Montana Department of Transportation Wetland Mitigation Monitoring Report

EASTON RANCH MITIGATION SITE

Project Overview

Watershed: Watershed #13 – Upper Yellowstone River Basin

Monitoring Year: 2021

Years Monitored: 12th year of monitoring

Corps Permit Number: NWO-2006-90370-MTB

Monitoring Conducted By: Confluence Consulting Inc Dates Monitoring Was Conducted: June 23-24, 2021

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 32.65-acre mitigation area. 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 an upland buffer around the perimeter of the easement boundary.

Site Location:

Latitude: 46.058174 Longitude: -110.638937 County: Park Nearest Town: Wilsall, MT Map Included: See Figure 1, page 11

Mitigation Site Construction Started: 2009 Construction Ended: 2009

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

Activity: Weed spraying was delayed to October 2021 due to Stage 2 fire restrictions across all areas of Montana from June through September 2021. **Date:** October 2021

Specific recommendations for any additional corrective actions: The Montana Department of Transportation (MDT) has an ongoing weed-control program and will assess the need for additional weed treatments in 2022. Soil lifts and riprap installed along the bank of the Shields River are still eroding in the northwestern corner of the site. This bank area is generally dominated by shallow-rooting pasture grasses. MDT will assess this bank erosion and potential need for woody plant installation.

Anticipated Wetland Credit Acres: 27.41

Wetland Credit Acres Generated to Date: 15.51

Previous Monitoring Reports:

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

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

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 2021 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.	Υ	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.	Υ	The majority of wetland cells were saturated during the June 2021 monitoring event. Ponded surface water was present in many portions of the overflow channel and several other low areas across the site. Saturation, high water table, and/or surface water hydrologic indicators were observed at all wetland data points. Hydric soil indicators were also observed at all wetland data points and included depleted matrix, redox dark surface, and hydrogen sulfide.
Wetland Hydrology	Groundwater wells will be left undisturbed within the site for the purpose of monitoring groundwater elevations during the growing season.	N	No groundwater wells remain on site. Because of construction activities, the original monitoring wells were removed from the site.
	Groundwater is filling the depressional wetlands excavated into the upland areas of the site.	Υ	Hydrologic indicators observed within the excavated wetlands include surface water, high water table, saturation, and hydrogen sulfide odor.
	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.	Y	All constructed wetlands exhibit hydric soil development (e.g., hydrogen sulfide, depleted matrix, redox dark surface).
Hydric Soil	Soil is sufficiently stable to prevent erosion.	Y	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.	Y	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.	Υ	Trees and shrubs have been 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 progression toward that goal at the end of the defined monitoring period.	Y	Approximately 27 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.
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.

Performance Standards	Success Criteria	Criteria Achieved (Y/N)	Discussion
Wetland Acreage Development	Provide 27.41 net credit acres for the project area.	N	A total of 17.13 net wetland credit acres has been generated for the mitigation site and includes 13.25 acres of created wetland, 1.64 acres of restored wetland, 1.10 acres of preserved wetland, establishment of a 13.16-acre upland buffer, and 0.67-acre debit from project impacts.
	Emergent wetland habitat will be 70–75% of mitigation wetland.	Y	Emergent wetland habitat comprises approximately 72% of total wetland areas delineated in 2021.
Wetland Acreage	Scrub/shrub wetland habitat will be 15–20% of wetland area.	Y	Scrub/shrub wetland habitat comprises approximately 27% of total wetland areas delineated in 2021, exceeding the success criteria of 15-20%.
Development	Open water will be < 5% of wetland area.	Y	Open water comprised less than 1% of total wetland areas delineated in 2021. These inundated areas (<3 feet deep) support a diversity of submergent 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.	Y	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.	Y	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.	Y	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.	Y	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	The banks of the Shields River are generally dominated by shallow-rooted upland pasture grasses, with low cover provided by the non-native and deeper-rooted species, reed canary grass. In 2021, soil lifts and the riprap installed along the bank continue to erode near the northwestern corner of the site. Installed willow cuttings did not establish along this bank.
	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.
Upland Buffer	Any area disturbed within creditable buffer zone must have at least 50 percent aerial cover of non-weed species by end of monitoring period.	Y	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.	Y	Absolute cover of state-listed noxious weed species is estimated between 1 and 2 percent across the site.

Performance Standards	Success Criteria	Criteria Achieved (Y/N)	Discussion
Fencing	Install wildlife-friendly fencing along the easement boundaries.	Y	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, with the exception of one small section of fencing along the northeastern boundary that was damaged from a falling cottonwood tree.
Monitoring	Monitor the site for a minimum period of 5 years or longer as determined by the USACE.	Υ	Comprehensive site monitoring has been ongoing for 12 years, since the completion of construction activities in 2009.

Summary Data

Wetland Delineation – The total wetland acreage delineated in 2021, including pre-existing wetland areas, was 15.99 acres, which is an increase of 2.1 acres since 2020 (Table 2; Figures A-2 and A-3, Appendix A). 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 0.08-acre of the mitigation site in 2021. The total wetland area at the site remained fairly constant from 2010 through 2019, ranging from a low of 11.53 in the first of year of monitoring in 2010 to a high of 12.64 in 2014. Total wetland acreages in 2020 (13.89 acres) and 2021 (15.99) are the highest delineated acreages to date. The additional 2.1 acres of wetland delineated in 2021 exhibits wetland hydrology, hydric soil characteristics, and an increase in hydrophytic species richness. Yearly fluctuations in wetland acreage can be directly attributed to wetland hydrology, which is a combination of elevated groundwater and supplemental irrigation water that is released onto the site each summer. During the late June 2021 monitoring event, hydrologic conditions for Park County, MT were atypical. According to the National Oceanic and Atmospheric Administration (NOAA) and the National Drought Mitigation Center (NMDC, 2021) Park County, MT was rated as D2 (-3 to -4) or D3 (-4 to -5) on the Palmer Drought Severity Index (PSDI), or severe to extreme drought conditions from June to October 2021.

Table 2. Upland, Wetland & Aquatic Habitat Acreage Delineated in 2021 at the Easton Ranch Site

Habitat Type	2021 Acreage
Uplands	16.58
Wetlands & Aquatic Habitat	
Emergent	11.56
Scrub-Shrub	4.35
Open Water	0.08
Wetlands Subtotal	15.99
Project Area	32.65

Vegetation – A total of 176 plant species were identified on the site from 2010 through 2021. One new native hydrophytic species, grass-leaf speedwell (*Veronica scutellata*), was identified in 2021. Vegetation communities were identified by species composition and dominance. The following six upland and 12 wetland vegetation community types were identified and mapped in 2021:

- Upland Type 1 Phleum pratense/Poa pratensis
- Upland Type 10 Bromus inermis/Populus tremuloides
- Upland Type 13 Bromus inermis/Phleum pratense
- Upland Type 16 Elymus repens/Poa pratensis
- Upland Type 17 Phleum pratense/Elymus repens
- Upland Type 18 Lotus corniculatus/Phleum pratense
- Wetland Type 3 Carex spp.
- 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.
- Transitional Wetland Type 22 Phleum pratense/Elymus repens
- Transitional Wetland Type 23 Lotus corniculatus/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). Portions of upland types 17 and 18 were delineated as wetland in the northern part of the project area and are transitioning to vegetation communities comprising an increased dominance by hydrophytic plant species. For this reason, these community types were split along the delineated wetland boundary and classified in 2021 as transitional wetland types 22 and 23. Shifts in species composition and cover will be reassessed in 2022 within these transitional wetland vegetation communities, and an alternate community name assigned if the dominant species change.

Vegetation cover was measured along three transects in 2021 (Figure A-2, Appendix A). Details of each transect are provided in the site monitoring form in Appendix B. Photographs of the transect end points are provided in Appendix C. Table 3 summarizes the data for Transect T-1. T-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 community types (CT) 1, 10, 16, 17, and 18 and wetland CT 7, 11, 14, 15, 21, 22, and 23. In 2021, upland CT 17 and 18 were separated into new transitional wetland CT 22 and 23, respectively, in areas now delineated as wetland habitat. Sixty-two percent of the transect crossed wetland habitat, an increase of 19.4 percent since 2021. This increase in wetland habitat observed in 2021 is primarily the result of upland CT 17 and 18 transitioning to wetland CT 22 and 23, which is well represented along the northern portion of T-1. Standing water and saturation to the soil surface had been consistently observed from 2019 through 2021 in these newly classified transitional wetland habitat areas. Wetland CT 22 and 23 are currently dominated by facultative (FAC) species and have not yet shifted to a dominance of more FACW and OBL species. Shifts in species composition and dominance within these transitional wetland CT will be reevaluated in 2022. Total vegetative cover has remained relatively constant at 85–91 percent from 2017 to 2021.

Table 3. Data Summary for T-1 From 2017 Through 2021 at the Easton Ranch Site

Monitoring Year	2017	2018	2019	2020	2021
Transect Length (feet)	1,376	1,376	1,376	1,376	1376
Vegetation Community Transitions Along Transect	14	12	12	13	17
Vegetation Communities Along Transect	6	8	10	9	12
Hydrophytic Vegetation Communities Along Transect	2	4	4	5	7
Total Vegetative Species	58	50	52	54	53
Total Hydrophytic Species	41	32	32	38	40
Total Upland Species	17	18	20	16	13
Estimated % Total Vegetative Cover	85	89	89	90	91
Estimated % Unvegetated	15	11	11	10	9
% Transect Length Comprising Hydrophytic Vegetation Communities	22.7	19.1	19.3	42.2	61.7
% Transect Length Comprising Upland Vegetation Communities	77.3	80.9	80.7	57.8	38.3
% 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-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 community types 1, 13, and 18 and wetland community types 3, 7, 11, 14, 15, and 21. Hydrophytic vegetation communities comprised 61.7 percent of the transect, a 15.2 percent increase to that observed in 2020. The increase in wetland habitat observed in 2021 is primarily the result of the expansion of wetland CT 21 and a portion of upland type 18 transitioning to wetland CT 11. Total vegetative cover has remained relatively constant at 85–91 percent from 2017 to 2021.

Table 4. Data Summary for T-2 From 2017 Through 2021 at the Easton Ranch Site

Monitoring Year	2017	2018	2019	2020	2021
Transect Length (feet)	1,333	1,333	1,333	1,333	1,333
Vegetation Community Transitions Along Transect	11	14	14	13	11
Vegetation Communities Along Transect	6	8	9	9	9
Hydrophytic Vegetation Communities Along Transect	4	5	6	6	6
Total Vegetative Species	58	54	59	61	60
Total Hydrophytic Species	45	44	46	46	47
Total Upland Species	13	10	13	15	13
Estimated % Total Vegetative Cover	85	87	90	90	91
Estimated % Unvegetated	15	13	10	10	9
% Transect Length Comprising Hydrophytic Vegetation Communities	40.5	40.9	46.1	46.5	61.7
% Transect Length Comprising Upland Vegetation Communities	59.5	59.1	53.9	53.5	38.3
% 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, runs west to east across the south end of the site, and intersects upland community types 1 and 13 and wetland community types 11 and 14. Approximately 55 percent of the transect

crossed wetland habitat in 2021. The total number of species (both hydrophytic and upland) were similar in number to that observed in 2020. Total vegetative cover has remained relatively constant at 85–91 percent from 2017 to 2021.

Table 5. Data Summary for T-3 From 2017 Through 2021 at the Easton Ranch Site

Monitoring Year	2017	2018	2019	2020	2021
Transect Length (feet)	732	732	732	732	732
Vegetation Community Transitions Along Transect	4	6	6	6	6
Vegetation Communities Along Transect	3	4	4	4	4
Hydrophytic Vegetation Communities Along Transect	1	2	2	2	2
Total Vegetative Species	42	42	40	29	27
Total Hydrophytic Species	29	30	27	19	19
Total Upland Species	13	12	13	10	8
Estimated % Total Vegetative Cover	85	90	91	90	91
Estimated % Unvegetated	15	10	9	10	9
% Transect Length Comprising Hydrophytic Vegetation Communities	47.3	51.1	51.5	54.8	54.5
% Transect Length Comprising Upland Vegetation Communities	52.7	48.9	48.5	45.2	45.5
% 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. Consistent with monitoring activities of the past several years, a thorough survey of the project area was conducted in 2021 to locate and identify surviving cuttings and containerized saplings. Approximately four red-osier dogwood (*Cornus alba*), 51 sandbar willow (*Salix exigua*), 99 speckled alder (*Alnus incana*), and 85 willow cuttings were identified as surviving in 2021. 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, sandbar willow, and black cottonwood (*Populus balsamifera*) were noted along the channel, are establishing well, and have increased in abundance and cover since 2020. Volunteer sandbar 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 community type (CT) 11, CT14, CT15, and CT21 across the site. Young cottonwoods were also observed within CT1, CT14, CT18, and CT21 along Transects 1 and 2, and around the perimeter of CT5 and CT14 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.

During the June 2021 monitoring, four small infestations of Canada thistle (*Cirsium arvense*), a Priority 2B noxious weed in Montana, were identified in areas less than 0.1-acre in size and located in both wetland and upland habitat (Figure A-3, Appendix A). The infestations included trace (< 1 percent), low (1–5 percent), and moderate (6–25 percent) cover classes. Canada thistle was observed in CT1, CT3, CT5, CT10, and CT20. One infestation of gypsy-flower (*Cynoglossum officinale*) was observed on site, along the eastern site boundary, in CT13. Annual weed spraying efforts have been very effective in reducing infestation size and cover of noxious weed populations across the site. MDT has an ongoing weed-control program, which included weed spraying by contractors in October 2021, following the June 2021 monitoring event.

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

two surface-water diversions in the northern portion of the site. The surface-water diversions at the site, a ditch along the northeastern boundary and an irrigation canal located at the northcentral boundary, were not flowing during the June 2021 site visit, unlike that observed during the June 2020 site visit. Approximately 10 percent of the site was inundated with surface water during the 2021 investigation at depths that ranged from 0 to 1.5 feet. Inundation was observed in many portions of the overflow channel, the two mapped open water areas, and several other low areas across the site. The majority of wetland cells were saturated during the June monitoring event. As mentioned previously, increased water flow into the northeastern portion of the project area over the last three years has caused this area to exhibit wetland hydrology, hydric soil characteristics, and an increase in hydrophytic species. During the 2021 site visit, this area was saturated to the soil surface. Unlike 2019 and 2020, the severe drought conditions and low water levels within the Shields River in 2021 resulted in a lack of overland flow into the mitigation site. In 2021, there was no observation of high flows along Transect 2 or in the flood channel as seen in previous years. Overall, stream banks within the overflow channel were well-vegetated, and the channel bottom stable during the monitoring event.

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

Soil textures within upland soil pits ranged from sandy clay to silty clay. No hydric soil indicators were observed in any of the upland soil pits. 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 2021 and the first year of monitoring. Please refer to previous years' monitoring reports for all previous annual photographs (https://www.mdt.mt.gov/publications/brochures/wetland_mitigation.shtml).

Functional Assessment – The 2021 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 General Wildlife Habitat, MT Natural Heritage Program Species Habitat, Flood Attenuation, Short- and Long-Term Surface-Water Storage, and Sediment/Nutrient/Toxicant Removal.

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

Function and Value Parameters From the 2008 Montana Wetland Assessment Method	2021 Restoration	2021 Preservation	2021 Creation
Listed/Proposed Threatened & Endangered (T&E) Species Habitat	Low (0.0)	Low (0.0)	Low (0.0)
Montana Natural Heritage Program Species (MTNHP) Habitat	High (0.9)	High (0.9)	High (0.9)
General Wildlife Habitat	Mod (0.7)	High (0.9)	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	Mod (0.6)

Production Export/Food Chain Support	Mod (0.7)	High (0.9)	High (0.8)
Groundwater Discharge/Recharge	Mod (0.7)	Mod (0.7)	Mod (0.7)
Uniqueness	Mod (0.4)	Mod (0.6)	Mod (0.6)
Recreation/Education Potential (bonus points)	NA	NA	NA
Actual Points/Possible Points	6.60 / 10	6.60 / 9	7.10 / 10
% of Possible Score Achieved	66%	73%	71%
Overall Category	II	=	II
Total Acreage of Assessed Wetlands Within Site Boundaries	1.64	1.1	13.25
Functional Units (acreage × actual points)	10.82	7.26	94.08

Wildlife – Sixteen bird species were identified at the site in 2021 (Site Monitoring Form Appendix B). Bird boxes installed in 2017 were checked, and all but one appeared stable and in good condition. In addition to the bird species, chorus frogs were noted in wetlands across the site, and white-tailed deer were observed along the eastern project boundary.

Stream Bank Stabilization — During the 2013 high-flow event (spring 2013), significant bank erosion occurred immediately upstream of PP4B. This erosion exposed the riprap and undermined the riprap and coir-wrapped 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 section of bank remains exposed and vulnerable. The 2018 runoff period was supported by above-average precipitation in June. In 2019 through 2021, bank erosion had continued along the downstream (south) portion of the 85-foot-long bank and resulted in areas of undercutting and loss of finer textured subsoils.

Credit Summary — Table 7 summarizes the estimated wetland credits based on the USACE-approved credit ratios and the wetland delineation completed in June 2021. 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 acre of impacts associated with constructing the mitigation wetland. The total mitigation credit estimated in 2021 totaled 15.51 credit acres, which is an increase of 0.25-acre since 2020. The site is still approximately 11.90 acres short of the original goal of 27.41 credit acres. Created wetland acreage has not developed as anticipated for the eastern perimeter and western portion of the site and is the cause behind this shortfall.

Table 7. Wetland Mitigation Credits Estimated for the Easton Ranch Site (2018–2021)

Proposed Mitigation Features	Compensatory Mitigation Type	USACE Mitigation Ratios	Anticipated Final Credit Acreages	Proposed Final Wetland Credits (Acres)	2018 Wetland Acreages	2018 Credit Estimated (Acres)	2019 Wetland Acreages	2019 Credit Estimated (Acres)	2020 Wetland Acreages	2020 Credit Estimated (Acres)	2021 Wetland Acreages	2021 Credit Estimated (Acres)
Creation of palustrine emergent wetland via shallow excavation	Establishment (Creation)	1:1	24.95	24.95	8.93	8.93	9.63	9.63	11.15	11.15	13.25	13.25
Reestablishment of relic flood channel	Restoration (Reestablishment)	1:1	1.56	1.56	1.56	1.56	1.56	1.56	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	Upland Buffer	5:1	6.43	1.29	11.5 ^a	2.30	11.5 ^a	2.3	14.28 ^b	2.86	5.07 ^c	1.01
Project impacts			-0.67	-0.67	-0.67	-0.67	-0.67	-0.67	-0.67	-0.67	-0.67	-0.67
Open Water	Open Water	TBD ^d	TBD ^d	TBD ^d					0.11	TBD ^d	0.08	TBD ^d
	Total			27.41		12.40		13.10		15.26		15.51

^a50-foot upland buffer calculated in GIS and carried forward by RESPEC through 2019. Upland buffer established around mapped wetland boundaries.

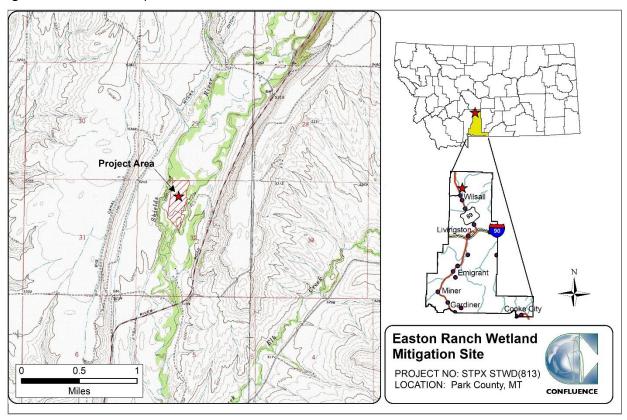
^b50-foot upland buffer calculated in GIS in 2020 by Confluence. Upland buffer established around 2020 mapped wetland boundaries.

^c50-foot upland buffer calculated in GIS in 2021 by Confluence. Upland buffer established around perimeter of site in areas visually identified as upland during the 2021 monitoring event.

 $^{^{\}rm d}$ Mitigation ratios and crediting for Open Water are To Be Determined (TBD).

Maps, Plans, Photos

Figure 1. Site Location Map



Project Area Maps/Figures: See Appendix A (Figure A-2 – 2021 Monitoring Activity Locations; Figure A-3 – 2021 Mapped Site Features; and Figure A-4 – 2021 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 Monitoring Report

https://www.mdt.mt.gov/other/webdata/external/planning/wetlands/2018-REPORTS/2018-FINAL-

Easton-Ranch.PDF

Conclusions

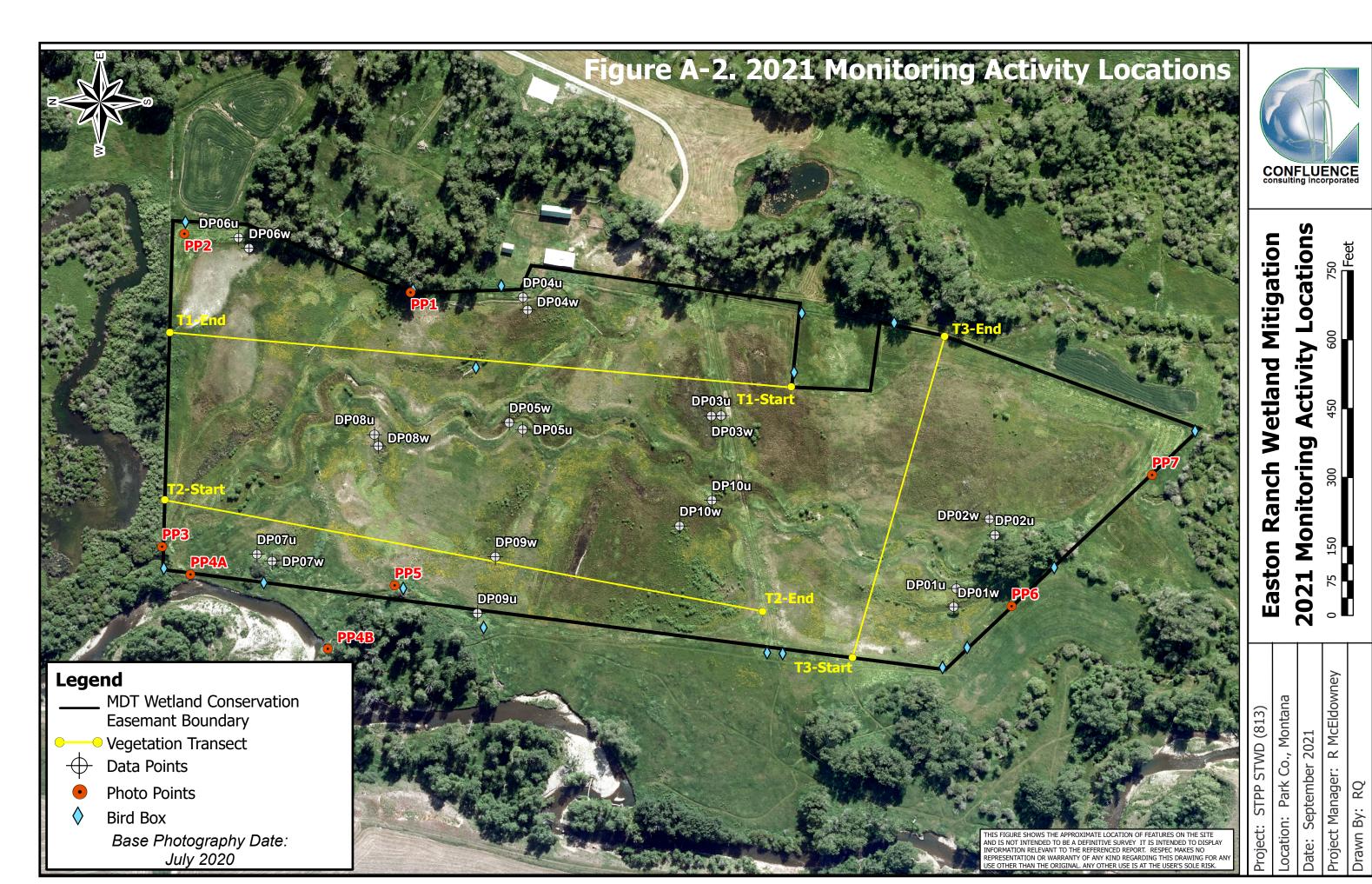
Based on the results of the twelfth year of monitoring, the mitigation site is continuing an upward trend toward a diverse wetland ecosystem. The site is meeting all performance standards except for wetland hydrology (groundwater wells), wetland acreage development, and bank stabilization (deep-rooting riparian vegetation establishment). MDT will discuss the difficulties in meeting these performance standards and potential remedial actions to address the deficiencies.

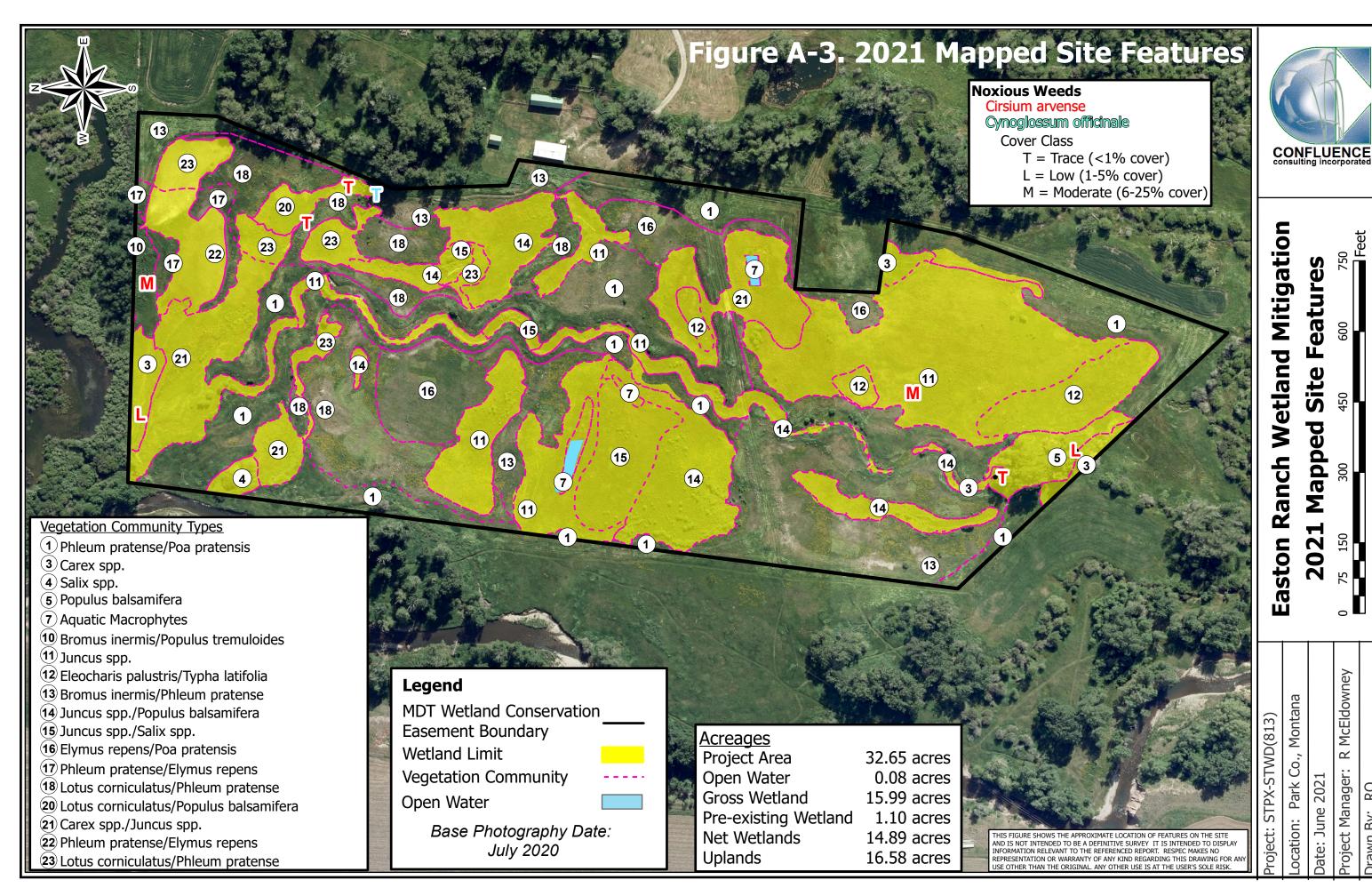
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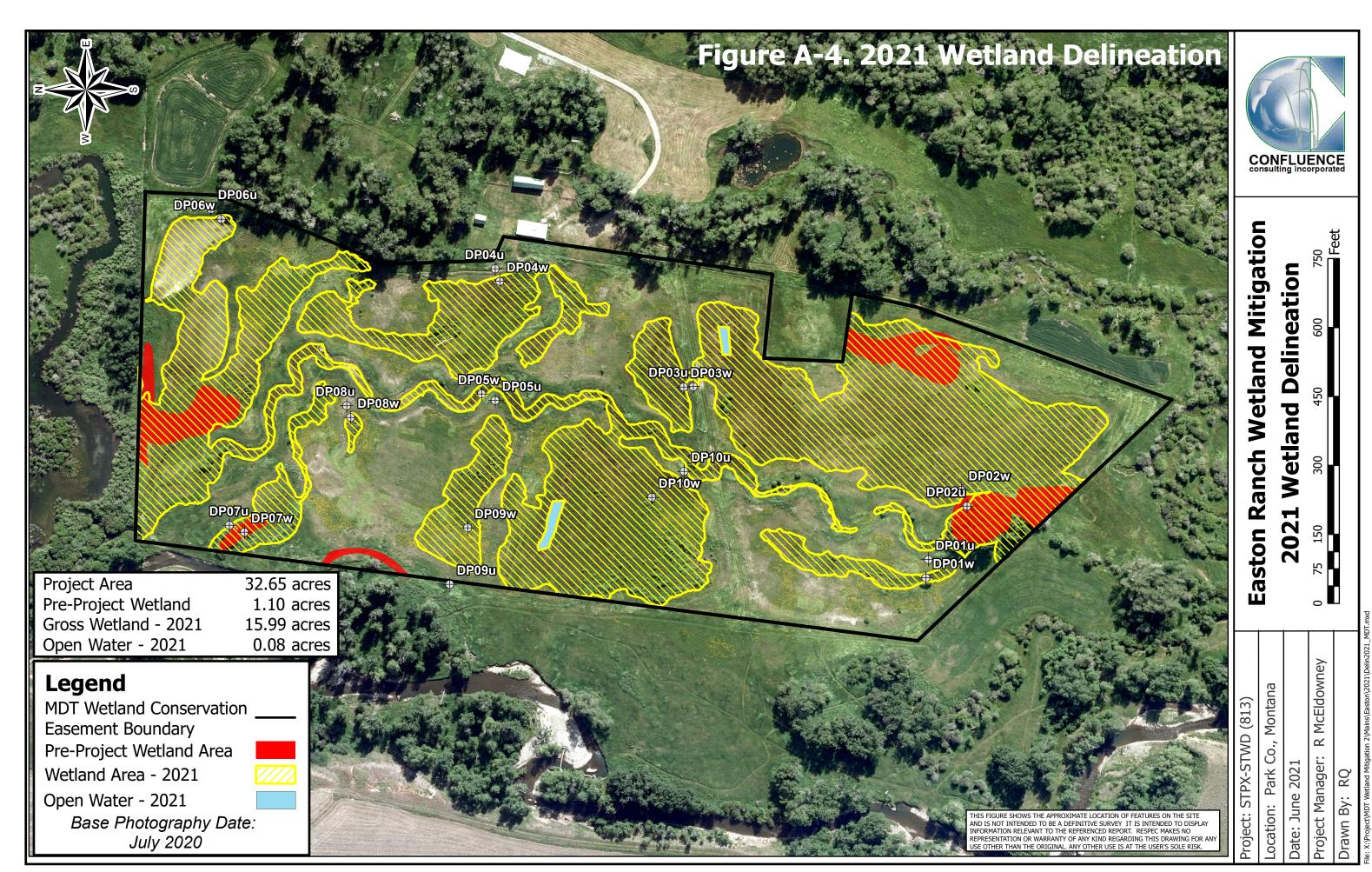
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APPENDIX A PROJECT AREA MAPS

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>Easton</u> Assessment Date/Time	<u>6/23/2</u> 0
Person(s) conducting the assessment: R Quire, S Weyant, J Trilling	
Weather: 80 degees, sunny, clear, breezy Location: Northeast of Wilsall	
MDT District: ButteMilepost: NA	
Legal Description: T_4N_R_9E_Section(s)_32 NW 1/4	
Initial Evaluation Date: 8/25/2010 Monitoring Year: 12 #Visits in Year: 1	
Size of Evaluation Area: 32.65 (acres)	
Land use surrounding wetland: Agriculture, riparian corridor	
HYDROLOGY	
Surface Water Source: High groundwater, periodic overbank flow from the Shields River, irriga	ation_
Inundation: Average Depth: 0.3 (ft) Range of Depths: 0.1-1.5 (ft)	
Percent of assessment area under inundation:10 %	
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:Y	es
Other evidence of hydrology on the site (ex. – drift lines, erosion, stained vegetation, etc:	
Geomorphic position, FAC-neutral test, drain pattern, surface water, high water table, satural	ion,
and sulfidic odor.	
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:	
All wetland cells were saturated or inundated with shallow surface water during the June 2021 monitoring. Surface water was present in the overflow channel. Surface water levels were low across the site compared to 2020. Along Transect 3, there were no signs of high flows noted i channel in 2021. According to NOAA, Park County, MT experienced severe drought condition during the June 2021 monitoring event and hydrologic conditions were atypical.	er n the

VEGETATION COMMUNITIES

Site _Easton

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

Community # 1 Community Type: Phleum pratense / Poa pratensis Acres: 6.34

Species	Cover class	Species	Cover class
Agrostis stolonifera	1	Alopecurus arundinaceus	0
Bare Ground	1	Bromus inermis	3
Carex nebrascensis	0	Carex pellita	0
Carum carvi	1	Cirsium arvense	1
actylis glomerata	1	Deschampsia caespitosa	1
ymus repens	3	Equisetum arvense	0
lycyrrhiza lepidota	0	Juncus balticus	1
ymus cinereus	1	Lotus corniculatus	2
simachia ciliata	0	Medicago sativa	1
lilotus officinalis	0	Phalaris arundinacea	1
leum pratense	3	Poa palustris	1
a pratensis	3	Populus balsamifera	1
lix lutea	1	Sisyrinchium idahoense	0
achys palustris	0	Taraxacum officinale	1
ifolium hybridum	1	Trifolium pratense	2

Comments:

In 2020 and 2021, there is an increase in the cover by Lotus corniculatus, Elymus repens, and Juncus balticus within this community. More willow and cottonwood seedlings observed. Less than 0.1-acre of this community was delineated as wetland in 2021. This small transitional area will be reassessed in 2022 and potentially assigned an alternative or new wetland CT.

Community # 3 Community Type: Carex spp. / Acres: 0.55

Species	Cover class	Species	Cover class
Calamagrostis canadensis	1	Carex atherodes	4
Carex nebrascensis	2	Carex pellita	2
Carex utriculata	3	Cirsium arvense	1
Cirsium arvense	1	Equisetum arvense	1
Juncus balticus	2	Juncus longistylis	1
Mentha arvensis	1	Open Water	1
Poa palustris	1	Poa pratensis	0
Salix exigua	1	Scirpus microcarpus	2
Stachys palustris	1		

Comments:

This community type exhibits a diversity of hydrophytic species.

Community # 4 Community Type: Salix spp. / Acres: 0.14

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	1
Salix drummondiana	4	Salix lasiandra	3
Scirpus microcarpus	1	Urtica dioica	1

Comments:

Preserved scrub-shrub community along the banks of the Shields River. Dominated by Salix drummondiana and Salix lasiandra in 2021.

Community # 5 Community Type: Populus balsamifera / Acres: 0.48

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	2
Scutellaria lateriflora	2		

Comments:

Preserved forested wetland area along the southern project boundary.

Community # 7 Community Type: Aquatic macrophytes / Acres: 0.18

Species	Cover class	Species	Cover class
Algae, green	3	Alopecurus geniculatus	0
Beckmannia syzigachne	1	Carex pellita	1
Carex utriculata	2	Cornus alba	0
Eleocharis palustris	2	Glyceria grandis	1
Juncus balticus	2	Juncus effusus	2
Juncus ensifolius	0	Mentha arvensis	1
Open Water	5	Ranunculus aquatilis	0
Ruppia maritima	1	Salix lutea	1
Schoenoplectus pungens	1	Scirpus microcarpus	1
Typha latifolia	2		

Comments:

This community type is stable with shallow open water, aquatic macrophytes, and a diverse border of hydrophytic vegetation in 2021.

Community # 10	Community Type:	Bromus inermis / Populus tremuloides	Acres:	<u>0.23</u>
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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 tremuloides	3
Taraxacum officinale	1	Trifolium pratense	1
Comments:			

Small community type along the northern project boundary.

Community # 11 Community Type: Juncus spp./ 5.68 Acres:

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

Comments:

Diverse wetland community type with many more species recorded with a cover value of less than 1 percent. In 2018-2021, noted Salix spp., Alnus incana, and Populus balsamifera seedlings across portions of CT 11. In 2021, areas of this community expanded into upland CT 1 and 18 as a result of the increase in wetland acreage and cover by Juncus spp. and Carex spp.

Community #	<u>12</u>	Community Type:	Eleocharis palustris / Typha latifolia	Acres:	<u>1.02</u>
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Species	Cover class	Species	Cover class
Agrostis stolonifera	1	Alopecurus pratensis	1
Beckmannia syzigachne	1	Carex aquatilis	1
Carex utriculata	2	Eleocharis palustris	3
Glyceria elata	1	Juncus balticus	1
Mentha arvensis	1	Phalaris arundinacea	1
Ruppia maritima	1	Typha latifolia	4

This community type was observed in areas where surface water persists for longer periods through the summer.

Community # 13 Community Type: Bromus inermis / Phleum pratense Acres: 5.27

Species	Cover class	Species	Cover class
Agrostis stolonifera	1	Alopecurus pratensis	0
Bare Ground	1	Bromus arvensis	0
Bromus inermis	3	Camelina microcarpa	1
Carum carvi	1	Cirsium arvense	1
Dactylis glomerata	1	Elymus repens	1
Equisetum arvense	0	Juncus balticus	1
Leymus cinereus	1	Lotus corniculatus	3
Phleum pratense	3	Poa palustris	1
Poa pratensis	2	Populus balsamifera	1
Salix exigua	1	Schedonorus pratensis	0
Taraxacum officinale	1	Trifolium hybridum	1
Trifolium pratense	1		

Comments:

In 2018, several areas previously mapped as CT 13 transitioned to community types 16 or 18 due to the increase of Elymus repens or Lotus corniculatus and the reduction of Bromus inermis. In 2021, CT 14 and 20 replaced a small portion of this community due to an increase in Juncus balticus and Populus balsamifera and a reduction in cover by Bromus inermis.

Community # 14 Community Type: Juncus spp. / Populus balsamifera Acres: 2.48

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	Deschampsia caespitosa	1
Equisetum arvense	1	Juncus balticus	4
Juncus effusus	2	Lotus corniculatus	1
Mentha arvensis	1	Open Water	1
Phleum pratense	1	Poa palustris	2
Poa pratensis	0	Populus angustifolia	1
Populus balsamifera	4	Salix bebbiana	1
Salix boothii	1	Salix drummondiana	1
Salix exigua	1	Salix lasiandra	0
Salix lutea	2	Sinapis arvensis	0
Sisyrinchium idahoense	0	Taraxacum officinale	0
Trifolium hybridum	0	Trifolium pratense	0
Comments:			

Comments:

In 2021, this community type expanded minimally across the site as a result of the increase in cover by Juncus balticus and Populus balsamifera.

