Montana Department of Transportation Wetland Mitigation Monitoring Report

SCHRIEBER MEADOWS MITIGATION SITE

Project Overview

MDT Project Number: NH 27 (021) UPN # 1027001 Watershed: Watershed #1 – Kootenai River Basin

Monitoring Year: 2022

Years Monitored: 12th year of monitoring.

Corps Permit Number: NWO-2004-90280-MTH SPA Authorization Number: MDT-R1-88-2010

Monitoring Conducted By: Confluence Consulting Inc. Dates Monitoring Was Conducted: July 13, 2022

Purpose of the Approved Project:

The site was constructed to provide 17.40 acres of compensatory wetland mitigation credits and 35,551 stream mitigation credits for wetland and stream impacts associated with the US Highway 2 Swamp Creek – East project and highway impacts associated with future transportation project-related wetland and stream impacts in Watershed #1 – Kootenai River Basin. The project was designed to create new wetlands, restore degraded wetlands, and enhance existing wetlands by restoring natural hydrology in the meadow and constructing a series of shallow depressional wetland cells. The project restored the Coyote Creek channel and added 3,327 linear feet of stream length.

Site Location: The mitigation site includes approximately 60 acres of the 147-acre MDT-owned parcel and a 16-acre easement within the Kootenai National Forest.

Latitude: 48.110423 Longitude: -115.41562 County: Lincoln Nearest Town: Libby, MT Map Included: See Figure 1, page 12

Mitigation Site Construction Started: Fall/2007 Construction Ended: Fall/2011 Dates of Any Recent Corrective or Maintenance Activities (since previous report):

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

Activity: Weed Spraying Date: June 30-July 1, 2021, no weed spraying was conducted in 2022.

Specific recommendations for any additional corrective actions: Weed treatment will continue in 2023. Weed treatments should focus on Canada thistle and ox-eye daisy, which have increased across the northern portion of the site in 2022.

Anticipated Wetland Credit Acres: 17.40

Wetland Credit Acres Generated to Date: 29.25

Stream Credits Generated to Date: 35,551

Previous Monitoring Reports: https://www.mdt.mt.gov/publications/brochures/wetland-

mitigation.aspx

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

Requirements (from approved mitigation plan or Department of Army (DA) permit conditions)

Performance Standards: A summary of performance standards, associated success criteria, and 2022 achievement status for the Schrieber Meadows site is provided in Table 1.

Table 1. Summary of Performance Standards

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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.
Wetland Hydrology	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 12.5 percent of growing season.
	Hydric soil conditions present or appear to be forming.	Y	Hydric soil characteristics have developed throughout all constructed wetlands.
Hydric Soil	Soil is sufficiently stable to prevent erosion.	Υ	In 2022, disturbed soil was stable and did not exhibit signs of erosion.
	Soil is able to support plant cover.	Y	Plant cover is well established across disturbed soils.
Hydrophytic	Achieved where combined absolute cover of facultative or wetter species is ≥70 percent	Y	Areas identified as wetland habitat within the mitigation site approximately 90% hydrophytic vegetation (OBL, FACW, and FAC).
Vegetation	Montana State-listed noxious weeds do not exceed 5 percent absolute cover.	Υ	State-listed noxious weeds are estimated below 5 percent absolute cover within wetland areas.
	Achieved when woody and riparian vegetation becomes established	N	Little to no woody cover is present or anticipated within the riparian areas adjacent to Coyote Creek. Woody plantings installed early on during this site's long history drowned following unanticipated high groundwater elevations. Little natural recruitment is occurring.
	Noxious weeds do not exceed 10 percent cover within the riparian buffer areas.	Υ	State-listed noxious weeds are estimated between 3 to 5 percent absolute cover within the riparian buffer.
Riparian Buffer Success	Creditable buffer areas must have at least 50 percent aerial cover of non-noxious weed species by the end of the monitoring period.	Y	Non-noxious vegetation consists of greater than 70 percent cover, by a near-monoculture of reed canary grass, within riparian buffer areas.
	Achieved where combined aerial cover of riparian and stream bank vegetation communities is ≥70 percent.	Y	Riparian and stream bank vegetation communities support greater than 70 percent cover.
	Planted trees and shrubs will be considered successful where they exhibit 50 percent survival after 5 years.	N	Following planting installation, unanticipated high groundwater elevations drowned a majority of plantings by the end of the second growing season. Approximately 2 percent survival was noted in 2022.
Stream Bank Vegetation	Considered successful when banks are vegetated with a majority of deep-rooting riparian plant species having root stability indexes ≥6.	Y	Reed canary grass dominates the stream banks and has a root stability index of 9.

Performance Standards	Success Criteria	Criteria Achieved Y/N	Discussion
Channel Restoration Success	Revegetation along the new Coyote and Schrieber Creek channel corridors will be considered successful when banks are vegetated with a majority of deeprooting riparian and wetland herbaceous and woody plant species.	Y	The majority of stream bank vegetation along the constructed Coyote and Schrieber Creek channel corridors is dominated by reed canary grass, which has a stability rating of 9.
	The intent of the stream restoration is to allow for the stream to naturally migrate within the floodplain and to give it enough room to move and stabilize itself within the site.	Y	The stream has plenty of space within the floodplain for natural migration. The stream currently appears stable with no lateral adjustment observed following construction.
Open Water	It is the intent of the project to provide open water during the spring and early summer within excavated depressions. As the growing season progresses and the groundwater levels recede, it is anticipated that vegetation will germinate within the majority of the depressions. Open water with submerged and/or floating vegetation will therefore be considered successful and creditable.	Y	Excavated depressions within the very northern portion of the site experience seasonal drawdown and rooted hydrophytic vegetation development has been observed. Those depressions in the southern portion of the site appear to support perennial inundation with an established aquatic macrophyte community.
	Noxious weeds do not exceed 5 percent cover within upland buffer areas.	Y	In 2022, noxious weed cover was less than 5 percent within the upland buffer.
Upland Buffer	Any area disturbed within creditable buffer zone must have at least 50 percent aerial cover of non-weed species by end of monitoring period.	Y	Disturbed areas have established greater than 50 percent aerial cover by non-weed species.
Weed Control	Will be based upon annual monitoring of the site to determine weed species and degree of infestation within the site, and control measures based upon the monitoring results will be implemented by MDT to minimize and/or eliminate the intrusion of State Listed Noxious weed species within the site.	Y	State-listed noxious weed species across the site have been monitored and mapped during each post-construction monitoring event. MDT administers an ongoing weed-control program. Weeds were sprayed on site in July 2021. No weed spraying was conducted in 2022 due to issues beyond MDT's control.

Summary Data

Wetland Delineation — The wetland delineations conducted in 2004 and 2005, prior to the project's construction, identified four wetland areas totaling approximately 15.56 acres within the mitigation project area. A total of approximately 3.72 acres of mitigation credit were developed in the original pilot project in 2007, involving 2.38 credit acres of wetland creation, 0.75 credit acres of restoration (rehabilitation) of existing wetlands (1.12 acres), and 0.59 credit acres of upland (2.96 acres) buffer around these wetlands. After the second construction phase was completed, the delineation conducted in 2012 mapped a total of 47.58 acres of wetlands and waters of the US across the site. A total of 47.71 acres of jurisdictional wetland and waters of the US (WUS) were delineated at the site in 2022 (Table 2; see maps in Appendix A). The total wetland acreage delineated in 2022 was 33.38 acres, representing an increase of 2.18 acres from 2021. The wetland acreage increase occurred in the project area's north and

northwestern portions. This area appears to be in flux, as in 2021, this area experienced a decrease in wetland acreage.

Table 2. Wetland & Waters of the U.S. (WUS) Acreage Delineated From 2019 Through 2022

Habitat Type	2019 Acreage	2020 Acreage	2021 Acreage	2022 Acreage
AA7 11 1				33.38
Wetland	38.78	31.44	31.20	33.30
Stream Channel	0.34	0.34	0.34	0.34
Open Water	N/A	7.44	6.63	6.47
Riparian Stream Buffer	8.30	8.30	8.30	7.52
Total Wetland & WUS ^(a)	47.42	47.52	46.47	47.71

(a) Waters of the U.S. (WUS)

In 2020, the USACE (N. Green, personal communication, May 6, 2020) provided guidance on open water, defining it as "areas of open water of any depth with less than 5% rooted emergent vegetation, no vegetation, submerged non-rooted vegetation, and/or submerged vegetation rooted in the substrate that does not extend above the water surface." In accordance with this recent USACE guidance, open water accounted for 6.47 acres of the mitigation site in 2022. Beaver activity, observed at the outlet of Schrieber Lake from 2019 through 2022, has not been observed at Schrieber Meadows, but it is contributing to a shift in wetland development at both sites. The three-year-old beaver dam at the outlet of Schrieber Lake has increased perennial inundation across the southern two-thirds of the Schrieber Meadows site. The beaver dam has changed the site's hydrologic regime, expanding perennial deepwater inundation levels observed within wetland vegetation community type 3 since 2019. Notable shifts in species cover and dominance were observed in this wetland community and are expected to continue as open water habitat persists perennially across the site. During the 2022 Schrieber Lake monitoring event, the beaver dam was intact.

Vegetation – A total of 144 plant species have been identified at the site from 2010 through 2022 (Appendix B). Five new species were identified in 2022, including four native and one nonnative species. Three upland and five wetland community types were identified and mapped at the site in 2022 (Figure A-3, Appendix A). This includes one new wetland community, Wetland Type (WT) 16 – *Alopecurus* spp. This new Wetland Type was identified in areas where the wetland expanded into northern portions of the project area that were previously identified as Upland Type (UT) 9 – *Alopecurus* spp./*Bromus inermis*. Vegetation communities were identified by species composition and dominance. The community composition for each is provided in full detail on the Wetland Mitigation Site Monitoring form (Appendix B), and community boundaries are shown in Figure A-3 (Appendix A).

