Montana Department of Transportation Wetland Mitigation Monitoring Report

EASTON RANCH MITIGATION SITE

Project Overview

Watershed: Watershed #13 – Upper Yellowstone River Basin

Monitoring Year: 2020

Years Monitored: 11th year of monitoring

Corps Permit Number: NWO-2006-90370-MTB

Monitoring Conducted By: Confluence Consulting Inc Dates Monitoring Was Conducted: June 23-24, 2020

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 project wetlands.

Site Location:

Latitude: 46.058174 Longitude: -110.638937

County: Park Nearest Town: Wilsall, MT

Map Included: Yes

Mitigation Site Construction Started: 2009 Construction Ended: 2009

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

Activity: Weed Spraying Date: July 4, 2020 Specific recommendations for any additional corrective actions: Weed treatment will continue in 2021. Soil lifts and riprap installed along the bank of the Shields River are eroding in 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: 15.26

Previous Monitoring Reports:

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

Requirements (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 established for the Easton Ranch site and whether or not they are being achieved is provided in Table 1.

Table 1. Summary of Performance Standards

Performance Standards	Success Criteria	Criteria Achieved (Y/N)	Discussion
Wetland Characteristics	Meet the three parameter criteria for hydrology, vegetation, and soils as outlined in the 1987 Wetland Delineation Manual and 2010 Mountains, Valleys, Coast Region.	Y	Areas identified as wetland habitat within the mitigation site meet the three parameter criteria.
	Soil saturation present for at least 12.5 percent of the growing season.	Υ	Areas identified as wetland habitat within the mitigation site exhibit soil saturation for a minimum of 12.5 percent of the growing season.
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.
	Construction stream channel is stable.	Υ	The constructed floodplain channel is stable with minimal bank erosion identified throughout the mitigation area.
	Hydric soil conditions present or appear to be forming.	Υ	All constructed wetlands exhibit hydric soil development (e.g., hydrogen sulfide, depleted matrix, redox dark surface, loamy gleyed matrix).
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 will be assessed.	Y	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 29 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.	Υ	Desirable hydrophytic vegetation comprises greater than 80 percent of total vegetation cover within delineated wetlands.
Wetland Acreage Development	Provide 27.41 net credit acres for the project area.	N	A total of 15.26 acres of wetland credit has been generated for the mitigation site and includes 11.15 acres of created wetland, 1.64 acres of restored wetland, 1.10 acres of preserved wetland, establishment of a 14.28-acre upland buffer, and 0.67-acre debit from project impacts.

Performance Standards	Success Criteria	Criteria Achieved (Y/N)	Discussion
	Emergent wetland habitat will be 70–75% of mitigation wetland.	Υ	Emergent wetland habitat comprises approximately 69% of total wetland areas delineated in 2020. The site exhibits progress toward this success criterion.
Wetland Acreage	Scrub/shrub wetland habitat will be 15–20% of wetland area.	Y	Scrub/shrub wetland habitat comprises approximately 29% of total wetland areas delineated in 2020, exceeding the success criteria of 15-20%.
Development	Open water will be < 5% of wetland area.	Y	Aquatic macrophytes habitat comprises approximately 2% of total wetland areas delineated in 2020. 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 open-water habitat greater than 3 feet in depth.
	deep-rooting riparian and wetland plant species. Y vegetated with a diversity of deep-root wetland plant species.		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.
Bank Stabilization	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.
(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 upland pasture grasses. Soil lifts and the riprap installed along the bank are eroding 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.	Υ	Noxious weed cover is estimated as 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.	Υ	Disturbed areas have successfully established greater than 50 percent aerial cover by non-weed species.
Weed Control	Less than 5 percent absolute cover of state-listed noxious weed species across the site.	Y	Absolute cover of state-listed noxious weed species is estimated as 2 percent across the site.
Fencing	Install wildlife-friendly fencing along the easement boundaries.	Υ	Wildlife-friendly fencing has been removed from the western and southern portions of the easement boundaries in an effort to promote wildlife movement across the wetland and the Shields River riparian corridor. The remaining fences are in good condition.
Monitoring	Monitor the site for a minimum period of 5 years or longer as determined by the USACE.	Y	Comprehensive site monitoring has been ongoing for 11 years, since the completion of construction activities in 2009.

Summary Data

Wetland Delineation — The total wetland acreage delineated in 2020, including pre-existing wetland areas, was 13.89 acres, which is an increase of 1.6 acres since 2019 (Figures A-2 and A-3, Appendix A). In 2020, the USACE provided guidance on open water, defining it as "areas of open water of any depth with less than 5% rooted emergent vegetation, no vegetation, submerged non-rooted vegetation, and/or submerged vegetation rooted in the substrate that does not extend above the water surface." In accordance with this recent USACE guidance, open water accounted for 0.11-acre of the mitigation site in 2020. 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 acreage in 2020, 13.89 acres, is the highest delineated acreage to date, and is primarily a result of the increased water flow into the northeastern portion of the project area over the last two years. This newly delineated area 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.

Vegetation – A total of 176 plant species were identified on the site from 2010 through 2020. Three new species were identified at the site in 2020, including three-square (*Schoenoplectus pungens*), whitestem gooseberry (*Ribes inerme*), and little-pod false flax (*Camelina microcarpa*). Vegetation communities were identified by species composition and dominance. The following six upland and eleven wetland vegetation community types were identified in 2020:

- 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 pretense
- 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 19 Typha latifolia
- Wetland Type 20 Lotus corniculatus/Populus balsamifera
- Wetland Type 21 Carex spp./Juncus spp.

The community composition for each community type is provided in full detail on the Wetland Mitigation Site Monitoring form (Appendix B), and the community boundaries are shown on Figure A-3 (Appendix A). Portions of upland types 17 and 18 are considered wetland in the northeastern portion of the project area, and are transitioning to a vegetation community comprising an increased dominance by hydrophytic plant species.

Vegetation cover was measured along three transects in 2020 (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 2 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 1, 10, 16, and 18 and wetland community types 7, 11, 14, 17, and 21. Forty-two percent of the transect crossed wetland habitat, an increase of 22.3 percent since 2019. The significant increase in wetland habitat observed in 2020 is primarily the result of upland type 17 transitioning to wetland, which is well represented along the northern portion of T-1. Standing water was present in both 2019 and 2020 along this transition zone within community type 17, which is currently dominated by facultative (FAC) species and has yet to shift to a dominance of more FACW and OBL species. Total vegetative cover has remained relatively constant at 85–90 percent from 2016 to 2020.

Table 2. Data Summary for T-1 From 2016 Through 2020 at the Easton Ranch Site

Monitoring Year	2016	2017	2018	2019	2020
Transect Length (feet)	1,376	1,376	1,376	1,376	1,376
Vegetation Community Transitions Along Transect	14	14	12	12	13
Vegetation Communities Along Transect	6	6	8	10	9
Hydrophytic Vegetation Communities Along Transect	2	2	4	4	5
Total Vegetative Species	54	58	50	52	54
Total Hydrophytic Species	34	41	32	32	38
Total Upland Species	20	17	18	20	16
Estimated % Total Vegetative Cover	85	85	89	89	90
Estimated % Unvegetated	15	15	11	11	10
% Transect Length Comprising Hydrophytic Vegetation Communities	22.7	22.7	19.1	19.3	42.2
% Transect Length Comprising Upland Vegetation Communities	77.3	77.3	80.9	80.7	57.8
% Transect Length Comprising Unvegetated Open Water	0.0	0.0	0.0	0.0	0.0
% Transect Length Comprising of 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 3. 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 46.5 percent of the transect, a minimal increase to that observed in 2019. Total vegetative cover has remained relatively constant at 85–90 percent from 2016 to 2020.

Table 3. Data Summary for T-2 From 2016 Through 2020 at the Easton Ranch Site

Monitoring Year	2016	2017	2018	2019	2020
Transect Length (feet)	1,333	1,333	1,333	1,333	1,333
Vegetation Community Transitions Along Transect	10	11	14	14	13
Vegetation Communities Along Transect	5	6	8	9	9
Hydrophytic Vegetation Communities Along Transect	3	4	5	6	6
Total Vegetative Species	61	58	54	59	61
Total Hydrophytic Species	41	45	44	46	46
Total Upland Species	20	13	10	13	15
Estimated % Total Vegetative Cover	85	85	87	90	90
Estimated % Unvegetated	15	15	13	10	10

% Transect Length Comprising Hydrophytic Vegetation Communities	40.4	40.5	40.9	46.1	46.5
% Transect Length Comprising Upland Vegetation Communities	59.6	59.5	59.1	53.9	53.5
% Transect Length Comprising Unvegetated Open Water	0.0	0.0	0.0	0.0	0.0
% Transect Length Comprising of 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 4. 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 2020, an increase of 3 percent since 2019. While a decrease in the total number of species (both hydrophytic and upland) was observed in 2020, total vegetative cover remained relatively constant at 90 percent. It's unclear why there was a decrease in the total number of species observed in 2020.

Table 4. Data Summary for T-3 From 2016 Through 2020 at the Easton Ranch Site

Monitoring Year	2016	2017	2018	2019	2020
Transect Length (feet)	732	732	732	732	732
Vegetation Community Transitions Along Transect	4	4	6	6	6
Vegetation Communities Along Transect	3	3	4	4	4
Hydrophytic Vegetation Communities Along Transect	1	1	2	2	2
Total Vegetative Species	45	42	42	40	29
Total Hydrophytic Species	28	29	30	27	19
Total Upland Species	17	13	12	13	10
Estimated % Total Vegetative Cover	85	85	90	91	90
Estimated % Unvegetated	15	15	10	9	10
% Transect Length Comprising Hydrophytic Vegetation Communities	44.4	47.3	51.1	51.5	54.8
% Transect Length Comprising Upland Vegetation Communities	55.5	52.7	48.9	48.5	45.2
% Transect Length Comprising Unvegetated Open Water	0.0	0.0	0.0	0.0	0.0
% Transect Length Comprising of 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 2020 to locate and identify surviving cuttings and containerized saplings. Approximately six red-osier dogwood (*Cornus alba*), 49 sandbar willow (*Salix exigua*), 93 speckled alder (*Alnus incana*), and 85 willow cuttings were identified as surviving in 2020. 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 northern and northeastern project boundaries. Volunteer speckled alder, sandbar willow (*Salix exigua*), and cottonwood (*Populus balsamifera*) were noted along the channel, are establishing well, and have increased in abundance and cover since 2019. 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 CT11, CT14, CT15, and CT21 across the site. Young cottonwoods were also observed along CT1, CT14, CT18, and CT21 within Transect 1, 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 observed primarily along or within the channel.

During the June 2020 monitoring, 11 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, CT11, CT13, CT15, CT18, and CT20. Four infestations of gypsy-flower (*Cynoglossum officinale*) were observed on site, primarily along the eastern site boundary, in upland community Types 1, 13, and 18. Annual weed spraying efforts have been very effective in reducing infestation size and cover of noxious weed populations across the site. The Montana Department of Transportation (MDT) has an ongoing weed-control program, which included weed spraying by contractors on July 4, 2020, following the June 2020 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 both flowing during the June 2020 site visit. Approximately 35 percent of the site was inundated with surface water during the 2020 investigation at depths that ranged from 0 to 1.5 feet. The majority of wetland cells were saturated or inundated with shallow surface water during the June monitoring event. Ponded surface water was present in many portions of the overflow channel and in several other low areas across the site. As mentioned previously, increased water flow into the northeastern portion of the project area over the last two years has caused this area to exhibit wetland hydrology, hydric soil characteristics, and an increase in hydrophytic species. During the 2020 site visit, this area was inundated, with water depths ranging from 0.25 to 1.5 feet. Some signs of overland flow from the Shields River were noted along portions of Transect 2, with debris from high flows deposited along the stems/trunks of young trees and shrubs. Signs of high flows were noted in the channel and included deposition and scour holes, but banks were generally well-vegetated and the channel bottom was stable and, in places, rocky.

Soils – Soil test pits were excavated at 24 locations and all were within the area mapped as Meadowcreek soil series by the NRCS, which is not classified a hydric soil (Figure A-2, Appendix A). Soil textures within wetland test pits ranged from loamy sand to silty clay. Hydric soil indicators were observed within all but three wetland test pits (i.e., DP01w, DP07b-w, DP09w) and included depleted matrix, redox dark surface, loamy gleyed matrix, and hydrogen sulfide. The three wetland test pits that lacked hydric soil indicators all exhibited strong indicators of hydrology, including surface water and a high water table, all dominant plant species were hydrophytic, and the wetland boundary had an abrupt edge.

Soil textures within upland test pits ranged from clay loam to clay. No hydric soil indicators were observed in any of the upland test pits. Additional field observations for the 24 data points are provided in the wetland determination data forms in Appendix B.

Photographs – Photographs taken at photo points 1–7 (PP1 to PP7), transect endpoints, and data points are provided in Appendix C with comparisons between 2020 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 2020 results of the functional assessments are summarized in Table 5. 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 a number of 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 5. Montana Wetland Assessment Method Summary for the Easton Ranch Site

Function and Value Parameters From the	2020	2020	2020
2008 Montana Wetland Assessment Method	Restoration	Preservation	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)	Low (0.05)	Low (0.05)	Low (0.05)
Actual Points/Possible Points	6.55 / 10	6.55 / 9	7.05 / 10
% of Possible Score Achieved	66%	73%	71%
Overall Category	II	II	II
Total Acreage of Assessed Wetlands Within Site Boundaries	1.64	1.1	11.15
Functional Units (acreage × actual points)	10.74	7.21	78.61

Wildlife – Fifteen bird species were identified at the site in 2020 (Site Monitoring Form Appendix B). Bird boxes installed in 2017 were checked and appeared to be in good working condition. In addition to the bird species, chorus frogs were seen 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 along an approximately 85-foot-long reconstructed bank and undermined the coir-wrapped soil lifts, 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 and 2020, bank erosion had continued along the downstream or southern portion of the 85-foot-long bank and resulted in areas of undercutting or loss of finer textured subsoils.

Credit Summary — Table 6 summarizes the estimated wetland credits based on the USACE-approved credit ratios and the wetland delineation completed in June 2020. 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 preexisting 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 2020 totaled 15.26 credit acres, which is an increase of 2.16 acres since 2019. The site is still approximately 12.15 acres short of the original goal of 27.41 credit acres.

Table 6. Wetland Mitigation Credits Estimated for the Easton Ranch Site (2017–2020)

Proposed Mitigation Features	Compensatory Mitigation Type	USACE Mitigation Ratios	Anticipated Final Credit Acreages	Proposed Final Wetland Credits (Acres)	2017 Wetland Acreages	2017 Credit Estimated (Acres)	2018 Wetland Acreages	2018 Credit Estimated (Acres)	2019 Wetland Acreages	2019 Credit Estimated (Acres)	2020 Wetland Acreages	2020 Credit Estimated (Acres)
Creation of palustrine emergent wetland via shallow excavation	Creation	1:1	24.95	24.95	9.79	9.79	8.93	8.93	9.63	9.63	11.15	11.15
Reestablishment of relic flood channel	Restoration (Reestablishment)	1:1	1.56	1.56	1.56	1.56	1.56	1.56	1.56	1.56	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*	2.30	11.5	2.30	11.5	2.3	14.28**	2.86
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***	TBD***	TBD***	1	-		-	1		0.11	TBD***
	Total			27.41		13.26		12.40		13.10		15.26

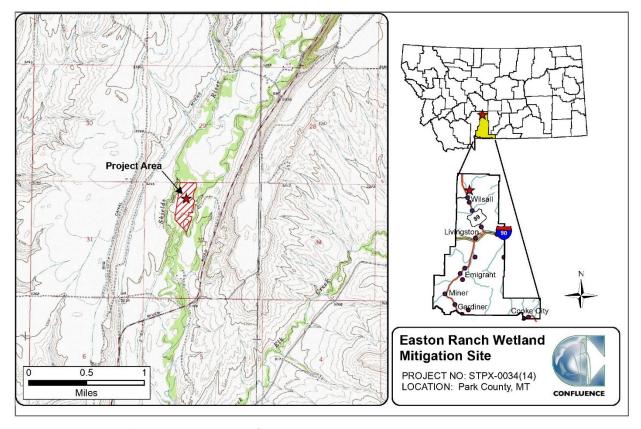
^{*50-}foot upland buffer calculated in GIS and carried forward by RESPEC through 2019

^{**50-}foot upland buffer calculated in GIS in 2020 by Confluence. Upland buffer established around 2020 mapped wetland boundaries.

^{***} Mitigation ratios and crediting for Open Water are To Be Determined (TBD).

Maps, Plans, Photos

Site Location Map



Project Area Maps/Figures: See Appendix A

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

Photos: See Appendix C

Plans: See Appendix D of 2018 Monitoring Report

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

Easton-Ranch.PDF

Conclusions

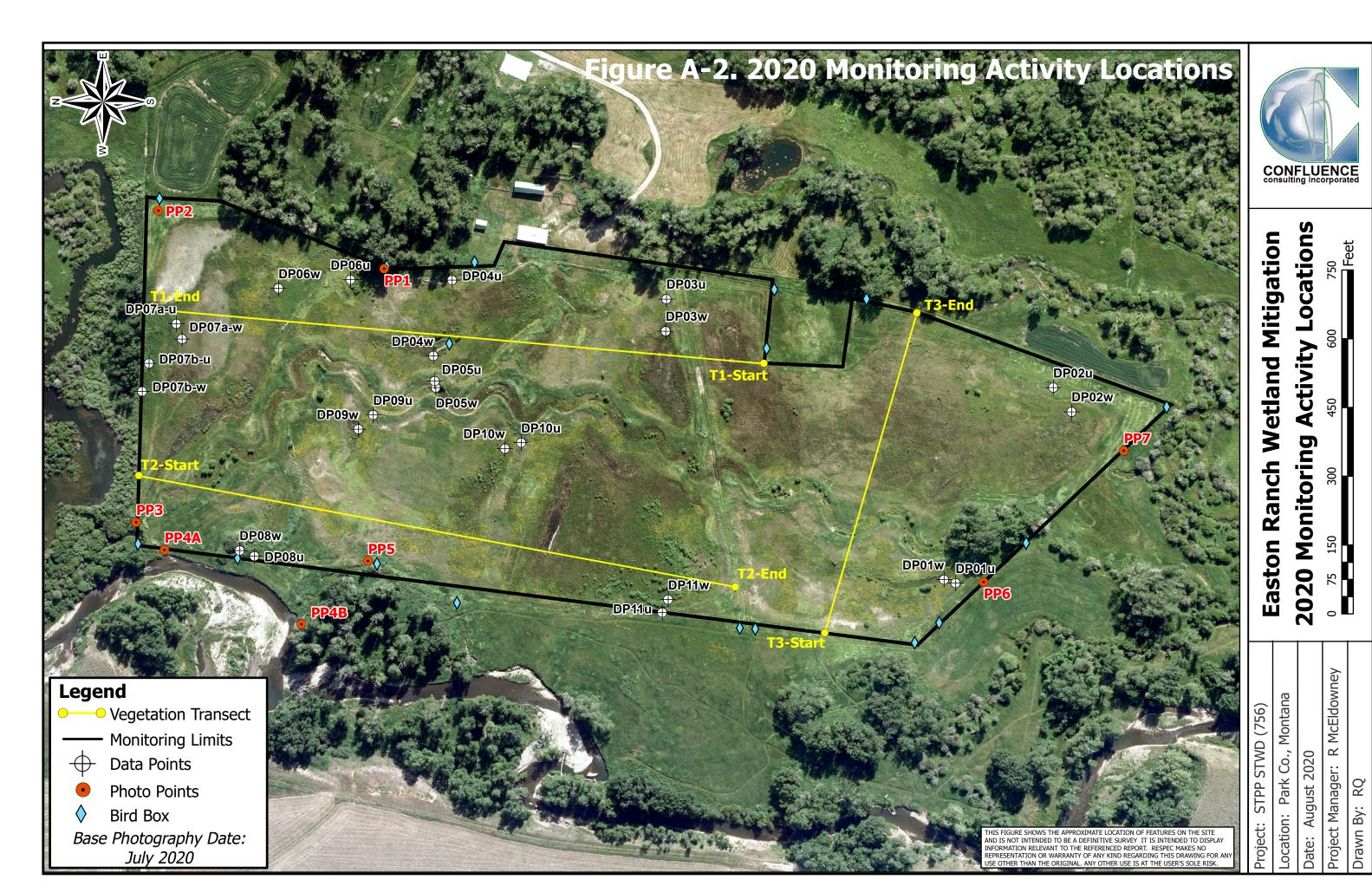
Based on the results of the eleventh year of monitoring, the mitigation site is continuing an upward trend toward a diverse wetland ecosystem. The site is meeting all Performance Standards except for Wetland hydrology (groundwater wells), Wetland Acreage Development, and Bank Stabilization (deeprooting riparian vegetation establishment). MDT will discuss the difficulties in meeting these performance standards and potential remedial actions to address the deficiencies.

References

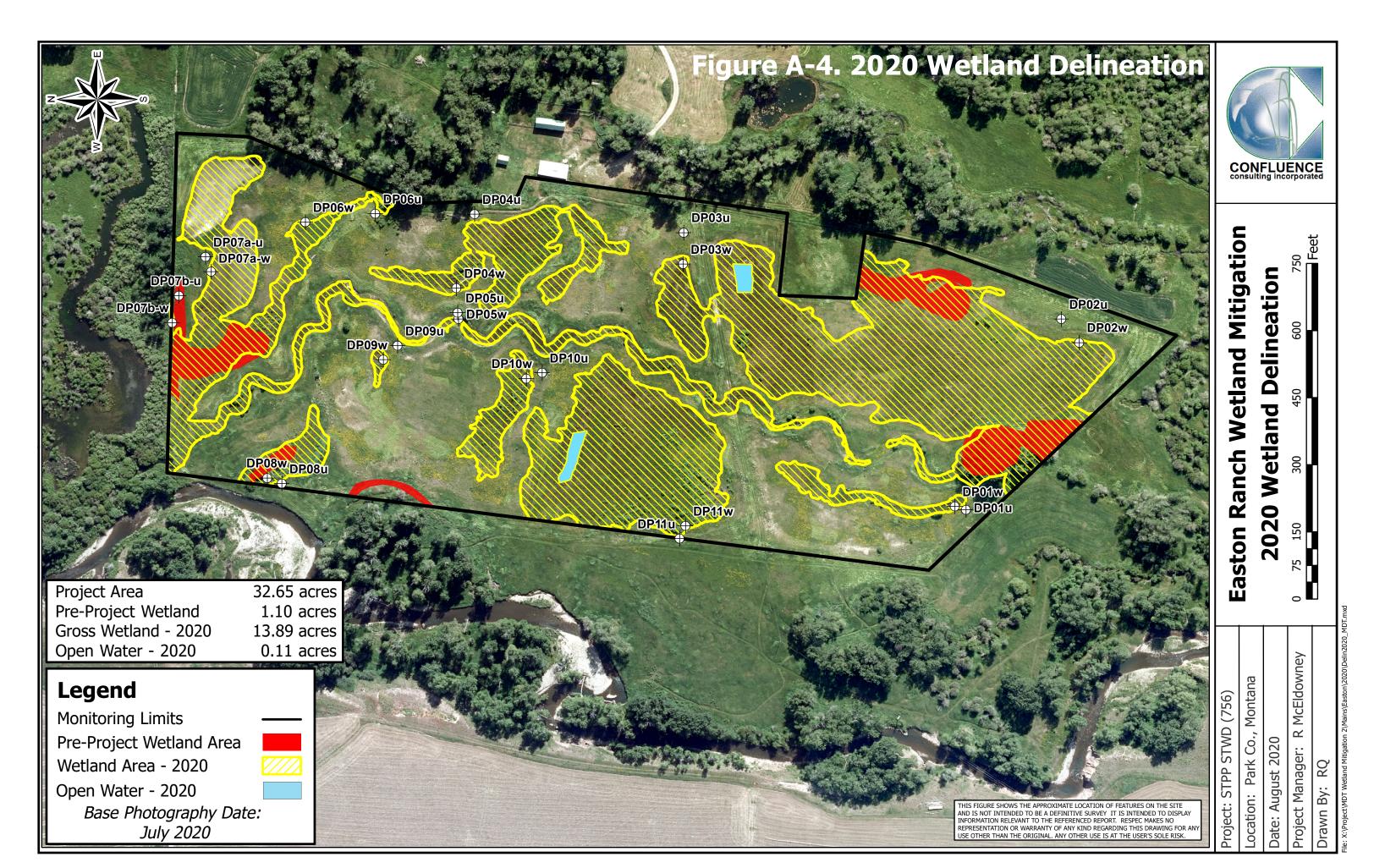
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APPENDIX A PROJECT AREA MAPS

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 6/23/2020
Person(s) conducting the assessment: R Quire, S Weyant, R Jones
Weather: 75 degees, sunny, clear, humid Location: Northeast of Wilsall
MDT District: Butte Milepost: NA
Legal Description: T <u>4N</u> R <u>9E</u> Section(s) <u>32 NW 1/4</u>
Initial Evaluation Date: 8/25/2010 Monitoring Year: 11 #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.
nundation: Average Depth:0.3 (ft) Range of Depths:0.1-1.5 (ft)
Percent of assessment area under inundation: <u>35 %</u>
Pepth at emergent vegetation-open water boundary: 0.5 (ft)
assessment area is not inundated then are the soils saturated within 12 inches of surface:Yes_
Other evidence of hydrology on the site (ex. – drift lines, erosion, stained vegetation, etc <u>:</u>
Sediment deposits, channel scour and deposition, debris left around the base of young trees and shrubs, geomorphic position, FAC-neutral test, surface water, high water table, and saturation.
Groundwater Monitoring Wells
Record depth of water surface below ground surface, in feet.
Trecord 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 2020 monitoring. Surface water was present in the overflow channel and in the majority of low areas across the site. Surface water levels were higher compared to 2019. Along Transect 3, signs of high flows were noted in the channel and included deposition and scour holes but banks were generally well -vegetated and the channel bottom stable and in places rocky.

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: 6.81

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
Dactylis glomerata	1	Deschampsia caespitosa	0
Elymus repens	3	Equisetum arvense	0
Glycyrrhiza lepidota	0	Juncus balticus	0
Leymus cinereus	1	Lotus corniculatus	2
Lysimachia ciliata	0	Medicago sativa	1
Melilotus officinalis	0	Phalaris arundinacea	1
Phleum pratense	1	Phleum pratense	3
Poa palustris	1	Poa pratensis	3
Populus balsamifera	1	Salix lutea	1
Sisyrinchium idahoense	0	Stachys palustris	0
Taraxacum officinale	1	Trifolium hybridum	1
Trifolium pratense	2		
Cammanta			

Comments:

In 2020, there is an increase in the cover by Lotus corniculatus and Elymus repens within this community. More willow and cottonwood seedlings observed.

Community # 3 Community Type: Carex spp. / Acres: 0.5

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:

Scrub-shrub community along the banks of the Shield River. Dominated by Salix drummondiana and Salix lasiandra in 2020.

<u>5</u> Community Type: <u>Populus balsamifera /</u> Community # 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:

Small forested area along the southern project boundary.

7 Community Type: Aquatic macrophytes / 0.19 Acres: Community #

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	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 2020.

Community #	10	Community Type:	Bromus inermis / Populus tremuloides	Acres:	0.23
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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 alor	ng the northern project bo	undary.	

Community # 11 Community Type: Juncus spp./ Acres: <u>5.19</u>

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	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:			

Comments:

Diverse wetland community type with many more species recorded with a cover value of less than 1 percent. In 2017, Glyceria spp. was removed as a codominant, Glyceria grandis and Glyceria striata are still present but represent a low percent cover. In 2018-2020, noted Salix spp., Alnus incana, and Populus balsamifera seedlings across portions of CT 11. In 2020 areas of this community transitioned to CT 14 and 21 from increase in Carex spp. and Populus balsmifera.

Community # 12 Community Type: Eleocharis palustris / Typha latifolia Acres: 1.02

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
Commenter			

Comments:

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

Community # 13 Community Type: Bromus inermis / Phleum pratense Acres: 5.35

Species	Cover class	Species	Cover class
Agrostis stolonifera	1	Alopecurus pratensis	0
Bare Ground	1	Bromus inermis	3
Camelina microcarpa	1	Carum carvi	1
Cirsium arvense	1	Dactylis glomerata	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 2019, CT13 replaced a small portion of CT1 in the eastern portion of the property and along portions of the road.

Community # 14 Community Type: Juncus spp. / Populus balsamifera Acres: 2.44

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 lutea	2
Sinapis arvensis	0	Sisyrinchium idahoense	0
Taraxacum officinale	0	Trifolium hybridum	0
Trifolium pratense	0		
Comments:			

This community type expanded across the site as a result of the increase in cover by Populus balsamifera.

Community # 15 Community Type: Juncus spp. / Salix spp. Acres: 0.9

Species	Cover class	Species	Cover class
Agrostis stolonifera	0	Alnus incana	1
Bare Ground	1	Carex nebrascensis	2
Carex utriculata	1	Cicuta douglasii	1
uncus balticus	4	Juncus effusus	1
uncus tenuis	1	Mentha arvensis	1
oa palustris	0	Populus balsamifera	2
otentilla anserina	1	Salix bebbiana	2
alix drummondiana	1	Salix exigua	1
alix lutea	3	Scirpus microcarpus	1
tachys palustris	1		

Comments:

In 2017, portions of community types 11 and 14 have transitioned into a dominance of young willow seedlings representing greater than 30 percent of the total cover.

Community #	16	Community Type:	Elymus repens / Poa pratensis	Acres:	1.8
		Odiminality i ypc.	Lighted repetie / i ea prateriole	Acics.	

Species	Cover class	Species	Cover class
Agrostis stolonifera	1	Bare Ground	1
Bromus ciliatus	0	Bromus inermis	2
Carum carvi	2	Cirsium arvense	1
Elymus cinereus	1	Elymus repens	3
eymus cinereus	1	Lotus corniculatus	2
hleum pratense	2	Poa palustris	1
oa pratensis	3	Populus balsamifera	0
Ranunculus macounii	0	Taraxacum officinale	2
rifolium pratense	1		

Comments:

A new community type in 2018, primarily along the northwestern portion of the project. Noting a shift from Bromus inermis to more facultative species.

Community # 17 Community Type: Phleum pratense / Elymus repens Acres: 1.07

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

Comments:

A small, well-defined community along the northern end of Transect 1 formerly CT 1. In 2019 this community expanded to the south.

Community # 18 Community Type: Lotus corniculatus / Phleum pratense Acres: 4.35

Species	Cover class	Species	Cover class
Agrostis stolonifera	1	Alnus incana	1
Alopecurus arundinaceus	1	Bare Ground	1
Bromus carinatus	0	Bromus inermis	0
Camelina microcarpa	1	Carex pachystachya	0
Carex pellita	1	Carum carvi	2
Elymus repens	1	Equisetum arvense	0
Juncus balticus	1	Leymus cinereus	1
Lotus corniculatus	4	Medicago lupulina	1
Melilotus officinalis	0	Open Water	1
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:			

Comments:

New community type mapped in 2018 found mainly across the northeastern portion of project site indicating an increase in soil moisture. Cover and density by Lotus corniculatus has been increasing over the past couple of years across CT 8, CT 13 and CT16.

Community # 20 Community Type: Lotus corniculatus / Populus balsamifera Acres: 0.16

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: 2.03

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	Deschampsia caespitosa	1
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	Phleum pratense	1
Poa palustris	0	Poa pratensis	1
Populus balsamifera	1	Ranunculus macounii	0
Salix bebbiana	1	Salix exigua	1
Salix lutea	1	Scirpus microcarpus	1
Stachys palustris	1	Typha latifolia	0
Comments:			

Comments.

A new community type mapped in 2019, within transects 1 and 2. In 2020, an increase in Carex spp. within CT 11 has expanded CT 21 and replaced portions of CT 11.

Total Vegetation Community Acreage

32.66

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

VEGETATION TRANSECTS

Easton	Da	te:	6/23/2020
Transect Number:	1 Compass Di	irection from Start:	<u>5</u> °
Interval Data:			
Ending Station	42 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	100 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	Salix lutea	1
Typha latifolia	2	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 prate	ensis
Species	Cover class	Species	Cover class
Agrostis stolonifera	2	Bare Ground	1
Cirsium arvense	0	Elymus repens	4
Leymus cinereus	0	Lotus corniculatus	1
Phleum pratense	2	Poa palustris	0
Poa pratensis	3	Taraxacum officinale	0

Ending Station	263	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	472	Community Type:	Phleum pratense / Poa prate	nsis
Species		Cover class	Species	Cover class
Agrostis stolonifera		2	Alopecurus arundinaceus	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
Schedonorus pratensis		1	Stachys palustris	1
Ending Station	565	Community Type:	Lotus corniculatus / Phleum	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		3	Phleum pratense	2
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 balsar	mifera
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	669	Community Type:	Lotus corniculatus / Phleum լ	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. / Populus balsar	mifera
Species		Cover class	Species	Cover class
		1	Carex pachystachya	4
Alnus incana		I I	our on paoriyotaoriya	ı
Alnus incana Carex pellita		1	Carum carvi	1
				1 1 2
Carex pellita		1	Carum carvi	•
Carex pellita Juncus balticus		1 4	Carum carvi Lotus corniculatus	2
Carex pellita Juncus balticus Populus balsamifera		1 4 3	Carum carvi Lotus corniculatus Salix bebbiana	2
Carex pellita Juncus balticus Populus balsamifera Salix boothii Sisyrinchium idahoense	1147	1 4 3 1	Carum carvi Lotus corniculatus Salix bebbiana Salix exigua	2 2 2
Carex pellita Juncus balticus Populus balsamifera Salix boothii Sisyrinchium idahoense	1147	1 4 3 1 0	Carum carvi Lotus corniculatus Salix bebbiana Salix exigua	2 2 2 2
Carex pellita Juncus balticus Populus balsamifera Salix boothii Sisyrinchium idahoense Ending Station	1147	1 4 3 1 0 Community Type:	Carum carvi Lotus corniculatus Salix bebbiana Salix exigua Lotus corniculatus / Phleum p	2 2 2 2 pratense
Carex pellita Juncus balticus Populus balsamifera Salix boothii Sisyrinchium idahoense Ending Station Species	1147	1 4 3 1 0 Community Type: Cover class	Carum carvi Lotus corniculatus Salix bebbiana Salix exigua Lotus corniculatus / Phleum p	2 2 2 2 pratense
Carex pellita Juncus balticus Populus balsamifera Salix boothii Sisyrinchium idahoense Ending Station Species Alnus incana	1147	1 4 3 1 0 Community Type: Cover class	Carum carvi Lotus corniculatus Salix bebbiana Salix exigua Lotus corniculatus / Phleum p Species Bare Ground	2 2 2 2 pratense
Carex pellita Juncus balticus Populus balsamifera Salix boothii Sisyrinchium idahoense Ending Station Species Alnus incana Carum carvi	1147	1 4 3 1 0 Community Type: Cover class 1 2	Carum carvi Lotus corniculatus Salix bebbiana Salix exigua Lotus corniculatus / Phleum p Species Bare Ground Equisetum arvense	2 2 2 2 pratense
Carex pellita Juncus balticus Populus balsamifera Salix boothii Sisyrinchium idahoense Ending Station Species Alnus incana Carum carvi Juncus balticus	1147	1 4 3 1 0 Community Type: Cover class 1 2 2	Carum carvi Lotus corniculatus Salix bebbiana Salix exigua Lotus corniculatus / Phleum p Species Bare Ground Equisetum arvense Leymus cinereus	2 2 2 2 coratense Cover class 1 1 1
Carex pellita Juncus balticus Populus balsamifera Salix boothii Sisyrinchium idahoense Ending Station Species Alnus incana Carum carvi Juncus balticus Lotus corniculatus	1147	1 4 3 1 0 Community Type: Cover class 1 2 2 4	Carum carvi Lotus corniculatus Salix bebbiana Salix exigua Lotus corniculatus / Phleum p Species Bare Ground Equisetum arvense Leymus cinereus Medicago lupulina	2 2 2 2 coratense Cover class 1 1 1 1
Carex pellita Juncus balticus Populus balsamifera Salix boothii Sisyrinchium idahoense Ending Station Species Alnus incana Carum carvi Juncus balticus Lotus corniculatus Open Water	1147	1 4 3 1 0 Community Type: Cover class 1 2 2 4 1	Carum carvi Lotus corniculatus Salix bebbiana Salix exigua Lotus corniculatus / Phleum p Species Bare Ground Equisetum arvense Leymus cinereus Medicago lupulina Phleum pratense	2 2 2 2 coratense Cover class 1 1 1 1

Ending Station	1335 Community Type:	Phleum pratense / Elymus repens
----------------	----------------------	---------------------------------

Species	Cover class	Species	Cover class
Bare Ground	1	Bromus inermis	1
Carum carvi	2	Cirsium arvense	0
Elymus repens	4	Equisetum arvense	1
Leymus cinereus	1	Lotus corniculatus	3
Open Water	2	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 upland/wetland CT 17, water flowing from outside of project boundary, flows north to south. This CT is expected to transition in this flooded area to a hydrophytic species community if water remains on site.

Transect Number: 2 Compass Direction from Start: 185 °

Interval Data:

Ending Station	33 Community Type:	Carex spp. /
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Species	Cover class	Species	Cover class
Calamagrostis canadensis	1	Carex atherodes	4
Carex nebrascensis	2	Carex pellita	2
Carex utriculata	2	Cirsium arvense	1
Equisetum arvense	1	Juncus balticus	1
Juncus longistylis	1	Open Water	1
Poa palustris	1	Poa pratensis	1
Salix exigua	0	Scirpus microcarpus	1
Stachys palustris	0		

Ending Station 68 **Community Type:** Carex spp. / Juncus spp.