Community # 15 Community Type: Juncus spp. / Salix spp. Acres: 1.03

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	Juncus balticus	4
uncus effusus	1	Juncus tenuis	1
otus corniculatus	0	Mentha arvensis	1
nalaris arundinacea	0	Poa palustris	0
pulus balsamifera	2	Potentilla anserina	1
alix bebbiana	2	Salix boothii	0
alix drummondiana	1	Salix exigua	1
alix lasiandra	1	Salix lutea	3
cirpus microcarpus	1	Sisyrinchium idahoense	0
achys palustris	1		

Comments:

In 2021, an increase in natural recruitment of willow seedlings was observed, along with increased cover and high vigor by willows observed in previous years within this CT. Cover by willow species within this CT represent greater than 30 of the total cover.

Community #	16	Community Type:	Elymus repens / Poa pratensis	Acres:	1.7
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Species	Cover class	Species	Cover class
Agrostis stolonifera	1	Bare Ground	1
Bromus ciliatus	0	Bromus inermis	2
Carex nebrascensis	0	Carum carvi	2
Cirsium arvense	1	Dactylis glomerata	0
Elymus cinereus	1	Elymus repens	3
Leymus cinereus	1	Lotus corniculatus	2
Phleum pratense	2	Poa palustris	1
Poa pratensis	3	Populus balsamifera	0
Ranunculus macounii	0	Taraxacum officinale	2
Trifolium pratense	1		

Community type created in 2018, primarily along the northwestern portion of the project. A small portion of this CT transitioned to CT 11, west of the constructed channel, as a result of an increase in Juncus balticus and decrease in Elymus repens and Poa pratensis.

Community # 17 Community Type: Phleum pratense / Elymus repens Acres: 0.35

Species	Cover class	Species	Cover class
Bare Ground	1	Bromus inermis	2
Carum carvi	2	Cirsium arvense	1
Elymus repens	3	Equisetum arvense	1
Juncus balticus	1	Leymus cinereus	1
Lotus corniculatus	2	Open Water	0
Phleum pratense	4	Poa palustris	1
Poa pratensis	2	Taraxacum officinale	1
Trifolium pratense	1		

Comments:

A small upland community along the northern end of Transect 1, formerly CT 1. In 2020 and 2021, there was an increase in the cover by Lotus corniculatus and Juncus balticus within this community. The areas within this community delineated as wetland in 2021 are now identified as Transitional Wetland CT 22.

Community #	18	Community	Type:	Lotus corniculatus / Phleum pratense	Acres:	2.91
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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	0
Camelina microcarpa	1	Carex pachystachya	1
Carex pellita	1	Carum carvi	2
Elymus repens	1	Equisetum arvense	1
Juncus balticus	2	Leymus cinereus	1
Lotus corniculatus	4	Medicago lupulina	1
Melilotus officinalis	0	Open Water	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 palustris	0	Taraxacum officinale	1
Thlaspi arvense	1	Trifolium hybridum	2
Trifolium pratense	1		

Upland CT first identified in 2018, mainly across the northeastern portion of project site, indicating an increase in hydrology. Cover and density by Lotus corniculatus continues to increase across this site. Many areas within this CT are in transition from upland to wetland habitat, exhibiting an increase in hydrophytic species. The areas of this CT that were delineated as wetland in 2021 were separated into the new transitional wetland CT 23. This shift from upland to wetland habitat is especially evident in the northeastern portion of the site.

Community # 20 Community Type: Lotus corniculatus / Populus balsamifera Acres: 0.27

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 new community type mapped in 2019 in the northeastern corner of the project area replacing a small area within CT18. This community type is anticipated to expand in the future based on the number of young cottonwoods observed in this area.

Community # 21 Community Type: Carex spp. / Juncus spp. Acres: 2.56

Species	Cover class	Species	Cover class
Agrostis stolonifera	2	Alopecurus arundinaceus	1
Bare Ground	3	Carex aquatilis	1
Carex atherodes	1	Carex bebbii	1
Carex microptera	1	Carex nebrascensis	1
Carex pachystachya	3	Carex pellita	3
Carex utriculata	1	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 palustris	1
Taraxacum officinale	0	Typha latifolia	0
Comments:			

Comments:

A new community type mapped in 2019, within transects 1 and 2. In 2021, this CT replaced a large portion of CT 1 in the northern portion of the site, along transect 2, due to an increase in Carex spp. and Juncus spp., and a decrease in Phleum pratense, Poa pratensis, and Elymus repens.

Community # 22 Community Type: Phleum pratense / Elymus repens Acres: 0.63

Species	Cover class	Species	Cover class
Bare Ground	1	Bromus inermis	2
Carum carvi	2	Cirsium arvense	1
Elymus repens	3	Equisetum arvense	1
Juncus balticus	1	Leymus cinereus	1
Lotus corniculatus	2	Open Water	0
Phleum pratense	4	Poa palustris	1
Poa pratensis	2	Taraxacum officinale	1
Trifolium pratense	1		
Trifolium pratense	1		

Comments:

New transitional wetland CT along the northern end of Transect 1. In 2021, areas within upland CT 17 that were delineated as wetland were separated into this new wetland CT.

Community # 23 Comm	nunity Type:	Lotus corniculatus / Phleum pratense	Acres:	<u>0.92</u>
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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	0
Camelina microcarpa	1	Carex pachystachya	1
Carex pellita	1	Carum carvi	2
Elymus repens	1	Equisetum arvense	1
Juncus balticus	2	Leymus cinereus	1
Lotus corniculatus	4	Medicago lupulina	1
Melilotus officinalis	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 palustris	0
Taraxacum officinale	1	Thlaspi arvense	1
Trifolium hybridum	2	Trifolium pratense	1
Comments:			

New transitional wetland CT primarily along the northern end of Transect 1. In 2021, areas within upland CT 18 that were delineated as wetland were separated into this new wetland CT.

Total Vegetation Community Acreage

32.65

(Note: some area within the project bounds may be open water or other non-vegetative ground cover.)

VEGETATION TRANSECTS

Easton	Da	Date:	
Transect Number: _	1 Compass D	irection from Start:	55_
Interval Data:			
Ending Station	65 Community Type:	Carex spp. / Juncus spp.	
Species	Cover class	Species	Cover class
Agrostis stolonifera	1	Carex nebrascensis	1
Carex pachystachya	1	Carex pellita	3
Carex utriculata	1	Elymus repens	1
Equisetum arvense	1	Juncus balticus	4
Juncus longistylis	1	Juncus tenuis	1
Poa pratensis	1		
Ending Station	93 Community Type:	Aquatic macrophytes /	
Species	Cover class	Species	Cover class
Algae, green	3	Beckmannia syzigachne	0
Carex pellita	1	Carex utriculata	2
Eleocharis palustris	1	Glyceria grandis	1
Juncus balticus	2	Juncus effusus	1
Juncus ensifolius	1	Mentha arvensis	1
Open Water	5	Ranunculus aquatilis	1
Salix lutea	1	Typha latifolia	1
Ending Station	137 Community Type:	Carex spp. / Juncus spp.	
Species	Cover class	Species	Cover class
Agrostis stolonifera	0	Carex aquatilis	2
Carex nebrascensis	1	Carex utriculata	2
Epilobium ciliatum	1	Juncus balticus	4
Juncus effusus	4	Juncus ensifolius	0
Mentha arvensis	0	Open Water	1
Phleum pratense	0	Poa palustris	0
Poa pratensis	0	Salix bebbiana	1
Salix lutea	1		

Ending Station	193	Community Type:	Elymus repens / Poa pratensis	5
Species		Cover class	Species	Cover class
Agrostis stolonifera		2	Bare Ground	1
Carex nebrascensis		1	Cirsium arvense	0
Dactylis glomerata		1	Elymus repens	4
Leymus cinereus		0	Lotus corniculatus	1
Phleum pratense		2	Poa palustris	0
Poa pratensis		3	Taraxacum officinale	0
Ending Station	288	Community Type:	Carex spp. / Juncus spp.	
Species		Cover class	Species	Cover class
Agrostis stolonifera		1	Alopecurus arundinaceus	3
Carex aquatilis		2	Carex utriculata	2
Glyceria grandis		2	Juncus balticus	4
Juncus effusus		2	Lotus corniculatus	1
Open Water		3	Poa pratensis	1
Populus balsamifera		1	Salix bebbiana	1
Salix exigua		1	Salix lutea	1
Scirpus microcarpus		1	Typha latifolia	2
Ending Station	468	Community Type:	Phleum pratense / Poa praten	sis
Species		Cover class	Species	Cover class
Agrostis stolonifera		2	Alopecurus arundinaceus	1
Bromus inermis		1	Carex nebrascensis	2
Carum carvi		2	Cirsium arvense	1
Deschampsia caespitosa		1	Elymus repens	1
Juncus balticus		1	Leymus cinereus	1
Lotus corniculatus		1	Melilotus officinalis	0
Phleum pratense		3	Poa pratensis	3
Populus balsamifera		1	Taraxacum officinale	0
Trifolium hybridum		1	Trifolium pratense	1
Ending Station	516	Community Type:	Juncus spp. /	
Species		Cover class	Species	Cover class
Alopecurus arundinaceus		2	Alopecurus pratensis	1
Bare Ground		1	Carex pachystachya	1
Cirsium arvense		0	Cirsium arvense	0
Juncus balticus		4	Juncus effusus	2
Juncus tenuis		0	Phleum pratense	1
Poa palustris		1	Poa pratensis	1

Ending Station	562	Community Type:	Lotus corniculatus / Phleum բ	oratense
Species		Cover class	Species	Cover class
Agrostis stolonifera		1	Alopecurus arundinaceus	4
Carex pachystachya		1	Carum carvi	1
Elymus repens		1	Equisetum arvense	1
Lotus corniculatus		2	Phleum pratense	3
Poa palustris		1	Poa pratensis	3
Populus balsamifera		1	Rumex salicifolius	1
Stachys palustris		1	Thlaspi arvense	1
Trifolium hybridum		1		
Ending Station	635	Community Type:	Juncus spp. / Populus balsan	nifera
Species		Cover class	Species	Cover class
Agrostis stolonifera		1	Alopecurus arundinaceus	2
Bare Ground		1	Carex pachystachya	1
Carex pellita		1	Equisetum arvense	1
Juncus balticus		3	Juncus effusus	3
Lotus corniculatus		3	Phleum pratense	1
Poa palustris		1	Poa pratensis	1
Populus balsamifera		2	Salix lutea	1
Ending Station	667	Community Type:	Lotus corniculatus / Phleum բ	oratense
Species		Cover class	Species	Cover class
Alopecurus arundinaceus		2	Bare Ground	2
Carex pellita		1	Carum carvi	1
Elymus repens		1	Juncus balticus	3
Lotus corniculatus		4	Taraxacum officinale	1
Trifolium pratense		1		
Ending Station	740	Community Type:	Juncus spp. / Salix spp.	
Species		Cover class	Species	Cover class
Alnus incana		1	Carex pachystachya	1
Carex pellita		1	Carum carvi	1
Juncus balticus		4	Lotus corniculatus	2
Phalaris arundinacea		1	Populus balsamifera	3
Salix bebbiana		2	Salix boothii	2
Salix exigua		2	Sisyrinchium idahoense	0

Ending Station	899 Community Type:	Lotus corniculatus / Phleu	m pratense
Species	Cover class	Species	Cover class
Alnus incana	1	Bare Ground	1
Carum carvi	2	Equisetum arvense	1
Juncus balticus	2	Leymus cinereus	1
Lotus corniculatus	4	Medicago lupulina	1
Open Water	1	Phleum pratense	3
Poa pratensis	2	Populus balsamifera	1
Rumex salicifolius	1	Taraxacum officinale	1
Trifolium hybridum	1	Trifolium pratense	2
Ending Station	1013 Community Type:	Lotus corniculatus / Phleu	m pratense
Species	Cover class	Species	Cover class
Alnus incana	1	Bare Ground	1
Carum carvi	2	Equisetum arvense	1
Juncus balticus	2	Leymus cinereus	1
Lotus corniculatus	4	Medicago lupulina	1
Open Water	0	Phleum pratense	3
Poa pratensis	2	Populus balsamifera	1
Rumex salicifolius	1	Taraxacum officinale	1
	_	Tuif - I'	
Trifolium hybridum	1	Trifolium pratense	2
Trifolium hybridum Ending Station	1 1038 Community Type:	·	
		·	
Ending Station	1038 Community Type:	Lotus corniculatus / Phleu	m pratense
Ending Station Species	1038 Community Type: Cover class	Lotus corniculatus / Phleu	m pratense
Ending Station Species Alnus incana	1038 Community Type: Cover class	Lotus corniculatus / Phleu Species Bare Ground	m pratense
Ending Station Species Alnus incana Carum carvi	1038 Community Type: Cover class 1 2	Species Bare Ground Equisetum arvense	m pratense
Ending Station Species Alnus incana Carum carvi Juncus balticus	1038 Community Type: Cover class 1 2 2 2	Species Bare Ground Equisetum arvense Leymus cinereus	m pratense
Ending Station Species Alnus incana Carum carvi Juncus balticus Lotus corniculatus	1038 Community Type: Cover class 1 2 2 2 4	Species Bare Ground Equisetum arvense Leymus cinereus Medicago lupulina	m pratense
Ending Station Species Alnus incana Carum carvi Juncus balticus Lotus corniculatus Phleum pratense	1038 Community Type: Cover class 1 2 2 4 3	Species Bare Ground Equisetum arvense Leymus cinereus Medicago lupulina Poa pratensis	Cover class 1 1 1 1 2
Ending Station Species Alnus incana Carum carvi Juncus balticus Lotus corniculatus Phleum pratense Populus balsamifera	1038 Community Type: Cover class 1 2 2 4 3 1	Species Bare Ground Equisetum arvense Leymus cinereus Medicago lupulina Poa pratensis Rumex salicifolius	Cover class 1 1 1 1 2 1
Ending Station Species Alnus incana Carum carvi Juncus balticus Lotus corniculatus Phleum pratense Populus balsamifera Taraxacum officinale	1038 Community Type: Cover class 1 2 2 4 3 1 1 1	Species Bare Ground Equisetum arvense Leymus cinereus Medicago lupulina Poa pratensis Rumex salicifolius Trifolium hybridum	Cover class 1 1 1 2 1 1
Ending Station Species Alnus incana Carum carvi Juncus balticus Lotus corniculatus Phleum pratense Populus balsamifera Taraxacum officinale Trifolium pratense	1038 Community Type: Cover class 1 2 2 4 3 1 1 1 2	Species Bare Ground Equisetum arvense Leymus cinereus Medicago lupulina Poa pratensis Rumex salicifolius Trifolium hybridum	Cover class 1 1 1 2 1 1
Ending Station Species Alnus incana Carum carvi Juncus balticus Lotus corniculatus Phleum pratense Populus balsamifera Taraxacum officinale Trifolium pratense Ending Station	1038 Community Type: Cover class 1 2 2 4 3 1 1 1 2 1 2 Community Type:	Species Bare Ground Equisetum arvense Leymus cinereus Medicago lupulina Poa pratensis Rumex salicifolius Trifolium hybridum Lotus corniculatus / Phleu	Cover class 1 1 1 2 1 1 1 1
Ending Station Species Alnus incana Carum carvi Juncus balticus Lotus corniculatus Phleum pratense Populus balsamifera Taraxacum officinale Trifolium pratense Ending Station Species	Cover class 1 2 2 4 3 1 1 1 2 4 3 1 2 1 1 Community Type: Cover class	Species Bare Ground Equisetum arvense Leymus cinereus Medicago lupulina Poa pratensis Rumex salicifolius Trifolium hybridum Lotus corniculatus / Phleu	Cover class 1 1 1 2 1 1 1 1
Ending Station Species Alnus incana Carum carvi Juncus balticus Lotus corniculatus Phleum pratense Populus balsamifera Taraxacum officinale Trifolium pratense Ending Station Species Alnus incana	1038 Community Type: Cover class 1 2 2 4 3 1 1 1 2 1152 Community Type: Cover class 1	Species Bare Ground Equisetum arvense Leymus cinereus Medicago lupulina Poa pratensis Rumex salicifolius Trifolium hybridum Lotus corniculatus / Phleu Species Bare Ground	Cover class 1 1 1 2 1 1 1 The protection of the content of the co
Ending Station Species Alnus incana Carum carvi Juncus balticus Lotus corniculatus Phleum pratense Populus balsamifera Taraxacum officinale Trifolium pratense Ending Station Species Alnus incana Carum carvi	1038 Community Type: Cover class 1 2 2 4 3 1 1 2 1152 Community Type: Cover class 1 2	Species Bare Ground Equisetum arvense Leymus cinereus Medicago lupulina Poa pratensis Rumex salicifolius Trifolium hybridum Lotus corniculatus / Phleu Species Bare Ground Equisetum arvense	Cover class 1 1 1 2 1 1 1 The protection of the content of the co
Ending Station Species Alnus incana Carum carvi Juncus balticus Lotus corniculatus Phleum pratense Populus balsamifera Taraxacum officinale Trifolium pratense Ending Station Species Alnus incana Carum carvi Juncus balticus	1038 Community Type: Cover class 1 2 2 4 3 1 1 1 2 1152 Community Type: Cover class 1 2 2	Species Bare Ground Equisetum arvense Leymus cinereus Medicago lupulina Poa pratensis Rumex salicifolius Trifolium hybridum Lotus corniculatus / Phleu Species Bare Ground Equisetum arvense Leymus cinereus	Cover class 1 1 1 2 1 1 1 The protection of the content of the co
Ending Station Species Alnus incana Carum carvi Juncus balticus Lotus corniculatus Phleum pratense Populus balsamifera Taraxacum officinale Trifolium pratense Ending Station Species Alnus incana Carum carvi Juncus balticus Lotus corniculatus	1038 Community Type: Cover class 1 2 2 4 3 1 1 2 1152 Community Type: Cover class 1 2 2 4 4 4 4	Species Bare Ground Equisetum arvense Leymus cinereus Medicago lupulina Poa pratensis Rumex salicifolius Trifolium hybridum Lotus corniculatus / Phleu Species Bare Ground Equisetum arvense Leymus cinereus Medicago lupulina	Cover class 1 1 1 2 1 1 1 1 m pratense Cover class 1 1 1 1 1 1 1
Ending Station Species Alnus incana Carum carvi Juncus balticus Lotus corniculatus Phleum pratense Populus balsamifera Taraxacum officinale Trifolium pratense Ending Station Species Alnus incana Carum carvi Juncus balticus Lotus corniculatus Open Water	1038 Community Type: Cover class 1 2 2 4 3 1 1 1 2 1152 Community Type: Cover class 1 2 4 0	Species Bare Ground Equisetum arvense Leymus cinereus Medicago lupulina Poa pratensis Rumex salicifolius Trifolium hybridum Lotus corniculatus / Phleu Species Bare Ground Equisetum arvense Leymus cinereus Medicago lupulina Phleum pratense	Cover class 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1

Species	Cover class	Species	Cover class
Bare Ground	1	Bromus inermis	1
Carum carvi	2	Cirsium arvense	1
Elymus repens	4	Equisetum arvense	2

1172 Community Type: Phleum pratense / Elymus repens

Lotus corniculatus

Poa pratensis

4

2

Leymus cinereus 1
Phleum pratense 3
Taraxacum officinale 1

Ending Station

Ending Station	1335 Community Type:	Phleum pratense / Elymus repens
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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	4
Open Water	1	Phleum pratense	3
Poa pratensis	2	Taraxacum officinale	1

Ending Station 1376 Community Type: Bromus inermis / Populus tremuloides

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

Transect Notes:

Shallow ponded water observed along northern portion of transect in 2020, in upland/wetland CT 17 and 18. No ponded water observed in 2021. The northern portion of this transect, within CT 17 and 18 is in transition, with an increase of hydrophytic species expected if hydrology from irrigation/other hydrologic sources during the early spring season persists in future years. In 2021, upland CT 17 and 18 separated into new wetland CT 22 and 23 in areas delineated as wetland.

Transect Number: 2 Compass Direction from Start: ___185 **Interval Data:** 31 Community Type: Carex spp. / **Ending Station Cover class** Cover class **Species** Species 1 4 Calamagrostis canadensis Carex atherodes Carex nebrascensis 2 Carex pellita 2 2 Carex utriculata Cirsium arvense 1 1 1 Equisetum arvense Juncus balticus Juncus longistylis 1 Poa palustris 1 0 Poa pratensis 1 Salix exigua Scirpus microcarpus Stachys palustris 0 **Ending Station** 152 Community Type: Carex spp. / Juncus spp. **Species** Cover class **Species Cover class** Alopecurus arundinaceus 1 Bare Ground 1 Carex atherodes 1 Carex bebbii 1 2 Carex nebrascensis Carex pellita 2 3 1 Carex utriculata Cirsium arvense Dactylis glomerata 1 Deschampsia caespitosa 1 Eleocharis palustris 1 Elymus repens 1 Equisetum arvense Juncus balticus 3 1 Lotus corniculatus 1 Lysimachia ciliata 0 Open Water 0 Phalaris arundinacea 1 Phleum pratense 2 Poa palustris Poa pratensis 1 Salix bebbiana 1 Salix lasiandra 1 Salix lutea 1 Scirpus microcarpus 2 Stachys palustris 0 Taraxacum officinale 1 Typha latifolia 1 260 Community Type: Phleum pratense / Poa pratensis **Ending Station Cover class Species** Species Cover class Agrostis stolonifera 1 Bare Ground 1 Carum carvi 1 Elymus repens 3 2 0 Equisetum arvense Glycyrrhiza lepidota 1 2 Leymus cinereus Lotus corniculatus Lysimachia ciliata 0 Medicago sativa 2 3 Phleum pratense 3 Poa pratensis 0 Populus balsamifera 1 Salix lutea

Stachys palustris

Trifolium pratense

1

2

0

2

Sisyrinchium idahoense

Taraxacum officinale

Ending Station	358 Community Type:	Carex spp. / Juncus spp.	
Species	Cover class	Species	Cover class
Agrostis stolonifera	2	Bare Ground	1
Carex microptera	1	Carex pellita	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	2	Salix bebbiana	2
Salix lutea	1	Scirpus microcarpus	1
Stachys palustris	1	Taraxacum officinale	1
Ending Station	633 Community Type:	Lotus corniculatus / Phleum	pratense
Species	Cover class	Species	Cover class
Bare Ground	2	Bromus carinatus	1
Bromus inermis	1	Camelina microcarpa	1
Carex pellita	0	Carum carvi	2
Elymus repens	2	Equisetum arvense	1
Juncus balticus	1	Leymus cinereus	1
Lotus corniculatus	4	Medicago lupulina	1
Melilotus officinalis	1	Phleum pratense	3
Populus balsamifera	1	Schedonorus pratensis	1
Solidago lepida	1	Taraxacum officinale	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	1
Carex bebbii	1	Carex pachystachya	1
Juncus balticus	3	Juncus effusus	1
Juncus tenuis	1	Lotus corniculatus	2
Lysimachia ciliata	1	Mentha arvensis	1
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 pra	atense
Species		Cover class	Species	Cover class
Bare Ground		2	Bromus inermis	3
Carum carvi		1	Cirsium arvense	0
Elymus repens		1	Juncus balticus	1
Lotus corniculatus		2	Phleum pratense	3
Poa pratensis		2	Populus balsamifera	0
Taraxacum officinale		1	Trifolium pratense	2
Ending Station	888	Community Type:	Juncus spp. /	
Species		Cover class	Species	Cover class
Carex aquatilis		2	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		
Ending Station	915	Community Type:	Aquatic macrophytes /	
Species		Cover class	Species	Cover class
Species Alopecurus geniculatus		Cover class	Species Carex pellita	Cover class
•			•	Cover class 1 1
Alopecurus geniculatus		1	Carex pellita	1
Alopecurus geniculatus Carex utriculata		1 2	Carex pellita Cornus alba	1 1
Alopecurus geniculatus Carex utriculata Eleocharis palustris		1 2 2	Carex pellita Cornus alba Glyceria grandis	1 1 2
Alopecurus geniculatus Carex utriculata Eleocharis palustris Juncus balticus		1 2 2 1	Carex pellita Cornus alba Glyceria grandis Juncus ensifolius	1 1 2 1
Alopecurus geniculatus Carex utriculata Eleocharis palustris Juncus balticus Open Water	1055	1 2 2 1 4	Carex pellita Cornus alba Glyceria grandis Juncus ensifolius Schoenoplectus pungens	1 1 2 1
Alopecurus geniculatus Carex utriculata Eleocharis palustris Juncus balticus Open Water Scirpus microcarpus	1055	1 2 2 1 4 1	Carex pellita Cornus alba Glyceria grandis Juncus ensifolius Schoenoplectus pungens	1 1 2 1
Alopecurus geniculatus Carex utriculata Eleocharis palustris Juncus balticus Open Water Scirpus microcarpus Ending Station	1055	1 2 2 1 4 1 Community Type:	Carex pellita Cornus alba Glyceria grandis Juncus ensifolius Schoenoplectus pungens Juncus spp. / Salix spp.	1 1 2 1 2
Alopecurus geniculatus Carex utriculata Eleocharis palustris Juncus balticus Open Water Scirpus microcarpus Ending Station Species	1055	1 2 2 1 4 1 Community Type:	Carex pellita Cornus alba Glyceria grandis Juncus ensifolius Schoenoplectus pungens Juncus spp. / Salix spp. Species	1 1 2 1 2
Alopecurus geniculatus Carex utriculata Eleocharis palustris Juncus balticus Open Water Scirpus microcarpus Ending Station Species Agrostis stolonifera	1055	1 2 2 1 4 1 Community Type: Cover class	Carex pellita Cornus alba Glyceria grandis Juncus ensifolius Schoenoplectus pungens Juncus spp. / Salix spp. Species Alnus incana	1 1 2 1 2
Alopecurus geniculatus Carex utriculata Eleocharis palustris Juncus balticus Open Water Scirpus microcarpus Ending Station Species Agrostis stolonifera Bare Ground	1055	1 2 2 1 4 1 Type: Community Type: Cover class 1 1	Carex pellita Cornus alba Glyceria grandis Juncus ensifolius Schoenoplectus pungens Juncus spp. / Salix spp. Species Alnus incana Carex nebrascensis	1 1 2 1 2 Cover class
Alopecurus geniculatus Carex utriculata Eleocharis palustris Juncus balticus Open Water Scirpus microcarpus Ending Station Species Agrostis stolonifera Bare Ground Carex utriculata	1055	1 2 2 1 4 1 1	Carex pellita Cornus alba Glyceria grandis Juncus ensifolius Schoenoplectus pungens Juncus spp. / Salix spp. Species Alnus incana Carex nebrascensis Juncus balticus	1 1 2 1 2 2 1 1 2 1 1 1 1 1 1 4 1 1 1 1
Alopecurus geniculatus Carex utriculata Eleocharis palustris Juncus balticus Open Water Scirpus microcarpus Ending Station Species Agrostis stolonifera Bare Ground Carex utriculata Juncus effusus	1055	1 2 2 1 4 1 1 Community Type: Cover class 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Carex pellita Cornus alba Glyceria grandis Juncus ensifolius Schoenoplectus pungens Juncus spp. / Salix spp. Species Alnus incana Carex nebrascensis Juncus balticus Juncus tenuis	1 1 2 1 2 2 1 1 2 1 1 1 1 1 1 4 1 1 1 1
Alopecurus geniculatus Carex utriculata Eleocharis palustris Juncus balticus Open Water Scirpus microcarpus Ending Station Species Agrostis stolonifera Bare Ground Carex utriculata Juncus effusus Mentha arvensis	1055	1 2 2 1 4 1 1	Carex pellita Cornus alba Glyceria grandis Juncus ensifolius Schoenoplectus pungens Juncus spp. / Salix spp. Species Alnus incana Carex nebrascensis Juncus balticus Juncus tenuis Poa palustris	1 1 2 1 2 2 Cover class 1 1 4 1
Alopecurus geniculatus Carex utriculata Eleocharis palustris Juncus balticus Open Water Scirpus microcarpus Ending Station Species Agrostis stolonifera Bare Ground Carex utriculata Juncus effusus Mentha arvensis Populus balsamifera	1055	1 2 2 1 4 1 Type: Community Type: Cover class 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Carex pellita Cornus alba Glyceria grandis Juncus ensifolius Schoenoplectus pungens Juncus spp. / Salix spp. Species Alnus incana Carex nebrascensis Juncus balticus Juncus tenuis Poa palustris Potentilla anserina	1 1 2 1 2 2 Cover class 1 1 4 1 1 0

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

Ending Station 1333 Community Type: Bromus inermis / Phleum pratense

Species	Cover class	Species	Cover class
Bare Ground	3	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
Trifolium pratense	1		

Transect Notes:

Wetland CT 21 has expanded, replacing upland CT 1, along the northern portion of this transect. An increase in wetland acreage was delineated within upland CT 18 near the center of the transect. Wetland CT 11 expanded into this newly delineated wetland area. Overall, wetland habitat increased along this transect in 2021, as compared to the 2020 monitoring event.

Interval Data: 120 Community Type: Bromus inermis / Phleum pratense **Ending Station** Cover class **Cover class Species Species** Bromus arvensis 1 2 Bromus inermis Camelina microcarpa 0 Carum carvi 3 Elymus repens 1 Leymus cinereus 1 3 3 Lotus corniculatus Phleum pratense Poa pratensis 2 Populus balsamifera 1 1 1 Taraxacum officinale Trifolium hybridum Trifolium pratense 2 160 Community Type: Juncus spp. / Populus balsamifera **Ending Station Species** Cover class **Species Cover class** Agrostis stolonifera 1 Deschampsia caespitosa 1 Equisetum arvense 1 Juncus balticus 4 Lotus corniculatus 4 Phleum pratense 1 Populus balsamifera 3 Salix bebbiana 1 Salix lutea 1 Taraxacum officinale 1 Trifolium hybridum Trifolium pratense 1 215 Community Type: Bromus inermis / Phleum pratense **Ending Station Cover class Species** Cover class **Species** Bromus inermis 3 Carum carvi 1 Dactylis glomerata 1 Elymus repens 1 Equisetum arvense 1 Juncus balticus 1 3 Leymus cinereus 1 Lotus corniculatus 2 3 Phleum pratense Poa pratensis Taraxacum officinale 1 Community Type: Juncus sp. / Populus balsamifera **Ending Station Species** Cover class **Species Cover class** Bare Ground 1 Deschampsia caespitosa 1 2 Juncus balticus 1 Equisetum arvense Lotus corniculatus 3 Phleum pratense 1 Poa palustris 1 Poa pratensis 1 Salix lutea Populus balsamifera 4 1 Taraxacum officinale

Compass Direction from Start: 95

Transect Number: 3

Ending Station	309 Community Type	Bromus inermis / Phleum pratense	
Species	Cover class	Species	Cover class
		Bromus inermis	3
Carum carvi	1	Dactylis glomerata	1
Elymus repens	2	Equisetum arvense	1
Juncus balticus	1	Lotus corniculatus	1
Phleum pratense	4	Poa pratensis	2
Taraxacum officinale	1	Trifolium pratense	1
Ending Station	656 Community Type	Juncus spp. /	
Species	Cover class	Species	Cover class
Carex pachystachya	1	Carex utriculata	2
Carum carvi	1	Cirsium arvense	1
Equisetum arvense	1	Juncus balticus	4
Juncus longistylis	1	Lotus corniculatus	1
Poa pratensis	1	Populus balsamifera	1
Salix bebbiana	2	Salix lutea	1
Solidago gigantea	1		
Ending Station	732 Community Type	Phleum pratense / Poa pra	atensis
Species	Cover class	Species	Cover class
Agrostis stolonifera	1	Bromus inermis	2
Carum carvi	1	Dactylis glomerata	1
Elymus repens	1	Equisetum arvense	1
Lotus corniculatus	1	Phleum pratense	2
Poa pratensis	4	Taraxacum officinale	1
Trifolium pratense	1		

Transect Notes:

The total number of species (both hydrophytic and upland) were similar in number to that observed in 2020. Total vegetative cover has remained relatively constant at 85–91 percent from 2017 to 2021.

PLANTED WOODY VEGETATION SURVIVAL

Easton

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

Comments

Woody shrubs were counted along and adjacent to the floodplain channel. After 12 years, deciphering planted versus volunteer willows was difficult and therefore used best professional judgement. 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 occuring at the base. 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.

Easton

WILDLIFE

Were man-made nesting structures installed	? <u>Yes</u>
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 by tree swallows or contained twigs and nesting debris. One box (located between PP4a and PP4b) was knocked over and needs to b resecured to the fencepost.

Species	#Observed	Behavior	Habitat	
American Goldfinch	1			
Black-capped Chickade	e 1			
Brewer's Blackbird	8			
Common Nighthawk	1			
Great Blue Heron	2			
Killdeer	5			
Mallard	1			
Mountain Bluebird	1			
Mourning Dove	1			
Red-tailed Hawk	1			
Red-winged Blackbird	30			
Ring-necked Pheasant	1			
Sandhill Crane	1			
Tree Swallow	23			
Western Meadowlark	3			
Wilson's Snipe	4			

Bird Comments

The eagle nest observed just south outside of the project area in 2020, was unoccupied in 2021.

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

 ${f AB}$ = Aquatic bed ${f SS}$ = Scrub/Shrub ${f FO}$ = Forested ${f UP}$ = Upland buffer ${f I}$ = Island

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

Mammals and Herptiles

Species # Observed Tracks Scat Burrows Comments

Chorus Frog 3 No No No White-tailed Deer 2 Yes Yes No

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 De	scription
DP01u	46.05641	-110.640085		
DP01w	46.056423	-110.640242		
DP02u	46.056184	-110.639623		
DP02w	46.056218	-110.639486		
DP03u	46.057829	-110.638632		
DP03w	46.057886	-110.638637		
DP04u	46.059022	-110.637645		
DP04w	46.058993	-110.637754		
DP05u	46.059011	-110.638776		
DP05w	46.059092	-110.638719		
DP06u	46.060724	-110.637169		
DP06w	46.060661	-110.637257		
DP07u	46.060587	-110.639879		
DP07w	46.060497	-110.639935		
DP08u	46.059896	-110.638838		
DP08w	46.059872	-110.638938		
DP09u	46.059265	-110.640357		
DP09w	46.059163	-110.639871		
DP10u	46.057875	-110.63936		
DP10w	46.058067	-110.639585		
PP1	46.059727	-110.637505	Eas	t boundary
PP2	46.061028	-110.637207	Nor	theast corner
PP3	46.061188	-100.639848	Nor	theast corner
PP4	46.050705	-110.640434	Shie	elds bank
PP4	46.060993	-110.640121	Shie	elds bank
PP5	46.059883	-110.640404	We	st boundary
PP6	46.056175	-110.64048	B-26 Sou	ithwest corner

PP7	46.055286	-110.639137	Southeast corner
T-1 End	46.060627	-110.637779	View of CT 10 and 18
T-1 Start	46.057281	-110.638306	View of CT 11 and 7
T-2 End	46.057594	-110.640343	View of CT 1
T-2 Start	46.060139	-110.639229	View of CT 3
T-3 End	46.056114	-110.637924	View of CT 1 and 11
T-3 Start	46.056984	-110.640656	View of CT 13

Comments:

Easton

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
☑ Ma	p vegetation community boundaries
✓ Coı	mplete Vegetation Transects
	Soils
✓ As	sess soils
	Wetland Delineations
✓ Suppl	Delineate wetlands according to applicable USACE protocol (1987 form or
Suppi ✓	ement) Delineate wetland – upland boundary onto aerial photograph.
Wetla	nd Delineation Comments
	al wetland acreage in 2021, 15.99 acres, is the highest delineated acreage to date, and is primarily a result of the increased water flow the northeastern portion of the project area over the last three years.
<u>-</u>	Functional Assessments
✓ forms.	Complete and attach full MDT Montana Wetland Assessment Method field
Functi	ional Assessment Comments:
Fun	ctional units increased due to increased created wetland acreage.

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? No

If yes, are the structures in need of repair?

If yes, describe the problems below.

Bank erosion was noted along the Shields River in the NW portion of the project area. In the northeast corner of the site, fencing needs repair along the north boundary in two locations where large Populus trees have fallen.

Project/Site: Easton	City/County: Park	Sampling Date: 6/23/2021
Applicant/Owner: MDT	, ,	State: Montana Sampling Point: DP01u
Investigator(s): R Quire, S Weyant, J Trilling		
Landform (hillslope, terrace, etc.): Mound		
Subregion (LRR): LRR E	Lat:46.05641	Long: -110.640085 Datum: NAD 83
Soil Map Unit Name: 155A: Meadowcreek, rarely flood		
Are climatic / hydrologic conditions on the site typical for this	s time of year? Yes 🗹 No 🧵	(If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology s	ignificantly disturbed? Are "N	Iormal Circumstances" present? Yes 🗹 No 🔲
Are Vegetation, Soil, or Hydrology r		
SUMMARY OF FINDINGS - Attach site map	showing sampling point lo	cations, transects, important features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Yes N Yes N	Is the Sampled within a Wetland	
Remarks:) DD04	
Upland sample point located on mound upslope of [JP01W.	
VEGETATION - Use scientific names of plan	ıts	
Δhsolute	Domiant Indicator	Dominance Test worksheet
Tree Stratum Plot size (30 Foot Radius) % Cover	Species? Status	Number of Dominant Species that are OBL, FACW or FAC:
		Total Number of Dominant Species Across All Strata: 1 (B)
Sapling/Shrub Stratum Plot size (15 Foot Radius)		Percent of Dominant Species That Are OBL, FACW, or FAC: 0 % (A/B)
Saping/Stratum 1 for size (15 1 our radius)		Prevalence Index worksheet
		Total % Cover of: Multiply by:
		OBL species 0 X 1 0 FACW species 0 X 2 0
		FAC species 16 X3 48
		FACU species 0 X 4 0
Herbaceous Stratum Plot size (5 Foot Radius)		UPL species 80 X 5 400
Bromus inermis 80	✓ UPL	Column Totals 96 (A) 448 (B)
Elymus repens 5 Phleum pratense 1	FAC FAC	Prevalence Index = B/A = 4.66667
Poa pratensis 10	FAC	Hydrophytic Vegetation Indicators
1 ou pratoriore	17.0	1 - Rapid Test for Hydrophytic Vegetation
		2 - Dominance Test is >50%
		☐ 3 - Prevalence Index is <= 3.0
		4 - Morphological Adaptations (Provide supporting data in remarks or on separate
		sheet. 5 - Wetland Non-Vascular Plants
		Problematic Hydrophytic Vegetation (Explain)
Woody Vine Stratum Plot size (30 Foot Radius)		Indicators of hydric sil and wetland hydrology must be present, unless disturbed or problematic for #3, 4, 5.
Percent Bare Ground 4		Hydrophytic Vegetation Present?
Remarks:		
BG/litter=4%. Vegetation is dominated by upland sp	ecies.	
US Army Corps of Engineers		Western Mountains, Valleys, and Coasts - Version 2.0
1 00 . amy corps of Engineers		voisini moantanio, vanoyo, ana obasto - voision z.u

SOIL							Sampling Point: DP01u
Profile Desc	cription: (Descri	be to the depth	needed to docui	ment the indica	tor or conf	irm the absence o	
Depth	Matrix		Redo	x Features		_	
(inches)	Color (moist)	<u>_</u>	Color (moist)	<u>%Typ</u>	e ¹ Loc ²		Remarks
0-16	10YR 2/2	100				Clay	
						<u> </u>	
			Reduced Matrix, C		oated Sand		ation: PL=Pore Lining, M=Matrix.
		licable to all L	RRs, unless othe	-			s for Problematic Hydric Soils ³ :
<u> </u> Histosol	•	L	📙 Sandy Redox (•			Muck (A10)
	pipedon (A2)	<u> </u>	Stripped Matrix			_	Parent Material (TF2)
	istic (A3)	<u>_</u>		Mineral (F1) (exc	cept MLRA		Shallow Dark Surface (TF12)
	en Sulfide (A4) d Below Dark Sur	<u></u> faco (A11)	Loamy Gleyed Depleted Matrix			Other	(Explain in Remarks)
	ark Surface (A12)		Redox Dark Su	` '		3Indicators	s of hydrophytic vegetation and
	Mucky Mineral (S1	_	Depleted Dark	` '			d hydrology must be present,
	Gleyed Matrix (S4)	_	Redox Depress	. ,			disturbed or problematic.
	Layer (if present		-	, ,			<u>'</u>
Туре:							
Depth (in	ches):					Hydric Soil F	Present? Yes No
Remarks:							
HYDROLO	GY						
Wetland Hy	drology Indicato	rs:					
Primary Indi	cators (minimum d	of one required;	check all that appl	y)		Second	dary Indicators (2 or more required)
Surface	Water (A1)		Water-Sta	ined Leaves (B9	except)	Wa	ater-Stained Leaves (B9) (MLRA 1, 2,
High Wa	ater Table (A2)		MLRA	1, 2, 4A, and 4E	3)		4A, and 4B)
Saturati	on (A3)		Salt Crust	(B11)		Dra	ainage Patterns (B10)
Water M	larks (B1)		Aquatic In	vertebrates (B13	3)	Dry	y-Season Water Table (C2)
Sedime	nt Deposits (B2)		Hydrogen	Sulfide Odor (C	1)	Sat	turation Visible on Aerial Imagery (C9)
Drift De	posits (B3)		Oxidized F	Rhizospheres ald	ong Living R	Roots (C3) 🔲 Ge	omorphic Position (D2)
Algal Ma	at or Crust (B4)		Presence	of Reduced Iron	(C4)	Sha	allow Aquitard (D3)
Iron Dep	oosits (B5)			n Reduction in 1			C-Neutral Test (D5)
Surface	Soil Cracks (B6)		Stunted or	r Stressed Plants	s (D1) (LRR		ised Ant Mounds (D6) (LRR A)
	on Visible on Aeri			plain in Remarks	s)	Fro	ost-Heave Hummocks (D7)
Sparsely	y Vegetated Conc	ave Surface (B8	3)		·		
Field Obser							
Surface Wat	er Present?	Yes No	_	ches):			
Water Table	Present?	Yes No	Depth (in	ches):			
Saturation P		Yes No	Depth (in	ches):	We	etland Hydrology	Present? Yes No
(includes ca Describe Re		am gauge, mon	itoring well, aerial	photos, previous	inspection:	s), if available:	
Remarks:	e of wotland has	trology obser	ved.				
ino evidenc	e of wetland hyd	arology observ	eu.				