The vegetation communities identified on site in 2022 include the following:

- Upland Type 8 Elymus repens/Pascopyrum smithii
- Upland Type 9 *Alopecurus* spp./*Bromus inermis*
- Upland Type 14 Agrostis capillaris/Phleum pratense
- Wetland Type 3 Phalaris arundinacea
- Wetland / Open Water Type 5 Aquatic Macrophytes/Open Water
- Wetland Type 6 Alopecurus pratensis/Agrostis capillaris
- Wetland Type 15 Typha latifolia/Eleocharis palustris
- Wetland Type 16 *Alopecurus spp.*

A notable shift in species cover and dominance due to the active beaver dam and perennial surface water was observed within Wetland Type 3 – *Phalaris arundinacea*. In 2022, inundation levels within Wetland Type 3 were an average of 2-2.5 feet, nearly the same as in 2021. Perennial surface water has continued to increase in cover within this community since 2020, especially around Coyote Creek, the ditch adjacent to Highway 2, and between the excavated depressions. Reed canary grass (RCG) still dominates, but large patches of the dense monoculture were absent, observed as dead, dying, or floating mats. There was increased cover by native species such as *Carex* spp. and perennial surface water observed in areas once dominated by RCG. These shifts in cover by RCG, *Carex* spp., and perennial surface water are a result of more than three years of deep perennial inundation. Extended periods of flooding have been shown to reduce nonnative RCG cover, germination, and rhizome production effectively (Jenkins et al. 2008; WRCGM 2009; Waggy 2010), which supports a greater diversity of native vegetation. These shifts in species cover and dominance are expected to continue in areas of deep perennial inundation.

Vegetation cover was measured along three belt transects (T-1, T-2, and T-3) in 2022 (Figure A-2, Appendix A). Photographs of the transect endpoints are provided in Appendix C. Table 3 summarizes the data for T-1 from 2010 and 2019 through 2022. T-1 is 318 feet long and intersects Wetland Types 3 – *Phalaris arundinacea* and 5 – Aquatic Macrophytes/Open Water. Wetland Type 3 and Open Water Type 5 accounted for 34.3 and 65.7 percent of the transect, respectively, in 2022. In 2022, Wetland Type 5 – Aquatic Macrophytes/Open Water met the recent USACE definition of open water. Total vegetative cover has decreased by five percent since 2021. This transect has not intersected an upland area since 2010.

Table 3. Data Summary for T-1 From 2010 and 2019 through 2022 at the Schrieber Meadows Site

Monitoring Year	2012	2019	2020	2021	2022
Transect Length (feet)	318	318	318	318	318
Vegetation Community Transitions Along Transect	7	6	6	6	5
Vegetation Communities Along Transect	3	2	2	2	2
Hydrophytic Vegetation Communities Along Transect	2	2	1	1	1
Total Vegetative Species	32	9	10	7	7
Total Hydrophytic Species	22	9	10	7	7
Total Upland Species	10	0	0	0	0
Estimated % Total Vegetative Cover	75	75	45	45	40
Estimated % Unvegetated	25	25	55	55	60
% Transect Length Comprising Hydrophytic Vegetation Communities	62	19.8	34.3	34.3	34.3
% Transect Length Comprising Upland Vegetation Communities	13	0	0	0	0
% Transect Length Comprising Open Water with Aquatic Macrophytes	25	80.2	65.7	65.7	65.7

Data collected on T-2 (Wetland Mitigation Site Monitoring form, Appendix B) are summarized in Table 4. T-2 is 594 feet long and alternates between Wetland Types 3 – *Phalaris arundinacea*, Wetland Type 6 – *Alopecurus pratensis/Agrostis capillaris*, Upland Type 14 – *Agrostis capillaris/Phleum pratense*, and Wetland Type 15 – *Typha latifolia/Eleocharis palustris*. Hydrophytic vegetation communities comprised 100 percent of the transect, which is an increase of 40 percent since 2019. The total vegetative cover was estimated at 65 percent, consistent with that observed in 2021.

Table 4. Data Summary for T-2 From 2012 and 2019 through 2022 at the Schrieber Meadows Site

Monitoring Year	2012	2019	2020	2021	2022
Transect Length (feet)	594	594	594	594	594
Vegetation Community Transitions Along Transect	16	15	8	8	8
Vegetation Communities Along Transect	3	4	4	4	4
Hydrophytic Vegetation Communities Along Transect	3	3	4	4	4
Total Vegetative Species	23	35	29	33	33
Total Hydrophytic Species	17	30	24	30	30
Total Upland Species	9	5	5	3	3
Estimated % Total Vegetative Cover	60	70	65	65	65
Estimated % Unvegetated	40	30	35	35	35
% Transect Length Comprising Hydrophytic Vegetation Communities	59.1	60	100	100	100
% Transect Length Comprising Upland Vegetation Communities	0	0	0	0	0
% Transect Length Comprising Open Water with Aquatic Macrophytes	40.9	23	0	0	0
% Transect Length Comprising Mudflat	0	17	0	0	0

T-3 begins near constructed wetland Cell 8 along the Middle Coyote Creek reach and extends east 440 feet to the edge of the former Coyote Creek channel along the eastern site boundary. The data recorded on T-3 (Wetland Mitigation Site Monitoring form, Appendix B) are summarized in Table 5. The transect intervals alternated between Wetland Types 3 – *Phalaris arundinacea* and 5 – Aquatic macrophytes/Open Water. Wetland Type 3 and Wetland/Open Water Type 5 accounted for 49.5 and 50.5 percent of the transect, respectively, in 2022. The minimal increase in open water and decrease in total species observed along this transect from 2020 to 2022 corresponds with the observation of large patches of RCG as dead, dying, or floating mats. In 2022, Wetland/Open Water Type 5 – Aquatic Macrophytes/Open Water met the recent USACE definition of open water.

Table 5. Data Summary for T-3 From 2012 and 2019 through 2022 at the Schrieber Meadows Site

Monitoring Year	2012	2019	2020	2021	2022
Transect Length (feet)	440	440	440	440	440
Vegetation Community Transitions Along Transect	4	4	4	4	4
Vegetation Communities Along Transect	2	2	2	2	2
Hydrophytic Vegetation Communities Along Transect	2	2	2	2	1
Total Vegetative Species	9	13	13	9	9
Total Hydrophytic Species	7	9	13	9	9
Total Upland Species	2	4	0	0	0
Estimated % Total Vegetative Cover	50	75	50	50	45
Estimated % Unvegetated	50	25	50	50	55
% Transect Length Comprising Hydrophytic Vegetation Communities	53	48	53.4	52.5	49.5
% Transect Length Comprising Upland Vegetation Communities	0	0	0	0	0
% Transect Length Comprising Open Water with Aquatic Macrophytes	47	52	46.6	47.5	50.5

During the July 2022 monitoring event, 25 occurrences of Priority 2B noxious weed species were mapped at the site, including Canada thistle (*Cirsium arvense*) and ox-eye daisy (*Leucanthemum vulgare*). Two occurrences of orange hawkweed (*Hieracium aurantiacum*), a Priority 2A noxious weed in

Montana, were also mapped. Noxious weed infestations occurred in areas less than 0.1-acre in size and were present in both wetland and upland habitats (Figure A-3, Appendix A). Most noxious weed infestations were found north of the access road in upland and wetland habitats. Canada thistle continues to be the most prominent weed within the site, but a significant increase in ox-eye daisy was observed in the northwest corner of the property around Cell 1 in 2022. Ox-eye daisy infestations increased from two in 2021 to nine in 2022, and all except one were located in wetlands. Overall noxious weed cover across the site was estimated to be below five percent cover in 2022. Annual weed spraying efforts have effectively reduced infestation size and cover of noxious weed populations across the site to meet the success criteria outlined in the performance standards. The Montana Department of Transportation (MDT) has an ongoing weed-control program, which will continue in 2023.

A total of 1,000 speckled alders (*Alnus incana*) and 750 willows (*Salix* spp.) were planted along the newly constructed stream channel and wetland cells in the northern third of the site. In 2022, 37 live plants were observed across the mitigation site, indicating approximately 2 percent survival. No willow (*Salix* spp.) plantings were observed during the 2022 monitoring event. The 37 surviving speckled alder plantings appeared stunted and had poor vigor due to aggressive competition from reed canary grass and perennial deepwater conditions. Balsam poplar (*Populus balsamifera*) volunteers were observed growing around the edges of some excavated wetland cells in the project area north of the access road, along with speckled alder and one Bebb's willow (*Salix bebbiana*) volunteer.

Hydrology – During the 2022 investigation, the average surface water depth across the site was estimated at 1.5 feet, with a range of depths from 0 to 5 feet. Approximately 70 percent of the project area was inundated during the 2022 site visit. The deepest standing water is located within excavated cells south of the access road, within Coyote Creek, and the former Coyote Creek channel along the east project boundary. The surface-water depth at the emergent vegetation and open-water boundary was estimated at 2 feet, the same as in 2021. The southern two-thirds of the site was inundated and/or saturated because of the reconstructed Coyote Creek channel, abundant surface water from beaver activity, and groundwater flowing through the valley. The high surface water elevations observed on site result from restoration efforts to plug existing drainage ditches and channels, the subsidence of histosol soil elevations over time, and the beaver dam located at the outlet of Schrieber Lake immediately south of this site.

The area north of the access road was wetter in 2022 than in 2021, as evidenced by the increase in wetland acreage in this area. All excavated wetland cells contained surface water or were saturated to the soil surface. The upper intermittent section of the Coyote Creek channel was dry in July 2022; this is typical for this location, which is situated above the Coyote Creek spring, just upstream of the site's access road. The spring provides the primary perennial source of hydrology to Coyote Creek downstream of this location. Direct precipitation also contributes to wetland hydrology, but the high groundwater table is the primary water source across the site. Precipitation accumulation for this area in 2022 was 13.30 inches from January through October, nearly identical to the amount reported in 2021 (13.27 inches) and equal to the historical average of 13.30 inches (NRCS, 2022).

Soils – Soil test pits were excavated at ten locations to evaluate the extent of hydric soil development across the site in 2022 (Appendices A and B). Soil textures within wetland test pits ranged from loamy sand to silty clay. Hydric soil indicators were observed in wetland test pits and included redox dark surface, depleted below dark surface, and depleted matrix. Soil textures within upland test pits ranged from loamy sand to silty clay loam. Many upland soil pits contained unusual soils with a low chroma and high value that could meet the definition of depleted matrix. They also had a very fine texture resembling corn starch. These areas were generally dominated by upland plants and did not contain wetland hydrology leading the wetland scientists to believe these soils were derived from ash deposits and not from hydric soil development. Additional field observations for the upland data points are provided in the wetland determination data forms in Appendix B.