Species	Cover class	Species	Cover class
Carex aquatilis	2	Carex atherodes	3
Carex bebbii	4	Carex pellita	4
Equisetum arvense	1	Glyceria grandis	2
Juncus balticus	3	Open Water	2
Poa palustris	1	Ranunculus macounii	1
Salix bebbiana	1	Salix lutea	1
Scirpus microcarpus	2	Typha latifolia	1

Ending Station 113 Community Type: Phleum pratense / Poa pratensis

Species	Cover class	Species	Cover class
Alopecurus arundinaceus	1	Carex nebrascensis	1
Carex pellita	1	Cirsium arvense	1
Dactylis glomerata	1	Elymus repens	3
Equisetum arvense	1	Juncus balticus	1
Leymus cinereus	0	Lotus corniculatus	2
Phalaris arundinacea	1	Phleum pratense	3
Poa pratensis	3	Stachys palustris	1
Taraxacum officinale	1	• •	

Ending Station	136	Community Type:	e: Carex spp. / Juncus spp.		
Species		Cover class	Species	Cover class	
Bare Ground		1	Carex atherodes	2	
Carex nebrascensis		3	Carex pellita	2	
Carex utriculata		3	Deschampsia caespitosa	1	
Equisetum arvense		1	Juncus balticus	3	
Lysimachia ciliata		1	Poa palustris	2	
Poa pratensis		1	Ranunculus macounii	0	
Salix bebbiana		1	Salix lutea	1	
Scirpus microcarpus		2	Stachys palustris	1	
Ending Station	319	Community Type:	Phleum pratense / Poa prate	ensis	
Species		Cover class	Species	Cover class	
Agrostis stolonifera		1	Bare Ground	1	
Carum carvi		1	Elymus repens	3	
Equisetum arvense		2	Glycyrrhiza lepidota	0	
Leymus cinereus		1	Lotus corniculatus	2	
Lysimachia ciliata		0	Medicago sativa	2	
Phleum pratense		3	Poa pratensis	3	
Populus balsamifera		1	Salix lutea	0	
Sisyrinchium idahoense		0	Stachys palustris	1	
Taraxacum officinale		2	Trifolium pratense	2	
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			

Ending Station	708 Community Type	nunity Type: Lotus corniculatus / Phleum pratense		
Species	Cover class	Species	Cover class	
Bare Ground	2	Bromus carinatus	1	
Bromus inermis	1	Camelina microcarpa	1	
Carum carvi	2	Elymus repens	2	
Equisetum arvense	1	Leymus cinereus	1	
Lotus corniculatus	4	Medicago lupulina	1	
Melilotus officinalis	1	Phleum pratense	3	
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	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	830 Community Type	: Bromus inermis / Phleum	pratense	
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	893 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	919	Community Type:	Type: Aquatic macrophytes /		
Species		Cover class	Species	Cover class	
Alopecurus geniculatus		1	Carex pellita	1	
Carex utriculata		2	Cornus alba	1	
Eleocharis palustris		2	Glyceria grandis	2	
Juncus balticus		1	Juncus ensifolius	1	
Open Water		4	Schoenoplectus pungens	2	
Scirpus microcarpus		1			
Ending Station	1055	Community Type:	Juncus spp. / Salix spp.		
Species		Cover class	Species	Cover class	
Agrostis stolonifera		1	Alnus incana	1	
Bare Ground		1	Carex nebrascensis	1	
Carex utriculata		1	Juncus balticus	4	
Juncus effusus		1	Juncus tenuis	1	
Mentha arvensis		1	Poa palustris	1	
Populus balsamifera		2	Potentilla anserina	0	
Salix bebbiana		3	Salix drummondiana		
Salix exigua		1	Salix lutea	3	
Scirpus microcarpus		1	Stachys palustris	1	
Ending Station	1270	Community Type:	Juncus spp. / Populus balsa	mifera	
Species		Cover class	Species	Cover class	
Agrostis stolonifera		2	Carex utriculata	1	
Juncus balticus		3	Juncus effusus	2	
_otus corniculatus		2	Mentha arvensis	1	
Poa palustris		3	Populus balsamifera	4	
Salix bebbiana		2	Salix drummondiana	2	
Salix lutea		3			
Ending Station	1333	Community Type:	Bromus inermis / Phleum pr	atense	
Species		Cover class	Species	Cover class	
Bare Ground		3	Bromus inermis	4	
Elymus repens		1	Leymus cinereus	1	
_otus corniculatus		2	Phleum pratense	3	
Poa pratensis		2	Populus balsamifera	1	
Schedonorus pratensis		1	Taraxacum officinale	2	
Trifolium pratense		1			

Total vegetative cover has remained relatively constant at 85–90 percent from 2016 to 2020.

Transect Notes:

Interval Data: 114 Community Type: Bromus inermis / Phleum pratense **Ending Station Cover class Cover class Species Species** Bare Ground 2 2 Bromus inermis Camelina microcarpa 0 Carum carvi 3 Elymus repens 1 Leymus cinereus 1 3 3 Lotus corniculatus Phleum pratense 2 Populus balsamifera 1 Poa pratensis Taraxacum officinale 1 Trifolium hybridum 1 2 Trifolium pratense 153 Community Type: Juncus spp. / Populus balsamifera **Ending Station Species Cover class Cover class** Species Agrostis stolonifera 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 1 208 Community Type: Bromus inermis / Phleum pratense **Ending Station Cover class Species** Cover class **Species** Bromus inermis 3 Carum carvi 3 Cirsium arvense 0 Dactylis glomerata 1 1 1 Elymus repens Equisetum arvense 3 Leymus cinereus 1 Lotus corniculatus 2 2 Phleum pratense Poa pratensis Taraxacum officinale 1 223 Community Type: Juncus sp. / Populus balsamifera **Ending Station Species Cover class Species Cover class** Bare Ground 1 1 Deschampsia caespitosa 2 1 Equisetum arvense Juncus balticus 2 2 Lotus corniculatus Open Water Phleum pratense 1 Poa pratensis 1 Salix lutea Populus balsamifera 4 1 Sinapis arvensis

Compass Direction from Start:

Transect Number: 3

95 °

Ending Station	309 Community Type:	Bromus inermis / Phleum pratense	
Species	Cover class	Species	Cover class
Alopecurus pratensis	0	Bromus inermis	3
Carum carvi	2	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 nebrascensis	1	Carex sp.	0
Carex utriculata	1	Cirsium arvense	1
Juncus balticus	4	Juncus longistylis	1
Lotus corniculatus	1	Populus balsamifera	1
Salix bebbiana	2	Salix lutea	1
Solidago gigantea	0	Solidago gigantea	1
Ending Station	732 Community Type:	Phleum pratense / Poa pr	atensis
Species	Cover class	Species	Cover class
Agrostis stolonifera	1	Bromus inermis	2
Carum carvi	1	Dactylis glomerata	1
Elymus repens	1	Juncus balticus	0
Lotus corniculatus	1	Phleum pratense	2
Poa pratensis	4	Taraxacum officinale	1
Trifolium pratense	1		

Transect Notes:

During the transect monitoring, a comprehensive list of all species noted within the different community types were recorded (along with a cover estimate value). Species with a rating of 1 or greater were generally included on the previous transect forms, species with less than 1 percent were generally not listed on the previous transect forms.

PLANTED WOODY VEGETATION SURVIVAL

Easton

Planting Type	#Planted	#Alive Notes	
Red-osier dogwood	250	6	
Sandbar willow	250	49	
Thinleaf alder	500	93	
Willow cuttings	200	85	

Comments

Woody shrubs were counted along and adjacent to the floodplain channel. After 11 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 also decreased from 22 to 6 after an increase in the previous year. Many Populus balsamifera volunteers have appeared across the site over the last few years, especially in Juncus spp. Communities, and are continuing to spread.

Easton

WILDLIFE

Birds

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, 5 were empty and one (located between PP4a and PP4b) was knocked over and needs to be resecured to the fencepost. Many of the birdboxes were observed with nesting tree swallows present.

Species	#Observed	Behavior	Habitat
American Goldfinch	1	FO	
Bald Eagle	2	FO, N	
Brewer's Blackbird	4		
Cinnamon Teal		FO	
Golden Eagle	1	FO, N	
Great Blue Heron	2	FO	
Killdeer	Killdeer 9		US
Mallard	10		
Mourning Dove	1	N	UP
Nighthawk	2	N	
Red-winged Blackbird	57	BD, F, L, N	
Sandhill Crane	6	F, FO	
Tree Swallow	24	F, FO, L	
Wild Turkey	2	L	
Wilson's Snipe	4	F, FO	UP, WM
Bird Comments			

BEHAVIOR CODES

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

HABITAT CODES

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

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

Mammals and Herptiles

Species	# Observed Tracks Scat	Burrows Comments

Chorus frogs	3	No	No	No
White-tailed Deer	8	No	No	No

Wildlife Comments:

Easton

PHOTOGRAPHS

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

Photograph Checklist:

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

Photo #	Latitude	Longitude	Bearing	Description	
DP-01U	46.056245	-110.640246			
DP-01W	46.056314	-110.640218			
DP-02U	46.055677	-110.638554			
DP-02W	46.055566	-110.638759			
DP-03U	46.058001	-110.637841			
DP-03W	46.058002	-110.638117			
DP-04U	46.059284	-110.637706			
DP-04W	46.05939	-110.638359			
DP-05U	46.059379	-110.638576			
DP-05W	46.059373	-110.63863			
DP-06U	46.059893	-110.637715			
DP-06W	46.060322	-110.637715			
DP-07a-U	46.06093	-110.638116			
DP-07a-W	46.060895	-110.638244			
DP-07b-U	46.061091	-110.63846			
DP-07b-W	46.061129	-110.6387			
DP-08U	46.060443	-110.640103			
DP-08W	46.060532	-110.640056			
DP-09U	46.059745	-110.638874			
DP-09W	46.059832	-110.638998			
DP-10U	46.058857	-110.639093			
DP-10W	46.058954	-110.639147			
DP-11U	46.057998	-110.640537			
DP-11W	46.057964	-110.640424			
PP1	46.059727	-110.637505		East boundary	
PP2	46.061028	-110.637207		Northeast corner	
PP3	46.061188	-100.639848		Northeast corner	

PP4	46.050705	-110.640434	Shields bank
PP4	46.060993	-110.640121	Shields bank
PP5	46.059883	-110.640404	West boundary
PP6	46.056175	-110.64048	Southwest 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
☑ Map emergent vegetation/open water boundary on aerial photos.
 ✓ Map emergent vegetation/open water boundary on aerial photos. ✓ Observe extent of surface water. Look for evidence of past surface water elevations (e.g. drift
lines, vegetation staining, erosion, etc).
Photos
One photo from the wetland toward each of the four cardinal directions
 ✓ One photo showing upland use surrounding the wetland. ✓ One photo showing the buffer around the wetland ✓ One photo from each end of each vegetation transect, toward the transect
✓ One photo showing the buffer around the wetland
✓ One photo from each end of each vegetation transect, toward the transect
Vegetation
✓ Map vegetation community boundaries
✓ Complete Vegetation Transects
Soils
✓ Assess soils
Wetland Delineations
_
✓ Delineate wetlands according to applicable USACE protocol (1987 form or Supplement)
Delineate wetland – upland boundary onto aerial photograph.
Wetland Delineation Comments
Total wetland acreage in 2020, 13.89 acres, is the highest delineated acreage to date, and is primarily a result of the increased water flow into
the northeastern portion of the project area over the last two years.
Functional Assessments
Complete and attach full MDT Montana Wetland Assessment Method field
orms.
Functional Assessment Comments:
Functional units increased due to increased wetland acreage.

Yes

Maintenance

Yes

Were man-made nesting structures installed at this site?

If yes, do they need to be reaired?

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 waterflow into or out of the wetland? No

If yes, are the structures in need of repair

Bank erosion was noted along the Shields River in the NW portion of the project area.									

Project/Site: Easton	Citv/C	County: Park	Sampling Date:6/24/2020
Applicant/Owner: MDT		,	State: Montana Sampling Point: DP01u
Investigator(s): R Quire, R Jones, S Weyant	Secti	ion. Township. Rang	_{ie:} S 32 T 4N R 9E
Landform (hillslope terrace etc.). Terrace	Loca	al relief (concave, co	nvex_none): flat Slope (%):
Landform (hillslope, terrace, etc.): Terrace Subregion (LRR): LRR E La	 at:	46.056245	-110.640246 _{Datum:} NAD 83
Soil Map Unit Name: 155A: Meadowcreek, rarely flooded-N	lesda com	plex, 0 to 2 percer	nt slope NWI classification. Not Mapped
Are climatic / hydrologic conditions on the site typical for this time			
Are Vegetation, Soil, or Hydrology signifi	-		
Are Vegetation, Soil, or Hydrology natura			ded, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map sho	-		
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Yes No Yes No	✓	Is the Sampled A within a Wetland	
Remarks: Upslope of wetland boundary at SW project boundary.			
VEGETATION - Use scientific names of plants			
Absolute D		ndicator	Dominance Test worksheet
Tree Stratum Plot size (30 Foot Radius) % Cover: S	pecies? S	Status	Number of Dominant Species that are OBL, FACW or FAC: 0 (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: 0 % (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 14 X 3 42
			FACU species 11 X 4 44
Herbaceous Stratum Plot size (5 Foot Radius)			UPL species 45 X 5 225
Bromus inermis 45	✓ UP		Column Totals 70 (A) 311 (B)
Pascopyrum smithii 10 Phleum pratense 4	☐ FA	CU	Prevalence Index = B/A = 4.44286
Poa pratensis 10	☐ FA		Hydrophytic Vegetation Indicators
Taraxacum officinale 1		CU	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 30			Hydrophytic Vegetation Yes □ NO ✓ Present?
Remarks:			
BG/litter=30%			
US Army Corps of Engineers			Western Mountains, Valleys, and Coasts - Version 2.0

SOIL								Sa	mpling Point: DP01u
Profile Desc	ription: (Descri	be to the depth	needed to docur	nent the ind	icator or	confirn	n the absence		
Depth	Matrix			x Features	_ 1	. 2			
(inches)	Color (moist)		Color (moist)	%	Type ¹	Loc ²	Texture		Remarks
0-13	10YR 2/2	100				(Clay Loam		
							-		
							-	-	
								-	
			educed Matrix, CS			Sand G			ore Lining, M=Matrix.
Hydric Soil I	ndicators: (App	licable to all LR	Rs, unless other	rwise noted.)		Indicat	ors for Probl	ematic Hydric Soils³:
Histosol			Sandy Redox (m Muck (A10)	
	ipedon (A2)	<u> </u>	Stripped Matrix	. ,			_	d Parent Mate	
Black His	` '	<u> </u>	Loamy Mucky M		except N	/ILRA 1)		-	rk Surface (TF12)
	n Sulfide (A4) I Below Dark Suri	<u>□</u>	」Loamy Gleyed]Depleted Matrix				Otr	ier (Explain in	Remarks)
	rk Surface (A12)	ace (ATT)	Redox Dark Su				³ Indicat	ors of hydroni	nytic vegetation and
_	ucky Mineral (S1	, <u> </u>	Depleted Dark	` ,					must be present,
	leyed Matrix (S4)	_	Redox Depress						or problematic.
	ayer (if present		<u> </u>	. ,					·
Type:			_						
Depth (inc	:hes):						Hydric Soi	l Present?	Yes No _¥
1)/000101	2)/								
HYDROLO									
=	Irology Indicato						_		
	·	of one required; of	theck all that appl					,	ors (2 or more required
	Water (A1)			ined Leaves		ept	\		Leaves (B9) (MLRA 1
	ter Table (A2)			1, 2, 4A, and	l 4B)		П.	4A, and 4E	•
Saturatio			Salt Crust					Orainage Patte	
Water Ma				vertebrates (I				-	/ater Table (C2)
	t Deposits (B2)			Sulfide Odor	. ,	daa Daa			ible on Aerial Imagery
	osits (B3)			Rhizospheres of Reduced I	-	ving Roc	` ' —	Seomorphic P	
	t or Crust (B4) osits (B5)		_	n Reduction	` ′	Soile (CE		Shallow Aquita FAC-Neutral T	, ,
	Soil Cracks (B6)			Stressed Pla		-			ounds (D6) (LRR A)
	on Visible on Aeri	al Imagen/ (R7)		ollain in Rema	, ,	(LKK A			lummocks (D7)
	Vegetated Conc			nam m rema	ii Ko)		'	103t-11eave 1	idifiifiocks (D1)
Field Observ			<u> </u>			T			
Surface Water		Yes 🗆 No	✓ Depth (in	ches):					
Water Table		Yes No	· ` `						
Saturation Pr		Yes No					and Hydrolog	v Present?	Yes No _
(includes cap	illary fringe)	<u> </u>							
Describe Rec	orded Data (stre	am gauge, monit	oring well, aerial _l	onotos, previ	ous inspe	ections),	ıt available:		
Remarks: No hydrolog	ic indicators ob	served during	site visit						
		-5.754 dailing	.						

Project/Site: Easton Ci	ty/County: Park Sampling Date: 6/24/2020
Applicant/Owner: MDT	State: Montana Sampling Point: DP01w
Investigator(s): R Quire, R Jones, S Weyant Se	
Landform (hillolone torrose etc.). Floodplain	ocal relief (concave, convex, none): concave Slope (%): 3
Subregion (LRR): LRR E Lat:	46.056314 Long: -110.640218 Datum: NAD 83
Soil Map Unit Name: 155A: Meadowcreek, rarely flooded-Nesda co	Datum: 1415 00 Datum:
•	
Are climatic / hydrologic conditions on the site typical for this time of year	
	sturbed? Are "Normal Circumstances" present? Yes 🗹 No 🔲
Are Vegetation, Soil, or Hydrology naturally probl	ematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing s	ampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No	
Hydric Soil Present? Yes No	Is the Sampled Area within a Wetland? Yes ✓ No ✓
Wetland Hydrology Present? Yes No	within a Wetland? Yes Ves No Ves
Remarks:	
PSS riverine wetland.	
VECETATION. Her assemble warmen of wheater	
VEGETATION - Use scientific names of plants	Indicator Parriagna Tack waste back
<u>Tree Stratum</u> Plot size (30 Foot Radius) Absolute Domiant % Cover: 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)
	Percent of Dominant Species 100 ov (A/D)
Sapling/Shrub Stratum Plot size (15 Foot Radius)	That Are OBL, FACW, or FAC: 100 % (A/B)
	FAC Prevalence Index worksheet
	I otal % Cover of: Multiply by:
	OBL species
Salix lasiandra 10	FACW Species 34 X 3 102
	FACU species 0 X 4 0
<u>Herbaceous Stratum</u> Plot size (5 Foot Radius)	UPL species 0 X 5 0
Carex utriculata 1	OBL Column Totals 90 (A) 213 (B)
	FAC Prevalence Index = B/A = 2.36667
	Livelyon by the Managerian Indicators
	1 - Rapid Test for Hydrophytic Vegetation
Lotus corniculatus 25 🔽	FAC
	✓ 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 40	Present?
Remarks: BG/litter/shallow ponded water=40%, shrub cover with herb stra	atum
25, portage mater 1070, oritab covor mai horb date	···
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SOIL									Sampling Point: DP01w
Profile Desc	ription: (Describe	to the dep	th needed to do	ument the indicat	tor or co	nfirm	the absence	
Depth		Matrix			dox Features	1			
(inches)	Color	(moist)	%	Color (moist)	%Typ	e ¹ Lo		Texture	Remarks
0-3	10YR	4/1	100				Silty	/ Clay Loam	Roots.
3-10	10YR	4/2	100				Lo	amy Sand	Very gravelly.
			· ——						
Type: C=C	oncentratio	on, D=Dep	letion, RM	=Reduced Matrix,	CS=Covered or Co	— — oated Sa	nd Gr	ains. ² Loc	ation: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators	: (Applic	able to all	LRRs, unless ot	nerwise noted.)				rs for Problematic Hydric Soils ³ :
Black Hi Hydroge Depleted	oipedon (A	(A4) ark Surfac	e (A11)		rix (S6) y Mineral (F1) (exc ed Matrix (F2) trix (F3)	cept MLF	RA 1)	Red Very Othe	n Muck (A10) Parent Material (TF2) Shallow Dark Surface (TF12) Fr (Explain in Remarks) Frs of hydrophytic vegetation and
	lucky Mine				rk Surface (F7)				nd hydrology must be present,
	Sleyed Mat			Redox Depre	essions (F8)			unles	s disturbed or problematic.
Restrictive I									
Depth (in	ches):							Hydric Soil	Present? Yes <u>V</u> No
		id the we	tland bou	ndary had an ab	rupt edge (1987	COE W	/etlan	nd Delineatior	n Manual).
HYDROLO Wetland Hyd		dicators:							
_			ne require	d; check all that ar	(vlac			Secon	dary Indicators (2 or more required)
<u>✓</u> Surface	•		no roquiro		Stained Leaves (B9) (excen	t		fater-Stained Leaves (B9) (MLRA 1, 2,
✓ High Wa					A 1, 2, 4A, and 4E		•		4A, and 4B)
Saturation		(/ L_)			st (B11)	-,		□ Di	rainage Patterns (B10)
	larks (B1)				Invertebrates (B13	3)			ry-Season Water Table (C2)
	nt Deposits	s (B2)			en Sulfide Odor (C				aturation Visible on Aerial Imagery (C9)
	oosits (B3)				d Rhizospheres alo	,	g Root		eomorphic Position (D2)
Algal Ma	at or Crust	(B4)		Present	e of Reduced Iron	(C4)		SI	nallow Aquitard (D3)
Iron Dep	osits (B5)			Recent	Iron Reduction in T	Tilled Soi	ls (C6)) <u></u> FA	AC-Neutral Test (D5)
Surface	Soil Crack	s (B6)		Stunted	or Stressed Plants	s (D1) (L	RR A)	Ra	aised Ant Mounds (D6) (LRR A)
Inundation	on Visible	on Aerial I	magery (B	7) Other (E	Explain in Remarks	s)		Fr	rost-Heave Hummocks (D7)
Sparsely	/ Vegetate	d Concave	Surface (B8)					
Field Obser	vations:					4			
Surface Water	er Present	? Y	es <u> </u>	No Depth	(inches):	4			
Water Table	Present?	Υ	es <u> </u>	No Depth	(inches):	0			
Saturation Projection (includes car	oillary fring	e)	es 🔽		(inches):				Present? Yes V No No
Describe Rec	corded Da	ıa (siream	gauge, m	onitoring well, aeri	al photos, previous	inspecti	ons), i	ıı avallable:	
Remarks: 4in of surfac	ce water o	observed	at soil pit						

Project/Site: Easton	City/County: Park	Sampling Date:6/24/2020
Applicant/Owner: MDT	, ,	State: Montana Sampling Point: DP02u
Investigator(s): R Quire, R Jones, S Weyant	Section, Township, Ran-	ge: S 32 T 4N R 9E
Landform (hillslope, terrace, etc.): Terrace Subregion (LRR): LRR E Lat:	Local relief (concave, co	onvex, none): flat Slope (%):
Subregion (LRR): LRR E Lat:	46.055677	Long: -110.638554 Datum: NAD 83
Soil Map Unit Name: 155A: Meadowcreek, rarely flooded-Nesda	a complex, 0 to 2 perce	ent slope NWI classification:Not Mapped
Are climatic / hydrologic conditions on the site typical for this time of y		
Are Vegetation, Soil, or Hydrology significantly		
Are Vegetation, Soil, or Hydrology naturally pr		
SUMMARY OF FINDINGS – Attach site map showing	g sampling point lo	cations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No ✓ Hydric Soil Present? Yes No ✓ Wetland Hydrology Present? Yes No ✓	Is the Sampled a	
Remarks: Upslope of wetland boundary.		
VEGETATION - Use scientific names of plants		
Tree Streeture Plet size (20 Feet Rediius) Absolute Domiai		Dominance Test worksheet
ree Stratum Plot size (30 Poot Radius) % Cover: Specie	s? Status	Number of Dominant Species that are OBL, FACW or FAC:
		Total Number of Dominant Species Across All Strata: 2 (B)
Sapling/Shrub Stratum Plot size (15 Foot Radius)		Percent of Dominant Species That Are OBL, FACW, or FAC: 50 % (A/B)
<u>Sapinigioni do Stratum</u> 1 lot 3/20 (13 1 oot radius)		Prevalence Index worksheet
		Total % Cover of: Multiply by:
		OBL species 0 X 1 0 FACW species 0 X 2 0
		FAC species 25 X 3 75
		FACU species 15 X 4 60
Herbaceous Stratum Plot size (5 Foot Radius)		UPL species 55 X 5 275
Bromus inermis 55	UPL	Column Totals 95 (A) 410 (B)
Carum carvi 5 ☐ Poa pratensis 25 ✓	FACU FAC	Prevalence Index = B/A = 4.31579
Taraxacum officinale 10	FACU	Hydrophytic Vegetation Indicators
		☐ 1 - Rapid Test for Hydrophytic Vegetation
		2 - Dominance Test is >50%
		☐ 3 - Prevalence Index is <= 3.0
		 4 - Morphological Adaptations (Provide supporting data in remarks or on separate sheet.
		5 - Wetland Non-Vascular Plants
		Problematic Hydrophytic Vegetation (Explain)
Woody Vine Stratum Plot size (30 Foot Radius)		Indicators of hydric sil and wetland hydrology must be present, unless disturbed or problematic for #3, 4, 5.
Percent Bare Ground 5		Hydrophytic Vegetation Present? NO ✓
Remarks:		
Upland plant community dominated by primarily smooth bron	me.	
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SOIL										(Sampling Point	DP02u
Profile Des	cription: (Describe	to the de	pth neede	d to docur	ment the in	ndicato	r or conf	firm the absen			
Depth		Matrix				x Features						
(inches)		(moist)	%	Color	(moist)	%	_Type'	Loc ²			Remarks	
0-11	10YR	3/2	100						Clay			
11-16	10YR	4/2	97	7.5YR	4/6	3	С	M	Sandy Clay			
	-									_		
	· ·			-								
			_									
						. ——				_		
¹ Type: C=C								ted Sand			=Pore Lining, N	
Hydric Soil		: (Appli	cable to al				d.)				blematic Hydi	ric Soils":
Histosol	l (A1) pipedon (A	2)		_	dy Redox (S	,				cm Muck (A′ ed Parent Ma		
	istic (A3)	.2)			ped Matrix ny Mucky N) (evcer	ot MIRA			ateriai (+F2) Dark Surface (*	ΓF12)
	en Sulfide ((A4)		_	ny Gleyed I	•	, · .	JE WILIXA	_	-	in Remarks)	11 12)
	d Below Da		ce (A11)	_	eted Matrix	٠,				(,	
Thick D	ark Surface	e (A12)		Redo	ox Dark Su	rface (F6)			³ Indica	ators of hydro	phytic vegetat	ion and
	Mucky Mine				eted Dark \$	•	7)			-	gy must be pre	
	Gleyed Mat			Redo	ox Depress	sions (F8)			unl	ess disturbe	d or problemati	<u>c.</u>
Restrictive	Layer (if p	resent):										
Type:	-1 >									'' D	v 🗆	N = [2]
Remarks:	ches):								Hydric Se	oil Present?	Yes _ 🗀	No
HYDROLO	GY											
Wetland Hy	==											
Primary Indi	cators (min	imum of	one require						<u>Sec</u>	ondary Indic	ators (2 or mor	<u>e required)</u>
	Water (A1				Water-Stai	ined Leave	s (B9) (except			ed Leaves (B9) (MLRA 1, 2,
	ater Table ((A2)				1, 2, 4A, a	nd 4B)			4A, and	•	
Saturati					Salt Crust		(B.(A)			Drainage Pa		
	/larks (B1)	(D0)		_	Aquatic Inv		, ,			•	Water Table (*
_	nt Deposits posits (B3)	. ,			Hydrogen		. ,	a Livina I	Roots (C3)		risible on Aeria Position (D2)	I Imagery (C9)
	at or Crust				Presence	· · · · · · · · · · · · · · · · · · ·		-		Shallow Aqu		
	posits (B5)				Recent Iro					FAC-Neutra		
	Soil Crack				Stunted or						Mounds (D6) (I	LRR A)
	ion Visible		Imagery (E		Other (Exp			., (Hummocks ([
Sparsel	y Vegetate	d Concav	e Surface	(B8)					_			
Field Obser	vations:											
Surface Wat	ter Present	? `	∕ es	No	Depth (inc	ches):						
Water Table	Present?	`	⁄ es	No	Depth (inc	ches):						_
Saturation P	pillary fring	e)	/es		Depth (inc				etland Hydrolo	gy Present	? Yes	_ No <u> </u>
Describe Re	corded Da	ıa (strean	n gauge, m	ionitoring v	veii, aeriai p	pnotos, pre	vious in	spection	s), if available:			
Remarks:												
	ing hydrol	ogic indi	icators ob	served dı	uring site	visit. The	mottles	s observ	ved are likely o	due to flood	irrigation of	this area.
	J ,	<u> </u>			3				,		5	

Project/Site: Easton		City/County: Park	Sampling Date:6/24/2020
Applicant/Owner: MDT		- , ,	State: Montana Sampling Point: DP02w
	s, S Weyant	Section Township Rar	S 32 T 4N R 9E
Landform (hillslone terrace etc.):	Floodplain	Local relief (concave o	nge: S 32 T 4N R 9E
Subregion (LRR): LRR E		46.055566	Long:110.638759 Datum: NAD 83
Sail Man Unit Name: 155A: Mea	dowcreek. rarely flooded-Nesc	la complex. 0 to 2 perc	ent slope NWI classification:Not Mapped
•	s on the site typical for this time of		· · · · · · · · · · · · · · · · · · ·
			Normal Circumstances" present? Yes 🗹 No 🔲
			eded, explain any answers in Remarks.)
		ig sampling point ic	ocations, transects, important features, etc
Hydrophytic Vegetation Present	Yes	_ Is the Sampled	Area
Hydric Soil Present? Wetland Hydrology Present?	Yes ✓ No ☐	within a Wetlan	
Remarks:	163 140	_	
PEM riverine wetland.			
VEGETATION - Use scie	ntific names of plants		
Tree Stratum Plot size (30	Foot Radius) Absolute Domia		Dominance Test worksheet
Tree Gratain	Foot Radius) % Cover: Specie	es? 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 Plo	ot size (15 Foot Radius)		Percent of Dominant Species That Are OBL, FACW, or FAC: 100 % (A/B)
<u>oupmig/omas otratam</u>	1 000 (10 1 000 (1 dailed)		Prevalence Index worksheet
			Total % Cover of: Multiply by:
			OBL species 50 X 1 50
			FACW species 7 X 2 14 FAC species 18 X 3 54
			FACU species 0 X 4 0
Herbaceous Stratum Plo	ot size (5 Foot Radius)		UPL species 0 X 5 0
Carex pellita	5	OBL	Column Totals 75 (A) 118 (B)
Carex utriculata	15	OBL	Prevalence Index = B/A = 1.57333
Cirsium arvense	3 🗆	FAC	Hydrophytic Vegetation Indicators
Elymus repens	15	FAC	1 - Rapid Test for Hydrophytic Vegetation
Juncus balticus Juncus effusus	5 🗍	FACW	✓ 2 - Dominance Test is >50%
Persicaria amphibia	5 🗆	FACW OBL	✓ 3 - Prevalence Index is <= 3.0
Scirpus microcarpus	25	OBL	4 - Morphological Adaptations (Provide
- Compact microscorpac			supporting data in remarks or on separate sheet.
			5 - Wetland Non-Vascular Plants
			Problematic Hydrophytic Vegetation (Explain
Woody Vine Stratum Plo	ot 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	d 25		Present?
Remarks:	or=25%		
BG/litter/shallow ponded wat	₽ I−∠0%		
LIC Armou Common of Francisco			Western Mountains Valleus and Ocean March 200
US Army Corps of Engineers			Western Mountains, Valleys, and Coasts - Version 2.0

SOIL											Sampling Point: DP02w
Profile Des	cription: (Describe	to the de	pth neede	d to docun	nent the i	ndicator	or co	nfirm 1	the absence	of indicators.)
Depth		Matrix				x Features					
(inches)		(moist)	<u>%</u>	Color	(moist)	%	Type	Loc	<u> </u>	Texture	Remarks
0-3	10YR	4/1	100							Clay	
3-6	10YR	4/2	90	7.5YR	5/8	10	С	M	Sa	ndy Clay	
6-12	10YR	2/1	25						Sa	ndy Clay	
6-12	10YR	4/1	60	10YR	4/2	15	С	M	Sa	ndy Clay	
			_								
			_								
¹ Type: C=C Hydric Soil								ed Sar	nd Grai		rs for Problematic Hydric Soils ³ :
Histoso		. (Appli	Jable to a		dy Redox (S		.u.,				n Muck (A10)
	pipedon (A	2)		=	ped Matrix	•					Parent Material (TF2)
	istic (A3)	12)			ny Mucky M) (evcer	st MI D	۸ 1)	_	r Shallow Dark Surface (TF12)
_	en Sulfide ((ΔΔ)			ny Gleyed I	-		JI WILK	A 1)		er (Explain in Remarks)
_ ' '	ed Below Da		re (A11)		eted Matrix		,			Out	cr (Explain in Nemarks)
	ark Surface		30 (/ (11)	_ :	ox Dark Sur	. ,				3Indicato	rs of hydrophytic vegetation and
	Mucky Mine			_	eted Dark S		7)				nd hydrology must be present,
_	Gleyed Mat			_ :	ox Depress	•	•)				s disturbed or problematic.
Restrictive					ох Воргоос	10110 (1 0)				4,1100	o diotarboa or problematic.
Type:		,.									
										Ulvalaia Cail	Present? Yes V No
Depth (ir Remarks:	ncnes):									Hyaric Soil	Present? Yes <u>V</u> No <u>U</u>
HYDROLC											
Wetland Hy						_					
Primary Indi			one require	ed; check a		•					dary Indicators (2 or more required)
	Water (A1				Water-Stai	ned Leave	es (B9) (except		_L W	/ater-Stained Leaves (B9) (MLRA 1, 2,
	/ater Table ((A2)			MLRA 1	1, 2, 4A, a	nd 4B)				4A, and 4B)
✓ Saturat	ion (A3)				Salt Crust	(B11)				Dı	rainage Patterns (B10)
Water N	Marks (B1)				Aquatic Inv	ertebrates	s (B13)			Dı	ry-Season Water Table (C2)
Sedime	nt Deposits	s (B2)			Hydrogen S	Sulfide Od	lor (C1)			Sa	aturation Visible on Aerial Imagery (C9)
Drift De	posits (B3)				Oxidized R	hizospher	es along	Living	Roots	(C3) 🗹 G	eomorphic Position (D2)
☐ Algal M	lat or Crust	(B4)			Presence of	of Reduce	d Iron (C	(4)		SI	hallow Aquitard (D3)
	posits (B5)	. ,			Recent Iron				s (C6)		AC-Neutral Test (D5)
	Soil Crack	s (B6)			Stunted or				, ,		aised Ant Mounds (D6) (LRR A)
	tion Visible		lmagen/ (l	B7)	Other (Exp			J 1) (L 1			rost-Heave Hummocks (D7)
	ly Vegetate				Other (Exp	iaiii iii ikci	marks)				ost-freave frammooks (B1)
Field Obser				(50)							
		٠ ،	/a.a. 🔽	N ₁	Danth (in	-l\.		2			
Surface Wa			∕es <u> </u>		Depth (inc			0			
Water Table	e Present?)	∕es <u>✓</u>	No	Depth (inc	ches):		<u> </u>			
Saturation F (includes ca			∕es <u></u>	No	Depth (inc	ches):		<u>0 </u>	<i>N</i> etlar	nd Hydrology	y Present? Yes <u>✓</u> No <u> </u>
Describe Re			n gauge, n	nonitoring v	vell, aerial p	hotos, pre	evious in	spectio	ns), if	available:	
Remarks:											
2in of surfa	ice water o	observed	d at soil n	it.							
			25 P	•							

Project/Site: Easton	City/0	County: Park	Sampling Date:6/24/2020
Applicant/Owner: MDT			State: Montana Sampling Point: DP03u
Investigator(s): R Quire, R Jones, S Weyant	Secti	ion, Township, Rang	e: S 32 T 4N R 9E
Landform (hillslope, terrace, etc.): Terrace Subregion (LRR): LRR E La	Loca	al relief (concave, coi	nvex, none): flat Slope (%):
Subregion (LRR): LRR E	ıt:	46.058001 L	.ong:110.637841 Datum: NAD 83
Soil Map Unit Name: 155A: Meadowcreek, rarely flooded-N	esda com	plex, 0 to 2 percer	it slope NWI classification:Not Mapped
Are climatic / hydrologic conditions on the site typical for this time	e of year?	Yes ☑ No ☐	(If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology signific	-		
Are Vegetation, Soil, or Hydrology natura			led, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map sho			
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Yes No No	/	Is the Sampled A within a Wetland	
Remarks: Upland sample point, upslope of wetland boundary near	east proje	ect boundary.	
NECETATION II : US			
VEGETATION - Use scientific names of plants Absolute Do	omiont I	Indicator	
T Ot 1 Dist size (OO Fast Dadius)		Status	Dominance Test worksheet
			Number of Dominant Species that are OBL, FACW or FAC: 1 (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: 50 % (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 45 X 3 135 FACU species 0 X 4 0
Herbaceous Stratum Plot size (5 Foot Radius)			UPL species 45 X 5 225
	✓ UP	PI	
	✓ FA		Column Totals 90 (A) 360 (B)
Phleum pratense 5	FA		Prevalence Index = B/A = 4
Poa pratensis 10	FA	VC .	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.
Percent Bare Ground 10			Hydrophytic Vegetation Present? Ves □ NO ✓
Remarks:			
BG/litter=10%			
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557 mm, Gorpo or Engineero			

SOIL								Sa	mpling Point: DP03ι	1
Profile Desc	ription: (Descr	ibe to the depth	needed to docu	ment the indic	cator or co	onfirm	the absence			
Depth	Matri			x Features	1 .					
(inches)	Color (moist)		Color (moist)	%T <u>y</u>	ype ¹ Lo	oc ²	<u>Texture</u>		Remarks	
0-13	10YR 3/2	100				Sa	andy Clay			
	-									
¹ Type: C=Co	oncentration, D=	Depletion, RM=R	Reduced Matrix, C	S=Covered or	Coated Sa	and Gra	ains. ² Loc	ation: PL=F	Pore Lining, M=Matrix	
			RRs, unless othe						ematic Hydric Soils	
Histosol	(A1)		🗌 Sandy Redox (S5)			2 cn	n Muck (A10)	
Histic Ep	oipedon (A2)		Stripped Matrix	(S6)			Red	Parent Mate	erial (TF2)	
Black Hi	` '		Loamy Mucky I		xcept ML	RA 1)			ırk Surface (TF12)	
	en Sulfide (A4)	<u> </u>	Loamy Gleyed				Othe	er (Explain in	Remarks)	
	d Below Dark Su		Depleted Matrix				3			
_	ark Surface (A12)	_	☐ Redox Dark Su	` ,					hytic vegetation and	
	Mucky Mineral (S Gleyed Matrix (S4	_	☑ Depleted Dark ☑ Redox Depress	` '					must be present, problematic.	
	Layer (if presen		Redux Depless	510115 (F0)			unies	s disturbed t	or problematic.	
	Layer (ii preceii	-								
Depth (inc							Hydric Soil	Present?	Yes No _	✓
Remarks:							Tiyane oon	i resent:	1e3 <u> </u>	<u> </u>
HYDROLO										
-	drology Indicato			`						
	·	of one required;	check all that appl					,	ors (2 or more require	
	Water (A1)			ined Leaves (E		ot	W		l Leaves (B9) (MLRA	1, 2,
	ater Table (A2)			1, 2, 4A, and	4B)			4A, and 4E	•	
Saturation			Salt Crust					rainage Patt		
	larks (B1)			vertebrates (B				-	Vater Table (C2)	(0.0)
	nt Deposits (B2)			Sulfide Odor (ible on Aerial Imagery	y (C9)
	posits (B3)			Rhizospheres a	-	g Rooi	` ' —	eomorphic F		
	at or Crust (B4)			of Reduced Iro	, ,	ila (CG)		hallow Aquita		
	oosits (B5) Soil Cracks (B6)			n Reduction ir Stressed Plar				AC-Neutral T	ounds (D6) (LRR A)	
_	on Visible on Aer	rial Imagan, (P7)	_	olain in Remar	, , ,	KK A)			Hummocks (D7)	
	Vegetated Cond			Jani III Keman	K5)			iosi-neave r	idilililocks (D7)	
Field Observ		Save Gariage (Be	·/							
Surface Water		Yes 🗆 No	Depth (in	ches):						
Water Table		Yes No	` `	ches):						
Saturation Pr			_	ches):		\\/otla	ınd Hydrolog	v Drocont2	Yes No _	
(includes cap	oillary fringe)							y i- i caeiil!	162 <u> </u>	<u> </u>
Describe Red	corded Data (stre	eam gauge, mon	itoring well, aerial	photos, previo	us inspect	ions), i	f available:			
Remarks:			.,,							
No hydrolog	jic indicators of	oserved during	site visit.							

