinptive rec		onoumpuvo	100.,	
ii. Rating:		-							
Known or Potential Recreation or Ed	Augatian Ara						Known	Detential	7
Public ownership or public easem			accoss (no i	normicsion	required)	-	Known .2H	Potential .15H	-
Private ownership with general pu					requireu)	-	.15H	.1M	=
Private or public ownership witho					ion for nublic	access	.1M	.05L	
comments: Landowner does not allo					roi public			.002	_
	-								
General Site Notes  AA contains a diversity of habitats as	مط بيناطاند								

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## FUNCTION & VALUE SUMMARY & OVERALL RATING FOR WETLAND/SITE #(S): Preservation

Function & Value Variables	Rating	Actual Functional Points	Possible Functional Points	Functional Units: (Actual Points x Wetland Acreage)	Indicate the four most prominent functions with an asterisk (*)
A. Listed/Proposed T&E Species Habitat	L	0.10	1	0.11	
B. MT Natural Heritage Program Species Habitat	Н	0.90	1	0.99	*
C. General Wildlife Habitat	М	0.70	1	0.77	*
D. General Fish Habitat	NA				
E. Flood Attenuation	Н	0.90	1	0.99	*
F. Short and Long Term Surface Water Storage	М	0.60	1	0.66	
G. Sediment/Nutrient/Toxicant Removal	Н	1.00	1	1.10	*
H. Sediment/Shoreline Stabilization	NA				
I. Production Export/Food Chain Support	М	0.70	1	0.77	
J. Groundwater Discharge/Recharge	М	0.70	1	0.77	
K. Uniqueness	М	0.40	1	0.44	
L. Recreation/Education Potential (bonus points)	NA				
Totals:		6.00	9.00	6.60	
Percent of Possible Score	•	_	67%		

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; <b>or</b>
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 <b>both</b> General Wildlife Habitat <b>and</b> General Fish/Aquatic Habitat; <b>or</b>
Score of .9 functional point for Uniqueness; or
X Percent of possible score > 65% (round to nearest whole #).
Category III Wetland: (Criteria for Categories I, II, or IV not satisfied)
Category IV Wetland: (Criteria for Categories I or II are not satisfied and all of the following criteria are met; otherwise go to Category III)
"Low" rating for Uniqueness; and
Vegetated wetland component 1 acre (do not include upland vegetated buffer); and
Percent of possible score 35% (round to nearest whole #).
· · · · · · · · · · · · · · · · · · ·

### OVERALL ANALYSIS AREA RATING: II

Summary Comments: This AA contains high structural diversity and supports a dynamic wetland community.

## MDT Montana Wetland Assessment Form (revised March 2008)

8. Wetland size:

9. Assessment area (AA):

1. Project Name:Easton Ranch2. MDT Project #:STPP STWD (813)Control #:9680000

3. Evaluation Date: 06/19/2024 4. Evaluator(s): E Reynaud 5. Wetlands/Site #(s): Restoration

**6. Wetland Location(s): i. Legal:** T4N,R9E,32 **Latitude/Longitude:** 46.059745, -110.638674: Center of AA

ii. Approx. Stationing or Mileposts: NA

iii. Watershed: 13

Watershed Name, County: Upper Yellowstone, Park

7. a. Evaluating Agency: Confluence Consulting

b. Purpose of Evaluation:

1. Wetlands potentially affected by MDT project

Mitigation wetlands; pre-construction
X Mitigation wetlands; post-construction

**4.** Other:

10. Classification of Wetland and Aquatic Habitats in AA

HGM Class (Brinson)	Class (Cowardin)	Modifier (Cowardin)	Water Regime	% of AA
R	EM	Е	SI	93.00
R	SS	E	SI	7.00

Abbreviations: (see manual for definitions)

HGM Classes: Riverine (R), Depressional (D), Slope (S), Mineral Soil Flats (MSF), Organic Soil Flats (OSF), Lacustrine Fringe (LF); Cowardin Classes: Rock Bottom (RB), Unconsolidated bottom (UB),

1.640 acres (measured)

1.640 acres (measured)

Aquatic Bed (AB), Unconsolidated Shore (US), Moss-lichen Wetland (ML), Emergent Wetland (EM), Scrub-Shrub Wetland (SS), Forested Wetland (FO)

**Modifiers:** Excavated (**E**), Impounded (**I**), Diked (**D**), Partly Drained (**PD**), Farmed (**F**), Artificial (**A**)

Water Regimes: Permanent / Perennial (PP), Seasonal / Intermittent (SI), Temporary / Ephemeral (TE)

11. Estimated relative abundance: (of similarly classified sites within the same Major Montana Watershed Basin, see definitions)

COMMON

### 12. General condition of AA:

i. Disturbance: (use matrix below to determine [circle] appropriate response – see instructions for Montana-listed noxious weed and aquatic nuisance vegetation species (ANVS) list)