Photographs – Ten photo points were established within the pilot project that included three constructed cells, initially monitored in 2010. A total of 20 photo points were established in 2012 in response to the increased project area scope and size, including the reestablishment of photo point 7 from its original 2010 location. In addition to established photo points, photographs were taken at each surveyed stream cross-section, sampled data points, and vegetation transect endpoints. Photographs' locations are illustrated in Figure A-2 (Appendix A) and the photographs in Appendix C. Please refer to previous years' Schrieber Meadows Mitigation monitoring reports for all previous annual photographs at the MDT website: (https://www.mdt.mt.gov/publications/brochures/wetland-mitigation.aspx).

Functional Assessment – The 2008 MDT Montana Wetland Assessment Method (MWAM) functional assessment results for 2022 are summarized in Table 6. Three separate Assessment Areas (AAs) were used to evaluate the site: Creation AA, Enhancement AA, and Restoration AA. Completed functional assessment forms for all three AAs are provided in Appendix B. All wetlands within the Schrieber Meadows site rate as Category I wetlands. Functional scores and ratings have remained nearly constant since 2015. All AAs received high or exceptional ratings for many assessment parameters, including Listed/Proposed Threatened & Endangered Species Habitat, due to the documentation of grizzly bears on the site in recent years. Other high and/or exceptional functions include General Wildlife Habitat, Short- and Long-Term Surface-Water Storage, Sediment/Nutrient/Toxicant Removal, Sediment/Shoreline Stabilization, Production Export/Food Chain Support, and Groundwater Discharge/Recharge.

Table 6. Montana Wetland Assessment Method Summary for Schrieber Meadows Site

Function and Value Parameters From the 2008 Montana Wetland Assessment Method	2022 Enhancement AA	2022 Creation AA	2022 Restoration AA
Listed/Proposed Threatened & Endangered (T&E) Species Habitat	High (0.8)	High (0.8)	High (0.8)
Montana Natural Heritage Program Species (MTNHP) Habitat	High (0.9)	High (0.9)	High (0.9)
General Wildlife Habitat	Exc (1.0)	Exc (1.0)	Exc (1.0)
General Fish/Aquatic Habitat	Low (0.3)	Mod (0.6)	NA
Flood Attenuation	Mod (0.6)	Mod (0.5)	Mod (0.5)
Short- and Long-Term, Surface-Water Storage	High (1.0)	High (1.0)	High (0.8)
Sediment/Nutrient/Toxicant Removal	High (1.0)	High (0.9)	Mod (0.6)
Sediment/Shoreline Stabilization	High (1.0)	High (1.0)	High (1.0)
Production Export/Food Chain Support	High (0.9)	Exc (1.0)	Exc (1.0)
Groundwater Discharge/Recharge	High (1.0)	High (1.0)	High (1.0)
Uniqueness	Mod (0.4)	Mod (0.4)	Mod (0.4)
Recreation/Education Potential (bonus points)	High (0.2)	High (0.2)	High (0.2)
Actual Points/Possible Points	9.1/10	9.3/11	8.2/10
% of Possible Score Achieved	91%	86%	82%
Overall Category	I	ı	I

Wildlife – Nine bird species were identified in 2022. The two bird boxes installed at the site are functional and appeared to have been used for nesting in 2022. In addition to the nine bird species, Columbia spotted frogs (*Rana luteiventris*) were also observed within many of the excavated wetland cells and one garter snake (*Thamnophis sirtalis*). Mammal observations at the site included two Columbian ground squirrels (*Urocitellus columbianus*), and two white-tailed deer (*Odocoileus*

virginianus). Two fish that could not be identified were observed in Cell 3 (see Mitigation Monitoring Form in Appendix B).

Stream Monitoring – The survey results for 11 permanent cross-sections established along the constructed Coyote Creek (Figure A-2, Appendix A) are shown in Appendix D. The 2022 data was compared to the previous surveys and discussions to assess stream channel stability. Generally, the constructed channel's banks were well-vegetated and exhibited stable conditions. Consequently, no major channel morphological changes have been observed throughout the monitoring years.

Credit Summary - Stream Credits

Completely restoring sinuosity and stream length to Coyote Creek was intended to create a new channel length of approximately 7,756 linear feet, which is an overall increase of 3,327 linear feet from the previously channelized length of 4,429 linear feet. As part of the Montana Stream Mitigation Procedure (USACE, 2010), riparian and stream credits are added together to calculate the total stream mitigation credits (Table 7).

Factors	Upper Coyote Creek (USFS)	Coyote Creek Spring Area	Middle Coyote Creek (MDT)	Perennial Spring Channel	Lower Coyote Creek ^(b)		
Net Improvement	2.50	0.00	2.50	2.50	2.50		
Stream Status	0.05	0.05	0.05	0.05	0.05		
Type of Protection	0.20	0.20	0.20	0.20	0.20		
Mitigation Timing	0.10	0.10	0.10	0.10	0.10		
Comparative Stream Order	0.20	0.20	0.20	0.20	0.20		
Location	0.10	0.10	0.10	0.10	0.10		
Sum of Factors (M)	3.15	0.65	3.15	3.15	3.15		
Linear Feet (L)	1,752	190	3,179	400	2,425		
Total Stream Credits (M × L)	5,519	123	10,014	1,260	7,639		
Total Stream Credits ^(a) = 24,555							
Total Mitigation Credits (Riparian	+ Stream) = 10,9	96 + 24,555 =	35,551				

⁽a) Credits were calculated using the Montana Stream Mitigation Procedure [USACE, 2010].

Credit Summary – Wetland Credits

The pilot project, constructed in 2007, generated approximately 3.72 mitigation credit acres, including 2.38 credit acres of wetland creation, 0.75 credit acre for restoration (rehabilitation) of existing wetlands (1.12 acres restored), and 0.59 credit acre of upland buffer (2.96 acres maintained) around the wetlands. The pilot project was integrated into the larger Schrieber Meadows mitigation project constructed in 2011. Table 8 provides the credits generated at the Schrieber Meadows site for the approximately 60-acre, full-scale project and does not differentiate between the pilot and the larger Schrieber Meadows mitigation project.

A total of 33.38 acres of wetland habitat were delineated at the Schrieber Meadows site in 2022, including 24.67 acres of creation, 2.35 acres of restoration, and 6.36 acres of enhancement (Table 8). A total of 44.62 acres, including 4.85 acres of upland buffer, -0.08-acre project impacts, and 6.47 acres of open water, were used to calculate the mitigation credit acres. In accordance with the USACE-approved performance standard for this site, open water areas with submerged and/or floating vegetation will be

⁽b) Lower Coyote Creek was formerly Merged Coyote/Schreiber Creek channel in mitigation plan.

considered successful and creditable. The open water areas at the site are considered successful and creditable as they exhibited less than 5% emergent vegetation and a diversity of submerged and floating aquatic macrophytes. After applying the USACE-approved ratios to these values, a total of 29.25 mitigation credit acres have been estimated in 2022, which is 12.01 credit acres more than the targeted 17.24 credit acres originally planned for this site.

Table 8. Summary of Wetland Mitigation Credits at the Schrieber Meadows Site from 2013 and 2021-2022

Mitigation Type	Total Proposed Acreage	Ratio	Proposed Credit Acres	2013 Delineated Acreage	2013 Credit Acres	2021 Delineated Acreage	2021 Credit Acres	2022 Delineated Acreage	2022 Credit Acres
Creation – USFS/MDT Property	8.91	1:1	8.91	22.43	22.43	18.53	18.53	24.67	24.67
Restoration on USFS/MDT Property	3.46	1.5:1	2.31	3.46	2.31	3.46	2.31	2.35	1.57
Enhancement of Wetlands Inside Geotechnical Limits Adjacent to US Highway 2 (MDT/USFS)	13.22	3:1	4.41	13.22	4.41	9.34	3.11	6.36	2.12
Upland Buffer ^a	8.50	5:1	1.70	12.39	2.48	12.39	2.48	4.85	0.97
Project Impacts	-0.08	None	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08
Open Water ^b	N/A	TBD ^(b)	N/A			6.63	TBD ^(b)	6.47	TBD ^(b)
Total Mitigation Acreage	34.01		17.24	51.42	31.54	50.35	26.35	44.62	29.25

⁽a) Acreage includes 50-foot buffer around wetlands within MDT and USFS property and outside of the riparian buffer.

Functional Unit Crediting Summary – The 2022 functional units are summarized in Table 9. A total of 261.59 functional units were generated at the Schrieber Meadows site after applying the appropriate mitigation ratios to the 2022 wetland acreage and multiplying that value by the points generated from the assessment area.

Table 9. Functional Unit Crediting Summary for Schrieber Meadows

Mitigation Type	2022 Delineated Acreage	Ratio	2022 Mitigation Credit Acres	MWAM Actual Points	Functional Units
Creation – USFS/MDT Property	24.67	1:1	24.67	9.3	229.43
Restoration on USFS/MDT Property	2.35	1.5:1	1.57	8.2	12.87
Enhancement of Wetlands Inside Geotechnical Limits Adjacent to US Highway 2 (MDT/USFS)	6.36	3:1	2.12	9.1	19.29
Upland Buffer	4.85	5:1	0.97	TBD	-
Open Water	6.47	TBD	TBD	TBD	-
Functional Units (Mitigation Credit Acres × Actual Points)					261.59

⁽b) Mitigation ratios and crediting for Open Water are To Be Determined (TBD).