Project/Site: Easton	City/County: Park	Sampling Date: 6/24/2020
Applicant/Owner: MDT		State: Montana Sampling Point: DP03w
	Section, Township, Ran	ge: S 32 T 4N R 9E
Investigator(s): R Quire, R Jones, S Weyant Landform (hillslope, terrace, etc.): Floodplain	Local relief (concave, c	onvex, none); concave Slope (%); 3
Subregion (LRR): LRR E	Lat: 46.058002	Long: -110.638117 Datum: NAD 83
Subregion (LRR): LRR E Soil Map Unit Name: 155A: Meadowcreek, rarely floode	d-Nesda complex, 0 to 2 perce	ent slope NWI classification:Not Mapped
Are climatic / hydrologic conditions on the site typical for this		
Are Vegetation, Soil, or Hydrology signature.		
Are Vegetation, Soil, or Hydrology na		
SUMMARY OF FINDINGS - Attach site map s		
Hydrophytic Vegetation Present? Yes No		
· ——	Is the Sampled within a Wetland	
Wetland Hydrology Present? Yes Ves No Remarks:		
PEM riverine wetland		
VEGETATION - Use scientific names of plant	S	
Tree Stratum Plot size (30 Foot Radius) 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: 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)
Salix bebbiana 3	✓ FACW	Prevalence Index worksheet
Salix exigua 1	▼ FACW	Total % Cover of: Multiply by: OBL species 21 X 1 21
Salix lutea 1	✓ OBL	OBL species 21 X 1 21 FACW species 44 X 2 88
		FAC species 10 X 3 30
		FACU species 0 X 4 0
Herbaceous Stratum Plot size (5 Foot Radius)		UPL species 0 X 5 0
Alopecurus arundinaceus 10	FAC ORL	Column Totals 75 (A) 139 (B)
Carex nebrascensis 10 Carex utriculata 10	OBL OBL	Prevalence Index = B/A = 1.85333
Juncus balticus 40	✓ FACW	Hydrophytic Vegetation Indicators
- In the second of the second	• 17.000	✓ 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.
Downer Power Curry of 20		Hydrophytic Vegetation Present? NO □
Percent Bare Ground 30 Remarks:		
BG/litter/shallow ponded water=30%		
US Army Corps of Engineers		Western Mountains, Valleys, and Coasts - Version 2.0
33 , anny corps of Engineers		Troctom mountaino, valleys, and Odasts - version 2.0

SOIL											Sampling Point: DP03w
Profile Desc	ription: (Describe	to the de	pth neede	d to docur	nent the in	ndicato	r or con	firm the	e absence	of indicators.)
Depth		Matrix				x Features		,			
(inches)		(moist)	%	Color	(moist)	%	Type ¹	Loc ²		Texture	Remarks
0-06	10YR	4/2	100						Sand	ly Clay	
06-10	10YR	4/2	97	10YR	3/6	3	С	М	Sand	ly Clay	Gravelly/cobbly.
10+									Col	obles	Cobble bottom.
¹Type: C=Co								ted Sand	d Grains		ation: PL=Pore Lining, M=Matrix.
Hydric Soil		я: (Аррис	able to al				a.)				rs for Problematic Hydric Soils ³ :
Histosol		2)		$\overline{}$	dy Redox (S	-					Muck (A10) Parent Material (TF2)
	oipedon (A	.2)			ped Matrix		\	-4 MI D	٠. ١		
Black Hi Hydroge	stic (A3) n Sulfide ((A4)			ny Mucky N ny Gleyed I			OT WILKA	4 1)		Shallow Dark Surface (TF12) r (Explain in Remarks)
	Below Da		e (A11)		eted Matrix					3	
_	irk Surface lucky Mine	, ,		_	ox Dark Sui leted Dark \$	` '	7\				s of hydrophytic vegetation and nd hydrology must be present,
	ileyed Mat				ox Depress		()				s disturbed or problematic.
Restrictive I						()					
Туре:											
Depth (inc	ches):								Н	lydric Soil	Present? Yes 🔽 No 🔲
HYDROLO Wetland Hyd		dicatore									
Primary Indic	==			ed: check a	all that annly	v)				Secon	dary Indicators (2 or more required)
✓ Surface			ne require	_	Water-Stai		s (R9) (evcent			ater-Stained Leaves (B9) (MLRA 1, 2,
✓ High Wa		-		<u> </u>		1, 2, 4A, ar		слосрі			4A, and 4B)
Saturation		(* (*)			Salt Crust		,			☐ Dr	ainage Patterns (B10)
	arks (B1)				Aquatic Inv		(B13)				y-Season Water Table (C2)
_	ıt Deposits	s (B2)			Hydrogen :						turation Visible on Aerial Imagery (C9)
Drift Dep	osits (B3)				Oxidized R	Rhizosphere	es along	Living	Roots (C3) 🔽 G	eomorphic Position (D2)
Algal Ma	t or Crust	(B4)			Presence of	of Reduced	l Iron (C	(4)			nallow Aquitard (D3)
	osits (B5)				Recent Iro						C-Neutral Test (D5)
	Soil Crack				Stunted or			01) (LR I	R A)		aised Ant Mounds (D6) (LRR A)
	on Visible o Vegetate				Other (Exp	olain in Ren	narks)			_ <u>_</u> _ Fr	ost-Heave Hummocks (D7)
Field Observ				` ,							
Surface Wate	er Present	? Y	es 🔽	No	Depth (ind	ches):		3			
Water Table	Present?	Υ	es 🔽	No	Depth (ind	ches):		0			
Saturation Pr			es 🔽	No	Depth (ind	ches):		<u>0</u> v	Vetland	Hydrology	Present? Yes V No No
Describe Red			n gauge, m	onitoring v	vell, aerial p	ohotos, pre	vious in	spection	ns), if av	/ailable:	
Remarks:											
3in of surfac	e water o	bserved	at soil p	it.							

Pojectifice: Easton	Project/Site: Easton	Citv/C	_{County:} Park		Sampling Da	te: 6/23/2020
No. Section Nownship Range S 32 T 4N R SE			,	State: Montana		DP04u
Landsmir/ (initialops. terrace, etc.); Terrace Lat A6.05924 Long. -110.63776 Datum. NAD 83	.,					
Subregion (LRK)_ERRE	Landform (hillslope, terrace, etc.); Terrace	 Loca	ıl relief (concave, co	nvex. none); convex	(Slope (%): 5
Sol May Durit Name: 155A: Meadowcreek, rarely flooded-Nesda complex, 0 to 2 percent slope, NW classification, Not Mapped Are climatic / hydrologic conditions on the site typical for this time of year? Yes \subseteq No \text{ (if ne, explain in Remarks.)} \ No climatic / hydrologic conditions on the site typical for this time of year? Yes Not \qqq \qua	Subregion (LRR): LRR E		46.059284	Long:	110.637706	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-Ne	sda com	plex, 0 to 2 perce	nt slope _{NWI classi}	fication Not Ma	pped
Are Vegetation	•				·	
Are Vegetation		-				✓ No □
SUMMARY OF FINDINGS — Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present?						
Hydro Soil Present? Yes						
Upland sample point.	Hydric Soil Present? Yes □ No Wetland Hydrology Present? Yes □ No		-		No_ <u>✓</u>]
Tree Stratum						
Tree Stratum	VEGETATION - Use scientific names of plants					
Number of Dominant Species Status	Absolute Dor		ndicator	Dominance Test w	orksheet	
Species Across All Stratua:	Tree Stratum Flot Size (30 Foot Radius) % Cover: Spe	ecies? S	Status	Number of Dominar	nt Species	0 (A)
That Are OBL, FACW, or FAC: 9 % (WB)						1 (B)
Prevalence Index worksheet Total % Cover of:	Sapling/Shrub Stratum Plot size (15 Foot Radius)					0 % (A/B)
Herbaceous Stratum Plot size (5 Foot Radius) Bromus inermis	,					
Herbaceous Stratum Plot size (5 Foot Radius) Bromus inermis						
Herbaceous Stratum Plot size (5 Foot Radius) Bromus inermis				•		-
Herbaceous Stratum						
Bromus inermis 50	Harbassaus Stratum Plot size (F. Foot Padius)			•	-	
Elymus repens		a IID	1			
Phleum pratense Poa pratensis 15				Column Totals	90 (A)	370 (B)
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.		_		Prevalence Inc	dex = B/A = 4.	.11111
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 10 Remarks: BG/litter=10%	Poa pratensis 10	FA	С			
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				_		
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) Percent Bare Ground 10 Remarks: BG/litter=10% supporting data in remarks or on separate sheet. D 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.						
Woody Vine Stratum Plot size (30 Foot Radius) 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 10 Remarks: BG/litter=10%				supporting		`
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 10 Remarks: BG/litter=10%				5 - Wetlan	d Non-Vascular	Plants
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 10 Remarks: BG/litter=10%				☐ Problemat	ic Hvdrophvtic V	/egetation (Explain
Plot size (30 Foot Radius) Present, unless disturbed or problematic for #3, 4, 5. Hydrophytic Vegetation Present? Remarks: BG/litter=10%						
Percent Bare Ground 10 Remarks: BG/litter=10%	Woody Vine Stratum Plot size (30 Foot Radius)					
Remarks: BG/litter=10%	Percent Bare Ground 10			Vegetation	Yes 🗌 NO	V
US Army Corps of Engineers Western Mountains, Valleys, and Coasts - Version 2.0						
	US Army Corps of Engineers			Western Mountains	, Valleys, and Co	pasts - Version 2.0

SOIL								S	ampling Point: D	P04u
Profile Desc	ription: (Descri	be to the depth	needed to docui	ment the indi	cator o	confirm	the absence			
Depth	Matrix			x Features	- 1					
(inches)	Color (moist)		Color (moist)	<u> </u>	ype ¹	Loc ²	Texture		Remarks	
0-14	10YR 4/2	100				Silty	/ Clay Loam			
										
¹ Type: C=Co	ncentration, D=D	epletion, RM=Re	educed Matrix, C	S=Covered or	Coated	Sand Gra			Pore Lining, M=I	
Hydric Soil I	ndicators: (App	licable to all LR	Rs, unless othe	rwise noted.))		Indicat	ors for Prob	lematic Hydric	Soils³:
Histosol			Sandy Redox (m Muck (A10		
	ipedon (A2)		Stripped Matrix	. ,				d Parent Ma		
Black His	` '		Loamy Mucky I		except I	/ILRA 1)		-	ark Surface (TF1	2)
	n Sulfide (A4)	<u> </u>	Loamy Gleyed				Oth	ner (Explain i	n Remarks)	
	Below Dark Sur rk Surface (A12)	race (ATT)	Depleted Matrix Redox Dark Su				3Indicat	are of hydror	hytic vegetation	and
_	ucky Mineral (S1	, 	Depleted Dark	` '					y must be prese	
	leyed Matrix (S4)	_	Redox Depress	. ,					or problematic.	т.,
	ayer (if present		<u> </u>	(-)						
Type:										
Depth (inc	:hes):						Hydric Soi	I Present?	Yes	No 🔽
IVDDOL O	27									
HYDROLO										
=	Irology Indicato		hook all that anni				Cooo	ممنامما بحمامم	toro (2 or moro r	(میرنده م
	·	n one required, c	heck all that appl		(DO) /ave	4		•	tors (2 or more r	
	Water (A1)			ined Leaves (ept	\		d Leaves (B9) (M	/ILRA 1, 2,
Saturatio	ter Table (A2)			1, 2, 4A, and	4D)			4A, and 4	•	
Water Ma			Salt Crust	(втт) vertebrates (E	212)			Orainage Pat	Nater Table (C2)	
	t Deposits (B2)			Sulfide Odor				-	sible on Aerial In	
_	osits (B3)			Rhizospheres	, ,	vina Root			Position (D2)	lagery (Ca)
	t or Crust (B4)			of Reduced Ir	-	villig 1100	` ' =	Shallow Aqui		
_ `	osits (B5)		_	n Reduction i	` '	Soils (C6)		AC-Neutral	, ,	
	Soil Cracks (B6)			Stressed Pla					lounds (D6) (LR I	RA)
	on Visible on Aeri	al Imagery (B7)		olain in Rema	, ,	(211171)			Hummocks (D7)	,
	Vegetated Conc									
Field Observ		,								
Surface Water	er Present?	Yes No	Depth (in	ches):		_				
Water Table	Present?	Yes No								
Saturation Pr		Yes No					ınd Hydrolog	y Present?	Yes	No 🔽
Describe Rec	orded Data (stre	am gauge, monit	oring well, aerial	photos, previo	ous insp	ections), i	f available:			
Domesiles										
Remarks: No hvdrolog	ic indicators ob	served during	site visit.							
		- 5								

Project/Site: Easton		City/0	County: Park		Sampling Date	6/23/2020
Applicant/Owner: MDT				State: Montana		
Investigator(s): R Jones, S Weyant						
Landform (hillslope, terrace, etc.): Floodplair	1	— Loca	al relief (concave, co	nvex. none); concave	s	Slope (%): 3
Subregion (LRR): LRR E	Lat:		46.05939	_ona: 11	0.638359 _{Da}	atum: NAD 83
Subregion (LRR): LRR E Soil Map Unit Name: 155A: Meadowcreek,	rarely flooded-Nes	da com	plex, 0 to 2 percer	nt slope NW classific	ation Not Map	ped
Are climatic / hydrologic conditions on the site						<u>:</u>
Are Vegetation, Soil, or Hydrol						Ma 🗆
Are Vegetation, Soil, or Hydrol						
SUMMARY OF FINDINGS – Attach						
	s V No 🗌					
, , , ,	s V No 🗌		Is the Sampled A	rea	, –	
	s 🔽 No 🗌		within a Wetland	? Yes <u> </u>	No	_
Remarks:						
PEM/PSS riverine wetland.						
VEGETATION - Use scientific nan	•					
Tree Stratum Plot size (30 Foot Radius	Absolute Dom % Cover: Spe		ndicator Status	Dominance Test wor	ksheet	
	70 GGVGI GPG	0.00	Statuo	Number of Dominant S that are OBL, FACW of		5 (A)
				Total Number of Domi	ı	
				Species Across All Str	ata:	5 (B)
				Percent of Dominant S That Are OBL, FACW		100 % (A/B)
Sapling/Shrub Stratum Plot size (15	Foot Radius)		-	Prevalence Index wo	,	
Populus balsamifera	2] F/	AC	Total % Cover o		Multiply by:
Salix bebbiana	3		ACW	OBL species	1 X1	1
Salix exigua	5 🗸] F <i>F</i>	ACW	FACW species	33 X2	66
				- '	20 X3	60
Herbaceous Stratum Plot size (5	Foot Radius)			FACU species UPL species	1 X4 0 X5	0
] FA	C			
Agrostis stolonifera Alopecurus arundinaceus	2 <u> </u>] FA		Column Totals 5	55 (A)	131 (B)
Juncus balticus	25		CW	Prevalence Index	c = B/A = 2.3	8182
Lotus corniculatus	10	,		Hydrophytic Vegetat		
Potentilla gracilis	1] FA			st for Hydrophy	tic Vegetation
Scirpus microcarpus	1 [] OE	BL	✓ 2 - Dominand	ce Test is >50%	ó
Taraxacum officinale	1] FA	CU	✓ 3 - Prevalence	ce Index is <= 3	3.0
					gical Adaptation ata in remarks o	
					Non-Vascular P	lante
				□ Problematic I	Hydrophytic Ve	getation (Explain)
Woody Vine Stratum Plot size (30	Foot Radius)			Indicators of hydric sil a present, unless disturb		
				Hydrophytic Vegetation	es 🗹 NO	
Percent Bare Ground 55				Present?	INU	
Remarks: BG primarily standing water.						
US Army Corps of Engineers				Western Mountains, V	alleys, and Coa	asts - Version 2.0

SOIL											Sampling Point: DP04w
Profile Desc	ription: (Describe	to the de	oth neede	d to docum	ent the in	ndicato	rorco	onfirm	the absence o	of indicators.)
Depth		Matrix			Redox	Features					
(inches)	Color	(moist)	%	Color	(moist)	%	Type ¹	Lc	oc ²	Texture	Remarks
0-3	10YR	2/2	100						Silty	Clay Loam	Roots throughout.
3-10	10YR	2/2	85	7.5YR	3/4	15	С	M,	Silty	Clay Loam	
¹ Type: C=Co	oncentratio	on, D=Dep	letion, RM	=Reduced	d Matrix, CS	=Covered	or Coa	ted Sa	ınd Gra	nins. ² Loca	ation: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators	: (Applic	able to al	l LRRs, ui	nless other	wise note	d.)			Indicator	s for Problematic Hydric Soils³:
Histosol				$\overline{}$	dy Redox (S	•					Muck (A10)
	oipedon (A	2)		$\overline{}$	ped Matrix (Parent Material (TF2)
Black Hi	stic (A3) en Sulfide ((A.4)			my Mucky M			ot MLI	RA 1)		Shallow Dark Surface (TF12)
	d Below Da		e (A11)	=	my Gleyed N leted Matrix	. ,				Othe	r (Explain in Remarks)
	ark Surface		C (A11)		ox Dark Sur					3Indicator	s of hydrophytic vegetation and
_	lucky Mine			=	leted Dark S	` ,	7)				d hydrology must be present,
Sandy G	Sleyed Mat	rix (S4)		Red	ox Depressi	ons (F8)				unless	disturbed or problematic.
Restrictive I	Layer (if p	resent):									
Туре:											
Depth (in	ches):									Hydric Soil F	Present? Yes 🔽 No 🗔
Remarks:											
Prominent r	edoximor	rphic feat	ures com	nmon with	nin the mat	rix.					
HYDROLO	GY										
Wetland Hy	drology In	dicators:									
Primary Indic	cators (min	imum of o	ne require	d; check a	all that apply)				Second	dary Indicators (2 or more required)
_ ✓ Surface	Water (A1)			Water-Stair	ned Leave	s (B9) (ехсер	t	Wa	ater-Stained Leaves (B9) (MLRA 1, 2,
<u>✓</u> High Wa	iter Table ((A2)			MLRA 1	, 2, 4A, ar	nd 4B)				4A, and 4B)
✓ Saturation	on (A3)				Salt Crust (B11)				Dra	ainage Patterns (B10)
Water M	arks (B1)				Aquatic Inv	ertebrates	(B13)				y-Season Water Table (C2)
	nt Deposits	` '		<u> </u>	Hydrogen S		, ,				turation Visible on Aerial Imagery (C9)
	oosits (B3)				Oxidized R	-			g Root		eomorphic Position (D2)
	at or Crust	(B4)			Presence o			,			allow Aquitard (D3)
	osits (B5)	(5.0)			Recent Iron					_	C-Neutral Test (D5)
	Soil Crack	` '		,,,	Stunted or		,	کا) (L	RR A)	_	ised Ant Mounds (D6) (LRR A)
	on Visible Vegetate			· —	Other (Expl	iain in Ren	narks)			Fro	ost-Heave Hummocks (D7)
Field Obser		- Concave	Juliace	(50)							
Surface Water		2 🗸	es 🔽	No.	Depth (inc	hes).		4			
Water Table				No	Depth (inc			0			
Saturation P			es 🔽		Depth (inc			0	\/\otla	nd Hydrology	Present? Yes No
(includes cap	oillary fring	e)						_			rieseitt: Tes <u>•</u> No <u> </u>
Describe Re	corded Da	ta (stream	gauge, m	onitoring v	well, aerial p	hotos, pre	vious in	specti	ons), if	available:	
Remarks: 4 in of surfa	ce water	obsorios	lateoils	iŧ							
T III OI SUIIA	oe walei	onsei vec	ιαι ουπ β	ıı.							

Project/Site: Easton		Citv/C	c _{ountv:} Park		Sampling Da	te: 6/23/2020
Applicant/Owner: MDT		,	,	_{State:} Montana		
	Weyant	Section	on Township Range			
	etc.): Terrace					
Sail Man Unit Name: 155A:	Lat: Meadowcreek, rarely flooded-Ne	sda com	olex. 0 to 2 percen	t slope NIVA/I alagai:	fication Not Ma	pped
	ditions on the site typical for this time					
	, or Hydrology significa					
	□, or Hydrology _ □ _ naturall					
Hydrophytic Vegetation Pre						
Hydric Soil Present?	Yes No V		Is the Sampled Ar			1
Wetland Hydrology Present	? Yes 🔲 No 🔽		within a Wetland?	Yes	<u> </u>	<u> </u>
Remarks:						
Upland sample point ups	slope of wetland boundary and flo	odplain c	hannel.			
VEGETATION - Use s	scientific names of plants					
Tree Stratum Plot size	(00 Foot Bodius)		ndicator Status	Dominance Test w	orksheet	
	,			Number of Dominanthat are OBL, FACV		1 (A)
				Total Number of Do		(A)
				Species Across All S		1 (B)
	DI. 1: 45 5 10 11)			Percent of Dominan That Are OBL, FAC		100 % (A/B)
Sapling/Shrub Stratum	Plot size (15 Foot Radius)		<u> </u>	Prevalence Index v	worksheet	
				Total % Cover	r of:	Multiply by:
				OBL species	0 X1	0
				FACW species	0 X2	0
				FAC species FACU species	85 X3 2 X4	255 8
Herbaceous Stratum	Plot size (5 Foot Radius)			UPL species	3 X 5	15
Agrostis stolonifera	5	☐ FA(c	Column Totals	90 (A)	278 (B)
Bromus inermis	1	UP	L			. ,
Dactylis glomerata	2] FA	CU		dex = B/A = 3.	
Elymus repens	78	F A0	C	Hydrophytic Veget	t ation Indicator Test for Hydroph	
Poa pratensis	2] FA			ance Test is >50	, ,
Thlaspi arvense	2	UP	<u>L</u>			
					ence Index is <=	
					ological Adaptati Ldata in remarks	ions (Provide s or on separate
				sheet.	data ili remanc	or on separate
				5 - Wetland	d Non-Vascular	Plants
				☐ Problemati	ic Hvdrophytic V	egetation (Explain
				Indicators of hydric s		
Woody Vine Stratum	Plot size (30 Foot Radius)			present, unless distu		
			F	Hydrophytic		
					Yes 🗹 NO	
Percent Bare Gr	ound 10			Present?		
Remarks:	ominated by faculative species.					
De/inter = 10 /0. Site is do	miniated by laculative species.					
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Duefile Dees						Sampling Point: DP05u
Profile Desc	ription: (Describ	e to the depth n	needed to document the indicator or c	confirm th	e absence of	
Depth	Matrix		Redox Features			
(inches)	Color (moist)		Color (moist) % Type ¹ L		Texture	Remarks
0-14	10YR 3/2	100		Silty C	lay Loam	
			duced Matrix, CS=Covered or Coated S	Sand Grain		on: PL=Pore Lining, M=Matrix.
		icable to all LRI	Rs, unless otherwise noted.)			for Problematic Hydric Soils ³ :
Histosol		片	Sandy Redox (S5)			luck (A10)
Black His	pipedon (A2)	片	Stripped Matrix (S6) Loamy Mucky Mineral (F1) (except MI	LDA 4\	_	rent Material (TF2) nallow Dark Surface (TF12)
	n Sulfide (A4)		Loamy Gleyed Matrix (F2)	LKA I)		Explain in Remarks)
	d Below Dark Surf	ace (A11)	Depleted Matrix (F3)			Explain in Kemana)
	ark Surface (A12)	`´ _	Redox Dark Surface (F6)		³ Indicators	of hydrophytic vegetation and
Sandy M	lucky Mineral (S1)		Depleted Dark Surface (F7)		wetland	hydrology must be present,
	Bleyed Matrix (S4)		Redox Depressions (F8)		unless d	isturbed or problematic.
Restrictive L	_ayer (if present)	:				
			_			
Depth (inc	ches):		_	1	Hydric Soil Pr	esent? Yes 🔲 No 🗹
IVDDOL O	OV.					
Wetland Hyd	drology Indicator		neck all that apply)		Sacanda	ny Indicatore (2 or more required)
Wetland Hyd	drology Indicator cators (minimum o		neck all that apply)	.		ry Indicators (2 or more required)
Wetland Hyder Primary Indicate Surface	drology Indicator cators (minimum o Water (A1)		Water-Stained Leaves (B9) (exce	ept	Wate	er-Stained Leaves (B9) (MLRA 1, 2
Wetland Hyder Primary Indice Surface High Wa	drology Indicator eators (minimum o Water (A1) iter Table (A2)		Water-Stained Leaves (B9) (exce	ept	Wate	er-Stained Leaves (B9) (MLRA 1, 2 A, and 4B)
Primary Indic	drology Indicator eators (minimum o Water (A1) iter Table (A2) on (A3)		Water-Stained Leaves (B9) (exceMLRA 1, 2, 4A, and 4B)Salt Crust (B11)	ept	Wate Under the second	er-Stained Leaves (B9) (MLRA 1, 2 A, and 4B) nage Patterns (B10)
Wetland Hyd Primary Indio Surface High Wa Saturatio Water M	drology Indicator cators (minimum o Water (A1) hter Table (A2) on (A3) arks (B1)		 Water-Stained Leaves (B9) (exce MLRA 1, 2, 4A, and 4B) □ Salt Crust (B11) □ Aquatic Invertebrates (B13) 	ept	Wate Under the second	er-Stained Leaves (B9) (MLRA 1, 2 A, and 4B) nage Patterns (B10) Season Water Table (C2)
Wetland Hyd Primary Indic Surface High Wa Saturatio Water M Sedimen	drology Indicator cators (minimum or Water (A1) Inter Table (A2) Ion (A3) Iarks (B1) Int Deposits (B2)		Water-Stained Leaves (B9) (exceed MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1)		Wate 4 Drain Dry- Satu	er-Stained Leaves (B9) (MLRA 1, 2 A, and 4B) nage Patterns (B10) Season Water Table (C2) ration Visible on Aerial Imagery (CS
Wetland Hyd Primary Indice Surface High Wa Saturatio Water M Sedimen Drift Dep	drology Indicator cators (minimum o Water (A1) hter Table (A2) on (A3) arks (B1)		 Water-Stained Leaves (B9) (exce MLRA 1, 2, 4A, and 4B) □ Salt Crust (B11) □ Aquatic Invertebrates (B13) 		Wate Drain Dry Satu C3) Geo	er-Stained Leaves (B9) (MLRA 1, 2 A, and 4B) nage Patterns (B10) Season Water Table (C2) ration Visible on Aerial Imagery (C9 morphic Position (D2)
Wetland Hyd Primary Indice Surface High Wa Saturatio Water M Sedimen Drift Dep Algal Ma	drology Indicator eators (minimum of Water (A1) ther Table (A2) on (A3) arks (B1) at Deposits (B2) posits (B3)			ing Roots (Wate 4 Drain Dry Satu C3) Geo Shal	er-Stained Leaves (B9) (MLRA 1, 2 A, and 4B) nage Patterns (B10) Season Water Table (C2) ration Visible on Aerial Imagery (CS
Wetland Hyd Primary Indice Surface High Wa Saturatio Water M Sedimen Drift Dep Algal Ma Iron Dep	cators (minimum or water (A1) ter Table (A2) on (A3) arks (B1) ot Deposits (B2) posits (B3) at or Crust (B4)		Water-Stained Leaves (B9) (exceed 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)	ing Roots (Wate Drain Dry Satu C3)	er-Stained Leaves (B9) (MLRA 1, 2 A, and 4B) nage Patterns (B10) Season Water Table (C2) ration Visible on Aerial Imagery (C9 morphic Position (D2) low Aquitard (D3)
Wetland Hyd Primary Indio Surface High Wa Saturatio Water M Sedimen Drift Dep Algal Ma Iron Dep Surface	cators (minimum or Water (A1) tter Table (A2) on (A3) arks (B1) at Deposits (B2) posits (B3) at or Crust (B4)	f one required; ch	Water-Stained Leaves (B9) (exceed 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 Sc	ing Roots (Wate 4 Drain Dry- Satu C3) Geo Shal FAC Rais	er-Stained Leaves (B9) (MLRA 1, 2 A, and 4B) nage Patterns (B10) Season Water Table (C2) ration Visible on Aerial Imagery (C9 morphic Position (D2) low Aquitard (D3) -Neutral Test (D5)
Wetland Hyd Primary Indio Surface High Wa Saturatio Water M Sedimen Drift Dep Algal Ma Iron Dep Surface	drology Indicator cators (minimum or Water (A1) Inter Table (A2) Ion (A3) Iarks (B1) Int Deposits (B2) Iosits (B3) Int or Crust (B4) Iosits (B5) Soil Cracks (B6)	f one required; ch	Water-Stained Leaves (B9) (exceed MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livity Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Scalars (D1) (€	ing Roots (Wate 4 Drain Dry- Satu C3) Geo Shal FAC Rais	er-Stained Leaves (B9) (MLRA 1, 2 A, and 4B) nage Patterns (B10) Season Water Table (C2) ration Visible on Aerial Imagery (C9 morphic Position (D2) low Aquitard (D3) -Neutral Test (D5) ed Ant Mounds (D6) (LRR A)
Wetland Hyd Primary Indio Surface High Wa Saturatio Water M Sedimen Drift Dep Algal Ma Iron Dep Surface	cators (minimum or water (A1) ter Table (A2) on (A3) arks (B1) ot Deposits (B2) posits (B3) ot or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aeria	f one required; ch	Water-Stained Leaves (B9) (exceed MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livity Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Scalars (D1) (€	ing Roots (Wate 4 Drain Dry- Satu C3) Geo Shal FAC Rais	er-Stained Leaves (B9) (MLRA 1, 2 A, and 4B) nage Patterns (B10) Season Water Table (C2) ration Visible on Aerial Imagery (C9 morphic Position (D2) low Aquitard (D3) -Neutral Test (D5) ed Ant Mounds (D6) (LRR A)
Wetland Hyd Primary India Surface High Wa Saturatio Water M Sedimen Drift Dep Algal Ma Iron Dep Surface Inundatio Sparsely	cators (minimum or water (A1) ther Table (A2) on (A3) arks (B1) at Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aeria vegetated Conca	f one required; ch	Water-Stained Leaves (B9) (exceed MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livity Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Scalars (D1) (€	ing Roots (Wate 4 Drain Dry- Satu C3) Geo Shal FAC Rais	er-Stained Leaves (B9) (MLRA 1, 2 A, and 4B) nage Patterns (B10) Season Water Table (C2) ration Visible on Aerial Imagery (C9 morphic Position (D2) low Aquitard (D3) -Neutral Test (D5) ed Ant Mounds (D6) (LRR A)
Wetland Hyd Primary Indice Surface High Wa Saturatio Water M Sedimen Drift Dep Algal Ma Iron Dep Surface Inundatio Sparsely Field Observ	drology Indicator cators (minimum or Water (A1) Inter Table (A2) Inter Table (A2) Inter Table (A2) Inter Table (B1) Int Deposits (B2) Inter Table (B2) Inter Table (B4) Inter Ta	I Imagery (B7)	Water-Stained Leaves (B9) (exceed MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livity Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Society Stunted or Stressed Plants (D1) (Incher (Explain in Remarks) ✓ Depth (inches):	ing Roots (Wate 4 Drain Dry- Satu C3) Geo Shal FAC Rais	er-Stained Leaves (B9) (MLRA 1, 2 A, and 4B) nage Patterns (B10) Season Water Table (C2) ration Visible on Aerial Imagery (C9 morphic Position (D2) low Aquitard (D3) -Neutral Test (D5) ed Ant Mounds (D6) (LRR A)
Wetland Hyd Primary Indic Surface High Wa Saturatio Water M Sedimen Drift Dep Algal Ma Iron Dep Surface Inundatio Sparsely Field Observ Surface Water Table Saturation Pr	drology Indicator cators (minimum or Water (A1) Inter Table (A2) Inter Table (A2) Inter Table (B2) Inter Tab	Il Imagery (B7) Ive Surface (B8)	Water-Stained Leaves (B9) (exce 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 Sc Stunted or Stressed Plants (D1) (I Other (Explain in Remarks)	ing Roots (oils (C6) LRR A)	Wate 4 Drain Dry- Satu C3) Geo Shal FAC Rais	er-Stained Leaves (B9) (MLRA 1, 2 A, and 4B) nage Patterns (B10) Season Water Table (C2) ration Visible on Aerial Imagery (C9 morphic Position (D2) low Aquitard (D3) -Neutral Test (D5) ed Ant Mounds (D6) (LRR A)
Wetland Hyd Primary Indio Surface High Wa Saturatio Water M Sedimen Drift Dep Algal Ma Iron Dep Surface Inundatio Sparsely Field Observ Surface Water Table Saturation Pr (includes cap	drology Indicator cators (minimum or Water (A1) Inter Table (A2) Inter Table (A2) Inter Table (A2) Inter Table (B2) Inter Table (B3) Inter Trust (B4) Inter Tru	Il Imagery (B7) Ive Surface (B8) Yes	Water-Stained Leaves (B9) (exceed MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livity Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Sotom Stunted or Stressed Plants (D1) (Included the control of the contro	ing Roots (oils (C6) 'LRR A) Wetland	Wate 4 Drain Dry- Satu C3) FAC Rais Fros	er-Stained Leaves (B9) (MLRA 1, 2 A, and 4B) nage Patterns (B10) Season Water Table (C2) ration Visible on Aerial Imagery (C9 morphic Position (D2) low Aquitard (D3) -Neutral Test (D5) ed Ant Mounds (D6) (LRR A) t-Heave Hummocks (D7)
Primary Indice Surface High Wa Saturatice Water M Sediment Drift Dep Algal Ma Iron Dep Surface Inundatice Sparsely Field Observ Surface Water Table Saturation Pr (includes cap	drology Indicator cators (minimum or Water (A1) Inter Table (A2) Inter Table (A2) Inter Table (A2) Inter Table (B2) Inter Table (B3) Inter Trust (B4) Inter Tru	Il Imagery (B7) Ive Surface (B8) Yes	Water-Stained Leaves (B9) (exce 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 Sc Stunted or Stressed Plants (D1) (I Other (Explain in Remarks)	ing Roots (oils (C6) 'LRR A) Wetland	Wate 4 Drain Dry- Satu C3) FAC Rais Fros	er-Stained Leaves (B9) (MLRA 1, 2 A, and 4B) nage Patterns (B10) Season Water Table (C2) ration Visible on Aerial Imagery (C9 morphic Position (D2) low Aquitard (D3) -Neutral Test (D5) ed Ant Mounds (D6) (LRR A) t-Heave Hummocks (D7)
Wetland Hyderimary Indice Surface Surf	drology Indicator cators (minimum or Water (A1) Inter Table (A2) Inter Table (A2) Inter Table (A2) Inter Table (B2) Inter Table (B3) Inter Trust (B4) Inter Tru	Il Imagery (B7) Ive Surface (B8) Yes	Water-Stained Leaves (B9) (exceed MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livity Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Sotom Stunted or Stressed Plants (D1) (Included the control of the contro	ing Roots (oils (C6) 'LRR A) Wetland	Wate 4 Drain Dry- Satu C3) FAC Rais Fros	er-Stained Leaves (B9) (MLRA 1, 2 A, and 4B) nage Patterns (B10) Season Water Table (C2) ration Visible on Aerial Imagery (C9 morphic Position (D2) low Aquitard (D3) -Neutral Test (D5) ed Ant Mounds (D6) (LRR A) t-Heave Hummocks (D7)
Wetland Hyde Primary Indice Surface Water M Saturation Drift Dep Algal Ma Iron Dep Surface Surface Water Table Saturation Pr (includes cap Describe Rec	drology Indicator cators (minimum or Water (A1) Inter Table (A2) Inter Table (A2) Inter Table (A2) Inter Table (B2) Inter Table (B3) Inter Trust (B4) Inter Tru	Il Imagery (B7) Ive Surface (B8) Yes No _ Yes No _ Yes No _ Im gauge, monito	Water-Stained Leaves (B9) (excendence of MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livity Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Society Stunted or Stressed Plants (D1) (Incher (Explain in Remarks) ✓ Depth (inches): ✓ Depth (inches): ✓ Depth (inches):	ing Roots (oils (C6) 'LRR A) Wetland	Wate 4 Drain Dry- Satu C3) FAC Rais Fros	er-Stained Leaves (B9) (MLRA 1, 2 A, and 4B) nage Patterns (B10) Season Water Table (C2) ration Visible on Aerial Imagery (C9 morphic Position (D2) low Aquitard (D3) -Neutral Test (D5) ed Ant Mounds (D6) (LRR A) t-Heave Hummocks (D7)
Wetland Hyd Primary Indic Surface High Wa Saturatio Water M Sedimen Drift Dep Algal Ma Iron Dep Surface Inundatio Sparsely Field Observ Surface Water Water Table Saturation Pr (includes cap Describe Rec	drology Indicator cators (minimum or Water (A1) Inter Table (A2) Inter Table (A2) Inter Table (B2) Inter Tab	Il Imagery (B7) Ive Surface (B8) Yes No _ Yes No _ Yes No _ Im gauge, monito	Water-Stained Leaves (B9) (excendence of MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livity Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Society Stunted or Stressed Plants (D1) (Incher (Explain in Remarks) ✓ Depth (inches): ✓ Depth (inches): ✓ Depth (inches):	ing Roots (oils (C6) 'LRR A) Wetland	Wate 4 Drain Dry- Satu C3) FAC Rais Fros	er-Stained Leaves (B9) (MLRA 1, 2 A, and 4B) nage Patterns (B10) Season Water Table (C2) ration Visible on Aerial Imagery (C9 morphic Position (D2) low Aquitard (D3) -Neutral Test (D5) ed Ant Mounds (D6) (LRR A) t-Heave Hummocks (D7)
Wetland Hyd Primary Indic Surface High Wa Saturatio Water M Sedimen Drift Dep Algal Ma Iron Dep Surface Inundatio Sparsely Field Observ Surface Water Water Table Saturation Pr (includes cap Describe Rec	drology Indicator cators (minimum or Water (A1) Inter Table (A2) Inter Table (A2) Inter Table (B2) Inter Tab	Il Imagery (B7) Ive Surface (B8) Yes No _ Yes No _ Yes No _ Im gauge, monito	Water-Stained Leaves (B9) (excendence of MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livity Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Society Stunted or Stressed Plants (D1) (Incher (Explain in Remarks) ✓ Depth (inches): ✓ Depth (inches): ✓ Depth (inches):	ing Roots (oils (C6) 'LRR A) Wetland	Wate 4 Drain Dry- Satu C3) FAC Rais Fros	er-Stained Leaves (B9) (MLRA 1, 2 A, and 4B) nage Patterns (B10) Season Water Table (C2) ration Visible on Aerial Imagery (C9 morphic Position (D2) low Aquitard (D3) -Neutral Test (D5) ed Ant Mounds (D6) (LRR A) t-Heave Hummocks (D7)

Project/Site: _Easton	City/County: Park	Sampling Date:6/23/2020
Applicant/Owner: MDT		State: Montana Sampling Point: DP05w
Investigator(s): R Jones, S Weyant	Section Township Ran	
Landform (hillslope, terrace, etc.): Floodplain	Local relief (conceyous	panyoy nana): flat Slana (%/): 0
Landiorm (milisiope, terrace, etc.).	Local relief (concave, c	-110 63863 D. NAD 83
Subregion (LRR): LRR E Soil Map Unit Name: 155A: Meadowcreek, rarely flooded-N	lands sampley 0 to 2 para	Long: Datum: Not Monned
Are climatic / hydrologic conditions on the site typical for this time	e of year? Yes 🔽 No _	Ulf no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology signif	icantly disturbed? Are "	Normal Circumstances" present? Yes 🗹 No
Are Vegetation, Soil, or Hydrology natura	ally problematic? (If ne	eded, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map sho	wing sampling point lo	ocations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No I	le the Campled	Arra
Hydric Soil Present? Yes Ves No	Is the Sampled within a Wetlan	
Wetland Hydrology Present? Yes Ves No		
Remarks: PEM riverine wetland in center of the site, located within	the constructed flood char	nnol
PEW IIVernie Wetland III Center of the Site, located Within	The constructed flood chai	illei.
VECETATION Has asignific names of plants		
VEGETATION - Use scientific names of plants	anniant Indiantan	
Trace Christians Districts (OC Foot Doding)	omiant Indicator pecies? 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)
	- FAOVA/	Prevalence Index worksheet
Alnus incana 10	✓ FACW	Total % Cover of: Multiply by:
		OBL species 21 X 1 21
		FACW species 35 X 2 70
		FAC species 27 X 3 81
Herbaceous Stratum Plot size (5 Foot Radius)		FACU species 5 X 4 20 UPL species 0 X 5 0
		UPL species 0 X 5 0
Alopecurus arundinaceus 15	FAC ORL	Column Totals 88 (A) 192 (B)
Carex nebrascensis 1	OBL	Prevalence Index = B/A = 2.18182
Carex pachystachya 2	FAC ORL	Hydrophytic Vegetation Indicators
Carex pellita 15 Carex scoparia 5	✓ OBL	1 - Rapid Test for Hydrophytic Vegetation
Carex scoparia 5 Carex utriculata 5	FACW OBL	✓ 2 - Dominance Test is >50%
Carum carvi 3	FACU	✓ 3 - Prevalence Index is <= 3.0
Juncus balticus 20	FACW	
Lotus corniculatus 10	FAC	4 - Morphological Adaptations (Provide supporting data in remarks or on separate
Taraxacum officinale 2	FACU	sheet.
Talaxacum omenaie 2	I ACC	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 22		Present?
Remarks: BG/litter/shallow ponded water=22%		•
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SOIL											Sampling Point: DP05w
Profile Desc	cription: (Describe	to the de	pth neede	d to docur	ment the ir	ndicato	r or c	onfirm	the absence	of indicators.)
Depth		Matrix	2/			x Features					B
(inches)		(moist)	%	Color	(moist)	%	Type ¹	L	oc ²	Texture	Remarks
0-7	10YR	4/2	100						Silty	Clay Loam	Gravelly/cobbly
7-12	10YR	4/1	95	10YR	4/6	5	С	М	Sa	indy Clay	Gravel throughout.
Black Hi Hydroge Depleted Thick Da	Indicators (A1) pipedon (A istic (A3) en Sulfide (d Below Da ark Surface Mucky Mine	(A4) ark Surface (A12) eral (S1)	cable to al	I LRRs, un San Strip Loan Loan Dep		rwise note S5) (S6) Mineral (F1 Matrix (F2) ((F3) rface (F6)	d.)) (excep			Indicato	ation: PL=Pore Lining, M=Matrix. rs for Problematic Hydric Soils³: n Muck (A10) Parent Material (TF2) Shallow Dark Surface (TF12) er (Explain in Remarks) rs of hydrophytic vegetation and and hydrology must be present,
	∋leyed Mat			Red	ox Depress	ions (F8)				unles	s disturbed or problematic.
Restrictive I		resent):									
Туре:											
Depth (in	ches):									Hydric Soil	Present? Yes <u> </u>
HYDROLO	CV.										
Wetland Hy		dicators									
Primary India	==			ed: check a	all that appl	v)				Secon	dary Indicators (2 or more required)
✓ Surface			one require		Water-Sta		s (B9) (excer	nt .		ater-Stained Leaves (B9) (MLRA 1, 2,
✓ High Wa		-				1, 2, 4A, aı		CACC	J.	<u> </u>	4A, and 4B)
✓ Saturation		()			Salt Crust					☐ Dr	rainage Patterns (B10)
	larks (B1)				Aquatic Inv		(B13)				ry-Season Water Table (C2)
Sedimer	nt Deposits	(B2)			Hydrogen						aturation Visible on Aerial Imagery (C9
Drift Dep	oosits (B3)				Oxidized F	Rhizospher	es along	, Livir	ng Root	s (C3) 🔽 G	eomorphic Position (D2)
Algal Ma	at or Crust	(B4)			Presence	of Reduced	d Iron (C	(4)		sł	nallow Aquitard (D3)
	oosits (B5)				Recent Iro						AC-Neutral Test (D5)
	Soil Crack				Stunted or			D1) (L	.RR A)		aised Ant Mounds (D6) (LRR A)
_	on Visible y Vegetate			· —	Other (Exp	olain in Rer	narks)			Fr	ost-Heave Hummocks (D7)
Field Obser		u Ooncav	Couriace	(50)				1			
Surface Water		2 \	es 🔽	No \square	Denth (in	ches):		2			
Water Table			res <u> </u>			ches):		0			
Saturation Pi	resent?	,	es <u>▼</u> ∕es <u>▼</u>			ches):		0	Wetla	nd Hydrology	Present? Yes V No
Describe Re	corded Da	ta (strean	n gauge, m	nonitoring v	vell, aerial ı	photos, pre	vious in	spect	ions), it	available:	
Remarks:	water ch	served a	nt eail ait								
2 in surface	water ob	served a	ıı son pit.								