Project/Site: Easton	City/County: Park	Sampling Date: 6/24/2021
Applicant/Owner: MDT		State: Montana Sampling Point: DP01w
Investigator(s): R Quire, S Weyant, J Trilling		
Landform (hillslope, terrace, etc.): Floodplain		
Subregion (LRR): LRR E	Local relief (concave, c	Long:110.640242 Datum: NAD 83
Soil Map Unit Name: 155A: Meadowcreek, rarely floode	d-Nesda complex, 0-2% slope	s NWI classification: Not Mapped.
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		
Hydric Soil Present? Yes ✓ No	Is the Sampled within a Wetland	Area d? Yes <u>✓</u> No <u> </u>
Remarks:		
PSS riverine wetland. Sample point located in constr	ucted floodplain channel bised	ting the site.
VEGETATION - Use scientific names of plan	ts	
Tree Stratum Plot size (30 Foot Radius) Absolute	Domiant Indicator	Dominance Test worksheet
Iree Stratum Piol Size (30 Fool Radius) % Cover:	Species? Status	Number of Dominant Species that are OBL, FACW or FAC: 5 (A)
		Total Number of Dominant Species Across All Strata: 5 (B)
		Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (a/B)
Sapling/Shrub Stratum Plot size (15 Foot Radius)		Prevalence Index worksheet
Alnus incana 10	✓ FACW	Total % Cover of: Multiply by:
Populus balsamifera 5	FAC	OBL species 12 X 1 12
Salix bebbiana 2	FACW	FACW species 43 X 2 86
Salix exigua 20	✓ FACW	FAC species 45 X 3 135
Herbaceous Stratum Plot size (5 Foot Radius)		FACU species 0 X 4 0 UPL species 0 X 5 0
Agrostis stolonifera 5	FAC	Column Totals 100 (A) 233 (B)
Alopecurus arundinaceus 5 Carex utriculata 3	FAC OBL	Prevalence Index = B/A = 2.33
Eleocharis palustris 5	OBL	Hydrophytic Vegetation Indicators
Equisetum arvense 5	FAC	1 - Rapid Test for Hydrophytic Vegetation
Juncus balticus 10	✓ FACW	✓ 2 - Dominance Test is >50%
Lotus corniculatus 10	✓ FAC	✓ 3 - Prevalence Index is <= 3.0
Phleum pratense 10	✓ FAC	4 - Morphological Adaptations (Provide
Poa palustris 5	FAC	supporting data in remarks or on separate
Scirpus microcarpus 1	OBL	sheet.
Veronica scutellata 1	OBL	5 - Wetland Non-Vascular Plants
		Problematic Hydrophytic Vegetation (Explain)
Woody Vine Stratum Plot size (30 Foot Radius)		Indicators of hydric sil and wetland hydrology must be present, unless disturbed or problematic for #3, 4, 5.
Percent Bare Ground 35		Hydrophytic Vegetation Present? Ves ✓ NO
Remarks: BG/litter=35%. Evidence of hydrophytic vegetation in 3.0. US Army Corps of Engineers	ncludes a positive dominance t	est and a prevalence index less than or equal to Western Mountains, Valleys, and Coasts - Version 2.0

SOIL										Sa	ampling Point	DP01w
Profile Desc	cription: (Descr	ibe to the de	pth need	ed to docume	ent the i	ndicato	r or co	nfirm the	absence c			
Depth	Matr				Features							
(inches)	Color (moist)	Colo	r (moist)	<u> %</u>	Type ¹	Lo		Texture		Remarks	
0-6	10YR 3/1	98	10YR	4/6	2	С	M		Clay			
6+								Grav	el/Cobble	Rock be	ottom.	
	-											
¹ Type: C=C	oncentration, D=	Depletion PA		d Matrix CS-	Covered	Lor Coa	 ted Sar	nd Grains	2l oca	tion: DI =	Pore Lining, N	M-Matriy
	Indicators: (Ap						ieu Sai	ilu Giailis			lematic Hydr	
Histosol		•		ndy Redox (St		,				Muck (A10	-	
_	pipedon (A2)		_	pped Matrix (Parent Mat		
Black H	istic (A3)			amy Mucky Mi			pt MLR	RA 1)	_		ark Surface (T	F12)
	en Sulfide (A4)			amy Gleyed M)			Other	(Explain ii	n Remarks)	
	d Below Dark Su			pleted Matrix (31			
	ark Surface (A12 Mucky Mineral (S	•	_	dox Dark Surfa pleted Dark Sเ		7)					hytic vegetati y must be pre	
_	Gleyed Matrix (S	*		dox Depressio		')					or problemati	
	Layer (if presen			1								
Туре:												
Depth (in	ches):							H	lydric Soil F	resent?	Yes 🔽	. No <u> </u>
HYDROLO	GY											
=	drology Indicate											
Primary India	cators (minimum	of one require	ed; check							•	tors (2 or mor	
	Water (A1)			_ Water-Stain			except	t				(MLRA 1, 2,
	ater Table (A2)			MLRA 1,		nd 4B)				4A, and 4	•	
<u>✓</u> Saturation			<u> </u>	」Salt Crust (E		(5.45)				-	terns (B10)	
	larks (B1)			Aquatic Inve							Vater Table (0	C2) I Imagery (C9)
	nt Deposits (B2) posits (B3)		+	☑ Hydrogen S ☑ Oxidized Rh				a Poots (_		Position (D2)	i imagery (C9)
	at or Crust (B4)		Ī	Presence of				<i>j</i> 110013 (1	_	allow Aquit	, ,	
_ `	posits (B5)		Ī	Recent Iron			,	s (C6)		C-Neutral ⁻	, ,	
	Soil Cracks (B6)			Stunted or S							ounds (D6) (L	RR A)
	on Visible on Ae		B7) <u> </u>	_] Other (Expla			, ,	,			Hummocks (E	
Sparsely	y Vegetated Con	cave Surface	(B8)									
Field Obser	vations:			_								
Surface Wat	er Present?	Yes	No	🙎 Depth (inch	es):							
Water Table	Present?	Yes 🔽	No	Depth (inch	es):		8					_
Saturation P		Yes <u></u>	No	Depth (inch	es):		0	Wetland	Hydrology	Present?	Yes <u> </u>	No
(includes car Describe Re	corded Data (stre	eam gauge, m	nonitoring	well, aerial ph	otos, pre	evious ir	nspection	ons), if av	ailable:			
Remarks:	Fuetland budge	اممر نمماریطم	a a biab	water table	ممناء مم	turata	d to the	o ourfoo		hia naaiti	an and a n	acitiva FAC
Neutral test	f wetland hydro	iogy include	s a nigh	water table,	SUIIS SE	แนเลเยต	ı ıo ine	e suriac	e, geomorp	niic positi	оп, апо а ро	Jailive FAC-

Project/Site: Easton	City/County: Park	Sampling Date:6/23/2021
Applicant/Owner: MDT		State: Montana Sampling Point: DP02u
Investigator(s): R Quire, S Weyant, J Trilling		
Landform (hillslope, terrace, etc.): Mound		
Subregion (LRR): LRR E Lat:	46.056184	Long: -110.639623 Datum: NAD 83
Soil Map Unit Name: 155A: Meadowcreek, rarely flooded-Nes	da complex, 0-2% slopes	NWI classification: Not Mapped.
Are climatic / hydrologic conditions on the site typical for this time o		
Are Vegetation, Soil, or Hydrology significal		
Are Vegetation, Soil, or Hydrology naturally		
SUMMARY OF FINDINGS – Attach site map showing	ng sampling point lo	cations, transects, important features, etc.
Hydrophytic Vegetation Present?	la tha Camulad A	
Hydric Soil Present? Wes No Welland Hydrology Present? Yes No Welland Hydrology Present?	Is the Sampled A	
Wetland Hydrology Present? Yes No _ ✓ Remarks:	<u> </u>	
Upland sample point located on mound, upslope of DP02w	' .	
VEGETATION - Use scientific names of plants		
Tree Stratum Plot size (30 Foot Radius) Absolute 5 Dom Spec		Dominance Test worksheet
Populus balsamifera 50		Number of Dominant Species that are OBL, FACW or FAC: 2 (A)
· openia sananimena		Total Number of Dominant
		Species Across All Strata: 2 (B)
		Percent of Dominant Species That Are OBL, FACW, or FAC: 100 % (A/B)
Sapling/Shrub Stratum Plot size (15 Foot Radius)		
		Prevalence Index worksheet Total % Cover of: Multiply by:
		OBL species 1 X1 1
		FACW species 0 X 2 0
		FAC species 145 X 3 435
District (5 Foot Positive)		FACU species 0 X 4 0
Herbaceous Stratum Plot size (5 Foot Radius)	ODI	UPL species 0 X 5 0
Carex utriculata 1 ☐ Elymus repens 80 ✓	OBL FAC	Column Totals 146 (A) 436 (B)
Elymus repens 80 Poa pratensis 15	FAC	Prevalence Index = B/A = 2.98630
l sa platelle		Hydrophytic Vegetation Indicators
		1 - Rapid Test for Hydrophytic Vegetation
		✓ 2 - Dominance Test is >50%
		✓ 3 - Prevalence Index is <= 3.0
		 4 - Morphological Adaptations (Provide supporting data in remarks or on separate sheet.
		5 - Wetland Non-Vascular Plants
		☐ Problematic Hydrophytic Vegetation (Explain)
Woody Vine Stratum Plot size (30 Foot Radius)		Indicators of hydric sil and wetland hydrology must be present, unless disturbed or problematic for #3, 4, 5.
		Hydrophytic
Percent Bare Ground 4		Vegetation Yes ✓ NO ☐ Present?
Remarks:		
BG/litter=4%. Although hydrophytic vegetation was observ supported by wetland hydrology (1987 COE Wetland Delir		evidence of hydric soil development and is not
Tarry State by Heliana Hydrology (1997 Got Wolland Boll)	- Later Hallaciji	
US Army Corps of Engineers		Western Mountains, Valleys, and Coasts - Version 2.0

SOIL								Sampling Point: DP02u
Profile Desc	ription: (Descri	be to the depth	needed to docu	ment the	indicator	or confirr	n the absence	
Depth	Matrix			ox Feature		. 2	_	_
(inches)	Color (moist)		Color (moist)	%	Type ¹	_Loc ²	Texture	Remarks
0-16	10YR 2/2	100					Silty Clay	
				_			-	
							-	
¹ Type: C=Co	ncentration, D=D	epletion, RM=R	educed Matrix, C	S=Covere	d or Coate	ed Sand G		cation: PL=Pore Lining, M=Matrix.
Hydric Soil I	ndicators: (App	licable to all LF	RRs, unless othe	rwise not	ed.)		Indicato	rs for Problematic Hydric Soils ³ :
Histosol			Sandy Redox					n Muck (A10)
	ipedon (A2)	L	Stripped Matrix	. ,			_	Parent Material (TF2)
Black Hi	` '	<u>_</u>	Loamy Mucky			t MLRA 1)		/ Shallow Dark Surface (TF12)
	n Sulfide (A4)	<u> </u>	Loamy Gleyed	-	2)		Othe	er (Explain in Remarks)
	Below Dark Sur rk Surface (A12)	race (ATT)	」Depleted Matri ີ Redox Dark Sເ				3Indicato	rs of hydrophytic vegetation and
_	ucky Mineral (S1	,	Depleted Dark	` ,				nd hydrology must be present,
_	leyed Matrix (S4)	_	Redox Depres	,	.,			s disturbed or problematic.
	ayer (if present		<u> </u>	()				'
Туре:			_					
Depth (inc	hes):						Hydric Soil	Present? Yes No _ ✓
JVDBOI O	~v							
HYDROLO								
=	Irology Indicato		shook all that ann	l. A			Sagar	ndary Indicators (2 or more required)
	·	or one required, c	check all that app		raa (DO) (a			
	Water (A1)			ined Leav		хсерт		/ater-Stained Leaves (B9) (MLRA 1, 2
Saturation	ter Table (A2)		Salt Crust	1, 2, 4A, a	aliu 4D)			4A, and 4B) rainage Patterns (B10)
Water M				vertebrate	oc (P12)			ry-Season Water Table (C2)
	t Deposits (B2)			Sulfide O				aturation Visible on Aerial Imagery (C
_	osits (B3)		_ · ·	Rhizosphe	` '	Livina Ro		eomorphic Position (D2)
	t or Crust (B4)		Presence		-	-	` ' —	hallow Aquitard (D3)
= '	osits (B5)		Recent Iro		,	,		AC-Neutral Test (D5)
	Soil Cracks (B6)		Stunted o			,	_	aised Ant Mounds (D6) (LRR A)
	on Visible on Aeri	al Imagery (B7)		plain in Re		, (_	rost-Heave Hummocks (D7)
	Vegetated Conc				,		_	, ,
Field Observ	ations:							
Surface Water	er Present?	Yes No	Depth (in	iches):		_		
Water Table	Present?	Yes No	Depth (in	iches):		_		
Saturation Pr (includes cap	illary fringe)	Yes No						y Present? Yes 🔲 No 🔽
Describe Red	orded Data (stre	am gauge, monit	toring well, aerial	photos, pr	evious ins	pections),	if available:	
Remarks:	of wetland hyd	Irology observe	ed.					
TAO GAIGELIGE	or welland nyc	nology observe	ou.					

Project/Site: Easton	City/	County: Park	Sa	ampling Date:	6/24/2021
Applicant/Owner: MDT		,	State: Montana Sa	ampling Point:	DP02w
Investigator(s). R Quire, S Weyant, J Trilling				R 9E	
Landform (hillslope, terrace, etc.): Floodplain					pe (%): 4
Subregion (LRR): LRR E	Lat:	46.056218		——— 639486 _{Datu}	m: NAD 83
Soil Map Unit Name: 155A: Meadowcreek, rarely floode	d-Nesda com	nplex, 0-2% slopes	NWI classification	n Not Mappe	ed.
Are climatic / hydrologic conditions on the site typical for this					
Are Vegetation, Soil, or Hydrology signature.					No 🗆
Are Vegetation, Soil, or Hydrology na					
SUMMARY OF FINDINGS - Attach site map s	howing sa	mpling point lo	ations, transects, ir	nportant fe	atures, etc.
Hydric Soil Present? Yes ✓ No		Is the Sampled A	rea ? Yes <u>✓</u>	No	_
Remarks: PEM riverine wetland.					
PEWITVETITIE WELIANG.					
VEGETATION - Use scientific names of plant	's				
Absolute	Domiant	Indicator	Dominance Test works	heet	
Tree Stratum Plot size (30 Foot Radius) % Cover:	Species?	Status	Number of Dominant Spethat are OBL, FACW or F	ecies	2 (A)
			Total Number of Dominal Species Across All Strata		2 _(B)
Sapling/Shrub Stratum Plot size (15 Foot Radius)			Percent of Dominant Spe That Are OBL, FACW, or		00 % (A/B)
Supring/Official Stratum 1 for Size (15 1 Soft Radius)			Prevalence Index works		
			Total % Cover of:		ultiply by:
			OBL species 82 FACW species 0	X 2	0
			•	X 3	9
				X 4	0
Herbaceous Stratum Plot size (5 Foot Radius)		1	UPL species 0	X 5	0
Alopecurus arundinaceus 3			Column Totals 85	(A)	91 (B)
Carex atherodes 40 Carex utriculata 30	✓ OF		Prevalence Index =	B/A = 1.070)59
Scirpus microcarpus 2	_	BL I	Hydrophytic Vegetation	Indicators	
Typha latifolia 10		BL	1 - Rapid Test for	or Hydrophytic	Vegetation
7			✓ 2 - Dominance	Test is >50%	
			3 - Prevalence I	Index is <= 3.0	1
			4 - Morphologic supporting data sheet.		
			5 - Wetland Nor	n-Vascular Pla	nte
			Problematic Hyd		
			•	. , .	` ' /
Woody Vine Stratum Plot size (30 Foot Radius)			Indicators of hydric sil and present, unless disturbed		
Percent Bare Ground 15			Hydrophytic Vegetation Yes Present?	✓ NO	
Remarks: BG/litter=15%. Evidence of hydrophytic vegetation in less than or equal to 3.0. US Army Corps of Engineers	acludes a pos	sitive rapid test, a μ	positive dominance test,		

SOIL							Sampling Point: DP0:	2w
Profile Des	cription: (Descri	be to the dep	th needed to docu	ment the indicator	or confirm	n the absence		
Depth	Matrix			ox Features				
(inches)	Color (moist)	%	Color (moist)	%Type ¹	Loc ²	Texture	Remarks	
0-16	10YR 3/2	100				Sandy Clay		
								_
	-		-					
	-					-		
-								
			=Reduced Matrix, C		ed Sand G		ation: PL=Pore Lining, M=Matr	
		licable to all	LRRs, unless other	rwise noted.)			rs for Problematic Hydric Soi	ls³:
Histoso			Sandy Redox (n Muck (A10)	
_	pipedon (A2)		Stripped Matrix	, ,		_	Parent Material (TF2)	
	listic (A3)			Mineral (F1) (excep	t MLRA 1)		Shallow Dark Surface (TF12)	
	en Sulfide (A4) d Below Dark Sur	faco (A11)	Loamy Gleyed Depleted Matri			Otne	er (Explain in Remarks)	
	ark Surface (A12)	. ,	Redox Dark Su			3Indicato	rs of hydrophytic vegetation and	4
	Mucky Mineral (S1		Depleted Dark	` '			nd hydrology must be present,	•
	Gleyed Matrix (S4)		Redox Depres	` '			s disturbed or problematic.	
Restrictive	Layer (if present):						
Туре:								
Depth (in	iches):					Hydric Soil	Present? Yes <u>V</u> No	
Remarks:						•		
Evidence of	of hydric soil indi	cators inclu	des observation of	sulfidic odor.				
HYDROLC	GY							
	drology Indicato	rs:						
_	= =		d; check all that app	lv)		Secon	dary Indicators (2 or more requ	ired)
	Water (A1)	or one require		ined Leaves (B9) (e	vcent		ater-Stained Leaves (B9) (MLR	
	ater Table (A2)			1, 2, 4A, and 4B)	Acept		4A, and 4B)	VA 1, 2,
Saturati			Salt Crust				rainage Patterns (B10)	
	/larks (B1)			vertebrates (B13)			ry-Season Water Table (C2)	
	nt Deposits (B2)			Sulfide Odor (C1)			aturation Visible on Aerial Image	erv (C9)
	posits (B3)			Rhizospheres along	Living Roc		eomorphic Position (D2)	ory (00)
	at or Crust (B4)			of Reduced Iron (C	-		nallow Aquitard (D3)	
_ •	posits (B5)			on Reduction in Tille	,		AC-Neutral Test (D5)	
	Soil Cracks (B6)		_	r Stressed Plants (D	,		aised Ant Mounds (D6) (LRR A)
	ion Visible on Aeri	al Imagery (B		plain in Remarks)	., (=:::::		ost-Heave Hummocks (D7)	,
	y Vegetated Conc		<i>,</i> — ,	,			(= . ,	
Field Obser	·		,					
Surface Wa	ter Present?	Yes 🔽	No Depth (in	ches):	1			
Water Table		Yes 🔽	_		3			
Saturation F		Yes 🔽	_) Wetl	and Hydrology	Present? Yes <u>V</u> No	
(includes ca	pillary fringe)						,	
			onitoring well, aerial	photos, previous ins	spections),	if available:		
1 in surfac	e water observe	d within 3 ft	of soil pit					
Remarks:			4					
				water, a high wat	ter table,	soils saturated	d to surface, sulfidic odor,	
geomorphic	position, and a	positive FA	o-ineuliai lest.					

Project/Site: Easton	City/County: Park	Sampling Date:6/23/2021
Applicant/Owner: MDT	- , ,	State: Montana Sampling Point: DP03u
Investigator(s): R Quire, S Weyant, J Trilling		
Landform (hillslope, terrace, etc.): berm	Local relief (concave, cor	nvex, none): flat Slope (%):9
Subregion (LRR): LRR E Lat: _	46.057829 _L	ong:110.638632 Datum: NAD 83
Soil Map Unit Name: 155A: Meadowcreek, rarely flooded-Nese	da complex, 0-2% 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 Hydrology significan	tly disturbed? Are "No	ormal Circumstances" present? Yes 🗹 No 🔲
Are Vegetation $\underline{\hspace{1cm}}$, Soil $\underline{\hspace{1cm}}$, or Hydrology $\underline{\hspace{1cm}}$ naturally	problematic? (If need	led, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showi	ng sampling point loc	ations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes ✓ No Hydric Soil Present? Yes □ No ✓ Wetland Hydrology Present? Yes □ No ✓	Is the Sampled A	
Remarks:	s the site	
Upland sample point located on berm near road that bisect	s trie site.	
VEGETATION - Use scientific names of plants		
Too Stratum Blatains (00 Foot Boding) Absolute Domi		Dominance Test worksheet
Tree Stratum Piol size (30 Foot Radius) % Cover: Spec	ies? Status	Number of Dominant Species that are OBL, FACW or FAC: 2 (A)
		Total Number of Dominant Species Across All Strata: 2 (B)
Sapling/Shrub Stratum Plot size (15 Foot Radius)		Percent of Dominant Species That Are OBL, FACW, or FAC: 100 % (A/B)
<u> </u>		Prevalence Index worksheet
		Total % Cover of: Multiply by: OBL species 0 X 1 0
		FACW species 0 X 2 0
		FAC species 85 X 3 255
Herbaceous Stratum Plot size (5 Foot Radius)		FACU species 0 X 4 0 UPL species 5 X 5 25
Bromus inermis 5	UPL	
Elymus repens 40	FAC	Column Totals 90 (A) 280 (B)
Poa pratensis 45 🗸	FAC	Prevalence Index = B/A = 3.11111
		Hydrophytic Vegetation Indicators 1 - Rapid Test for Hydrophytic Vegetation
		✓ 2 - Dominance Test is >50%
		3 - Prevalence Index is <= 3.0
		4 - Morphological Adaptations (Provide supporting data in remarks or on separate
		sheet.
		5 - Wetland Non-Vascular Plants
		☐ Problematic Hydrophytic Vegetation (Explain)
Woody Vine Stratum Plot size (30 Foot Radius)		Indicators of hydric sil and wetland hydrology must be present, unless disturbed or problematic for #3, 4, 5.
Percent Bare Ground 10		Hydrophytic Vegetation Yes ✓ NO □ Present?
Remarks:		
BG/litter=10%. Although hydrophytic vegetation was obser supported by wetland hydrology (1987 COE Wetland Delin		l evidence of hydric soil development and is not
US Army Corps of Engineers		Western Mountains, Valleys, and Coasts - Version 2.0

SOIL								Sar	mpling Point: DP	03u
Profile Desc	ription: (Describe	to the depth	needed to docun	nent the in	dicator	or confirn	n the absence			
Depth	Matrix			x Features	_ 1	. 2				
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type'	_Loc ² _	Texture		Remarks	
0-16	10YR 3/2	100					Clay			
										
								-		
¹ Type: C=Cd	oncentration, D=Dep	oletion, RM=R	educed Matrix, CS	=Covered	or Coate	d Sand Gi			ore Lining, M=Ma	
Hydric Soil I	Indicators: (Applic	able to all LF	RRs, unless other	wise note	d.)				ematic Hydric Sc	oils³:
Histosol	• •	Ļ	🛓 Sandy Redox (S	•				n Muck (A10)		
	pipedon (A2)	<u> </u>	Stripped Matrix					l Parent Mate	, ,	
Black Hi		Ļ	Loamy Mucky N		(except	MLRA 1)		-	rk Surface (TF12)	
	n Sulfide (A4)		Loamy Gleyed I	. ,			Oth	er (Explain in	Remarks)	
	d Below Dark Surfac ark Surface (A12)	e (ATT)	☑ Depleted Matrix ☑ Redox Dark Sui				3Indicate	ore of hydronh	nytic vegetation ar	nd
	lucky Mineral (S1)	Ť	Depleted Dark S		`)				must be present,	
	Bleyed Matrix (S4)		Redox Depress		,				r problematic.	
	_ayer (if present):									
Туре:										
Depth (inc	ches):						Hydric Soil	Present?	Yes No	<u> </u>
Remarks:										
No evidence	e of hydric soil ind	icators obse	erved.							
HYDROLO	GY									
Wetland Hyd	drology Indicators:									
_	ators (minimum of c		check all that apply	/)			Seco	ndarv Indicato	ors (2 or more req	uired)
	Water (A1)		Water-Stai		s (B9) (e :	xcept		Vater-Stained	Leaves (B9) (ML	RA 1. 2.
	ter Table (A2)			1, 2, 4A, ar				4A, and 4B		, _,
Saturation			Salt Crust		,			rainage Patte	•	
	arks (B1)		Aquatic Inv		(B13)				ater Table (C2)	
	nt Deposits (B2)		Hydrogen		. ,			-	ble on Aerial Ima	gery (C9)
	posits (B3)		Oxidized R		. ,	Livina Roc	_	Seomorphic P		J ()
	it or Crust (B4)		Presence of	of Reduced	Iron (C4	.)	_	hallow Aquita		
Iron Dep	osits (B5)		Recent Iro	n Reduction	n in Tilled	d Soils (C6	5) <u> </u>	AC-Neutral T	est (D5)	
Surface	Soil Cracks (B6)		Stunted or	Stressed F	Plants (D	1) (LRR A) <u> </u>	aised Ant Mo	unds (D6) (LRR	A)
Inundation	on Visible on Aerial	magery (B7)	Other (Exp	lain in Ren	narks)		F	rost-Heave H	ummocks (D7)	
Sparsely	Vegetated Concav	e Surface (B8)							
Field Observ	vations:									
Surface Wate	er Present? Y	es 🔲 No	Depth (ind	ches):		_				
Water Table	Present? Y	es No	Depth (inc	ches):						
Saturation Pr	resent? Y	es No	Depth (inc	ches):		Wetla	and Hydrolog	y Present?	Yes N	o <u> </u>
(includes cap								-		
Describe Red	corded Data (stream	ı gauge, moni	toring well, aerial p	photos, pre	vious ins	pections),	if available:			
Remarks:	e of wetland hydro	logy observ	ed							
INO EVIUEITO	or welland hydro	logy observ	cu.							

Project/Site: Easton	City/C	county: Park		Sampling Date	6/24/2021
Applicant/Owner: MDT			State: Montana	Sampling Point	DP03w
Investigator(s): R Quire, S Weyant, J Trilling	Section	on, Township, Range: _	S 32 T 4	1N R 9E	Ξ
Landform (hillslope, terrace, etc.): Floodplain	Loca	I relief (concave, conve	x, none): concave	s	lope (%):4
Subregion (LRR): LRR E	_ Lat:	46.057886 Lon	g:11	0.638637 _{Da}	tum: NAD 83
Subregion (LRR): LRR E Soil Map Unit Name: 155A: Meadowcreek, rarely floode	ed-Nesda com	olex, 0-2% slopes	NWI classifica	ation:Not Mapp	oed.
Are climatic / hydrologic conditions on the site typical for this					
Are Vegetation, Soil, or Hydrology s					✓ No □
Are Vegetation, Soil, or Hydrology n					
SUMMARY OF FINDINGS - Attach site map					features, etc.
	o	la the Campled Area			
Hydric Soil Present? Yes V		Is the Sampled Area within a Wetland?	Yes 🗸	No	
Wetland Hydrology Present? Yes V Remarks:	o <u> </u>				
PEM/PSS riverine wetland. VEGETATION - Use scientific names of plan	ts				
Absolute	Domiant I	ndicator	ominance Test wor	ksheet	
Tree Stratum Plot size (30 Foot Radius) % Cover:	Species? S	Status Ni	umber of Dominant S at are OBL, FACW o	Species	4 (A)
			otal Number of Domi pecies Across All Str		4 (B)
Sapling/Shrub Stratum Plot size (15 Foot Radius)			ercent of Dominant S nat Are OBL, FACW,		100 % (A/B)
Populus balsamifera 5	FA	Pi	revalence Index wo		
Salix bebbiana 20		-C\M	Total % Cover of		Multiply by:
Salix exigua 3		CW		25 X 1 58 X 2	25 116
Salix lutea 7	✓ OF	31	· •	10 X3	30
			ACU species	1 X4	4
Herbaceous Stratum Plot size (5 Foot Radius)			PL species	1 X5	5
Carex nebrascensis 1	OB		olumn Totals 9	95 (A)	180 (B)
Carex pellita 15 Eleocharis palustris 2	✓ OB		Prevalence Index	c = B/A = 1.8	9474
Eleocharis palustris 2 Equisetum arvense 5	☐ FA		ydrophytic Vegetati	on Indicators	
Juncus balticus 35		CW	✓ 1 - Rapid Tes	st for Hydrophyt	ic Vegetation
Stachys palustris 1	☐ NL		2 - Dominano	ce Test is >50%	,
Taraxacum officinale 1	FA	CU	✓ 3 - Prevalenc	ce Index is <= 3	.0
			supporting da sheet.	gical Adaptation ata in remarks c Non-Vascular Pl	or on separate
			☐ Problematic I	-lydrophytic Ve	getation (Explain)
Woody Vine Stratum Plot size (30 Foot Radius)			licators of hydric sil a esent, unless disturb		
Percent Bare Ground 25		Ve	ydrophytic egetation Yeresent?	es 🗹 NO	
Remarks: BG/litter=25%. Evidence of hydrophytic vegetation i less than or equal to 3.0. US Army Corps of Engineers	ncludes a posi		itive dominance te	•	

SOIL										Sampling Point: DP03w
Profile Desc	ription: (Describe	to the de	oth neede	d to docur	ment the in	ndicato	r or conf	irm the absence	e of indicators.)
Depth		Matrix				x Features		2	_	
(inches)		(moist)	%	Color	(moist)	%	_Type ¹	_ Loc ²		Remarks
0-08	10YR	3/2	100						Clay	
08-16	10YR	4/2	65	7.5YR	5/8	35	С	PL,M	Sandy Clay	
									_	
¹Type: C=Co								ted Sand		ocation: PL=Pore Lining, M=Matrix.
Hydric Soil		: (Applic	able to al				ed.)			ors for Problematic Hydric Soils ³ :
Histosol		2)			dy Redox (m Muck (A10) d Parent Material (TF2)
Black Hi	oipedon (A	.2)			ped Matrix ny Mucky N) (ovoc	-+ MI D ∧	_	g Parent Material (1F2) ry Shallow Dark Surface (TF12)
	n Sulfide ((A4)			ny Gleyed		· · ·	JI WILKA	_	ner (Explain in Remarks)
	d Below Da		e (A11)		eted Matrix				3, , , , ,	
_	ark Surface lucky Mine			_	ox Dark Su leted Dark :		7)			ors of hydrophytic vegetation and and and and hydrology must be present,
	leyed Mat				ox Depress		.,			ss disturbed or problematic.
Restrictive I	_ayer (if p	resent):								
Туре:										
Depth (inc	ches):								Hydric Soi	I Present? Yes <u>✓</u> No <u> </u>
Remarks:										
Prominent r	edoximor	rphic con	centratio	ns many	within the	depleted	matrix	•		
HYDROLO										
Wetland Hyd	==					,			•	
Primary India			ne require	a; cneck a			- (DO) (4		andary Indicators (2 or more required)
	Water (A1) ter Table (Water-Sta	ined Leave 1, 2, 4A, a		except	\	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
Saturation		(^2)			Salt Crust		iiu 46)			Orainage Patterns (B10)
	arks (B1)				Aquatic In		(B13)			Dry-Season Water Table (C2)
	nt Deposits	s (B2)			Hydrogen	Sulfide Od	or (C1)			Saturation Visible on Aerial Imagery (C9)
Drift Dep	osits (B3)				Oxidized F	Rhizospher	es along	g Living F	Roots (C3) 👱 (Geomorphic Position (D2)
	t or Crust	` '			Presence					Shallow Aquitard (D3)
	osits (B5)				Recent Iro					FAC-Neutral Test (D5)
	Soil Crack on Visible		magen/(E		Stunted or Other (Exp			ر1) (LR		Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
_	Vegetate		• • •	· —	Other (Lxp	naiii iii i\ei	ilai K5)		'	Tost-Heave Hummocks (DT)
Field Observ				,						
Surface Wate	er Present	? Y	es	No	Depth (in	ches):				
Water Table	Present?	Υ	es	No	Depth (in	ches):				
Saturation Pr (includes cap	illary fring	e)	es 🔽			ches):				gy Present? Yes <u>V</u> No <u> </u>
Describe Red	corded Dat	ta (stream	gauge, m	onitoring v	vell, aerial إ	ohotos, pre	evious in	spection	s), if available:	
Remarks:				.,					.,.	25 FAOAL (1) (
Evidence of	wetland l	hydrolog	y include:	s soils sa	turated to	surface,	geomo	rphic po	osition, and a p	ositive FAC-Neutral test.