Maps, Plans, Photos

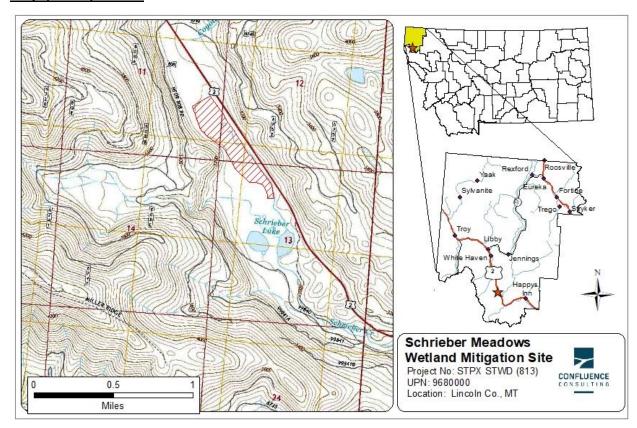


Figure 1. Site Location Map

Project Area Maps/Figures: See Appendix A (Figure A-2 – 2022 Monitoring Activity Locations; Figure A-3 – 2022 Mapped Site Features; Figure A-4 – 2022 Wetland Delineation)

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

Photos: See Appendix C

Plans: See Appendix D of 2012 Schrieber Meadows Wetland Monitoring Report found at this website link: https://www.mdt.mt.gov/publications/brochures/wetland-mitigation.aspx

Conclusions

Based on the results of the twelfth year of monitoring, the mitigation site is continuing to develop into a diverse wetland ecosystem. The site is meeting all performance standards except for the following:

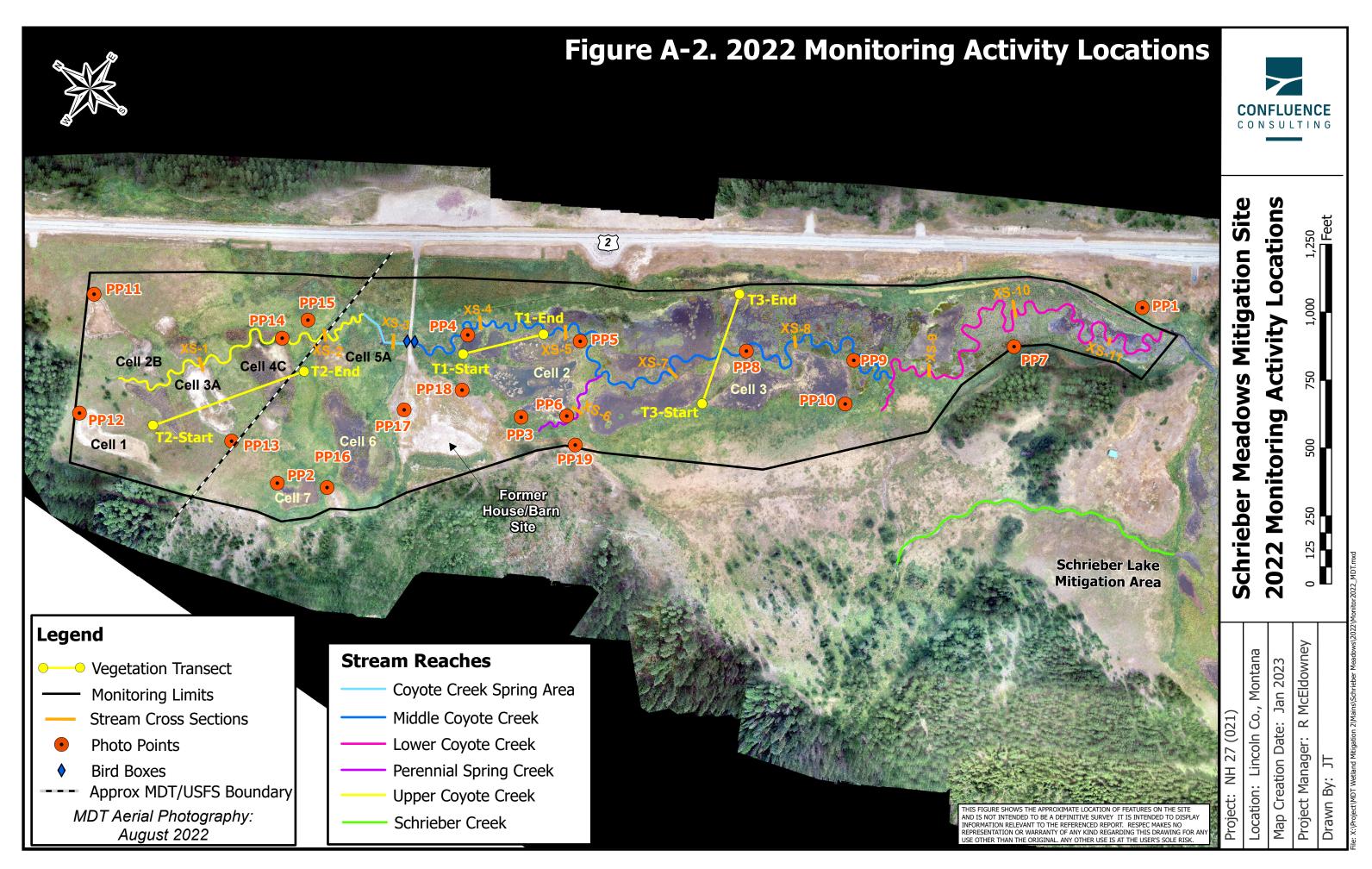
- 1. Riparian Buffer Success: Woody and riparian vegetation is established.
 - a. Woody vegetation along the reconstructed stream channels has been slow to develop due to perennial deepwater conditions and aggressive competition from RCG.
- 2. Planted trees and shrubs will be considered successful when they exhibit 50 percent survival after 5 years.
 - a. Woody plant survival is not expected to meet this performance standard.

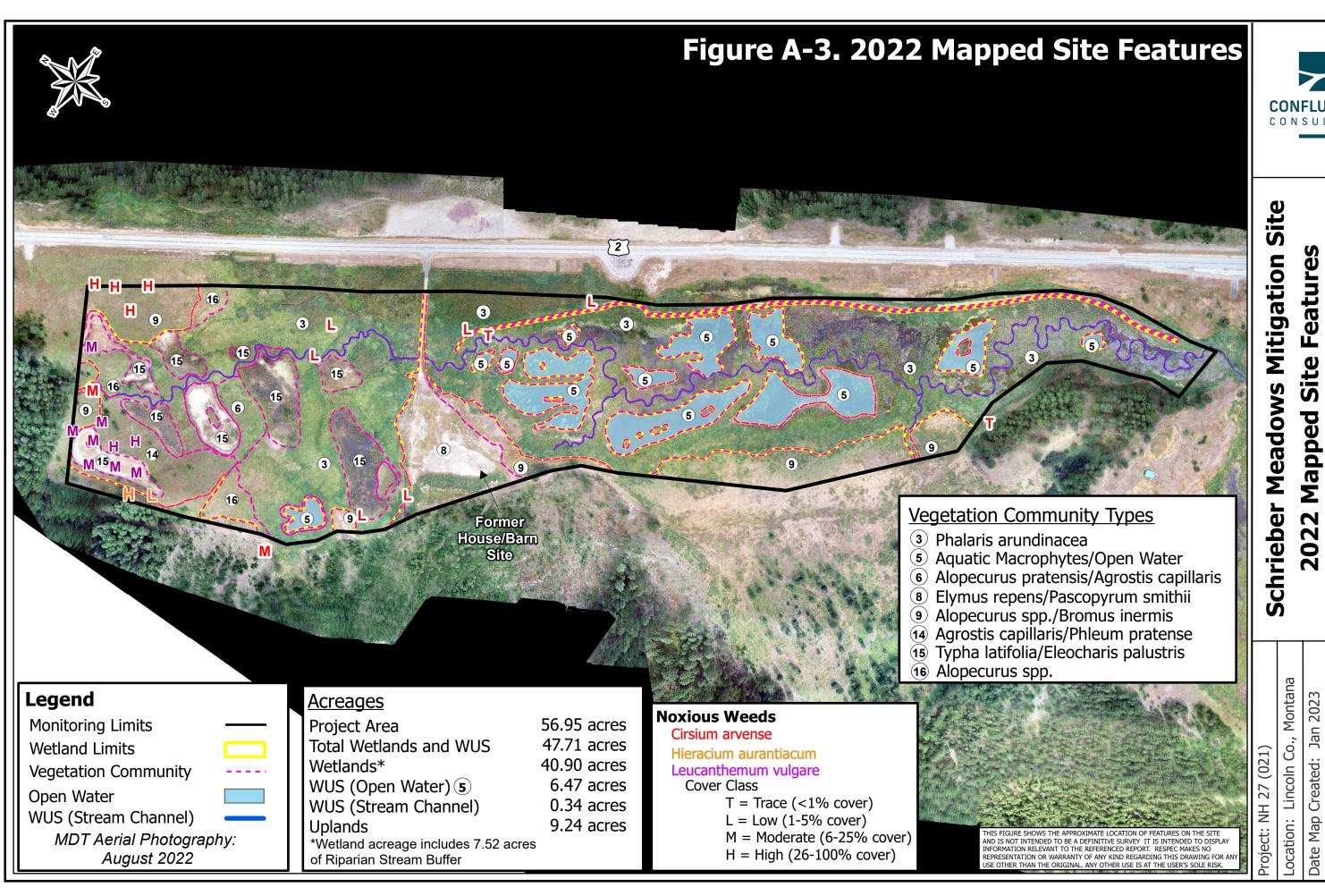
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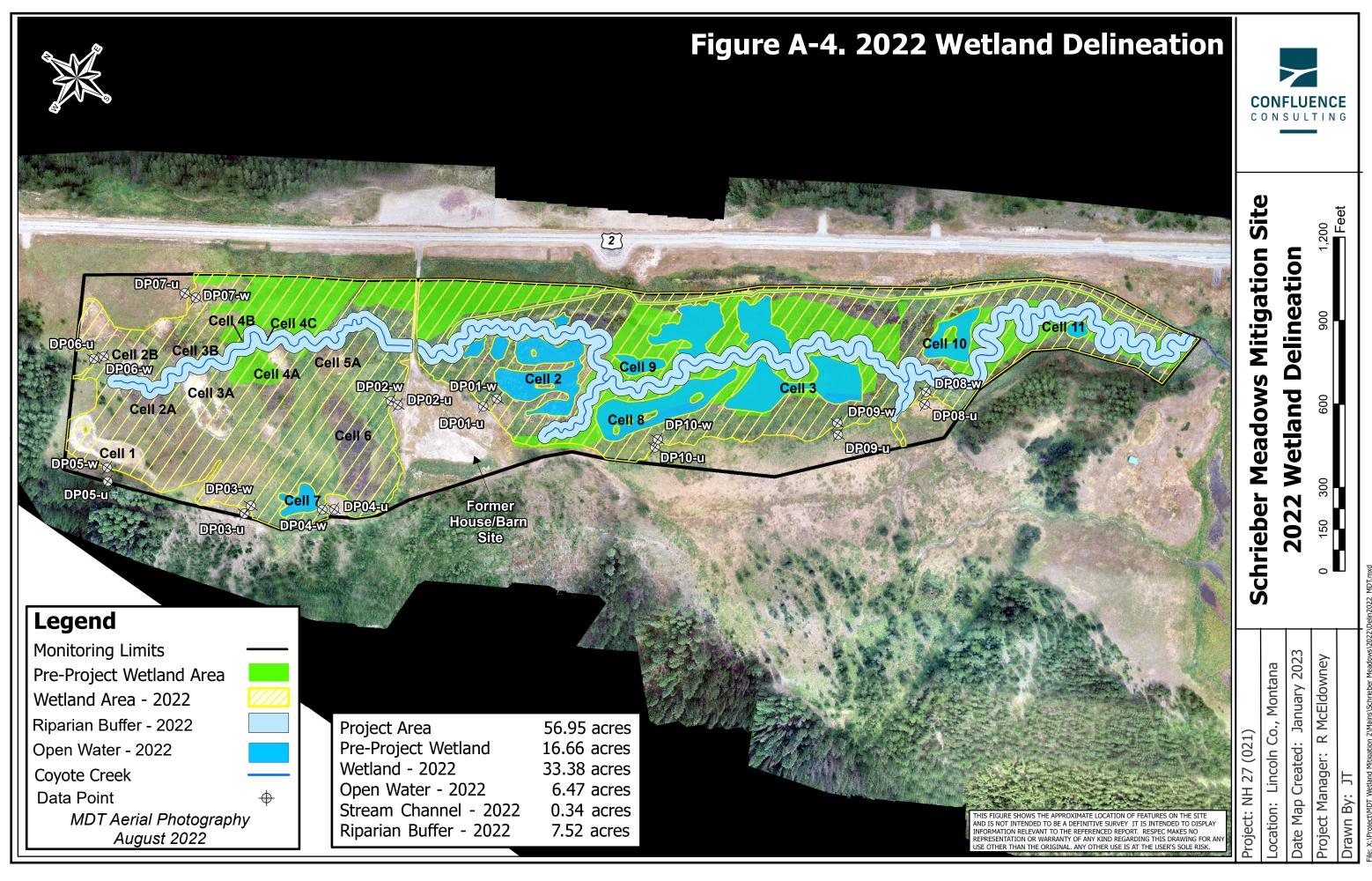
APPENDIX A PROJECT AREA MAPS