Applicant/Owner, MOT State, Montana Sampling Point DP06u Investigator(s); R Quire, R Jones, S Weyant Section, Township, Range S 32 T 4N R 9E Investigator(s); R Quire, R Jones, S Weyant Section, Township, Range S 32 T 4N R 9E Investigator(s); R Quire, R Jones, S Weyant Section, Township, Range S 32 T 4N R 9E Interest Subregion (LRR), LRR E Lat 46.059983 Long -110.637715 Saturn NAD 83 Soil Map Unit Name 156A: Meadowcreek, rarely flooded-Nesdad complex, 0 to 2 percent slope NWI classification Not Mapped NAME	Project/Site: Easton	City/County: Park	Sampling Date:6/23/2020
Subregion LRR}-LRKE			
Subregion LRR}-LRKE	Investigator(s): R Quire, R Jones, S Weyant	Section, Township, Ran	ge: S 32 T 4N R 9E
Subregion LRR}-LRKE	Landform (hillslope, terrace, etc.): Terrace	Local relief (concave, co	onvex, none): convex Slope (%): 2
Are climatic / hydrologic conditions on the site typical for this time of year? Yes	Subregion (LRR): LRR E	Lat: 46.059893	Long: -110.637715 Datum: NAD 83
Are climatic / hydrologic conditions on the site typical for this time of year? Yes	Soil Map Unit Name: 155A: Meadowcreek, rarely floode	d-Nesda complex, 0 to 2 perce	ent slope NWI classification:Not Mapped
Are Vegetation			
SUMMARY OF FINDINGS — Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Yes No W Is the Sampled Area within a Wetland Pytoriogy Present? Yes No W Within a Wetland? Yes No W Within a Wetland? VEGETATION - Use scientific names of plants Tree Stratum Plot size (30 Foot Radius) Absolute Domiant Indicator Status No W Owner Species? Status Port Stratum Plot size (30 Foot Radius) Absolute Domiant Species that are OBL, FACW, or FAC: 1 (A) Total Number of Dominant Species that are OBL, FACW, or FAC: 50 % (A/B) Populus balsamifera 10 FAC Total Number of Dominant Species That Are OBL, FACW, or FAC: 50 % (A/B) Provalence Index worksheet Number of Dominant Species that are OBL, FACW, or FAC: 50 % (A/B) Prevalence Index worksheet Number of Dominant Species that are OBL, FACW, or FAC: 50 % (A/B) Prevalence Index worksheet Number of Dominant Species that are OBL, FACW, or FAC: 50 % (A/B) Prevalence Index worksheet Number of Dominant Species that are OBL, FACW, or FAC: 50 % (A/B) Prevalence Index worksheet Number of Dominant Species that are OBL, FACW, or FAC: 50 % (A/B) Prevalence Index worksheet Number of Dominant Species that are OBL, FACW, or FAC: 50 % (A/B) Prevalence Index worksheet Number of Dominant Species that are OBL, FACW, or FAC: 50 % (A/B) Prevalence Index worksheet Obligation Species 0 x 1 0 0 FAC Species 0 x 2 0 0 FAC Species 0			
Hydrophytic Vegetation Present? Yes No W within a Wetland? Yes No Yes No W within a Wetland? Yes No Ye	Are Vegetation, Soil, or Hydrology na	aturally problematic? (If nee	eded, explain any answers in Remarks.)
Hydric Soil Present? Yes	SUMMARY OF FINDINGS - Attach site map s	howing sampling point lo	cations, transects, important features, etc.
Wetland Hydrology Present? Yes			A
VEGETATION - Use scientific names of plants Tree Stratum		within a Wetland	
Upland sample point upslope of wetland boundary and DP06w. VEGETATION - Use scientific names of plants Tree Stratum Plot size (30 Foot Radius)			. 165 <u> </u>
VEGETATION - Use scientific names of plants		nd DP06w	
Number of Dominant Species Status	opiana campio point aporopo el menana acamaan, an	2. 00	
Number of Dominant Species Status	VEGETATION - Use scientific names of plant	's	
Number of Dominant Species that are OBL, FACW or FAC: 1 (A)	Absolute	Domiant Indicator	Dominance Test worksheet
Sapling/Shrub Stratum	Tree Stratum Plot size (30 Foot Radius) % Cover:	Species? Status	Number of Dominant Species
Sapiling/Shrub Stratum			that are OBE, 1710W of 1710.
Sapling/Shrub Stratum			
Populus balsamifera 10	Sapling/Shrub Stratum Plot size (15 Foot Radius)		
Herbaceous Stratum		FAC	Prevalence Index worksheet
Herbaceous Stratum	1 opulus balsallillera 10	VITAC	
Herbaceous Stratum Plot size (5 Foot Radius) Bromus inermis 50 ✓ UPL Carum carvi 5 □ FACU Elymus repens 3 □ FAC Leymus cinereus 5 □ FAC Lotus corniculatus 10 □ FAC Phleum pratense 5 □ FAC Taraxacum officinale 7 □ FAC Woody Vine Stratum Plot size (30 Foot Radius) FAC species 38 X 3 □ 114 FACU species 12 X 4 □ 48 UPL species 50 X 5 □ 250 Column Totals □ 100 □ (A) □ 412 □ (B) Prevalence Index = B/A = □ 4.12 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 ✓ Percent Bare Ground 10 Remarks: BG/litter=10%			
Herbaceous Stratum Plot size (5 Foot Radius) Bromus inermis			
Herbaceous Stratum			
Carum carvi 5 FACU Elymus repens 3 FAC Leymus cinereus 5 FAC Lotus corniculatus 10 FAC Phleum pratense 5 FAC Poa pratensis 5 FAC Taraxacum officinale 7 FACU 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 Vegetation Problematic Hydrophytic Vegetation (Explain) Indicators of hydric sil and wetland hydrology must be present, unless disturbed or problematic for #3, 4, 5. Hydrophytic Vegetation Vegetation Yes NO Present?	Herbaceous Stratum Plot size (5 Foot Radius)		
Carum carvi	Bromus inermis 50	✓ UPL	Column Totals 100 (A) 412 (B)
Leymus cinereus	Carum carvi 5	FACU	
Lotus corniculatus 10	Elymus repens 3	FAC	
Dotus corniculatus			
Poa pratensis 5 FAC Taraxacum officinale 7 FACU 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 10 Remarks: BG/litter=10%			
Taraxacum officinale 7 FACU 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 10 Remarks: BG/litter=10%			
woody Vine Stratum Plot size (30 Foot Radius) Percent Bare Ground 10			
Woody Vine Stratum Plot size (30 Foot Radius) Percent Bare Ground 10 Percent Bare Ground 10 Semarks: BG/litter=10% Description For 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?	Taraxacum officinale	FACU	supporting data in remarks or on separate
Woody Vine Stratum Plot size (30 Foot Radius) 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? Remarks: BG/litter=10%			
Woody Vine Stratum Plot size (30 Foot Radius) Percent Bare Ground 10 Remarks: BG/litter=10% Indicators of hydric sil and wetland hydrology must be present, unless disturbed or problematic for #3, 4, 5. Hydrophytic Vegetation Present? NO ✓ Present?			
Plot size (30 Foot Radius) Percent Bare Ground 10 Remarks: BG/litter=10% Plot size (30 Foot Radius) present, unless disturbed or problematic for #3, 4, 5. Hydrophytic Vegetation Present? Present?			☐ Problematic Hydrophytic Vegetation (Explain)
Percent Bare Ground 10 Remarks: BG/litter=10%	Woody Vine Stratum Plot size (30 Foot Radius)		
Remarks: BG/litter=10%			Vegetation Yes □ NO ✓
BG/litter=10%			FIESEIL!
US Army Corps of Engineers Western Mountains. Vallevs. and Coasts - Version 2.0			
	US Army Corps of Engineers		Western Mountains, Vallevs, and Coasts - Version 2.0

SOIL								Samplin	g Point: DP06u
Profile Descr	iption: (Desci	ribe to the depth	needed to docui	nent the indica	tor or con	nfirm the ab	sence of in		
Depth	Matı			x Features	1 .	-		_	
(inches)	Color (moist		Color (moist)	<u>%</u> <u>Typ</u>	e ¹ Loc			Re	marks
0-13	10Y 3/2	100				Clay Loa	am		
				 					
				<u> </u>					
			Reduced Matrix, C		oated San				ining, M=Matrix.
Hydric Soil Ir	ndicators: (Ap	plicable to all L	RRs, unless othe	rwise noted.)		ln	dicators fo	r Problemat	ic Hydric Soils³:
Histosol (_	Sandy Redox (•		_	2 cm Mu		
	pedon (A2)	<u>[</u>	Stripped Matrix	` '				ent Material (
Black His		<u> </u>		Mineral (F1) (exc	cept MLR	A 1)	= -	allow Dark Su	. ,
	ո Sulfide (A4) Below Dark Sւ	<u> </u> urface (A11)	Loamy Gleyed				Utner (E	xplain in Ren	narks)
	k Surface (A12		☑ Depleted Matrix ☑ Redox Dark Su			³ lr	ndicators of	hydrophytic	vegetation and
_	ucky Mineral (S	· -	Depleted Dark	` '		"		ydrology mus	•
	eyed Matrix (S	_	Redox Depress	. ,				turbed or pro	
	ayer (if presen		<u> </u>	,				· ·	
Туре:									
Depth (incl	hes):					Hydri	ic Soil Pre	sent? Yes	No ✓
HYDROLOG	2								
	rology Indicat								
=			check all that appl	w)			Secondan	Indicators (2	or more required)
	·	or one required,		ined Leaves (B9) (except			,	ves (B9) (MLRA 1, 2,
	Vater (A1) er Table (A2)			1, 2, 4A, and 4E				, and 4B)	ves (D9) (WILKA 1, 2,
Saturation			Salt Crust		٠,			ige Patterns	(R10)
Water Ma	` '			vertebrates (B13	8)			eason Water	
	Deposits (B2)			Sulfide Odor (C					n Aerial Imagery (C9
Drift Depo				Rhizospheres ald	•	Roots (C3)		orphic Positio	
	or Crust (B4)			of Reduced Iron				w Aquitard ([
Iron Depo	` ,		_	n Reduction in 1	` '	(C6)		leutral Test (
	Soil Cracks (B6)	1		Stressed Plants				-	s (D6) (LRR A)
		rial Imagery (B7)		olain in Remarks	. , ,	,		Heave Humm	
		cave Surface (B			,				,
Field Observa	ations:								
Surface Water	r Present?	Yes 🔲 N	o <u> </u>	ches):					
Water Table F	Present?	Yes N	o <u> </u>	ches):					
Saturation Pre		Yes N	o <u> </u>	ches):	v	Vetland Hyd	Irology Pre	esent? Yes	No <u></u>
Describe Reco	orded Data (str	eam gauge, mon	itoring well, aerial	photos, previous	inspection	ns), if availal	ble:		
Remarks: No hydrologic	c indicators o	bserved during	ı site visit						
. to riyarologi	o manuatura U	2501 VOG GUINIY	, one viole.						

Project/Site: Easton	Citv/County: Park	Sampling Date:6/23/2020
Applicant/Owner: MDT	, ,	State: Montana Sampling Point: DP06w
		ge: S 32 T 4N R 9E
Landform (hillslope, terrace, etc.): Floodplain		
Subregion (LRR): LRR E	46.060322	Long:110.637715 Datum: NAD 83
Soil Map Unit Name: 155A: Meadowcreek, rarely flooded-N	lesda complex. 0 to 2 perce	nt slope NAM place: Seed and Mapped
•		
Are climatic / hydrologic conditions on the site typical for this time	•	
Are Vegetation, Soil, or Hydrology signifi		
Are Vegetation, Soil, or Hydrology natura		
SUMMARY OF FINDINGS – Attach site map sho		cations, transects, important features, etc
Hydrophytic Vegetation Present? Yes <u>✓</u> No <u> </u> Hydric Soil Present? Yes <u>✓</u> No		Area
Wetland Hydrology Present?		
Remarks: PEM riverine wetland. VEGETATION - Use scientific names of plants		
Absolute D	omiant Indicator	Dominance Test worksheet
Tree Stratum Plot size (30 Foot Radius) % Cover: S	pecies? Status	Number of Dominant Species
		that are OBL, FACW or FAC:
		Total Number of Dominant Species Across All Strata: 3 (B)
		Percent of Dominant Species That Are OBL, FACW, or FAC: 100 % (A/B)
Sapling/Shrub Stratum Plot size (15 Foot Radius)	E40	Prevalence Index worksheet
Populus balsamifera 2	✓ FAC	Total % Cover of: Multiply by:
		OBL species 0 X 1 0
		FACW species 1 X 2 2 FAC species 84 X 3 252
		FACU species 4 X 4 16
Herbaceous Stratum Plot size (5 Foot Radius)		UPL species 0 X 5 0
Agrostis stolonifera 5	FAC	Column Totals 89 (A) 270 (B)
Alopecurus arundinaceus 5	FAC	
Cirsium arvense 2	FAC	Prevalence Index = B/A = 3.03371
Equisetum arvense 30	✓ FAC	Hydrophytic Vegetation Indicators 1 - Rapid Test for Hydrophytic Vegetation
Lotus corniculatus 40	✓ FAC	
Schedonorus pratensis 4	FACU	✓ 2 - Dominance Test is >50%
Sisyrinchium idahoense 1	FACW	☐ 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 13		Hydrophytic Vegetation Present? Ves ✓ NO
Remarks:		
BG/litter=13%		
US Army Corps of Engineers		Western Mountains, Valleys, and Coasts - Version 2.0
7 1 0		, ,, ==================================

SOIL											Sa	mpling Point:	DP06w
Profile Desc	ription: (E	escribe	to the de	oth need	ed to docum	ent the in	ndicator	ord	onfirm t	he absence o			
Depth		Matrix				Features				- .		Б	
(inches)	Color (i		<u>%</u>	Colo	r (moist)	%	Type ¹	<u>L</u>	_oc²	Texture		Remarks	
0-6	10YR	4/1	60						Sandy	Clay Loam			
0-6	10YR	4/4	40						Sandy	Clay Loam			
6-12	10YR	4/2	70	10Y	3/1	10	С	M	Sandy	Clay Loam			
6-12	10YR	4/4	20						Sandy	Clay Loam			
¹ Type: C=Co	oncentration	n, D=Dep	letion, RM	=Reduce	ed Matrix, CS		or Coat	ed S	and Grai	ns. ² Loca	tion: PL=F	Pore Lining, M	=Matrix.
Hydric Soil												ematic Hydri	
Histosol	(A1)			☐ Sar	ndy Redox (S	5)					Muck (A10		
Histic Ep	oipedon (A2	?)		Stri	pped Matrix	(S6)				Red F	Parent Mate	erial (TF2)	
	stic (A3)			Loa	ımy Mucky M	ineral (F1) (excep	t ML	_RA 1)			ırk Surface (Tl	- 12)
	n Sulfide (A			Loa	ımy Gleyed N	/latrix (F2))			Other	(Explain in	ı Remarks)	
Depleted	d Below Da	rk Surfac	e (A11)	<u>✓</u> Dep	oleted Matrix	(F3)							
_	ark Surface	,		=	dox Dark Sur	` ,						hytic vegetatio	
	lucky Miner				oleted Dark S		7)					must be pres	
	Bleyed Matr			<u> </u>	dox Depressi	ons (F8)				unless	disturbed of	or problematic	
Restrictive I	Layer (if pr	esent):											
Туре:													
Depth (inc	ches):									Hydric Soil P	resent?	Yes <u> </u>	No <u> </u>
HYDROLO	GY												
Wetland Hyd													
Primary Indic			ne require	d; check								ors (2 or more	
Surface					_ Water-Stair	ned Leave	es (B9) (e	exce	pt	_L_l Wa	ter-Stained	l Leaves (B9)	(MLRA 1, 2,
<u></u> High Wa		1 2)			MLRA 1	, 2, 4A, a	nd 4B)				4A, and 4E	3)	
<u>✓</u> Saturatio	on (A3)				Salt Crust (-					inage Patt		
Water M	arks (B1)				Aquatic Inv							Vater Table (C	
Sedimer	nt Deposits	(B2)		<u> </u>	Hydrogen S	Sulfide Od	or (C1)			_ <u> </u>	uration Vis	ible on Aerial	Imagery (C9)
	oosits (B3)				Oxidized R	hizospher	es along	Livi	ng Roots	(C3) <u></u> Ge	omorphic F	Position (D2)	
Algal Ma	at or Crust (B4)			Presence o	f Reduce	d Iron (C	4)		Sha	allow Aquit	ard (D3)	
Iron Dep	osits (B5)				Recent Iror	Reduction	n in Tille	d So	oils (C6)	FA	C-Neutral 7	est (D5)	
Surface	Soil Cracks	(B6)			Stunted or	Stressed	Plants (E) (I	LRR A)	Rai	sed Ant Mo	ounds (D6) (L	RR A)
Inundation	on Visible o	n Aerial I	magery (E	37)	Other (Exp	ain in Rer	marks)			Fro	st-Heave H	łummocks (D	7)
Sparsely	/ Vegetated	Concave	Surface	(B8)									
Field Observ	vations:												
Surface Wate	er Present?	Y	es 🔽	No	Depth (inc	hes):		2					
Water Table	Present?	Υ	es 🔽	No	Depth (inc	hes):	;	3					
Saturation Pr		Υ	es 🔽		Depth (inc			0	Wetlan	d Hydrology	Present?	Yes <u> </u>	No
Describe Red			gauge, m	onitoring	well, aerial p	hotos, pre	evious in	spec	tions), if	available:			
Remarks:													
2in of surfac	ce water o	bserved	at soil pi	t.									

Pojectifice: Eastin	Project/Site: Easton	Citv/C	_{County:} Park		Sampling Da	te: 6/24/2020
Investigator(s): R Quitre, R Jones, S Weyant Section, Township, Range S 32 T 4N R 9 E		,	,	State: Montana		nt:DP07a-u
Landsmith (initialops. terrace, etc.): Terrace Lat		Section	on, Township, Rand			
Submignorn (LRR)-LRR E	Landform (hillslope, terrace, etc.); Terrace	 Loca	al relief (concave, co	nvex. none); convex		Slope (%): 3
Sol May Durit Name. 155A. Meadowcreek, rarely flooded-Nesda complex. 0 to 2 percent slope. NW classification, Not Mapped Are climatic / hydrologic conditions on the site typical for this time of year? Yes	Subregion (LRR): LRR E		46.06093	Long:	 110.638116 _C	oatum: NAD 83
Are climatic / hydrologic conditions on the site typical for this time of year? Yes	Soil Map Unit Name: 155A: Meadowcreek, rarely flooded-Ne	sda com	plex, 0 to 2 perce	nt slope NWI classit	fication:Not Ma	oped
Are Vegetation	•				'	
Are Vegetation		-				✓ No □
SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present?						
Hydro Soil Present? Yes						
Upslope of recently flooded developing wetland. VEGETATION - Use scientific names of plants	Hydric Soil Present? Yes □ No ✓ Wetland Hydrology Present? Yes □ No ✓]	1		□ No <u>✓</u>	
Tree Stratum Plot size (30 Foot Radius) Absolute Screens Statius Statius						
Tree Stratum Plot size (30 Foot Radius) Absolute Screens Statius Statius	VEGETATION - Use scientific names of plants					
Number of Dominant Species that are OBL, FACW or FAC:	Absolute Dor		ndicator	Dominance Test w	orksheet	
Sapling/Shrub Stratum Plot size (15 Foot Radius) Herbaceous Stratum Plot size (5 Foot Radius) Bromus inermis Carum carvi Cirsium arvense Taraxacum officinale Taraxacum officinale Taraxacum officinale Prevalence Index worksheet Total % Cover of: Multiply by: OBL species 0 X 1 0 FACU Species 0 X 2 0 FAC species 12 X 4 48 UPL species 13 X 3 9 FACU Species 14 X 48 UPL species 15 ACU Taraxacum officinale 7 FACU Prevalence Index = B/A = 4.81053 Hydrophytic Vegetation Indicators 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index = B/A = 4.81053 Hydrophytic Vegetation Indicators 1 - Rapid Test for Hydrophytic Vegetation Lydrophytic Vegetati	Tree Stratum Flot size (30 Foot Radius) % Cover: Spe	ecies? S	Status	Number of Dominar	nt Species	0 (A)
That Are OBL, FACW, or FAC: 9 % (A/B)						1 (B)
Prevalence Index worksheet Total % Cover of: Multiply by: OBL species 0 x1 0 FACW species 0 x2 0 FACW species 3 x3 9 FACW species 4 x4 x48	Sapling/Shrub Stratum Plot size (15 Foot Radius)					0 % (A/B)
Herbaceous Stratum Plot size (5 Foot Radius) Bromus inermis 80 UPL Carum carvi 5 FACU Cirsium arvense 3 FAC Taraxacum officinale 7 FACU Woody Vine Stratum Plot size (30 Foot Radius) Woody Vine Stratum Plot size (30 Foot Radius) Percent Bare Ground 5 Remarks: BG/litter=5%	,					
Herbaceous Stratum Plot size (5 Foot Radius) Bromus inermis						
Herbaceous Stratum Plot size (5 Foot Radius) Bromus inermis 80				•	•	
Herbaceous Stratum					3 X3	9
Bromus inermis				•		
Carum carvi				UPL species	80 X 5	400
Cirsium arvense Taraxacum officinale Tara				Column Totals	95 (A)	457 (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 Present? NO Present?				Prevalence Ind	lex = B/A = 4.	81053
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.						
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		_		_		
4 - Morphological Adaptations (Provide supporting data in remarks or on separate sheet. 5 - Wetland Non-Vascular Plants Problematic Hydrophytic Vegetation (Explain)				2 - Domina	ance Test is >50	%
woody Vine Stratum Plot size (30 Foot Radius) Percent Bare Ground 5 Remarks: BG/litter=5% S - 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 Present? NO Remarks:				☐ 3 - Prevale	nce Index is <=	3.0
Woody Vine Stratum Plot size (30 Foot Radius) Percent Bare Ground 5 Remarks: BG/litter=5% Do 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?				supporting	0 1	`
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 Present? Remarks: BG/litter=5%					d Non-Vascular	Plants
Plot size (30 Foot Radius) Present, unless disturbed or problematic for #3, 4, 5. Hydrophytic Vegetation Present? Remarks: BG/litter=5%				☐ Problemati	c Hydrophytic V	egetation (Explain
Percent Bare Ground 5 Remarks: BG/litter=5%	Woody Vine Stratum Plot size (30 Foot Radius)					
Remarks: BG/litter=5%	Boroont Boro Cround 5			Vegetation	Yes NO	✓
BG/litter=5%						
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	US Army Corps of Engineers			Western Mountains,	Valleys, and Co	pasts - Version 2.0

SOIL								Sampling Point: DP07a-u
Profile Desc	cription: (Descr	ibe to the dept	h needed to docu	ment the in	dicator	or confirm	the absence	
Depth	Matr			x Features		. 2		
(inches)	Color (moist		Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-13	10YR 3/2	100				Silty	Clay Loam	
	-							
	-							
	-							
¹ Type: C=Co	oncentration, D=	Depletion, RM=	Reduced Matrix, C	S=Covered	or Coate	d Sand Gr	ains. ² Loc	cation: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Ap	plicable to all l	RRs, unless othe	rwise note	d.)		Indicato	rs for Problematic Hydric Soils³:
Histosol		-	🔲 Sandy Redox (S5)				n Muck (A10)
	pipedon (A2)	-	Stripped Matrix	. ,			_	Parent Material (TF2)
	istic (A3)	-	Loamy Mucky			MLRA 1)		y Shallow Dark Surface (TF12)
	en Sulfide (A4)	-5 (A.4.4)	Loamy Gleyed	, ,			Othe	er (Explain in Remarks)
	d Below Dark Su ark Surface (A12		∐_ Depleted Matri ☐ Redox Dark Sເ				3Indicato	ors of hydrophytic vegetation and
	// Jucky Mineral (S		Depleted Dark		7)			nd hydrology must be present,
	Gleyed Matrix (S4		Redox Depress	•	,			s disturbed or problematic.
	Layer (if presen			(, -)				
	ches):						Hydric Soil	Present? Yes No _ ✓
Remarks:	,							
HYDROLO	GY							
Wetland Hy	drology Indicate	ors:						
Primary Indic	cators (minimum	of one required	; check all that app	ly)			Secor	ndary Indicators (2 or more required)
Surface	Water (A1)		Water-Sta	ined Leave	s (B9) (e :	xcept	W	/ater-Stained Leaves (B9) (MLRA 1, 2,
High Wa	ater Table (A2)		MLRA	1, 2, 4A, ar	nd 4B)			4A, and 4B)
Saturation	on (A3)		Salt Crust	(B11)			D	rainage Patterns (B10)
Water M	larks (B1)			vertebrates	. ,			ry-Season Water Table (C2)
_	nt Deposits (B2)		_ · ·	Sulfide Ode	. ,			aturation Visible on Aerial Imagery (C9)
	oosits (B3)			Rhizosphere	_	_		eomorphic Position (D2)
	at or Crust (B4)			of Reduced				hallow Aquitard (D3)
	oosits (B5)			n Reductio			_	AC-Neutral Test (D5)
	Soil Cracks (B6)			r Stressed F	•	1) (LRR A)		aised Ant Mounds (D6) (LRR A)
_	on Visible on Ae		<i>-</i>	plain in Ren	narks)		Fi	rost-Heave Hummocks (D7)
	y Vegetated Con	cave Surface (B	90)					
Field Obser		V	La Danth (in	-l\·				
Surface Wate			lo <u>V</u> Depth (in					
Water Table			lo <u>V</u> Depth (in					B (0)/
Saturation Pi (includes cap		Yes N	lo <u>✓</u> Depth (in	cnes):		_ vvetia	ina Hyarology	y Present? Yes No <u> </u>
		eam gauge, moi	nitoring well, aerial	photos, pre	vious ins	pections), i	f available:	
Remarks:								
2 10 2 0 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	gic indicators o	bserved during	g site visit.					
	-	`	-					

Project/Site: Easton	City/County: Park	Sampling Date:6/24/2020
Applicant/Owner: MDT		State: Montana Sampling Point: DP07a-w
Investigator(s): R Quire, R Jones, S Weyant	Continu Toumphin Dan	
Floodplain	Section, Township, Ran	onvex none): Concave Slone (%): 2
Landform (hillslope, terrace, etc.): Floodplain	Local relief (concave, co	Slope (%):
Subregion (LRR): LRR E	_ Lat:46.060895	Long:110.638244 Datum: NAD 83
Soil Map Unit Name: 155A: Meadowcreek, rarely floode		
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	lormal Circumstances" present? Yes No
Are Vegetation, Soil, or Hydrology n	aturally problematic? (If nee	ded, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map	showing sampling point lo	cations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes V		
	Is the Sampled	
Wetland Hydrology Present? Yes N	within a Wetland	1? Yes <u>▼</u> No <u>□</u>
Remarks:	· PEM · · · · · · · · · · · · · · · · · · ·	
Recent flooding has occurred at point, newly develo	oing PEM riverine wetland.	
VEGETATION - Use scientific names of plan		
Tree Stratum Plot size (30 Foot Radius) Absolute % Cover:		Dominance Test worksheet
		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 21 X 2 42
		FAC species 51 X 3 153 FACU species 8 X 4 32
Herbaceous Stratum Plot size (5 Foot Radius)		UPL species 0 X5 0
Carum carvi 5	FACU	
Equisetum arvense 35	✓ FAC	Column Totals 80 (A) 227 (B)
Juncus balticus 20	▼ FACW	Prevalence Index = B/A = 2.8375
Poa pratensis 15	FAC	Hydrophytic Vegetation Indicators
Potentilla gracilis 1	FAC	☐ 1 - Rapid Test for Hydrophytic Vegetation
Sisyrinchium idahoense 1	FACW	✓ 2 - Dominance Test is >50%
Taraxacum officinale 1	FACU	✓ 3 - Prevalence Index is <= 3.0
Trifolium pratense 2	FACU	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.
Downant Baro Crawn J 20		Hydrophytic Vegetation Present? NO □
Percent Bare Ground 20 Remarks:		
BG/litter/shallow ponded water=20%		
		M
US Army Corps of Engineers		Western Mountains, Valleys, and Coasts - Version 2.0