	Predomina	ant conditions adjacent to (within 500 t	eet of) AA
Conditions within AA	Managed in predominantly natural state; is not grazed, hayed, logged, or otherwise converted; does not contain roads or buildings; and noxious weed or ANVS cover is >=15%.	Land not cultivated, but may be moderately grazed or hayed or selectively logged; or has been subject to minor clearing; contains few roads or buildings; noxious weed or ANVS cover is <= 30%.	Land cultivated or heavily grazed or logged; subject to substantial fill placement, grading, clearing, or hydrological alteration; high road or building density; or noxious weed or ANVS cover is > 30%.
AA occurs and is managed in predominantly natural state; is not grazed, hayed, logged, or otherwise converted; does not contain roads or occupied buildings; and noxious weed or ANVS cover is <= 15%.	low disturbance	low disturbance	moderate disturbance
AA not cultivated, but may be moderately grazed or hayed or selectively logged; or has been subject to relatively minor clearing, fill placement, or hydrological alteration; contains few roads or buildings; noxious weed or ANVS cover is <=	moderate disturbance	moderate disturbance	high disturbance
AA cultivated or heavily grazed or logged; subject to relatively substantial fill placement, grading, clearing, or hydrological alteration; high road or building density; or noxious weed or ANVS cover is > 30%.	high disturbance	high disturbance	high disturbance

Comments: (types of disturbance, intensity, season, etc.): Limited agriculture (hay) and ranch structures to the east. Undeveloped riparian corridor and herbaceous uplands to north, south, and west. Two species of noxious weeds present within the AA. The AA is managed in a natural state, as are most of the lands within 500 feet of the AA.

ii. Prominent noxious, aquatic nuisance, & other exotic vegetation species: Cirsium arvense, Cynoglossum officinale

iii. Provide brief descriptive summary of AA and surrounding land use/habitat: The AA consists of one constructed secondary stream channel which bisects the mitigation area. The channel is active during high-flow events, is seasonally inundated by shallow groundwater early in the growing season, and has developed wetland characteristics.

13. Structural Diversity: (based on number of "Cowardin" vegetated classes present [do not include unvegetated classes], see #10 above)

Existing # of "Cowardin" Vegetated Classes in AA	Initial Rating	Is current management existence of additional		Modified Rating
>= 3 (or 2 if 1 is forested) classes	Н	NA	NA	NA
2 (or 1 if forested) classes	M	NA	NA	NA
1 class, but not a monoculture	М	< NO	YES>	L
1 class, monoculture (1 species comprises >= 90% of total cover)	L	NA	NA	NA

**Comments:** Planted shrubs along channel are surviving and establishing well. Cottonwood and willow seedlings/root suckers were noted along the channel. Significant herbivory was observed on saplings.

1

#### SECTION PERTAINING to FUNCTIONS & VALUES ASSESSMENT

### 14A. Habitat for Federally Listed or Proposed Threatened or Endangered Plants or Animals:

i. AA is Documented (D) or Suspected (S) to contain (circle one based on definitions contained in instructions):

Primary or critical habitat (list species) Secondary habitat (list species) Incidental habitat (list species)

Monarch Butterfly(S)

Canada Lynx (LT), North American North American Wolverine(S)

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

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

Sources for documented use (e.g. observations, records, etc): USFWS IPAC 2024

14B. Habitat for plant or animals rated S1, S2, or S3 by the Montana Natural Heritage Program: (not including species listed in14A above)

i. AA is Documented (D) or Suspected (S) to contain (circle one based on definitions contained in instructions):

Primary or critical habitat (list species)

Secondary habitat (list species)

Incidental habitat (list species)

Bobolink (D) - S2S3

Golden Eagle(D) - S2S3

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

Highest Habitat Level	doc/primary	sus/primary	doc/secondary	sus/secondary	doc/incidental	sus/incidental	None
S1 Species: Functional Points and Rating	1H	.8H	.7M	.6M	.2L	.1L	0L
<b>S2 and S3 Species:</b> Functional Points and Rating	.9Н	.7M	.6M	.5M	.2L	.1L	0L

Sources for documented use (e.g. observations, records, etc): MTNHP, 2024 and 2019-2024 field observations. Bobolink nesting on site documented by MDT staff. Golden eagle observed in 2023. Bald eagle observed onsite in 2024.

### 14C. General Wildlife Habitat Rating:

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

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

ii. Wildlife habitat features (Working from top to bottom, circle appropriate AA attributes in matrix to arrive at rating. Structural diversity is from #13. For class cover to be considered evenly distributed, the most and least prevalent vegetated classes must be within 20% of each other interms of their percent composition of the AA (see #10). Abbreviations for surface water durations are as follows: P/P = permanent/perennial; S/I = seasonal/intermittent; T/E = temporary/ephemeral; and A = absent [see instructions for further definitions of these terms])

Structural diversity (see #13)				Hi	gh							Mod	erate					Lo	)W	
Class cover distribution (all vegetated classes)		Even				Une	even	Even			Uneven				Even					
Duration of surface water in >=10% of AA	P/P	S/I	T/E	Α	P/P	S/I	T/E	Α	P/P	S/I	T/E	Α	P/P	S/I	T/E	Α	P/P	S/I	T/E	Α
Low disturbance at AA (see #12i)	Е	E	Е	Н	Ε	E	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	М	L	L
<b>High</b> disturbance at AA (see #12i)	М	М	М	L	М	М	L	L	М	М	L	L	М	L	L	L	L	L	L	L

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

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

Comments: AA has frequent deer and moose sightings. Food plots located adjacent/east of the project boundary provide supplemental food for wildlife. There is a bald eagle nest directly southwest of the site and was in use during the 2024 monitoring. Two bald eagles were observed soaring above the site in 2024.

2

**14D. General Fish Habitat Rating:** (Assess this function if the AA is used by fish or the existing situation is "correctable" such that the AA could be used by fish [i.e., fish use is precluded by perched culvert or other barrier, etc.]. If the AA is not used by fish, fish use is not restorable due to habitat constraints, or is not desired from a management perspective [such as fish entrapped in a canal], then mark **X NA** and proceed to 14E.)