MDT Wetland Mitigation Monitoring Schrieber Meadows Lincoln County, Montana





Date Map



APPENDIX B MONITORING FORMS

MDT Wetland Mitigation Monitoring Schrieber Meadows Lincoln County, Montana

MDT WETLAND MITIGATION SITE MONITORING FORM

Person(s) conducting the assessment: J Trilling, S Weyant, M Hickey, K Lauver, W Fouts Weather: 75 degrees, partly cloudy, clear Location: Highway 2, Swamp Creek East MDT District: Missoula Milepost: 53.5 Legal Description: T 27N R 30W Section(s) 11, 12, 13 Initial Evaluation Date: 8/29/2010 Monitoring Year: 12 #Visits in Year: 1 Size of Evaluation Area: 57 (acres) Land use surrounding wetland:	
Weather: 75 degrees, partly cloudy, clear Location: Highway 2, Swamp Creek East MDT District: Missoula Milepost: 53.5 Legal Description: T_27N_R 30W_Section(s) 11, 12, 13 Initial Evaluation Date: 8/29/2010 Monitoring Year: 12 #Visits in Year: 1 Size of Evaluation Area: 57 (acres) Land use surrounding wetland:	
MDT District: MissoulaMilepost: 53.5	
Initial Evaluation Date: 8/29/2010 Monitoring Year: 12 #Visits in Year: 1 Size of Evaluation Area: 57 (acres) Land use surrounding wetland:	
Size of Evaluation Area: 57 (acres) Land use surrounding wetland:	
Land use surrounding wetland:	
IIC Highway 2 IIC Farast Camina, farastad watershad	
US Highway 2, US Forest Service, forested watershed	
HYDROLOGY	
Surface Water Source: Coyote Creek spring, Precipitation, Groundwater	
Inundation: Average Depth: 1.5 (ft) Range of Depths:0-5 (ft)	
Percent of assessment area under inundation: 70 %	
Depth at emergent vegetation-open water boundary:2 (ft)	
If assessment area is not inundated then are the soils saturated within 12 inches of surface: No	
Other evidence of hydrology on the site (ex. – drift lines, erosion, stained vegetation, etc <u>:</u>	
Surface water, saturation, high water table, oxidized rhizospheres on living roots, geomorphic	
position, and FAC neutral test.	
One of the Market Walls	
Groundwater Monitoring Wells	
Record depth of water surface below ground surface, in feet.	
Additional Activities Checklist:	
Map emergent vegetation-open water boundary on aerial photograph.	
Observe extent of surface water during each site visit and look for evidence of past surface water	
elevations (drift lines, erosion, vegetation staining, etc.)	
Use GPS to survey groundwater monitoring well locations, if present.	
Hydrology Notes:	
Water depths were very similar to 2021. Excavated depressions and surrounding area in the southern 2/3 of the site had water depths ranging from 2-4 feet, while those in the northern 1/3 of the site had depths ranging from 0.5 to 2 feet.	f

VEGETATION COMMUNITIES

Site Schrieber Meadows

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

Community # 3 Community Type: Phalaris arundinacea / Acres: 30.6

Species	Cover class	Species	Cover class
Inus incana	0	Alopecurus arundinaceus	1
lopecurus pratensis	1	Bare Ground	0
alamagrostis canadensis	1	Carex athrostachya	1
arex lasiocarpa	0	Carex nebrascensis	1
arex stipata	1	Carex utriculata	1
sium arvense	1	Eleocharis palustris	1
lobium brachycarpum	0	Epilobium ciliatum	1
ceria grandis	0	Juncus tenuis	0
nna minor	1	Mimulus guttatus	1
en Water	4	Persicaria amphibia	1
alaris arundinacea	5	Scirpus microcarpus	1

Comments:

Dominant wetland community type observed across the site. Water depths within the CT were 0.5-3 feet south of the access road and 0-1 foot in the north of the road. Reed canary grass in the portions of the site with the deepest inundation areas continued to break up causing an increase of open water and native species such as Carex spp. However, the reed canary grass is expanding into the uplands as the area of saturation and inundation has increased with the elevated water levels across the site.

Community # 5 Community Type: Aquatic macrophytes / Open Water Acres: 6.63

Species	Cover class	Species	Cover class
Algae, brown	2	Algae, green	2
Alnus incana	0	Aquatic macrophytes	2
Carex athrostachya	0	Carex nebrascensis	0
Carex utriculata	0	Chara sp.	2
Eleocharis palustris	0	Epilobium brachycarpum	0
Glyceria grandis	0	Lemna minor	0
Mimulus guttatus	0	Open Water	5
Persicaria amphibia	1	Phalaris arundinacea	1
Sparganium natans	0	Typha latifolia	1

Comments:

Areas dominated by an average of 2-3 feet of standing water, less than 5% emergent wetland vegetation, and a diversity of submergent/floating aquatic macrophytes. Open water acreage remained the same from 2021.

Community #	6	Community Type:	Alopecurus pratensis / Agrostis capillaris	Acres:	1.04
-------------	---	-----------------	--	--------	------

Species	Cover class	Species	Cover class
Achillea millefolium	1	Agrostis capillaris	4
Agrostis stolonifera	0	Alnus incana	0
Alopecurus arundinaceus	2	Alopecurus pratensis	4
Bare Ground	2	Bromus inermis	2
Carex athrostachya	1	Carex lasiocarpa	0
Carex nebrascensis	0	Carex pellita	1
Carex utriculata	0	Cerastium fontanum	0
Eleocharis palustris	1	Epilobium ciliatum	1
Equisetum arvense	1	Geum macrophyllum	0
Juncus confusus	1	Juncus tenuis	1
Leucanthemum vulgare	1	Penstemon confertus	1
Phalaris arundinacea	2	Phleum pratense	1
Poa pratensis	1	Potentilla gracilis	0
Rosa woodsii	0	Salix bebbiana	0
Salix bebbiana	1	Symphyotrichum spathulatur	n 1
Commenter			

Wetland Type northwest of access road that bisects the property. This Wetland Type slightly decreased in size from 2022, due to a reduction of Agrostis capillaris and was absorbed into new Wetland Type 16.

Community # 8 Community Type: Elymus repens / Pascopyrum smithii Acres: 2.82

Species	Cover class	Species	Cover class
Alopecurus pratensis	1	Bare Ground	5
Bromus briziformis	1	Bromus inermis	1
Bromus tectorum	2	Descurainia pinnata	1
Elymus repens	3	Medicago lupulina	2
Pascopyrum smithii	3	Sisymbrium altissimum	1
Verbascum thapsus	1		

Comments:

Upland community type that runs along the access road that bisects the property. Composed of high bare ground and non-native weedy species, with the exception of Pascopyrum smithii.

Community #	9	Community Type:	Alopecurus spp. / Bromus inermis	Acres:	6.43
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Species	Cover class	Species	Cover class
Achillea millefolium	1	Agrostis capillaris	1
Alopecurus arundinaceus	2	Alopecurus pratensis	4
Arnica chamissonis	1	Bare Ground	2
Bromus inermis	3	Cirsium arvense	1
Elymus repens	2	Pascopyrum smithii	1
Phalaris arundinacea	2	Phleum pratense	1
Poa pratensis	1	Senecio hydrophiloides	1
Taraxacum officinale	1		

Upland community type located along the outer edges of the project area, primarily along the W-SW boundary. This CT decreased in size in 2022 due to the wetland expanding in the northern portion of the project area. The acreage lost from this CT was absorbed into new CT16.

Community # 14 Community Type: Agrostis capillaris / Phleum pratense Acres: 2.07

Species	Cover class	Species	Cover class
Achillea millefolium	1	Agrostis capillaris	4
Agrostis stolonifera	1	Alopecurus pratensis	1
Bare Ground	1	Bromus inermis	1
Carex athrostachya	1	Cirsium arvense	0
Dactylis glomerata	0	Equisetum arvense	0
Equisetum arvense	0	Festuca rubra	1
Fragaria virginiana	0	Hieracium aurantiacum	0
Juncus confusus	1	Juncus tenuis	1
Leucanthemum vulgare	1	Phalaris arundinacea	1
Phleum pratense	2	Picea engelmannii	0
Pinus contorta	0	Pinus ponderosa	0
Populus balsamifera	0	Pseudotsuga menziesii	0
Rosa woodsii	0	Symphyotrichum spathulatur	n 0

Comments:

Wetland community type located in northwest corner of site. This CT was wetter in 2022 than in 2021 and increased in acreage due to wetland expansion in this area in 2022. Phleum pratense and Bromus inermis were reduced in cover in 2022, likely due to the increase in saturation in the area. The NW portion of the site occupied by this CT was transitioning to wetlands in 2022 likely due to increased saturation in the area.