Project/Site: Easton	City/County: Park	Sampling Date:6/24/2021
Applicant/Owner: MDT		State: Montana Sampling Point: DP04u
Investigator(s): R Quire, S Weyant, J Trilling	Section. Township. Ra	
Landform (hillslope, terrace, etc.): Bench		
Subregion (LRR): LRR E Lat:	46.059022	Long: -110.637645 Datum: NAD 83
Soil Map Unit Name: 155A: Meadowcreek, rarely flooded-Nesda	complex, 0-2% slope	es NWI classification: Not Mapped.
Are climatic / hydrologic conditions on the site typical for this time of ye		
Are Vegetation, Soil, or Hydrology significantly		
Are Vegetation, Soil, or Hydrology naturally pro		eded, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing		
Hydrophytic Vegetation Present? Yes No		
Hydric Soil Present? Yes No	Is the Sampled within a Wetlar	
Wetland Hydrology Present? Yes No	Within a Wellar	Id: 165 NO
Remarks: Upland sample point located on bench above DP04w.		
VEGETATION - Use scientific names of plants		
Tree Stratum Plot size (30 Foot Radius) Absolute Domian % Cover: Species		Dominance Test worksheet
2 7 % Cover. Species	s? Status	Number of Dominant Species that are OBL, FACW or FAC:
		Total Number of Dominant Species Across All Strata: 1 (B)
Sapling/Shrub Stratum Plot size (15 Foot Radius)		Percent of Dominant Species That Are OBL, FACW, or FAC: 0 % (A/B)
Sapinig/Siriab Stratum 1 lot size (13 1 oot Naulus)		Prevalence Index worksheet
		Total % Cover of: Multiply by:
		OBL species 0 X 1 0 FACW species 0 X 2 0
		FACW species 0 X 2 0 FAC species 5 X 3 15
		FACU species 0 X 4 0
Herbaceous Stratum Plot size (5 Foot Radius)		UPL species 80 X 5 400
Bromus inermis 80	UPL	Column Totals 85 (A) 415 (B)
Poa pratensis 5	FAC	Prevalence Index = B/A = 4,88235
		Hydrophytic Vegetation Indicators
		1 - Rapid Test for Hydrophytic Vegetation
		2 - Dominance Test is >50%
		3 - Prevalence Index is <= 3.0
		4 - Morphological Adaptations (Provide supporting data in remarks or on separate
		sheet. 5 - Wetland Non-Vascular Plants
		Problematic Hydrophytic Vegetation (Explain
Woody Vine Stratum Plot size (30 Foot Radius)		Indicators of hydric sil and wetland hydrology must be present, unless disturbed or problematic for #3, 4, 5.
Percent Bare Ground 15		Hydrophytic Vegetation Present? NO ✓
Remarks:		<u> </u>
BG/litter=15%. Vegetation dominated by upland species.		
US Army Corps of Engineers		Western Mountains, Valleys, and Coasts - Version 2.0
		•

SOIL									Sa	ampling Point:	DP04u
Profile Desc	cription: (De	scribe to	the dept	h needed to docu	ment the in	dicator	or confir	m the absence			
Depth		atrix			ox Features	_ 1		_			
(inches)	Color (mo	oist)	<u>%</u>	Color (moist)	%	Type ¹	_Loc ²	<u>Texture</u>		Remarks	
0-16	10YR 3	3/2	100					Clay			
	-						-				
								·	-		
¹ Type: C=C	oncentration,	D=Deple	etion, RM=	Reduced Matrix, C	S=Covered	or Coate	d Sand G	Grains. ² Lo	cation: PL=I	ore Lining, M=	:Matrix.
Hydric Soil	Indicators: (Applica	ble to all l	_RRs, unless othe	rwise noted	d.)		Indicate	ors for Prob	lematic Hydric	: Soils³:
Histosol	(A1)			Sandy Redox	(S5)				m Muck (A10		
	pipedon (A2)			Stripped Matrix	. ,			_	d Parent Mat		
_	istic (A3)			Loamy Mucky		(except	MLRA 1	_	-	ark Surface (TF	12)
	en Sulfide (A4)		(444)	Loamy Gleyed				Oth	er (Explain i	n Remarks)	
	d Below Dark ark Surface (A		(ATT)	□ Depleted Matri □ Redox Dark Su				3Indicate	are of hydron	hytic vegetation	n and
_	ark Surface (⊁ ∕lucky Mineral			Depleted Dark	` ,	`				y must be prese	
	Bleyed Matrix		,	Redox Depres	•	,				or problematic.	J. 11.
	Layer (if pres			<u> </u>	,					•	
Type:											
Depth (in	ches):							Hydric Soi	Present?	Yes _ 🗆	No 🔽
Remarks:											
HYDROLO											
_	drology Indic				I. A			C	ما المام المام المام	tors (2 or more	
		arri oi ori	e required	; check all that app		(DO) (a)				•	
	Water (A1) ater Table (A2	`			ined Leaves 1, 2, 4A, an		xcepi	v	4A, and 4	d Leaves (B9) (B)	WILKA I, Z,
Saturation		,		Salt Crust		iu 46)			rainage Pat	•	
_	larks (B1)				vertebrates	(B13)			_	Vater Table (C2)\
	nt Deposits (B	2)			Sulfide Odd					sible on Aerial I	
	posits (B3)	_,		— · ·	Rhizosphere	, ,	Livina Ro			Position (D2)	
	at or Crust (B4	!)		_	of Reduced	_	_	` ' —	hallow Aquit	` ,	
Iron Dep	oosits (B5)			Recent Ire	on Reduction	n in Tilled	d Soils (C		AC-Neutral		
Surface	Soil Cracks (I	36)		Stunted o	r Stressed P	lants (D	1) (LRR <i>A</i>	A) F	Raised Ant M	ounds (D6) (LF	RR A)
	on Visible on		nagery (B7		plain in Rem			_		Hummocks (D7	
Sparsely	y Vegetated C	oncave	Surface (E	88)							
Field Obser	vations:										
Surface Wat	er Present?	Ye	s N	lo <u> </u>	iches):		_				
Water Table	Present?	Ye	s N	lo <u> </u>	iches):		_				
Saturation P		Ye	s N	lo <u> </u>	iches):		_ Wet	land Hydrolog	y Present?	Yes	No 🔽
(includes car Describe Re	corded Data (stream (jauge, mo	nitoring well, aerial	photos, prev	vious ins	pections)	, if available:			
Derrord											
Remarks: No evidence	e of wetland	hydrolo	av obser	ved.							
		., 010	J, 12201								

Project/Site: Easton	City/County: Park	Sampling Date: 6/24/2021
Applicant/Owner: MDT		State: Montana Sampling Point: DP04w
Investigator(s): R Quire, S Weyant, J Trilling		
Landform (hillslope, terrace, etc.): Floodplain	Local relief (concave, co	onvex, none): concave Slope (%):
Subregion (LRR): LRR E	Lat: 46.058993	Long:110.637754 Datum: NAD 83
Subregion (LRR): LRR E Soil Map Unit Name: 155A: Meadowcreek, rarely floode	ed-Nesda complex, 0-2% slopes	NWI classification: Not Mapped.
Are climatic / hydrologic conditions on the site typical for this		
Are Vegetation, Soil, or Hydrologys	gnificantly disturbed? Are "N	Iormal Circumstances" present? Yes 🗹 No 🔲
Are Vegetation, Soil, or Hydrology n	aturally problematic? (If nee	eded, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map	showing sampling point lo	cations, transects, important features, etc.
Hydric Soil Present? Yes No	Is the Sampled A within a Wetland	
Remarks: PEM/PSS riverine wetland.		
VEGETATION - Use scientific names of plan Absolute		
	Domiant Indicator Species? Status	Dominance Test worksheet
		Number of Dominant Species that are OBL, FACW or FAC: 4 (A)
		Total Number of Dominant Species Across All Strata: 4 (B)
Sapling/Shrub Stratum Plot size (15 Foot Radius)		Percent of Dominant Species That Are OBL, FACW, or FAC: 100 % (A/B)
Populus balsamifera 10	✓ FAC	Prevalence Index worksheet
Salix bebbiana 5	▼ FACW	Total % Cover of: Multiply by:
Salix lutea 10	✓ OBL	OBL species 10 X 1 10 FACW species 45 X 2 90
		FAC species 33 X 3 99
		FACU species 2 X 4 8
Herbaceous Stratum Plot size (5 Foot Radius)		UPL species 0 X 5 0
Alopecurus arundinaceus 5	FAC	Column Totals 90 (A) 207 (B)
Carex pachystachya 5		Prevalence Index = B/A = 2.3
Juncus balticus 40	FACW FAC	Hydrophytic Vegetation Indicators
Lotus corniculatus 10 Poa pratensis 3	FAC FAC	1 - Rapid Test for Hydrophytic Vegetation
Taraxacum officinale 2	FACU	✓ 2 - Dominance Test is >50%
Taraxasam ememale 2	17100	✓ 3 - Prevalence Index is <= 3.0
		 4 - Morphological Adaptations (Provide supporting data in remarks or on separate sheet. 5 - Wetland Non-Vascular Plants Problematic Hydrophytic Vegetation (Explain)
Woody Vine Stratum Plot size (30 Foot Radius)		Indicators of hydric sil and wetland hydrology must be present, unless disturbed or problematic for #3, 4, 5.
Percent Bare Ground 30		Hydrophytic Vegetation Present? Ves ✓ NO
Remarks: BG/litter=30%. Evidence of hydrophytic vegetation i 3.0. US Army Corps of Engineers	ncludes a positive dominance to	est and a prevalence index less than or equal to Western Mountains, Valleys, and Coasts - Version 2.0

SOIL											Sam	npling Point:	DP04w
Profile Desc	ription: (Describe	to the dep	th need	ded to docur	nent the i	ndicator	or con	firm the abs	ence of ir			
Depth		Matrix				x Features		,					
(inches)	Color	(moist)	%	Cold	or (moist)	%	Type ¹	Loc²				Remarks	
0-12	10YR	4/2	85	5YR	4/6	15	С	M,PL	Sandy C	Clay			
12+									cobble	е			
	7-					-		-					
¹ Type: C=Co								ted Sand				re Lining, M	
Hydric Soil I		: (Applic	able to all				ed.)		Ind			matic Hydr	ic Soils":
Histosol		0)		=	ndy Redox (•				2 cm Mu		: . (TEO)	
	ipedon (A	2)			ripped Matrix		\	-4 MI D (, , , <u> </u>	Red Par		. ,	·[40)
Black His	รแต (A3) n Sulfide ((A4)			amy Mucky N amy Gleyed∃			OT WILKA	4 1) <u> </u>	-		k Surface (T Remarks)	F12)
	l Below Da		e (A11)		pleted Matrix		,		<u> </u>				
	rk Surface			Re	dox Dark Su	rface (F6)						ytic vegetati	
_	ucky Mine			_	pleted Dark		7)					must be pre	
Restrictive L	leyed Mat			<u></u> Re	dox Depress	ions (F8)				unless dis	turbed or	problemation	D
Type: Depth (inc									Hydric	Soil Pres	ent?	/ac /	No \square
Remarks:									Tiyano	0011110			
layer at this	location.												
HYDROLOG		dicators											
Wetland Hyd Primary Indic	==			d chack	all that annly	w)				Secondan	Indicato	rs (2 or more	a required)
	Water (A1		nie require	u, criece	_ Water-Stai		se (BQ) (ovcont					(MLRA 1, 2,
	ter Table (1, 2, 4A, a		except	-		and 4B)		(WERA 1, 2,
Saturatio		(112)			Salt Crust		114 4 <i>D</i>)					rns (B10)	
Water Ma	` '				Aquatic Inv		s (B13)		_	_	-	ater Table (C	(2)
	t Deposits	(B2)			' Hydrogen		. ,		_				Imagery (C9)
	osits (B3)				Oxidized F	Rhizospher	es along	Living	Roots (C3)	✓ Geom	orphic Po	sition (D2)	
Algal Ma	t or Crust	(B4)			Presence	of Reduce	d Iron (C	(4)	_	Shallo	w Aquitaı	rd (D3)	
	osits (B5)				Recent Iro					▼ FAC-N			
	Soil Crack			Ļ	Stunted or		•	01) (LRI	R A) _			unds (D6) (L	
			magery (B		_ Other (Exp	olain in Re	marks)		-	Frost-	Heave Hu	ımmocks (D	17)
		d Concave	e Surface (38)									
Field Observ		•	. \square										
Surface Wate				_	Depth (inc								
Water Table I Saturation Pr				No <u>!</u> No[✓ Depth (income) ✓ Depth (income)			_	Vetland Hydr	ology Pro	cont?	Vos 🗸	No \square
(includes cap	illary fring	e)						_ '			Sent	1es <u>v</u>	
Describe Rec	orded Da	ta (stream	gauge, mo	nitoring	յ well, aerial բ	ohotos, pre	evious in	spection	ns), if availabl	e:			
Remarks:													
Evidence of	wetland	hydrolog	y includes	soils s	saturated to	the surfa	ice, ged	morph	ic position,	and a po	sitive FA	AC-Neutral	test.
							-	•	·	•			

Project/Site: Easton	City/County: Park	Sampling Date:6/24/2021
Applicant/Owner: MDT		State: Montana Sampling Point: DP05u
Investigator(s): R Quire, S Weyant, J Trilling		
Landform (hillslope, terrace, etc.): berm	Local relief (concave, c	onvex, none): convex Slope (%):9
Subregion (LRR): LRR E	Lat:46.059011	Long:110.638776 Datum: NAD 83
Soil Map Unit Name: 155A: Meadowcreek, rarely flood	ed-Nesda complex, 0-2% slope	sNWI classification:Not Mapped.
Are climatic / hydrologic conditions on the site typical for this	s time of year? Yes 🔲 No 🧾	(If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology s	ignificantly disturbed? Are "N	Normal Circumstances" present? Yes No
Are Vegetation, Soil, or Hydrology r	aturally problematic? (If nee	eded, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map	showing sampling point lo	cations, transects, important features, etc.
	o V o V o V o V o Within a Wetland	
Remarks: Upland sample point located on berm.		
VEGETATION - Use scientific names of plan	nts	
Δhsolute		Dominance Test worksheet
Tree Stratum Plot size (30 Foot Radius) % Cover	: Species? Status	Number of Dominant Species that are OBL, FACW or FAC:
		Total Number of Dominant Species Across All Strata: 1 (B)
Sapling/Shrub Stratum Plot size (15 Foot Radius)		Percent of Dominant Species That Are OBL, FACW, or FAC: 0 % (A/B)
Supring/Siliub Strutum 1 10t 3125 (10 1 Oot Nadius)		Prevalence Index worksheet
		Total % Cover of: Multiply by: OBL species 0 X 1 0
		FACW species 0 X2 0
		FAC species 15 X 3 45
Herbaceous Stratum Plot size (5 Foot Radius)		FACU species 0 X 4 0 UPL species 75 X 5 375
Bromus inermis 75	√ UPL	
Phleum pratense 10	FAC	()
Poa pratensis 5	FAC	Prevalence Index = B/A = 4.66667
		Hydrophytic Vegetation Indicators 1 - Rapid Test for Hydrophytic Vegetation
		2 - Dominance Test is >50%
		3 - Prevalence Index is <= 3.0
		4 - Morphological Adaptations (Provide supporting data in remarks or on separate
		sheet. 5 - Wetland Non-Vascular Plants
		Problematic Hydrophytic Vegetation (Explain)
Woody Vine Stratum Plot size (30 Foot Radius)		Indicators of hydric sil and wetland hydrology must be present, unless disturbed or problematic for #3, 4, 5.
Percent Bare Ground 10		Hydrophytic Vegetation Present? NO ✓
Remarks:		
BG/litter=10%. Vegetation is dominated by upland s	species.	
US Army Corps of Engineers		Western Mountains, Valleys, and Coasts - Version 2.0

SOIL								Sam	pling Point: DP05u	
Profile Desc	ription: (Describe	to the depth	needed to docun	nent the ir	ndicator	or confirm	n the absence			
Depth	Matrix			x Features						
(inches)	Color (moist)	%	Color (moist)	%	Type'	_Loc ²	<u>Texture</u>		Remarks	
0-16	10YR 3/2	100					Silty Clay			
								_		
	-									
¹ Type: C=Co	oncentration, D=Dep	letion, RM=R	educed Matrix, CS	=Covered	or Coate	d Sand Gr	rains. ² Lo	cation: PL=Por	re Lining, M=Matrix.	
	ndicators: (Applic								natic Hydric Soils ³ :	
Histosol	(A1)		Sandy Redox (S	S5)			2 c	m Muck (A10)		
Histic Ep	pipedon (A2)		Stripped Matrix	(S6)			Red	d Parent Materi	al (TF2)	
Black Hi	stic (A3)		Loamy Mucky N	lineral (F1) (except	MLRA 1)	Ver	y Shallow Dark	Surface (TF12)	
	n Sulfide (A4)		Loamy Gleyed I	. ,			L Oth	ner (Explain in R	Remarks)	
	d Below Dark Surfac	e (A11)	Depleted Matrix	. ,			3			
	ark Surface (A12)	Ļ	Redox Dark Sur						tic vegetation and	
	lucky Mineral (S1)		Depleted Dark S		()				nust be present,	
	leyed Matrix (S4) ayer (if present):	_	Redox Depress	ions (F8)			unie	ss disturbed or	problematic.	
	-h\.						Ukadaia Oai	I D	N. N.	7
Depth (inc	cnes):		_				Hydric Soi	l Present? Y	es No <u>V</u>	
Remarks:	f	: 4								
ino evidence	e of hydric soil ind	icators obse	ervea.							
HYDROLO	GY									
Wetland Hyd	drology Indicators:									
Primary Indic	ators (minimum of c	ne required; o	check all that apply	()			Seco	ndary Indicators	s (2 or more required))
	Water (A1)	•	Water-Stai	•	s (B9) (e)	cept		Water-Stained L	eaves (B9) (MLRA 1	. 2.
	ter Table (A2)			I, 2, 4A, aı				4A, and 4B)	(= +) (<u>=</u> . + +)	, –,
Saturation			Salt Crust		,		Пг	Drainage Patteri	ns (B10)	
	arks (B1)		Aquatic Inv		(B13)			Dry-Season Wa		
	nt Deposits (B2)		Hydrogen					-	le on Aerial Imagery((C9)
	posits (B3)		Oxidized R		. ,	Livina Roo	_	Seomorphic Pos		(00)
	it or Crust (B4)		Presence of	•	_	-	` ' —	Shallow Aquitare		
	osits (B5)		Recent Iron			•		AC-Neutral Te		
:	Soil Cracks (B6)		Stunted or			•			nds (D6) (LRR A)	
	on Visible on Aerial	magery (B7)	Other (Exp		•	., (=,		rost-Heave Hu		
_	Vegetated Concav	,	—							
Field Observ		(,							
Surface Water		es 🗆 No	Depth (inc	hes).						
Water Table		es								
									/	7
Saturation Pr (includes cap		es No	Depth (inc	:nes):		_ wetia	and Hydrolog	y Present? Y	′es No <u></u>	
	corded Data (stream	gauge, monit	toring well, aerial p	hotos, pre	vious ins	pections),	if available:			
	•			•						
Remarks:										
	of wetland hydro	logy observe	ed.							
	-									

Project/Site: Easton	City/County: Park	Sampling Date: 6/24/2021
Applicant/Owner: MDT		State: Montana Sampling Point: DP05w
Investigator(s): R Quire, S Weyant, J Trilling		
Landform (hillslope, terrace, etc.): Floodplain		
Subregion (LRR): LRR E	Lat: 46.059092	Long: -110.638719 Datum: NAD 83
Soil Map Unit Name: 155A: Meadowcreek, rarely flooded	d-Nesda complex, 0-2% slope	es NW classification. Not Mapped.
Are climatic / hydrologic conditions on the site typical for this		
Are Vegetation, Soil, or Hydrology sig	· — — —	
Are Vegetation, Soil, or Hydrology na		
SUMMARY OF FINDINGS – Attach site map s		
Hydrophytic Vegetation Present? Yes ✓ No Hydric Soil Present? Yes ✓ No	Is the Sampled	Area
Wetland Hydrology Present? Yes ✓ No	within a Wetlan	nd? Yes V No V
Remarks:		
PEM/PSS riverine wetland in excavated floodplain ch	annel.	
VEGETATION - Use scientific names of plant		
Tree Stratum Plot size (30 Foot Radius) Absolute % Cover:	Domiant Indicator Species? Status	Dominance Test worksheet
	•	Number of Dominant Species that are OBL, FACW or FAC: 4 (A)
		Total Number of Dominant Species Across All Strata: 4 (B)
Sapling/Shrub Stratum Plot size (15 Foot Radius)		Percent of Dominant Species That Are OBL, FACW, or FAC: 100 % (A/B)
Populus balsamifera 1	☐ FAC	Prevalence Index worksheet
Salix bebbiana 4	FACW FACW	Total % Cover of: Multiply by:
Salix exigua 10	✓ FACW	OBL species 4 X 1 4 FACW species 51 X 2 102
	•	FAC species 33 X 3 99
		FACU species 0 X 4 0
Herbaceous Stratum Plot size (5 Foot Radius)		UPL species 0 X 5 0
Alopecurus arundinaceus 25	✓ FAC	Column Totals 88 (A) 205 (B)
Carex nebrascensis 2	OBL	Prevalence Index = B/A = 2,32955
Carex pachystachya 3	FAC	Hydrophytic Vegetation Indicators
Carex pellita 2	OBL	1 - Rapid Test for Hydrophytic Vegetation
Juncus balticus 35 Poa palustris 2	FACW FAC	✓ 2 - Dominance Test is >50%
Potentilla gracilis 2	FAC	✓ 3 - Prevalence Index is <= 3.0
Solidago gigantea 2	FACW	4 - Morphological Adaptations (Provide
		supporting data in remarks or on separate sheet.
		5 - Wetland Non-Vascular Plants
		Problematic Hydrophytic Vegetation (Explain)
Woody Vine Stratum Plot size (30 Foot Radius)		Indicators of hydric sil and wetland hydrology must be present, unless disturbed or problematic for #3, 4, 5.
		Hydrophytic Vegetation Yes ✓ NO
Percent Bare Ground 25 Remarks:		Present?
BG/litter=25%. Evidence of hydrophytic vegetation in 3.0.	cludes a positive dominance	test and a prevalence index less than or equal to
US Army Corps of Engineers		Western Mountains, Valleys, and Coasts - Version 2.0

SOIL										Sampling Point: DP05w
Profile Desc	ription: (Describe t	o the dep	th neede	ed to docur	nent the i	ndicator	or confi	irm the absence	
Depth		Matrix				x Features		2	_	
(inches)	Color	(moist)	%		(moist)	%	Type ¹	Loc ²	Texture	Remarks
0-9	10YR	4/2	85	7.5YR	4/6	15	С	M,PL	Sandy Clay	Cobbly
9+									Cobbles	Cobble bottom
						·				
¹ Type: C=Co								ed Sand		cation: PL=Pore Lining, M=Matrix.
Hydric Soil I			ıble to all	San	nless othe। dy Redox (ऽ pped Matrix	S5)	ed.)		2 cn	ors for Problematic Hydric Soils ³ : n Muck (A10) l Parent Material (TF2)
Black His	stic (A3) n Sulfide ((A4)		Loa	my Mucky N my Gleyed∃	Nineral (F1 Matrix (F2)		t MLRA	1)	y Shallow Dark Surface (TF12) er (Explain in Remarks)
	l Below Da rk Surface	ark Surface	e (A11)		leted Matrix lox Dark Su				³ Indicato	ors of hydrophytic vegetation and
_	ucky Mine			_	leted Dark Su	` '	7)			nd hydrology must be present,
	leyed Mat				lox Depress		. ,			s disturbed or problematic.
Restrictive L	ayer (if p	resent):								
Туре:										
Depth (inc	:hes):								Hydric Soil	Present? Yes V No No
Prominent re to impeding					non along p	oore lining	gs and v	within th	e depleted mat	rix. Unable to dig past 9 inches due
HYDROLO(dia aka wa								
Wetland Hyd	==			di abaak	المصم فمطا الم	۸			Sagar	adam Indiantora (2 or more required)
Primary Indic			ie require	u; cneck	,		- (DO) (ndary Indicators (2 or more required)
	<i>N</i> ater (A1 ter Table (Water-Stai	ned Leave 1, 2, 4A, a		except		/ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
Saturatio		(^2)			Salt Crust		iiu 40)		✓ D	rainage Patterns (B10)
Water Ma					Aquatic Inv		s (B13)			ry-Season Water Table (C2)
	t Deposits	s (B2)			Hydrogen					aturation Visible on Aerial Imagery (C9)
	osits (B3)	. ,			Oxidized F		, ,	Living R	_	eomorphic Position (D2)
Algal Ma	t or Crust	(B4)			Presence	of Reduce	d Iron (C	4)	s	hallow Aquitard (D3)
Iron Dep	osits (B5)				Recent Iro	n Reductio	n in Tille	ed Soils (C6) <u></u> F,	AC-Neutral Test (D5)
	Soil Crack				Stunted or	Stressed	Plants (D	01) (LRR		aised Ant Mounds (D6) (LRR A)
_		on Aerial Ir	• • •	_	Other (Exp	olain in Rei	marks)		Fı	rost-Heave Hummocks (D7)
		d Concave	Surface (R8)						
Field Observ		0	\Box	N	1 D	-1>				
Surface Wate				No	- ' `					
Water Table I			es <u> </u>		Depth (ind			_	etland Hydrology	y Present? Yes 🔽 No 🔲
(includes cap	illary fring	e)							s), if available:	, ricosiii: ree <u>==</u>
Remarks: Evidence of	wetland	hydrology	include	soils sat	urated to s	surface, g	jeomorp	hic pos	ition, and a pos	itive FAC-Neutral test.

Project/Site: Easton	City/County: Park	Sampling Date:6/24/2021
Applicant/Owner: MDT		State: Montana Sampling Point: DP06u
Investigator(s): R Quire, S Weyant, J Trilling		
Landform (hillslope, terrace, etc.): Valley bottom	Local relief (concave, co	onvex, none): flat Slope (%):
Subregion (LRR): LRR E	Lat: 46.060724	Long:110.637169
Soil Map Unit Name: 155A: Meadowcreek, rarely flooded-	Nesda complex, 0-2% slopes	NWI classification. Not Mapped.
Are climatic / hydrologic conditions on the site typical for this tir		
Are Vegetation, Soil, or Hydrology sign	ificantly disturbed? Are "N	ormal Circumstances" present? Yes 🗹 No 🗌
Are Vegetation, Soil, or Hydrology natu		
SUMMARY OF FINDINGS - Attach site map sh	owing sampling point lo	cations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No _		
Hydric Soil Present? Yes No _	Is the Sampled A within a Wetland	
Wetland Hydrology Present? Yes No _	within a vvettand	: 163 <u> </u>
Remarks: Upland sample point located in northwest corner of site	Э.	
VEGETATION - Use scientific names of plants	;	
Tues Chushama Dist size (OO Foot Dadius)	Domiant Indicator Species? Status	Dominance Test worksheet
	Species: Status	Number of Dominant Species that are OBL, FACW or FAC: 0 (A)
		Total Number of Dominant Species Across All Strata: 1 (B)
Continue (Characterists Districts (4.5. Foot Doding)		Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
Sapling/Shrub Stratum Plot size (15 Foot Radius)		Prevalence Index worksheet
		Total % Cover of: Multiply by:
		OBL species 0 X 1 0 FACW species 0 X 2 0
		FACW species 0 X 2 0
		FACU species 5 X 4 20
Herbaceous Stratum Plot size (5 Foot Radius)		UPL species 85 X 5 425
Bromus inermis 85	✓ UPL	Column Totals 97 (A) 466 (B)
Cirsium arvense 2	FAC	Prevalence Index = B/A = 4.80412
Poa pratensis 5 Taraxacum officinale 5	FAC FACU	Hydrophytic Vegetation Indicators
Taraxacum omemaic 3	I AGO	1 - Rapid Test for Hydrophytic Vegetation
		2 - Dominance Test is >50%
		3 - Prevalence Index is <= 3.0
		4 - Morphological Adaptations (Provide supporting data in remarks or on separate
		sheet. 5 - Wetland Non-Vascular Plants
		Problematic Hydrophytic Vegetation (Explain)
		Indicators of hydric sil and wetland hydrology must be
Woody Vine Stratum Plot size (30 Foot Radius)		present, unless disturbed or problematic for #3, 4, 5.
Percent Bare Ground 3		Hydrophytic Vegetation Yes □ NO ✓ Present?
Remarks:		
BG/litter=3%. Vegetation is dominated by upland spec	cies.	
US Army Corps of Engineers		Western Mountains, Valleys, and Coasts - Version 2.0

					;	Sampling Point: DP06u
Profile Desc	ription: (Describe	to the depth r	needed to document the indicator or	confirm the a		
Depth	Matrix		Redox Features			B
(inches)	Color (moist)		Color (moist)		exture	Remarks
0-16	10YR 3/3	100		С	lay	
¹ Type: C=Co	ncentration. D=De	pletion. RM=Re	duced Matrix, CS=Covered or Coated S	and Grains.	Location: PL	=Pore Lining, M=Matrix.
			Rs, unless otherwise noted.)			blematic Hydric Soils ³ :
Histosol	(A1)		Sandy Redox (S5)		2 cm Muck (A	10)
_	ipedon (A2)		Stripped Matrix (S6)		Red Parent M	
Black His	stic (A3)		Loamy Mucky Mineral (F1) (except MI	LRA 1)	Very Shallow	Dark Surface (TF12)
Hydrogei	n Sulfide (A4)		Loamy Gleyed Matrix (F2)		Other (Explain	in Remarks)
	l Below Dark Surfa	ce (A11) 🔲	Depleted Matrix (F3)			
_	rk Surface (A12)		Redox Dark Surface (F6)		•	phytic vegetation and
	ucky Mineral (S1)		Depleted Dark Surface (F7)			gy must be present,
	leyed Matrix (S4) ayer (if present):		Redox Depressions (F8)		uniess disturbe	d or problematic.
	I		_			v
Depth (inc	nes):		_	Нус	dric Soil Present?	Yes No _
IVPPOL O	2)/					
IYDROLO(۲c					
wettand myd	lualanu ladiaataua					
Daimana da din	Irology Indicators				Casandan Jadi	atom (O an around arounds)
	ators (minimum of					ators (2 or more required)
Surface \	ators (minimum of Water (A1)		Water-Stained Leaves (B9) (exce	ept	Water-Stain	ed Leaves (B9) (MLRA 1, 2
Surface \ High Wat	ators (minimum of Water (A1) ter Table (A2)		Water-Stained Leaves (B9) (exce	ept	Water-Stain	ed Leaves (B9) (MLRA 1, 2,
Surface \ High Wat Saturatio	ators (minimum of Water (A1) ter Table (A2) in (A3)		Water-Stained Leaves (B9) (excessMLRA 1, 2, 4A, and 4B)Salt Crust (B11)	ept	Water-Stain 4A, and Drainage Pa	ed Leaves (B9) (MLRA 1, 2 , 4B) atterns (B10)
Surface \ High Wat Saturatio Water Ma	ators (minimum of Water (A1) ter Table (A2) in (A3) arks (B1)		 Water-Stained Leaves (B9) (excess MLRA 1, 2, 4A, and 4B) □ Salt Crust (B11) □ Aquatic Invertebrates (B13) 	ept	☐ Water-Stain 4A, and ☐ Drainage Pa	ed Leaves (B9) (MLRA 1, 2 , 4B) atterns (B10) Water Table (C2)
Surface \ High Wat Saturatio Water Ma	ators (minimum of Water (A1) ter Table (A2) in (A3) arks (B1) t Deposits (B2)		Water-Stained Leaves (B9) (exce MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1)		☐ Water-Stain 4A, and ☐ Drainage Pa ☐ Dry-Season ☐ Saturation \	ed Leaves (B9) (MLRA 1, 2 , 4B) attems (B10) Water Table (C2) /isible on Aerial Imagery (C9
Surface \ High Wat Saturatio Water Ma Sedimen Drift Dep	ators (minimum of Water (A1) ter Table (A2) in (A3) arks (B1) t Deposits (B2) osits (B3)		Water-Stained Leaves (B9) (excess MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livi		Water-Stain 4A, and Drainage Pa Dry-Season Saturation \ Geomorphic	ed Leaves (B9) (MLRA 1, 2, 4B) atterns (B10) Water Table (C2) /isible on Aerial Imagery (C9)
Surface N High Wat Saturatio Water Ma Sedimen Drift Dep Algal Ma	ators (minimum of Water (A1) ter Table (A2) in (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4)		Water-Stained Leaves (B9) (excess MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livit Presence of Reduced Iron (C4)	ing Roots (C3	Water-Stain 4A, and □ Drainage Pa □ Dry-Season □ Saturation N □ Geomorphic □ Shallow Aqu	ed Leaves (B9) (MLRA 1, 2, 4B) atterns (B10) Water Table (C2) /isible on Aerial Imagery (C9) c Position (D2) uitard (D3)
Surface N High Wat Saturatio Water Ma Sedimen Drift Dep Algal Ma Iron Deput	ators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5)		Water-Stained Leaves (B9) (excess MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livi Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled St	ing Roots (C3	Water-Stain 4A, and Drainage Pa Dry-Season Saturation N Geomorphic Shallow Aqu FAC-Neutra	ed Leaves (B9) (MLRA 1, 2, 4B) atterns (B10) Water Table (C2) (isible on Aerial Imagery (C9) b Position (D2) uitard (D3) I Test (D5)
Surface N High Wat Saturatio Water Ma Sedimen Drift Dep Algal Ma Iron Depi Surface S	ators (minimum of Water (A1) ter Table (A2) in (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) Soil Cracks (B6)	one required; ch	Water-Stained Leaves (B9) (excession of the National Control of the National C	ing Roots (C3	Water-Stain 4A, and Drainage Pa Dry-Season Saturation N Geomorphic Shallow Aqu FAC-Neutra Raised Ant	ed Leaves (B9) (MLRA 1, 2, 4B) atterns (B10) Water Table (C2) /isible on Aerial Imagery (C9) b Position (D2) uitard (D3) I Test (D5) Mounds (D6) (LRR A)
Surface N High Wat Saturatio Water Ma Sedimen Drift Dep Algal Ma Iron Dep Surface S Inundatio	ators (minimum of Water (A1) ter Table (A2) in (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aerial	one required; ch	Water-Stained Leaves (B9) (excess MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livi Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled St	ing Roots (C3	Water-Stain 4A, and Drainage Pa Dry-Season Saturation N Geomorphic Shallow Aqu FAC-Neutra Raised Ant	ed Leaves (B9) (MLRA 1, 2, 4B) atterns (B10) Water Table (C2) (isible on Aerial Imagery (C9) b Position (D2) uitard (D3) I Test (D5)
Surface N High Wat Saturatio Water Ma Sedimen Drift Dep Algal Ma Iron Depo Surface S Inundatio Sparsely	ators (minimum of Water (A1) ter Table (A2) in (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aerial Vegetated Concav	one required; ch	Water-Stained Leaves (B9) (excession of the National Control of the National C	ing Roots (C3	Water-Stain 4A, and Drainage Pa Dry-Season Saturation N Geomorphic Shallow Aqu FAC-Neutra Raised Ant	ed Leaves (B9) (MLRA 1, 2, 4B) atterns (B10) Water Table (C2) /isible on Aerial Imagery (C9) b Position (D2) uitard (D3) I Test (D5) Mounds (D6) (LRR A)
Surface N High Wat Saturatio Water Ma Sedimen Drift Dep Algal Ma Iron Dep Surface S Inundatio Sparsely Field Observ	ators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aerial Vegetated Concav	one required; ch	Water-Stained Leaves (B9) (excess	ing Roots (C3	Water-Stain 4A, and Drainage Pa Dry-Season Saturation N Geomorphic Shallow Aqu FAC-Neutra Raised Ant	ed Leaves (B9) (MLRA 1, 2, 4B) atterns (B10) Water Table (C2) /isible on Aerial Imagery (C9) b Position (D2) uitard (D3) I Test (D5) Mounds (D6) (LRR A)
Surface N High Wat Saturatio Water Ma Sedimen Drift Dep Algal Ma Iron Depi Surface S Inundatio Sparsely Field Observ Surface Water	ators (minimum of Water (A1) ter Table (A2) in (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aerial Vegetated Concav vations:	Imagery (B7) ve Surface (B8)	Water-Stained Leaves (B9) (excess MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livi Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Scalar Stunted or Stressed Plants (D1) (Other (Explain in Remarks)	ing Roots (C3	Water-Stain 4A, and Drainage Pa Dry-Season Saturation N Geomorphic Shallow Aqu FAC-Neutra Raised Ant	ed Leaves (B9) (MLRA 1, 2, 4B) atterns (B10) Water Table (C2) /isible on Aerial Imagery (C9) b Position (D2) uitard (D3) I Test (D5) Mounds (D6) (LRR A)
Surface N High Wat Saturatio Water Ma Sedimen Drift Dep Algal Mat Iron Depo Surface S Inundatio Sparsely Field Observ Surface Water Table I	ators (minimum of Water (A1) ter Table (A2) in (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aerial Vegetated Concav vations: er Present?	Imagery (B7) ve Surface (B8) Yes No Yes No	Water-Stained Leaves (B9) (excess MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livit Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Statement of Stunted or Stressed Plants (D1) (Other (Explain in Remarks)	ing Roots (C3 oils (C6) LRR A)	Water-Stain 4A, and □ Drainage Pa □ Dry-Season □ Saturation N □ Geomorphia □ Shallow Aqu □ FAC-Neutra □ Raised Ant □ Frost-Heave	ed Leaves (B9) (MLRA 1, 2, 4B) attems (B10) Water Table (C2) /isible on Aerial Imagery (C9) b Position (D2) uitard (D3) I Test (D5) Mounds (D6) (LRR A) Hummocks (D7)
Surface N High Wat Saturatio Water Ma Sedimen Drift Dep Algal Ma Iron Depi Surface S Inundatio Sparsely Field Observ Surface Water Table I Saturation Pr (includes cap	ators (minimum of Water (A1) ter Table (A2) in (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aerial Vegetated Concav vations: er Present? Present? esent? illary fringe)	Imagery (B7) ve Surface (B8) Yes No Yes No	Water-Stained Leaves (B9) (excess MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livi Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Si Stunted or Stressed Plants (D1) (Other (Explain in Remarks) ✓ Depth (inches): ✓ Depth (inches):	ing Roots (C3 oils (C6) LRR A) Wetland H	Water-Stain 4A, and □ Drainage Pa □ Dry-Season □ Saturation N □ Geomorphic □ Shallow Aqu □ FAC-Neutra □ Raised Ant □ Frost-Heave	ed Leaves (B9) (MLRA 1, 2, 4B) attems (B10) Water Table (C2) /isible on Aerial Imagery (C9) b Position (D2) uitard (D3) I Test (D5) Mounds (D6) (LRR A) Hummocks (D7)
Surface N High Wat Saturatio Water Ma Sedimen Drift Dep Algal Ma Iron Depi Surface S Inundatio Sparsely Field Observ Surface Water Table I Saturation Pr (includes cap	ators (minimum of Water (A1) ter Table (A2) in (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aerial Vegetated Concav vations: er Present? Present? esent? illary fringe)	Imagery (B7) ve Surface (B8) Yes No Yes No	Water-Stained Leaves (B9) (excess MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livit Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Statement of Stunted or Stressed Plants (D1) (Other (Explain in Remarks)	ing Roots (C3 oils (C6) LRR A) Wetland H	Water-Stain 4A, and □ Drainage Pa □ Dry-Season □ Saturation N □ Geomorphic □ Shallow Aqu □ FAC-Neutra □ Raised Ant □ Frost-Heave	ed Leaves (B9) (MLRA 1, 2, 4B) attems (B10) Water Table (C2) /isible on Aerial Imagery (C9) b Position (D2) uitard (D3) I Test (D5) Mounds (D6) (LRR A) Hummocks (D7)
Surface N High Wat Saturatio Water Ma Sedimen Drift Dep Algal Ma Iron Depi Surface S Inundatio Sparsely Field Observ Surface Water Table I Saturation Pr (includes cap	ators (minimum of Water (A1) ter Table (A2) in (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aerial Vegetated Concav vations: er Present? Present? esent? illary fringe)	Imagery (B7) ve Surface (B8) Yes No Yes No	Water-Stained Leaves (B9) (excess MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livi Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Si Stunted or Stressed Plants (D1) (Other (Explain in Remarks) ✓ Depth (inches): ✓ Depth (inches):	ing Roots (C3 oils (C6) LRR A) Wetland H	Water-Stain 4A, and □ Drainage Pa □ Dry-Season □ Saturation N □ Geomorphic □ Shallow Aqu □ FAC-Neutra □ Raised Ant □ Frost-Heave	ed Leaves (B9) (MLRA 1, 2, 4B) attems (B10) Water Table (C2) /isible on Aerial Imagery (C9) b Position (D2) uitard (D3) I Test (D5) Mounds (D6) (LRR A) Hummocks (D7)
Surface N High Wat Saturatio Water Ma Sedimen Drift Dep Algal Ma Iron Depi Surface S Inundatio Sparsely Field Observ Surface Water Table I Saturation Pr (includes cap	ators (minimum of Water (A1) ter Table (A2) in (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aerial Vegetated Concav vations: er Present? Present? esent? illary fringe)	Imagery (B7) ve Surface (B8) Yes No Yes No	Water-Stained Leaves (B9) (excess MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livi Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Si Stunted or Stressed Plants (D1) (Other (Explain in Remarks) ✓ Depth (inches): ✓ Depth (inches):	ing Roots (C3 oils (C6) LRR A) Wetland H	Water-Stain 4A, and □ Drainage Pa □ Dry-Season □ Saturation N □ Geomorphic □ Shallow Aqu □ FAC-Neutra □ Raised Ant □ Frost-Heave	ed Leaves (B9) (MLRA 1, 2, 4B) attems (B10) Water Table (C2) /isible on Aerial Imagery (C9) b Position (D2) uitard (D3) I Test (D5) Mounds (D6) (LRR A) Hummocks (D7)
Surface N High Wat Saturatio Water Ma Sedimen Drift Dep Algal Ma Iron Dep Surface S Inundatio Sparsely Field Observ Surface Water Table I Saturation Pr (includes cap Describe Rec	ators (minimum of Water (A1) ter Table (A2) in (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aerial Vegetated Concav vations: er Present? Present? esent? illary fringe)	Imagery (B7) ve Surface (B8) Yes No Yes No Yes No The gauge, monitor	Water-Stained Leaves (B9) (excess MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livi Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Statement (Explain in Remarks) V Depth (inches): Depth (inches): Depth (inches):	ing Roots (C3 oils (C6) LRR A) Wetland H	Water-Stain 4A, and □ Drainage Pa □ Dry-Season □ Saturation N □ Geomorphic □ Shallow Aqu □ FAC-Neutra □ Raised Ant □ Frost-Heave	ed Leaves (B9) (MLRA 1, 2, 4B) attems (B10) Water Table (C2) /isible on Aerial Imagery (C9) b Position (D2) uitard (D3) I Test (D5) Mounds (D6) (LRR A) Hummocks (D7)
Surface N High Wat Saturatio Water Ma Sedimen Drift Dep Algal Ma Iron Dep Surface S Inundatio Sparsely Field Observ Surface Water Water Table I Saturation Pr (includes cap Describe Rec	ators (minimum of Water (A1) ter Table (A2) in (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aerial Vegetated Concaverations: er Present? Present? ersent? ersent? ersent? ersent? ersent? ersent? ersent? ersent? ersent?	Imagery (B7) ve Surface (B8) Yes No Yes No Yes No The gauge, monitor	Water-Stained Leaves (B9) (excess MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livi Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Statement (Explain in Remarks) V Depth (inches): Depth (inches): Depth (inches):	ing Roots (C3 oils (C6) LRR A) Wetland H	Water-Stain 4A, and □ Drainage Pa □ Dry-Season □ Saturation N □ Geomorphic □ Shallow Aqu □ FAC-Neutra □ Raised Ant □ Frost-Heave	ed Leaves (B9) (MLRA 1, 2, 4B) attems (B10) Water Table (C2) /isible on Aerial Imagery (C9) b Position (D2) uitard (D3) I Test (D5) Mounds (D6) (LRR A) Hummocks (D7)
Surface N High Wat Saturatio Water Ma Sedimen Drift Dep Algal Ma Iron Dep Surface S Inundatio Sparsely Field Observ Surface Water Water Table I Saturation Pr (includes cap Describe Rec	ators (minimum of Water (A1) ter Table (A2) in (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aerial Vegetated Concaverations: er Present? Present? ersent? ersent? ersent? ersent? ersent? ersent? ersent? ersent? ersent?	Imagery (B7) ve Surface (B8) Yes No Yes No Yes No The gauge, monitor	Water-Stained Leaves (B9) (excess MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livi Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Statement (Explain in Remarks) V Depth (inches): Depth (inches): Depth (inches):	ing Roots (C3 oils (C6) LRR A) Wetland H	Water-Stain 4A, and □ Drainage Pa □ Dry-Season □ Saturation N □ Geomorphic □ Shallow Aqu □ FAC-Neutra □ Raised Ant □ Frost-Heave	ed Leaves (B9) (MLRA 1, 2, 4B) attems (B10) Water Table (C2) /isible on Aerial Imagery (C9) b Position (D2) uitard (D3) I Test (D5) Mounds (D6) (LRR A) Hummocks (D7)