Type of Fishery: Cold Water (CW) \_\_\_ Warm Water (WW) \_\_\_ Use the CW or WW guidelines in the user manual to complete the matrix

i. Habitat Quality and Known / Suspected Fish Species in AA (use matrix to arrive at [circle] the functional points and rating)

Duration of surface water in AA		Perr	manent	/ Perer	nnial			Seasonal / Intermittent					Temporary / Ephemeral									
Aquatic hiding / resting / escape cover	Opti	Optimal		Optimal		Optimal Adequ		quate	Poor		Optimal		Optimal Adequate		Poor		Optimal		Adequate		Poor	
Thermal cover optimal / suboptimal	0	S	0	S	0	S	0	S	0	S	0	S	0	S	0	S	0	S				
FWP Tier I fish species	1E	.9H	.8H	.7M	.6M	.5M	.9H	.8H	.7M	.6M	.5M	.4M	.7M	.6M	.5M	.4M	.3L	.2L				
FWP Tier II or Native Game fish species	.9H	.8H	.7M	.6M	.5M	.5M	.8H	.7M	.6M	.5M	.4M	.4M	.6M	.5M	.4M	.3L	.2L	.2L				
FWP Tier III or Introduced Game fish	.8H	.7M	.6M	.5M	.5M	.4M	.7M	.6M	.5M	.4M	.4M	.3L	.5M	.4M	.3L	.2L	.2L	.1L				
FWP Non-Game Tier IV or No fish species	.5M	.5M	.5M	.4M	.4M	.3L	.4M	.4M	.4M	.3L	.3L	.2L	.2L	.2L	.2L	.1L	.1L	.1L				

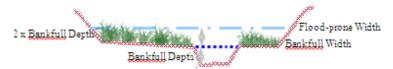
Sources used for identifying fish sp. potentially found in AA:

- ii. Modified Rating (NOTE: Modified score cannot exceed 1 or be less than 0.1)
- a) Is fish use of the AA significantly reduced by a culvert, dike, or other man-made structure or activity or is the waterbody included on the current final MDEQ list of waterbodies in need of TMDL development with listed "Probable Impaired Uses" including cold or warm water fishery or aquatic life support, or do aquatic nuisance plant or animal species (see Appendix E) occur in fish habitat? \_\_\_\_ If yes, reduce score in i above by 0.1.
- b) Does the AA contain a documented spawning area or other critical habitat feature (i.e., sanctuary pool, upwelling area, etc.- specify in comments) for native fish or introduced game fish? If yes, add 0.1 to the adjusted score in i or iia.
- iii. Final Score and Rating: NA Comments: Although activated during high-flow events within the Shields River, no permanent fish habitat is present within AA.
- **14E. Flood Attenuation:** (Applies only to wetlands subject to flooding via in-channel or overbank flow. If wetlands in AA are not flooded from in-channel or overbank flow, mark **NA** and proceed to 14F.)
- i. Rating (working from top to bottom, use the matrix below to arrive at [circle] the functional points and rating)

		-			<u> </u>				
Estimated or Calculated Entrenchment (Rosgen 1994, 1996)	, ,	Slightly entrenched - C, D, E stream types			ely entreno stream typo		Entrench	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		.8H	.5M	.7M	.6M	.4M	.3L	.2L	.1L

Entrenchment ratio (ER) estimation – see User's Manual for additional guidance. Entrenchment ratio = (flood-prone width)/(bankfull width) Flood-prone width = estimated horizontal projection of where 2 x maximum bankfull depth elevation intersects the floodplain on each side of the stream.

133 /	28 =	4.75
Flood-prone	Bankfull	Entrenchment ratio
width	width	(FR)



SI	ightly Entrenche ER = >2.2	d	Moderately Entrenched ER = 1.41 – 2.2	Entrenched ER = 1.0 – 1.4							
C stream type	D stream type	E stream type	B stream type	A stream type	G stream type						
	****			4							

ii. Are ≥10 acres of wetland in the AA subject to flooding AND are man-made features which may be significantly damaged by floods located within 0.5 mile downstream of the AA (circle)? X Comments: Outlet is restricted. AA is subject to overflow from Shields River and empties into old meanders of the Shields River at the south end of AA. 9% of AA is classified as scrub/shrub. Houses located within 0.5 miles downstream.

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- **14F. Short and Long Term Surface Water Storage:** (Applies to wetlands that flood or pond from overbank or in-channel flow, precipitation, upland surface flow, or groundwater flow. If no wetlands in the AA are subject to flooding or ponding, **NA** and proceed to 14G.)
- i. Rating (Working from top to bottom, use the matrix below to arrive at [circle] the functional points and rating. Abbreviations for surface water durations are as follows: P/P = permanent/perennial; S/I = seasonal/intermittent; and T/E = temporary/ephemeral [see instructions for further definitions of these terms].)