Drofile Descriptions (De						Sampling Point: DP07a-w
Profile Description: (De	escribe to the de	epth needed to docui	ment the indicato	r or confir	m the absence o	
	Matrix		x Features	. 2		
(inches) Color (m		Color (moist)	% Type ¹	Loc ²	Texture	Remarks
0-8 10YR	2/2 100				Clay	
8-12 10YR	4/1 93	7.5YR 3/4	7 C	M	Silty Clay	
		-				
		_				
		_				
¹ Type: C=Concentration				ted Sand G		ation: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators:	(Applicable to a		-			s for Problematic Hydric Soils ³ :
Histosol (A1)		Sandy Redox (•			Muck (A10)
Histic Epipedon (A2) Black Histic (A3)		Stripped Matrix	: (S6) Mineral (F1) (exce	nt MI DA 1	_	Parent Material (TF2) Shallow Dark Surface (TF12)
Hydrogen Sulfide (A4)	4)	Loamy Gleyed		PI WILKA I		r (Explain in Remarks)
Depleted Below Dark	•	Depleted Matrix				,
Thick Dark Surface (Redox Dark Su	, ,			s of hydrophytic vegetation and
Sandy Mucky Minera		Depleted Dark	٠,,			d hydrology must be present, disturbed or problematic.
Sandy Gleyed Matrix Restrictive Layer (if pre		Redox Depress	SIOTIS (FO)		uniess	disturbed of problematic.
Type:	,.					
Depth (inches):					Hydric Soil I	Present? Yes 🔽 No 🔲
Remarks:						
HYDROLOGY						
Wetland Hydrology Indi						
Primary Indicators (minim						dary Indicators (2 or more required)
Primary Indicators (minim	num of one requir	Water-Sta	ined Leaves (B9)	(except	Wa	ater-Stained Leaves (B9) (MLRA 1, 2,
Primary Indicators (minim Surface Water (A1) High Water Table (A	num of one requir	Water-Sta MLRA	ined Leaves (B9) 1, 2, 4A, and 4B)	(except	Wa	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
Primary Indicators (minim Surface Water (A1) High Water Table (A2) Saturation (A3)	num of one requir	Water-Sta MLRA Salt Crust	ined Leaves (B9) (1, 2, 4A, and 4B) (B11)	(except	Wa	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ainage Patterns (B10)
Primary Indicators (minim Surface Water (A1) High Water Table (A	num of one requir 2)	_ Water-Sta MLRA _ Salt Crust _ Aquatic In	ined Leaves (B9) 1, 2, 4A, and 4B)	(except	Wa Dr. Dr.	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2)
Primary Indicators (minim Surface Water (A1) High Water Table (A: Saturation (A3) Water Marks (B1)	num of one requir 2)	☐ Water-Sta MLRA ☐ Salt Crust ☐ Aquatic In ☐ Hydrogen	ined Leaves (B9) 1, 2, 4A, and 4B) (B11) vertebrates (B13)		☐ Wa	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ainage Patterns (B10)
Primary Indicators (minim Surface Water (A1) High Water Table (A: Saturation (A3) Water Marks (B1) Sediment Deposits (num of one requir 2) B2)		ined Leaves (B9) of the control of t	g Living Ro	□ Wa □ Dr □ Dr □ Sa pots (C3) ☑ Ge	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) turation Visible on Aerial Imagery (C9 comorphic Position (D2) allow Aquitard (D3)
Primary Indicators (minim Surface Water (A1) High Water Table (A) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B) Iron Deposits (B5)	num of one requir 2) B2)	Water-Sta MLRA Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro	ined Leaves (B9) of 1, 2, 4A, and 4B) (B11) vertebrates (B13) Sulfide Odor (C1) Rhizospheres alon of Reduced Iron (G) Reduction in Till	g Living Ro C4) ed Soils (C	□ Wa □ Dr. □ Dr. □ Dr. □ Sa vots (C3) ☑ Ge □ Sh □ Sh	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) turation Visible on Aerial Imagery (C9 comorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5)
Primary Indicators (minim Surface Water (A1) High Water Table (A: Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B Iron Deposits (B5) Surface Soil Cracks	num of one requir 2) B2) 44) (B6)	Water-Sta MLRA Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro Stunted or	ined Leaves (B9) (1, 2, 4A, and 4B) (B11) vertebrates (B13) Sulfide Odor (C1) Rhizospheres alon of Reduced Iron (Con Reduction in Till	g Living Ro C4) ed Soils (C	□ Wa □ Dr □ Dr □ Sa pots (C3) ☑ Ge □ Sh □ Sh □ FA	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) turation Visible on Aerial Imagery (C9 comorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5) ised Ant Mounds (D6) (LRR A)
Primary Indicators (minim Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B3) Iron Deposits (B5) Surface Soil Cracks Inundation Visible on	num of one requir 2) B2) 4) (B6) Aerial Imagery (Water-Sta MLRA Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro Stunted or B7) Other (Exp	ined Leaves (B9) of 1, 2, 4A, and 4B) (B11) vertebrates (B13) Sulfide Odor (C1) Rhizospheres alon of Reduced Iron (G) Reduction in Till	g Living Ro C4) ed Soils (C	□ Wa □ Dr □ Dr □ Sa pots (C3) ☑ Ge □ Sh □ Sh □ FA	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) turation Visible on Aerial Imagery (C9 comorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5)
Primary Indicators (minim Surface Water (A1) High Water Table (A) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B) Iron Deposits (B5) Surface Soil Cracks Inundation Visible on Sparsely Vegetated	num of one requir 2) B2) 4) (B6) Aerial Imagery (Water-Sta MLRA Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro Stunted or B7) Other (Exp	ined Leaves (B9) (1, 2, 4A, and 4B) (B11) vertebrates (B13) Sulfide Odor (C1) Rhizospheres alon of Reduced Iron (Con Reduction in Till	g Living Ro C4) ed Soils (C	□ Wa □ Dr □ Dr □ Sa pots (C3) ☑ Ge □ Sh □ Sh □ FA	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) turation Visible on Aerial Imagery (C9 comorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5) ised Ant Mounds (D6) (LRR A)
Primary Indicators (minim Surface Water (A1) High Water Table (A) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B) Iron Deposits (B5) Surface Soil Cracks Inundation Visible on Sparsely Vegetated (B5)	B2) (B6) Aerial Imagery (Concave Surface	Water-Sta MLRA Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro Stunted or B7) Other (Exp.	ined Leaves (B9) (1, 2, 4A, and 4B) (B11) vertebrates (B13) Sulfide Odor (C1) Rhizospheres alon of Reduced Iron (On Reduced Iron (On Reduction in Till stressed Plants (Dain in Remarks)	g Living Ro C4) ed Soils (C	□ Wa □ Dr □ Dr □ Sa pots (C3) ☑ Ge □ Sh □ Sh □ FA	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) turation Visible on Aerial Imagery (C9 comorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5) ised Ant Mounds (D6) (LRR A)
Primary Indicators (minim Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B3) Iron Deposits (B5) Surface Soil Cracks Inundation Visible on Sparsely Vegetated of Field Observations: Surface Water Present?	B2) (B6) Aerial Imagery (Concave Surface	Water-Sta MLRA Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro Stunted or B7) Other (Exp (B8)	ined Leaves (B9) (In the control of	g Living Ro C4) ed Soils (C D1) (LRR A	□ Wa □ Dr □ Dr □ Sa pots (C3) ☑ Ge □ Sh □ Sh □ FA A) □ Ra	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) turation Visible on Aerial Imagery (C9 comorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5) ised Ant Mounds (D6) (LRR A)
Primary Indicators (minim Surface Water (A1) High Water Table (A) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B) Iron Deposits (B5) Surface Soil Cracks Inundation Visible on Sparsely Vegetated (B5) Field Observations: Surface Water Present? Water Table Present? (includes capillary fringe)	num of one requir 2) B2) (B6) Aerial Imagery (Concave Surface Yes Yes Yes Yes	Water-Sta MLRA Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro Stunted or B7) Other (Exp (B8) No Depth (in No Depth (in	ined Leaves (B9) (B1, 2, 4A, and 4B) (B11) vertebrates (B13) Sulfide Odor (C1) Rhizospheres alon of Reduced Iron (Con Reduction in Till Stressed Plants (Colain in Remarks) Ches): Ches): Ches):	g Living Ro C4) ed Soils (C D1) (LRR A	□ Wa □ Dr □ Dr □ Sa □ Sh □ Sh □ Sh □ FA □ Fre tland Hydrology	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) turation Visible on Aerial Imagery (C9 comorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5) ised Ant Mounds (D6) (LRR A)
Primary Indicators (minimum) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B3) Iron Deposits (B5) Surface Soil Cracks Inundation Visible on Sparsely Vegetated (B5) Field Observations: Surface Water Present? Water Table Present?	num of one requir 2) B2) (B6) Aerial Imagery (Concave Surface Yes Yes Yes Yes	Water-Sta MLRA Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro Stunted or B7) Other (Exp (B8) No Depth (in No Depth (in	ined Leaves (B9) (B1, 2, 4A, and 4B) (B11) vertebrates (B13) Sulfide Odor (C1) Rhizospheres alon of Reduced Iron (Con Reduction in Till Stressed Plants (Colain in Remarks) Ches): Ches): Ches):	g Living Ro C4) ed Soils (C D1) (LRR A	□ Wa □ Dr □ Dr □ Sa □ Sh □ Sh □ Sh □ FA □ Fre tland Hydrology	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) turation Visible on Aerial Imagery (C9 comorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5) ised Ant Mounds (D6) (LRR A) ost-Heave Hummocks (D7)
Primary Indicators (minimum Surface Water (A1) High Water Table (A) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B3) Iron Deposits (B5) Surface Soil Cracks Inundation Visible on Sparsely Vegetated of Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data	num of one requir 2) B2) (B6) Aerial Imagery (Concave Surface Yes Yes Yes Yes	Water-Sta MLRA Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro Stunted or B7) Other (Exp (B8) No Depth (in No Depth (in	ined Leaves (B9) (B1, 2, 4A, and 4B) (B11) vertebrates (B13) Sulfide Odor (C1) Rhizospheres alon of Reduced Iron (Con Reduction in Till Stressed Plants (Colain in Remarks) Ches): Ches): Ches):	g Living Ro C4) ed Soils (C D1) (LRR A	□ Wa □ Dr □ Dr □ Sa □ Sh □ Sh □ Sh □ FA □ Fre tland Hydrology	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) turation Visible on Aerial Imagery (C9 comorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5) ised Ant Mounds (D6) (LRR A) ost-Heave Hummocks (D7)
Primary Indicators (minimum Surface Water (A1) High Water Table (A) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B3) Iron Deposits (B5) Surface Soil Cracks Inundation Visible on Sparsely Vegetated (B5) Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data	num of one require 2) B2) (B6) Aerial Imagery (Concave Surface Yes Yes Yes Yes Ves Ves Ves Ves Ves Ves Ves Ves Ves V	Water-Sta MLRA Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro Stunted or B7) Other (Exp (B8) No Depth (in No Depth (in No Depth (in No Depth (in No Depth (in	ined Leaves (B9) (B1, 2, 4A, and 4B) (B11) vertebrates (B13) Sulfide Odor (C1) Rhizospheres alon of Reduced Iron (Con Reduction in Till Stressed Plants (Colain in Remarks) Ches): Ches): Ches):	g Living Ro C4) ed Soils (C D1) (LRR A	□ Wa □ Dr □ Dr □ Sa □ Sh □ Sh □ Sh □ FA □ Fre tland Hydrology	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) turation Visible on Aerial Imagery (C9 comorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5) ised Ant Mounds (D6) (LRR A) ost-Heave Hummocks (D7)
Primary Indicators (minim Surface Water (A1) High Water Table (A) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B5) Surface Soil Cracks Inundation Visible on Sparsely Vegetated of Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data	num of one require 2) B2) (B6) Aerial Imagery (Concave Surface Yes Yes Yes Yes Ves Ves Ves Ves Ves Ves Ves Ves Ves V	Water-Sta MLRA Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro Stunted or B7) Other (Exp (B8) No Depth (in No Depth (in No Depth (in No Depth (in No Depth (in	ined Leaves (B9) (B1, 2, 4A, and 4B) (B11) vertebrates (B13) Sulfide Odor (C1) Rhizospheres alon of Reduced Iron (Con Reduction in Till Stressed Plants (Colain in Remarks) Ches): Ches): Ches):	g Living Ro C4) ed Soils (C D1) (LRR A	□ Wa □ Dr □ Dr □ Sa □ Sh □ Sh □ Sh □ FA □ Fre tland Hydrology	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) turation Visible on Aerial Imagery (C9 comorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5) ised Ant Mounds (D6) (LRR A) ost-Heave Hummocks (D7)
Primary Indicators (minim Surface Water (A1) High Water Table (A) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B) Iron Deposits (B5) Surface Soil Cracks Inundation Visible on Sparsely Vegetated (B5) Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data	num of one require 2) B2) (B6) Aerial Imagery (Concave Surface Yes Yes Yes Yes Ves Ves Ves Ves Ves Ves Ves Ves Ves V	Water-Sta MLRA Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro Stunted or B7) Other (Exp (B8) No Depth (in No Depth (in No Depth (in No Depth (in No Depth (in	ined Leaves (B9) (B1, 2, 4A, and 4B) (B11) vertebrates (B13) Sulfide Odor (C1) Rhizospheres alon of Reduced Iron (Con Reduction in Till Stressed Plants (Colain in Remarks) Ches): Ches): Ches):	g Living Ro C4) ed Soils (C D1) (LRR A	□ Wa □ Dr □ Dr □ Sa □ Sh □ Sh □ Sh □ FA □ Fre tland Hydrology	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) turation Visible on Aerial Imagery (C9 comorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5) ised Ant Mounds (D6) (LRR A) ost-Heave Hummocks (D7)

Project/Site: Easton	Citv/0	County: Park		Sampling Date	6/24/2020
Applicant/Owner: MDT			State: Montana	Sampling Point	DP07b-u
Investigator(s): R Quire, R Jones, S Weyant					
Landform (hillslope, terrace, etc.); Terrace	— Loca	al relief (concave, c	onvex. none); convex	s	lope (%): 3
Landform (hillslope, terrace, etc.): Terrace Subregion (LRR): LRR E Lat:		46.061091	Long: -1	 110.63846 _{Da}	tum: NAD 83
Soil Map Unit Name: 155A: Meadowcreek, rarely flooded-Nes	sda com	plex, 0 to 2 perce	nt slope NWI classific	ation Not Mapp	ped
Are climatic / hydrologic conditions on the site typical for this time of				•	
Are Vegetation, Soil, or Hydrology significa	-				✓ No □
Are Vegetation, Soil, or Hydrology naturally					
SUMMARY OF FINDINGS – Attach site map show					features, etc.
Hydrophytic Vegetation Present? Yes No ✓ Hydric Soil Present? Yes No ✓ Wetland Hydrology Present? Yes No ✓		Is the Sampled a		□ No ☑	_
Remarks: Upland sample point upslope of wetland boundary.					
VECTATION Has accordific names of plants					
VEGETATION - Use scientific names of plants Absolute Don	niant I	ndicator	<u> </u>		
Tree Stratum Plot size (30 Foot Radius) % Cover: Species? Status			Dominance Test worksheet Number of Dominant Species that are OBL, FACW or FAC: 1 (A)		
Sapling/Shrub Stratum Plot size (15 Foot Radius)			Percent of Dominant S That Are OBL, FACW		33.3 % (A/B)
Populus tremuloides 4	7 F/	ACU	Prevalence Index wo		
Salix exigua 1		ACW	Total % Cover o OBL species	of: 0 X1	Multiply by:
			FACW species	_	2
			FAC species	5 X3	15
Hart and Chart are District (5 Foot Dadius)			FACU species	<u> </u>	16
Herbaceous Stratum Plot size (5 Foot Radius)		N.	UPL species	85 X 5	425
Bromus inermis 85 Cirsium arvense 5	UP FA		Column Totals (95 (A)	458 (B)
Clisium alvense 3	_ FA		Prevalence Inde	x = B/A = 4.82	2105
			Hydrophytic Vegetat		
				est for Hydrophyt	· ·
				ice Test is >50%	
			□ 3 - Prevalend	ce Index is <= 3	.0
				ogical Adaptatior lata in remarks o	`
				Non-Vascular Pl	lants
			☐ Problematic	Hydrophytic Ver	getation (Explain)
			Indicators of hydric sil		
Woody Vine Stratum Plot size (30 Foot Radius)			present, unless disturb		
Percent Bare Ground 10			Hydrophytic Vegetation Present?	′es □ NO	✓
Remarks:					
BG/litter=10%					
US Army Corps of Engineers			Western Mountains, V	/alleys, and Coa	sts - Version 2.0
<u> </u>					

Profile Description: (Description: (Description): (SOIL								Sam	pling Point: DP07b-u
(inches) Color (moist) % Color (moist) % Type Loc* Texture Remarks Clay Loam	Profile Desc	cription: (Descri	be to the depth i	needed to docun	nent the indi	icator or	confirm	n the absence		
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. **Location: PL=Pore Lining, M=Matrix, Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils. 1						_ 1	. 2			
Type: C=Concentration. D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.				Color (moist)	<u> </u>	ype'				Remarks
Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted.) Histos (A1)	0-16	10YR 3/2	100				(Clay Loam		
Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted.) Histos (A1)										
Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted.) Histos (A1)										
Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted.) Histos (A1)										
Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted.) Histos (A1)										
Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted.) Histos (A1)					· —— —					
Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted.) Histos (A1)										
Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted.) Histos (A1)										
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Histosol (A1) Histosol (A2) Black Histic (A3) Loarny Mucky Mineral (F1) (except MLRA 1) Loarny Mucky Mineral (F12) Loarn									-	
Histosol (A1)							Sand Gr			
Histic Epipedon (A2)			licable to all LR	Rs, unless other	wise noted.)				matic Hydric Soils³:
Black Histic (A3)	_									
Hydrogen Sulfide (A4)				· · ·	` '			_		
Depleted Bellow Dark Surface (A11) Depleted Matrix (F3) Thick Dark Surface (A12) Redox Dark Surface (F6) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) wetland hydrology must be present, unless disturbed or problematic. Restrictive Layer (if present): Type:	_	` '		1		except N	ILRA 1)		•	
Thick Dark Surface (A12)			face (A11)	1				011	ei (⊏xpiaiii iii i	Remarks)
Sandy Mucky Mineral (S1)				1				3Indicat	ors of hydrophy	rtic vegetation and
Restrictive Layer (if present): Type:	_) \Box	ī	` ,					•
Type:	Sandy G	Sleyed Matrix (S4)		Redox Depress	ions (F8)			unle	ss disturbed or	problematic.
Present? Yes No Version No Version Notice Soil Present? Yes No Notice Notice Soil Indicators observed during site visit. Value	Restrictive I	Layer (if present):							
Property Indicators observed during site visit. Variable Vari	Туре:			_						
Variable	Depth (in	ches):		_				Hydric Soi	Present?	′es <u> </u>
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) High Water Table (A2) MIRA 1, 2, 4A, and 4B) Saturation (A3) Salt Crust (B11) Water Marks (B1) Aquatic Invertebrates (B13) Drinage Patterns (B10) Saturation Visible on Aerial Imagery (C9) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Surface Soil Cracks (B6) Surface Soil Cracks (B6) Cuthed or Stressed Plants (D1) (LRR A) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Surface Remarks: Remarks:		CV								
Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) Water-Stained Leaves (B9) (except Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Saturation (A3) Saturation (A3) Saturation (A3) Saturation (B1) Aquatic Invertebrates (B13) Drianage Patterns (B10) Drift Deposits (B2) Hydrogen Sulfide Odor (C1) Saturation Visible on Aerial Imagery (C9) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Surface Soil Cracks (B6) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No Depth (inches): Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Ad, and 4B) Drainage Patterns (B10) Ad, and 4B) Ad, and 4B) Prainage Patterns (B10) Drainage Patterns (B10) Drain			ve:							
Surface Water (A1)	-			hack all that apply	٨			Saco	ndanı İndicator	es (2 or more required)
High Water Table (A2) Saturation (A3) Salt Crust (B11) Drainage Patterns (B10) Aquatic Invertebrates (B13) Dry-Season Water Table (C2) Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Saturation Visible on Aerial Imagery (C9) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Sufface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Water Present? Yes No Depth (inches): Water Table (C2) Adad 4B, and 4B) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Saturation Visible on Aerial Imagery (C9) Depth (inches): Water Table Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Wetland Hydrology Present? Yes No Wetland Hydrology Present? Yes No Wetland By AA, and 4B) Dry-Season Water Table (C2) Saturation (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Depth (inches): Wetland Hydrology Present? Yes No Wetland Hydrology Present?		*	or one required, c		•	(BO) (ava	ont.		•	-, -,
Saturation (A3)							ерт	\		
Water Marks (B1)						40)		Пг		
□ Sediment Deposits (B2) □ Hydrogen Sulfide Odor (C1) □ Saturation Visible on Aerial Imagery (C9) □ Drift Deposits (B3) □ Oxidized Rhizospheres along Living Roots (C3) □ Geomorphic Position (D2) □ Algal Mat or Crust (B4) □ Presence of Reduced Iron (C4) □ Shallow Aquitard (D3) □ Iron Deposits (B5) □ Recent Iron Reduction in Tilled Soils (C6) □ FAC-Neutral Test (D5) □ Surface Soil Cracks (B6) □ Stunted or Stressed Plants (D1) (LRR A) □ Raised Ant Mounds (D6) (LRR A) □ Inundation Visible on Aerial Imagery (B7) □ Other (Explain in Remarks) □ Frost-Heave Hummocks (D7) □ Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes □ No ☑ Depth (inches): □ Wetland Hydrology Present? Yes □ No ☑ Depth (inches): □ Saturation Present? Yes □ No ☑ Depth (inches): □ Wetland Hydrology Present? Yes □ No ☑ Depth (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	_					213)			-	
□ Drift Deposits (B3) □ Oxidized Rhizospheres along Living Roots (C3) □ Geomorphic Position (D2) □ Algal Mat or Crust (B4) □ Presence of Reduced Iron (C4) □ Shallow Aquitard (D3) □ Iron Deposits (B5) □ Recent Iron Reduction in Tilled Soils (C6) □ FAC-Neutral Test (D5) □ Surface Soil Cracks (B6) □ Stunted or Stressed Plants (D1) (LRR A) □ Raised Ant Mounds (D6) (LRR A) □ Inundation Visible on Aerial Imagery (B7) □ Other (Explain in Remarks) □ Frost-Heave Hummocks (D7) □ Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes □ No ☑ Depth (inches): □ Wetland Hydrology Present? Yes □ No ☑ Depth (inches): □ Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:									-	
Algal Mat or Crust (B4)							vina Roo			
□ Iron Deposits (B5) □ Recent Iron Reduction in Tilled Soils (C6) □ FAC-Neutral Test (D5) □ Surface Soil Cracks (B6) □ Stunted or Stressed Plants (D1) (LRR A) □ Raised Ant Mounds (D6) (LRR A) □ Inundation Visible on Aerial Imagery (B7) □ Other (Explain in Remarks) □ Frost-Heave Hummocks (D7) □ Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes □ No ☑ Depth (inches): □ Water Table Present? Yes □ No ☑ Depth (inches): □ Wetland Hydrology Present? Yes □ No ☑ Depth (inches): □ Wetland Hydrology Present? Yes □ No ☑ Depth (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:						-		` ' =	· ·	
□ Inundation Visible on Aerial Imagery (B7) □ Other (Explain in Remarks) □ Frost-Heave Hummocks (D7) □ Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes □ No ☑ Depth (inches): □ Water Table Present? Yes □ No ☑ Depth (inches): □ Water Table Present? Yes □ No ☑ Depth (inches): □ Wetland Hydrology Present? Yes □ No ☑ Includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	_ `	` '		_		, ,	Soils (C6		-	
Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes □ No ✔ Depth (inches): Water Table Present? Yes □ No ✔ Depth (inches): Saturation Present? Yes □ No ✔ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	Surface	Soil Cracks (B6)		Stunted or	Stressed Pla	ants (D1)	(LRR A) <u> </u>	Raised Ant Mou	ınds (D6) (LRR A)
Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	Inundation	on Visible on Aeri	al Imagery (B7)	Other (Exp	lain in Rema	ırks)		F	rost-Heave Hเ	mmocks (D7)
Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	Sparsely	Vegetated Conc	ave Surface (B8)							
Water Table Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (inches): Saturation Present? Yes Depth (inches): Wetland Hydrology Present? Yes No Depth (inches): Saturation Present? Yes No Saturation Present?	Field Obser	vations:								
Saturation Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	Surface Water	er Present?	Yes 🔲 No	Depth (ind	ches):					
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	Water Table	Present?	Yes No	Depth (ind	ches):					
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:			Yes No	Depth (ind	ches):		Wetla	and Hydrolog	y Present?	Yes 🔲 No 🔽
Remarks:	(includes cap	oillary fringe)	am gauge monite	oring well perial r	photos previo	oue inene	octions)	if available:		
	Describe 1460	colded Data (Sile	am gauge, monic	omiy wen, aendi f	motos, previo	ous mispe		ıı avallabit.		
	Remarks:									
		ic indicators ob	served durina s	site visit.						
	, ·3	,	9 -							

Project/Site: Easton	City/County: Park	Sampling Date:6/24/2020
Applicant/Owner: MDT	Only/Obumly	State: Montana Sampling Point: DP07b-w
Investigator(s): R Quire, R Jones, S Weyant		
House (S) Floodplain	Section, Township, Ran	ge concave 3
Landform (hillslope, terrace, etc.): Floodplain Subregion (LRR): LRR E	Local relief (concave, c	-110 6387 Date = NAD 83
Soil Map Unit Name: 155A: Meadowcreek, rarely flooded-l	at:	ent slope Not Manned
•		· · · · · · · · · · · · · · · · · · ·
Are climatic / hydrologic conditions on the site typical for this tin		
Are Vegetation, Soil, or Hydrology signi		
Are Vegetation, Soil, or Hydrology natu		
SUMMARY OF FINDINGS - Attach site map sho	owing sampling point lo	ocations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No		Aroa
Hydric Soil Present? Yes No Wetland Hydrology Present? Yes No		
Wetland Hydrology Present? Yes No Remarks:		
PEM/PSS riverine wetland.		
VEGETATION - Use scientific names of plants		
Trace Christian Diet size (OC Foot Dedition)	Oomiant Indicator	Dominance Test worksheet
riot size (30 Poot Radius) % Cover: 5	Species? Status	Number of Dominant Species
		that are OBL, FACW or FAC:
		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)
	FACU	Prevalence Index worksheet
Populus tremuloides 2 Salix exigua 10	FACU FACW	Total % Cover of: Multiply by:
Symphoricarpos occidentalis 3	FACV FAC	OBL species 65 X 1 65
Symphonical per desidential in	1710	FACW species 15 X 2 30 FAC species 10 X 3 30
		FACU species 2 X 4 8
Herbaceous Stratum Plot size (5 Foot Radius)		UPL species 3 X 5 15
Agrostis stolonifera 2	FAC	Column Totals 95 (A) 148 (B)
Bromus inermis 3	UPL	
Carex pellita 30	✓ OBL	Prevalence Index = B/A = 1.55789
Cirsium arvense 5	FAC	Hydrophytic Vegetation Indicators 1 - Rapid Test for Hydrophytic Vegetation
Deschampsia elongata 5	FACW	✓ 2 - Dominance Test is >50%
Scirpus microcarpus 35	✓ OBL	✓ 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 20		Hydrophytic Vegetation Present? Ves ✓ NO
Percent Bare Ground 20 Remarks:		1
BG/litter/shallow ponded water=20%		
US Army Corps of Engineers		Western Mountains, Valleys, and Coasts - Version 2.0
33 , army Gorpo or Engineers		Troctom Mountains, Valleys, and Odasts - Version 2.0

SOIL									S	Sampling Point:	DP07b-w
Profile Desc	cription: (Describe	to the dep	th needed to docu	ment the indic	cator or	confirm	the absence			
Depth		Matrix			ox Features						
(inches)	Color	(moist)	%	Color (moist)	%T\	ype ¹	Loc ²	Texture		Remarks	
0-10	10YR	2/2	100				Silt	y Clay Loam	1		
10+								Cobbles	Cobble	e bottom.	
¹ Type: C=C	oncentratio	on, D=Dep	letion, RM:	=Reduced Matrix, C	S=Covered or	Coated	Sand Gi			Pore Lining, N	
Hydric Soil	Indicators	: (Applic	able to all	LRRs, unless oth	erwise noted.)			Indicat	ors for Pro	blematic Hydr	ic Soils³:
<u> </u> Histosol				Sandy Redox	` '				m Muck (A1		
∣ 🖳 Histic E _l	pipedon (A	2)		Stripped Matri	x (S6)				d Parent Ma	, ,	
	istic (A3)	(A.4)			Mineral (F1) (e	xcept N	ILRA 1)		•	ark Surface (T	F12)
	en Sulfide (d Below Da		e (A11)	Loamy Gleyed Depleted Matr				_ V Oti	ner (Explain	in Remarks)	
	ark Surface		0 (////)	Redox Dark S				³ Indicat	ors of hydro	phytic vegetati	on and
_	lucky Mine			Depleted Dark	Surface (F7)			wetl	and hydrolo	gy must be pre	sent,
	Sleyed Mat			Redox Depres	ssions (F8)			unle	ss disturbed	l or problemation	C.
Restrictive											
								Ultraduia Ca	il Duananto	Yes	No \square
Depth (in Remarks:								nyuric 30	ii Presentr	162	NO
were hydro	phytic, an	d the we	tland bou	ndary had an abr	upt edge (198	37 COE	Wetlar	nd Delineation	on Manual)).	
HYDROLO		· · · · · · · · · · · · · · · · · · ·									
Wetland Hy				d; check all that app	alu)			Soo	ndon India	ators (2 or more	o roquirod)
✓ Surface	•		nie require		ained Leaves (E	30) (020	ont		,	ed Leaves (B9)	
✓ Sunace ✓ High Wa					A 1, 2, 4A, and		ehi		4A, and 4		(WILKA 1, 2,
Saturation		(112)		Salt Crus						tterns (B10)	
	larks (B1)				nvertebrates (B	13)			-	Water Table (0	C2)
	nt Deposits	(B2)			n Sulfide Odor (:	Saturation V	isible on Aerial	Imagery (C9)
Drift De	oosits (B3)			Oxidized	Rhizospheres a	along Liv	ing Roc	ots (C3) 👱	Geomorphic	Position (D2)	
= "	at or Crust	(B4)			of Reduced Iro				Shallow Aqu		
	oosits (B5)	(3.0)			on Reduction in				AC-Neutral		
	Soil Crack		magan, (P		or Stressed Plar kplain in Remar		(LRR A			Mounds (D6) (L	
			magery (B Surface (<i>,</i> — ,	kpiaiii iii Keiliai	N5)			Tiosi-neave	Hummocks (D	''')
Field Obser			3 3411433 (1								
Surface Wat		? Y	es 🔽	No 🗆 Depth (i	nches):	2					
Water Table	Present?				nches):	5					
Saturation P (includes cap	oillary fring	e)			nches):	0			gy Present?	Yes <u>V</u>	No
Describe Re	corded Dat	ta (stream	gauge, mo	onitoring well, aeria	pnotos, previo	us inspe	ctions),	ıt available:			
Remarks:			_4 :1 _ :4								
2in of surfac	ce water o	pserved	at soil pit								

Project/Site: Easton	Ci	ty/County: Park	Sampling Date:6/24/2020
Applicant/Owner: MDT	_		State: Montana Sampling Point: DP08u
	Se	ection, Township, Rang	
Investigator(s): R Quire, R Jones, S Weyant Landform (hillslope, terrace, etc.): Terrace		ocal relief (concave, co	nvex, none): flat Slope (%):
Subregion (LRR): LRR E	Lat:	46.060443	ong: -110.640103 _{Datum:} NAD 83
Soil Map Unit Name: 155A: Meadowcreek, rarely floode	d-Nesda co	omplex, 0 to 2 percer	nt slope 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 signs			
Are Vegetation, Soil, or Hydrology na			
SUMMARY OF FINDINGS - Attach site map s	howing s	ampling point lo	ations, transects, important features, etc.
Hydric Soil Present? Yes No		Is the Sampled A	
Remarks: Upslope of wetland boundary in the SW portion of sit	e.		
VECETATION. He a ciontific manner of plant	1_		
VEGETATION - Use scientific names of plant Absolute	Domiant	Indicator	
Tree Stratum Plot size (30 Foot Radius) % Cover:		Status	Dominance Test worksheet
			Number of Dominant Species that are OBL, FACW or FAC: 1 (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: 50 % (A/B)
			Prevalence Index worksheet
			Total % Cover of: Multiply by: OBL species 0 X 1 0
			FACW species 0 X 2 0
			FAC species 40 X 3 120
Harbana and Otration Plateirs (5. Feet Padius)			FACU species 0 X 4 0 UPL species 55 X 5 275
Herbaceous Stratum Plot size (5 Foot Radius)		LIDI	
Bromus inermis 55 Elymus repens 10		UPL FAC	Column Totals 95 (A) 395 (B)
Phleum pratense 5		FAC	Prevalence Index = B/A = 4.15789
Poa pratensis 25	✓	FAC	Hydrophytic Vegetation Indicators
			1 - Rapid Test for Hydrophytic Vegetation2 - 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 5			Hydrophytic Vegetation Yes □ NO ✓ Present?
Remarks:			
BG/litter=5%			
US Army Corps of Engineers			Western Mountains, Valleys, and Coasts - Version 2.0

SOIL								Sa	mpling Point:	DP08u
Profile Desc	cription: (Descr	ibe to the depth	needed to docur	nent the indica	tor or co	nfirm the a	bsence			
Depth	Matr			x Features	1					
(inches)	Color (moist		Color (moist)	%Тур	pe ¹ Loc		xture		Remarks	
0-16	10YR 3/2	100				Silty Clay	Loam			
				·						
¹ Type: C=C	oncentration, D=	Depletion, RM=R	educed Matrix, CS	S=Covered or C	oated Sar				Pore Lining, M=	
Hydric Soil	Indicators: (Ap	plicable to all LF	RRs, unless other	wise noted.)			Indicato	rs for Prob	lematic Hydrid	: Soils³:
Histosol			Sandy Redox (n Muck (A10		
	pipedon (A2)	L	Stripped Matrix	, ,		-	_	Parent Mat		
_	istic (A3)	Ļ	Loamy Mucky M		cept MLR	(A 1)			ark Surface (TF	·12)
	en Sulfide (A4)		Loamy Gleyed			-	Othe	er (Explain ii	n Remarks)	
	d Below Dark Su ark Surface (A12		☑ Depleted Matrix ☑ Redox Dark Su			;	3Indicato	re of hydron	hytic vegetatio	n and
_	Aik Suriace (A12) /Iucky Mineral (S	_	Depleted Dark	` '					y must be pres	
	Gleyed Matrix (S4	_	Redox Depress	٠,,					or problematic.	
	Layer (if presen		<u> </u>	()					от р товтотпасно.	
		-								
Depth (in						Hvc	lric Soil	Present?	Yes	No 🔽
Remarks:										<u>'</u>
HYDROLO										
=	drology Indicate									
Primary India	cators (minimum	of one required; of	check all that appl					•	ors (2 or more	
	Water (A1)			ned Leaves (B9		:	W		d Leaves (B9)	(MLRA 1, 2,
	ater Table (A2)			1, 2, 4A, and 4I	В)			4A, and 4	•	
Saturation	` '		Salt Crust					rainage Patt	10	
	larks (B1)			vertebrates (B13				-	Vater Table (C	
	nt Deposits (B2)			Sulfide Odor (C	•				sible on Aerial I	magery (C9)
	posits (B3)			Rhizospheres al		Roots (C3	_	· ·	Position (D2)	
	at or Crust (B4)		_	of Reduced Iron	, ,			hallow Aquit		
	posits (B5)			n Reduction in				AC-Neutral		
	Soil Cracks (B6)			Stressed Plant	. , .	RR A)			ounds (D6) (LF	
	on Visible on Aer			olain in Remarks	s)		Fi	ost-Heave I	Hummocks (D7	')
		cave Surface (B8))							
Field Obser		V N.	2 Design (1)	-1 >						
Surface Water		Yes No		ches):						
Water Table		Yes No		ches):						
Saturation Pi		Yes No	Depth (inc	ches):	'	Wetland Hy	/drology	/ Present?	Yes	No 🔽
Describe Re	corded Data (stre	eam gauge, monit	toring well, aerial į	photos, previous	s inspection	ns), if avail	able:			
	`					•				
Remarks:										
No hydrolog	gic indicators of	served during	site visit.							

Project/Site: _Easton	City/County: Park Sampling Date: 6/24/2020
Applicant/Owner: MDT	State: Montana Sampling Point: DP08w
Investigator(s): R Quire, R Jones, S Weyant	
Landform (hillslope, terrace, etc.): Floodplain	Local relief (concave, convex, none): concave Slope (%):
Subregion (LRR): LRR E Lat:	46.060532 Long: -110.640056 Datum: NAD 83
Soil Map Unit Name: 155A: Meadowcreek, rarely flooded-Nesd	a complex, 0 to 2 percent slope NWI classification: Not Mapped
Are climatic / hydrologic conditions on the site typical for this time of y	ear? Yes 🗹 No 🔲 (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significant	y disturbed? Are "Normal Circumstances" present? Yes 🔽 No 🔲
Are Vegetation $_$, Soil $_$, or Hydrology $_$ naturally p	oblematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showin	g sampling point locations, transects, important features, etc
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Yes No Is the Sampled Area within a Wetland? Yes No	
Remarks: PEM/PSS riverine wetland in the SW portion of site.	
VEGETATION - Use scientific names of plants	
Tree Stratum Plot size (30 Foot Radius) Absolute % Cover: Specie	Dominance Test Worksheet
·	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)
Salix drummondiana 10	FACW Prevalence Index worksheet
	Total % Cover of: Multiply by: OBL species 0 X 1 0
	FACW species 85 X 2 170
	FAC species 0 X 3 0
Herbaceous Stratum Plot size (5 Foot Radius)	FACU species 0 X4 0 UPL species 0 X5 0
Phalaris arundinacea 75	FACW Column Totals 85 (A) 170 (B)
	Prevalence Index = B/A = 2
	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.
Percent Bare Ground 25	Hydrophytic Vegetation Present? NO □ Present?
Remarks:	
Dominated by hydrophytic plant species.	
US Army Corps of Engineers	Western Mountains, Valleys, and Coasts - Version 2.0

SOIL											Sampling Point: DP08W
Profile Desc	ription: (l	Describe	to the dep	th neede	ed to docun	nent the in	dicato	roro	onfirm	the absence	of indicators.)
Depth		Matrix				x Features					
(inches)	Color ((moist)	%	Color	(moist)	%	Type ¹	L	<u>.oc²</u>	Texture	Remarks
0-8	10YR	2/2							Sandy	y Clay Loam	
8-16	10YR	4/2	73	10Y	3/1	20	С	M	Sandy	y Clay Loam	
8-16	10YR	4/2	73	7.5YR	4/6	7	С	М	Sandy	y Clay Loam	
								 	·		
¹ Type: C=Ce								 ted S	and Gra		ation: PL=Pore Lining, M=Matrix. rs for Problematic Hydric Soils ³ :
Histosol Histic Ep Black Hi Hydroge Depletec Thick Da Sandy M	(A1) pipedon (A:	2) A4) ark Surfac e (A12) eral (S1)		San Strip Loa Loa Moep Red Dep	dy Redox (Soped Matrix my Mucky M my Gleyed Matrix loted Matrix lox Dark Sur loted Dark Solox Depressi	S5) (S6) Mineral (F1) Matrix (F2) (F3) face (F6) Surface (F7	(exce	ot ML	_ RA 1)	2 cm Red Very Othe	n Muck (A10) Parent Material (TF2) Shallow Dark Surface (TF12) Fr (Explain in Remarks) Fr of hydrophytic vegetation and hydrology must be present,
Restrictive I					TOX BOPTOSS	10110 (1 0)				amoo	a distance of problematic.
Type:	, , ,	,									
Depth (in	ches):									Hydric Soil	Present? Yes <u>V</u> No
Remarks:										•	
HYDROLO	GY										
Wetland Hy		dicators:									
Primary Indic			ne require	d: check a	all that apply	()				Secon	dary Indicators (2 or more required)
	Water (A1)		no roquiro	<u>u, σποσιτ</u>	Water-Stai	•	s (B9) (exce	pt		/ater-Stained Leaves (B9) (MLRA 1, 2,
	iter Table (l, 2, 4A, an		0,000	μ.,		4A, and 4B)
Saturation		/			Salt Crust		,			□ Di	rainage Patterns (B10)
	arks (B1)				Aquatic Inv		(B13)				ry-Season Water Table (C2)
	nt Deposits	(B2)		一	Hydrogen S						aturation Visible on Aerial Imagery (C9)
	osits (B3)	(DZ)		一	Oxidized R		, ,	a Livi	na Roots		eomorphic Position (D2)
	it or Crust	(B4)		一	Presence o			-	ng rtoot		nallow Aquitard (D3)
	osits (B5)	(54)		一	Recent Iron				nile (C6)		AC-Neutral Test (D5)
Surface		c (B6)		一	Stunted or						aised Ant Mounds (D6) (LRR A)
Surface			maganı (B	7)	Other (Exp			ו) (ו	LIXIX A)		rost-Heave Hummocks (D7)
	Vegetate				∫Other (⊏xp	iaiii iii Keii	iai KS)				ost-neave numinocks (D7)
Field Obser		Concave	- Juliace (,50)							
Surface Water		? Y	es 🗆	No 🔽	Depth (inc	:hes)·					
Water Table			es \square	_	Depth (inc						
Saturation P	resent?	Υ			Depth (inc				Wetla	nd Hydrology	Present? Yes V No No
(includes car Describe Re			gauge, m	onitoring	well, aerial p	hotos, prev	vious in	spec	l :tions), if	available:	
Remarks:											
Soil very mo	oist.										

Project/Site: Easton	Citv/C	_{County:} Park		Sampling Date	6/24/2020
Applicant/Owner: MDT	,	,	State: Montana	Sampling Poin	t:DP09u
Investigator(s): R Quire, R Jones, S Weyant	Section	ion Township Rand			
Landform (hillslope, terrace, etc.): Terrace	Loca	al relief (concave, co	nvex none). convex		Slope (%). 5
Subregion (LRR): LRR E Lat:	 :	46.059745	_ona: -1	10.638874 _{Da}	ntum: NAD 83
Soil Map Unit Name: 155A: Meadowcreek, rarely flooded-Ne	sda com	plex, 0 to 2 percer	nt slope NWI classific	Not Map	ped
Are climatic / hydrologic conditions on the site typical for this time					
Are Vegetation, Soil, or Hydrology signific	-				✓ No □
Are Vegetation, Soil, or Hydrology natural					
SUMMARY OF FINDINGS – Attach site map show					
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Yes No Wetland Hydrology Present?	•	Is the Sampled A		No <u></u>	_
Remarks: Upland sample point upslope of wetland boundary.					
VEGETATION - Use scientific names of plants					
Absolute Do	miant I	ndicator	Dominance Test wo	rksheet	
Tree Stratum Plot size (30 Foot Radius) % Cover: Spo	ecies? S	Status	Number of Dominant that are OBL, FACW	Species	1 (A)
			Total Number of Dom Species Across All S		2 (B)
Sapling/Shrub Stratum Plot size (15 Foot Radius)			Percent of Dominant That Are OBL, FACW		50 % (A/B)
,			Prevalence Index we		
			Total % Cover of OBL species	of: 0 X 1	Multiply by:
			FACW species	0 X 1	0
			FAC species	50 X3	150
District (5 Foot Politics)			FACU species	0 X4	0
Herbaceous Stratum Plot size (5 Foot Radius)	- UD	N.	UPL species	40 X 5	200
	✓ UP ✓ FA		Column Totals	90 (A)	350 (B)
Elymus repens 30 h	✓ FA		Prevalence Inde	x = B/A = 3.8	8889
Poa pratensis 10	FA		Hydrophytic Vegeta		
			_	est for Hydrophy	<u> </u>
				nce Test is >50%	
			☐ 3 - Prevalen	nce Index is <= 3	3.0
				ogical Adaptation data in remarks o	`
				Non-Vascular P	lants
					getation (Explain)
			Indicators of hydric sil		• • • •
Woody Vine Stratum Plot size (30 Foot Radius)			present, unless disturb		
Percent Bare Ground 10			Hydrophytic Vegetation	∕es □ NO	✓
Remarks:		l			
BG/litter=10%					
US Army Corps of Engineers			Western Mountains, \	/alleys, and Coa	asts - Version 2.0

SOIL							(Sampling Point: DP	09u
Profile Desc	ription: (Descri	be to the depth	needed to docur	ment the indicat	or or confi	rm the abser			
Depth	Matri			x Features	1 2	_			
(inches)	Color (moist)	<u>_</u>	Color (moist)	%Type		<u>Texture</u>		Remarks	
0-14	10YR 3/2	100			Si	ilty Clay Loa	ım		
						_			
						_			
						_			
¹ Type: C=Co	ncentration, D=I	Depletion, RM=R	educed Matrix, CS	S=Covered or Co	ated Sand	Grains.	Location: PL	=Pore Lining, M=Ma	atrix.
			RRs, unless othe					blematic Hydric Sc	
Histosol	(A1)		〗 Sandy Redox (S5)			cm Muck (A		
Histic Ep	ipedon (A2)		Stripped Matrix	, ,		_	Red Parent Ma		
Black His	, ,	L		Mineral (F1) (exc	ept MLRA	_	-	Dark Surface (TF12))
	n Sulfide (A4)	<u> </u>	Loamy Gleyed			(Other (Explain	in Remarks)	
	Below Dark Sur		Depleted Matrix			31		andra Communication of	
_	rk Surface (A12) ucky Mineral (S1	_	☑ Redox Dark Su ☑ Depleted Dark	` '			•	ophytic vegetation a gy must be present	
	leyed Matrix (S4	_	Redox Depress	. ,				d or problematic.	,
	ayer (if present		1 Redex Bepress	10115 (1 0)			noos distarbo	a or problematic.	
	, , ,	-							
Depth (inc			_			Hydric S	Soil Present?	Yes No	o 🗸
Remarks:									
HYDROLO									
-	Irology Indicato								
		of one required; of	check all that appl				_	ators (2 or more red	
	Nater (A1)			ined Leaves (B9				ed Leaves (B9) (ML	.RA 1, 2,
	ter Table (A2)			1, 2, 4A, and 4B	5)		4A, and	•	
Saturatio	` ,		Salt Crust				_	atterns (B10)	
Water Ma				vertebrates (B13		<u> </u>	_	Water Table (C2)	
	t Deposits (B2)			Sulfide Odor (C1	•		_	isible on Aerial Ima	gery (C9)
	osits (B3)			Rhizospheres alo		` ' —	_	Position (D2)	
_ `	t or Crust (B4)		_	of Reduced Iron	` ,		Shallow Aqu		
	osits (B5)			n Reduction in T		_	☐ FAC-Neutra		A .\
	Soil Cracks (B6)	ial Imaa aan (DZ)		Stressed Plants	, , ,	A)	_	Mounds (D6) (LRR .	A)
	n Visible on Aer	ar imagery (B7) ave Surface (B8)		olain in Remarks)		_ Frost-Heave	Hummocks (D7)	
Field Observ		ave Surface (Do	,						
Surface Water		Yes 🗆 No	✓ Depth (in	ches):					
Water Table I		Yes No		ches): ches):					
						امتاميط المتعاش	ogy Present	Non I	o 🔽
Saturation Pr (includes cap	illary fringe)	Yes No		ches):		_		r res_ <u> </u>	U <u>V</u>
Describe Rec	orded Data (stre	am gauge, monit	toring well, aerial _l	photos, previous	inspections), if available:			
Remarks:									
No hydrolog	c indicators of	served during	site visit.						