Project/Site: _Easton	City/County: Park	Sampling Date:6/24/2021
Applicant/Owner: MDT		State: Montana Sampling Point: DP06w
Investigator(s): R Quire, S Weyant, J Trilling		
Landform (hillslope, terrace, etc.): Floodplain	Local relief (concave, co	onvex, none): concave Slope (%):
Subregion (LRR): LRR E	Lat: 46.060661	Long: -110.637257 Datum: NAD 83
Subregion (LRR): LRR E Soil Map Unit Name: 155A: Meadowcreek, rarely floode	ed-Nesda complex, 0-2% slope	s NWI classification:Not Mapped.
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		
	o Is the Sampled A	Aron
	o Is the Sampled A within a Wetland	
Wetland Hydrology Present? Yes <u>✓</u> N Remarks:	0	
PEM riverine wetland.		
VEGETATION - Use scientific names of plan	its	
Tree Stratum Plot size (30 Foot Radius) Absolute % Cover		Dominance Test worksheet
, % Cover	: Species? Status	Number of Dominant Species that are OBL, FACW or FAC: 3 (A)
		Total Number of Dominant Species Across All Strata: 4 (B)
Sapling/Shrub Stratum Plot size (15 Foot Radius)		Percent of Dominant Species That Are OBL, FACW, or FAC: 75 (A/B)
Populus balsamifera 3		Prevalence Index worksheet
Populus tremuloides 5		Total % Cover of: Multiply by:
1 opulus territariotees	17100	OBL species 0 X 1 0 FACW species 0 X 2 0
		FACW species 0 X 2 0 FAC species 75 X 3 225
		FACU species 13 X 4 52
Herbaceous Stratum Plot size (5 Foot Radius)		UPL species 0 X 5 0
Carum carvi 5		Column Totals 88 (A) 277 (B)
Elymus repens 15	FAC	Prevalence Index = B/A = 3.14773
Leymus cinereus 7 Lotus corniculatus 40		Hydrophytic Vegetation Indicators
Phleum pratense 10	FAC	1 - Rapid Test for Hydrophytic Vegetation
Taraxacum officinale 3		✓ 2 - Dominance Test is >50%
		☐ 3 - Prevalence Index is <= 3.0
		4 - Morphological Adaptations (Provide supporting data in remarks or on separate
		sheet.
		☐ 5 - Wetland Non-Vascular Plants
		☐ Problematic Hydrophytic Vegetation (Explain)
Woody Vine Stratum Plot size (30 Foot Radius)		Indicators of hydric sil and wetland hydrology must be present, unless disturbed or problematic for #3, 4, 5.
		Hydrophytic Vegetation Yes ✓ NO
Percent Bare Ground 20		Present?
Remarks: BG/litter=20%. Evidence of hydrophytic vegetation i	ncludes a positive dominance t	est.
US Army Corps of Engineers		Western Mountains, Valleys, and Coasts - Version 2.0

SOIL										Sampling Point: DP06w
Profile Desc	ription: (Descri	be to the dep	th neede	ed to docun	nent the i	ndicator	or cor	nfirm the a	bsence	
Depth	Matri				k Features					
(inches)	Color (moist)			(moist)	%	Type	Loc		xture	Remarks
0-16	10YR 2/2	95	7.5YR	4/6	5	С	PL,M	Sand	y Clay	
										-
	-									
	oncentration, D=[ed San			cation: PL=Pore Lining, M=Matrix.
	Indicators: (App	olicable to all				ed.)				ors for Problematic Hydric Soils ³ :
Histosol			_	dy Redox (S						n Muck (A10)
	oipedon (A2)		_ :	oped Matrix	. ,	\				Parent Material (TF2)
Black Hi	stic (A3) en Sulfide (A4)			my Mucky M my Gleyed N			OT WILK	A 1) .	_	y Shallow Dark Surface (TF12) er (Explain in Remarks)
	d Below Dark Sur	face (A11)		lleted Matrix		,				er (Explain in Remarks)
	ark Surface (A12)			lox Dark Sur					3Indicato	ors of hydrophytic vegetation and
_	lucky Mineral (S1		=	leted Dark S	` ,	7)				nd hydrology must be present,
	Bleyed Matrix (S4		Red	lox Depressi	ions (F8)					s disturbed or problematic.
Restrictive	Layer (if present	:):								
Туре:										
Depth (in	ches):							Hyd	iric Soil	Present? Yes V No No
Remarks:								•		hout the soil profile.
HYDROLO	GY									
_	drology Indicato								_	
	cators (minimum	of one require	d; check a	,						ndary Indicators (2 or more required)
	Water (A1)			Water-Stai			except		W	/ater-Stained Leaves (B9) (MLRA 1, 2,
	iter Table (A2)			1	l, 2, 4A, a	nd 4B)				4A, and 4B)
Saturation			<u> </u>	Salt Crust ((D.10)				rainage Patterns (B10)
	arks (B1)		<u> </u>	Aquatic Inv		, ,				ry-Season Water Table (C2)
	nt Deposits (B2)			Hydrogen		. ,	. 1 % %	D 1 - (O)	_	aturation Visible on Aerial Imagery (C9)
	posits (B3)			Oxidized R	· · ·	_	_	Roots (C3		eomorphic Position (D2)
	at or Crust (B4)		+	Presence o			,	(C6)		hallow Aquitard (D3)
	oosits (B5) Soil Cracks (B6)		-	Recent Iror Stunted or					_	AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A)
	on Visible on Aer	ial Imagen, (R	7)	Other (Exp) (L R	IN A)		rost-Heave Hummocks (D7)
	Vegetated Cond			Other (Exp	iaiii iii i\ci	riai Ko)				rost-fleave fluffillocks (D1)
Field Obser										
Surface Wat		Yes \square	No 🔽	Depth (inc	hes)					
Water Table				Depth (inc						
Saturation P		Yes 🔽		Depth (inc			_	Netland H	vdrology	y Present? Yes 🔽 No 🔲
(includes car	oillary fringe)						— '			,
Describe Re	corded Data (stre	am gauge, m	onitoring	well, aerial p	hotos, pre	evious in	spectio	ns), if avail	able:	
Remarks: Evidence of	wetland hydrol	ogy includes	s soils sa	aturated to	the surfa	ice oxid	dized r	hizosnhei	res on li	ivings roots, and geomorphic
position.		ogy molados	. 55115 36		ano ount	.50, OAK	., <u>.</u>	200pi iCi	30 311 11	go rooto, and goomorpino
-										

Project/Site: Easton	City/County: Park		_ Sampling Date:	6/24/2021
Applicant/Owner: MDT	, ,	State: Montana	Sampling Point:	DP07u
Investigator(s): R Quire, S Weyant, J Trilling	Section, Township, Rang		4N R 9E	
Landform (hillslope, terrace, etc.): Flat	Local relief (concave, con	nvex, none): convex	Slo	pe (%):9
Subregion (LRR): LRR E Lat:	46.060587 լ	.ong:1	I10.639879 _{Datu}	_{m:} NAD 83
Soil Map Unit Name: 155A: Meadowcreek, rarely flooded-Nesda	complex, 0-2% slopes	NWI classifi	ication Not Mappe	ed.
Are climatic / hydrologic conditions on the site typical for this time of ye	ar? Yes 🔽 No 🔼	(If no, explain in	Remarks.)	
Are Vegetation, Soil, or Hydrology significantly	disturbed? Are "No	rmal Circumstances"	present? Yes <u></u>	No
Are Vegetation, Soil, or Hydrology naturally pro	oblematic? (If need	ed, explain any answ	ers in Remarks.)	
SUMMARY OF FINDINGS - Attach site map showing	sampling point lo	ations, transect	s, important fe	eatures, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Yes No W No W	Is the Sampled A		□ No <u>✓</u>	-
Remarks: Upland sample point in southwest corner of site.				
VEGETATION - Use scientific names of plants				
Tree Stratum Plot size (30 Foot Radius) Absolute Domian Species		Dominance Test wo	orksheet	
		Number of Dominanthat are OBL, FACW		1 (A)
		Total Number of Dor Species Across All S		1 (B)
Sapling/Shrub Stratum Plot size (15 Foot Radius)		Percent of Dominant That Are OBL, FAC	t Species N, or FAC:	00 % (A/B)
Sapinigramus stratum 1 lot size (15 1 cot readius)	Ī	Prevalence Index w	vorksheet	
		Total % Cover		ultiply by:
		OBL species FACW species	0 X1 0 X2	0
		FAC species	85 X3	255
District (5, 5, 4) Political		FACU species	0 X4	0
Herbaceous Stratum Plot size (5 Foot Radius)	FAO	UPL species		0
Elymus repens 70 Poa pratensis 15	FAC FAC	Column Totals	85 (A)	255 (B)
1 ou prateriois	17.0	Prevalence Ind	ex = B/A =	3
		Hydrophytic Vegeta		
		·	est for Hydrophytic	Vegetation
			ince Test is >50%	
		✓ 3 - Prevale	nce Index is <= 3.0	
			logical Adaptations data in remarks or	
			d Non-Vascular Pla	nts
		Problemation	c Hydrophytic Vege	etation (Explain)
Woody Vine Stratum Plot size (30 Foot Radius)		Indicators of hydric si present, unless distur		
Percent Bare Ground 15	-	Hydrophytic Vegetation Present?	Yes ☑ NO	
Remarks:	<u>t</u>	-		
BG/litter=15%. Although hydrophytic vegetation was observed supported by wetland hydrology (1987 COE Wetland Delinea		evidence of hydric	; soil developmer	nt and is not
US Army Corps of Engineers		Western Mountains,	Valleys, and Coast	s - Version 2.0

SOIL								S	ampling Point:	DP07u
Profile Desc	ription: (Descri	be to the depth	needed to docu	ment the in	dicator	or confir	m the absenc			
Depth	Matrix			x Features	- 1	. 2	- - .			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	_Loc ²	Texture		Remarks	
0-16	10YR 3/2	100					Sandy Clay	<u>'</u>		
							_			
	-						-	-		
	-						-	-		
	-									
	,						_ ,			
¹ Type: C=Co	ncentration, D=D	epletion, RM=R	educed Matrix, C	S=Covered	or Coate	d Sand G			Pore Lining, M=	
Hydric Soil I	ndicators: (App	licable to all LF	RRs, unless othe	rwise note	d.)		Indica	tors for Pro	olematic Hydric	Soils ³ :
Histosol			Sandy Redox (S5)				m Muck (A1		
	pipedon (A2)	Ĺ	Stripped Matrix	. ,			_	d Parent Ma		
Black Hi	, ,	<u>_</u>	Loamy Mucky		(except	MLRA 1	_	-	ark Surface (TF	12)
	n Sulfide (A4)	<u> </u>	Loamy Gleyed				Ot	her (Explain	in Remarks)	
	l Below Dark Surl irk Surface (A12)	race (A11)	」 Depleted Matri ີ Redox Dark Sເ				³ Indiaa	tore of budro	phytic vegetatior	and
_	lucky Mineral (S1	, 	Depleted Dark	` ,	7)			•	gy must be prese	
	leyed Matrix (S4)	_	Redox Depress	,	,				or problematic.	JIII.,
	ayer (if present		<u></u>	(. 5)						
Depth (ind							Hvdric So	il Present?	Yes	No 🔽
Remarks:										
HYDROLO										
-	Irology Indicator									
		of one required; of	check all that app						ators (2 or more	
	Water (A1)			ined Leave		cept			ed Leaves (B9) (MLRA 1, 2,
_	ter Table (A2)			1, 2, 4A, ar	nd 4B)			4A, and 4	•	
Saturation	. ,		Salt Crust		(5.45)			Drainage Pa	15 15	
	arks (B1)			vertebrates	, ,				Water Table (C2	
	t Deposits (B2)		_ · ·	Sulfide Odd	, ,				isible on Aerial Ir	magery (C9)
	osits (B3)			Rhizosphere	-	-	` ' —	-	Position (D2)	
	t or Crust (B4)			of Reduced on Reductio	, ,	•		Shallow Aqu		
	osits (B5) Soil Cracks (B6)		_	r Stressed F		,	_	FAC-Neutral	Nounds (D6) (LR	D A\
	on Visible on Aeri	al Imageny (B7)		plain in Ren) (LKK)			Hummocks (D7)	
	Vegetated Conc			piaili ili Keli	iai KS)			riusi-neave	Hummocks (D7))
Field Observ		ave canace (Bo	/							
Surface Water		Yes No	✓ Depth (in	ches):						
Water Table		Yes No								
Saturation Pr		Yes No					tland Hydrolo	av Procent?	Voc 🗆	No 🔽
(includes cap	illary fringe)							gy i ieseiil?	163	110
Describe Red	corded Data (stream	am gauge, moni	toring well, aerial	photos, pre	vious insp	ections)	, if available:			
Remarks:										
No evidence	of wetland hyd	irology observe	ed.							

Project/Site: Easton		City	//County: Park			Sampling Da	ate: 6/24/2021
Applicant/Owner: MDT				State:	Montana	 _ Sampling Po	DP07w
Investigator(s): R Quire, S	Weyant, J Trilling						
Landform (hillslope, terrace,	etc.): Floodplain	Lo	cal relief (concave, co	nvex, none)	concave	е	Slope (%): 5
Subregion (LRR): LRR E	La Meadowcreek, rarely flooded-N	t:	46.060497	Long:	-′	110.639935	Datum: NAD 83
Soil Map Unit Name: 155A:	Meadowcreek, rarely flooded-N	esda cor	mplex, 0-2% slopes	N	WI classif	ication:Not Ma	apped.
Are climatic / hydrologic con-	ditions on the site typical for this time	of year?	Yes _ No _	(If no, e	explain in	Remarks.)	
Are Vegetation, Soil _	, or Hydrology signific	cantly dist	turbed? Are "N	ormal Circur	nstances"	present? Yes	s <u></u> No
Are Vegetation, Soil	, or Hydrology natura	ılly proble	matic? (If nee	ded, explain	any answ	ers in Remark	s.)
SUMMARY OF FINDIN	NGS – Attach site map sho	wing sa	ampling point lo	cations, t	ransect	s, importar	nt features, etc.
Hydrophytic Vegetation Pre Hydric Soil Present? Wetland Hydrology Presen	Yes V No		Is the Sampled A		Yes	✓ No □	
Remarks:	nd.		-				
PEM/PSS riverine wetlar	10.						
VEGETATION - Use	scientific names of plants						
	Absolute Do	omiant	Indicator	Dominano	o Tost w	orkehoot	
<u>Tree Stratum</u> Plot size	(30 Foot Radius) % Cover: Sp	pecies?	Status	Number of that are Of	Dominan	t Species	2 (A)
				Total Num Species A			3 (B)
				Percent of			66.7 % (A/B)
Sapling/Shrub Stratum	Plot size (15 Foot Radius)			Prevalence		W, or FAC:	
Rosa woodsii	5	√ F	FACU		l % Cover		Multiply by:
Salix lutea	20	✓ (OBL	OBL speci	es	23 X 1	23
				FACW spe			174
				FAC speci FACU spe		0 X3 5 X4	20
Herbaceous Stratum	Plot size (5 Foot Radius)			UPL speci		-	0
Carex nebrascensis	3	C	BL	Column To	otals	115 (A)	217 (B)
Phalaris arundinacea	87	√ F	ACW	Preva		lex = B/A = 1	
						ation Indicato	
					_		hytic Vegetation
				✓ 2	- Domina	nce Test is >5	50%
				✓ 3	- Prevale	nce Index is <	= 3.0
						logical Adapta data in remark	tions (Provide s or on separate
					heet. - Wetland	d Non-Vascula	r Plants
							Vegetation (Explain
							hydrology must be
Woody Vine Stratum	Plot size (30 Foot Radius)						matic for #3, 4, 5.
Devent Boys Cr	ound 5			Hydrophy Vegetation Present?		Yes 🗹 NO	
Percent Bare Gr Remarks:	ound 5			i iosenti			
	of hydrophytic vegetation include	es a pos	itive dominance tes	t and a pre	evalence	index less th	an or equal to 3.0
LIC Arms Come of Familia				\//oot===	ounteles	Valleye	200to V 2.2
US Army Corps of Enginee	яs ————————————————————————————————————			vvestern M	ountains,	valleys, and C	Coasts - Version 2.0

SOIL										Sa	mpling Point	DP07w
Profile Desc	ription: (Describ	e to the dep	th need	ed to docum	nent the i	ndicato	r or conf	firm the abs	ence o			
Depth	Matrix				<u> Features</u>							
(inches)	Color (moist)	<u> %</u>		r (moist)	%	Type ¹					Remarks	
0-16	10YR 2/2	97	7.5YR	4/6	3	С	PL	Sandy (Clay			
							_					_
							_	_				
												_
1T. max. C=Ca		— ———		d Matrix, CC						stion. DI -	Dana Linina N	A-NA otnisa
	oncentration, D=De Indicators: (Appl						ted Sand				Pore Lining, N lematic Hydr	
Histosol				ıdy Redox (S		,			_	Muck (A10	=	
	pipedon (A2)		$\overline{}$	pped Matrix	•				_	Parent Mat	•	
Black Hi	stic (A3)		Loa	my Mucky M	lineral (F1) (exce	pt MLRA	.1)	Very	Shallow Da	ark Surface (T	TF12)
	n Sulfide (A4)			my Gleyed N)			Othe	(Explain i	n Remarks)	
_ ·	Below Dark Surfa	ace (A11)		leted Matrix				31			la . (' a	· · · · · · · · · · · · · · · · · · ·
	ark Surface (A12) Iucky Mineral (S1)		$\overline{}$	lox Dark Sur bleted Dark S		7)					hytic vegetati y must be pre	
	Gleyed Matrix (S4)			lox Depressi	•	')				-	or problemati	
	_ayer (if present):		_		. ,							
Туре:												
Depth (inc	ches):							Hydrid	Soil F	Present?	Yes	No
Remarks:												
	edoximorphic co			ion along p		90.						
HYDROLO												
_	drology Indicator								_			
	ators (minimum of	one require	d; check	7		··					ors (2 or mor	
	Water (A1)			Water-Stair			except	-) (MLRA 1, 2,
☐ High vva ☐ ☑ Saturatio	ter Table (A2)			1	l, 2, 4A, a	na 4B)				4A, and 4l	•	
	arks (B1)			Salt Crust (Aquatic Inv		(R13)		-	_		erns (B10) Vater Table (0	22)
	nt Deposits (B2)			Hydrogen S				-				I Imagery (C9)
_	oosits (B3)		~	Oxidized R			g Living R	Roots (C3)	_		Position (D2)	
Algal Ma	t or Crust (B4)			Presence o	f Reduce	d Iron (C	24)	_	Sh	allow Aquit	ard (D3)	
Iron Dep	osits (B5)			Recent Iron	n Reductio	n in Till	ed Soils ((C6)	✓ FA	C-Neutral ⁻	Test (D5)	
Surface	Soil Cracks (B6)			Stunted or	Stressed	Plants (D1) (LRR	R A) _	Ra	ised Ant M	ounds (D6) (l	_RR A)
	on Visible on Aeria			Other (Exp	lain in Rer	marks)		-	Fro	st-Heave I	Hummocks (E	07)
	Vegetated Conca	ve Surface (B8)									
Field Observ		, n		.								
Surface Wate				Depth (inc								
Water Table			_	Depth (inc			_				· .	
Saturation Pr (includes cap	oillary fringe)	Yes <u>V</u>		Depth (inc			_ '''	etland Hydi		Present?	Yes <u>V</u>	No
Describe Red	corded Data (strea	m gauge, m	onitoring	well, aerial p	hotos, pre	evious ir	spections	s), if availab	le:			
Remarks:												
	wetland hydrolo	gy includes	saturat	ion within 8	3 inches	of the s	oil surfa	ace, oxidize	ed rhiz	ospheres	on living ro	ots,
	position, and a										J	

Project/Site: Easton	City/County: Park	Sampling Dat	e:6/24/2021
Applicant/Owner: MDT		State: Montana Sampling Poir	nt: DP08u
Investigator(s): R Quire, S Weyant, J Trilling			
Landform (hillslope, terrace, etc.): Mound	_ Local relief (concave, con	ovex, none): convex	Slope (%):18
Subregion (LRR): LRR E Lat:	46.059896 _L	.ong:110.638838 _{Di}	atum: NAD 83
Soil Map Unit Name: 155A: Meadowcreek, rarely flooded-Nesd	a complex, 0-2% slopes	NWI classification: Not Map	pped.
Are climatic / hydrologic conditions on the site typical for this time of $\underline{\mathbf{y}}$	ear? Yes 🔽 No 🔲	(If no, explain in Remarks.)	
Are Vegetation, Soil, or Hydrology significant	y disturbed? Are "No	rmal Circumstances" present? Yes	✓ No
Are Vegetation, Soil, or Hydrology naturally p	roblematic? (If need	ed, explain any answers in Remarks.))
SUMMARY OF FINDINGS - Attach site map showing	g sampling point loc	ations, transects, important	features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Yes No W	Is the Sampled Ar within a Wetland?		
Remarks: Upland sample point on flat above depressional wetland.			
Opiana Sample point of that above depressional wettand.			
VEGETATION - Use scientific names of plants			
Tree Stratum Plot size (30 Foot Radius) Absolute Domia Specie		Dominance Test worksheet	
————— , w cover. Specie		Number of Dominant Species that are OBL, FACW or FAC:	1 (A)
		Total Number of Dominant Species Across All Strata:	1 (B)
Sapling/Shrub Stratum Plot size (15 Foot Radius)		Percent of Dominant Species That Are OBL, FACW, or FAC:	100 % (A/B)
,		Prevalence Index worksheet	
		Total % Cover of: OBL species 0 X 1	Multiply by:
		FACW species 0 X 2	0
		FAC species 45 X 3	135
Herbaceous Stratum Plot size (5 Foot Radius)		FACU species 0 X 4 UPL species 0 X 5	0
Elymus repens 40	FAC	Column Totals 45 (A)	
Poa pratensis 5	FAC		135 (B)
		Prevalence Index = B/A =	3
		Hydrophytic Vegetation Indicators 1 - Rapid Test for Hydrophy	
		✓ 2 - Dominance Test is >509	
		✓ 3 - Prevalence Index is <= 3	3.0
		 4 - Morphological Adaptatic supporting data in remarks 	
		sheet. 5 - Wetland Non-Vascular F	Dianta
		☐ Problematic Hydrophytic Ve	, ,
Woody Vine Stratum Plot size (30 Foot Radius)		Indicators of hydric sil and wetland hy present, unless disturbed or problema	
Percent Bare Ground 55		Hydrophytic Vegetation Yes ✓ NO Present?	
Remarks:	<u>_</u>		
BG/litter=55%. Although hydrophytic vegetation was observ supported by wetland hydrology (1987 COE Wetland Deline		evidence of hydric soil developm	nent and is not
US Army Corps of Engineers		Western Mountains, Valleys, and Co.	asts - Version 2.0

SOIL								;	Sampling Point: _)P08u
Profile Desc	ription: (Descri	be to the depth	needed to docu	ment the in	dicator c	or confir	m the absence			
Depth	Matrix			x Features		. 2				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture		Remarks	
0-13	10YR 3/2	100					Sandy Clay	/		
							-	_		
				-			-	-		
							_			
			educed Matrix, C			d Sand G			=Pore Lining, M=	
Hydric Soil I	ndicators: (App	licable to all LF	RRs, unless othe	rwise note	d.)		Indica	tors for Pro	blematic Hydric	Soils ³ :
Histosol			Sandy Redox (cm Muck (A		
	ipedon (A2)	<u> </u>	Stripped Matrix				_	ed Parent Ma		
Black His	` '	<u>_</u>	Loamy Mucky		-	MLRA 1	_	-	Dark Surface (TF	12)
	n Sulfide (A4) I Below Dark Sur	face (A11)	Loamy Gleyed Depleted Matri				0	iner (Expiain	in Remarks)	
	rk Surface (A12)	lace (ATT)	Redox Dark Su				³ Indica	itors of hydro	ophytic vegetation	and
_	ucky Mineral (S1) 🗀	Depleted Dark	, ,	7)			•	gy must be prese	
	leyed Matrix (S4)	_	Redox Depress	,	,			-	d or problematic.	,
Restrictive L	ayer (if present):								
Туре:										
Depth (inc	:hes):						Hydric Sc	il Present?	Yes	No 🔽
HYDROLO(2V									
	ا و Irology Indicato	re:								
=			check all that app	lv)			Sec	ondanı Indic	ators (2 or more r	equired)
	·	or one required, t			o (BO) (av	raant			•	
	Water (A1) ter Table (A2)			ined Leave		cept		4A, and	ed Leaves (B9) (I	VILKA 1, 2,
Saturatio			Salt Crust		iu 46)				atterns (B10)	
Water Ma				vertebrates	(R13)			-	Water Table (C2	١
	t Deposits (B2)			Sulfide Ode					isible on Aerial Ir	
_	osits (B3)		_ · ·	Rhizosphere	, ,	ivina Ro			Position (D2)	nagery (OS)
	t or Crust (B4)			of Reduced	•	•	` ' —	Shallow Aqu	-	
_ `	osits (B5)			n Reductio	, ,			FAC-Neutra		
	Soil Cracks (B6)		Stunted o	r Stressed F	Plants (D1) (LRR /			Mounds (D6) (LR	R A)
	n Visible on Aeri	al Imagery (B7)		plain in Ren				Frost-Heave	Hummocks (D7)	
Sparsely	Vegetated Conc	ave Surface (B8)							
Field Observ	ations:									
Surface Water	r Present?	Yes No	Depth (in	ches):		_				
Water Table	Present?	Yes No	Depth (in	ches):		_				
Saturation Pr	illary fringe)	Yes No					tland Hydrolo	gy Present	? Yes	No 🔽
Describe Rec	orded Data (stre	am gauge, moni	toring well, aerial	photos, pre	vious insp	ections)	, if available:			
Domortica										
Remarks: No evidence	of wetland hyd	Iroloav observ	ed.							
. 10 OVIGORIO	or would have	Jiogy obscive	-u.							

Project/Site: Easton	Citv/County: Park	Sampling Date:6/24/2021
Applicant/Owner: MDT		State: Montana Sampling Point: DP08w
Investigator(s): R Quire, S Weyant, J Trilling		
Landform (hillslope, terrace, etc.): Floodplain		
Subregion (LRR): LRR E	25641 Teller (56116476; 56	Long: -110.638938 Datum: NAD 83
Soil Map Unit Name: 155A: Meadowcreek, rarely floode	d-Nesda complex, 0-2% slope:	S NIM classification Not Mapped.
Are climatic / hydrologic conditions on the site typical for this		
Are Vegetation, Soil, or Hydrology signature size typical for this		
Are Vegetation, Soil, or Hydrology na		
SUMMARY OF FINDINGS – Attach site map s	howing sampling point lo	cations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes Veg No		
Hydric Soil Present? Yes Ves No	Is the Sampled within a Wetland	
	within a Wetland	7: Tes NO
Remarks: PEM/PSS riverine wetland.		
T LIVIT GO TIVOTITIO WOLLAND.		
VEGETATION - Use scientific names of plant	ts	
Absolute	Domiant Indicator	Dominance Test worksheet
Tree Stratum Plot size (30 Foot Radius) % Cover:	Species? Status	Number of Dominant Species
		Total Number of Dominant Species Across All Strata: 5 (B)
		Percent of Dominant Species That Are OBL, FACW, or FAC: 100 % (A/B)
Sapling/Shrub Stratum Plot size (15 Foot Radius)		Prevalence Index worksheet
Populus balsamifera 3	FAC FAC	Total % Cover of: Multiply by:
Salix bebbiana 5	FACW FACW	OBL species 17 X 1 17
Salix exigua 5 Salix lutea 2	FACW OBL	FACW species 55 X 2 110
Salix lutea 2	UDL	FAC species 8 X 3 24 FACU species 0 X 4 0
Herbaceous Stratum Plot size (5 Foot Radius)		UPL species 0 X5 0
Carex pachystachya 5	FAC	Column Totals 80 (A) 151 (B)
Carex pellita 15	✓ OBL	
Juncus balticus 45	✓ FACW	Prevalence Index = B/A = 1.8875
		Hydrophytic Vegetation Indicators 1 - Rapid Test for Hydrophytic Vegetation
		✓ 2 - Dominance Test is >50%
		✓ 3 - Prevalence Index is <= 3.0
		4 - Morphological Adaptations (Provide supporting data in remarks or on separate
		sheet.
		☐ 5 - Wetland Non-Vascular Plants
		Problematic Hydrophytic Vegetation (Explain)
		Indicators of hydric sil and wetland hydrology must be
Woody Vine Stratum Plot size (30 Foot Radius)		present, unless disturbed or problematic for #3, 4, 5.
		Hydrophytic
		Vegetation Yes ✓ NO
Percent Bare Ground 35 Remarks:		Present?
BG/litter=35%. Evidence of hydrophytic vegetation in	icludes a positive dominance t	est and a prevalence index less than or equal to
3.0.		
US Army Corps of Engineers		Western Mountains, Valleys, and Coasts - Version 2.0

OIL										_	ampling Point	
rofile Descripti	on: (Describe	to the depth	neede	d to docum	nent the i	ndicato	r or con	firm the at	sence			
Depth	Matrix		Calar		K Feature:		12		.4		Damandra	
	Color (moist)	%		(moist)		Type ¹	Loc²		ture		Remarks	
)-8 10	YR 2/2	98 7	.5YR	4/6	2	С	PL	Cla	ay			
3+								Cobl	oles	Cobble	bottom	
							_					
										-		
	ntration D-Dor	alotion PM-	Poducos	Matrix CS			tod Sand		2l oc	nation: DI =	Pore Lining, N	1-Matrix
lydric Soil Indic							ieu Sanc				lematic Hydi	
Histosol (A1)				dy Redox (S		,				n Muck (A1	=	
Histic Epiped		Ī	_	ped Matrix	•			_		Parent Ma		
Black Histic (Ī		ny Mucky V		1) (exce	ot MLRA	\ 1)			ark Surface (1	TF12)
Hydrogen Su		<u> </u>	_	ny Gleyed N	•			´ <u>[</u>			n Remarks) `	,
	ow Dark Surfac	ce (A11) 💄	_	leted Matrix				3.				
Thick Dark S		<u> </u> 	_	ox Dark Sur	, ,	· 7 \		٦			ohytic vegetat	
Sandy Mucky Sandy Gleye		<u> </u>		leted Dark S ox Depressi		7)					y must be pre or problemati	
estrictive Laye			ivedi	ox Depiessi	0113 (1 0)				unics	3 disturbed	or probleman	<u>. </u>
_												
Depth (inches)) :							Hydi	ric Soil	Present?	Yes 🔽	No \square
Remarks:	ximorphic cor	ncentrations	comm	on along p	oore linin	gs.						
Remarks: rominent redox YDROLOGY	·		comm	on along p	oore linin	gs.						
Remarks: Prominent redox YDROLOGY Vetland Hydrolo	ogy Indicators:					gs.					tors (2 or mor	e required)
Remarks: rominent redox YDROLOGY Vetland Hydrolo Inimary Indicators	ogy Indicators: s (minimum of c		check a	all that apply	·)		except		Secon	ndary Indica	tors (2 or mor d Leaves (B9	
Remarks: Prominent redox YDROLOGY Vetland Hydrolo	ogy Indicators: s (minimum of c		check a	all that apply Water-Stair	·)	es (B9) (except		Secon	ndary Indica	d Leaves (B9	
YDROLOGY Vetland Hydrolo rimary Indicators Surface Wate	ogy Indicators: s (minimum of c er (A1) able (A2)		check a	all that apply Water-Stair	r) ned Leave I, 2, 4A , a	es (B9) (except		Secon W	ndary Indica /ater-Staine 4A, and 4	d Leaves (B9	
rominent redox /DROLOGY /etland Hydrolo rimary Indicators Surface Wate High Water T	egy Indicators: s (minimum of cer (A1) able (A2)		check a	all that apply Water-Stain MLRA 1	r) ned Leave I, 2, 4A, a (B11)	es (B9) (except		Secor W	ndary Indica /ater-Staine 4A, and 4 rainage Pat	d Leaves (B9) (MLRA 1,
YDROLOGY Vetland Hydrolo rimary Indicators High Water T Saturation (A	ogy Indicators: s (minimum of cer (A1) able (A2) 3) (B1)		check a	all that apply Water-Stai MLRA 1 Salt Crust (r) ned Leave I, 2, 4A , a (B11) ertebrate	es (B9) (ind 4B) s (B13)	except		Secon W	ndary Indica /ater-Staine 4A, and 4 rainage Pat ry-Season ¹	d Leaves (B9 B) terns (B10)) (MLRA 1,
TOROLOGY Vetland Hydrolorimary Indicators ☐ Surface Wate ☐ High Water T Y Saturation (A ☐ Water Marks ☐ Sediment De ☐ Drift Deposits	egy Indicators: s (minimum of cer (A1) able (A2) 3) (B1) posits (B2) s (B3)		check a	all that apply Water-Stain MLRA 1 Salt Crust (Aquatic Inv Hydrogen S Oxidized R	ned Leave I, 2, 4A , a (B11) rertebrate Sulfide Od hizosphe	es (B9) (and 4B) s (B13) dor (C1) res along	g Living I	Roots (C3)	Secon W	ndary Indica /ater-Staine 4A, and 4 rainage Pat ry-Season V aturation Vi	d Leaves (B9 B) terns (B10) Water Table () (MLRA 1,
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YDROLOGY Vetland Hydrolo Primary Indicators High Water T Saturation (A Water Marks Sediment De Drift Deposits Algal Mat or (egy Indicators: s (minimum of cer (A1) able (A2) 3) (B1) posits (B2) s (B3) Crust (B4)		check a	wall that apply Water-Stain MLRA 1 Salt Crust (Aquatic Inv Hydrogen S Oxidized R Presence c Recent Iror	ned Leave I, 2, 4A , a (B11) rertebrate Sulfide Od hizosphe of Reduce n Reduction	es (B9) (Ind 4B) s (B13) dor (C1) res along d Iron (Con in Till	g Living I C4) ed Soils	(C6)	Secon W D D S V G S V F F	ndary Indica /ater-Staine 4A, and 4 rainage Pat ry-Season Vi aturation Vi eomorphic hallow Aqui AC-Neutral	d Leaves (B9 B) terns (B10) Nater Table (on sible on Aeria Position (D2) tard (D3) Test (D5)	O (MLRA 1,
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PROLOGY Petland Hydrology Surface Water Petland Hydrology Surface Water Petland Hydrology Surface Water Petland Hydrology Iron Deposits Surface Soil (Inundation Vi	egy Indicators: s (minimum of cer (A1) sable (A2) 3) (B1) posits (B2) s (B3) Crust (B4) (B5) Cracks (B6) sible on Aerial	one required;	check a	wall that apply Water-Stain MLRA 1 Salt Crust (Aquatic Inv Hydrogen S Oxidized R Presence c Recent Iror	ned Leave I, 2, 4A, a (B11) rertebrate Sulfide Od hizosphe of Reducte n Reduction	es (B9) (Ind 4B) s (B13) dor (C1) res along d Iron (Con in Till Plants (g Living I C4) ed Soils	(C6)	Secon W D D S S F R	ndary Indica /ater-Staine 4A, and 4 rainage Pat ry-Season v aturation Vi eomorphic hallow Aqui AC-Neutral aised Ant M	d Leaves (B9 B) terns (B10) Nater Table (on sible on Aeria Position (D2) tard (D3) Test (D5)) (MLRA 1, C2) I Imagery (C
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Prominent redox Prominent Prominent Indicators Prominent Ind	egy Indicators: s (minimum of control of con	Imagery (B7) e Surface (B8) /es \(\bigcup \) /es \(\bigcup \) /es \(\bigcup \)	check a	MI that apply Water-Stain MLRA 1 Salt Crust (Aquatic Inv Hydrogen S Oxidized R Presence of Recent Iror Stunted or Other (Exp	ned Leave I, 2, 4A, a (B11) rertebrate Sulfide Od hizosphe of Reduction Stressed lain in Re	es (B9) (Ind 4B) s (B13) dor (C1) res along d Iron (Con in Till Plants (marks)	g Living I C4) ed Soils D1) (LRI	(C6) R A) /etland Hy	Secon W D D D S S S F F F F F F F F F F F F F F	ndary Indica /ater-Staine 4A, and 4 rainage Pat ry-Season vaturation Vi eomorphic hallow Aqui AC-Neutral aised Ant M	d Leaves (B9 B) terns (B10) Water Table (Gosible on Aeria Position (D2) tard (D3) Test (D5)	(MLRA 1, C2) I Imagery (CLRR A) (C7)
Prominent redox Prominent redox Prominent redox Prominent redox Prominent redox Prominent redox Prominent High Water T Prominent Decomposits Prominent Pro	egy Indicators: s (minimum of control of con	Imagery (B7) e Surface (B8) /es \(\bigcup \) /es \(\bigcup \) /es \(\bigcup \)	check a	MI that apply Water-Stain MLRA 1 Salt Crust (Aquatic Inv Hydrogen S Oxidized R Presence of Recent Iror Stunted or Other (Exp	ned Leave I, 2, 4A, a (B11) rertebrate Sulfide Od hizosphe of Reduction Stressed lain in Re	es (B9) (Ind 4B) s (B13) dor (C1) res along d Iron (Con in Till Plants (marks)	g Living I C4) ed Soils D1) (LRI	(C6) R A) /etland Hy	Secon W D D D S S S F F F F F F F F F F F F F F	ndary Indica /ater-Staine 4A, and 4 rainage Pat ry-Season vaturation Vi eomorphic hallow Aqui AC-Neutral aised Ant M	d Leaves (B9 B) terns (B10) Water Table (I sible on Aeria Position (D2) tard (D3) Test (D5) lounds (D6) (I Hummocks (E	(MLRA 1, C2) I Imagery (CLRR A) (C7)
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Prominent redox Prominent Prominery Indicators Pr	egy Indicators: s (minimum of cer (A1) able (A2) 3) (B1) posits (B2) s (B3) Crust (B4) (B5) Cracks (B6) sible on Aerial letated Concavins: esent? ent? y fringe) ed Data (stream	Imagery (B7) e Surface (B6 /es No /es No /es No n gauge, mon	check a	Water-Stain MLRA 1 Salt Crust (Aquatic Inv Hydrogen S Oxidized R Presence of Recent Iror Stunted or Other (Exp	ned Leave 1, 2, 4A, a (B11) rertebrate Sulfide Oc hizosphe of Reduce n Reduction Stressed lain in Re ches): ches):	es (B9) (and 4B) s (B13) dor (C1) res alone d Iron (Con in Till Plants (marks)	g Living I C4) ed Soils D1) (LRI 0 w	(C6) R A) //etland Hy	Secon W D S F R F drology	ndary Indica /ater-Staine 4A, and 4 rainage Pat ry-Season V aturation Vi eomorphic hallow Aqui AC-Neutral aised Ant N rost-Heave	d Leaves (B9 B) terns (B10) Nater Table (in sible on Aeria Position (D2) tard (D3) Test (D5) Hounds (D6) (In Hummocks (E) Yes	(MLRA 1, C2) I Imagery (C
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Applicant/Owner, MDT	Project/Site: Easton	City/County: Park	Sampling Date:6/24/2021
Investigator(s): R Quitre, S Weyant, J Trilling		, ,	State: Montana Sampling Point: DP09u
Landorm (hillslope, lerrace, etc.) Bench Lott Latt L46 (059265 Long; -110.64037 Datum NAD 83 Subregion (LRR), LRR E Latt 46 (059265 Long; -110.64037 Datum NAD 83 Subregion (LRR), LRR E Latt 46 (059265 Long; -110.64037 Datum NAD 83 Are Vegetation Sol or Hydrologic conditions on the site bytical for this time of year? Ves No (if no, explain in Remarks.) Are Vegetation Sol or Hydrology significantly disturbed? Are Normal Circumstances' present? Ves No Hydrophytic Vegetation Present? Ves No Hydrophytic Vegetation Present? Ves No Hydrophytic Vegetation Present? Ves No Weitland Hydrology Present? Ve		Section, Township, Rai	
Subregion (LRR)-LRRE Lat 46.059255 Long -110.640357 Datum NAD 83 Soil Map Unit Name: 155A: Meadowcreek, rarely flooded-Nesda complex, 0-2% slopes NM classification, Not Mapped. Are Vegetation			
Soil Map Unit Name: 155A: Meadowcreek, rarely flooded-Nesda complex, Q-2% slopes NWI classification, Not Mapped. Are climatic hydrologic conditions on the site typical for this time of year? Yes	Subregion (LRR): LRR E	46.059265	Long: -110.640357 Datum: NAD 83
Are climatic / hydrologic conditions on the site typical for this time of year? Yes	Soil Map Unit Name: 155A: Meadowcreek, rarely flooded-Nesda	complex, 0-2% slope	es NWI classification: Not Mapped.
Are Vegetation	· · · · · · · · · · · · · · · · · · ·		
Are Vegetation			
SUMMARY OF FINDINGS — Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Yes			
Hydroc Soil Present? Yes			
Wetland Hydrology Present? Yes	Hydrophytic Vegetation Present? Yes No		
VEGETATION - Use scientific names of plants Domiant Indicator Status Domiant Species Status Sapiling/Shrub Stratum Plot size (30 Foot Radius) Absolute Domiant Species Status Sapiling/Shrub Stratum Plot size (15 Foot Radius) Sapiling/Shrub Stratum Plot size (15 Foot Radius) Prevalence Index worksheet Number of Domiant Species Namber of Domiant	Hydric Soil Present? Yes No		
Upland sample point along south project boundary. VEGETATION - Use scientific names of plants		within a vvetian	u: les <u> </u>
Tree Stratum	5 Store 4 Store 5 Store 5		
Tree Stratum			
Sapting/Shrub Stratum Plot size (30 Foot Radius) % Cover: Species? Status Sapting/Shrub Stratum Plot size (15 Foot Radius)	VEGETATION - Use scientific names of plants		
Sapling/Shrub Stratum Plot size (15 Foot Radius) Foot Radius Faculty of Facult	Total Otto Access Districts (OO Fact Destina)		Dominance Test worksheet
Sapling/Shrub Stratum Plot size (15 Foot Radius) Herbaceous Stratum Plot size (5 Foot Radius) Bromus inermis Taraxacum officinale Prevalence Index worksheet Total % Cover of: Multiply by: OBL species 0 X 1 0 FACW species 0 X 2 0 FAC species 0 X 3 0 FAC species 1 X 4 4 UPL species 95 X 5 475 Column Totals 96 (A) 479 (B) Prevalence Index = BIA = 4.98958 Hydrophytic Vegetation Indicators 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index = BIA = 4.98958 Hydrophytic Vegetation Indicators 4 - Morphological Adaptations (Provide supporting data in remarks or on separate sheet. 5 - Wetland Non-Vascular Plants problematic Hydrophytic Vegetation (Explain) Indicators of hydric sil and wetland hydrology must be present, unless disturbed or problematic for #3, 4, 5. Hydrophytic Vegetation Yes No Vegetation Present?	2 The Cover Species	s? Status	
That Are OBL, FACW, or FAC: 9 % (WB)			
Prevalence Index worksheet Total % Cover of: Multiply by: OBL species 0 x1 0 FACW species 0 x2 0 FACW species 0 x3 0 FACW species 0 x3 0 FACW species 1 x4 4 FACW FACW species 1 x4 4 FACW FACW species 1 x4 4 FACW	Sanling/Shruh Stratum Diet size // F Feet Dedius)		
Herbaceous Stratum	Sapinigistrub Stratum Flot size (15 Flot Nadius)		Prevalence Index worksheet
Herbaceous Stratum Plot size (5 Foot Radius) Bromus inermis			
Herbaceous Stratum Plot size (5 Foot Radius) Bromus inermis 95			
Herbaceous Stratum Plot size (5 Foot Radius) FACU species 1 X 4 4 UPL species 95 X 5 475 Column Totals 96 (A) 479 (B) Prevalence Index = B/A = 4.98958 Hydrophytic Vegetation Indicators 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is <= 3.0 4 - Morphological Adaptations (Provide supporting data in remarks or on separate sheet. 5 - Wetland Non-Vascular Plants Problematic Hydrophytic Vegetation (Explain); Indicators of hydric sil and wetland hydrology must be present, unless disturbed or problematic for #3, 4, 5. Hydrophytic Vegetation Yes NO Present? Percent Bare Ground 4 Present? Present?			
Bromus inermis 95			
Taraxacum officinale 1 FACU Prevalence Index = B/A = 4.98958 Hydrophytic Vegetation Indicators 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is <= 3.0 4 - Morphological Adaptations (Provide supporting data in remarks or on separate sheet. 5 - Wetland Non-Vascular Plants Problematic Hydrophytic Vegetation (Explain) Indicators of hydric sil and wetland hydrology must be present, unless disturbed or problematic for #3, 4, 5. Hydrophytic Vegetation Percent Bare Ground 4 Remarks: BG/litter=4%. Vegetation is dominated by upland species.	<u>Herbaceous Stratum</u> Plot size (5 Foot Radius)		UPL species 95 X 5 475
Prevalence Index = B/A = 4.98958 Hydrophytic Vegetation Indicators	Bromus inermis 95	UPL	Column Totals 96 (A) 479 (B)
Hydrophytic Vegetation Indicators 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is <= 3.0 4 - Morphological Adaptations (Provide supporting data in remarks or on separate sheet. 5 - Wetland Non-Vascular Plants Problematic Hydrophytic Vegetation (Explain) Indicators of hydric sil and wetland hydrology must be present, unless disturbed or problematic for #3, 4, 5. Hydrophytic Vegetation Yes NO NO NO NO NO NO NO N	Taraxacum officinale 1	FACU	Prevalence Index = B/A = 4.98958
2 - Dominance Test is >50% 3 - Prevalence Index is <= 3.0 4 - Morphological Adaptations (Provide supporting data in remarks or on separate sheet. 5 - Wetland Non-Vascular Plants Problematic Hydrophytic Vegetation (Explain) Indicators of hydric sil and wetland hydrology must be present, unless disturbed or problematic for #3, 4, 5. Hydrophytic Vegetation Yes NO ✓ Percent Bare Ground 4 Remarks: BG/litter=4%. Vegetation is dominated by upland species.			
3 - Prevalence Index is <= 3.0 4 - Morphological Adaptations (Provide supporting data in remarks or on separate sheet. 5 - Wetland Non-Vascular Plants Problematic Hydrophytic Vegetation (Explain) Indicators of hydric sil and wetland hydrology must be present, unless disturbed or problematic for #3, 4, 5. Hydrophytic Vegetation Yes No			1 - Rapid Test for Hydrophytic Vegetation
4 - Morphological Adaptations (Provide supporting data in remarks or on separate sheet. 5 - Wetland Non-Vascular Plants Problematic Hydrophytic Vegetation (Explain)			2 - Dominance Test is >50%
supporting data in remarks or on separate sheet. 5 - Wetland Non-Vascular Plants			☐ 3 - Prevalence Index is <= 3.0
Woody Vine Stratum Plot size (30 Foot Radius) Percent Bare Ground 4 Remarks: BG/litter=4%. Vegetation is dominated by upland species. 5 - Wetland Non-Vascular Plants			supporting data in remarks or on separate
Woody Vine Stratum Plot size (30 Foot Radius) Percent Bare Ground 4 Remarks: BG/litter=4%. Vegetation is dominated by upland species. Indicators of hydric sil and wetland hydrology must be present, unless disturbed or problematic for #3, 4, 5. Hydrophytic Vegetation Yes NO Present?			
Plot size (30 Foot Radius) Present, unless disturbed or problematic for #3, 4, 5. Hydrophytic Vegetation Present? Remarks: BG/litter=4%. Vegetation is dominated by upland species.			Problematic Hydrophytic Vegetation (Explain
Percent Bare Ground 4 Remarks: BG/litter=4%. Vegetation is dominated by upland species.	Woody Vine Stratum Plot size (30 Foot Radius)		
Remarks: BG/litter=4%. Vegetation is dominated by upland species.	Porcent Para Crawad 4		Vegetation Yes □ NO ✓
BG/litter=4%. Vegetation is dominated by upland species.			1
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	US Army Corps of Engineers		Western Mountains, Valleys, and Coasts - Version 2.0