Estimated maximum acre feet of water contained in wetlands within the AA that are subject to periodic flooding or ponding	>5 acre feet			1.11	o 5 acre	feet	<=1 acre foot			
Duration of surface water at wetlands within the AA	P/P	S/I	T/E	P/P	S/I	T/E	P/P	S/I	T/E	
Wetlands in AA flood or pond >= 5 out of 10 years	1H	.9H	.8H	.8H	.6M	.5M	.4M	.3L	.2L	
Wetlands in AA flood or pond < 5 out of 10 years	.9H	.8H	.7M	.7M	.5M	.4M	.3L	.2L	.1L	

Comments: (1.64 acre of restoration) x (average 1 ft. ponding/flow at high water) = 1.64 acre feet

**14G. Sediment/Nutrient/Toxicant Retention and Removal:** (Applies to wetlands with potential to receive sediments, nutrients, or toxicants through influx of surface or ground water or direct input. If no wetlands in the AA are subject to such input, **NA** and proceed to 14H.)

i. Rating (working from top to bottom, use the matrix below to arrive at [circle] the functional points and rating [H=high, M=moderate, or L=low])

<b>3</b> \					•	0.	,				
Sediment, nutrient, and toxicant input levels within AA	potential to or compour are n sedimentat	deliver levels nds at levels ot substantia ion, sources	ounding land s of sediment such that oth illy impaired. of nutrients of phication pres	s, nutrients, er functions Minor or toxicants,							
% cover of wetland vegetation in AA	>= 7	70%	< 7	0%	>=	70%	< 70%				
Evidence of flooding / ponding in AA	Yes No		Yes No		Yes	No	Yes	No			
AA contains no or restricted outlet	1H	.8H	.7M	.5M	.5M	.4M	.3L	.2L			
AA contains unrestricted outlet	.9H	.7M	.6M	.4M	.4M	.3L	.2L	.1L			

Comments: Cover in AA is greater than 70% and outlet is topographically restricted.

**14H Sediment/Shoreline Stabilization:** (Applies only if AA occurs on or within the banks or a river, stream, or other natural or man-made drainage, or on the shoreline of a standing water body which is subject to wave action. If 14H does not apply, **NA** and proceed to 14I.)

i. Rating (working from top to bottom, use the matrix below to arrive at [circle] the functional points and rating)

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

Comments: Cover in AA is greater than 70% and outlet is topographically restricted.

### 14I. Production Export/Food Chain Support:

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

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

ii. Rating (Working from top to bottom, use the matrix below to arrive at [circle] the functional points and rating. Factor A = acreage of vegetated wetland component in the AA; Factor B = level of biological activity rating from above (14!.i.); Factor C = whether or not the AA contains a surface or subsurface outlet; the final three rows pertain to duration of surface water in the AA, where P/P, S/I, and T/E are as previously defined, and A = "absent" [see instructions for further definitions of these terms].)

Α		Vegetated component 1-5 acres							Vegetated component < 1 acre									
В	B High		Mod	erate	Lo	W	Hi	gh	Moderate Low		High		Moderate		Low			
С	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
P/P	1H	.7M	.8H	.5M	.6M	.4M	.9H	.6M	.7M	.4M	.5M	.3L	.8H	.6M	.6M	.4M	.3L	.2L
S/I	.9H	.6M	.7M	.4M	.5M	.3L	.8H	.5M	.6M	.3L	.4M	.2L	.7M	.5M	.5M	.3L	.3L	.2L
T/E/A	.8H	.5M	.6M	.3L	.4M	.2L	.7M	.4M	.5M	.2L	.3L	.1L	.6M	.4M	.4M	.2L	.2L	.1L

iii. Modified Rating (NOTE: Modified score cannot exceed 1 or be less than 0.1.) Vegetated Upland Buffer (VUB): Area with >= 30% plant cover, = 15% noxious weed or ANVS cover, and that is not subjected to periodic mechanical mowing or clearing (unless for weed control).

a) Is there an average >= 50 foot-wide vegetated upland buffer around >= 75% of the AA circumference?

X If yes, add 0.1 to the score in ii above.