Project/Site: Easton		City/C	County: Park		Sampling Daf	te:6/24/2020
Applicant/Owner: MDT				State: Montana		
Investigator(s): R Quire, R Jones, S	Weyant	Section	on, Township, Rang	e: S 32 T	7 4N R 9)E
Investigator(s): R Quire, R Jones, S Landform (hillslope, terrace, etc.): Floo	dplain	Loca	al relief (concave, co	nvex, none): concav	/e	Slope (%):3
Subregion (LRR): LRR E	Lat:		46.059832 _L	_ong:	110.638998 _D	atum: NAD 83
Subregion (LRR): LRR E Soil Map Unit Name: 155A: Meadowo	creek, rarely flooded-Nes	sda com	plex, 0 to 2 percer	ıt slope _{NWI classi}	ification:Not Mar	oped
Are climatic / hydrologic conditions on t						
Are Vegetation, Soil, or						✓ No □
Are Vegetation, Soil, or						
SUMMARY OF FINDINGS - A						
Hydrophytic Vegetation Present?	Yes V No	_	Is the Sampled A	rea		
Hydric Soil Present? Wetland Hydrology Present?	Yes V No V		within a Wetland	? Yes	✓ No □	
Remarks:	163 6 100	_				
PEM/PSS riverine wetland in the o	enter of site.					
VEGETATION - Use scientific	names of plants					
<u>Tree Stratum</u> Plot size (30 Foot	Radius) Absolute Dom % Cover: Spe		ndicator Status	Dominance Test w	orksheet/	
	70 GGVGI. Gpc	0,00	Status	Number of Dominar that are OBL, FACV		3 (A)
				Total Number of Do		
				Species Across All		3 (B)
Sapling/Shrub Stratum Plot size	: (15 Foot Radius)			Percent of Dominar That Are OBL, FAC		100 % (A/B)
Populus balsamifera	15) FA	\C	Prevalence Index	worksheet	
Salix bebbiana	15		ACW	Total % Cove		Multiply by:
				OBL species FACW species	5 X 1 41 X 2	5 82
				FAC species	40 X3	120
				FACU species	0 X4	0
Herbaceous Stratum Plot size	(5 Foot Radius)			UPL species	0 X5	0
Carex nebrascensis	5] OB		Column Totals	86 (A)	207 (B)
Juncus balticus Juncus effusus	30		CW CW	Prevalence Inc	dex = B/A = 2.4	40698
Lotus corniculatus	10 25 ~			Hydrophytic Veget	tation Indicators	<u> </u>
Lotus cormodiatus	20] 170		1 - Rapid	Test for Hydroph	ytic Vegetation
				2 - Domina	ance Test is >50	%
				✓ 3 - Prevale	ence Index is <=	3.0
				supporting	ological Adaptatio g data in remarks	,
				sheet.	nd Non-Vascular l	Dlante
						egetation (Explain)
Woody Vine Stratum Plot size	(30 Foot Radius)			Indicators of hydric s present, unless distu		
				Hydrophytic Vegetation		
Percent Bare Ground 3	0			Present?	Yes 🗸 NO	
Remarks:			L			
BG/litter/shallow ponded water=30	J%					
US Army Corps of Engineers				Western Mountains,	, Valleys, and Co	pasts - Version 2.0
					-	

											Sampling Point: DP09w
Profile Desc	cription: (I	Describe	to the de	pth need	led to docum	ent the ind	licator	or confi	irm the ab	sence (of indicators.)
Depth		Matrix				Features	- 1	2	_		
(inches)	Color ((moist)	%	Cold	or (moist)		Type ¹	Loc ²	Tex		Remarks
0-03	10YR	4/2	100						Clay		
03-10	10YR	4/2	100						Loamy S	and	Gravelly.
10+									Cobble	es	Cobble bottom.
	<u></u>										
					ed Matrix, CS			d Sand			ation: PL=Pore Lining, M=Matrix.
		: (Applic	able to al		unless other		.)		lr		rs for Problematic Hydric Soils ³ :
Histosol		2)			ndy Redox (S	•			<u> </u> 		Muck (A10)
	pipedon (A2 listic (A3)	2)		_	ipped Matrix (amy Mucky M	` ,	(avaant	МІВА	_ <u>_</u>		Parent Material (TF2) Shallow Dark Surface (TF12)
	en Sulfide (Δ4)			amy Gleyed N		except	WILKA			r (Explain in Remarks)
	d Below Da		e (A11)		pleted Matrix					= 00	(Explain in Nomano)
	ark Surface		,		dox Dark Sur				³	ndicator	s of hydrophytic vegetation and
Sandy N	Mucky Mine	ral (S1)		De	pleted Dark S	Surface (F7)				wetlar	nd hydrology must be present,
	Gleyed Matı			Re	dox Depressi	ons (F8)				unless	s disturbed or problematic.
Restrictive	Layer (if p	resent):									
Depth (in	iches):								Hydr	ic Soil I	Present? Yes <u></u> No ∟ No ∟
Remarks:											
					nad an abrup						ent, all dominant plant species n Manual).
				,		•					,
HYDROLO)GY										
HYDROLO Wetland Hy		dicators:									
Wetland Hy	drology Incators (mini	imum of o		ed; check	all that apply)				Second	dary Indicators (2 or more required)
Wetland Hy	drology Incators (mini	imum of o		ed; check	all that apply Water-Stair		(B9) (e)	xcept			dary Indicators (2 or more required) ater-Stained Leaves (B9) (MLRA 1, 2,
Wetland Hy Primary India V Surface V High Wa	cators (minicators (A1) Water (A1)	imum of o		ed; check	Water-Stair			xcept			
Wetland Hy Primary India	cators (minicators (A1) Water (A1)	imum of o		ed; check	Water-Stair MLRA 1 Salt Crust (ned Leaves , 2, 4A, and B11)	d 4B)	xcept		W:	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ainage Patterns (B10)
Wetland Hy Primary India Surface High Wa Saturati Water M	cators (minicators	imum of o) A2)		ed; check	Water-Stair MLRA 1 Salt Crust (Aquatic Inv	ned Leaves , 2, 4A, and B11) ertebrates (d 4B) B13)	xcept		U Dr	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2)
Wetland Hy Primary India Surface High Wa Saturati Water M Sedime	cators (mini Water (A1) ater Table (. ion (A3) Marks (B1) nt Deposits	imum of o) A2)		ed; check	Water-Stair MLRA 1 Salt Crust (Aquatic Inv Hydrogen S	ned Leaves , 2, 4A, and B11) ertebrates (Gulfide Odor	B13)	-		☐ Wa	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) aturation Visible on Aerial Imagery (C9)
Wetland Hy Primary India Surface High Wa Saturati Water M Sedimen	rdrology Inc cators (mini Water (A1) ater Table (ion (A3) Marks (B1) nt Deposits posits (B3)	imum of o		ed; check	Water-Stair MLRA 1 Salt Crust (Aquatic Inv Hydrogen S Oxidized R	ned Leaves , 2, 4A, and B11) ertebrates (Sulfide Odor hizospheres	B13) (C1) s along l	Living R	coots (C3)	☐ Wa	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) turation Visible on Aerial Imagery (C9) ecomorphic Position (D2)
Wetland Hy Primary India Surface High Wa Saturati Water M Sedimed Drift Del	cators (minicators	imum of o		ed; check	Water-Stair MLRA 1 Salt Crust (Aquatic Inv Hydrogen S Oxidized R	ned Leaves , 2, 4A, and B11) ertebrates (Sulfide Odor hizospheres if Reduced I	B13) (C1) s along l	Living R		☐ Wa	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) atturation Visible on Aerial Imagery (C9) comorphic Position (D2) allow Aquitard (D3)
Wetland Hy Primary India Surface High Wa Saturati Water N Sedime Drift De Algal Ma	cators (minicators	imum of o		ed; check	Water-Stair MLRA 1 Salt Crust (Aquatic Inv Hydrogen S Oxidized R Presence o	ned Leaves , 2, 4A, and B11) ertebrates (Sulfide Odor hizospheres if Reduced I	B13) (C1) s along laron (C4) in Tilled	Living R ·) d Soils ((C6)	U Wall	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) ecomorphic Position (D2) allow Aquitard (D3) AC-Neutral Test (D5)
Wetland Hy Primary India ✓ Surface ✓ High Wa ✓ Saturati	rdrology Incators (minimal water (A1) ater Table (A3) Marks (B1) nt Deposits (B3) at or Crust (posits (B5) Soil Cracks	(B2) (B4) (B6)	ne require		Water-Stair MLRA 1 Salt Crust (Aquatic Inv Hydrogen S Oxidized R Presence o Recent Iror	ned Leaves , 2, 4A, and B11) ertebrates (Sulfide Odor hizospheres of Reduced I n Reduction Stressed Pl	B13) (C1) s along I fron (C4 in Tillec	Living R ·) d Soils ((C6)	Dr Dr Sa V Ge	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) ecomorphic Position (D2) allow Aquitard (D3) aC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A)
Wetland Hy Primary India Surface High Wa Saturati Water M Sedimel Drift Del Algal Ma Surface Inundati	rdrology Incators (minimal water (A1) ater Table (A3) ater Table (B1) at Deposits (B3) at or Crust (B5) Soil Cracksion Visible (B5)	imum of o	ne require		Water-Stair MLRA 1 Salt Crust (Aquatic Inv Hydrogen S Oxidized R Presence o	ned Leaves , 2, 4A, and B11) ertebrates (Sulfide Odor hizospheres of Reduced I n Reduction Stressed Pl	B13) (C1) s along I fron (C4 in Tillec	Living R ·) d Soils ((C6)	Dr Dr Sa V Ge	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) ecomorphic Position (D2) allow Aquitard (D3) AC-Neutral Test (D5)
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Project/Site: _Easton	City/County: Park Sampling Date: 6/24/202
Applicant/Owner: MDT	State: Montana Sampling Point: DP10u
Investigator(s): R Quire, R Jones, S Weyant	Section, Township, Range: S 32 T 4N R 9E
Landform (hillslope, terrace, etc.): Terrace	Local relief (concave, convex, none): convex Slope (%):
Subregion (LRR): LRR E Lat:	:46.058857 _{_Long:} 110.639093 _{_Datum:} NAD 83
Soil Map Unit Name: 155A: Meadowcreek, rarely flooded-Ne	esda complex, 0 to 2 percent slope 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 significa	antly disturbed? Are "Normal Circumstances" present? Yes 🗹 No 👤
Are Vegetation, Soil, or Hydrology naturall	
SUMMARY OF FINDINGS - Attach site map show	ving sampling point locations, transects, important features, e
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Yes No Wetland Hydrology Present?	Is the Sampled Area
Remarks: Upslope of wetland boundary in the center of site.	
VEGETATION - Use scientific names of plants	
Total Otto Access Districts (OO Freet Destina)	miant Indicator ecies? Status Dominance Test worksheet
·	Number of Dominant Species that are OBL, FACW or FAC: (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: 0 % (A/B)
<u>-upmg.cm.u.c.</u> rices_c (io recentation)	Prevalence Index worksheet Total % Cover of: Multiply by:
	OBL species 0 X 1 0
	FACW species 0 X 2 0
	FAC species 10 X 3 30 FACU species 0 X 4 0
Herbaceous Stratum Plot size (5 Foot Radius)	FACU species 0 X4 0 UPL species 75 X 5 375
	✓ UPL Column Totals 85 (A) 405
Poa pratensis 10	FAC
	Prevalence Index = B/A = 4.76471
	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 (Expl
	Indicators of hydric sil and wetland hydrology must l
Woody Vine Stratum Plot size (30 Foot Radius)	present, unless disturbed or problematic for #3, 4, 5
Percent Bare Ground 15	Hydrophytic Vegetation Yes □ NO ✓ Present?
Remarks:	
BG/litter=15%	
US Army Corps of Engineers	Western Mountains, Valleys, and Coasts - Version

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Depth Matrix Redox Features Nove Texture Remarks O-16 10 YR 3/2 100 Silty Clay Loam Type: C=Concentration. D=Depletion RM=Reduced Matrix, CS=Coverod or Coated Sand Grains. Type: C=Concentration. D=Depletion RM=Reduced Matrix, CS=Coverod or Coated Sand Grains. Type: C=Concentration. D=Depletion RM=Reduced Matrix, CS=Coverod or Coated Sand Grains. Type: C=Concentration. D=Depletion RM=Reduced Matrix, CS=Coverod or Coated Sand Grains. Type: C=Concentration. D=Depletion RM=Reduced Matrix, Silty Clay Loam Type: C=Concentration. D=Depletion RM=Reduced Matrix, Silty Clay Loam Type: C=Concentration. D=Depletion RM=Reduced Matrix, Silty Clay Loam M=Matrix Matrix Silty Clay Loam M=Matrix M=Reduced Silty Clay Loam M=Matrix Silty Clay	SOIL								Sa	ampling Point: D	P10u
(inches) Color (most) % Color (most) % Type Loc2 Texture Remarks 0-16 10VR 3/2 100 Silty Clay Loam Type: C=Concentration, D=Depletion, RM=Reduced Matrix, C3=Covered or Coated Sand Grains Location: PL=Pore Lining, M=Matrix, P	Profile Desc	cription: (Descri	be to the depth	needed to docur	nent the indi	cator or c	onfirm	the absence			
Silty Clay Loam Silty Clay Matrix (Silty Clay Loam Silty Clay Loam Silt	•					1 .					
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.				Color (moist)	<u> </u>	ype' L				Remarks	
Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Histosol (A1) Histosol (A2) Black Histic (A3) Hydrogen Sulfide (A4) Depleted Matrix (S8) Depleted Below Dark Surface (F12) Sandy Mucky Mineral (F1) Sandy Mucky Mineral (S1) Depleted Below Dark Surface (A11) Depleted Dark Surface (A11) Depleted Dark Surface (A12) Red Darent Internative Depleted Below Dark Surface (A11) Depleted Dark Surface (A12) Red Darent Internative Depleted Dark Surface (A12) Red Darent Internative Depleted Dark Surface (F12) Other (Explain in Remarks) Depleted Dark Surface (F12) Other (Explain in Remarks) Depleted Dark Surface (F12) Other (Explain in Remarks) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Restrictive Larger (if present): Type: Depth (inches): Wetland Hydrology Indicators Primary Indicators (minimum of one required: check all that apply) Surface Water (A1) High Water Table (A2) High Water Table (A2) Aquatic Invertebrates (B13) Dorift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) Sediment Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) Dirift Deposits (B3) Dirift Dep	0-16	10YR 3/2	100				Silty	Clay Loam			
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Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Histosol (A1) Histosol (A2) Black Histic (A3) Hydrogen Sulfide (A4) Depleted Matrix (S8) Depleted Below Dark Surface (F12) Sandy Mucky Mineral (F1) Sandy Mucky Mineral (S1) Depleted Below Dark Surface (A11) Depleted Dark Surface (A11) Depleted Dark Surface (A12) Red Darent Internative Depleted Below Dark Surface (A11) Depleted Dark Surface (A12) Red Darent Internative Depleted Dark Surface (A12) Red Darent Internative Depleted Dark Surface (F12) Other (Explain in Remarks) Depleted Dark Surface (F12) Other (Explain in Remarks) Depleted Dark Surface (F12) Other (Explain in Remarks) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Restrictive Larger (if present): Type: Depth (inches): Wetland Hydrology Indicators Primary Indicators (minimum of one required: check all that apply) Surface Water (A1) High Water Table (A2) High Water Table (A2) Aquatic Invertebrates (B13) Dorift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) Sediment Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) Dirift Deposits (B3) Dirift Dep		-									
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Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Histosol (A1) Histosol (A2) Black Histic (A3) Hydrogen Sulfide (A4) Depleted Matrix (S8) Depleted Below Dark Surface (F12) Sandy Mucky Mineral (F1) Sandy Mucky Mineral (S1) Depleted Below Dark Surface (A11) Depleted Dark Surface (A11) Depleted Dark Surface (A12) Red Darent Internative Depleted Below Dark Surface (A11) Depleted Dark Surface (A12) Red Darent Internative Depleted Dark Surface (A12) Red Darent Internative Depleted Dark Surface (F12) Other (Explain in Remarks) Depleted Dark Surface (F12) Other (Explain in Remarks) Depleted Dark Surface (F12) Other (Explain in Remarks) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Restrictive Larger (if present): Type: Depth (inches): Wetland Hydrology Indicators Primary Indicators (minimum of one required: check all that apply) Surface Water (A1) High Water Table (A2) High Water Table (A2) Aquatic Invertebrates (B13) Dorift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) Sediment Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) Dirift Deposits (B3) Dirift Dep		-									
Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Histosol (A1) Histosol (A2) Black Histic (A3) Hydrogen Sulfide (A4) Depleted Matrix (S8) Depleted Below Dark Surface (F12) Sandy Mucky Mineral (F1) Sandy Mucky Mineral (S1) Depleted Below Dark Surface (A11) Depleted Dark Surface (A11) Depleted Dark Surface (A12) Red Darent Internative Depleted Below Dark Surface (A11) Depleted Dark Surface (A12) Red Darent Internative Depleted Dark Surface (A12) Red Darent Internative Depleted Dark Surface (F12) Other (Explain in Remarks) Depleted Dark Surface (F12) Other (Explain in Remarks) Depleted Dark Surface (F12) Other (Explain in Remarks) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Restrictive Larger (if present): Type: Depth (inches): Wetland Hydrology Indicators Primary Indicators (minimum of one required: check all that apply) Surface Water (A1) High Water Table (A2) High Water Table (A2) Aquatic Invertebrates (B13) Dorift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) Sediment Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) Dirift Deposits (B3) Dirift Dep											
Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Histosol (A1) Histosol (A2) Black Histic (A3) Hydrogen Sulfide (A4) Depleted Matrix (S8) Depleted Below Dark Surface (F12) Sandy Mucky Mineral (F1) Sandy Mucky Mineral (S1) Depleted Below Dark Surface (A11) Depleted Dark Surface (A11) Depleted Dark Surface (A12) Red Darent Internative Depleted Below Dark Surface (A11) Depleted Dark Surface (A12) Red Darent Internative Depleted Dark Surface (A12) Red Darent Internative Depleted Dark Surface (F12) Other (Explain in Remarks) Depleted Dark Surface (F12) Other (Explain in Remarks) Depleted Dark Surface (F12) Other (Explain in Remarks) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Restrictive Larger (if present): Type: Depth (inches): Wetland Hydrology Indicators Primary Indicators (minimum of one required: check all that apply) Surface Water (A1) High Water Table (A2) High Water Table (A2) Aquatic Invertebrates (B13) Dorift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) Sediment Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) Dirift Deposits (B3) Dirift Dep											
Histosol (A1)							and Gra				
Histic Epipedon (A2)			licable to all LR	Rs, unless other	rwise noted.)					=	Soils³:
Black Histic (A3)											
Hydrogen Sulfide (A4)			<u> </u>		` '						
Depleted Bellow Dark Surface (A11)	_	` '	<u> </u>	1		except ML	.RA 1)		-	·	2)
Thick Dark Surface (A12)			face (A11)	1				Ou	ei (⊏xpiaiii i	n Remarks)	
Sandy Mucky Mineral (S1)				1				3Indicate	ors of hydron	hvtic vegetation	and
Restrictive Layer (if present): Type:	_			=	, ,						
Type:	Sandy G	Sleyed Matrix (S4		Redox Depress	ions (F8)			unle	ss disturbed	or problematic.	
Presents: No hydric soil indicators observed during site visit. Property Present Present	Restrictive I	Layer (if present):								
Properties of Remarks: No hydric soil indicators observed during site visit. YDROLOGY	Туре:			_						_	
Variable	Depth (in	ches):		_				Hydric Soi	Present?	Yes	No <u> </u>
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) High Water Table (A2) MIRA 1, 2, 4A, and 4B) Saturation (A3) Saturation (A3) Saturation (A3) Saturation (A3) Saturation (B2) Surface Water Deposits (B2) Surface Water Stained Leaves (B9) (except Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) At A, and 4B) Saturation (A3) Saturation (A3) Saturation (B1) Saturation (B2) Saturation (B2) Saturation (B3) Surface Soil Cracks (B6) Surface Soil Cracks (B6) Surface Soil Cracks (B6) Surface Water Present? Saturation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Ves No Depth (inches): Water Table Present? Ves No Depth (inches): Saturation Present? Ves No Depth (inches): Saturation Present? Saturation Present? Ves No Depth (inches): Saturation Present? Saturation Present? Ves No Poepth (inches): Saturation Present? Saturation Present? Ves No Poepth (inches): Saturation Present? Ves No		CV									
Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) Water-Stained Leaves (B9) (except Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Saturation (A3) Saturation (A3) Saturation (A3) Saturation (B1) Water Marks (B1) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Drift Deposits (B2) Hydrogen Sulfide Odor (C1) Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) Geomorphic Position (D2) Shallow Aquitard (D3) Iron Deposits (B5) Recent Iron Reduction in Tilled Soils (C6) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table (Present? Yes No Depth (inches): Water Table (Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Pepth (inches): Wetland Hydrology Present? Yes No Pepth (inches): Remarks:			ve:								
Surface Water (A1)	=	= =		hack all that anni	w)			Saco	ndany Indica	tors (2 or more r	equired)
High Water Table (A2) Saturation (A3) Salt Crust (B11) Aquatic Invertebrates (B13) Drainage Patterns (B10) Aquatic Invertebrates (B13) Drainage Patterns (B10) Aquatic Invertebrates (B13) Drainage Patterns (B10) Aquatic Invertebrates (B13) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Drift Deposits (B3) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Aquitard (D3) Recent Iron Reduction in Tilled Soils (C6) Sturface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Poeth (inches): Concorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:			or one required, c			PO) (avaa				•	
Saturation (A3)							ρt	_ <u></u> v			/ILRA 1, 2,
Water Marks (B1)						40)				•	
□ Sediment Deposits (B2) □ Hydrogen Sulfide Odor (C1) □ Saturation Visible on Aerial Imagery (C9) □ Drift Deposits (B3) □ Oxidized Rhizospheres along Living Roots (C3) □ Geomorphic Position (D2) □ Algal Mat or Crust (B4) □ Presence of Reduced Iron (C4) □ Shallow Aquitard (D3) □ Iron Deposits (B5) □ Recent Iron Reduction in Tilled Soils (C6) □ FAC-Neutral Test (D5) □ Surface Soil Cracks (B6) □ Stunted or Stressed Plants (D1) (LRR A) □ Raised Ant Mounds (D6) (LRR A) □ Inundation Visible on Aerial Imagery (B7) □ Other (Explain in Remarks) □ Frost-Heave Hummocks (D7) □ Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes □ No ☑ Depth (inches): □ Wetland Hydrology Present? Yes □ No ☑ Depth (inches): □ Saturation Present? Yes □ No ☑ Depth (inches): □ Wetland Hydrology Present? Yes □ No ☑ Depth (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	_	` '				:13)			_		
□ Drift Deposits (B3) □ Oxidized Rhizospheres along Living Roots (C3) □ Geomorphic Position (D2) □ Algal Mat or Crust (B4) □ Presence of Reduced Iron (C4) □ Shallow Aquitard (D3) □ Iron Deposits (B5) □ Recent Iron Reduction in Tilled Soils (C6) □ FAC-Neutral Test (D5) □ Surface Soil Cracks (B6) □ Stunted or Stressed Plants (D1) (LRR A) □ Raised Ant Mounds (D6) (LRR A) □ Inundation Visible on Aerial Imagery (B7) □ Other (Explain in Remarks) □ Frost-Heave Hummocks (D7) □ Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes □ No ☑ Depth (inches): □ Wetland Hydrology Present? Yes □ No ☑ Depth (inches): □ Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:									-		
Algal Mat or Crust (B4)						. ,	na Root				lagery (00)
□ Iron Deposits (B5) □ Recent Iron Reduction in Tilled Soils (C6) □ FAC-Neutral Test (D5) □ Surface Soil Cracks (B6) □ Stunted or Stressed Plants (D1) (LRR A) □ Raised Ant Mounds (D6) (LRR A) □ Inundation Visible on Aerial Imagery (B7) □ Other (Explain in Remarks) □ Frost-Heave Hummocks (D7) □ Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes □ No ☑ Depth (inches): □ Water Table Present? Yes □ No ☑ Depth (inches): □ Wetland Hydrology Present? Yes □ No ☑ Depth (inches): □ Wetland Hydrology Present? Yes □ No ☑ Depth (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:						•	.5	` ' =	-		
□ Inundation Visible on Aerial Imagery (B7) □ Other (Explain in Remarks) □ Frost-Heave Hummocks (D7) □ Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes □ No ☑ Depth (inches): □ Water Table Present? Yes □ No ☑ Depth (inches): □ Water Table Present? Yes □ No ☑ Depth (inches): □ Wetland Hydrology Present? Yes □ No ☑ Depth (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:		` ,				, ,	ils (C6)		-		
Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes □ No ▼ Depth (inches): □ Water Table Present? Yes □ No ▼ Depth (inches): □ Water Table Present? Yes □ No ▼ Depth (inches): □ Wetland Hydrology Present? Yes □ No ▼ Depth (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	Surface	Soil Cracks (B6)		Stunted or	Stressed Plai	nts (D1) (I	RR A)	F	aised Ant M	ounds (D6) (LRI	R A)
Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes Depth (inches): Saturation Present? Yes Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	Inundati	on Visible on Aeri	al Imagery (B7)	Other (Exp	olain in Remar	ks)		F	rost-Heave	Hummocks (D7)	
Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	Sparsely	/ Vegetated Cond	ave Surface (B8)								
Water Table Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (inches): No Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	Field Obser	vations:	_								
Saturation Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	Surface Wat	er Present?	Yes _L No	Depth (in	ches):						
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	Water Table	Present?	Yes No	Depth (in	ches):						
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:			Yes No	Depth (in	ches):		Wetla	ınd Hydrolog	y Present?	Yes	No 🔽
Remarks:	(includes car	oillary fringe) corded Data (stre	am gauge monit	oring well aerial i	photos previo	us inspec	tione) i	f available:			
	Pescine Ke	corucu Data (SIIE	am yauye, momi	omig well, aelial	onotos, pievio	us mapec		ı avallabit.			
	Demarks:										
		ic indicators ob	served durina	site visit.							
	,	,	9 -								

Project/Site: Easton	City/County: Park	Sampling Date: 6/24/2020
Applicant/Owner: MDT		State: Montana Sampling Point: DP10w
Investigator(s): R Quire, R Jones, S Weyant		
Investigator(s): R Quire, R Jones, S Weyant Landform (hillslope, terrace, etc.): Floodplain	Local relief (concave, co	onvex, none): concave Slope (%): 2
Subregion (LRR): LRR E	46.058954	Long: -110.639147 Datum: NAD 83
Subregion (LRR): LRR E Lat: Lat: Soil Map Unit Name: 155A: Meadowcreek, rarely flooded-Nesda	complex, 0 to 2 perce	ent slope NWI classification:Not Mapped
Are climatic / hydrologic conditions on the site typical for this time of y		
Are Vegetation, Soil, or Hydrology significantly		
Are Vegetation, Soil, or Hydrology naturally pr		
SUMMARY OF FINDINGS – Attach site map showing		
Hydrophytic Vegetation Present? Yes No		
Hydric Soil Present? Yes <u>✓</u> No	Is the Sampled A	
Wetland Hydrology Present? Yes <u>✓</u> No Remarks:		
PEM riverine wetland in the center of site.		
VEGETATION - Use scientific names of plants		
Tree Stratum Plot size (30 Foot Radius) Absolute Domiar Ye Cover: Specie		Dominance Test worksheet
Tree Stratum Plot size (30 Foot Radius) % Cover: Specie	s? Status	Number of Dominant Species
		that are OBL, FACW or FAC:
		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 5	FAC	Prevalence Index worksheet
Salix bebbiana 1	FACW	Total % Cover of: Multiply by:
		OBL species 25 X 1 25 FACW species 8 X 2 16
		FAC species 48 X3 144
		FACU species 0 X 4 0
Herbaceous Stratum Plot size (5 Foot Radius)		UPL species 0 X 5 0
Alopecurus arundinaceus 5	FAC	Column Totals 81 (A) 185 (B)
Carex nebrascensis 15 Carex pachystachya 5	OBL FAC	Prevalence Index = B/A = 2.28395
Carex pachystachya 5 Carex pellita 10	OBL	Hydrophytic Vegetation Indicators
Equisetum arvense 30	FAC	1 - Rapid Test for Hydrophytic Vegetation
Juncus balticus 7	FACW	✓ 2 - Dominance Test is >50%
Lotus corniculatus 3	FAC	✓ 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 25		Present?
Remarks: Dominated by hydrophytic species.		
US Army Corps of Engineers		Western Mountains, Valleys, and Coasts - Version 2.0

SOIL											Sampling Point: DP10w
Profile Desc	cription: (Describe	to the de	pth neede	d to docui	ment the in	ndicato	r or c	onfirm	the absence	of indicators.)
Depth		Matrix				x Features					
(inches)		(moist)	<u>%</u>	Color	(moist)	%	_Type ¹	L	oc ²	Texture	Remarks
0-6	10YR	4/2	100						Silty	Clay Loam	
6-14	10Y	4/1	70	10YR	4/6	30	С	M	Silty	Clay Loam	Gleyed.
			_								
¹ Type: C=C								ted Sa	and Gra		cation: PL=Pore Lining, M=Matrix.
Hydric Soil		: (Appli	able to al				ed.)				rs for Problematic Hydric Soils³:
Histosol					dy Redox (n Muck (A10)
	pipedon (A istic (A3)	2)		_ :	ped Matrix my Mucky I	. ,) (avaa	~4 N/I	DA 1\		Parent Material (TF2) Shallow Dark Surface (TF12)
_	en Sulfide ((A4)			ny Gleyed			JI WIL	KA I)		er (Explain in Remarks)
	d Below Da		ce (A11)		leted Matrix					_	,
=	ark Surface	,		=	ox Dark Su	` ,					rs of hydrophytic vegetation and
	Aucky Mine				leted Dark		7)				nd hydrology must be present, s disturbed or problematic.
Restrictive I	Bleyed Mat			Red	ox Depress	sions (Fo)				unies	s disturbed or problematic.
Type:											
Depth (in										Hvdric Soil	Present? Yes No
Remarks:											
HYDROLO											
Wetland Hy	==					,					
Primary India			one require	ed; check a			(50) (ndary Indicators (2 or more required)
Surface ✓ High Wa	Water (A1	•			Water-Sta	ined Leave 1, 2, 4A, a		exce	ot	w	/ater-Stained Leaves (B9) (MLRA 1, 2,
Saturation		(AZ)			Salt Crust		na 46)				4A, and 4B) rainage Patterns (B10)
	larks (B1)			一	Aquatic In		s (B13)				ry-Season Water Table (C2)
	nt Deposits	s (B2)			Hydrogen						aturation Visible on Aerial Imagery (C9)
	oosits (B3)				Oxidized F		, ,	g Livir	ng Root		eomorphic Position (D2)
Algal Ma	at or Crust	(B4)			Presence	of Reduce	d Iron (C	(4)			hallow Aquitard (D3)
	osits (B5)				Recent Iro						AC-Neutral Test (D5)
	Soil Crack			<u>,</u>	Stunted or			D1) (L	.RR A)		aised Ant Mounds (D6) (LRR A)
	on Visible y Vegetate				Other (Exp	olain in Rei	marks)			Fr	rost-Heave Hummocks (D7)
Field Obser		u Concav	e Suriace	(100)							
Surface Water		2 \	res 🗆	No 🔽	Depth (in	ches):					
Water Table			∕es ✓			ches):		0			
Saturation P	resent?	,	∕es ✓			ches):		0	Wetla	nd Hydrology	y Present? Yes 🔽 No 🗌
(includes cap Describe Re			n gauge, m	onitoring v	vell, aerial	photos, pre	evious in	spect	ions), i	f available:	
Remarks:			.	£:1:4							
High water t	lable obse	ervea to	suriace o	ı son pit.							

Project/Site: Easton	Citv/C	_{County:} Park	Sampling Date:6/24/202
Applicant/Owner: MDT	_ ,	,	State: Montana Sampling Point: DP11u
Investigator(s): R Quire, R Jones, S Weyant	Section	on, Township, Rand	
Landform (hillslope, terrace, etc.): Terrace	– Loca	al relief (concave, co	nvex. none); convex Slope (%);
Subregion (LRR): LRR E Lat:	_	46.057998	Long:110.640537 Datum: NAD 83
Soil Map Unit Name: 155A: Meadowcreek, rarely flooded-Nesd	a comp	plex, 0 to 2 perce	nt slope NWI classification:Not Mapped
Are climatic / hydrologic conditions on the site typical for this time of y			
Are Vegetation, Soil, or Hydrology significant			
Are Vegetation, Soil, or Hydrology naturally p			ded, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showin			
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Yes No W No W	- -	Is the Sampled A	
Remarks: Upslope of wetland boundary, at south western project boundary.	ndary e	edge.	
VEGETATION - Use scientific names of plants			
To Starting Plateirs (00 Fact Padius) Absolute Domia		ndicator	Dominance Test worksheet
Tree Stratum Plot size (30 Foot Radius) % Cover: Specie	es? S	Status	Number of Dominant Species that are OBL, FACW or FAC: 1 (A)
			Total Number of Dominant Species Across All Strata:
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: Multiply by: OBL species 0 X 1 0
			FACW species 0 X 2 0
			FAC species 85 X 3 255
Harbara and Otratana Platains / F. Foot Padina			FACU species 0 X 4 0
Herbaceous Stratum Plot size (5 Foot Radius)			UPL species 5 X 5 25
Bromus inermis 5	UP FA		Column Totals 90 (A) 280 (
Elymus repens 70	FA		Prevalence Index = B/A = 3.11111
Poa pratensis 10	FA		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 (Expla
			Indicators of hydric sil and wetland hydrology must b
Woody Vine Stratum Plot size (30 Foot Radius)			present, unless disturbed or problematic for #3, 4, 5.
Percent Bare Ground 10			Hydrophytic Vegetation Yes ✓ NO □ Present?
Remarks:			
BG/litter=10%			
US Army Corps of Engineers			Western Mountains, Valleys, and Coasts - Version 2

SOIL							Sampling Point: DP11u
Profile Desc	cription: (Descril	oe to the depth i	needed to docum	ent the indicator	or confirr	n the absence	
Depth	Matrix			Features	. 2		
(inches)	Color (moist)		Color (moist)	% Type ¹	Loc ²	Texture	Remarks
0-13	10YR 3/2	100			(Clay Loam	
						·	
	-						
	-						
			educed Matrix, CS=		ed Sand G		ation: PL=Pore Lining, M=Matrix.
		licable to all LR	Rs, unless otherv	-			rs for Problematic Hydric Soils ³ :
Histosol	•		Sandy Redox (S	•			n Muck (A10)
	oipedon (A2) istic (A3)		Stripped Matrix (າຍາລາ (F1) (excep	+ MI DA 1\	_	Parent Material (TF2) Shallow Dark Surface (TF12)
_	en Sulfide (A4)		Loamy Gleyed M		LIVILINA I)		er (Explain in Remarks)
	d Below Dark Surf	ace (A11)	Depleted Matrix ((Explain in Normanie)
	ark Surface (A12)		Redox Dark Surf			³ Indicato	rs of hydrophytic vegetation and
_	lucky Mineral (S1	_	Depleted Dark S	. ,			nd hydrology must be present,
	Sleyed Matrix (S4)		Redox Depression	ons (F8)		unles	s disturbed or problematic.
	Layer (if present)						
			_			1	
Depth (in	ches):		_			Hydric Soil	Present? Yes No
	0 V						
HYDROLO							
=	drology Indicator		h l II 4h - 4 l -)			0	1
	,	one requirea; ci	heck all that apply)				dary Indicators (2 or more required)
	Water (A1)			ed Leaves (B9) (e	xcept	vv	ater-Stained Leaves (B9) (MLRA 1, 2
Saturation	ater Table (A2)		Salt Crust (E	2, 4A, and 4B)			4A, and 4B) rainage Patterns (B10)
_	larks (B1)			ertebrates (B13)			ry-Season Water Table (C2)
	nt Deposits (B2)			ulfide Odor (C1)			aturation Visible on Aerial Imagery (CS
	posits (B3)			iizospheres along	Livina Roo		eomorphic Position (D2)
	at or Crust (B4)			Reduced Iron (C	-	` ' =	nallow Aquitard (D3)
Iron Dep	oosits (B5)		Recent Iron	Reduction in Tille	d Soils (C		AC-Neutral Test (D5)
Surface	Soil Cracks (B6)		Stunted or S	Stressed Plants (D	1) (LRR A) Ra	aised Ant Mounds (D6) (LRR A)
Inundati	on Visible on Aeri	al Imagery (B7)	Other (Expla	ain in Remarks)		Fr	ost-Heave Hummocks (D7)
Sparsely	/ Vegetated Conc	ave Surface (B8)					
Field Obser	vations:						
Surface Wat	er Present?	Yes No	Depth (inch	nes):	_		
Water Table	Present?	Yes No	Depth (inch	nes):			_
Saturation P		Yes No	✓ Depth (inch	nes):	Wetl	and Hydrology	/ Present? Yes 🔲 No 🔽
(includes car Describe Re	oillary tringe) corded Data (strea	am gauge monito	oring well, aerial ph	notos previous ins	spections)	if available	
2000100110	aca Data (51166	94490, 111011110	yo., aonai pi	, provious III.	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	a taliable.	
Remarks:							
	jic indicators ob	served during s	site visit.				
		,					

Project/Site: Easton	City/County: Park	Sampling Date: 6/24/2020
Applicant/Owner: MDT		State: Montana Sampling Point: DP11w
Investigator(s): R Quire, R Jones, S Weyant Landform (hillslope, terrace, etc.): Floodplain	Local relief (conceyo	envey pana): Concave Slane (%): 3
Landiorm (milisiope, terrace, etc.).	Local relief (concave, concave, c	-110 640424 D. NAD 83
Subregion (LRR): LRR E Soil Map Unit Name: 155A: Meadowcreek, rarely floode	_ Lat:	Long: Datum: Not Monned
Are climatic / hydrologic conditions on the site typical for this		
Are Vegetation, Soil, or Hydrology si	gnificantly disturbed? Are "N	Normal Circumstances" present? Yes 🔽 No 🔲
Are Vegetation, Soil, or Hydrology na	aturally problematic? (If nee	eded, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map s	showing sampling point lo	cations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No		
<u> </u>	Is the Sampled within a Wetland	
	within a vvetiand	u: res <u> </u>
Remarks:		
PSS riverine wetland		
VECETATION Has a significant and a findament	La.	
VEGETATION - Use scientific names of plans		r
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)
		Prevalence Index worksheet
Populus balsamifera 30 Salix bebbiana 3	FAC	Total % Cover of: Multiply by:
Salix bebbiana 3 Salix exigua 2	FACW FACW	OBL species 15 X 1 15
Salix lasiandra 5	FACW	FACW species 40 X 2 80
Odili i Idolandia	17.000	FAC species 47 X 3 141 FACU species 3 X 4 12
Herbaceous Stratum Plot size (5 Foot Radius)		UPL species 0 X 5 0
Alopecurus arundinaceus 5	FAC	
Carex pellita 15	✓ OBL	Column Totals 105 (A) 248 (B)
Deschampsia caespitosa 10	✓ FACW	Prevalence Index = B/A = 2.36190
Elymus repens 5	FAC	Hydrophytic Vegetation Indicators
Juncus balticus 15	✓ FACW	1 - Rapid Test for Hydrophytic Vegetation
Lotus corniculatus 7	FAC	✓ 2 - Dominance Test is >50%
Lysimachia ciliata 5	FACW	✓ 3 - Prevalence Index is <= 3.0
Taraxacum officinale 3	FACU_	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 15		Present?
Remarks: BG/litter=15%, shrub cover in herb stratum		
US Army Corps of Engineers		Western Mountains, Valleys, and Coasts - Version 2.0

SOIL											Sampling Point: DF	P11w
Profile Desc	ription: (Describe	to the de	oth neede	d to docum	ent the in	dicato	r or c	onfirm	the absence	e of indicators.)	
Depth		Matrix				<u>Features</u>						
(inches)		(moist)	%	Color	(moist)	%	Type ¹		oc ²	Texture	Remarks	
0-8	10YR	2/2								Silty Clay		
8-13	10YR	4/2	93	7.5YR	4/6	7	С	M	Sand	ly Clay Loar	n	
												_
											-	
												_
¹ Type: C=Co								ted S	and Gra		cation: PL=Pore Lining, M=M	
Hydric Soil I		: (Applic	able to al				d.)				ors for Problematic Hydric S	oils³:
Histosol		0)		\equiv	dy Redox (S	•					m Muck (A10)	
☐ Histic Ep☐ Black Hi	oipedon (A	2)			ped Matrix (ny Mucky M		\ (avaa)	n4 MI	DA 1\	_	d Parent Material (TF2) ry Shallow Dark Surface (TF12)\
	รแบ (A3) n Sulfide ((A4)		_	ny Gleyed N			pt ML	.KA I)		ner (Explain in Remarks)	()
	d Below Da		e (A11)	_	eted Matrix	. ,				0"	ior (Explain in Nomanio)	
	ark Surface		,		ox Dark Sur					³ Indicat	ors of hydrophytic vegetation a	and
	lucky Mine				eted Dark S		7)				and hydrology must be presen	t,
	Bleyed Mat			Red	ox Depressi	ons (F8)				unle	ss disturbed or problematic.	
Restrictive L	_ayer (if p	resent):										
Type:	- I X										1 D	
Depth (inc	cnes):									Hydric Soi	I Present? Yes <u>✓</u> N	lo <u> </u>
Remarks: Prominent r	edovimor	nhic feat	ures com	mon with	nin the den	leted ma	triv					
1 TOTTIME TO	CUOXIIIIOI	priic icat	urcs con	iiiioii witi	iiii tiic acp	icica ma	u i.					
LIVEROLO	CV .											
HYDROLO		d: 4										
Wetland Hyd Primary Indic	==		ne require	d chack o	all that apply	١				Saco	indani Indicators (2 or more re	auired)
	Water (A1		ne require	u, check a	Water-Stair		a (BO) (Indary Indicators (2 or more re-	
Sunace ✓ High Wa		,				, 2, 4A, ar	. , ,	exce	ρι	<u> </u>	Water-Stained Leaves (B9) (MI 4A, and 4B)	LKA 1, 2,
Saturatio		(A2)			Salt Crust (iu 46)			Пг	Orainage Patterns (B10)	
	arks (B1)			一	Aquatic Inv		(B13)				Ory-Season Water Table (C2)	
	nt Deposits	(B2)			Hydrogen S						Saturation Visible on Aerial Ima	agery (C9)
_	osits (B3)	` '			Oxidized RI		` ,	g Livii	ng Root		Geomorphic Position (D2)	
	t or Crust				Presence o	-		-	-		Shallow Aquitard (D3)	
Iron Dep	osits (B5)				Recent Iron	n Reductio	n in Till	ed Sc	ils (C6)	_ ✓ F	FAC-Neutral Test (D5)	
Surface	Soil Crack	s (B6)			Stunted or	Stressed F	Plants (D1) (l	RR A)	F	Raised Ant Mounds (D6) (LRR	A)
	on Visible			· —	Other (Expl	lain in Ren	narks)			F	Frost-Heave Hummocks (D7)	
Sparsely	/ Vegetate	d Concave	Surface	(B8)								
Field Observ	vations:											
Surface Wate			es <u> </u>		Depth (inc							
Water Table				No	Depth (inc			1				
Saturation Pr (includes cap			es 🔽	No	Depth (inc	hes):		0_	Wetla	ınd Hydrolog	yy Present? Yes <u> V </u>	No <u> </u>
Describe Red			gauge, m	onitoring v	vell, aerial p	hotos, pre	vious ir	spec	tions), i	f available:		
Remarks: High water t	able char	arved at	11in in ca	vil nit								
mgn water t	auie obse	erveu at	i iiii iii SC	ııı pıt.								