SOIL								S	ampling Point: _	DP09u
Profile Desc	ription: (Describe	to the depth n	eeded to docum	ent the in	ndicator o	or confirm	n the abser			
Depth	Matrix		Redox	Features						
(inches)	Color (moist)	%(Color (moist)	%	Type ¹	_Loc ² _	Texture	<u> </u>	Remarks	
0-16	10YR 3/2	100					Clay			
							-			
Type: C=Co	oncentration, D=Dep	letion RM=Rec	duced Matrix CS	 -Covered	or Coate	d Sand Gi	rains ²	 2Location: PL =	Pore Lining, M=	Matrix
	Indicators: (Applic					<u> </u>			olematic Hydric	
Histosol			Sandy Redox (S		•			2 cm Muck (A1	=	
_	pipedon (A2)		Stripped Matrix	•				Red Parent Ma	•	
Black Hi			Loamy Mucky M) (except	MLRA 1)	_		ark Surface (TF	12)
Hydroge	n Sulfide (A4)		Loamy Gleyed N	/latrix (F2)				Other (Explain	in Remarks)	
	d Below Dark Surfac	ce (A11)	Depleted Matrix							
_	ark Surface (A12)		Redox Dark Sur	, ,				-	ohytic vegetatior	
	lucky Mineral (S1)		Depleted Dark S		7)				y must be prese	ent,
	Sleyed Matrix (S4)		Redox Depressi	ons (F8)			ur	nless disturbed	or problematic.	
	_ayer (if present):									
Type:			-							
Depth (inc	ches):		_				Hydric S	Soil Present?	Yes	No <u>V</u>
Remarks:										
No evidence	e of hydric soil inc	licators observ	ved.							
HYDROLO	GY									
Wetland Hvo	drology Indicators:									
_	ators (minimum of		eck all that annly)			Se	condary Indica	itors (2 or more	required)
		one required, cir			s (B0) (a)	roont		,	,	
	Water (A1)		Water-Stair			ссері			d Leaves (B9) (WILKA I, Z,
Saturatio	ter Table (A2)			, 2, 4A, ar	Iu 4Б)			4A, and 4 Drainage Pat	•	
			Salt Crust (Aquatic Inv		(D12)				Water Table (C2	
	arks (B1) nt Deposits (B2)		Hydrogen S				十		sible on Aerial Ir	
_	oosits (B3)		Oxidized R			ivina Boo	tc (C3)	=	Position (D2)	nagery (C9)
	it or Crust (B4)		Presence o	-	_	-		Shallow Aqui	` '	
	osits (B5)		Recent Iron				,, <u> </u>	FAC-Neutral		
	Soil Cracks (B6)		Stunted or			-	_	_	founds (D6) (LR	PR A)
	on Visible on Aerial	Imagen/ (B7)	Other (Expl		•	i) (LIXIX A	, <u> </u>	_	Hummocks (D7)	
_	Vegetated Concav	,	Other (Expi	alli ili ixeli	ilai K3)			_ 1 103t-11eave	Tidilililocks (D7)	,
Field Observ		C Garrage (BO)								
Surface Wate		es No	Depth (inc	hoa):						
Water Table		′es No _	Depth (inc						,	
Saturation Pr (includes cap		′es _L No _	✓ Depth (inc	hes):		_ Weti	and Hydrol	logy Present?	Yes	No <u> </u>
	corded Data (stream	n gauge, monito	ring well, aerial p	hotos, pre	vious insp	pections),	if available:			
	,	-		•		,,				
Remarks:										
	of wetland hydro	ology observed	d.							
	•									

Project/Site: _Easton	City/County: Park	Sampling Date: 6/24/2021
Applicant/Owner: MDT		State: Montana Sampling Point: DP09w
Investigator(s): R Quire, S Weyant, J Trilling		
Landform (hillslope, terrace, etc.): depression		
Subregion (LRR): LRR E	Lat: 46.059163	Long: -110.639871 Datum: NAD 83
Soil Map Unit Name: 155A: Meadowcreek, rarely floode	ed-Nesda complex, 0-2% slope	s NWI classification:Not Mapped.
Are climatic / hydrologic conditions on the site typical for this		
Are Vegetation, Soil, or Hydrology s		
Are Vegetation, Soil, or Hydrology n		
SUMMARY OF FINDINGS - Attach site map	showing sampling point lo	cations, transects, important features, etc.
Hydric Soil Present? Yes V	Is the Sampled within a Wetland	
Remarks:		
PEM riverine wetland.		
VEGETATION - Use scientific names of plan	te	
Absolute	Domiant Indicator	Dominance Test worksheet
Tree Stratum Plot size (30 Foot Radius) % Cover:	Species? Status	Number of Dominant Species that are OBL, FACW or FAC: 2 (A)
		Total Number of Dominant Species Across All Strata: 2 (B)
		Percent of Dominant Species That Are OBL, FACW, or FAC: 100 % (A/B)
Sapling/Shrub Stratum Plot size (15 Foot Radius)		Prevalence Index worksheet
		Total % Cover of: Multiply by:
		OBL species 5 X 1 5
		FACW species 23 X 2 46
		FAC species 32 X 3 96 FACU species 10 X 4 40
Herbaceous Stratum Plot size (5 Foot Radius)		UPL species 0 X5 0
Carex pellita 5	OBL	Column Totals 70 (A) 187 (B)
Juncus balticus 20	✓ FACW	
Lotus corniculatus 25	✓ FAC	Prevalence Index = B/A = 2.67143
Poa palustris 7	FAC	Hydrophytic Vegetation Indicators 1 - Rapid Test for Hydrophytic Vegetation
Solidago gigantea 3	FACW	2 - Dominance Test is >50%
Taraxacum officinale 10	FACU	✓ 3 - Prevalence Index is <= 3.0
		4 - Morphological Adaptations (Provide supporting data in remarks or on separate sheet.
		5 - Wetland Non-Vascular Plants
		Problematic Hydrophytic Vegetation (Explain)
Woody Vine Stratum Plot size (30 Foot Radius)		Indicators of hydric sil and wetland hydrology must be present, unless disturbed or problematic for #3, 4, 5.
Percent Bare Ground 30		Hydrophytic Vegetation Present? NO □
Remarks:		1
BG/litter=30%. Evidence of hydrophytic vegetation i	ncludes a positive dominance to	est and a prevalence index less than or equal to
3.0.		
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SOIL											Sampling Point: DP09W	
Profile Desc	ription: (Describe	to the de	pth neede	d to docui	ment the in	dicato	r or cor	nfirm the	absence	of indicators.)	
Depth		Matrix				x Features					,	
(inches)	Color	(moist)	%	Color	(moist)	%	Type ¹	Loc	² T	exture	Remarks	
0-7	10YR	2/2	95	7.5YR	4/6	5	С	M	(Clay		
7+									Co	bbles	Cobble bottom	
<i>i</i> .									00	65100	CODDIE DOLLOIN	
				_								
	-											
¹ Type: C=Co								ted San	d Grains.		cation: PL=Pore Lining, M=Matrix.	
Hydric Soil		: (Applic	able to al	l LRRs, u	nless othe	rwise note	d.)			Indicato	ors for Problematic Hydric Soils ³ :	
Histosol				_	dy Redox (,					m Muck (A10)	
	oipedon (A	2)		$\overline{}$	ped Matrix		. ,			_	Parent Material (TF2)	
Black Hi	stic (A3) en Sulfide (ΛΛ)			-	Mineral (F1) Matrix (F2)	(excel	pt MLR	A 1)		y Shallow Dark Surface (TF12) er (Explain in Remarks)	
	d Below Da		e (A11)		leted Matri						ei (Expiaiii iii Keiliaiks)	
	ark Surface		0 (/ (/ 1)		ox Dark Su					3Indicato	ors of hydrophytic vegetation and	
_	lucky Mine			$\overline{}$		Surface (F7	')				and hydrology must be present,	
	Sleyed Mat	, ,		Red	ox Depress	sions (F8)				unles	ss disturbed or problematic.	
Restrictive I	Layer (if p	resent):										
Type:												
Depth (inc	ches):								Ну	dric Soil	Present? Yes No	
Remarks:												
Prominent r	edoximor	phic con	centratio	ns comm	on within	the matrix						
HYDROLO	GY											
Wetland Hyd		dicators:										
Primary Indic				ed: check a	all that appl	v)				Secor	ndary Indicators (2 or more required)	
	Water (A1		no roquire	on one	1	ined Leave:	s (R9) (evcent			Vater-Stained Leaves (B9) (MLRA 1, 2,	
_	iter Table (,				1, 2, 4A, ar		except			4A, and 4B)	
Saturation		(112)			Salt Crust		IG 7D,		Drainage Patterns (B10)			
_	arks (B1)			Ŧ		vertebrates	(B13)		Dry-Season Water Table (C2)			
	nt Deposits	(B2)				Sulfide Odd					aturation Visible on Aerial Imagery (C9)	
	osits (B3)					Rhizosphere		Living	Roots (C	_	Geomorphic Position (D2)	
	at or Crust					of Reduced			,	· —	hallow Aquitard (D3)	
	osits (B5)	,				n Reductio			(C6)		AC-Neutral Test (D5)	
Surface	Soil Crack	s (B6)			Stunted or	Stressed F	Plants (I	D1) (LR	RA)	R	aised Ant Mounds (D6) (LRR A)	
Inundation	on Visible	on Aerial I	magery (E	37)	Other (Exp	olain in Ren	narks)			F	rost-Heave Hummocks (D7)	
Sparsely	/ Vegetate	d Concave	Surface	(B8)								
Field Observ	vations:											
Surface Wate	er Present	? Y	es	No	Depth (in	ches):						
Water Table	Present?	Υ	es	No	Depth (in	ches):						
Saturation Pr	resent?	Υ	es 🔽	No	Depth (in	ches):		<u>0</u> v	Wetland H	- lydrolog	y Present? Yes <u>V</u> No	
(includes cap												
Describe Red	corded Dat	ıa (stream	gauge, m	onitoring	weii, aerial	pnotos, pre	vious in	spectio	ns), if ava	ıııable:		
D												
Remarks:	wetland	hydrolog	v include	e enile en	aturated to	the curfor	re der	amarah	nic nositi	on and	a positive FAC-Neutral test.	
FAIGELINE OI	welland	ryarolog	y ii iciuu e	J JUNG 30	iiuiai c u iu	and Sulid	oc, get	omorpi	no positi	on, and i	a positivo i Ao-Neutiai lest.	

Project/Site: Easton	City/County: Park	Sampling Date:6/24/2021
Applicant/Owner: MDT		State: Montana Sampling Point: DP10u
Investigator(s): R Quire, S Weyant, J Trilling		
Landform (hillslope, terrace, etc.): berm		
Subregion (LRR): LRR E Lat: _	46.057875 _L	_ong:110.63936
Soil Map Unit Name: 155A: Meadowcreek, rarely flooded-Nes	da complex, 0-2% slopes	NWI classification:Not Mapped.
Are climatic / hydrologic conditions on the site typical for this time of		
Are Vegetation, Soil, or Hydrology significar		
Are Vegetation, Soil, or Hydrology naturally		
SUMMARY OF FINDINGS – Attach site map showi		
Hydrophytic Vegetation Present? Yes ✓ No Hydric Soil Present? Yes ✓ Wetland Hydrology Present? Yes No	Is the Sampled A	
Remarks: Upland sample point located on berm along excavated floo	dalain channol	
Opiana sample point located on berni along excavated 1100	upiairi criarinei.	
VEGETATION - Use scientific names of plants		
To 2 Otraction Dietains (00 Feet Bedian) Absolute Domi	iant Indicator	Dominance Test worksheet
Tree Stratum Plot size (30 Foot Radius) % Cover: Spec	cies? Status	Number of Dominant Species that are OBL, FACW or FAC: 3 (A)
		Total Number of Dominant Species Across All Strata: 3 (B)
Sapling/Shrub Stratum Plot size (15 Foot Radius)		Percent of Dominant Species That Are OBL, FACW, or FAC: 100 % (A/B)
Sapinigistirub Stratum Piot size (13 Poot Naulus)		Prevalence Index worksheet
		Total % Cover of: Multiply by:
		OBL species 0 X 1 0 FACW species 0 X 2 0
		FAC species 95 X3 285
		FACU species 0 X 4 0
Herbaceous Stratum Plot size (5 Foot Radius)		UPL species 0 X 5 0
Elymus repens 40		Column Totals 95 (A) 285 (B)
Elymus trachycaulus 35	FAC	Prevalence Index = B/A = 3
Equisetum arvense 1 ☐ Poa pratensis 19 ✓	FAC FAC	Hydrophytic Vegetation Indicators
Foa praterisis	<u> </u>	1 - Rapid Test for Hydrophytic Vegetation
		✓ 2 - Dominance Test is >50%
		✓ 3 - Prevalence Index is <= 3.0
		 4 - Morphological Adaptations (Provide supporting data in remarks or on separate
		sheet.
		☐ Problematic Hydrophytic Vegetation (Explain)
Woody Vine Stratum Plot size (30 Foot Radius)		Indicators of hydric sil and wetland hydrology must be present, unless disturbed or problematic for #3, 4, 5.
Percent Bare Ground 5	Ī	Hydrophytic Vegetation Yes ✓ NO □ Present?
Remarks:		
BG/litter=5%. Although hydrophytic vegetation was observed supported by wetland hydrology (1987 COE Wetland Delin		evidence of hydric soil development and is not
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SOIL								S	Sampling Point:)P10u
Profile Desc	ription: (Describe	to the depth	needed to docun	nent the in	dicator	or confirn	n the absend			
Depth	Matrix			x Features	_ 1	. 2				
(inches)	Color (moist)	%	Color (moist)	%	Type'	_Loc ²	<u>Texture</u>		Remarks	
0-16	10YR 2/2	100					Clay			
-										
								_		
								_		
	-									
¹ Type: C=Co	oncentration, D=Dep	letion RM=R	educed Matrix CS	=Covered	or Coate	d Sand G	rains ² I	ocation: PI =	=Pore Lining, M=	
	Indicators: (Applic								blematic Hydric	
Histosol			Sandy Redox (S		•			cm Muck (A1	-	
_	pipedon (A2)		Stripped Matrix	•				ed Parent Ma		
Black Hi			Loamy Mucky M		(except	: MLRA 1)			Dark Surface (TF	12)
	n Sulfide (A4)		Loamy Gleyed I			,		ther (Explain		,
Depleted	d Below Dark Surfac	e (A11)	Depleted Matrix	(F3)						
Thick Da	ark Surface (A12)		Redox Dark Sur	face (F6)			³ Indica	ators of hydro	phytic vegetation	ı and
Sandy M	lucky Mineral (S1)		Depleted Dark S	Surface (F7	')		we	tland hydrolo	gy must be prese	∍nt,
	Bleyed Matrix (S4)		Redox Depress	ions (F8)			unl	ess disturbed	d or problematic.	
Restrictive I	_ayer (if present):									
Туре:			_							
Depth (inc	ches):		_				Hydric So	oil Present?	Yes	No <u> </u>
Remarks:										
No evidence	e of hydric soil ind	icators obse	rved.							
	CV									
HYDROLO										
	drology Indicators:		بالمسمع فمحاف المريام ما	.\			Coo	منامس اسمانت	-1 (0	· · · · · · · ·
	ators (minimum of o	ne requirea; c		-			<u>Sec</u>		ators (2 or more i	
	Water (A1)		Water-Stai			xcept		Water-Stain	ed Leaves (B9) (MLRA 1, 2,
	ter Table (A2)			I, 2, 4A, ar	nd 4B)			4A, and	•	
Saturatio	on (A3)		Salt Crust				닏	Drainage Pa		
│ <u>│</u> Water M	arks (B1)		Aquatic Inv				닏	-	Water Table (C2	
Sedimer	nt Deposits (B2)		Hydrogen \$				ᆜ	Saturation V	ïsible on Aerial Ir	nagery (C9)
Drift Dep	oosits (B3)		Oxidized R	hizosphere	es along l	Living Roc	ots (C3)	Geomorphic	Position (D2)	
🔲 Algal Ma	t or Crust (B4)		Presence o	of Reduced	Iron (C4)		Shallow Aqu	itard (D3)	
Iron Dep	osits (B5)		Recent Iro	n Reductio	n in Tilled	d Soils (C6	S)	FAC-Neutra	l Test (D5)	
Surface	Soil Cracks (B6)		Stunted or	Stressed F	Plants (D	1) (LRR A)	Raised Ant I	Mounds (D6) (LR	.R A)
Inundation	on Visible on Aerial I	magery (B7)	Other (Exp	lain in Rem	narks)			Frost-Heave	Hummocks (D7))
Sparsely	Vegetated Concave	e Surface (B8)	1							
Field Observ	vations:									
Surface Wate	er Present? Y	es 🔲 No	Depth (inc	hes):		_				
Water Table	Present? Y	es No	_							
							and Hydrolo	nav Present?	Yes	No <u> </u>
(includes cap		C3 140	Deput (inc			_ '''	una riyaroro	yy i icaciit.	103	NO <u>==</u>
Describe Red	corded Data (stream	gauge, monit	oring well, aerial p	hotos, pre	vious ins	pections),	if available:			
Remarks:										
Soils moist.	No evidence of w	etland hydro	logy observed.							

Project/Site: Easton	City/County: Park	Sampling Date: 6/24/2021
Applicant/Owner: MDT	, , ,	State: Montana Sampling Point: DP10w
Investigator(s): R Quire, S Weyant, J Trilling		
Landform (hillslope, terrace, etc.): Flat		
Landform (milistope, terrace, etc.): 1 lat	Local relief (concave, c	-110 630585 - NAD 83
Subregion (LRR): LRR E	Needs complex 0.2% close	Long: -110.639585 Datum: NAD 83
Soil Map Unit Name: 155A: Meadowcreek, rarely flooded-		
Are climatic / hydrologic conditions on the site typical for this tir		
Are Vegetation, Soil, or Hydrology sign	ificantly disturbed? Are "N	Normal Circumstances" present? Yes 🗹 No 🔲
Are Vegetation, Soil, or Hydrology natu	urally problematic? (If nee	eded, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map sh	owing sampling point lo	cations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No _		Aron
Hydric Soil Present? Yes V No	Is the Sampled within a Wetland	
Wetland Hydrology Present? Yes V No		
Remarks: PSS riverine wetland.		
1 00 Hverme wettand.		
VECETATION Lies esigntific names of plants		
VEGETATION - Use scientific names of plants Absolute	Domiant Indicator	T
Tree Charteres Diet size (00 Foot Doding)	Species? Status	Dominance Test worksheet
		Number of Dominant Species that are OBL, FACW or FAC: 3 (A)
		Total Number of Dominant
		Species Across All Strata: 3 (B)
		Percent of Dominant Species 100 % (A/P)
Sapling/Shrub Stratum Plot size (15 Foot Radius)		That Are OBL, FACW, or FAC: 100 % (A/B)
Populus balsamifera 25	✓ FAC	Prevalence Index worksheet
Salix bebbiana 3	FACW	Total % Cover of: Multiply by:
Salix exigua 1	FACW	OBL species 32 X 1 32
Salix lutea 6	OBL	FACW species 9 X 2 18 147
		FACU species 7 X4 28
Herbaceous Stratum Plot size (5 Foot Radius)		UPL species 3 X 5 15
Carex atherodes 5	OBL	Column Totals 100 (A) 240 (B)
Carex nebrascensis 1	OBL	
Carex pellita 20	✓ OBL	Prevalence Index = B/A = 2.4
Carum carvi 2	FACU	Hydrophytic Vegetation Indicators
Cirsium arvense 2	FAC	1 - Rapid Test for Hydrophytic Vegetation
Juncus balticus 5	FACW	✓ 2 - Dominance Test is >50%
Lotus corniculatus 15	✓ FAC	✓ 3 - Prevalence Index is <= 3.0
Poa palustris 2	FAC	4 - Morphological Adaptations (Provide
Poa pratensis 5	FAC	supporting data in remarks or on separate sheet.
Stachys palustris 3	□ NL	5 - Wetland Non-Vascular Plants
Taraxacum officinale 5	FACU	
		☐ Problematic Hydrophytic Vegetation (Explain)
Woody Vine Stratum Plot size (30 Foot Radius)		Indicators of hydric sil and wetland hydrology must be present, unless disturbed or problematic for #3, 4, 5.
D		Hydrophytic Vegetation Present? Ves ✓ NO
Percent Bare Ground 35 Remarks:		1 1036111:
BG/litter=35%. Evidence of hydrophytic vegetation incl 3.0.	ludes a positive dominance t	est and a prevalence index less than or equal to
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SOIL									Sampling Point: DP10w
Profile Desc	ription: (Desc	ribe to the de	pth need	ed to docu	ment the i	ndicato	r or confir	rm the absence	e of indicators.)
Depth	Mat				ox Feature:		. 2		
(inches)	Color (mois			r (moist)	%	Type	Loc ² _	Texture	Remarks
0-16	10YR 2/2	95	7.5YR	5/6	5	С	M,PL	Clay	
								_	· <u></u>
			-				_	_	-
			-		_	-	-	_	
							-	_	· -
						-			
	ncentration, D						ted Sand (ocation: PL=Pore Lining, M=Matrix.
	ndicators: (A _l	oplicable to al				ed.)			ors for Problematic Hydric Soils ³ :
Histosol	•		=	idy Redox	` '				m Muck (A10)
	ipedon (A2)		_	pped Matrix	. ,	() (- 4 MI DA 4	_	d Parent Material (TF2)
Black His	stic (A3) n Sulfide (A4)			my Mucky my Gleyed			PT WILKA 1	_	ry Shallow Dark Surface (TF12) ner (Explain in Remarks)
	Below Dark S	urface (A11)		oleted Matri	-	,		011	ier (Explain in Kemarks)
	rk Surface (A1:			lox Dark Si				³ Indicat	ors of hydrophytic vegetation and
Sandy M	ucky Mineral (S	S1)	Dep	oleted Dark	Surface (F	7)		wetla	and hydrology must be present,
	leyed Matrix (S		Red	lox Depres	sions (F8)			unle	ss disturbed or problematic.
Restrictive L	ayer (if prese	nt):							
Depth (inc	hes):							Hydric Soi	il Present? Yes <u>✓</u> No □
HYDROLOG									
=	rology Indicat								
	ators (minimum	of one require	d; check	_					endary Indicators (2 or more required)
	Water (A1)				ained Leave		except	\	Water-Stained Leaves (B9) (MLRA 1, 2,
	ter Table (A2)			7	. 1, 2, 4A, a	ind 4B)			4A, and 4B)
Saturatio			-	Salt Crust	r (B11) ivertebrate	o (D12)			Orainage Patterns (B10) Ory-Season Water Table (C2)
Water Ma	t Deposits (B2)				Sulfide Od				Saturation Visible on Aerial Imagery (C9)
	osits (B3)		一		Rhizosphe	` '	a Livina Ro		Geomorphic Position (D2)
_	t or Crust (B4)			_	of Reduce		_	` ' —	Shallow Aquitard (D3)
_ `	osits (B5)				on Reduction	,	,		FAC-Neutral Test (D5)
	Soil Cracks (B6)		_	r Stressed		-		Raised Ant Mounds (D6) (LRR A)
	n Visible on Ae		37) <u> </u>	-	plain in Re		- , (_	Frost-Heave Hummocks (D7)
	Vegetated Cor					,			,
Field Observ	ations:								
Surface Wate	r Present?	Yes 🔲	No	Depth (ir	nches):				
Water Table I	Present?	Yes	No	Depth (ir	nches):				
Saturation Pr	esent?	Yes	No	Depth (ir	nches):		0 We	tland Hydrolog	gy Present? Yes 🔽 No 🔲
(includes cap									
Describe Rec	orded Data (st	eam gauge, m	onitoring	weii, aerial	pnotos, pr	evious in	ispections)), it available:	
Damada									
Remarks: Evidence of	wetland hydr	ology include	soils sat	turated to	surface o	geomor	phic posit	tion, and a no	sitive FAC-Neutral test.
_,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	odana nyan	g, molado	20110 001		Ja.1400, §	, 55, 1101	F5 PO31	, and a po	

MDT Montana Wetland Assessment Form (revised March 2008)

1. Project name	Easton Ranch				2. MDT project# STF			PP STWD (81	Contr	ol# 9	00008		
3. Evaluation Date	9/10/20	021	4. Eva	luators	R Quire	Э	5. \	Netla	ind/Site# (s)	Creation			
6. Wetland Location(s): T 4N R Approx Stationing or Mileposts NA Watershed 13 - Upper Yellowstone W						Sec1 32	ark	Τ [R		Sec2		
7. Evaluating Agency	уррег т			onsulting	1013110	-	ark —						
		Comit	Jenice C	orisulting					8. Wetland				13.25
Purpose of Evaluatio							How assess		Measured	e.g. by			
☐ Wetlands potentia	ру МОТ	project					9. Assesssi (AA) size (ad				13.25		
☐ Mitigation Wetlands: pre-construction									How assess	ed:	Measured	e.g. by	GPS
✓ Mitigation Wetlan	ds: po	st con	structio	on									
Other													
10. Classification of	Wetlan	d and	Aquatio	: Habitats	in AA								
HGM Class (Brinson))	Cla	ss (Cov	/ardin)		Modifier (Cov	vardin	1)	Water R	egime	9,	6 of AA	
Riverine		Emer	gent We	etland		Excavated			Seasonal/In				72
Depressional		Aqua	tic Bed			Excavated			Seasonal/In	termittent			1
Riverine		Scrub	o-Shrub	Wetland		Excavated			Seasonal/In	termittent			27
											=		
								_					
 Estimated Relative General Condition Disturbance: (use aquatic nuisance veg 	n of AA matrix b	elow to	o determi		ppropria	ate response – se	e instru	uctions	s for Montana-	listed noxiou	s weed and		
					Manag	and in prodominantly			onditions adjacer			atad ar ba	ovily grazed
Cond	ditions with	nin AA			natural state; is not grazed, hayed, logged, or otherwise converted; does not contain roads or buildings; and noxious fe			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 grazed, hayed, logged, or oth roads or occupied buildings; a <=15%.	erwise co	nverted;	does not c	ontain	low disturbance				low disturba	moderate disturbance			
AA not cultivated, but may be selectively logged; or has bee placement, or hydrological alto noxious weed or ANVS cover	en subject eration; co	to relativ	vely minor	clearing, fill		moderate disturbance		moderate disturbance		high	n distur	bance	
AA cultivated or heavily graze substantial fill placement, grachigh road or building density; >=30%.	ding, clea	ring, or h	nydrologica	al alteration;	high disturbance		I	high disturbance		high	n distur	bance	
Comments: (types of c Limited agriculture (hay) west. A new house was managed in a natural sta) and a built we	few ra	inch stru the Shie	ctures to t ld River or	he east n an upl	land terrace. To	vo spe						
ii. Prominent noxious,					c spec	ies:							
Cirsium arvense and Ciii. Provide brief descr					round	ing land use/h	ahitat						
The AA consists of five	constru	cted w	vetland o	ells. The l	owest o	contours of the	wetlan	nd cel					
wetland characteristics. cells are bordered by lin										nd support	upland pla	nt comn	nunities. The

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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	ls 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 dass, but not a monoculture	М	<no< td=""><td>YES></td><td>L</td></no<>	YES>	L
1 class, monoculture (1 species comprises>=90% of total cover)	L	NA	NA	NA

_					
r	_	-	m	•	nts
u	u			ш	1115

The AA consists of palustrine emergent wetlands (PEM), scrub-shrub (young PSS) and aquatic beds in the deeper depressions.