Species	Cover class	Species	Cover class
Achillea millefolium	0	Agrostis capillaris	1
Alisma triviale	1	Alnus incana	0
Alopecurus arundinaceus	1	Alopecurus pratensis	1
Bare Ground	1	Beckmannia syzigachne	0
Carex aquatilis	1	Carex athrostachya	1
Carex bebbii	0	Carex nebrascensis	0
Carex pellita	1	Carex stipata	0
Chara sp.	1	Eleocharis palustris	3
Epilobium ciliatum	1	Glyceria grandis	1
Glyceria striata	1	Juncus bufonius	0
Juncus confusus	1	Juncus nodosus	0
Juncus tenuis	0	Leucanthemum vulgare	1
Mentha arvensis	1	Open Water	3
Persicaria amphibia	1	Phalaris arundinacea	1
Polypogon monspeliensis	0	Populus balsamifera	1
Potamogeton natans	1	Salix bebbiana	0
Scirpus cyperinus	0	Scirpus microcarpus	1
Trifolium pratense	1	Typha latifolia	4
Veronica scutellata	1		

Located northwest of access road that bisects the property in excavated depressions. Surface water depths ranged from 0-1.5 feet in 2022. Volunteer Populus balsamifera and Alnus incana seedlings observed around margins of depressions and this CT.

Community # 16 Community Type: Alopecurus spp. / Acres: 1.81

Species	Cover class	Species	Cover class
Alopecurus arundinaceus	4	Alopecurus pratensis	4
Bromus inermis	1	Carex athrostachya	1
Cirsium arvense	1	Elymus lanceolatus	1
Elymus repens	2	Phalaris arundinacea	1
Potentilla gracilis	1	Senecio hydrophiloides	1
Stellaria longipes	0		

Comments:

This is a new CT in 2022 created in the northern portion of the project area in areas that were newly classified as wetlands in 2022. These areas were formerly CT 9, a similar upland community, but lacked a significant Bromus inermis component.

Total Vegetation Community Acreage

56.67

VEGETATION TRANSECTS

Schrieber Meadows	S	Date: 7/13/2022					
Transect Numbe	r: <u>1</u>	Compass Direction from Start:112_					
Interval Data:	20	O '' T					
Ending Station	20	Community Type:	Phalaris arundinacea /				
Species		Cover class	Species	Cover clas			
Phalaris arundinacea		5					
Ending Station	55	Community Type:	Aquatic macrophytes / Oper	n Water			
Species		Cover class	Species	Cover clas			
Algae, green		1	Alnus incana	(
Chara sp.		0	Epilobium brachycarpum	•			
Lemna minor		0	Mimulus guttatus	(
Open Water		5	Persicaria amphibia				
Phalaris arundinacea		1					
Ending Station	80	Community Type:	Phalaris arundinacea /				
Species		Cover class	Species	Cover clas			
Cirsium arvense		1	Mimulus guttatus				
Open Water		4	Phalaris arundinacea	!			
Ending Station	155	Community Type:	Aquatic macrophytes / Oper	n Water			
Species		Cover class	Species	Cover clas			
Algae, green		2	Aquatic macrophytes				
Lemna minor		0	Open Water				
Persicaria amphibia		1					
Ending Station	181	Community Type:	Phalaris arundinacea /				
Species		Cover class	Species	Cover clas			
Alnus incana		0	Open Water	;			
Persicaria amphibia		1	Phalaris arundinacea	;			
Ending Station	280	Community Type:	Aquatic macrophytes / Oper	n Water			
Species		Cover class	Species	Cover clas			
Algae, brown		0	Algae, green				
Aquatic macrophytes		2	Epilobium brachycarpum				
Open Water		5	Persicaria amphibia				
Phalaris arundinacea		1					

Ending Station	318 Community Type:	Phalaris arundinacea /	
Species	Cover class	Species	Cover class
Glyceria grandis	1	Open Water	3
Phalaris arundinacea	5		

Transect Notes:

Open water covered most of the surface area in 2022 as it did in 2021. Water depths were nearly identical in 2021 and ranged from 0.5 to 3 feet. There was a significant decrease in brown and green algae in 2022.

Transect Number: 2 Compass Direction from Start: 100					
Interval Data:					
Ending Station	35	Community Type:	Agrostis capillaris / Phleum p	ratense	
Species		Cover class	Species	Cover class	
Agrostis capillaris		5	Agrostis stolonifera	1	
Bare Ground		0	Bromus inermis	1	
Equisetum arvense		0	Festuca rubra	1	
Juncus confusus		1	Juncus tenuis	2	
Leucanthemum vulgare		2	Phleum pratense	1	
Ending Station	105	Community Type:	Typha latifolia / Eleocharis pa	llustris	
Species		Cover class	Species	Cover class	
Carex pellita		3	Eleocharis palustris	1	
Glyceria grandis		0	Juncus ensifolius	1	
Juncus tenuis		1	Open Water	3	
Phalaris arundinacea		1	Scirpus microcarpus	1	
Typha latifolia		4			
Ending Station	168	Community Type:	Alopecurus pratensis / Agrost	tis capillaris	
Species		Cover class	Species	Cover class	
Agrostis capillaris		2	Agrostis stolonifera	2	
Alopecurus pratensis		3	Bromus inermis	0	
Carex nebrascensis		0	Carex pellita	4	
Eleocharis palustris		1	Equisetum arvense	0	
Juncus tenuis		0	Phalaris arundinacea	1	
Ending Station	219	Community Type:	Typha latifolia / Eleocharis pa	lustris	
Species		Cover class	Species	Cover class	
Achillea millefolium		0	Agrostis capillaris	1	
Bare Ground		3	Beckmannia syzigachne	1	
Eleocharis palustris		2	Epilobium ciliatum	0	
Juncus tenuis		1	Leucanthemum vulgare	0	
Phalaris arundinacea		1	Polypogon monspeliensis	0	
Populus balsamifera		0	Trifolium pratense	1	
Typha latifolia		4	Veronica scutellata	2	
Ending Station	250	Community Type:	Alopecurus pratensis / Agrost	tis capillaris	
Species		Cover class	Species	Cover class	
Agrostis capillaris		2	Bare Ground	2	
Bromus inermis		4	Carex sp.	0	
Leucanthemum vulgare		0	Penstemon confertus	1	
Phleum pratense		2	Symphyotrichum spathulatu	0	

Ending Station	295	Community Type:	Typha latifolia / Eleocharis p	alustris
Species		Cover class	Species	Cover class
Agrostis capillaris		0	Alopecurus arundinaceus	1
Bare Ground		2	Beckmannia syzigachne	2
Eleocharis palustris		3	Epilobium ciliatum	0
Glyceria grandis		1	Juncus tenuis	1
Lemna minor		1	Leucanthemum vulgare	0
Phalaris arundinacea		1	Populus balsamifera	1
Typha latifolia		3		
Ending Station	410	Community Type:	Alopecurus pratensis / Agros	stis capillaris
Species		Cover class	Species	Cover class
Agrostis capillaris		1	Alopecurus pratensis	5
Bare Ground		0	Bromus inermis	3
Carex sp.		1	Cerastium fontanum	
Equisetum arvense		0	Geum macrophyllum	0
Leucanthemum vulgare		0	Penstemon confertus	1
Potentilla gracilis		0		
Ending Station	555	Community Type:	Typha latifolia / Eleocharis p	alustris
Species		Cover class	Species	Cover class
Alnus incana		0	Alopecurus pratensis	0
Carex athrostachya		0	Carex bebbii	0
Carex nebrascensis		0	Carex pellita	1
Eleocharis palustris		3	Juncus confusus	0
Juncus nodosus		0	Juncus tenuis	1
Open Water		2	Persicaria amphibia	1
Phalaris arundinacea		1	Salix bebbiana	0
Scirpus microcarpus		1	Typha latifolia	4
Ending Station	594	Community Type:	Phalaris arundinacea /	
Species		Cover class	Species	Cover class
		_	D O I	4
Alopecurus pratensis		1	Bare Ground	I
Alopecurus pratensis Carex athrostachya		1 0	Cirsium arvense	0
· · · · · · · · · · · · · · · · · · ·		1 0 1		0 5

Transect Notes:

0-2 feet of water in cells along this transect. Populus balsamifera volunteer seedlings observed growing around margins of CT 15 along transect. The weed ox-eye daisy increased in cover along this transect in 2022.

Transect Number	r: <u>3</u>	Compass Direction from Start:45_				
Interval Data: Ending Station	60	Community Type:	Phalaris arundinacea /			
Species		Cover class	Species	Cover class		
Epilobium ciliatum		1	Lemna minor	0		
Open Water		2	Persicaria amphibia	1		
Phalaris arundinacea		5				
Ending Station	150	Community Type:	Aquatic macrophytes / Op	en Water		
Species		Cover class	Species	Cover class		
Algae, green		0	Aquatic macrophytes	3		
Chara sp.		4	Lemna minor	0		
Open Water		5	Phalaris arundinacea	1		
Ending Station	288	Community Type:	Phalaris arundinacea /			
Species		Cover class	Species	Cover class		
Carex lasiocarpa		2	Carex utriculata	3		
Eleocharis palustris		0	Epilobium ciliatum	1		
Lemna minor		1	Open Water	2		
Persicaria amphibia		2	Phalaris arundinacea	4		
Ending Station	420	Community Type:	Aquatic macrophytes / Op	en Water		
Species		Cover class	Species	Cover class		
Algae, brown		2	Carex utriculata	1		
Lemna minor		2	Open Water	5		
Persicaria amphibia		1	Typha latifolia	1		
Ending Station	440	Community Type:	Phalaris arundinacea /			
Species		Cover class	Species	Cover class		
Epilobium ciliatum		2	Lemna minor	1		
Open Water		3	Persicaria amphibia	1		
Phalaris arundinacea		5				

Transect Notes:

Open water covered approximately the same areas as in 2021, although the reed canary grass continued to break up, continuing a trend first observed in 2020 with the increased water levels.

PLANTED WOODY VEGETATION SURVIVAL

Schrieber Meadows

Planting Type	#Planted	#Alive Notes
Alnus incana	1000	37 too wet, stunted, poor vigor, out-competed by reed canary grass
Salix sp.	750	0 too wet and out-competed by reed canary grass

Comments

Planted shrubs are difficult to see at the site due to the dense cover of tall reed canary grass. It is thought that the majority of woody plantings have died because of perennial deep water conditions and aggressive competition from reed canary grass. Volunteer Populus balsamifera and Alnus incana seedlings observed around margins of excavated depressions in northern 1/3 of site.