MDT Montana Wetland Assessment Form (revised March 2008)

1. Project name	Project name Easton Ranch			2. MDT proje	ct#	ST	PP STWD (75	6)	Contro	9680000
3. Evaluation Date	6/24/2020	4. Evaluators	R Quire Weyant	, R Jones, S	5.	Wetl	and/Site# (s)	Creation		
6. Wetland Location(s Approx Stationing or	•	4N R	9E	Sec1 32		Т	R		Sec2	
	pper Yellow	stone V	Vatershe	d/County F	Park					
7. Evaluating Agency	Con	fluence Consulting	J	_			8. Wetland	size acres	,	11.15
Purpose of Evaluation	on						How assess	ed:	Measured	e.g. by GPS
☐ Wetlands potentia	ally affected	d by MDT project					9. Assesssi			11.15
☐ Mitigation Wetlan	ds: pre-co	nstruction					(AA) size (ad How assess	•	Measured	e.g. by GPS
✓ Mitigation Wetlan	ds: post co	onstruction								g. 2, 3.
Other										
10. Classification of	Wetland an	d Aquatic Habitat	s in AA							
HGM Class (Brinson)	C	lass (Cowardin)		Modifier (Co	wardi	n)	Water Ro	egime	%	of AA
Riverine	Em	ergent Wetland		Excavated			Seasonal/In	termittent		70
Depressional	Aqu	ıatic Bed		Excavated			Seasonal/In	termittent		2
Riverine	Scr	ub-Shrub Wetland		Excavated			Seasonal/In	termittent		28
Setimated Relative General Condition i. Disturbance: (use aquatic nuisance veg	n of AA matrix below	to determine [circle]		te response – s			ns for Montana-l			
Conc	litions within AA		natural hayed, convert roads o	ed in predominantl state; is not graze logged, or otherwi ed; does not conta or buildings; and no r ANVS cover is <:	d, se ain oxious	mod seled subje few t	I not cultivated, but erately grazed or h ctively logged; or h ect to minor clearin oads or buildings; d or ANVS cover is	ayed or as been g; contains noxious	or logged; s placement, hydrologica building der	tled or heavily grazed ubject to substantial fill grading, clearing, or alteration; high road or isity; or noxious weed ver is >=30%.
AA occurs and is managed in grazed, hayed, logged, or oth roads or occupied buildings; a <=15%.	erwise converte	d; does not contain	lov	v disturbanc	е		low disturba	ance	modera	ate disturbance
AA not cultivated, but may be selectively logged; or has bee placement, or hydrological alt noxious weed or ANVS cover	n subject to rela eration; contain	atively minor clearing, fill		moderate listurbance		m	oderate distu	ırbance	high	disturbance
AA cultivated or heavily graze substantial fill placement, grachigh road or building density; >=30%.	ding, clearing, c	r hydrological alteration;	hig	h disturbanc	е		high disturba	ance	high	disturbance
Comments: (types of c Limited agriculture (hay west. A new house was managed in a natural st) and a few built west o	ranch structures to f the Shield River o	the east on an upl	and terrace. T	wo sp					
ii. Prominent noxious,			tic speci	es:						
Cirsium arvense and Ciii. Provide brief descr	, ,		urroundi	ing land use/	habita	ıt				
The AA consists of five wetland characteristics. cells are bordered by lin	constructed The majorit	wetland cells. The y of higher elevation	lowest c	ontours of the	wetla	nd ce	aracteristics ar			

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		-	preventing (passive) vegetated classes?	Modified Rating
>= 3 (or 2 if 1 is forested) classes	Н	NA		NA	NA
2 (or 1 if forested) classes	M	NA		NA	NA
1 dass, but not a monoculture	М	<no< td=""><td></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		

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 A
--

imary or critical habitat	(list species)	(D () S				
condary habitat (list Sp	oecies)	(D () S				
cidental habitat (list spe	ecies)	□ D) s				
usable habitat		√ S					
i. 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 locumented use							

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

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

Primary or critical habitat (list species)	\odot D \bigcirc S	Sandhill Crane (S5B,S2N)
Secondary habitat (list Species)	□ D □ S	
Incidental habitat (list species)	● D ○ S	Golden Eagle (S3)
No usable habitat	s s	

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, 2013 and 2019-2020 field observations. Sandhill Crane nesting documented by MDT staff in 2019.

	Jiale	Mode																		
			:	check])	wing [he follo	any of t	ased on	imal (b	Mi					ck]):	ng [che	followin	of the t	d on any	u bstantial (based
few or no wildlife observations during peak use periods								,		• •							observations			
little to no wildlife sign										. 0						·	」 abundant wild			
ding area sparse adjacent upland food sources interviews with local biologists with knowledge of the AA								surrou	ole in the				•			presence of e				
		AA	e of th	nowledg	vith kn	ogists v	cal bio	s with I	intervie					he AA	dge of t	<nowle< td=""><td>ts with k</td><td>ologist</td><td>h local bi</td><td>_ interviews with</td></nowle<>	ts with k	ologist	h local bi	_ interviews with
																-	-		-	oderate (based o
									periods	•		•								observations
										, etc.	ame trans	ictures	nest su	racks,	.s scat, i		-			common occu adequate adja
														he AA	dge of t					interviews with
1	each	20% of	within P/P =	ist be vollows:	s mu as fo	classe ns are	etated duratio	nt veg water	prevale surface	l least ns for	most and breviatio	ed, the	listribut (see #	enly on the AA	ered ev ion of t	onside ipositi	o be con	ver to ercer	class co of their p	ii. Wildlife hab from #13. For other in terms of permanent/pere terms])
		N	Lo					rate	Mod						gh	Hig				Structural diversity (see
		en	Ev			en	Unev			even	E		ven	Une			en	Eve		#13) Class cover distribution (all vegetated classes)
	Α	T/E	S/I	P/P	Α	T/E	S/I	P/P	А	T/E	P/P S/I	А	T/E	S/I	P/P	А	T/E	S/I	P/P	Duration of surface water in ≥ 10% of AA
	М	М	Н	E	М	М	Н	Е	М	Н	Е Н	Н	Н	E	Е	н	E	Е	Е	Low disturbance at AA (see #12i)
	L	L	М	Н	L	М	М	Н	М	М	н	м	Н	н	Н	н	Н	Н	Н	Moderate disturbance at AA (see #12i)
	L	L	L	L	L	L	L	М	L	L	м м	L	L	М	М	L	М	М	М	High disturbance at AA (see #12i)
	ating)	and r	ooints		(ii)	rating			to arr fe hab	Wildl		and tl	above							iii. Rating (u Evidence of v
Low		-		1	erate					gh 9H	Hiç			1	Except		+			Substantial
.7M				-	BH					эп 7М					1E		+			Moderate
21						-									٠.					Minimal
.3L				-	M										.9H	_				wiiriimai
.3L .1L					SM 2L					4M					.9H .6N					
	easter	r the	s nea	turkey	2L on th	e site	obse	n 202	agles.	4M st dire	lus) nes	bitat :	ary ha	aeetu	.6M e (Halia	is with	t site i	oject	the pr	Comments
.1L ields River, ern project dary provide a	easter ounda ' such h use	r the or erty b stable' sh, fis	correctly by forms of the second seco	turkey asterr on is " t used rappe	on the ending the end of the ending the end of the end	e site erved ns of t ng sit e AA as fish	exist If th	or the	ngles. ocated by fish barrie perspe	4M et dire pald e plots l used othe	lus) nes ne for t Food p e AA is ulvert or manage	ibitat : ed dee	ary ha te-taile s funct by per esired	aeetue primal whi	.6N e (Haliahin the several) (Assest precluor is r	is with ell as s ing: (use is a ints, 4E.)	at Rati fish u onstra	abita [i.e., tat co	the problem to habitand problem.	4D. General I ould be used lestorable due MA here
.1L ields River, ern project dary provide a th that the AA e is not en check	easter ounda ' such h use l], ther	er the operty betable's sh, fis cana	correctly by forms of the second seco	turkey asterr on is " t used rappe	on the ending the end of the ending the end of the end	e site erved ins of the AA as fish	exist If the	or the ctive	by fish barrie	4M et dire pald e plots l used othe	lus) nes ne for t Food p e AA is ulvert or manage	ibitat : ed dee	ary hate-tailed	aeetue primal whi	.6M e (Haliahin the several (Asses precluor is rected F	ing: (use is a ints, 4E.)	at Rati fish u onstra	abita [i.e., tat co	the probound	4D. General I ould be used lestorable due MA here: Habitat Qu
.1L ields River, ern project dary provide a	easter ounda such h use], then	er the deerty be stable's cana	correctly by forms of the second seco	turkey asterr on is " t used rappe	on the ending the end of the ending the end of the end	e site erved ns of t ng sit e AA as fish	exist If the	or the	by fish barrie	4M et dire pald e plots l used othe	lus) nes ne for b Food p e AA is ulvert or manage	ibitat : ed dee	enter taile s funct by per esired	aeetue primal whi	.6N e (Haliahin the several (Asses precluor is rected F	ing: (ing: (use is aints, 4E.)	at Rati fish u onstra	abita [i.e., tat co	Fish Haby fish to habi and pro	4D. General I ould be used lestorable due NA here a
.1L ields River, ern project dary provide at the AA e is not en check	easter ounda such h use], then	er the deerty be stable's cana	orred by find in a	turkey astern on is " t used rappe	on the exuation on the exuation of the extension of the e	e site erved ns of t ng sit e AA as fish	exist If the	or the or the heck the	by fish barrie	4M st direct direct direct and direct direct and direc	lus) nes ne for b Food p e AA is ulvert or manage	ion if ched from a	enter taile s funct by per esired	aeetu e primal whi	.6N e (Haliahin the several (Asses precluor is rected F	ing: (ing: (use is aints, 4E.)	at site i as we at Rati fish u onstra d to 14	abita [i.e., tat coceed	the probound Fish Habby fish to habi and probable and probable water sting /	4D. General I ould be used estorable due NA here a Habitat Qu Duration of surfac in AA Aquatic hiding / re
.1L ields River, ern project dary provide a h that the AA e is not en check	easter ounda ' such h use], then porary/	er the derty betable's sh, fis cana	orred by find in a	turkey astern on is " t used rappe	on the end of the end	e site e	exist If the	or the control of the	agles. by fish barrie perspe	st direct	lus) nes ne for b Food p e AA is ulvert or manage	ion if ched from a	eary hatte-tailed so function by per esired opecies ennial e	aeetu e prim ss this ss this uded not de	.6M e (Haliahin the several (Asses precluor is rected F	is with as sing: (ase is a ints, 4E.) Suspe	at Rati fish u onstra d to 14	abita [i.e., tat co	the probound Fish Haby fish to habi and probable e water sting /	4D. General I ould be used lestorable due NA here: Habitat Qu Duration of surfac in AA Aquatic hiding / re escape cover Thermal cover opi
ields River, ern project dary provide a that the AA e is not en check	easter ounda such h use l], then porary/	r the derty betable's sh, fis cana	correct by find in a	on is "t used rappe	on the end of the end	e site erved ans of the site erved ans of the erved ans of the erved ans fish	exist If the such	or the or the latest t	agles. cated by fish barrie perspe	at direct	lus) nes ine for t Food p e AA is ulvert or manage	ion if ched from a	arry hatte-tailed s funct by per esired ennial e	aeetu aeetu primal whi ass this ss this uded not de	.6M e (Haliahin the several (Assess precluor is rected Freemaner	is with ell as sing: (luse is a ints, 4E.) Suspe	at Rati as we at Rati fish u onstra d to 14	abita Abita [i.e., tat coceed	the probound Fish Habby fish to habi and probable ewater sting / timal/ species Native	AD. General I ould be used lestorable due NA here : Habitat Qu Duration of surfac in AA Aquatic hiding / re escape cover Thermal cover opinsuboptimal
ields dary h tha e is	easter ounda such h use], then	er the deerty beta table's sh, fis cana	orred by find in a	turkey asterr on is " t used rappe	on the exuation on the exuation of the extension of the e	e site erved ns of t ng sit e AA as fish	exist If the	or the or the heck the	by fish barrie	4M st dire pald e plots le used to othe ement	lus) nes ne for b Food p e AA is ulvert or manage	ion if ched from a	enter taile s funct by per esired	aeetue primal whi	.6N e (Haliahin the several (Asses precluor is rected F	ing: (ing: (use is aints, 4E.)	at site i as we at Rati fish u onstra d to 14	abita [i.e., tat co	the probound Fish Habby fish to habi and probable and probable water sting /	4D. General I ould be used estorable due ✓ NA here : Habitat Qu Duration of surfac in AA Aquatic hiding / re escape cover

.4M

.4M

.4M

.3L

.2L

.3L

.2L

.2L

.2L

.1L

.1L

.1L

FWP Non-Game Tier IV or No fish species

.5M

.5M

.4M

.4M

.3L

.5M

Sources used for	r identifying fish sp.	potentially fou	ınd in AA:									
a) Is fish use of t current final MDE fishery or aquation	ting (NOTE: Modit the AA significantly i EQ list of waterbodie c life support, or do re in i above by 0.1:	reduced by a design of Teacher and the reduced by a design of the reduced b	culvert, dik TMDL deve nce plant d	e, or other n elopment with	nan-made s h listed "Pr	structure or obable Imp	aired Úse	s" includin	g cold or w	varm water	he If	
,	contain a documente ative fish or introduc		_	er critical hal		e (i.e., sand add 0.1 to t Modifed	he adjuste				1	
iii. Final Score	and Rating: 0 NA		Commen	ts: Wetlan	d cells a	re isolate	d from S	Shields F	River with	n no fish l	habitat pr	esent.
channel or over	tenuation: (Applies rbank flow, click	NA here	and procee	ed to 14F.)					ds in AA ar	e not floode	ed from in-	
	king from top to botto alculated Entrenchn		Slightly	v to arrive at entrenched stream type:	- C, D, E	Moderat	points an ely entrene tream type	ched – B	Entrench	hed-A, F, G types	stream	
	etland classified as i	forested	75%	25-75%	<25%	75%	25-75%		75%	25-75%	<25%	
AA contains no	outlet or restricte	d outlet	_1H	.9H	.6M	.8H	.7M	.5M	.4M	.3L	.2L	
AA contains un	restricted outlet		.9H	.8H	.5M	.7M	.6M	.4M	.3L	.2L	.1L	
	Slightly Entrenche ER = >2.2				41 – 2.2			EF	ntrenched R = 1.0 - 1.4			
C stream type	D stream type	E stream t	ype	B strea	m type	A	stream type		F stream typ		stream type	
Floodprone	2 x	Bankfull Dep		Bankfull D	epth	44	Ban	Flood-pro				
width ii. Are ≥10 acres within 0.5 mile d	s of wetland in the A	AA subject to f	/ Bankt width looding AN Y		made featu	ıres which r	28 = may be sig	ratio		4.75 by floods loo	cated	
Comments:	A receives over	bank flow fr	rom Shie	elds River	during hi	igh flow e	events.					
upland surfact 14G.) i. Rating (Water duration	and Long Term S the flow, or grounds Vorking from top to the sare as follows: tions of these term	water flow. In bottom, use P/P = perma	f no wetla e the mat	inds in the in	AA are su arrive at	bject to flo [check] th	ooding or e functio	ponding,	dick [sand rating	NA here	e and prod viations for	eed to
Estimated maximu	um acre feet of water co ne AA that are subject to	ontained in		>5 acre feet			1.1 to	5 acre feet			≤1 acre foc	it
	e water at wetlands with	hin the AA	P/P	S/I	T/E	P/F	,	S/I	T/E	P/P	S/I	T/E
Wetlands in AA flo	ood or pond ≥ 5 out of	10 years	1H	.9H	.8H	.81	н	.6M	.5M	.4M	.3L	.2L
Wetlands in AA flo	ood or pond < 5 out of	10 years	.9H	.8H	.7M	.71	и	.5M	.4M	.3L	.2L	.1L

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Comments: (11.15 acre wetland) * (1 ft. max depth at highwater) = 11.15 acre feet

14G. Sediment/Nutrient/Toxicant through influx of surface or ground v to 14H.)	Retention and Remova water or direct input. If no	il: (Applies to wetlands vowetlands in the AA are	vith potential to receive sedime subject to such input, click	ents, nutrients, or toxicants NA here and proceed
i. Rating (working from top to botto	om, use the matrix below	to arrive at [check] the t	functional points and rating [H	= high, M = moderate, or L
= low]) Sediment, nutrient, and toxicant input levels within AA	AA receives or surrounding to deliver levels of sed compounds at levels such not substantially impaired sources of nutrients or eutrophicatio	iments, nutrients, or that other functions are d. Minor sedimentation, toxicants, or signs of	Waterbody on MDEQ list of wa development for "probable cau nutrients, or toxicants or AA rece with potential to deliver high leve compounds such that other function Major sedimentation, sources of no feutrophicatic	uses" related to sediment, ives or surrounding land use is of sediments, nutrients, or ons are substantially impaired, outrients or toxicants, or signs
% cover of wetland vegetation in AA Evidence of flooding / ponding in AA	≥ 70%	< 70%	≥ 70%	< 70%
AA contains no or restricted outlet		Yes No	Yes No	Yes No
AA aantaina uunnaatriatad audist	1H .8H .	7M .5M	.5M .4M	.3L .2L
AA contains unrestricted outlet	.9H .7M .	6M .4M	.4M .3L	.2L .1L
Comments: There was evidence evidence of ponding of		n 2011, 2012, 2014, 201	5, 2016, 2017, 2018, 2019, an	d 2020. There was no
14H Sediment/Shoreline Stabilization: drainage, or on the shoreline of a standir proceed to 14I.) i. Rating (working from top to bottom, to the standard of	ng water body which is subjections.	ect to wave action. If 14H c	loes not apply, click NA here	
% Cover of <u>wetland</u> streambank or shoreline by species with stability ratings	Durat	tion of surface water adjacent to		rol
of ≥6 (see Appendix F). ≥ 65%		Seasonal / Intermitter	nt Temporary / Epheme	iai
35-64%	.7M		.7W	
< 35%	.7M	.6M	.1L	
14l. Production Export/Food Chain i. Level of Biological Activity (synth	nesis of wildlife and fish habi			
General Fish Habitat Ge Rating (14D.iii.) E/H	neral Wildlife Habitat Ratio	ng (14C.iii.) L		
E/H H	н	М		
м	М	M		
L M	М	L		
N/A H	М	L		
ii. Rating (Working from top to bottom, wetland component in the AA; Factor B subsurface outlet; the final three rows pe [see instructions for further definitions of A Vegetated component > 5 ac	 level of biological activity retain to duration of surface verteen terms].) 	ating from above (14I.i.); Fawater in the AA, where P/P,	actor C = whether or not the AA co S/I, and T/E are as previously de	ontains a surface or fined, and A = "absent"
A Vegetated component >5 ac B High Moderate C Yes No Yes No	Low High Yes No Yes No		Vegetated com Low High Mode No Yes No Yes	
P/P 1E 7.7H .8H .5M	.6M .4M .9H .6N		.3L 8H .6M .6M	.4M .3L .2L
S/I .9H .6M .7H .4M	.5M .3L .8H .5N		.2L .7H .5M .5M	.3L .3L .2L
T/E/A .8H .5M .6M .3L	.4M .2L 7H .4N	 	.1L .6M .4M .4M	2L 2L 1L
iii. Modified Rating (NOTE: Modified s plant cover, ≤ 15% noxious weed or ANVS control). a) Is there an average ≥ 50 foot-wide vege to the score in ii above and adjust rating a Comments:	S cover, and that is not subject etated upland buffer around accordingly: Modified Ra	ected to periodic mechanica ≥ 75% of the AA circumfere ting .8H	al mowing or clearing (unless for w	veed s, add 0.1

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 surface water or soil saturation across most of the constructed wetlands in 2020. 14K. Uniqueness: i. Rating (working from top to bottom, use the matrix below to arrive at [check] the functional points and rating) AA does not contain previously AA contains fen, bog, warm springs cited rare types and structural AA does not contain previously Replacement potential or mature (>80 yr-old) forested diversity (#13) is high or contains cited rare types or associations wetland or plant association listed and structural diversity (#13) is plant association listed as "S2" by as "S1" by the MTNHP the MTNHP low-moderate Estimated relative abundant abundant abundant commo common rare rare common rare abundance (#11) Low disturbance at AA 1H .9H H8. .8H .5M .5M .4M .3L .6M (#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) **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) (if 'Yes' continue with the evaluation; if 'No' then click NA i. Is the AA a known or potential rec./ed. site: (check) Y $N\bigcirc$ 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: Permission is required for access to this site. **General Site Notes**

FUNCTION & VALUE SUMMARY & OVERALL RATING FOR WETLAND/SITE #(S): $\overline{\text{Creation}}$

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	0	1	0.00	
B. MT Natural Heritage Program Species Habitat	Н	.9	1	10.04	
C. General Wildlife Habitat	Н	.9	1	10.04	✓
D. General Fish Habitat	NA	0	0	0.00	
E. Flood Attenuation	Н	.8	1	8.92	✓
F. Short and Long Term Surface Water Storage	Н	.8	1	8.92	✓
G. Sediment/Nutrient/Toxicant Removal	Н	.9	1	10.04	✓
H. Sediment/Shoreline Stabilization	М	.6	1	6.69	
Production Export/Food Chain Support	Н	.8	1	8.92	
J. Groundwater Discharge/Recharge	М	.7	1	7.81	
K. Uniqueness	М	.6	1	6.69	
L. Recreation/Education Potential (bonus points)	L	.05	NA	0.56	
Totals:		7.05	10	78.61	
Percent of Possible Score			70.5 %		

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)

ı	II	III	IV

MDT Montana Wetland Assessment Form (revised March 2008)

1. Project name	Easton Ranc	h	2	. MDT I	projec	:t#	ST	PP STV	VD (75	56)	Con	trol#	9680000	0
3. Evaluation Date	6/24/2020	4. Evaluators	R Quire Weyant		es, S	5.	Wet	and/Sit	e# (s)	Preserva	ation			
6. Wetland Location(s	s): T	4N R	9E	Sec1	32		Т		R		Sec2			
Approx Stationing or	Mileposts	NA												
Watershed 13 - U	Ipper Yellows	tone V	/atershed	d/Count	y P	ark								
7. Evaluating Agency	Conflu	uence Consulting	Inc		_			8. We	tland	size acres	,		1	1.1
Purpose of Evaluation	on							How a	ssess	sed:	Measur	ed e.g.	by GPS	
☐ Wetlands potenti	ally affected	by MDT project								ment area				1.1
☐ Mitigation Wetlan	ids: pre-cons	struction						(AA) s	•	•	Magazir		hu CDC	
☐ Mitigation Wetlan	ıds: post con	struction						How a	15565	seu.	Measure	eu e.g. i	by GF3	
✓ Other Preserved	I PSS/PFO/PE	EM Habitat												
10. Classification of	Wetland and	Aquatic Habitat	s in AA											
HGM Class (Brinson)) Cla	ss (Cowardin)		Modifie	r (Cov	wardi	n)	Wa	ater R	egime		% of A	A	
Riverine	Scruk	o-Shrub Wetland						Seaso	onal/Ir	ntermittent			10	
Riverine	Fores	sted Wetland						Seaso	onal/Ir	ntermittent			20	
Riverine	Emer	gent Wetland						Seaso	onal/Ir	ntermittent			70	
11. Estimated Relative	e Abundance	Commor	<u> </u>											
12. General Condition i. Disturbance: (use aquatic nuisance vec	matrix below to	o determine [circle]		e respon	se – se	ee inst	tructio	ns for Mo	ontana-	listed noxio	us weed ai	nd		
		, ,							•	nt to (within 50				
Cond	ditions within AA		natural : hayed, I converte roads of	ed in predon state; is no logged, or o ed; does no r buildings; ANVS cov	ot grazed otherwis ot contai ; and no	l, se in xious	mod sele subj few	d not cultive erately grant ctively logo ect to minouroads or bud d or ANVS	azed or h ged; or h or clearin uildings;	nayed or nas been ng; contains noxious	or logge placeme hydrolog building	d; subject ent, gradin gical altera	theavily grazes to substanting, clearing, ation; high roor noxious we >=30%.	ial fill or oad 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 di	isturb	ance	mod	erate o	disturbar	ice
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	oderate	e dist	urbance	hi	gh dist	urbance	
AA cultivated or heavily graze substantial fill placement, grahigh road or building density; >=30%.	ding, clearing, or h	hydrological alteration;	high	n distur	bance			high di	isturb	ance	hi	gh dist	urbance	
Comments: (types of a AA consists of existing depressional wetlands a	riverine PFO/F	PSS/PEM wetlan	ds locate						e, dist	urbance is	low			
ii. Prominent noxious,			tic speci	es:										
Cirsium arvense, Cyno iii. Provide brief desc			urroundi	ng land	use/h	ahita	nt							
AA contains small areas area. The existing PFO wetland features are bo	s of existing P /PEM habitat l	PFO/PSS/PEM we located at the so	etlands lo uthern en	cated at d of the	the no	orthw ceive:	est (S s dire	ct hydro						

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		-	preventing (pa		Modified Rating	
>=3 (or 2 if 1 is forested) dasses	Н	NA			NA	NA	
2 (or 1 if forested) classes	М	NA			NA	NA	
1 dass, but not a monoculture	М	<no< td=""><td></td><td></td><td>YES></td><td>L</td><td></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 Federall	v Listed or Prop	posed Threatened	or Endangere	ed Plants or Animals:

Primary or critical habitat	(list species)	(D (S				
Secondary habitat (list Sp	ecies)	(D (s				
Incidental habitat (list spe	ecies)	(D () s				
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	OL
Sources for documented use							

14B. Habitat for plant or animals rated S1, S2, or S3 by the Montana Natural Heritage Program: (not including species listed 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)	$lacktriangle$ D \bigcirc S	Sandhill Crane (S5B,S2N)
Secondary habitat (list Species)	□ D □ S	
Incidental habitat (list species)	$leftondow$ D \bigcirc S	Golden Eagle (S3)
No usable habitat	■ S	

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 2020 field observations. Sandhill Crane nesting documented by MDT staff in 2019.

																		Mod	erate			
Substantial (based	d on any	of the f	ollowin	g [che	ck]):						Minima	d (based	on any of	the follo	owing [check])):					
observations					•		• •	•	• •	l)		or no wild		vations	during	peak u	ise per	riods				
abundant wild	Ŭ						. 0															
☐ presence of e	•	-					ole in the	e surro	unding a	area	_ :	•	•									
_ interviews with	n local bi	ologists	s with K	nowle	dge of ti	he AA					inte	rviews witl	h local bio	ologists	with kr	nowledg	ge of tr	ne AA				
floderate (based o	-			-																		
observations								•		•		ods										
common occu			-		s scat, t	ıracks,	nest str	uctures	s, game	trails, et	C.											
adequate adja					! - af (
interviews with	1 locai di	ologisis	3 WITH K	nowie	dge or u	ne AA																
ii. Wildlife hab from #13. For other in terms of permanent/pere terms])	class co of their p	ver to bercen	be cont	onside ipositi	ered ev ion of tl	enly d	listribut (see #	ted, th #10).	ne mos Abbrev	t and le /iations	ast pre for sur	valent ve ace wate	getated er duration	l class ons are	es mu e as fo	ist be v	within P/P	1 20% o =	f each			
Structural diversity (see				Hiş	gh							Moderate					L	.ow				
#13) Class cover distribution (all vegetated classes)		Eve	n			Une	ven			Even Uneven Even					ven							
Duration of surface water in ≥ 10% of AA	P/P	S/I	T/E	А	P/P	S/I	T/E	А	P/P	S/I	T/E	A P/P	S/I	T/E	А	P/P	S/I	T/E	А			
Low disturbance at AA (see #12i)	Е	E	Е	н	Е	E	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 н	М	М	L	Н	М	L	L			
High disturbance at AA (see #12i)	М	М	м	L	м	м	L	L	М	М	L	L M	L	L	L	L	L	L	L			
iii. Rating (u Evidence of v			_		om i aı Except		above	and t	:he ma			arrive a		rating			point	s and ı	rating)	Low		\exists
Substantial			+		<u>-хоері</u> 1Е	- 1		H		.9H					<u>зегак</u> 8Н	1				.7M	1	\dashv
Moderate					.91			\vdash						_	оп 5М					.7 IVI	-	\dashv
Minimal				_	.9F .6M			┢		.4M	_				.2L					.1L	+	\dashv
					.010			<u> </u>		.*IIV					ZL_					. 11		_
Comments					by mo	ose.	deer	مماطد		1			necies	There	. i	hald 4	eagle	e (Halia			rimarv	
						ly sou	thwes	t of th	he site	on the	e west	avian s side of t site will	he Shi	elds R	liver.	The p	rojec	ct site is	s withi		minary	
ould be used lestorable due	habita Fish Ha by fish to habi	at zon abitat [i.e., i	t Ration	bald ing: (ise is ints,	eagle: (Asses	ly sou s. Foo ss this uded	od plot s funct by per	ts east tion if	he site st of th the A	on the mition	e west gation sed by ther ba	side of t site will fish or t rrier, etc	he Shie also en he exis c.]. If th	elds R coura ting si ne AA	tuatio	The page by when the page of t	orojec wildli corre	et site is fe. ectable fish, fis	" such sh use	that th	e AA	
ould be used lestorable due NA here a Habitat Qu Duration of surface	habita Fish Habita by fish to habita and pro	abitat [i.e., tat co	t Ration of the first terms of t	ing: (ise is ints, 4E.)	(Assess precluor is r	ly sou s. Foo ss this uded not de	od plotos funct by per esired	ti of the tion if the tree did to the tion if the tion is the tion	he site st of th the A d culve a man	e on the ne mitig	e west gation sed by ther ba ent pe	side of t site will fish or the rrier, eterspective	he Shidalso en he exista. Let a let	ting sine AA as fis	tuation is no	The page by working the second	orojec wildli corred d by to	ectable fish, fis a cana	" such sh use I], ther	n that th is not n check	e AA	
ould be used estorable due NA here: Habitat Qu Duration of surfac in AA Aquatic hiding / re	habita Fish Haby fish to habitand pro	abitat [i.e., tat co	t Ration of the first terms of t	ing: (lase is a ints, 4E.)	(Assess precluor is r	ly sou s. Foo ss this uded not de	od plotos funct by peresired	ti of the tion if the tree did to the tion if the tion is the tion	the Ad culve a man	A is usert or of nagemental to	e west gation sed by ther ba ent pe	side of the site will of the site will of the site of	he Shidalso en he exista. Let a let	elds Ricoura	tuation is no	The page by working the second	orojec wildli corred d by to	ectable fish, fis a cana	" such sh use I], ther	that th	e AA	oor
ould be used estorable due NA here a Habitat Qu Duration of surfac in AA Aquatic hiding / re escape cover Thermal cover opi	Fish Habita Fish Habita By fish to habitand production ality and e water sting /	abitat [i.e., tat co	t Ration that the first transfer to 14 section 14 section 15 secti	ing: (lase is a ints, 4E.)	(Assess precluor is r	ly sources. For	od plotos funct by peresired	ti of the ts east tion if the trend from	the Ad culve a man	A is usert or of nagemental to	e west gation sed by ther ba ent pe	side of the site will of the site will of the site of	he Shidalso en he exist. Let in the exist. Let in the function of the functi	elds Ricoura	tuation is no shenti	The pose by von is "or used rappe	orojec wildli corred d by the d in a	ectable fish, fis a cana	" such sh use I], ther	that the is not n check	e AA	
ould be used lestorable due NA here a Habitat Qu Duration of surfac in AA Aquatic hiding / re escape cover Thermal cover opt suboptimal	habita Fish Habita by fish to habitand product a lity an ewater sting /	abitat [i.e., tat co	t Ration of the form of the fo	ing: (ise is ints, 4E.)	(Assess precluor is r	ly sources. For	e s funct	tion if the tion if from in AA	he site st of the Ad culve a man	A is usert or of nagemental to Opt	e west gation sed by ther ba ent pe	side of the site will fish or the site of	the Shie also en the exist c.]. If the [such the function of t	elds R acoura ting si ne AA as fis	tuation is no shenting	The peep by the period of the	orojec wildli orred by the din a	ectable ectable fish, fis a cana	" such sh use I], ther	that the is not n check	e AA	oor
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	habita Fish Habita Tish Habit	abitat [i.e., tat cooceed	t Ration of the form of the fo	ing: (lase is ints, 4E.) Suspe	(Assess precluor is rected F	ly sources. For sea this uded into de de dequate	e s	tion iffred from	he site st of the the Ad culve a man (usem	A is usert or of nagemental trix to	e west gation sed by ther ba ent pe	side of the site will fish or the site of	the Shie also en the existance.]. If the such	elds Racoura	tuatic is no h enti	The pse by on is "ot used rappe	correction of the correction o	ectable ectable fish, fisa cana	" such sh use I], ther	that the is not n check	e AA	oor
Habitat Qu Duration of surfac in AA Aquatic hiding / re escape cover Thermal cover opi suboptimal	habita Fish Habita by fish to habita and proceed a lity and e water string / species Native exists	abitat [i.e., 1 tat co oceed	t Ration of the first transfer of the first	bald ing: (ase is a ints, 4E.) Suspe	(Assess precluor is rected F	ly sources. For	e s	tof the state of t	the Ad culve a man	A is usert or of nagemental to Opt O	e west gation sed by ther ba ent pe arrive	side of the site will fish or the site of	the Shie also en the existance. The existance in the function of the function	ting sine AA as fis	tuatic is no henti	The pee by von is "or tusecarappee and ra	correction of the correction o	ectable fish, fish a cana	" such sh use I], ther	that the is not n check	e AA	soor