SECTION PERTAINING to FUNCTIONS VALUES ASSESSMENT

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

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

Primary or critical habitat) S								
Secondary habitat (list Species)			S						
Incidental habitat (list species)			S Grizzly Bear	(LT)					
No usable habitat		_ s							
ii. Rating (use the cond	usions from i a	bove and the m	atrix below to arriv	e at [check] the fun	ctional points and	rating)			
Highest Habitat Level	doc/primary	sus/primary	doc/secondary	sus/secondary	doc/incidental	sus/incidental	None		
Functional Points and Rating	1H	.9H	.8H	7M	.3L	.1L	OL		
Sources for documented use USFWS - 2021 county species list, MTNHP verified in Park County									

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

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

Primary or critical habitat (list species)	D S Bobolink (S3B)	
Secondary habitat (list Species)	□ D □ S	
Incidental habitat (list species)	● D ○ S Golden Eagle (S3)	
No usable habitat		

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

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

Sources for documented use

 $MTNHP, 2013 \ and \ 2019-2020 \ field \ observations. \ Bobolink \ nesting \ on \ site \ documented \ by \ MDT \ staff.$

																		Mode	erate			
<i>ubstantial</i> (based ⊐	d on any o	f the foll	owing	g [ched	:k]):						Minima	(based o	on any of	the follo	wing [check]):						
observations o					•		• (•	• •	l)		or no wild		vations	during	peak us	se per	iods				
」 abundant wild	•									l	=	to no wild	Ü									
presence of ex	•						ole in the	surro	unding	area	_ `	se adjace	•									
interviews with	n local bio	logists v	vith kı	nowled	ige of th	ie AA					inter	views with	i local bio	ologists v	with kr	owledg	e of th	ie AA				
oderate (based of observations of common occu	of scattere	ed wildlif wildlife	e groi sign s	ups or such as	individu			•		0.	•	ods										
adequate adjainterviews with					dge of th	ne AA																
ii. Wildlife habi from #13. For cother in terms of permanent/pereterms])	class co of their p	ver to be	e co	nside positio	red even	enly d ne AA	istribut (see #	ed, th	ne mos Abbrev	t and lea	ast prev for surf	valent ve ace wate	getateo r duration	l classe ons are	es mu	st be v	within P/P =	20% of	f each	e		
Structural diversity (see #13)				Hig	jh						I	Moderate					Lo	ow				
Class cover distribution (all vegetated classes)		Even				Une	ven			Even			Une	/en			Εν	/en				
Duration of surface water in ≥ 10% of AA Low disturbance	P/P	S/I	-/E	Α	P/P	S/I	T/E	Α	P/P	S/I	T/E	A P/P	S/I	T/E	Α	P/P	S/I	T/E	А			
at AA (see #12i)	Е	Е	Е	Н	Е	E	Ħ	Н	Е	н	Н	мЕ	Н	М	М	Е	Н	М	М			
Moderate disturbance at AA (see #12i)	н	н	н	н	Н	Н	Н	м	Н	Н	М	м н	М	М	L	н	М	L	L			
High disturbance at AA (see #12i)	М	М	М	L	М	М	L	L	M	М	L	L M	L	L	L	L	L	L	L			
iii. Rating (L			sion				bove a	and t	he ma	Wi		arrive a		rating	(ii)		oint	s and r	ating)	Low		
Substantial					xcept	onai				High .9H	_	+			erate 3H	1				.7M	1	\dashv
					1E									_	5M	H				.7 IVI		\dashv
Moderate										/ [\/]												
Moderate Minimal				_	.9F 6M					.7M 4M	_										-	\dashv
					.9r .6M					.7M .4M	_			.:	2L					.1L		
	the pr	oject s	ite is	s with	.6M (Halia	neetu:	ary ha	bitat	zone	.4M nest d	irectly d eagle	southwers. In 20	21 obs	ne site erved	2L on tl white	e-taile	d dea	ar, cho	rus fro	.1L elds Ri	d	
Minimal Comments 4D. General Fould be used bestorable due to NA here a	the promany Fish Ha by fish [to habit and pro	bitat I bitat I i.e., fis at con	Rational Rat	ng: (ase is ints, (.6M (Halia in the bood pl Asses preclu or is n	eeetu: prim ots lo s this ided l	ary ha cated funct by per sired f	ibitat alon ion if ched from	zone g porti the A I culve a mar	.4M nest d for bald ons of A is usert or ot ageme	irectly d eagle the ea ed by ther bar	s. In 20 stern pr sish or the rier, etc spective	21 obs operty ne exis c.]. If the e [such	ne site erved bound ting sit ne AA as fisl	on the white ary puation is no nent	e-tailed rovide on is "d t used rappe	corre	ar, cho upplem ctable' ish, fis	rus fro nental ' such h use	.1L elds Ri ggs, an food so that th is not	d ource e AA	
Minimal Comments 4D. General Fould be used bestorable due for the second secon	Fish Haby fish [to habit and pro	bitat I bitat I i.e., fis at con	Rational Rat	ng: (Ase is ints, (Ase.)	.6M (Halia in the bood pl Asses preclu or is n	primots lo	ary ha cated funct by per sired f	ibitat alon ion if ched from	zone g porti the A I culve a mar	.4M nest d for bald ons of A is usert or ot ageme	irectly deagle the eared by her barent per	s. In 20 stern pr sish or the rier, etc spective	21 obsoperty ne exis a]. If the [such	ne site erved bound ting sit ne AA as fisi	on the white ary puation is no nent	e-tailed rovide on is "d t used rappe	corre	ar, cho upplem ctable' ish, fis a cana	rus fronental ' such h use l], ther	.1L elds Ri ggs, an food so that th is not	d cource	
Minimal Comments 4D. General Fould be used bestorable due to the sectorable due to the	Fish Haby fish [to habit and pro	bird sp bitat I i.e., fis at con ceed to	Rational Rat	ng: (Ase is ints, (Ase is ints	.6M (Halia in the bood pl	primots lo	ary ha cated functi by persired f	ibitat alon ion if ched from	zone g porti the A I culve a mar	.4M nest d for bald ons of A is usert or ot ageme	irectly deagle the earlier bar her bar arrive a	s. In 20 stern pr ish or the rrier, etc spective t [check	21 obsoperty ne exis a]. If the [such	ne site erved bound ting sit ne AA as fish	on the white ary puation is no nent	e-tailed rovide on is "d t used rappe	corre	ar, cho upplem ctable' ish, fis a cana	rus fronental ' such h use l], ther	.1L elds Ri ggs, an food so that th is not n check	d cource	oor
Minimal Comments 4D. General Fould be used be estorable due for NA here a Habitat Quantum of surface in AA Aquatic hiding / res	the promany Fish Ha by fish [to habit and pro ality and e water sting /	bird sp bitat I i.e., fis at con ceed to	Ratingshus	ng: (Ase is ints, (Ase is ints	.6M (Halia in the bood pl	prim prim prim prim prim prim prim prim	ary hancated function function sired function pecies	ion if chec	the A culve a mar	.4M nest d for balc ons of A is use et or ot nagemen	irectly deagle the earlier bar her bar arrive a	s. In 20 stern pr ish or the rrier, etc spective t [check	21 obsoperty ne exis c]. If the such	ne site erved bound ting sit ne AA as fish	on the one of the one	e-tailed rovide on is "of t used rapped	corred by formal distributions of the second	ar, cho upplem ctable' ish, fis a cana	rus fronental ' such h use l], ther	.1L elds Ri gs, an food s that th is not n check	d cource	oor
Minimal Comments 4D. General Fould be used be used by NA here a Habitat Quantum of surface in AA Aquatic hiding / resessape cover Thermal cover opti	the promany Fish Ha by fish [to habit and pro ality and e water sting /	bitat I i.e., fis at conceed to	Ratingshus	ng: (ase is ints, c.E.)	.6M (Haliain the bood pl Asses precluor is not be considered from the considered from	primots lo s this ided lot de	ary hancated structs by persired 1	ion if ched	the Al culve a mar	.4M nest d for bald ons of A is use of or ot nagement	irectly deagle the earlive arrive a	s. In 20 stern pr fish or the rier, etc spective t [check easonal / Ade	21 obsoperty ne existally le [such the func	ne site erved bound ting site AA as fish	on the white ary pure the control of	e-tailed rovide on is "of t used rapped	corred by find in a	ar, cho upplem ctable' cish, fis a cana	rus fronental ' such h use l], ther	.1L elds Ri gs, an food se that th is not n check	d ource	ī
Minimal Comments 4D. General Fould be used bestorable due for the second particle of the	the promany Fish Ha by fish [to habit and pro ality and e water sting / imal/ species Native	bitat I i.e., fis at conceed to	Ratingshus	ng: (A	.6M (Haliain theating the coordinate of the coor	primots lo s this ided lot de	ary hancated function by persired function becomes are also sometimes.	bitat alon ion iff checking in AA	the Al culve a mar	.4M nest d for balc ons of A is us et or ot hagement opti	irectly deagle the earlier barrive a	s. In 20 stern pr fish or the firer, etc. spective t [check Ade O	21 obsoperty ne exis a. If the [such the func	ne site erved bound ting site AA as fish	on the white ary production of the state of	e-tailed rovide on is "of t used rapped	correction of the contraction of	ctable' ctable' ish, fis a cana	rus fronental ' such h use l], ther	.1L elds Rings, and food so that the is not a check	d cource	

.4M

.4M

.4M

.3L

.3L

.2L

.2L

.2L

.2L

.1L

.1L

.1L

FWP Non-Game Tier IV or No fish species

.5M

.5M

.4M

.5M

.4M

.3L

O	formation AA									
ii. Modified Rating (NOTE: Modified score a) Is fish use of the AA significantly reduced by current final MDEQ list of waterbodies in need fishery or aquatic life support, or do aquatic nu yes, reduce score in i above by 0.1: Modifie	cannot exceed a culvert, do of TMDL devisance plant	ed 1 or be les like, or other n velopment wit	nan-made s h listed "Pro	obable Imp	aired Úses'	" includin	g cold or w	varm water	e If	
b) Does the AA contain a documented spawnir comments) for native fish or introduced game f	ng area or ot	her critical hai		•	he adjusted					
iii. Final Score and Rating: 0 NA	Comme	nts: Wetlan	d cells ar	e isolate	d from St	hields F	River with	n no fish h	abitat pre	esent.
,	ere and proc	eed to 14F.)					ls in AA ar	e not floode	d from in-	
i. Rating (working from top to bottom, use th Estimated or Calculated Entrenchment (Rosg		ow to arrive at ly entrenched			points and ely entrench		Entrencl	hed-A, F, G	stream	
1994, 1996) % of flooded wetland classified as forested	0	stream type	s ,	s	tream type	1		types		
and/or scrub/shrub	75%	25-75%	<25%	75%	25-75%	<25%	75%	25-75%	<25%	
AA contains no outlet or restricted outlet	1H	.9H	.6M	.8H	.7M	.5M	.4M	.3L	.2L	
AA contains unrestricted outlet	.9Н	.8H	.5M	.7M	.6M	.4M	.3L	.2L	.1L	
Slightly Entrenched		Moderately	Entrenched			E	ntrenched			7
ER = >2.2 C stream type	am type		41 - 2.2 am type	A	stream type		t = 1.0 - 1.4 F stream typ		stream type	
					'	ŀ				
2 x Bankfull I	Depth P	Bankfull D	epth	44	Y XVI	lood-proi full Widt				
Floodprone 13	3 / Ban				28 =	Entrend ratio	chment	4.75		
ii. Are ≥10 acres of wetland in the AA subject within 0.5 mile downstream of the AA (check)? Comments: AA receives overbank flow	to flooding A	ND are man-ı N ●			, ,		damaged b	by floods loc	ated	
14F. Short and Long Term Surface W upland surface flow, or groundwater flow 14G.)	. If no wet	lands in the	AA are su	bject to flo	ooding or p	oonding,	dick [_ NA here	and proce	eed to
 Rating (Working from top to bottom, water durations are as follows: P/P = per further definitions of these terms].) 										
Estimated maximum acre feet of water contained in wetlands within the AA that are subject to periodic flooding or ponding		>5 acre feet			1.1 to 5	acre feet			≤1 acre foot	
Duration of surface water at wetlands within the AA	P/P	S/I	T/E	P/F	,	S/I	T/E	P/P	S/I	T/E
Wetlands in AA flood or pond ≥ 5 out of 10 years	1H	.9H	.8Н	.81	н .	6M	.5M	.4M	.3L	.2L
Wetlands in AA flood or pond < 5 out of 10 years	.9Н	.8Н	.7M	.71	и .	.5M	.4M	.3L	.2L	.1L

Comments: (13.25 acre wetland) * (1 ft. max depth at highwater) = 13.25 acre feet

through influx of surface or ground vito 14H.) i. Rating (working from top to bott = low])	tom, use th	he matrix b	elow to a	arrive at [check] th	e functional	points and ra	iting [H =	= high, N	/I = moderate, or
Sediment, nutrient, and toxicant input levels within AA	to de compoui not sub	eliver levels onds at levels ostantially imces of nutrier	of sedimen such that paired. Mir	nd use with potential nts, nutrients, or other functions are nor sedimentation, cants, or signs of	develonutrients with pote	opment for "pro , or toxicants or ential to deliver ds such that oth limentation, sou	bable cau AA recei high level er function	ses" relat ves or su s of sedin ns are su utrients o	in need of TMDL ded to sediment, rrounding land us e nents, nutrients, or bstantially impaired r toxicants, or signs
% cover of wetland vegetation in AA	≥ 7	70%	iica iion pre	< 70%		≥ 70%	ophication	n pieseni	< 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	.4	М	.3L	.2L
AA contains unrestricted outlet	.9H	.7M	.6M	.4M	.4M	.3	L	.2L	.1L
There was evidence 4H Sediment/Shoreline Stabilization trainage, or on the shoreline of a standi	: (Applies	only if AA o	ccurs on o	or within the banks o			tural or m		}
proceed to 14I.) Rating (working from top to bottom, 6 Cover of wetland streambank or 6 shoreline by species with stability ratings	use the ma	trix below to	arrive at Duration o	[check] the function: of surface water adjacer	al points and nt to rooted veg	rating) etation			
of ≥6 (see Appendix F).	Permane	ent / Perennial		Seasonal / Intermi	ttent	Temporary		al	
≥ 65%		1H		.9H			M		
5-64%		.7M		.6M			5M		
Deep-rooted species	s observed	.3L I in 2021 in	clude wil	.2L llows, cattails, buli	rush, spikeru		and rush	es.	
omments:	n Support:	I in 2021 in		llows, cattails, buli	rush, spikeru			es.	
omments: 14l. Production Export/Food Chair i. Level of Biological Activity (synt) General Fish Habitat Ge	n Support:	l in 2021 in	ı habitat ra	llows, cattails, buli	rush, spikeru			es.	
i. Level of Biological Activity (syntt General Fish Habitat Rating (14D.iii.)	n Support:	l in 2021 in dlife and fish M	ı habitat ra	llows, cattails, buln atings [check]) 14C.iii.)	rush, spikeru			es.	
14I. Production Export/Food Chair i. Level of Biological Activity (syntt) General Fish Habitat Rating (14D.iii.) E/H H	n Support:	dlife and fish	ı habitat ra	atings [check])	rush, spikeru			es.	
14I. Production Export/Food Chair i. Level of Biological Activity (syntt General Fish Habitat Ge Rating (14D.iii.) E/H E/H M	n Support:	dlife and fish M H	ı habitat ra	atings [check]) 14C.iii.) L M	rush, spikeru			es.	
i. Level of Biological Activity (syntter Rating (14D.iii.) E/H M L M 14I. Production Export/Food Chain i. Level of Biological Activity (syntter Syntter) General Fish Habitat General Fish Habitat Rating (14D.iii.) E/H H M H	n Support:	dlife and fish	ı habitat ra	atings [check]) 14C.iii.) L M L	rush, spikeru			les.	
14I. Production Export/Food Chair i. Level of Biological Activity (syntt) General Fish Habitat Rating (14D.iii.) E/H H M H	n Support:	dlife and fish M H	ı habitat ra	atings [check]) 14C.iii.) L M	rush, spikeru			es.	
i. Level of Biological Activity (synth General Fish Habitat Rating (14D.iii.) E/H M L N/A i. Rating (Working from top to bottom wetland component in the AA; Factor B subsurface outlet; the final three rows posee instructions for further definitions o	n Support: hesis of wild eneral Wild , use the m = level of b ertain to du f these term	dlife and fish M H M M M iological actration of sur	n habitat ra	atings [check]) 14C.iii.) M L L It [check] the function of from above (14I.i.) er in the AA, where F	nal points and Factor C = v P, S/I, and T	d rating. Factor whether or not t //E are as previ	A = acre he AA co ously def	eage of ve ntains a s ined, and	surface or I A = "absent"
14I. Production Export/Food Chair i. Level of Biological Activity (synt) General Fish Habitat Rating (14D.iii.) E/H H M L N/A I. Rating (Working from top to bottom wetland component in the AA; Factor B subsurface outlet; the final three rows posee instructions for further definitions of the see instructions f	n Support: hesis of wild eneral Wild , use the m = level of b ertain to du these term cres	dlife and fish H M M M M M M M M M M M M	to arrive at ivity rating face water	atings [check]) 14C.iii.) L M L L It [check] the function of from above (14I.i.) er in the AA, where P	nal points and Factor C = v /P, S/I, and T	d rating. Factor thether or not the dispersion of the dispersion o	A = acre he AA colously defi	eage of ventains a sined, and	surface or I A = "absent"
i. Level of Biological Activity (syntter General Fish Habitat Rating (14D.iii.) E/H H M L M N/A I. Rating (Working from top to bottom wetland component in the AA; Factor B subsurface outlet; the final three rows posee instructions for further definitions of the subsurface outlet; the final three rows posee instructions for further definitions of the subsurface outlet; the final three rows posee instructions for further definitions of the subsurface outlet; the final three rows posee instructions for further definitions of the subsurface outlet; the final three rows posee instructions for further definitions of the subsurface outlet; the final three rows posee instructions for further definitions of the subsurface outlet; the subsurface outle	n Support: hesis of wild eneral Wild , use the m = level of b ertain to du f these term cres Low Yes N	dlife and fish M H M M M iological act ration of sur ns].)	to arrive at ivity rating face water	atings [check]) 14C.iii.) M L L It [check] the function of from above (14I.i.) er in the AA, where Futated component 1-5 acres Moderate Yes No Yes	nal points and Factor C = v /P, S/I, and T	d rating. Factor thether or not the definition of the decision	A = acre he AA co ously def etated comp Model Yes	eage of ventains a sined, and	surface or I A = "absent" re Low Yes No
i. Level of Biological Activity (synth General Fish Habitat Rating (14D.iii.) E/H H N/A i. Rating (Working from top to bottom wetland component in the AA; Factor B subsurface outlet; the final three rows processe instructions for further definitions of the AB; Factor B subsurface outlet; the final three rows processe instructions for further definitions of the AB; Factor B subsurface outlet; the final three rows processe instructions for further definitions of the AB; Factor B subsurface outlet; the final three rows processe instructions for further definitions of the AB; Factor B subsurface outlet; the final three rows processes and the AB; Factor B subsurface outlet; the final three rows processes and the AB; Factor B subsurface outlet; the final three rows processes and the AB; Factor B subsurface outlets; the final three rows processes and the AB; Factor B subsurface outlets; the final three rows processes and the AB; Factor B subsurface outlets; the final three rows processes and the AB; Factor B subsurface outlets; the final three rows processes and the AB; Factor B subsurface outlets; the final three rows processes and the AB; Factor B subsurface outlets; the final three rows processes and the AB; Factor B subsurface outlets; the final three rows processes and the AB; Factor B subsurface outlets; the final three rows processes and the AB; Factor B subsurface outlets; the final three rows processes and the AB; Factor B subsurface outlets; the final three rows processes and the AB; Factor B subsurface outlets and the AB; Factor B s	n Support: hesis of wild eneral Wild , use the m = level of b ertain to du f these term cres Low Yes N .4	dlife and fish H M M M M M M M M M M M M	to arrive at ivity rating face water	atings [check]) 14C.iii.) M L L It [check] the function of from above (14I.i.) er in the AA, where Futated component 1-5 acres Moderate Yes No Y	nal points and Factor C = v /P, S/I, and T	d rating. Factor thether or not the dispersion of the dispersion o	A = acre he AA colously defi	eage of ventains a sined, and	surface or I A = "absent"
i. Level of Biological Activity (synth General Fish Habitat Rating (14D.iii.) E/H M L M N/A i. Rating (Working from top to bottom wetland component in the AA; Factor B subsurface outlet; the final three rows posee instructions for further definitions of the component in the AB; Factor B subsurface outlet; the final three rows posee instructions for further definitions of the component >5 a	, use the m = level of b ertain to du f these term cres Low Yes N .5M .3	dlife and fish M H M M M Interview of the control o	to arrive alivity rating face water	atings [check]) 14C.iii.) L M L It [check] the function of from above (14I.i.) er in the AA, where F tated component 1-5 acres Moderate Yes No Yes .7H .4M .5	nal points and Factor C = v P, S/I, and T Low SN SM 3L	d rating. Factor thether or not to the are as previous to Veg High Yes No	A = acre he AA co ously def etated comp Model Yes 6M	eage of ventains a sined, and	surface or I A = "absent" re Low Yes No .3L .2L

14J. Groundwater Discharge/Recharge: (check the appropriate indicators in i & ii below) i. Discharge Indicators ii. Recharge Indicators Permeable substrate present without underlying impeding layer The AA is a slope wetland Springs or seeps are known or observed Wetland contains inlet but no outlet Vegetation growing during dormant season/drought Stream is a known 'losing' stream; discharge volume decreases Wetland occurs at the toe of a natural slope Other: Seeps are present at the wetland edge AA permanently flooded during drought periods Wetland contains an outlet, but no inlet Shallow water table and the site is saturated to the surface Other: iii. Rating (use the information from i and ii above and the table below to arrive at [check] the functional points and rating) Duration of saturation at AA Wetlands <u>FROM GROUNDWATER</u> <u>DISCHARGE OR WITH WATER</u> THAT IS RECHARGING THE GROUNDWATER SYSTEM Criteria P/P S/I None Groundwater Discharge or Recharge 1H .4M .1L .7M Insufficient Data/Information Comments: Soil saturated to surface across most of the constructed wetlands in 2021. 14K. Uniqueness: i. Rating (working from top to bottom, use the matrix below to arrive at [check] the functional points and rating) AA does not contain previously AA contains fen, bog, warm springs cited rare types and structural AA does not contain previously Replacement potential or mature (>80 yr-old) forested diversity (#13) is high or contains cited rare types or associations wetland or plant association listed plant association listed as "S2" by and structural diversity (#13) is as "S1" by the MTNHP the MTNHP low-moderate Estimated relative abundant abundant common abundant commo rare common rare rare abundance (#11) Low disturbance at AA 1H .9H H8. .8H .6M .5M .5M .4M .3L (#12i) Moderate disturbance at .9H H8. .7M .7M .5M .4M .4M .3L .2L AA (#12i) High disturbance at AA .8H .7H .6M .2L .6M .4M .3L .3L .1L (#12i) Comments: Trees and shrubs are establishing well across the AA. Site disturbance is low. 14L. Recreation/Education Potential: (affords "bonus" points if AA provides recreation or education opportunity) i. Is the AA a known or potential rec./ed. site: (check) Y N 💿 (if 'Yes' continue with the evaluation; if 'No' then click **V NA** here and proceed to the overall summary and rating page) Check categories that apply to the AA: Educational/scientific study; Consumptive rec.; Non-consumptive rec.; Other iii. Rating (use the matrix below to arrive at [check] the functional points and rating) Known or Potential Recreation or Education Area Known Potential Public ownership or public easement with general public access (no permission required) .2H 15H Private ownership with general public access (no permission required) .15H .1M Private or public ownership without general public access, or requiring permission for public access .1M .05L Comments: Landowner does not allow public access or educational use of the site. **General Site Notes**

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 Estimated AA Acreage)	Indicate the four most prominent functions with an asterisk (*)
A. Listed/Proposed T&E Species Habitat	L	.1	1	1.33	
B. MT Natural Heritage Program Species Habitat	Н	.9	1	11.93	✓
C. General Wildlife Habitat	Н	.9	1	11.93	✓
D. General Fish Habitat	NA	0	0	0.00	
E. Flood Attenuation	Н	.8	1	10.60	
F. Short and Long Term Surface Water Storage	Н	.8	1	10.60	✓
G. Sediment/Nutrient/Toxicant Removal	Н	.9	1	11.93	✓
H. Sediment/Shoreline Stabilization	М	.6	1	7.95	
Production Export/Food Chain Support	Н	.8	1	10.60	
J. Groundwater Discharge/Recharge	М	.7	1	9.28	
K. Uniqueness	М	.6	1	7.95	
L. Recreation/Education Potential (bonus points)	NA	0	NA	0.00	
Totals:		7.1	10	94.08	
Percent of Possible Score			71 %		

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

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

I	II	III	IV
-			

MDT Montana Wetland Assessment Form (revised March 2008)

1. Project name	Easton Ranc	:h	2	. MDT	projec	ct#	ST	PP ST	WD (8	13)		Con	trol#	96800	00
3. Evaluation Date	9/10/2021	4. Evaluators	R Quire Weyant		ıg, S	5.	Wetl	land/Si	te# (s) Prese	ervat	ion			
6. Wetland Location(s	s): T	4N R 9	E ,	Sec1	32		Т		F	₹		Sec2			
Approx Stationing or	Mileposts	NA													
Watershed 13 - U	Jpper Yellows	tone W	atershed	d/Count	y P	ark									
7. Evaluating Agency	Conflu	uence Consulting	Inc		_			8. W	etland	l size ac	res				1.1
Purpose of Evaluation	on							How	asses	sed:		Measur	ed e.g.	by GPS	
☐ Wetlands potenti	ally affected	by MDT project								sment ar	rea				1.1
☐ Mitigation Wetlan	ids: pre-cons	struction								acres)	Г	Magazira	ا ممام	ov CDC	
☐ Mitigation Wetlan	ıds: post con	struction						HOW	asses	seu.	Ľ	Measure	eu e.g. i	Jy GF3	
✓ Other Preserved	I PSS/PFO/PE	EM Habitat													
10. Classification of	Wetland and	Aquatic Habitats	s in AA												
HGM Class (Brinson)) Cla	ss (Cowardin)		Modifie	r (Co	wardi	in)	W	later F	Regime			% of A	A	
Riverine	Scruk	o-Shrub Wetland						Seas	sonal/l	ntermitte	ent			10	
Riverine	Fores	sted Wetland						Seas	sonal/l	ntermitte	ent			20	
Riverine	Emer	gent Wetland						Seas	sonal/l	ntermitte	ent			70	
]
11. Estimated Relative	ο Abundance	Common													J
12. General Conditio i. Disturbance: (use aquatic nuisance vec	n of AA matrix below to	o determine [circle] a	appropriat	e respon	se – se	ee inst	tructio	ns for M	ontana	ı-listed no	xious	weed ar	nd		
									•	ent to (within	า 500				
Cond	ditions within AA		natural s hayed, I converte roads or	ed in predo state; is no logged, or ed; does no r buildings; ANVS cov	t grazed otherwis ot conta and no	d, se in xious	mod sele subj few	lerately gr ctively log ect to min roads or l	razed or gged; or nor clear buildings	ut may be hayed or has been ing; contain s; noxious is <=30%.	ıs	or logge placeme hydrolog building	d; subject ent, gradin gical altera	theavily go to substate, clearing ation; high pr noxious >=30%.	ntial fill g, or road or
AA occurs and is managed in grazed, hayed, logged, or oth roads or occupied buildings; a <=15%.	erwise converted;	does not contain	low	v disturl	bance			low c	listurk	oance		mod	erate o	listurba	ance
AA not cultivated, but may be selectively logged; or has bee placement, or hydrological alt noxious weed or ANVS cover	en subject to relative eration; contains f	vely minor clearing, fill		modera listurba			m	oderat	te dist	turbance	е	hi	gh dist	urband	е
AA cultivated or heavily graze substantial fill placement, grahigh road or building density; >=30%.	ding, clearing, or h	hydrological alteration;	high	n distur	bance	е		high o	disturl	oance		hi	gh dist	urband	e
Comments: (types of a AA consists of existing depressional wetlands a	riverine PFO/I	PSS/PEM wetland	ls locate						te, dis	turbance	is lo	ow .			
ii. Prominent noxious,			ic speci	es:											
Cirsium arvense, Cyno			rround	na land	uso/L	nahit-	of.								
iii. Provide brief described AA contains small areas area. The existing PFO wetland features are bo	s of existing P /PEM habitat	PFO/PSS/PEM we located at the sou	tlands lo	cated at d of the	the n	orthw ceive	est (S s dire	ct hydr							

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 managemen existence of additions		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 dass, but not a monoculture	М	<no< td=""><td>YES></td><td>L</td></no<>	YES>	L
1 class, monoculture (1 species comprises>=90% of total cover)	L	NA	NA	NA

Comments:	PEM, PFO 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 Anima	IA. Habitat for Federa	ly Listed or Pro	posed Threatened	l or Endangere	ປ Plants or	r Animals
--	------------------------	------------------	------------------	----------------	-------------	-----------

Primary or critical habita	t (list species)	□ D) S				
Secondary habitat (list S _l	pecies)	(D (S				
Incidental habitat (list sp	ecies)	○ D •	S Grizzly Bear	(LT)			
No usable habitat		_ s					
ii. Rating (use the cond	usions from i a	bove and the m	atrix below to arrive	e at [check] the fun	ctional points and	rating)	
Highest Habitat Level	doc/primary	sus/primary	doc/secondary	sus/secondary	doc/incidental	sus/incidental	None
Functional Points and Rating	1H	.9H	.8H	7M	.3L	.1L	0L
Sources for documented use	SFWS - 2021 co	ounty species lis	st, MTNHP verified	in Park County			

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

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

Primary or critical habitat (list species)	D S Bobolink (S3B)	
Secondary habitat (list Species)	□ D □ S	
Incidental habitat (list species)	● D ○ S Golden Eagle (S3)	
No usable habitat		

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

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

Sources for documented use

MTNHP, 2013 and 2020 field observations. Bobolink nesting on site documented by MDT staff.

																			Mode	erate			
u bstantial (base	d on any	of the f	ollowin	ıg [che	ck]):						Minin	n al (b	ased o	n any of	the follo	wing	[check]):					
observations					•		• `	•	•	d)				fe obser	vations	during	peak ι	use peri	ods				
abundant wild														fe sign									
presence of e							ble in th	e surro	ounding	area	_ :		•	t upland									
interviews wit	h local b	iologist	s with k	inowle	dge of t	he AA					int	erviev	vs with	local bio	logists	with ki	nowled	ge of th	e AA				
observations	of scatte	ered wild	dlife gro	oups or	r individ			•				riods											
common occu adequate adja interviews wit	acent up	land foo	od sour	ces			nest sti	ucture	s, game	e traiis, e	ic.												
ii. Wildlife hab from #13. For other in terms of permanent/pereterms]) Structural	class c of their	over to percer	be cont	onside ipositi	ered evolution of t	enly on the AA	distribu (see #	ted, tl #10).	he mos Abbre	t and le	east pr	evale rface	ent veç water	duration	classe ons are	es mu e as fo	ist be ollows	within : P/P =	20% of	f each	е		
diversity (see #13) Class cover distribution (all				Hiç	gh							Mode	erate						ow				
vegetated classes) Duration of		Eve				Une	even	Ì		Eve				Une	ren			Ev	en				
surface water in ≥ 10% of AA Low disturbance	P/P	S/I	T/E	A	P/P	S/I	T/E	Α	P/P	S/I	T/E	Α	P/P	S/I	T/E	A	P/P	S/I	T/E	A			
Moderate disturbance at AA	E H	E H	E H	Н	E H	H H	Н	М	Н	Н	H M	M	Н	H M	M	L	Н	М	M L	L			
(see #12i) High disturbance at AA (see #12i)	М	М	М	L	M	М	L	L	М	М	L	L	М	L	L	L	L	L	L	L			
iii. Rating (om i a			and	the ma		/ildlife			[checlatures	rating			points	s and r	ating)	Low		=
Substantial					1E					.9I						3H	1				.7M	1	╗
Moderate					.91			Н		.71	1					5M	\vdash				.3L		\dashv
Minimal			+	_	.9r .6N	- 6		H		.41						2L	+				.1L		\dashv
Comments	leuc	ceph	alus) ı	nest (by mo	ose, y sou	ıthwes	st of t	he site	le, an	d othe	t side	e of th	ne Shie	There	is a	The p	orojec			n the p	rimary	<u> </u>
4D. General I	Eich L	labitat	t Rati	na: (Δοςοι	o thi	s func	tion it				, fich	or th	e exid	ina si	hiotic	on io "	00 rro		' such		e AA	
ould be used estorable due NA here	by fish to hab	[i.e., oitat co	fish u onstra	ise is ints,	preclu	uded	by pe	rched	d culve	ert or c	ther b	arrie	r, etc.]. If th	ne AA	is no	t use	d by f	ish, fis	h use		ζ	
ould be used estorable due	by fish to hab and pr alityar	[i.e., oitat co oceed	fish u onstra I to 14	ise is ints, 4E.)	preclu	uded not de	by pe esired	rche of from	d culve a mar	ert or d nagem	ther b	arrie erspe	r, etc. ective]. If th [such	ne AA as fis	is no h ent	t use rappe	d by f ed in a	ish, fis	h use			
ould be used estorable due NA here	by fish to hab and pr alityar e water	[i.e., oitat co oceed	fish u onstra I to 14	ise is lints, 4E.)	or is r	uded not de ish S	by peesired	rche of from	d culve a mar	ert or on agem	ther b	arrie erspe at [c	r, etc. ective]. If the [such he fund	ne AA as fis	is no h ent	t use rappe	d by f ed in a	ish, fis a cana Tem	h use I], ther		ral	oor
ould be used estorable due NA here Habitat Qu Duration of surfac in AA Aquatic hiding / re	by fish to hab and pr ality ar e water sting /	i.e., oitat co	fish u onstra I to 14	ise is lints, 4E.)	or is r	ish S	by peesired	rched from in AA	d culve a mar	ert or on agem	ther beent pe	arrie erspe at [c	r, etc. ective heckt]. If the [such he fund	ne AA as fis	is no h ent	and ra	d by food in a	ish, fis a cana Tem	h use I], ther	check	ral	oor S
ould be used estorable due NA here Habitat Qu Duration of surfac in AA Aquatic hiding / re escape cover Thermal cover op	by fish to hak and pr ality ar e water sting /	i.e., oitat co	fish uponstra I to 14 Optima	use is a lints, 4E.) Suspe	or is r	ish S	by peesired pecies ennial	in AA	a mar	ert or conagem	ther been to perform a rrive	arrie	r, etc. ective heckt onal/Ir]. If the such	ne AA as fis tional p	ooints	and ra	d by fled in a	ish, fis a cana Tem	h use I], ther porary/	Epheme	ral Po	î
ould be used estorable due NA here Habitat Qu Duration of surfac in AA Aquatic hiding / re escape cover Themal cover op suboptimal FWP Tier II fish:	by fish to hat and pr ality ar e water sting / timal/ species Native	i.e., oitat co	fish uponstra I to 14 Optima	ise is a lints, 4E.) Suspe	or is r	ish S	by peesired pecies ennial e	in AA	a mar	ert or conagem	ther been to perfect timal	at [c	heckt]. If the [such the function of the function o	ne AA as fis	oints	and ra	d by feed in a ating) Optin	Tem	h use I], ther porary/ Adec	Epheme	ral Po O	s
ould be used estorable due NA here NA here Abitat Qu Duration of surfac in AA Aquatic hiding / re escape cover Thermal cover op suboptimal FWP Tier I fish:	by fish to hat and pr ality ar e water sting / timal/ species Native	[i.e., initiated consists of the consists of t	fish uponstra I to 14 Optima Optima	Suspe Personal Suspe Personal Suspe	precluor is rected F	ish S	pecies ennial e S .7M	rchec from in AA Po O .6M	a mar A (use n	onagement or onage	ther been to perfect the perfect perfe	arriee erspee	heck to Adeq]. If the [such such such such such such such such	ne AA as fis tional point 1	is no h ent	and ra	d by feed in a setting) Optin O .7M	Temnal S .6M .5M	porary/ Adec O .5M	Epheme quate S .4M .3L	ral Po O .3L	.3l
ould be used estorable due NA here Habitat Qu Duration of surfactin AA Aquatic hiding / reescape cover Thermal cover opto suboptimal FWP Tier I fish: Game fish specific procession of the surface	by fish to hat and pr ality ar e water sting / timal/ species Native ecies l or me fish	i [i.e., oitat cooceed and Kno	fish uponstra I to 14 Optima Optima	se is ints, 4E.) Suspe	precluor is rected F	ish S int / Per dequat	by peesired pecies ennial e s	in AA Po O .6M	a mar	onagement to onage	ther been to perform the performance of the perform	arrie erspe at [c	heck t Adeq O]. If the such the function of the such the such that the	ne AA as fis tional p	is no h ent	and ra	d by fed in a ating) Optin O	Temnal	porary/ Adec	Epheme quate S	ral Po O .3L	.31

Sources used for	identifying fish sp. potentially	found in A	A:								
ii. Modified Ration a) Is fish use of the current final MDE fishery or aquatic	ng (NOTE: Modified score e AA significantly reduced by Q list of waterbodies in need life support, or do aquatic nu in i above by 0.1: Modifie	cannot exc a culvert, of TMDL de isance plar	eed 1 or be le dike, or other evelopment w	man-made vith listed "P	structure o robable Im	paired Úses	" includin	g cold or w	arm water		
•	ontain a documented spawnir tive fish or introduced game f	• -	other critical h		add 0.1 to	ctuary pool, the adjusted I Rating		•		1	
iii. Final Score a	nd Rating: 0 NA	Comm	ents: No fis	h habitat	within AA	λ.					
14E. Flood Atte	enuation: (Applies only to we pank flow, click		ect to flooding ceed to 14F.)		inel or ove	rbank flow.	If wetland	ds in AA ar	e not floode	ed from in-	
	ng from top to bottom, use th Iculated Entrenchment (Rosg		elow to arrive a ntly entrenche stream typ	d - C, D, E	Modera	al points and tely entrenc stream type	hed – B	Entrencl	ned-A, F, G	stream	
% of flooded we and/or scrub/shr	tland classified as forested ub	75%			75%	25-75%	<25%	75%	25-75%	<25%	
AA contains no	outlet or restricted outlet	1⊦	не. 1	.6M	.8H	.7M	.5M	.4M	.3L	.2L	
AA contains unr	estricted outlet	.91	.8H	.5M	.7M	.6M	.4M	.3L	.2L	.1L	
	Slightly Entrenched		Moderate	ly Entrenched	. 1			ntrenched			\neg
C stream type	ER = >2.2		ER =	1.41 – 2.2			EF	R = 1.0 - 1.4 F stream typ			
3 on our sypt	D stream type E strea	am type	7	eam type		stream type	R			stream type	
-	2 x Bankfull I		Bankfull	Depth	44	Banl	Flood-pro kfull Wid	th			
Floodprone width	13	3 / Ba	nkfull dth			28 =	Entren ratio	chment	4.75		
within 0.5 mile do Comments:	of wetland in the AA subject wnstream of the AA (check)? proximately 30% of the preser annel that empties into the nea	Y Ö vation AA c	N ontains forest	ed and/or so	rub/shrub v	wetland with	surface v	vater outlet	,		solated
upland surface 14G.)	nd Long Term Surface We flow, or groundwater flow	. If nowe	etlands in the	e AA are su	ıbject to f	looding or	ponding.	, dick	NA here	e and proce	eed to
water duration	orking from top to bottom, s are as follows: P/P = pe ons of these terms].)										
	n acre feet of water contained in AA that are subject to periodic		>5 acre fee	t		1.1 to 5	acre feet			≤1 acre foot	
	water at wetlands within the AA	P/P	S/I	T/E	P/	Р	S/I	T/E	P/P	S/I	T/E
						1					