iv. Final Score and Rating: 0.70M

**Comments:** Channel is seasonally inundated and has a restricted outlet at the southern end of the mitigation site.

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i. Discharge Indicators			ii	i. Recharge	Indicators				
The AA is a slope wetland				Permeable su		nt without ur	nderlying imp	eding layer	
Springs or seeps are known or observed			v	Vetland conta	ins inlet but	no outlet			
Vegetation growing during dormant season/drought					Stream is a kn	own 'losing'	stream; disc	harge volume	decreases
Wetland occurs at the toe of a natural slope				Other:					
AA permanently flooded duri		eriods							
Wetland contains an outlet, I									
X Shallow water table and the	site is satura	ited to the sur	face						
Other:									
ii. Rating (use the information from i	and ii ahaya	and the table	holow to arr	ive et [eirele]	the functions	l points and	rating)		
ii. Rating (use the information from t	and if above				tlands FRON	•		1	
					THAT IS RE				
			<u>G</u>	<u>ROUNDWA1</u>	ER SYSTEM	!			
Criteria		P/P		S/I	Т		None	†	
Groundwater Discharge or Recha	rae	1H		.7M	.4M		.1L	†	
Insufficient Data/Information				N/	A			1	
Comments: Channel is intermittently	/ inundated b	y shallow gro	oundwater ar	nd high flows	from the Shie	elds River.		_	
4K. Uniqueness:	use the met	riv halav ta a	rrive at laired	al tha functio	nal nainta an	d ration)			
. Rating (working from top to bottom,	use the mat	nx below to a	irrive at [circi	r e					
	AA contain	s fen, bog, w	arm springs		ot contain prevalent		AA does no	t contain pre	viously cited
Replacement potential		e (>80 yr-old			high or conta			s or associat	
riopiacoment peternial		r plant associ			on listed as "S		structural diversity (#13) is low-		3) is low-
	as s	S1" by the MT	INTP		MTNHP	·		moderate	
Estimated relative abundance (#11)	rare	common	abundant	rare	common	abundant	rare	common	abundant
Low disturbance at AA (#12i)	1H	.9H	.8H	.8H	.6M	.5M	.5M	.4M	.3L
Moderate disturbance at AA (#12i)	.9H	.8H	.7M	.7M	.5M	.4M	.4M	.3L	.2L
High disturbance at AA (#12i)	.8H	.7M	.6M	.6M	.4M	.3L	.3L	.2L	.1L
Comments: PEM/PSS wetland within	n seasonal f	lood channel.	Common we	etland type w	ithin basin wi	th 10-50% of	area wetlan	ds similar to	this one.
41 Pagraption/Education Batantia	J. (afforda "h	onuo" nointo	if AA provido	a regression	or advantion	opportunity)			
4L. Recreation/Education Potentia							k Y NA a	ad procood to	tho
le the AA a known or notential red			1 65 6011111		valuation, ii	ino themmai	NA a	ia proceed it	
. Is the AA a known or potential red				ide with the c					, tric
overall summary and rating p	age)				oumptivo roo	· Non o	onoumntivo i	· · · ·	, uic
	age)	Educational/			sumptive rec.	;Non-c	onsumptive	rec.;	, uic
overall summary and rating p  i. Check categories that apply to the	age)				sumptive rec.	;Non-c	onsumptive I	rec.;	, the
overall summary and rating p i. Check categories that apply to thii. Rating:	age) h <b>e AA:</b>	Educational/s			sumptive rec.	;Non-c	•	, 	
overall summary and rating p i. Check categories that apply to the ii. Rating: Known or Potential Recreation or Ed	age) he AA:	Educational/s Other :	scientific stud	dy;Con		;Non-c	Known	Potential	
overall summary and rating p i. Check categories that apply to ti ii. Rating:  Known or Potential Recreation or Ed Public ownership or public easem	age) he AA: ducation Area	Educational/s Other : a neral public	scientific stud	dy;Con		;Non-c	Known .2H	Potential .15H	
overall summary and rating p i. Check categories that apply to ti ii. Rating:  Known or Potential Recreation or Ed Public ownership or public easem Private ownership with general pu	age) he AA: ducation Area nent with ge	Educational/s Other:  a neral public (no permiss	access (no	permission	required)		Known .2H .15H	Potential .15H .1M	
overall summary and rating p  i. Check categories that apply to the  ii. Rating:  Known or Potential Recreation or Ed  Public ownership or public easem  Private ownership with general public ownership without	age) he AA: ducation Area nent with ge ublic access ut general p	Educational/a Other:  a neral public i (no permiss	scientific stud access (no sion require s, or requiri	permission d) ng permissio	required)		Known .2H	Potential .15H	
overall summary and rating p i. Check categories that apply to ti ii. Rating:  Known or Potential Recreation or Ed Public ownership or public easem Private ownership with general pu	age) he AA: ducation Area nent with ge ublic access ut general p	Educational/a Other:  a neral public i (no permiss	scientific stud access (no sion require s, or requiri	permission d) ng permissio	required)		Known .2H .15H	Potential .15H .1M	
overall summary and rating p  i. Check categories that apply to the  ii. Rating:  Known or Potential Recreation or Ed  Public ownership or public easem  Private ownership with general public ownership without  Comments: Landowner does not all	age) he AA: ducation Area nent with ge ublic access ut general p	Educational/a Other:  a neral public i (no permiss	scientific stud access (no sion require s, or requiri	permission d) ng permissio	required)		Known .2H .15H	Potential .15H .1M	
overall summary and rating p  i. Check categories that apply to the  ii. Rating:  Known or Potential Recreation or Ed  Public ownership or public easem  Private ownership with general public ownership without	age) he AA: ducation Area nent with ge ublic access ut general p ow public acc	Educational/a Other:  a neral public i (no permiss	scientific stud access (no sion require s, or requiri	permission d) ng permissio	required)		Known .2H .15H	Potential .15H .1M	

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# FUNCTION & VALUE SUMMARY & OVERALL RATING FOR WETLAND/SITE #(S): Restoration

Function & Value Variables	Rating	Actual Functional Points	Possible Functional Points	Functional Units: (Actual Points x Wetland Acreage)	Indicate the four most prominent functions with an asterisk (*)
A. Listed/Proposed T&E Species Habitat	L	0.10	1	0.16	
B. MT Natural Heritage Program Species Habitat	Н	0.90	1	1.48	*
C. General Wildlife Habitat	М	0.70	1	1.15	*
D. General Fish Habitat	NA				
E. Flood Attenuation	М	0.60	1	0.98	
F. Short and Long Term Surface Water Storage	М	0.60	1	0.98	
G. Sediment/Nutrient/Toxicant Removal	Н	1.00	1	1.64	*
H. Sediment/Shoreline Stabilization	Н	0.90	1	1.48	*
I. Production Export/Food Chain Support	М	0.70	1	1.15	
J. Groundwater Discharge/Recharge	М	0.70	1	1.15	
K. Uniqueness	М	0.40	1	0.66	
L. Recreation/Education Potential (bonus points)	NA				
Totals:		6.60	10.00	10.83	
Percent of Possible Score		·	66%		

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 <b>both</b> General Wildlife Habitat <b>and</b> General Fish/Aquatic Habitat; <b>or</b>
Score of .9 functional point for Uniqueness; <b>or</b>
X Percent of possible score > 65% (round to nearest whole #).
Category III Wetland: (Criteria for Categories I, II, or IV not satisfied)
Category IV Wetland: (Criteria for Categories I or II are not satisfied and all of the following criteria are met; otherwise go to Category III)
"Low" rating for Uniqueness; and
Vegetated wetland component 1 acre (do not include upland vegetated buffer); and
Percent of possible score 35% (round to nearest whole #).