Schrieber Meadows

WILDLIFE

Were man-made nesting structures installed? If yes, type of structure: Bird boxes			
How many?2			
Are the nesting structures being used?	Yes		
Do the nesting structures need repairs?	No		

Nesting Structure Comments:

The observed nesting structures appresed to have been occupied in 2022.

Species	#Observed	Behavior	Habitat	
Canada Goose	6			
Common Yellowthroat	2			
Killdeer	5			
Mallard	5			
Marsh Wren	2			
Osprey	1			
Red-winged Blackbird	4			
Wilson's Snipe	5			
Yellow Warbler	1			
Bird Comments				
A diversity of bird specie	es were observe	d at the site in 2022.		

BEHAVIOR CODES

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

HABITAT CODES

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

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

Mammals and Herptiles

Species	# Observed	Tracks	Scat	Burrows	Comments
Columbia Spotted Frog	4	No	No	No	
Columbian Ground Squirrel	2	No	No	No	
Garter Snake	2	No	No	No	
Unidentified fish	2	No	No	No	
White-tailed Deer	2	Yes	Yes	No	

Wildlife Comments:

Two fish that were not able to be identified were observed in Cell 3.

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:

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

Photo #	Latitude	Longitude	Bearing	Description	
DP01-u	48.1126441931	-115.417676824			
DP01-w	48.1125878774	-115.417461796			
DP02-u	48.1133055554	-115.418458065			
DP02-w	48.1133812969	-115.418481567			
DP03-u	48.1137955273	-115.421124754			
DP03-w	48.1137957151	-115.420977848			
DP04-u	48.1131388345	-115.420240989			
DP04-w	48.113227668	-115.42035502			
DP05-u	48.1150394052	-115.422036541			
DP05-w	48.1151304725	-115.421884328			
DP06-u	48.1159119811	-115.420771149			
DP06-w	48.115850826	-115.420650507			
DP07-u	48.1156272168	-115.419173242			
DP07-w	48.1155164991	-115.419123431			
DP08-u	48.1092902166	-115.413534401			
DP08-w	48.1093562757	-115.413380025			
DP09-u	48.1097600992	-115.414691554			
DP09-w	48.1098392651	-115.414563462			
DP10-u	48.1110784229	-115.416541622			
DP10-w	48.1111062013	-115.416425112			
PP01	48.10804	-115.410172	270	Photo Point 1 (Pano):	
PP02	48.113735	-115.420509	150	Photo Point 2:	
PP03	48.112183	-115.417503	90	Photo Point 3 (Pano):	
PP04	48.113213	-115.416832	180	Photo Point 4 (Pano):	
PP05	48.112614	-115.415977	300	Photo Point 5 (Pano):	
PP06	48.11904	-115.417023	0	Photo Point 6 (Pano):	
PP07	48.108813	-115.411923	0	Photo Point 7 (Pano):	
			B-14	4	

PP08	48.11121	-115.414238	190	Photo Point 8 (Pano):
PP09	48.109997	-115.413765	280	Photo Point 9 (Pano):
PP10	48.109737	-115.414024	0	Photo Point 10 (Pano):
PP11	48.116409	-115.420021	190	Photo Point 11 (Pano):
PP12	48.115673	-115.421562	180	Photo Point 12 (Pano):
PP13	48.11422	-115.420403	280	Photo Point 13 (Pano):
PP14	48.114655	-115.41893	230	Photo Point 14 (Pano):
PP15	48.114323	-115.418449	180	Photo Point 15 (Pano):
PP16	48.113403	-115.420128	70	Photo Point 16 (Pano):
PP17	48.112938	-115.418388	270	Photo Point 17 (Pano):
PP18	48.1129	-115.417618	90	Photo Point 18:
PP19	48.111553	-115.417084	10	Photo Point 19, Photo 1:
PP-19	48.111553	-115.417084	100	Photo Point 19, Photo 2:
PP-20	48.109493	-115.413918	100	Photo Point 20:
T-1 end	48.112663	-115.41642	295	Transect 1 end:
T-1 start	48.115204	-115.417503	115	Transect 1 start:
T-2 end	48.114197	-115.418991	280	Transect 2 end:
T-2 start	48.115204	-115.421013	100	Transect 2 start:
T-3 end	48.111187	-115.413849	225	Transect 3 end:
T-3 start	48.111134	-115.415642	45	Transect 3 start:

Schrieber Meadows

ADDITIONAL ITEMS CHECKLIST

Hydrology

✓ Map emergent vegetation/open water boundary on aerial photos.
 ✓ Observe extent of surface water. Look for evidence of past surface water elevations (e.g. drift lines, vegetation staining, erosion, etc).

Photos

- One photo from the wetland toward each of the four cardinal directions
- One photo showing upland use surrounding the wetland.
- One photo showing the buffer around the wetland
- One photo from each end of each vegetation transect, toward the transect

Vegetation

- ✓ Map vegetation community boundaries
- ✓ Complete Vegetation Transects

Soils

✓ Assess soils

Wetland Delineations

- Delineate wetlands according to applicable USACE protocol (1987 form or Supplement)
- Delineate wetland upland boundary onto aerial photograph.

Wetland Delineation Comments

A total of 47.71 acres of jurisdictional wetland and waters of the US (WUS) were delineated at the Schrieber Meadows site in 2022. The total wetland acreage delineated in 2022, was 33.38 acres, which is a increase of 2.18 acres since 2021. WUS (Open Water) was 6.47 acres in 2022, 0.16 acres less than 2021.

Functional Assessments

Complete and attach full MDT Montana Wetland Assessment Method field forms.

Functional Assessment Comments:

All 3 AA's Category I wetlands.

Maintenance

Were man-made nesting structure installed at this site? Yes										
If yes, do they need to be repaired? No										
If yes, describe the problems below and indicate if any actions were taken to remedy the problems										
Were man-made structures built or installed to impound water or control water flow										
into or out of the wetland? No										
If yes, are the structures in need of repair?										
If yes, describe the problems below.										
No maintenance needs were observed in 2022.										

Project/Site: Schrieber Meadows	City/County: Lincoln	Sampling Date:7/13/2022
Applicant/Owner: MDT	,,-	State: Montana Sampling Point: DP01-u
Investigator(s): J Trilling	Section, Township, Ran	
Landform (hillslope, terrace, etc.): Terrace	Local relief (concave, co	onvex, none): flat Slope (%):0
Subregion (LRR): LRR E Lat:	48.112644	Long:
Soil Map Unit Name: 105: Aquic udifluvents, poorly drained		NWI classification:Not mapped
Are climatic / hydrologic conditions on the site typical for this time of	year? Yes 🗹 No [(If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significan	tly disturbed? Are "N	Iormal Circumstances" present? Yes 🗹 No 🔲
Are Vegetation, Soil, or Hydrology naturally	problematic? (If nee	eded, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing	ng sampling point lo	cations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No		A
Hydric Soil Present? Yes ☐ No ☑️ Wetland Hydrology Present? Yes ☐ No ☑️	Is the Sampled A	
Remarks:	-	
Upland sample point located uphill from wetland cell 2.		
VEGETATION - Use scientific names of plants	and Indiana.	
<u>Tree Stratum</u> Plot size (30 Foot Radius) Absolute Domic		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)
Sapling/Shrub Stratum Plot size (15 Foot Radius)		Prevalence Index worksheet
		Total % Cover of: Multiply by:
		OBL species 0 X 1 0
		FAC species 10 X 3 30
		FACU species 45 X 4 180
Herbaceous Stratum Plot size (5 Foot Radius)		UPL species 0 X 5 0
Elymus repens 10 Pascopyrum smithii 45	FACIL	Column Totals 55 (A) 210 (B)
Pascopyrum smithii 45	FACU	Prevalence Index = B/A = 3.81818
		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 45		Hydrophytic Vegetation Present? NO ✓
Remarks:		1
An upland vegetation community is present at this data poir	nt.	
US Army Corps of Engineers	,	Western Mountains, Valleys, and Coasts - Version 2.0

SOIL									Sampling Point: DP01-u
Profile Desc	ription: ([Describe 1	to the dep	th needed to docum	ent the	indicator o	or confir	m the absence	
Depth	Depth Matrix Redox Features								
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	_Loc ²	Texture	Remarks
0-04	10YR	2/2	100					Sandy Loam	Gravelly
04-10	10YR	5/2	100					Loamy Sand	Cobbles, gravels
10+								Cobble	Rock refusal
Type: C=Co	oncentratio	n, D=Depl	etion, RM=		-Covere	d or Coate	d Sand G	- ———— Grains.	ation: PL=Pore Lining, M=Matrix.
Hydric Soil I	ndicators	: (Applica	able to all	LRRs, unless other	wise no	ted.)		Indicator	s for Problematic Hydric Soils³:
Histosol				Sandy Redox (S	55)				Muck (A10)
	oipedon (A2	2)		Stripped Matrix	. ,			=	Parent Material (TF2)
Black His		A 4\		Loamy Mucky M			MLRA 1		Shallow Dark Surface (TF12)
	n Sulfide (. (Δ11)	Loamy Gleyed N		2)		Othe	r (Explain in Remarks)
	l Below Da irk Surface		e (A11)	Depleted MatrixRedox Dark Sur	. ,)		³ Indicator	s of hydrophytic vegetation and
_	lucky Mine	. ,		Depleted Dark S	,				id hydrology must be present,
_	leyed Matr			Redox Depressi		151			s disturbed or problematic.
Restrictive L	ayer (if p	resent):							
Type:									
Depth (inc	ches):							Hydric Soil I	Present? Yes 🔲 No 🗹
No hydric so	oil indicato	ors obser	ved.						
HYDROLO	GY								
Wetland Hyd									
			ne required	l; check all that apply)			Second	dary Indicators (2 or more required)
	Water (A1)			Water-Stai	ned Leav	es (B9) (e)	ccept	W	ater-Stained Leaves (B9) (MLRA 1, 2,
= ·	ter Table (A2)		MLRA 1		and 4B)			4A, and 4B)
Saturatio				Salt Crust (ainage Patterns (B10)
_	arks (B1)			Aquatic Inv					y-Season Water Table (C2)
	t Deposits	(B2)		Hydrogen S					turation Visible on Aerial Imagery (C9)
_	osits (B3)	(D.4)		Oxidized R		_	-		eomorphic Position (D2)
	t or Crust ((B4)		Presence o		-	-	_	allow Aquitard (D3)
	osits (B5) Soil Cracks	- (P6)		L Recent Iror			,		C-Neutral Test (D5) iised Ant Mounds (D6) (LRR A)
			magery (B7	_		•	i) (LKK /		ost-Heave Hummocks (D7)
			Surface (E		iaiii iii ik	orriarks)			ost-ficave fidiliffocks (D1)
Field Observ			- Curiaco (E						
Surface Water) V	es 🗆 ı	No <u> </u>	hes).				
Water Table				No <u>V</u> Depth (inc			1		
Saturation Pr	esent?	Ye		No <u>V</u> Depth (inc				tland Hydrology	Present? Yes No
(includes cap Describe Red			gauge, mo	nitoring well, aerial p	hotos, p	revious insp	ections)	, if available:	
Remarks: No evidence	of wetlar	nd hydrol	ogy obser	ved.					