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

i. Rating (worl = low]) Sediment, nutrient			Jiii, use	the ma	atrix bei	iow to	anive at	cneck	j tile ful				<u> </u>	terbodie:		d of TM))
seament, nutrient evels within AA	t, and toxicanti	nput	to o compo not su	deliver le unds at ubstantia irces of i	evels of levels s ally impa nutrients	sedime such tha aired. M s or toxi	nd use witents, nutrients, nutrients to the fur in or seding cants, or s	ents, or nctions a nentation	re v	devenutrients with potompoun	lopment s, or toxi ential to ds such	for "prol cants or deliver l that othe tion, sou	bable ca AA rece high leve er function rces of r	uses" relatives or sets of sed ons are so utrients	ated to surround liments, substan or toxic	sedimer ding land nutrient tially imp	t, use s, or aired.
% cover of wetland			≥	70%	eu trop hic	cauon pi	< 70%	6			≥ 70		орпісаці	on prese	π. < 7	0%	
Evidence of floodi	ing / ponding in	AA	Yes	No	0	Yes	;	No		Yes		No)	Yes	,	No	
AA contains no or	r restricted out	let	1H	.81	н	.7M	1	.5M		.5M		.41	М	.3L		.2L	T
AA contains unre s	stricted outlet		 .9H	.71	м	.6M		.4M		.4M		.3		.2L		.1L	ī
4H Sediment/SI rainage, or on the roceed to 14I.)		lization	: (Applies	s only if	AA occ	curs on	or within t	the bank	s or a riv	/er, stre			tural or i		de		
. Rating (workir	na from top to h	ottom i	ise the m	natrix he	low to a	arrive at	t [check] t	he funct	ional noi	nts and	rating)						
			ase the m	iatrix be			of surface								1		
										ė.			, - .				
horeline by species	s with stability ration	ngs	Permar	nent / Pe	rennial		Seas	onal / Inte	ermittent		Te	emporary	/ Epneme	ral	1		
horeline by species f ≥6 (see Appendix	s with stability ration	ngs	Permar	nent / Per	rennial		Seas	onal / Inte	1		T€		M M	ral			
6 Cover of <u>wetland</u> horeline by species f ≥6 (see Appendix : 65% 5-64%	s with stability ration	ngs	Permar		rennial		Seas				Te	.7		eral			
horeline by species f ≥6 (see Appendix 65% 5-64% 35%	s with stability ration			1H .7M .3L	rennial		Seas	.9Н			Te	.7	'M	eral			
horeline by species of ≥6 (see Appendix of 5.64% of 35% 14I. Production i. Level of Bio General Fish I	with stability ration x F). No shoreline in the stability ration in Export/Footological Activity Habitat	n the pr	roject are	1H .7M .3L ea.	nd fish h		ratings [ch	.9H .6M			Te	.7	7M 5M	ral			
horeline by species f ≥6 (see Appendix 65% 5-64% 35% Demments:	with stability ration x F). No shoreline in the stability ration in Export/Footological Activity Habitat	n the pr	roject are Support	1H .7M .3L ea. t:	nd fish h		ratings [ch	.9H .6M			Te	.7	7M 5M	ral			
noreline by species f ≥6 (see Appendix 65% 5-64% 35% Demments: 14I. Production i. Level of Bio General Fish I	with stability ration x F). No shoreline in the control of the co	n the price of the	roject are Support	1H .7M .3L ea. t: fildlife ar Idlife H	nd fish h		ratings [ch	.9H .6M .2L			Te	.7	7M 5M	ral			
horeline by species f ≥6 (see Appendix 65% 5-64% 35% Domments: 14l. Production i. Level of Bion General Fish In Rating (14D)	with stability ration x F). No shoreline in the control of the co	n the production of the produc	roject are Support	1H .7M .3L ea. t: ildlife ar Idlife H	nd fish h		ratings [ct 114C.iii.) L	.9H .6M .2L			Te	.7	7M 5M	ral			
horeline by species f ≥6 (see Appendix 65% 5-64% 35% 14I. Productic i. Level of Bio General Fish I Rating (14D E/H M	with stability ration x F). No shoreline in the control of the co	n the price of the	roject are Support	1H .7M .3L ea. t: fildlife ar Idlife H	nd fish habitat F		ratings [ch	.9H .6M .2L			Te	.7	7M 5M	ral			
horeline by species f ≥6 (see Appendix 65% 5-64% 35% Demments: 14I. Production i. Level of Bion General Fish I Rating (14D E/H M	No shoreline i on Export/Foo blogical Activit Habitat D.iii.) sing from top to the time the AA; F; the final three for further defin	d Chain by (synth Ge E/H H M bottom, actor B: rows pe itions of	support uses the relevel of ertain to do these ter	at: t: Idlife H M matrix b biologic luration	nd fish habitat F	e arrive a vity ratinace water	ratings [ch [14C.iii.] M M L L at [check] g from aber in the A	.9H .6M .2L the function (14) AA, when	ctional po	tor C = v	d rating	. Factor	A = acr	eage of ontains a fined, ar	a surfac nd A =	e or	
proreline by species fee (see Appendix fee instructions f	No shoreline i on Export/Foo on Export/Foo ological Activit Habitat D.iii.) cing from top to ent in the AA; F; the final three for further defin Vegetated compo	n the production of the produc	use the relevel of these terres	at: idlife ar Idlife H M matrix b biologic luration rms].)	nd fish habitat F	arrive a arrive avity ratin	ratings [check] M L at [check] g from aber in the A etated compon	.9H .6M .2L the function (14) AA, where one one one one one one one one one on	ctional po	tor C = y /I, and	d rating whether T/E are	. Factor or not tl	A = acr he AA cr ously de	eage of ontains a fined, ar uponent <1 erate	a surfac nd A = '	e or 'absent"]
ordeline by species 26 (see Appendix 65% 5-64% 35% Memments: 14I. Production i. Level of Bion General Fish I Rating (14D E/H M L N/A Rating (Work etland compone ubsurface outlet; lee instructions f High Yes High	with stability ration in the AA; For further defin Vegetated comprises with stability ration in the AA; For further defin vegetated comprises with the analysis of the AA; For further defin vegetated comprises with the analysis of the anal	d Chain by (synth Ge E/H H M bottom, actor B = rows peritions of onnent >5 ac	use the relevel of ertain to dithese terms	and the state of t	ad fish Fabitat F	a arrive a vity rating ce water	ratings [check] M L at [check] g from aber in the A	.9H .6M .2L the function (14) AA, where	etional pc.i.i.); Facte	tor C = y /I, and	d rating whether T/E are	. Factor or not ti as previ	A = acrine AA cously de	eage of ontains a fined, ar	a surfacted and A = 1	e or 'absent"	
horeline by species f 26 (see Appendix f 26 (see Ap	No shoreline i No Yes	n the pi d Chain by (synth Ge E/H H H bottom, actor B: rows pe itions of onent >5 acate No	use the relevel of ertain to dithese terms	at: idlife ar Idlife H M matrix b biologic luration rms].)	nd fish habitat FW	arrive a rive a vege the No	ratings [cf 14C.iii.) L M L at [check] g from aber in the A stated compo Moder Yes 7H	.9H .6M .2L the function (14) AA, where nent 1-5 ar rate No .4M	ctional pc Li.i.); Fact e P/P, S,	tor C = v /I, and v No	d rating whether T/E are	. Factor or not the as previous veg	A = acr he AA cously deletated com Mod Yes	eage of ontains a fined, ar sponent <1 erate No	a surface of A sur	ee or 'absent"	
horeline by species f ≥6 (see Appendix 65% 656 (see Appendix 65% 5-64% 35% 6564% 65% 6564%	No shoreline i on Export/Foo logical Activit Habitat D.iii.) ting from top to ent in the AA; F; the final three for further defin Vegetated compo	n the pi d Chain by (synth Ge E/H H H bottom, actor B: rows peritions of onent >5 acate No .5M	use the relevel of ortain to dithese terms.	at: idlife ar Idlife H M matrix b biologic luration rms].)	nd fish habitat FW	arrive a vity ratin ace wate Vege h	ratings [cf 14C.iii.) M L at [check] g from aber in the A stated compo Moder Yes	.9H .6M .2L the function (14) AA, where the state of the	ctional pc Li.i.); Fact e P/P, S, res Low Yes	tor C = y /I, and	d rating whether T/E are	. Factor or not the as previous of the specific or not the specifi	A = acr he AA cously de etated com Mod Yes	eage of ontains a fined, ar uponent <1 erate	a surfacend A = '	e or 'absent"	

14J. Groundwater Discharge/Recharge: (check the appropriate indicators in i & ii below) i. Discharge Indicators ii. Recharge Indicators Permeable substrate present without underlying impeding layer The AA is a slope wetland Springs or seeps are known or observed Wetland contains inlet but no outlet Vegetation growing during dormant season/drought Stream is a known 'losing' stream; discharge volume decreases Wetland occurs at the toe of a natural slope Other: Seeps are present at the wetland edge AA permanently flooded during drought periods Wetland contains an outlet, but no inlet Shallow water table and the site is saturated to the surface Other: iii. Rating (use the information from i and ii above and the table below to arrive at [check] the functional points and rating) Duration of saturation at AA Wetlands <u>FROM GROUNDWATER</u> <u>DISCHARGE OR WITH WATER</u> THAT IS RECHARGING THE GROUNDWATER SYSTEM Criteria P/P S/I None Groundwater Discharge or Recharge 1H .4M .1L .7M Insufficient Data/Information Comments: Shallow groundwater table documented during field investigations. 14K. Uniqueness: i. Rating (working from top to bottom, use the matrix below to arrive at [check] the functional points and rating) AA does not contain previously AA contains fen, bog, warm springs cited rare types and structural AA does not contain previously Replacement potential or mature (>80 yr-old) forested diversity (#13) is high or contains cited rare types or associations wetland or plant association listed plant association listed as "S2" by and structural diversity (#13) is as "S1" by the MTNHP the MTNHP low-moderate Estimated relative abundant abundant abundant commo rare common rare common rare abundance (#11) Low disturbance at AA 1H .9H H8. .8H .6M .5M .5M .4M .3L (#12i) Moderate disturbance at .9H H8. .7M .7M .5M .4M .4M .3L .2L AA (#12i) High disturbance at AA .8H .7H .6M .3L .2L .6M .4M .3L .1L (#12i) Comments: Site disturbance is low and structural diversity is high. 14L. Recreation/Education Potential: (affords "bonus" points if AA provides recreation or education opportunity) i. Is the AA a known or potential rec./ed. site: (check) Y $N \odot$ (if 'Yes' continue with the evaluation; if 'No' then click **V** NA here and proceed to the overall summary and rating page) Check categories that apply to the AA: Educational/scientific study; Consumptive rec.; Non-consumptive rec.; Other iii. Rating (use the matrix below to arrive at [check] the functional points and rating) Known or Potential Recreation or Education Area Known Potential Public ownership or public easement with general public access (no permission required) .2H 15H Private ownership with general public access (no permission required) .15H .1M Private or public ownership without general public access, or requiring permission for public access .1M .05L Comments: Landowner does not allow public access or educational use of the site. **General Site Notes**

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 Estimated AA Acreage)	Indicate the four most prominent functions with an asterisk (*)
A. Listed/Proposed T&E Species Habitat	L	.1	1	0.11	
B. MT Natural Heritage Program Species Habitat	Н	.9	1	0.99	V
C. General Wildlife Habitat	Н	.9	1	0.99	~
D. General Fish Habitat	NA	0	0	0.00	
E. Flood Attenuation	Н	.9	1	0.99	~
F. Short and Long Term Surface Water Storage	М	.6	1	0.66	
G. Sediment/Nutrient/Toxicant Removal	Н	1	1	1.10	>
H. Sediment/Shoreline Stabilization	NA	0	0	0.00	
Production Export/Food Chain Support	Н	.9	1	0.99	
J. Groundwater Discharge/Recharge	М	.7	1	0.77	
K. Uniqueness	М	.6	1	0.66	
L. Recreation/Education Potential (bonus points)	NA	0	NA	0.00	
Totals:		6.6	9	7.26	
Percent of Possible Score			73.33 %		

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

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

1	II	III	IV

MDT Montana Wetland Assessment Form (revised March 2008)

1. Project name	Easton Ra	nch	2	. MDT proje	ect#	STF	PP STWD (81	3)	Control#	9680000
3. Evaluation Date	9/10/2021	4. Evaluators	R Quire		5.	Wetla	nd/Site# (s)	Restorat	ion	
6. Wetland Location(s Approx Stationing or Watershed 13 - U		NA	e Eatershe	Sec1 32	Park	Т [R		Sec2	
7. Evaluating Agency		nfluence Consulting					8. Wetland	size acres	•	1.64
Purpose of Evaluation	n						How assess	ed:	Measured e.g.	
☐ Wetlands potentia	ally affecte	ed by MDT project					9. Assesssi			1.64
☐ Mitigation Wetlan	ds: pre-co	onstruction					(AA) size (ad How assess	•	Measured e.g.	hy GPS
☐ Mitigation Wetlan		onstruction					11011 455655		Mededica e.g.	by Cr C
✓ Other Restored of	channel									
10. Classification of	Wetland ar	nd Aquatic Habitats	s in AA							
HGM Class (Brinson)	C	Class (Cowardin)		Modifier (Co	owardi	n)	Water Ro	egime	% of	AA
Riverine	Em	nergent Wetland		Excavated			Seasonal/In	termittent		93
Riverine	Sci	rub-Shrub Wetland		Excavated			Seasonal/In	termittent		7
Setimated Relative General Condition i. Disturbance: (use aquatic nuisance veg	n of AA matrix below	v to determine [circle] a	appropriat	e response –						
Conc	ditions within Ax	Α	natural : hayed, I converte roads of	ed in predominan state; is not graz logged, or otherved; does not con r buildings; and r	tly ed, vise tain noxious	Land mode select subje few ro	conditions adjacent not cultivated, but rately grazed or h tively logged; or h ct to minor clearin bads or buildings; or ANVS cover is	t may be ayed or as been g; contains noxious	Land cultivated or logged; subject placement, gradin hydrological alte	ration; high road or or noxious weed
AA occurs and is managed in grazed, hayed, logged, or other roads or occupied buildings; a <=15%.	erwise converte	ed; does not contain	low	v disturbano	ce		low disturba	ance	moderate	disturbance
AA not cultivated, but may be selectively logged; or has bee placement, or hydrological alto noxious weed or ANVS cover	n subject to rel eration; contair	latively minor clearing, fill		moderate listurbance		mc	derate distu	ırbance	high dis	turbance
AA cultivated or heavily graze substantial fill placement, grachigh road or building density; >=30%.	ding, clearing,	or hydrological alteration;	high	n disturban	се		high disturba	ance	high dis	turbance
Comments: (types of c Limited agriculture (hay species of noxious week	and ranch	structures to the ea	st. Unde							
ii. Prominent noxious,	aquatic nu	uisance, other exot	ic speci	es:						
Cirsium arvense, Cyno					/la e !- ' '					
iii. Provide brief descr The AA consists of one is seasonally inundated	constructed	d secondary stream	channel	which bisect	ts the m	nitigati				gh flow events,

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

Existing # of "Cowardin" Vegetated Clæsses in AA	Initial Rating	_	nt preventing (passive) al vegetated classes?	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 dass, but not a monoculture	М	<no< td=""><td>YES></td><td>L</td></no<>	YES>	L
1 class, monoculture (1 species comprises>=90% of total cover)	L	NA "	NA	NA

	m		

Planted shrubs along channel are surviving and establishing well. Cottonwood and willow seedlings/root suckers were noted along the channel.

SECTION PERTAINING to FUNCTIONS VALUES ASSESSMENT

14A. Habitat for Federally Listed or Proposed Threatened or Endangered Plants or Animal	4A. Habitat for Feder	Iv Listed or Pro	posed Threatened	or Endan	gered Plants	or Animals:
---	-----------------------	------------------	------------------	----------	--------------	-------------

i	AA is Documented (D)	or Suspected (S) to conta	n (chack one based or	a definitions contain	nad in instructions):

rimary or critical habitat	(list species)	(D () S					
econdary habitat (list Sp	pecies)	(D (S					
ncidental habitat (list spe	ecies)	○ D •	Grizzly Bear	(LT)				
lo usable habitat		_ s						
ii. Rating (use the cond	usions from i a	bove and the m	atrix below to arriv	e at [check] the fun	ctional points and	rating)	,	
Highest Habitat Level doc/primary sus/primary doc/secondary sus/secondary doc/incidental sus/incidental None								
Functional Points and Rating	1H	.9H	.8H	.7M	.3L	.1L	0L	
Sources for documented use	SFWS - 2021 co	ounty species lis	st, MTNHP verified	in Park County				

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

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

Primary or critical habitat (list species)	D S Bobolink (S3B)	
Secondary habitat (list Species)	□ D □ S	
Incidental habitat (list species)	● D ○ S Golden Eagle (S3)	
No usable habitat		

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

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

Sources for documented use MTNHP; observed on site in 2013 and 2020. Bobolink nesting on site documented by MDT staff.

2019.

																		Mod	erate			
ubstantial (based	d on any	of the fo	ollowin	g [che	ck]):						Minima	(based	on any of	the follo	owing	[check])	:					
observations					•		• (•		i)		or no wild		vations	during	peak u	se per	iods				
」 abundant wild	•											to no wild	Ü									
presence of e	•						ble in th	e surro	bunding	area		rse adjace										
interviews with	h local bi	ologists	with k	nowle	dge of t	he AA					inte	rviews wit	n local bi	ologists	with ki	nowledg	je of th	ie AA				
oderate (based o	on any of	the follo	owing	[check	:]):																	
✓ observations			Ü	•				•		٠.	•	ods										
common occu					s scat,	tracks,	nest str	ucture	s, game	trails, et	C.											
dequate adja																						
interviews with	n local bi	ologists	with K	nowie	age of t	ne AA																
ii. Wildlife hab from #13. For other in terms of permanent/pere terms])	class co of their p	ver to ercen	be co t com	nside positi	ered ev	enly on the AA	distribu \ (see #	ted, tl #10).	ne mos Abbrev	t and le ⁄iations	ast pre for sur	valent ve ace wate	getate er durati	d class ons are	es mu e as fo	ust be vollows:	within P/P :	20% o =	f each	e		
Structural diversity (see #13)				Hi	gh							Moderate					L	ow				
Class cover distribution (all vegetated classes)	Even Uneven Even Uneven							ven			Ev	/en										
Duration of surface water in ≥ 10% of AA	P/P	S/I	T/E	Α	P/P	S/I	T/E	А	P/P	S/I	T/E	A P/P	S/I	T/E	Α	P/P	S/I	T/E	А			
Low disturbance at AA (see #12i)	Е	Е	E	н	Е	Е	Н	Н	Е	Н	Н	МЕ	Н	М	М	Е	Н	М	М			
Moderate disturbance at AA (see #12i)	Н	н	н	н	Н	н	Н	м	Н	Н	М	м	М	М	L	Н	М	L	L			
High disturbance at AA (see #12i)	М	м	М	L	М	М	L	L	М	М	L	ь м	L	L	L	L	L	L	L			
iii. Rating (u			_					and	the ma	W		arrive a		rating	g (ii)		ooint	s and	rating)	Low		\exists
Substantial					xcept	- 1		H		High	- 1				derat	e 				Low	1	\dashv
Moderate					1E	- 1		Н		.9H				_	8H	\vdash				.7M	-	\dashv
Minimal					.9⊦	-		\vdash		.7N		+			5M	-				.3L	+	\dashv
Williamai				_	.6N	1				.4M					2L					.1L		
Comments	food f	or wil	dlife.	Ther	e is a	bald	eagle	(Hali	aeetus	leuco	cepha	l adjace lus) nes e for ba	t direct	ly sou								
4D. General I	Siah U																				ο ΛΛ	
estorable due NA here	by fish to habi	[i.e., f tat co	ish u nstra	se is ints,	precl	uded	by pe	rched	d culve	rt or ot	her ba	rrier, et	c.]. If t	ne AA	is no	t used	d by f	ish, fis	h use	is not		
ould be used l estorable due	by fish to habi and pro	[i.e., f tat co ceed	ish u nstra to 14	se is ints, IE.)	precli or is r	uded not de	by peresired	rche of from	d culve a mar	ert or ot nageme	herba entpe	rrier, et spectiv	c.]. Ifti e[such	ne AA as fis	is no h ent	t used rappe	d by f d in a	ish, fis	h use	is not		
ould be used estorable due NA here: Habitat Qu Duration of surfac in AA Aquatic hiding / re	by fish to habi and pro ality and e water	[i.e., f tat co ceed	ish u nstra to 14	se is ints, IE.)	or is r	uded not de	by peresired	rche of from	d culve a mar	ert or ot nageme	her ba ent per arrive	rrier, et rspective at [check	c.]. If the [such	ne AA as fis	is no h ent	t used rappe	d by f d in a	ish, fis a cana Tem	sh use I], then	is not	eral	oor
estorable due NA here a Habitat Qu Duration of surfac	by fish to habi and pro ality and e water sting /	[i.e., f tat co ceed	ish u nstra to 14 wn / S	se is ints, IE.)	or is r	uded not de ish S	by peresired	rched from in AA	d culve a mar	ert or ot nageme	her ba ent per arrive	rrier, et rspective at [check	c.]. If the such	ne AA as fis	is no h ent	and ra	d by f	ish, fis a cana Tem	sh use I], then	is not n check	eral	poor
ould be used lestorable due NA here : Habitat Qu Duration of surfac in AA Aquatic hiding / re escape over Thermal cover opts suboptimal	by fish to habit and production ality and ewater sting /	[i.e., fitat co	ish u nstra to 14 wn / S	se is ints, IE.)	or is r	uded not de rish S	by peresired pecies ennial	in AA	a mar	ert or ot nagement natrix to Opt	her ba	rrier, et rspective at [check easonal /	c.]. If the such the fund	ne AA as fis	is not hent	and ra	d by find in a	ish, fis a cana Tem	sh use I], then	is not n check	eral Po	ī
ould be used estorable due NA here: Habitat Qu Duration of surfac in AA Aquatic hiding / re escape cover Themal cover qui suboptimal FWP Tier II fish s FWP Tier II or	by fish to habit and production ality and ewater sting /	[i.e., fiat cooceed	ish u nstra to 14 wn / S	se is ints, IE.) Suspe	cted F	ish S	pecies ennial e s	in AA	d culve a mar (usen	opt Opt Opt Opt	arrive	rrier, et spective at [check easonal / Ade	c.]. If the such the fund the fund quate S	ne AA as fis	points Poor	and ra	d by f d in a ting) Option	Temmal	porary/ Adea	Epheme quate S	eral Po	
ould be used estorable due NA here a Habitat Qu Duration of surfac in AA Aquatic hiding / re escape cover Thermal cover opi suboptimal	by fish to habit and production ality and ewater sting / timal / species Native ecies	i.e., fitat co ceed	ish u nstra to 14 wn / S	se is ints, IE.) Suspe	or is r	ish S	by pelesired pecies ennial	in AA	d culve a mar (use n	ert or ot nagementatrix to Opt	arrive a	rrier, et spective at [check	c.]. If the such	ne AA as fis	points Poor	and ra	d by find in a ting) Option	Temmal	sh use I], then porary/ Ade	Epheme	eral Po	

.4M

.4M

.4M

.3L

.2L

.2L

.1L

.3L

.2L

.2L

.1L

.1L

.3L

.4M

.4M

FWP Non-Game Tier IV or No fish species

.5M

.5M

.5M

Sources used for identifying fish sp. potentially	found in ΔΔ	1.										
ii. Modified Rating (NOTE: Modified score of a) Is fish use of the AA significantly reduced by current final MDEQ list of waterbodies in need of fishery or aquatic life support, or do aquatic nuityes, reduce score in I above by 0.1: Modified	annot exce a culvert, of of TMDL de sance plant	ed 1 or be less like, or other n velopment with	nan-made ['] s h listed "Pro	obable Imp	aired Úses'	" includin	g cold or w	varm water	e If			
b) Does the AA contain a documented spawnin comments) for native fish or introduced game fi		ther critical hal Y			he adjusted							
iii. Final Score and Rating: 0 NA	Comme	ents: Althoug permar	h activat ent fish l	ed during nabitat is	g high-flo	w even within A	ts within	the Shiel	ds River,	no		
14E. Flood Attenuation: (Applies only to well channel or overbank flow, click NA he		ect to flooding ceed to 14F.)	via in-chani	nel or overt	oank flow. I	f wetland	ds in AA ar	e not floode	d from in-			
i. Rating (working from top to bottom, use the Estimated or Calculated Entrenchment (Rosge							Entrenc	hed-A F G	stream			
1994, 1996) stream types stream type												
% 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			
Slightly Entrenched ER = >2.2		Moderately ER = 1.					ntrenched R = 1.0 - 1.4					
C stream type D stream type E stream	m type	B strea		Α:	stream type		F stream typ		stream type			
						\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \						
2 x Bankfull [Oepth Wepth	Bankfull D	epth	33	T-XXX	l∞d-proi full Widi	ne Width th					
Floodprone 13	3 / Ban wid	kfull			28 =	Entreno ratio	chment	4.75				
ii. Are ≥10 acres of wetland in the AA subject t within 0.5 mile downstream of the AA (check)? Comments: Outlet is restricted. AA subject twithin 0.5 mile downstream of the AA (check)?	Y ○ oject to o	N ● verflow from	n Shields	River ar	, ,	·	· ·	•		River		
14F. Short and Long Term Surface Waupland surface flow, or groundwater flow. 14G.) i. Rating (Working from top to bottom, 1	If nowet	lands in the	AA are su	bject to flo	oding or p	onding,	dick	NA here	and proce	eed to		
water durations are as follows: P/P = per further definitions of these terms].)												
Estimated maximum acre feet of water contained in wetlands within the AA that are subject to periodic flooding or ponding		>5 acre feet			1.1 to 5	acre feet			≤1 acre foot			
Duration of surface water at wetlands within the AA	P/P	S/I	T/E	P/P	,	S/I	T/E	P/P	S/I	T/E		
Wetlands in AA flood or pond ≥ 5 out of 10 years	1H	.9Н	.8H	.81	4	.6M	.5M	.4M	.3L	.2L		

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

to 14H.)i. Rating (working from top to be = low])	ttom, use th	ne matrix be	elow to a	arrive at [che	ck] the f	unctiona	al points	s and ra	iting [H	= high,	M = m	oderate,	or L
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 Major sedimentation, sour			Q list of waterbodies in need of TMDL probable causes" related to sediment, or AA receives or surrounding land us eer high levels of sediments, nutrients, or other functions are substantially impaired, sources of nutrients or toxicants, or signs sutrophication present.									
% cover of wetland vegetation in AA Evidence of flooding / ponding in AA	≥ 7	0%	•	< 70%			≥ 70	%		•	< 70	%	\exists
AA contains no or restricted outlet	Yes	No	Yes	l No	1	Yes		No		Yes		No	
AA contains unrestricted outlet	- 1H ,-	.8H	.7M	.5M		.5N	1	.41	M	.3L	4	.2L	Ч
744 contains diffestrated oddet	.9H	.7M	.6M	.4N		.4N	1	.3	L	.2L		.1L	
Cover in AA is greated and the sediment/Shoreline Stabilization drainage, or on the shoreline of a star	on: (Applies o	only if AA oc	curs on c	or within the ba	nks or a	river, stre				man-mad	le		
proceed to 14l.) i. Rating (working from top to bottom % Cover of wetland streambank or	J	trix below to	arrive at		ctional p	oints and	rating)]		
shoreline by species with stability ratings of ≥6 (see Appendix F).	Permaner	nt / Perennial		Seasonal /	-			emporary	/ Epheme	eral			
≥ 65%		1H			ЭН			.7	′М				
35-64%		.7M		.6	м			.!	5M				
< 35%		.3L		.:	!L				1L				
Increased vegetation and Juncus specie	•	nent from 2	013 to 2	2021 of specie	es with h	nigh stab	oility rat	ings inc	luding	Salix, Po	opulus,	Carex,	
14I. Production Export/Food Cha	s. in Support:	llife and fish	habitat ra	atings [check])	es with h	nigh stab	oility rat	ings inc	eluding	Salix, Po	opulus,	Carex,	
and Juncus specie 14I. Production Export/Food Cha i. Level of Biological Activity (sys	s. Nin Support: Othersis of wild General Wild	llife and fish	habitat ra	atings [check])	es with h	nigh stab	oility rat	ings inc	eluding	Salix, Po	opulus,	Carex,	
and Juncus specie 14I. Production Export/Food Cha i. Level of Biological Activity (syl General Fish Habitat	s. Nin Support: Othersis of wild General Wild	llife and fish life Habitat	habitat ra	atings [check])	es with h	nigh stab	oility rat	ings inc	sluding	Salix, Po	opulus,	Carex,	
and Juncus specie 14I. Production Export/Food Cha i. Level of Biological Activity (syl General Fish Habitat Rating (14D.iii.) E/H	s. Nin Support: Othersis of wild General Wild	llife and fish life Habitat M	habitat ra	atings [check]) 14C.iii.) L	es with h	nigh stab	oility rat	ings inc	eluding	Salix, Po	opulus,	Carex,	
And Juncus species and Juncus sp	s. Nin Support: Othersis of wild General Wild	llife and fish life Habitat M H M	habitat ra	atings [check]) 14C.iii.) L M M L	es with h	igh stab	oility rat	ings inc	eluding	Salix, Po	opulus,	Carex,	
And Juncus specie 14I. Production Export/Food Chai. Level of Biological Activity (sylenger) General Fish Habitat Rating (14D.iii.) E/H H M H	s. Nin Support: Othersis of wild General Wild	llife and fish life Habitat M H	habitat ra	atings [check]) 14C.iii.) L M M	es with h	igh stab	oility rat	ings inc	eluding	Salix, Po	opulus,	Carex,	
and Juncus specie 14I. Production Export/Food Cha i. Level of Biological Activity (syr General Fish Habitat Rating (14D.iii.) E/H M L M	m, use the male elevel of bill per latin to dur of these term	llife and fish Ife Habitat M H M M output M M strix below to ological activation of surf	habitat ra Rating (** Description of the content o	atings [check]) 14C.iii.) L M L L at [check] the fig from above (inctional (41.i.); Fa ere P/P,	points an	nd rating	. Factor or not tl as previ	A = acr he AA co ously de	reage of v	/egetate surface d A = "a	ed e or	
and Juncus specie 14I. Production Export/Food Cha i. Level of Biological Activity (synometric production Export/Food Chair (synometric production) General Fish Habitat Rating (14D.iii.) E/H E/H M L M N/A ii. Rating (Working from top to bottowetland component in the AA; Factor subsurface outlet; the final three rows [see instructions for further definitions]	m, use the male elevel of bill per latin to dur of these term	Ilife and fish Ilife Habitat M H M M atrix below to ological activation of surfise.)	habitat ra Rating (* D arrive a vity rating ace wate	atings [check]) 14C.iii.) L M L L at [check] the fig from above (er in the AA, where the company of the c	inctional 41.i.); Fa ere P/P,	points an	nd rating whether T/E are	. Factor or not tl as previ	A = acr he AA co ously de	reage of v ontains a offined, an	vegetate surface d A = "a acre	ed e or	
and Juncus specie 14I. Production Export/Food Cha i. Level of Biological Activity (syn General Fish Habitat Rating (14D.iii.) E/H M H L N/A ii. Rating (Working from top to botto wetland component in the AA; Factor subsurface outlet; the final three rows [see instructions for further definitions] A Vegetated component of the Moderate of th	m, use the ma B = level of bi pertain to dur of these term	Ilife and fish Ilife Habitat M H M M atrix below to ological actination of surfisel.)	habitat ra Rating (* p arrive a vity rating ace wate veget gh	atings [check]) 14C.iii.) L M L L at [check] the fig from above (er in the AA, what the AA, whit the AA, what the AA	inctional 41.i.); Fa ere P/P,	points ar actor C = S/I, and	nd rating whether T/E are	. Factor or not tl as previ	A = acr he AA co ously de etated com Mod	reage of vontains a strined, an apponent <1 a lerate	/egetate surface d A = "e	ed e or absent"	
A Vegetated component > 6 I All. Production Export/Food Chaic Level of Biological Activity (synomics) General Fish Habitat Rating (14D.iii.) E/H B/H M L M N/A II. Rating (Working from top to bottowetland component in the AA; Factor subsurface outlet; the final three rows [see instructions for further definitions A Vegetated component > 6 B High Moderate C Yes No Yes No	m, use the male elevel of bill be elevel of these term acres	Ilife and fish Ilife Habitat M H M M M atrix below to ological actination of surfisel.) O Yes M 9H	habitat ra Rating (** D arrive a vity rating ace wate Veget No	atings [check]) 14C.iii.) M M L L at [check] the fit g from above (er in the AA, what tated component 1-Moderate Yes No	inctional 141.i.); Fa ere P/P, 5 acres	points ar actor C = S/I, and	nd rating whether T/E are	. Factor or not the as previous Veg	A = acr he AA co ously de etated com Mod Yes	reage of vontains a string an apponent <1 a lerate	/egetate surface d A = "a acre 	ed e or absent"	
A Vegetated component >6 Rating (Working from top to botto wetland component in the AA; Factor subsurface outlet; the final three rows [see instructions for further definitions A Vegetated component >6 P/P 1E .7H .8H .5M	m, use the male elevel of bill be elevel of bill be elevel of bill be elevel of bill be elevel of these term eacres Low Yes N. 6M .41	Ilife and fish Ilife Habitat M H M M M atrix below to ological activation of surf ssl.) Yes M 9H L 8H	habitat ra Rating (** D arrive a vity rating ace wate Veget No .6M	atings [check]) 14C.iii.) M M L L at [check] the fit g from above (er in the AA, what tated component 1-Moderate Yes No 7H .4M	inctional 141.i.); Fa ere P/P, 5 acres L Yes	points ar ctor C = S/I, and	nd rating whether T/E are Hi Yes	. Factor or not the as previous Veg	A = acr he AA cr ously de etated com Mod Yes	reage of vontains a stined, an apponent <1 a lerate No 4M	/egetate surface d A = "a acre Yes	ed e or absent"	

14J. Groundwater Discharge/Recharge: (check the appropriate indicators in i & ii below) ii. Recharge Indicators i. Discharge Indicators Permeable substrate present without underlying impeding layer The AA is a slope wetland Springs or seeps are known or observed Wetland contains inlet but no outlet Vegetation growing during dormant season/drought Stream is a known 'losing' stream; discharge volume decreases Wetland occurs at the toe of a natural slope Other: Seeps are present at the wetland edge AA permanently flooded during drought periods Wetland contains an outlet, but no inlet Shallow water table and the site is saturated to the surface Other: iii. Rating (use the information from i and ii above and the table below to arrive at [check] the functional points and rating) Duration of saturation at AA Wetlands <u>FROM GROUNDWATER</u> <u>DISCHARGE OR WITH WATER</u> THAT IS RECHARGING THE GROUNDWATER SYSTEM Criteria P/P S/I None Groundwater Discharge or Recharge 1H .4M .1L .7M Insufficient Data/Information Comments: Channel is intermittently inundated by shallow groundwater and high flows from the Shields River. 14K. Uniqueness: i. Rating (working from top to bottom, use the matrix below to arrive at [check] the functional points and rating) AA does not contain previously AA contains fen, bog, warm springs cited rare types and structural AA does not contain previously Replacement potential or mature (>80 yr-old) forested diversity (#13) is high or contains cited rare types or associations wetland or plant association listed plant association listed as "S2" by and structural diversity (#13) is as "S1" by the MTNHP the MTNHP low-moderate Estimated relative abundant abundant abundant commo rare common rare common rare abundance (#11) Low disturbance at AA 1H .9H H8. .8H .6M .5M .5M .4M .3L (#12i) Moderate disturbance at .9H H8. .7M .7M .5M .4M .4M .3L .2L AA (#12i) High disturbance at AA .8H .6M .2L .7H .6M .4M .3L .3L .1L (#12i) PEM/PSS wetland within seasonal flood channel. Common wetland type within basin with 10-50% of area wetlands similar to Comments: the constructed wetland vegetation 14L. Recreation/Education Potential: (affords "bonus" points if AA provides recreation or education opportunity) i. Is the AA a known or potential rec./ed. site: (check) Y $N \odot$ (if 'Yes' continue with the evaluation; if 'No' then click V NA here and proceed to the overall summary and rating page) Check categories that apply to the AA: Educational/scientific study; Consumptive rec.; Non-consumptive rec.; Other iii. Rating (use the matrix below to arrive at [check] the functional points and rating) Known or Potential Recreation or Education Area Known Potential Public ownership or public easement with general public access (no permission required) .2H 15H Private ownership with general public access (no permission required) .15H .1M Private or public ownership without general public access, or requiring permission for public access .1M .05L Comments: Landowner does not allow public access or educational use of the site. **General Site Notes**

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 Estimated AA Acreage)	Indicate the four most prominent functions with an asterisk (*)
A. Listed/Proposed T&E Species Habitat	L	.1	1	0.16	
B. MT Natural Heritage Program Species Habitat	Н	.9	1	1.48	✓
C. General Wildlife Habitat	М	.7	1	1.15	✓
D. General Fish Habitat	NA	0	0	0.00	
E. Flood Attenuation	М	.6	1	0.98	
F. Short and Long Term Surface Water Storage	М	.6	1	0.98	
G. Sediment/Nutrient/Toxicant Removal	Н	1	1	1.64	✓
H. Sediment/Shoreline Stabilization	Н	.9	1	1.48	✓
Production Export/Food Chain Support	М	.7	1	1.15	
J. Groundwater Discharge/Recharge	М	.7	1	1.15	
K. Uniqueness	М	.4	1	0.66	
L. Recreation/Education Potential (bonus points)	NA	0	NA	0.00	
Totals:		6.6	10	10.82	
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 both General Wildlife Habitat and General Fish/Aquatic Habitat; or Score of .9 functional point for Uniqueness; or Percent of possible score > 65% (round to nearest whole #).	<i>'</i>)
Category III Wetland: (Criteria for Categories I, II, or IV not satisfied)	
Category IV Wetland: (Criteria for Categories I or II are not satisfied and all of the following criteria are met; otherwise go to Category III) "Low" rating for Uniqueness; and Vegetated wetland component < 1 acre (do not include upland vegetated buffer); and Percent of possible score < 35% (round to nearest whole #).	

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

I 1	II	III	IV

Table B-1. Easton Ranch Wetland Mitigation Site. Comprehensive Vegetation Species List 2010 – 2021

Scientific Names	Common Names	WMVC Indicator Status ¹
Achillea millefolium	Common Yarrow	FACU
Agrostis gigantea	Black Bent	FAC
Agrostis stolonifera	Spreading Bent	FAC
Algae, green	Algae, green	NL
Alisma gramineum	Narrow-Leaf Water-	OBL
	Plantain	
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	Brassica kaber	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

Table B-1. Easton Ranch Wetland Mitigation Site. Comprehensive Vegetation Species List 2010 – 2021

Scientific Names	Common Names	WMVC Indicator Status ¹
Carex stipata	Stalk-Grain Sedge	OBL
Carex utriculata	Northwest Territory Sedge	OBL
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
Dracocephalum sp.	Dragonhead	UPL
Eleocharis palustris	Common Spike-Rush	OBL
Elodea sp.	Waterweed	NA
Elymus cinereus	Great Basin Wildrye	UPL
Elymus repens	Creeping Wild Rye	FAC
Elymus 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
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

Table B-1. Easton Ranch Wetland Mitigation Site. Comprehensive Vegetation Species List 2010 – 2021

Scientific Names	Common Names	WMVC Indicator Status ¹
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
Lepidium campestre	Field Pepperweed	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
Mimulus guttatus	Seep Monkey-Flower	OBL
Myriophyllum sp.	Water-Milfoil	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
Poa palustris	Fowl Blue Grass	FAC
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
Prunus virginiana	Choke Cherry	FACU
Pseudoroegneria spicata	Bluebunch Wheatgrass	UPL
Ranunculus aquatilis	White Water-Crowfoot	OBL
Ranunculus macounii	Macoun's Buttercup	OBL
Rhamnus alnifolia	Alder-Leaf Buckthorn	FACW

Table B-1. Easton Ranch Wetland Mitigation Site. Comprehensive Vegetation Species List 2010 – 2021

Scientific Names	Common Names	WMVC Indicator Status ¹
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
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 palustris	Hairy Hedge-Nettle	FACW
Stellaria graminea	Grass-Leaf Starwort	FACU
Symphoricarpos albus	Common Snowberry	FACU
Symphyotrichum	Leafy-Bract American-Aster	FACW
subspicatum	,	
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

Table B-1. Easton Ranch Wetland Mitigation Site. Comprehensive Vegetation Species List 2010 – 2021

Scientific Names	Common Names	WMVC Indicator Status ¹
Verbascum thapsus	Great Mullein	FACU
Veronica scutellata	Grass-Leaf Speedwell	OBL
Vicia americana	American Purple Vetch	FAC
Xanthium strumarium	Rough Cockleburr	FAC

¹ 2018 NWPL (USACE 2018)

New species identified in 2021 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: 2021



Photo Point: 2 Bearing: 200 degrees

Location: Northeast Corner Year: 2010



Photo Point: 2 Bearing: 200 degrees

Location: Northeast Corner Year: 2021



Photo Point: 3 Bearing: 100 degrees

Location: Northwest Corner Year: 2010



Photo Point: 3 Bearing: 100 degrees

Location: Northwest Corner Year: 2021

Easton Ranch: Photo Point Photos



Photo Point: 4A Bearing: 170 degrees



Location: Shields Bank DS



Photo Point: 4A Bearing: 170 degrees

Location: Shields Bank DS Year: 2021



Photo Point: 4B Bearing: 20 degrees



Year: 2010

Location: Shields Bank US Year: 2010



Photo Point: 4B Bearing: 20 degrees

Location: Shields Bank US Year: 2021 - New location*



Photo Point: 5 Bearing: 90 degrees



Location: West Boundary Year: 2010



Photo Point: 5 Bearing: 90 degrees

Location: West Boundary Year: 2021

^{*} new 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: 2021



Photo Point: 7 Bearing: 340 degrees

Location: Southeast Corner Year: 2010



Photo Point: 7 Bearing: 340 degrees

Location: Southeast Corner Year: 2021

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: 2021



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: 2021



Transect 2: Start Bearing: 185 degrees

Location: Veg Com 1 foreground Year: 2010



Transect 2: Start Bearing: 185 degrees

Location: Veg Com 3 foreground Year: 2021

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: 2021



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: 2021



Transect 3: End Bearing: 265 degrees

Location: Veg Com 1 foreground Year: 2010



Transect 3: End Bearing: 265 degrees

Location: Veg Com 1 foreground Year: 2021



Data Point: DP01w Year: 2021



Location: Veg Com 14



Data Point: DP01u Year: 2021



Location: Veg Com 13



Data Point: DP02w Year: 2021



Location: Veg Com 12

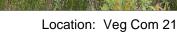


Data Point: DP02u Year: 2021

Location: Veg Com 5



Data Point: DP03w Year: 2021





Data Point: DP03u Year: 2021

Location: Veg Com 1



Data Point: DP04w Year: 2021

Location: Veg Com 14



Data Point: DP04u Year: 2021

Location: Veg Com 13



Data Point: DP05w Year: 2021

Location: Veg Com 11



Data Point: DP05u Year: 2021

Location: Veg Com 1



Data Point: DP06w Year: 2021

Location: Veg Com 17



Data Point: DP06u Year: 2021

Location: Veg Com 13



Data Point: DP07w Year: 2021

Location: Veg Com 4



Data Point: DP07u Year: 2021

Location: Veg Com 1



Data Point: DP08w Year: 2021

Location: Veg Com 14



Data Point: DP08u Year: 2021

Location: Veg Com 18



Data Point: DP09w Year: 2021

Location: Veg Com 11



Data Point: DP09u Year: 2021

Location: Veg Com 1



Data Point: DP10w Year: 2021

Location: Veg Com 14



Data Point: DP10u Year: 2021

Location: Veg Com 1