#### OVERALL ANALYSIS AREA RATING: II

**Summary Comments:** This AA contains moderate structural diversity and supports a dynamic wetland community.

**Table B-1.** Easton Ranch Wetland Mitigation Site. Comprehensive Vegetation Species List 2010 – 2024

Scientific Names	Common Names	WMVC Indicator Status <sup>1</sup>
Achillea millefolium	Common Yarrow	FACU
Agrostis gigantea	Black Bent	FAC
Agrostis stolonifera	Spreading Bent	FAC
Algae, green	Algae, green	NA
Alisma gramineum	Narrow-Leaf Water-Plantain	OBL
Alnus incana	Speckled Alder	FACW
Alopecurus geniculatus	Marsh Meadow-Foxtail	OBL
Alopecurus arundinaceus	Creeping Meadow-Foxtail	FAC
Alopecurus pratensis	Field Meadow-Foxtail	FAC
Alyssum alyssoides	Pale Alyssum	UPL
Amaranthus retroflexus	Red-Root	FACU
Arctium sp.	Burrdock	UPL
Asclepias speciosa	Showy Milkweed	FAC
Astragalus cicer	Cicer Milkvetch	UPL
Avena fatua	Wild Oats	UPL
Bassia scoparia	Mexican-Fireweed	FAC
Beckmannia syzigachne	American Slough Grass	OBL
Berteroa incana	Hoary False Alyssum	UPL
Bidens cernua	Nodding Burr-Marigold	OBL
Brassica kaber	Wild Mustard	UPL
Brassica napus	Turnip	UPL
Bromus arvensis	Field Brome	UPL
Bromus carinatus	California Brome	UPL
Bromus ciliatus	Fringed Brome	FAC
Bromus inermis	Smooth Brome	UPL
Bromus tectorum	Cheatgrass	UPL
Calamagrostis canadensis	Bluejoint	FACW
Camelina microcarpa	Little-Pod False Flax	FACU
Carduus nutans	Nodding Plumeless-Thistle	UPL
Carex aquatilis	Leafy Tussock Sedge	OBL
Carex atherodes	Wheat Sedge	OBL
Carex aurea	Golden-Fruit Sedge	FACW
Carex bebbii	Bebb's Sedge	OBL
Carex limosa	Mud Sedge	OBL
Carex microptera	Small-winged Sedge	FACU
Carex nebrascensis	Nebraska Sedge	OBL
Carex pachystachya	Thick-Head Sedge	FAC
Carex parryana	Parry's Sedge	FACW
Carex pellita	Woolly Sedge	OBL
Carex praegracilis	Clustered Field Sedge	FACW
Carex rostrata	Swollen Beaked Sedge	OBL
Carex scoparia	Pointed Broom Sedge	FACW
Carex sp.	Sedge	NA
Carex stipata	Stalk-Grain Sedge	OBL
Carex utriculata	Northwest Territory Sedge	OBL

Scientific Names	Common Names	WMVC Indicator Status <sup>1</sup>
Carex vesicaria	Lesser Bladder Sedge	OBL
Carum carvi	Caraway	FACU
Cassiope mertensiana	Western Moss-Heather	FACU
Chenopodium album	Lamb's-Quarters	FACU
Chenopodium leptophyllum	Narrow-Leaf Goosefoot	FACU
Cicuta douglasii	Western Water-Hemlock	OBL
Cirsium arvense	Canadian Thistle	FAC
Cirsium douglasii	Douglas' Thistle	OBL
Cirsium vulgare	Bull Thistle	FACU
Conium maculatum	Poison-Hemlock	FAC
Convolvulus arvensis	Field Bindweed	UPL
Cornus alba	Red Osier	FACW
Cynoglossum officinale	Gypsy-Flower	FACU
Dactylis glomerata	Orchard Grass	FACU
Dasiphora fruticosa	Golden-Hardhack	FAC
Deschampsia caespitosa	Tufted Hair Grass	FACW
Descurainia sophia	Herb Sophia	UPL
<i>Dracocephalum</i> sp.	Dragonhead	UPL
Eleocharis palustris	Common Spike-Rush	OBL
<i>Elodea</i> sp.	Waterweed	NA
Elymus repens	Creeping Wild Rye	FAC
<i>Elymus</i> sp.	Wild Rye	NA
Elymus trachycaulus	Slender Wild Rye	FAC
Epilobium ciliatum	Fringed Willowherb	FACW
Equisetum arvense	Field Horsetail	FAC
Equisetum hyemale	Tall Scouring-Rush	FACW
Equisetum laevigatum	Smooth Scouring-Rush	FACW
Fragaria virginiana	Virginia Strawberry	FACU
Galium palustre	Common Marsh Bedstraw	OBL
Geum macrophyllum	Large-Leaf Avens	FAC
Glyceria elata	Tall Manna Grass	FACW
Glyceria grandis	American Manna Grass	OBL
Glyceria striata	Fowl Manna Grass	OBL
Glycyrrhiza lepidota	American Licorice	FAC
Helianthus annuus	Common Sunflower	FACU
Hippuris vulgaris	Common Mare's-Tail	OBL
Hordeum jubatum	Fox-Tail Barley	FAC
Juncus balticus	Baltic Rush	FACW
Juncus bufonius	Toad Rush	FACW
Juncus effusus	Lamp Rush	FACW
Juncus ensifolius	Dagger-Leaf Rush	FACW
Juncus longistylis	Long-Style Rush	FACW
Juncus nevadensis	Sierran Rush	FACW
Juncus tenuis	Lesser Poverty Rush	FAC
Juncus torreyi	Torrey's Rush	FACW
Lappula occidentalis	Flatspine Stickseed	UPL
Larix occidentalis	Western Larch	FACU