.4M

.4M

.4M

.3L

.3L

.1L

.2L

.2L

.1L

.3L

.2L

.2L

.1L

.4M

.4M

.5M

.5M

.5M

FWP Non-Game Tier IV or No fish species

Sources used for identifying fish sp. potentially for	und in A	A:										
 ii. Modified Rating (NOTE: Modified score ca a) Is fish use of the AA significantly reduced by a current final MDEQ list of waterbodies in need of fishery or aquatic life support, or do aquatic nuise yes, reduce score in i above by 0.1: Modified 	culvert, TMDL de ance plar	dike, or othe evelopment v	r man-made s vith listed "Pr	structure or obable Imp	aired Ús	ses" includii	ng cold or w	varm water	ne If			
b) Does the AA contain a documented spawning comments) for native fish or introduced game fish	_	other critical l			he adjus	sted score in	•					
iii. Final Score and Rating: 0 NA	Comm	ents: No fis	sh habitat d	on site.								
14E. Flood Attenuation: (Applies only to wetla channel or overbank flow, click NA here		ect to floodin		nel or over	bank flov	w. If wetlan	ds in AA ar	e not floode	d from in-			
i. Rating (working from top to bottom, use the line Estimated or Calculated Entrenchment (Rosgen		low to arrive				and rating) enched – B	Entrenc	hed-A, F, G	stream			
1994, 1996)	Cligi	stream ty			stream ty		Litabilo	types	ououm			
% of flooded wetland classified as forested and/or scrub/shrub	75%	% 25-75 ⁹	% <25%	75%	25-75	<25%	75%	25-75%	<25%			
AA contains no outlet or restricted outlet	1F	He.	.6M	.8H	.7M	.5M	.4M	.3L	.2L			
AA contains unrestricted outlet	.91	8H	.5M	.7M	.6M	.4M	.3L	.2L	.1L			
		1								7		
Slightly Entrenched Moderately Entrenched Entrenched ER = >2.2 ER = 1.41 - 2.2 ER = 1.0 - 1.4												
C stream type D stream type E stream	type	B st	ream type	A	stream ty	pe	F stream typ	oe G	stream type	1		
2 x Bankfull De	pth 🍆	Bankfull	Depth	44	В	Fl∞d-pro ankfull Wio						
Floodprone 133	/ Ba	nkfull			28 =	Entrer	nchment	4.75				
ii. Are ≥10 acres of wetland in the AA subject to within 0.5 mile downstream of the AA (check)?			n-made featu	res which	may be s		damaged b	by floods loo	ated			
Comments: Approximately 30% of the p		_	ontains for	ested an	d/or so	rub/shrul	o wetland	l with surf	ace water	outlet		
to the south into relict isolat												
14F. Short and Long Term Surface Wat upland surface flow, or groundwater flow. 14G.)	er Stor If no we	age: (Applie tlands in th	es to wetlan e AA are su	ds that flo bject to fl	od or pooding o	ond from o	overbank o g, dick [or in-chann NA here	el flow, pre and proce	cipitation, ed to		
 i. Rating (Working from top to bottom, us water durations are as follows: P/P = perm 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 fee	et		1.1 t	to 5 acre feet			≤1 acre foot			
Duration of surface water at wetlands within the AA	P/P	S/I	T/E	P/F	,	S/I	T/E	P/P	S/I	T/E		
Wetlands in AA flood or pond ≥ 5 out of 10 years	1H	.9H	.8H	.8	Н	.6M	.5M	.4M	.3L	.2L		
Wetlands in AA flood arrand of aut of 40 years	.9H	.8H	.7M	.71	м	.5M	.4M	.3L	.2L	.1L		

Comments:

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

14G. Sediment/Nutrient/Toxicant				
to 14H.) i. Rating (working from top to bott	·		,	·
= low]) Sediment, nutrient, and toxicant input levels within AA	to deliver levels of compounds at levels s not substantially impa sources of nutrients	nding land use with potential sediments, nutrients, or such that other functions are aired. Minor sedimentation, s or toxicants, or signs of pation present.	development for "probable nutrients, or toxicants or AA re with potential to deliver high le compounds such that other fun Major sedimentation, sources	waterbodies in need of TMDL causes" related to sediment, seeives or surrounding land us e evels of sediments, nutrients, or ctions are substantially impaired. of nutrients or toxicants, or signs ation present.
% cover of wetland vegetation in AA	≥ 70%	< 70%	≥ 70%	< 70%
Evidence of flooding / ponding in AA	Yes No	Yes No	Yes No	Yes No
AA contains no or restricted outlet	1H .8H	.7M .5M	.5M .4M	.3L .2L
AA contains unrestricted outlet	.9H .7M	.6M .4M	.4M .3L	.2L .1L
14H Sediment/Shoreline Stabilization	: (Applies only if AA occ		a river, stream, or other natural o	
i. Rating (working from top to bottom, % Cover of wetland streambank or shoreline by species with stability ratings	use the matrix below to a	,	l points and rating) to rooted vegetation	here and
of ≥6 (see Appendix F).				HICIAI
≥ 65%	1H	.9H	.7M	
35-64% < 35%	.7M	.6M	.5M	
Comments: 14I. Production Export/Food Chair	n Support:	pobitot rotingo (abould)		
i. Level of Biological Activity (synth General Fish Habitat Ge	eneral Wildlife Habitat F			
Rating (14D.iii.) E/H	M	L		
E/H H	Н	M		
M H	M	M		
L M	М	L		
N/A H	M	L		
ii. Rating (Working from top to bottom wetland component in the AA; Factor B subsurface outlet; the final three rows prese instructions for further definitions or A Vegetated component >5 a B High Moderate	= level of biological activertain to duration of surfafthese terms].)	ity rating from above (14I.i.); ace water in the AA, where P/ Vegetated component 1-5 acres	Factor C = whether or not the AAP, S/I, and T/E are as previously Vegetated	contains a surface or
C Yes No Yes No	Yes No Yes	No Yes No Yes		
P/P 1E .7H .8H .5M	.6M .4M .9H	.6M .7H .4M .5I	M .3L 8H .6M .6N	.4M .3L .2L
S/I .9H .6M .7H .4M	.5M .3L .8H	.5M .6M .3L .4I	M .2L .7H .5M .5M	1 .3L .2L
T/E/A .8H .5M .6M .3L	.4M .2L .7H	.4M .5M .2L .3	.1L .6M .4M .4N	.2L .1L
iii. Modified Rating (NOTE: Modified splant cover, ≤ 15% noxious weed or ANV control). a) Is there an average ≥ 50 foot-wide veg to the score in ii above and adjust rating Comments: A restricted surface w	S cover, and that is not s	ubjected to periodic mechani und ≥ 75% of the AA circumfe Rating .9H	cal mowing or clearing (unless fo	

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14J. Groundwater Discharge/Recharge: (check the appropriate indicators in i & ii below) i. Discharge Indicators ii. Recharge Indicators Permeable substrate present without underlying impeding layer The AA is a slope wetland Springs or seeps are known or observed Wetland contains inlet but no outlet Vegetation growing during 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 and structural diversity (#13) is plant association listed as "S2" by as "S1" by the MTNHP the MTNHP low-moderate Estimated relative abundant abundant abundant commo common rare rare common rare abundance (#11) Low disturbance at AA 1H .9H H8. .8H .5M .5M .4M .3L .6M (#12i) Moderate disturbance at .9H H8. .7M .7M .5M .4M .4M .3L .2L AA (#12i) High disturbance at AA .8H .7H .3L .2L .6M .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 $N\bigcirc$ (if 'Yes' continue with the evaluation; if 'No' then click NA here and proceed to the overall summary and rating page) Check categories that apply to the AA: Educational/scientific study; Consumptive rec.; Non-consumptive rec.; Other iii. Rating (use the matrix below to arrive at [check] the functional points and rating) Known or Potential Recreation or Education Area Known Potential Public ownership or public easement with general public access (no permission required) 2H 15H Private ownership with general public access (no permission required) .15H .1M Private or public ownership without general public access, or requiring permission for public access .1M .05L Comments: Permission is required for access to this 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	0	1	0.00	
B. MT Natural Heritage Program Species Habitat	Н	.9	1	0.99	
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)	L	.05	NA	0.06	
Totals:		6.55	9	7.21	
Percent of Possible Score			72.78 %		

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 1	II	III	IV

MDT Montana Wetland Assessment Form (revised March 2008)

7. Evaluating Agency Confluence Consulting Inc Purpose of Evaluation Wetlands potentially affected by MDT project Mitigation Wetlands: pre-construction Mitigation Wetlands: post construction Wolfer Restored channel 10. Classification of Wetland and Aquatic Habitats in AA HGM Class (Brinson) Class (Cowardin) Modifier (Cowardin) Water Regime % of AA Riverine Emergent Wetland Excavated Seasonal/Intermittent 95	1. Project name	Eastor	Ranc	ch		2	. MDT	proje	ct#	ST	PP ST\	ND (75	6)	Co	ntrol#	9680000
Approx Stationing or Mileposts NA Approx Stationing or Mileposts NA Avatershed 13 - Upper Yellowstone Watershed/County Purpose of Evaluation Watershed 13 - Upper Yellowstone Watershed 14 - Watershed/County Purpose of Evaluation Watershed 15 - Watershed/County Park Purpose of Evaluation Mitigation Wetlands: post construction Mitigation Wetlands: post construction Mitigation Wetlands: post construction Water Regime Sassassment area (AA) size (acres) How assessed: Measured e.g. by GPS Measured e.g. by GPS Measured e.g. by GPS Measured e.g. by GPS Measured e.g. by GPS Measured e.g. by GPS	3. Evaluation Date	6/24/2	020	4. Evalua				es, S	5.	Wetl	and/Sit	te# (s)	Restorat	ion		
7. Evaluating Agency Purpose of Evaluation Wetlands potentially affected by MDT project Mitigation Wetlands: pre-construction Mitigation Wetlands: pre-construction Mitigation Wetlands: post construction Other Restored channel Other Restored chann	•	•	sts					32		Т		R		Sec2	!	
Purpose of Evaluation Metands potentially affected by MDT project S. Assessment area (AA) size (acres) Measured e.g. by GPS	Watershed 13 - U	Jpper Y	ellows	tone	Wa	atershe	d/Coun	ty F	Park							
Purpose of Evaluation Wetlands potentially affected by MDT project S. Assessment area (AA) size (acres) Measured e.g. by GPS	7. Evaluating Agency		Confl	uence Con	sulting	Inc		_			8. We	etland s	size acres			1 64
Wetlands potentially affected by MDT project Mitigation Wetlands: pre-construction Mitigation Wetlands: pre-construction Mitigation Wetlands: pre-construction Mitigation Wetlands: pre-construction Mitigation Wetlands: post construction Mitigation Wetlands: post construction Modifier (Cowardin) Water Regime Measured e.g. by GPS Measured e.g. by GPS Measured e.g. by GPS Measured e.g. by GPS	Purpose of Evaluation	on													ıred e.a.	
Mitigation Wetlands: pro-construction ✓ Other Restored channel 10. Classification of Wetland and Aquatic Habitats in AA HGM Class (Brinson) Class (Cowardin) Modifier (Cowardin) Modifier (Cowardin) Meter Regime % of AA Riverine Emergent Wetland Excavated Seasonal/Intermittent 95 Scrub-Shrub Wetland Excavated Seasonal/Intermittent 5 Seasonal/Intermittent 5 Seasonal/Intermittent 5 Seasonal/Intermittent 5 Measured e.g. by GPS Measured e			ected	by MDT pr	oject						9. As	sesssr	nent area			
Mitigation Wetlands: post construction Other Restored channel	Mitigation Wetlar	nds: pre	a-con:	struction							(AA) s	size (ac	res)			
10. Class (Brinson) Class (Cowardin) Modifier (Cowardin) Water Regime % of AA HGM Class (Brinson) Class (Cowardin) Excavated Seasonal/Intermittent 95 Riverine Scrub-Shrub Wetland Excavated Seasonal/Intermittent 55 Riverine Scrub-Shrub Wetland Excavated Seasonal/Intermittent 55 Riverine Common Scrub-Shrub Wetland Excavated Seasonal/Intermittent 55 11. Estimated Relative Abundance Common 12. General Condition of AA 1. Disturbance: (use marrix below to determine [circle] appropriate response – see instructions for Montana-listed noxious weed and aquatio nuisance vegetation species (ANVS) lists) Predominant conditions adjacent to (within 500 feet of) AA Managed in predominantly natural state; is not inpredominantly natural state; is not inpredomi		•									How a	assess	ed:	Measu	red e.g.	by GPS
Riverine Emergent Wetland Excavated Seasonal/Intermittent 95	✓ Other Restored	channe	ı													
Riverine Emergent Wetland Excavated Seasonal/Intermittent 95																
Riverine Emergent Wetland Excavated Seasonal/Intermittent 95 Riverine Scrub-Shrub Wetland Excavated Seasonal/Intermittent 5 Seasonal/Intermittent			•		in AA											
Seasonal/Intermittent Seas)						•	wardi	n)					% of <i>I</i>	
1.1. Estimated Relative Abundance 1.2. General Condition of AA 1. Disturbance: (use matrix below to determine [circle] appropriate response — see instructions for Montana-listed noxious weed and aquatic nuisance vegetation species (ANVS) lists) Predominant conditions adjacent to (within 500 feet of) AA Managed in predominantly natural state; is not grazed, or shaped or conditions adjacent to (within 500 feet of) AA Conditions within AA Conditions within AA Conditions within AA A occurs and is managed in predominantly natural state; is not grazed, hayed, logged, or otherwise converted; does not contain roads or buildings; and noxious weed or ANVS cover is <=30%. AA occurs and is managed in predominantly natural state; is not grazed, hayed, logged, or otherwise converted; does not contain roads or occupied buildings, and noxious weed or ANVS cover is <=30%. AA not cultivated, but may be moderately grazed or hayed or grazed or hayed or contains few roads or buildings; noxious weed or ANVS cover is <=30%. A cultivated or heavily grazed or logged; subject to relatively minor clearing, fill placement, or hydrological alteration; contains few roads or buildings; noxious weed or ANVS cover is <=30%. A cultivated or heavily grazed or logged; subject to relatively minor clearing, fill placement, or hydrological alteration; contains few roads or buildings; noxious weed or ANVS cover is <=30%. A cultivated or heavily grazed or heavily grazed or hayed or moderate disturbance Iow disturbance Iow disturbance Inigh disturbance high disturbance high disturbance high disturbance high disturbance high disturbance high disturbance within 500 feet of the AA. I. Prominent noxious, aquatic nuisance, other exotic species: Cirsium arvense, Cynoglossum officinale II. Provide brief descriptive summary of AA and surrounding land use/habitat The AA consists of one constructed secondary stream channel which bisects the mitigation area. The channel is active during high flow events,	Riverine															95
12. General Condition of AA i. Disturbance: (use matrix below to determine [circle] appropriate response – see instructions for Montana-listed noxious weed and aquatic nuisance vegetation species (ANVS) lists) Predominant conditions adjacent to (within 500 feet of) AA	Riverine		Scru	b-Shrub We	etland		Excava	ted			Seas	onal/In	termittent			5
12. General Condition of AA i. Disturbance: (use matrix below to determine [circle] appropriate response – see instructions for Montana-listed noxious weed and aquatic nuisance vegetation species (ANVS) lists) Predominant conditions adjacent to (within 500 feet of) AA																
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grazed, hayed, logged, or otherwise converted; does not contain roads or occupied buildings; and noxious weed or ANVS cover is <=15%. AA not cultivated, but may be moderately grazed or hayed or selectively logged; or has been subject to relatively minor clearing, fill placement, or hydrological alteration; contains few roads or buildings; noxious weed or ANVS cover is <=30%. AA cultivated or heavily grazed or logged; subject to relatively substantial fill placement, grading, clearing, or hydrological alteration; high road or building density; or noxious weed or ANVS cover is >=30%. Comments: (types of disturbance, intensity, season, etc) Imitted agriculture (hay) and ranch structures to the east. Undeveloped riparian corridor and herbaceous uplands to north, south, and west. Two species of noxious weeds present within the AA. The AA is managed in a natural state, as are most of the lands within 500 feet of the AA. i. Prominent noxious, aquatic nuisance, other exotic species: Cirsium arvense, Cynoglossum officinale ii. Provide brief descriptive summary of AA and surrounding land use/habitat The AA consists of one constructed secondary stream channel which bisects the mitigation area. The channel is active during high flow events,	Con	ditions witl	hin AA			natural hayed, convert roads o	state; is no logged, or ed; does no r buildings	ot graze otherwinot conta s; and no	y d, se ain oxious	Land mod sele subj	I not cultiverately gractively logect to mineroads or b	vated, but azed or haged; or ha or clearing ouildings;	may be ayed or as been g; contains noxious	Land or logg placen hydrol buildin	cultivated o ged; subject nent, gradit ogical alter og density;	t to substantial fill ng, clearing, or ation; high road or or noxious weed
selectively logged; or has been subject to relatively minor clearing, fill placement, or hydrological alteration; contains few roads or buildings; noxious weed or ANVS cover is <=30%. A cultivated or heavily grazed or logged; subject to relatively substantial fill placement, grading, clearing, or hydrological alteration; high road or building density; or noxious weed or ANVS cover is >=30%. Comments: (types of disturbance, intensity, season, etc) Limited agriculture (hay) and ranch structures to the east. Undeveloped riparian corridor and herbaceous uplands to north, south, and west. Two species of noxious weeds present within the AA. The AA is managed in a natural state, as are most of the lands within 500 feet of the AA. i. Prominent noxious, aquatic nuisance, other exotic species: Cirsium arvense, Cynoglossum officinale ii. Provide brief descriptive summary of AA and surrounding land use/habitat The AA consists of one constructed secondary stream channel which bisects the mitigation area. The channel is active during high flow events,	grazed, hayed, logged, or oth roads or occupied buildings;	nerwise co	nverted	; does not conta	ain	lov	v distur	banc	e		low d	isturba	ance	mo	derate (disturbance
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Limited agriculture (hay) and ranch structures to the east. Undeveloped riparian corridor and herbaceous uplands to north, south, and west. Two species of noxious weeds present within the AA. The AA is managed in a natural state, as are most of the lands within 500 feet of the AA. i. Prominent noxious, aquatic nuisance, other exotic species: Cirsium arvense, Cynoglossum officinale ii. Provide brief descriptive summary of AA and surrounding land use/habitat The AA consists of one constructed secondary stream channel which bisects the mitigation area. The channel is active during high flow events,	substantial fill placement, gra high road or building density	iding, clea	ring, or	hydrological alt	teration;	hig	h distui	rbanc	е		high d	listurba	ance	ŀ	nigh dis	turbance
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The AA consists of one constructed secondary stream channel which bisects the mitigation area. The channel is active during high flow events,																
	The AA consists of one	constru	ucted s	secondary s	stream	channel	which b	oisects	the m	nitigat						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 Classes in AA	Initial Rating	_	nt preventing (passive) al vegetated classes?	Modified Rating
>=3 (or 2 if 1 is forested) dasses	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

			ts	

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

I4A. Habitat for Federall	v Listed or Proposed	Threatened or Endang	gered Plants or Animals:

i.	AA is Documented (D) or Suspected	(S) to contain	check one based on	definitions	contained in	instructions):
١.	AA 15 DUCUIIIEIILEU (D	// UI SUSPECIEU	w	, to contain	CHECK OHE DASEU OH	uemmuons	Comameu III	: :::5ti uctio::5)

Primary or critical habitat (lis	t enaciae)	(D () c				
i illiary or critical flabitat (iis	t apecies)	0 - 0					
Secondary habitat (list Specie	es)	(a) D (b)) S				
Incidental habitat (list specie	s)	(D () s				
No usable habitat		✓ S					
ii. Rating (use the condusion	ons from i a	bove and the m	atrix below to arrive	e at [check] the fun	ctional points and	rating)	
Highest Habitat Level do	c/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							

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

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 Sandhill Crane (S5B,S2N)
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. Sandhill Crane nesting documented by MDT staff in

2019.

																		Mode	erate			
<i>ubstantial</i> (based	tial (based on any of the following [check]):servations of abundant wildlife #s or high species diversity (during any page 1).										Minimal (based on any of the following [check]):											
_							• •	•	•)	few or no wildlife observations during peak use periods											
abundant wild	·		,				. 0			little to no wildlife sign												
presence of e	•						ole in the	surro	unding a	ng area sparse adjacent upland food sources interviews with local biologists with knowledge of the AA												
interviews with	h local bio	ologists	with k	nowled	dge of tr	ne AA					inte	views with	n local bio	ologists	with kr	nowledg	e of th	ie AA				
loderate (based o	-																					
observations			•					•	•	•		ods										
common occu			-		s scat, t	racks,	nest stru	ucture	s, game	trails, etc	C.											
adequate adjation interviews with					dae of ti	he AA																
interviews with	ii iocai bic	nogisis	WILLIA	lowied	age or ii	IE AA																
ii. Wildlife habifrom #13. For other in terms opermanent/pereterms])	class co of their p	ver to ercen	be co	nside positi	red even	enly d he AA	listribut (see #	ed, th	ne most Abbrev	t and le	ast pre for surf	valent ve ace wate	getateo er durati	l class ons are	es mu e as fo	ist be vollows:	within P/P =	20% o	f each	e		
Structural diversity (see	tural								,			Moderate					Lo	ow				
#13) Class cover distribution (all vegetated classes)		Ever	า	Uneven				Even			Uneven			Even								
Duration of surface water in ≥ 10% of AA	P/P	S/I	T/E	А	P/P	S/I	T/E	А	P/P	S/I	T/E	A P/P	S/I	T/E	Α	P/P	S/I	T/E	А			
Low disturbance at AA (see #12i)	Е	Е	Е	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 н	М	М	L	Н	М	L	L			
High disturbance at AA (see #12i)	М	М	М	L	М	м	L	L	М	М	L	L M	L	L	L	L	L	L	L			
iii. Rating (u Evidence of w							ibove a	and t	:he ma	Wi		arrive a		rating) (ii)		ooint	s and r	rating)			\exists
Substantial			+	E	xcept	ional I				High	Moderate			e			Low		1	-		
					1E					.9H					8H					.7M	<u> </u>	4
Moderate					.9H					.7M	1				5M					.3L		
Minimal					.6M					.4M					2L					.1L		
				_	=													_				_
Comments	food f	or wil	dlife.	Ther	e is a	bald (eagle	(Hali	aeetus	leuco	cepha	l adjace us) nes e for bal	t direct	y sou								
4D. General I ould be used I estorable due ✓ NA here a	food food food food food food food food	or wills Riv	dlife. ver, th : Rati i fish us onstra to 14	ng: (se is ints,	e is a oject s Asses preclu or is n	bald of the ist set this uded hot de	eagle within sfunction by persired to	(Hali the p ion if ched from	aeetus orimary the A I culve a man	A is usert or ot	cepha at zono ed by her ba ent pe	us) nes e for bal fish or the rrier, etc espective	t direct d eagle ne exis c.]. If tl	y soutes. ting sine AA as fis	tuation is no h ent	on is "o t used rappe	corre	e on th ctable'	e wes " such sh use	that th	of the	
4D. General Fould be used lestorable due NA here a Habitat Que	Fish Haby fish land pro	bitat ibitat i.e., fat co	dlife. ver, th : Rati i fish us onstra to 14	ng: (ase is ints,	e is a piject s Asses preclu or is n	bald of site is strike is this uded hot de	eagle within sfunction by persired for the second s	(Hali the p ion if ched from	aeetus orimary the A I culve a man	A is usert or ot	ed by her baent per	us) nes e for bal fish or the rrier, etc spective	t direct d eagle ne exis a]. If the [such	y soutes. ting sine AA as fis	tuation is no h ent	on is "o t used rappe	corre	ctable'ish, fis	" such th use I], ther	that th is not n check	e AA	
4D. General I ould be used I estorable due ✓ NA here a	Fish Haby fish to habit and pro	bitat ibitat i.e., fat co	dlife. ver, th : Rati i fish us onstra to 14	ng: (ase is ints, le.)	Asses preclu or is n	bald of site is strike is this uded hot de	eagle within sfunction by persired for the second s	(Hali the p ion if ched from	the Al culve a man	A is usert or ot	ed by her baent per	us) nes e for bal fish or the rrier, etc spective	t direct d eagle ne exis a]. If the [such	y south	tuation is no h ent	on is "o t used rappe	corre	ctable' ish, fis a cana	" such th use I], ther	that th	e AA	
4D. General I could be used I estorable due NA here a Habitat Qu. Duration of surface in AA Aquatic hiding / reescape cover	food food food food food food food food	bitat ibitat i.e., fat co	dlife. ver, th Ratio fish us nstra to 14 wn / S	ng: (ase is ints, le.)	Asses preclu or is n	bald dite is set this uded not de	eagle within sfunctions functions functions functions functions functions for the second functions for the second functions functions for the second functions functions for the second functions for the second functions for the second functions functions functions functions for the second functions functions for the second functions functions functions for the second functions functions functions functions functions for the second functions functions functions for the second functions fu	(Haliathe particular the particular	the Al culve a man	A is usert or ot nagementatrix to	ed by her baent per	us) nes e for bal fish or the rrier, etc spective	t direct d eagle ne exis c.]. If the [such	y south	tuatic is no h ent	on is "on the second of the se	corred by formal distriction of the site o	ctable' ish, fis a cana	" such th use I], ther	that th is not n check	e AA	ï
4D. General Fould be used lestorable due NA here a Habitat Qu Duration of surface in AA Aquatic hiding / reescape over	food for Shield Fish Haby fish to habit and pro- ality and e water sting /	bitat i.e., fat conceed	dlife. /er, th Ratin fish us onstra to 14 wn / S	ng: (ase is ints, le.)	Asses precluor is n	bald site is ss this uded not de	eagle within struction within struction struction within struction	ion if	aeetus orimary the A I culve a man	A is usert or other agementatrix to	ed by her ba arrive a	us) nese for bal	t direct d eagle ne exis a]. If the [such the func	y southers. ting sine AA as fisetional port	tuatic is no h ent	on is "or tused rappe	corred by find in a	ctable'ctable'ish, fisa cana	" such th use I], ther	that the is not n check	of the	s .3L
4D. General Fould be used I estorable due with NA here a Habitat Quitable of the state of the st	food for Shield Fish Habitato habitato habitatand proceeditions string /	abitat i.e., fiat cocced	dlife. ver, th Ratin fish us nstra to 14 wn / S	ng: (see is ints, le.)	e is a bject s Asses precluor is not be considered Figure 1 and 1	bald site is set this uded not de	eagle within s function by person of the sired for the sir	(Haliithe prints the p	aeetus orimary the A I culve a man (usem	A is usert or other trix to Opti	ed by ther batent per	us) nesse for ball fish or the spective at [check Ade O	t direct d eagle ne exis c.]. If the [such the fund untermitte quate S	y southers. ting sine AA as fish	tuatic is no h ent	on is "of the trusted and ra	corrections of the state of the	ctable' ish, fis a cana	" such the such that the such	that the is not n check	of the e AA	s
Habitat Que Duration of surface in AA Aquatic hiding / re escape cover Thermal cover opt suboptimal	food for Shield Fish Ha by fish to habit and pro ality and e water sting / timal / species Native edes or	bitatical School	dlife. ver, the Ratin Fish us onstra to 14	There e produce produc	Asses precluor is not cted Fi	bald ditte is ses this ses this uded not de	eagle within sfunctiby per esired 1 secies	(Haliithe properties of the pr	the Additional terms of the Ad	A is usert or ot nagementatrix to	ed by ther batent per arrive a simal S	us) nesse for bal	t direct d eagle ne exis c.]. If the [such the func untermitte quate s .6M	y southers. ting sine AA as fistional point.	tuatic is no h ent	on is "carappe	correctly by find in a continuous of the continu	ctable ish, fis a cana	" such the use I], there of the use II], there of the use III], there of the use III], there of the use III], the use	that the is not not check	of the e AA	

.4M

.4M

.4M

.3L

.2L

.2L

.3L

.2L

.2L

.1L

.1L

.1L

FWP Non-Game Tier IV or No fish species

.5M

.5M

.4M

.4M

.3L

.5M

Sources used for identifying fish sp. potentially found in AA:										
ii. Modified Rating (NOTE: Modified score ca a) Is fish use of the AA significantly reduced by a current final MDEQ list of waterbodies in need of fishery or aquatic life support, or do aquatic nuis yes, reduce score in i above by 0.1: Modified	a culvert, o TMDL de ance plan	dike, or other m evelopment witl	nan-made ['] s h listed "Pr	obable Imp	aired Úse	s" includin	g cold or w	arm water		
b) Does the AA contain a documented spawning area or other critical habitat feature (i.e., sanctuary pool, upwelling area, etc specify in comments) for native fish or introduced game fish? Y N If yes, add 0.1 to the adjusted score in i or iia above: Modifed Rating										
iii. Final Score and Rating: O NA	iii. Final Score and Rating: ONA Comments: Although activated during high-flow events within the Shields River, no permanent fish habitat is present within AA.						, no			
	e and pro	ceed to 14F.)					ds in AA ar	e not floode	ed from in-	
i. Rating (working from top to bottom, use the Estimated or Calculated Entrenchment (Rosger		tly entrenched -	- C, D, E	functional Moderat	l points ar ely entren	id rating) ched – B	Entrencl	ned-A, F, G	stream	
1994, 1996) % of flooded wetland classified as forested	75%	stream types	<25%	75%	25-75%		75%	types 25-75%	<25%	
and/or scrub/shrub	1H	. 1				1		1		
AA contains no outlet or restricted outlet AA contains unrestricted outlet	-	.011	.6M	.8H	.7M	.5M	.4M	.3L	.2L	
7 1 7 5 5 7 1 1 1 1 1 1 1 1 1 1 1 1 1 1	.9F	H8. H	.5M	.7M	.6M	.4M	.3L	.2L	.1L	
Slightly Entrenched		Moderately					intrenched			
ER = >2.2 C stream type D stream type E stream	type	ER = 1.4 B strea		A	stream type		R = 1.0 – 1.4 F stream typ		stream type	
	- 5				<u>—</u>					
Floodprone width Bankfull Depth Bankfull Depth Bankfull Width Are ≥10 acres of wetland in the AA subject to flooding AND are man-made features which may be significantly damaged by floods located within 0.5 mile downstream of the AA (check)? Y N N OCOMMENTS: Outlet is restricted. AA subject to overflow from Shields River and empties into old meanders of the Shields River at the south end of AA. 5% of AA is classified as scrub/shrub.										
 14F. Short and Long Term Surface Water Storage: (Applies to wetlands that flood or pond from overbank or in-channel flow, precipitation, upland surface flow, or groundwater flow. If no wetlands in the AA are subject to flooding or ponding, dick NA here and proceed to 14G.) i. Rating (Working from top to bottom, use the matrix below to arrive at [check] the functional points and rating. Abbreviations for surface water durations are as follows: P/P = permanent/perennial; S/I = seasonal/intermittent; and T/E = temporary/ephemeral [see instructions for 										
further definitions of these terms].) Estimated maximum acre feet of water contained in										
wetlands within the AA that are subject to periodic flooding or ponding Duration of surface water at wetlands within the AA	flooding or ponding									
Man	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	.9Н	.8H	.8	н	.6M	.5M	.4M	.3L	.2L
Wetlands in AA flood or pond < 5 out of 10 years	.9H	.8H	.7M	.71	м	.5M	.4M	.3L	.2L	.1L

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

14G. Sediment/Nutrient/Toxicant through influx of surface or ground to 14H.)	t Retention and Remova water or direct input. If no	al: (Applies to wetlands volumes wetlands in the AA are	with potential to receive sediments, nutrients, or tox e subject to such input, click NA here and pro	
i. Rating (working from top to bott = low]) Sediment, nutrient, and toxicant input levels within AA	AA receives or surroundin to deliver levels of sed compounds at levels such not substantially impaired sources of nutrients or eutrophicatic	g land use with potential iments, nutrients, or that other functions are d. Minor sedimentation, toxicants, or signs of	Waterbody on MDEQ list of waterbodies in need of TM development for "probable causes" related to sedimer nutrients, or toxicants or AA receives or surrounding land with potential to deliver high levels of sediments, nutrient compounds such that other functions are substantially imp Major sedimentation, sources of nutrients or toxicants, or of eutrophication present.	DL nt, d us e ts, or paired.
% cover of wetland vegetation in AA Evidence of flooding / ponding in AA	≥ 70%	< 70%	≥ 70% < 70%	
AA contains no or restricted outlet	Yes No	Yes No	Yes No Yes No)
AA contains no or restricted outlet	1H .8H .	7M .5M	.5M .4M .3L .2L	-
AA contains unrestricted outlet	.9H .7M .	6M .4M	.4M .3L .2L .1L	-
Comments: Cover in AA is greate 14H Sediment/Shoreline Stabilization			ed. a river, stream, or other natural or man-made	
drainage, or on the shoreline of a standi proceed to 14I.) i. Rating (working from top to bottom, % Cover of wetland streambank or	ng water body which is subjections are subjections.	ect to wave action. If 14H o	does not apply, click NA here and points and rating)	
shoreline by species with stability ratings of ≥6 (see Appendix F).	Permanent / Perennial	Seasonal / Intermitte	ent Temporary / Ephemeral	
≥ 65%	1H	.9Н	.7М	
35-64%	.7M	.6M	.5M	
< 35%	.3L	.2L	.1L	
14I. Production Export/Food Chair i. Level of Biological Activity (synthesis)	1 Support:	tat ratings [check])	n high stability ratings including Salix, Populus, Care	
Rating (14D.iii.) E/H	M M	L L		
E/H H	н	М		
М	M	М		
L	М	L		
N/A H	М	L		
ii. Rating (Working from top to bottom, use the matrix below to arrive at [check] the functional points and rating. Factor A = acreage of vegetated wetland component in the AA; Factor B = level of biological activity rating from above (14l.i.); Factor C = whether or not the AA contains a surface or subsurface outlet; the final three rows pertain to duration of surface water in the AA, where P/P, S/I, and T/E are as previously defined, and A = "absent" [see instructions for further definitions of these terms].) A Vegetated component >5 acres Vegetated component <1 acres				
B High Moderate C Yes No Yes No	Low High Yes No Yes No	Moderate	Low High Moderate Low	3
P/P 1E .7H .8H .5M	.6M .4M .9H .6M			1
S/I .9H .6M .7H .4M	.5M .3L .8H .5N	1 .6M .3L .4M	M .2L .7H .5M .5M .3L .3L .2L	í
T/E/A .8H .5M .6M .3L	.4M .2L .7H .4N			i
iii. Modified Rating (NOTE: Modified score cannot exceed 1 or be less than 0.1.) Vegetated Upland Buffer (VUB): Area with ≥ 30% plant cover, ≤ 15% noxious weed or ANVS cover, and that is not subjected to periodic mechanical mowing or clearing (unless for weed control). a) Is there an average ≥ 50 foot-wide vegetated upland buffer around ≥ 75% of the AA circumference? Y N If yes, add 0.1 to the score in ii above and adjust rating accordingly: Modified Rating .7M Comments: Channel is seasonally inundated and has a restricted outlet at the southern end of the mitigation site.				

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: 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 and structural diversity (#13) is plant association listed as "S2" by as "S1" by the MTNHP the MTNHP low-moderate Estimated relative abundant abundant abundant commo common rare rare common rare abundance (#11) Low disturbance at AA 1H .9H H8. .8H .6M .5M .5M .3L .4M (#12i) Moderate disturbance at .9H H8. .7M .7M .5M .4M .4M .3L .2L AA (#12i) High disturbance at AA .6M .2L .8H .7H .6M .4M .3L .3L .1L (#12i) Comments: PEM/PSS wetland within seasonal flood channel. Common wetland type within basin with 10-50% of area wetlands similar to t 14L. Recreation/Education Potential: (affords "bonus" points if AA provides recreation or education opportunity) i. Is the AA a known or potential rec./ed. site: (check) Y $N\bigcirc$ (if 'Yes' continue with the evaluation; if 'No' then click NA here and proceed to the overall summary and rating page) Check categories that apply to the AA: ✓ Educational/scientific study; ☐ Consumptive rec.; ☐ Non-consumptive rec.; Other iii. Rating (use the matrix below to arrive at [check] the functional points and rating) Known or Potential Recreation or Education Area Known Potential Public ownership or public easement with general public access (no permission required) 2H 15H Private ownership with general public access (no permission required) .15H .1M Private or public ownership without general public access, or requiring permission for public access .1M .05L Comments: Permission is required for site access. **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	0	1	0.00	
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)	L	.05	NA	0.08	
Totals:		6.55	10	10.74	
Percent of Possible Score			65.5 %		

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)

ı	II	III	IV

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

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

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

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

Scientific Names	Common Names	WMVC Indicator Status ¹
Verbascum thapsus	Great Mullein	FACU
Vicia americana	American Purple Vetch	FAC
Xanthium strumarium	Rough Cockleburr	FAC

¹ 2018 NWPL (USACE 2018)

New species identified in 2020 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



Bearing: 250 degrees

Photo Point: 1 Location: East Boundary

Year: 2020



Photo Point: 2 Bearing: 200 degrees

Location: Northeast Corner Year: 2010



Photo Point: 2 Bearing: 200 degrees

Location: Northeast Corner Year: 2020



Photo Point: 3 Bearing: 100 degrees

Location: Northwest Corner Year: 2010



Photo Point: 3 Bearing: 100 degrees

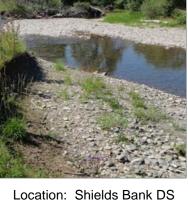
Location: Northwest Corner

Year: 2020

Easton Ranch: Photo Point Photos



Photo Point: 4A Bearing: 170 degrees



Year: 2010



Photo Point: 4A Bearing: 170 degrees

Location: Shields Bank DS Year: 2020



Photo Point: 4B Bearing: 20 degrees



Location: Shields Bank US Year: 2010



Photo Point: 4B Bearing: 20 degrees

Location: Shields Bank US Year: 2020 - New location*



Photo Point: 5 Bearing: 90 degrees

Location: West Boundary Year: 2010



Photo Point: 5 Bearing: 90 degrees

Location: West Boundary Year: 2020

* 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: 2020



Photo Point: 7 Bearing: 340 degrees

Location: Southeast Corner Year: 2010

Photo Point: 7 Bearing: 340 degrees

Location: Southeast Corner

Year: 2020

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: 2020



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: 2020



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: 2020

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: 2020



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: 2020



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: 2020



Data Point: DP01w Year: 2020

Location: Veg Com 14



Data Point: DP01u Year: 2020

Location: Veg Com 13



Data Point: DP02w Year: 2020

Location: Veg Com 11



Data Point: DP02u Year: 2020

Location: Veg Com 1



Data Point: DP03w Year: 2020

Location: Veg Com 21



Data Point: DP03u

Location: Veg Com 16



Data Point: DP04w Year: 2020

Location: Veg Com 15



Data Point: DP04u Year: 2020

Location: Veg Com 13



Data Point: DP05w Year: 2020

Location: Veg Com 15



Year: 2020

Data Point: DP05u Location: Veg Com 1



Data Point: DP06w Year: 2020

Location: Veg Com 20



Data Point: DP06u

Location: Veg Com 18

Year: 2020



Data Point: DP07a-w Year: 2020



Location: Veg Com 17



Data Point: DP07a-u Year: 2020





Data Point: DP07b-w Year: 2020



Location: Veg Com 10



Data Point: DP07b-u Year: 2020

Location: Veg Com 3



Data Point: DP08w Year: 2020



Location: Veg Com 4



Data Point: DP08u Year: 2020

Location: Veg Com 1



Data Point: DP09w Year: 2020

Location: Veg Com 14



Data Point: DP09u Year: 2020

Location: Veg Com 1



Data Point: DP10w Year: 2020

Location: Veg Com 11



Data Point: DP10u Year: 2020

Location: Veg Com 13



Data Point: DP11w Year: 2020

Location: Veg Com 14



Data Point: DP11u Year: 2020

Location: Veg Com 1