Scientific Names	Common Names	WMVC Indicator
Lepidium campestre	Field Pepperweed	Status <sup>1</sup> UPL
Lepidium perfoliatum	Clasping Pepperwort	FACU
Leymus cinereus	Great Basin Lyme Grass	FAC
Lotus corniculatus	Garden Bird's-Foot-Trefoil	FAC
Lupinus argenteus	Silvery Lupine	UPL
Lycopus asper	Rough Water-Horehound	OBL
Lysimachia ciliata	Fringed Yellow-Loosestrife	FACW
Medicago lupulina	Black Medick	FACU
Medicago sativa	Alfalfa	UPL
Melilotus officinalis	Yellow Sweet-Clover	FACU
Mentha arvensis	American Wild Mint	FACW
		OBL
Mimulus guttatus Myriophyllum sp.	Seep Monkey-Flower Water-Milfoil	NA NA
Panicum miliaceum	Proso Millet	UPL
Pascopyrum smithii	Western-Wheat Grass	FACU
Persicaria amphibia	Water Smartweed	OBL
Persicaria lapathifolia	Dock-Leaf Smartweed	FACW
Persicaria maculosa	Spotted Lady's-Thumb	FACW
Phalaris arundinacea	Reed Canary Grass	FACW
Phleum pratense	Common Timothy	FAC
Plantago major	Great Plantain	FAC
Poa compressa	Flat-Stem Blue Grass	FACU
	Fowl Blue Grass	FAC
Poa palustris Poa pratensis	Kentucky Blue Grass	FAC
Polypogon monspeliensis	Annual Rabbit's-Foot Grass	FACW
Polypogon viridis	Beardless Rabbit's-Foot Grass	FACW
Populus angustifolia	Narrow-Leaf Cottonwood	FACW
Populus balsamifera	Balsam Poplar	FAC
Populus tremuloides	Quaking Aspen	FACU
Potamogeton gramineus	Grassy Pondweed	OBL
Potamogeton praelongus	White-Stem Pondweed	OBL
Potentilla anserina	Silverweed	OBL
Potentilla gracilis	Graceful Cinquefoil	FAC
Potentilla recta	Sulphur Cinquefoil	UPL
Prunus virginiana	Choke Cherry	FACU
Pseudoroegneria spicata	Bluebunch Wheatgrass	UPL
Ranunculus aquatilis	White Water-Crowfoot	OBL
Ranunculus gmelinii	Lesser Yellow Water Buttercup	FACW
Ranunculus macounii	Macoun's Buttercup	OBL
Rhamnus alnifolia	Alder-Leaf Buckthorn	FACW
Ribes inerme	White-Stem Gooseberry	FAC
Ribes lacustre	Bristly Black Gooseberry	FAC
Rosa woodsii	Woods' Rose	FACU
Rumex crispus	Curly Dock	FAC
Rumex salicifolius	Willow Dock	FACW
Ruppia maritima	Beaked Ditch-Grass	OBL
Salix amygdaloides	Peach-Leaf Willow	FACW

Scientific Names	Common Names	WMVC Indicator Status <sup>1</sup>
Salix bebbiana	Gray Willow	FACW
Salix boothii	Booth's Willow	FACW
Salix drummondiana	Drummond's Willow	FACW
Salix exigua	Narrow-Leaf Willow	FACW
Salix lasiandra	Pacific Willow	FACW
Salix lutea	Yellow Willow	OBL
Schedonorus arundinaceus	Tall False Rye Grass	FAC
Schedonorus pratensis	Meadow False Rye Grass	FACU
Schoenoplectus pungens	Three-square	OBL
Scirpus microcarpus	Red-Tinge Bulrush	OBL
Scirpus pallidus	Pale Bulrush	OBL
Scutellaria galericulata	Hooded Skullcap	OBL
Scutellaria lateriflora	Mad Dog Skullcap	FACW
Silene latifolia	White Cockle or Campion	UPL
Sinapis arvensis	Corn Mustard	UPL
Sisymbrium altissimum	Tall Hedge-Mustard	FACU
Sisymbrium loeselii	Small Hedge Mustard	UPL
Sisyrinchium idahoense	Idaho Blue-eyed-Grass	FACW
Sisyrinchium montanum	Strict Blue-eyed-Grass	FAC
Solidago canadensis	Canadian Goldenrod	FACU
Solidago gigantea	Late Goldenrod	FACW
Sonchus arvensis	Field Sow-Thistle	FACU
Stachys pilosa	Hairy Hedge-Nettle	FACW
Stellaria graminea	Grass-Leaf Starwort	FACU
Symphoricarpos albus	Common Snowberry	FACU
Symphyotrichum subspicatum	Leafy-Bract American-Aster	FACW
Taraxacum officinale	Common Dandelion	FACU
Thlaspi arvense	Field Pennycress	UPL
Tragopogon dubius	Meadow Goat's-beard	UPL
Trifolium arvense	Rabbit-foot Clover	UPL
Trifolium hybridum	Alsike Clover	FAC
Trifolium pratense	Red Clover	FACU
Trifolium repens	White Clover	FAC
Triglochin maritima	Seaside Arrow-Grass	OBL
Typha latifolia	Broad-Leaf Cat-Tail	OBL
Urtica dioica	Stinging Nettle	FAC
Verbascum thapsus	Great Mullein	FACU
Veronica scutellata	Grass-Leaf Speedwell	OBL
Vicia americana	American Purple Vetch	FAC
Xanthium strumarium	Rough Cockleburr	FAC

<sup>1</sup> 2020 NWPL (USACE 2020) New species identified in 2024 are **bolded.** 

# APPENDIX C PROJECT AREA PHOTOGRAPHS

MDT Wetland Mitigation Monitoring Easton Ranch Park County, Montana

# **Easton Ranch: Photo Point Photos**



Photo Point: 1 Bearing: 250 degrees

Location: East Boundary Year: 2010



Photo Point: 1 Bearing: 250 degrees

Location: East Boundary Year: 2024



Photo Point: 2 Bearing: 200 degrees

Location: Northeast Corner Year: 2010



Photo Point: 2 Bearing: 200 degrees

Location: Northeast Corner Year: 2024



Photo Point: 3 Bearing: 100 degrees

Location: Northwest Corner Year: 2010



Photo Point: 3 Bearing: 100 degrees

Location: Northwest Corner

degrees Year: 2024

#### **Easton Ranch: Photo Point Photos**



Photo Point: 4A Bearing: 170 degrees

Location: Shields Bank DS Year: 2010



Photo Point: 4A Bearing: 170 degrees

Location: Shields Bank DS Year: 2024



Photo Point: 4B Bearing: 20 degrees

Location: Shields Bank US Year: 2010



Photo Point: 4B Bearing: 20 degrees

Location: Shields Bank US Year: 2024 – 2021 location\*



Photo Point: 5 Bearing: 90 degrees

Location: West Boundary Year: 2010



Photo Point: 5 Bearing: 90 degrees

Location: West Boundary Year: 2024

<sup>\*</sup> new (2021) photo point location due to bank loss during high flows in 2018.

# **Easton Ranch: Photo Point Photos**



Photo Point: 6 Bearing: 0 degrees

Location: Southwest Corner Year: 2010



Photo Point: 6 Bearing: 0 degrees

Location: Southwest Corner Year: 2024



Photo Point: 7 Bearing: 340 degrees

Location: Southeast Corner Year: 2010



Photo Point: 7 Bearing: 340 degrees

Location: Southeast Corner Year: 2024

#### **Easton Ranch: Transect Photos**



Transect 1: Start Bearing: 5 degrees

Location: Veg Com 8 foreground Year: 2010



Transect 1: Start Bearing: 5 degrees

Location: Veg Com 21 foreground Year: 2024



Transect 1: End Bearing: 185 degrees

Location: Veg Com 8 foreground Year: 2010



Transect 1: End Bearing: 185 degrees

Location: Veg Com 10 foreground Year: 2024



Transect 2: Start Bearing: 185 degrees

Location: Veg Com 1 foreground Year: 2010



Transect 2: Start Bearing: 185 degrees

Location: Veg Com 21 foreground Year: 2024

CC3 | Cal. 202

#### **Easton Ranch: Transect Photos**



Transect 2: End Bearing: 0 degrees

Location: Veg Com 1 foreground Year: 2010



Transect 2: End Bearing: 0 degrees

Location: Veg Com 13 foreground Year: 2024



Transect 3: Start Bearing: 95 degrees

Location: Veg Com 1 foreground Year: 2010



Transect 3: Start Bearing: 95 degrees

Location: Veg Com 13 foreground Year: 2024



Transect 3: End Bearing: 265 degrees

Location: Veg Com 1 foreground Year: 2010



Transect 3: End Bearing: 265 degrees

Location: Veg Com 13 foreground Year: 2024



Data Point: DP01w Year: 2024

Location: Veg Com 11



Data Point: DP01u Year: 2024

Location: Veg Com 13



Data Point: DP02w Year: 2024

Location: Veg Com 11



Data Point: DP02u Year: 2024

Location: Veg Com 13



Data Point: DP03w Year: 2024

Location: Veg Com 12



Data Point: DP03u Year: 2024 Location: Veg Com 13



Data Point: DP04w Year: 2024

Location: Veg Com 15



Data Point: DP04u Year: 2024

Location: Veg Com 13



Data Point: DP05w Year: 2024

Location: Veg Com 14



Data Point: DP05u Year: 2024

Location: Veg Com 13



Data Point: DP06w Year: 2024

Location: Veg Com 14



Data Point: DP06u Year: 2024

Location: Veg Com 13



Data Point: DP07w Year: 2024

Location: Veg Com 11



Data Point: DP07u Year: 2024

Location: Veg Com 13



Data Point: DP08w Year: 2024

Location: Veg Com 14



Data Point: DP08u Year: 2024

Location: Veg Com 18



Data Point: DP09w Year: 2024

Location: Veg Com 21



Data Point: DP09u Year: 2024

Location: Veg Com 13



Data Point: DP10w Year: 2024

Location: Veg Com 24



Data Point: DP10u Year: 2024

Location: Veg Com 10



Additional Photo: bank erosion on Shields River

Year: 2024