Project/Site: Schrieber Meadows	City/County: Lincoln Sampling Date:7/13/2022
Applicant/Owner: MDT	State: Montana Sampling Point: DP01-w
Investigator(s): W Fouts	Section, Township, Range: S 12 T 27N R 30W
Landform (hillslope, terrace, etc.): Floodplain	Local relief (concave, convex, none): CONVEX Slope (%):1
Subregion (LRR): LRR E Lat: _	48.112588 Long: -115.417462 Datum: NAD 83
	NWI classification:Not mapped
Are climatic / hydrologic conditions on the site typical for this time of	f year? Yes 🗹 No 🔲 (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significar	ntly disturbed? Are "Normal Circumstances" present? Yes 🗹 No 🗌
Are Vegetation, Soil, or Hydrology naturally	problematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showi	ing sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No No	Lo the Compled Area
Hydric Soil Present? Yes <u>✓</u> No <u> </u> Wetland Hydrology Present? Yes <u>✓</u> No	Is the Sampled Area within a Wetland? Yes <u>✓</u> No
Wetland Hydrology Present? Yes <u>✓</u> No <u></u> Remarks:	
Wetland sample point located outside Cell 2.	
VEGETATION - Use scientific names of plants	
Tree Stratum Plot size (30 Foot Radius) Absolute Dom Spec	i Dominance Test Worksneet
,, seren spec	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)
Sapinigistrub Stratum Flot size (15 Foot Naulus)	Prevalence Index worksheet
	Total % Cover of:Multiply by:
	OBL species 0 X 1 0
	FACW species 2 X 2 4 FAC species 90 X 3 270
	FACU species 0 X 4 0
<u>Herbaceous Stratum</u> Plot size (5 Foot Radius)	UPL species 0 X 5 0
Alopecurus arundinaceus 50 ✓	FAC Column Totals 92 (A) 274 (B)
Elymus repens 40 🗸	FAC Prevalence Index = B/A = 2.97826
Phalaris arundinacea 2	FACW 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.
Dozacat Bara Cround	Hydrophytic Vegetation Present? Ves ✓ NO
Percent Bare Ground 8 Remarks:	1.10001111
A prevalence index below three indicates the presence of a	a hydrophytic vegetation community.
LIC Assess Course of Frankrica	Western Manufacture Valley 100 1 V 1 000
US Army Corps of Engineers	Western Mountains, Valleys, and Coasts - Version 2.0

SOIL										Sampling Point: DP01-w
Profile Des	cription: ((Describe	to the de	oth need	ded to docu	ment the in	ndicato	r or confi	irm the absence	
Depth Matrix Redox Features								_		
(inches)	Color	(moist)	%	Col	or (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-04	10YR	2/1	100						Clay Loam	Cobbles present in this horizo
04-12	2.5Y	5/2	98	10YR	6/8	2	С	М	Clay	
12+									Rock bottom	Rock refusal
				-						
1 _{Type} 0-0		D-D-	nlotion DN	I-Dadua	ad Matrix Ci				Crains 21 as	nation: DI - Doro Lining M-Matrix
					ed Matrix, C: unless othe			ted Sand		cation: PL=Pore Lining, M=Matrix. ors for Problematic Hydric Soils ³ :
Histoso		s. (Appin	cabic to ai				.u.,			n Muck (A10)
	pipedon (A	(2)			ındy Redox (ripped Matrix					l Parent Material (TF2)
_	ipipedon (A listic (A3)	(2)		_		. ,) (0,400)		_	y Shallow Dark Surface (TF12)
_	en Sulfide	(A4)			amy Mucky I amy Gleyed			pt WLKA		er (Explain in Remarks)
	ed Below D		ce (A11)	$\overline{}$	pleted Matri	. ,	•			(=,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Thick D	ark Surfac	e (A12)			edox Dark Su					ors of hydrophytic vegetation and
_	Mucky Mine				pleted Dark		7)			nd hydrology must be present,
	Gleyed Ma			<u> </u>	dox Depress	sions (F8)			unles	s disturbed or problematic.
Restrictive	Layer (IT p	resent):								
Type:	l \ .								Uhadaia Osii	Duna 1110 Van M. Na 🗆
Depth (in Remarks:	iches):			-					Hydric Soil	Present? Yes V No
HYDROLC Wetland Hy		ndicators								
_	= =			d check	all that appl	v)			Secor	ndary Indicators (2 or more required)
\neg	Water (A1		ono roquire	<u> </u>		ined Leave	es (B9) (except		Vater-Stained Leaves (B9) (MLRA 1, 2,
	ater Table					1, 2, 4A, a		схосрі	_ <u></u> , •	4A, and 4B)
	ion (A3)	(, (_)			☐ Salt Crust		,		□ □	rainage Patterns (B10)
	Marks (B1)				=	vertebrates	s (B13)			ry-Season Water Table (C2)
_	nt Deposits	s (B2)			_	Sulfide Od				aturation Visible on Aerial Imagery (C9
	posits (B3)					Rhizospher		g Living R	toots (C3) 🔽 G	eomorphic Position (D2)
Algal M	at or Crust	(B4)			Presence	of Reduced	d Iron (C	C4)	s	hallow Aquitard (D3)
Iron De	posits (B5)				Recent Irc	n Reductio	n in Till	ed Soils (C6) <u></u> F.	AC-Neutral Test (D5)
	Soil Crack			_	Stunted o	Stressed	Plants (D1) (LRR	. A) R	aised Ant Mounds (D6) (LRR A)
_	ion Visible			· —	_ Other (Exp	olain in Rer	marks)		F	rost-Heave Hummocks (D7)
	ly Vegetate	d Concav	e Surface	(B8)						
Field Obser				г						
Surface War			Yes	_	⊻ Depth (in			I .		
Water Table				_	✓ Depth (in					
Saturation F (includes ca	pillary fring	je)			⊻ Depth (in					y Present? Yes <u>V</u> No <u> </u>
Describe Re	ecorded Da	ıta (strear	n gauge, m	onitoring	g well, aerial	photos, pre	evious ir	spections	s), if available:	
Remarks:										
The point's	geomorpl	hic positi	ion and a	positive	FAC-neutr	al test ind	icate th	ne presei	nce of wetland l	hydrology.

Project/Site: Schrieber Meadows	City/County: Lincoln	Sampling Date:7/13/2022
Applicant/Owner: MDT		State: Montana Sampling Point: DP02-u
	Section, Township, Rang	ge: S 11 T 27N R 30W
Landform (hillslope, terrace, etc.): berm, toeslope		
Subregion (LRR): LRR E	48.113306	Long:115.418458 Datum: NAD 83
Soil Map Unit Name: 105: Aquic udifluvents, poorly drained		NWI classification:Not mapped
Are climatic / hydrologic conditions on the site typical for this time of ye	ar? Yes ☑ No □	
Are Vegetation, Soil, or Hydrology significantly		
Are Vegetation, Soil, or Hydrology naturally pro		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 No		
Hydric Soil Present? Yes No	Is the Sampled A	
Wetland Hydrology Present? Yes No	within a Wetland	? fes <u> </u>
Remarks: Upland point located adjacent to former house/barn site.		
Opiana point located adjacent to former flouse/barn site.		
VEGETATION - Use scientific names of plants		
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: 0 (A)
		Total Number of Dominant Species Across All Strate: 1 (B)
		Openies Across Air otrata.
		Percent of Dominant Species That Are OBL, FACW, or FAC: 0 % (A/B)
Sapling/Shrub Stratum Plot size (15 Foot Radius)		Prevalence Index worksheet
		Total % Cover of: Multiply by:
		OBL species 0 X 1 0
		FACW species 0 X 2 0 FAC species 5 X 3 15
		FAC species 5 X 3 15 FACU species 70 X 4 280
Herbaceous Stratum Plot size (5 Foot Radius)		UPL species 5 X 5 25
Elymus repens 5	FAC	Column Totals 80 (A) 320 (B)
Pascopyrum smithii 70	FACU	
Penstemon confertus 5	UPL	Prevalence Index = B/A = 4 Hydrophytic Vegetation Indicators
		1 - Rapid Test for Hydrophytic Vegetation
		2 - Dominance Test is >50%
		3 - Prevalence Index is <= 3.0
		 4 - Morphological Adaptations (Provide supporting data in remarks or on separate
		sheet.
		☐ 5 - Wetland Non-Vascular Plants
		☐ Problematic Hydrophytic Vegetation (Explain)
Woody Vine Stratum Plot size (30 Foot Radius)		Indicators of hydric sil and wetland hydrology must be present, unless disturbed or problematic for #3, 4, 5.
		Hydrophytic Vegetation Yes □ NO ✓
Percent Bare Ground 20		Present?
Remarks: The vegetation community at this point is dominated by upland	d snecies	
The vegetation community at this point is dominated by uplant	и орсонов.	
US Army Corps of Engineers	V	Vestern Mountains, Valleys, and Coasts - Version 2.0

							Sampling Point: DP02-u
Profile Des	cription: (I	Describe	to the dep	th needed to docum	ent the indicator o	r confirm the abse	
Depth		Matrix		Redox	Features		
(inches)	Color ((moist)	%	Color (moist)	% Type ¹	Loc ² Texture	e Remarks
0-06	10YR	3/3	100			Clay Loar	n
06-12	10YR	5/3	100			Clay Loar	m
12+						Rock botto	m Rock refusal
				=Reduced Matrix, CS		Sand Grains.	² Location: PL=Pore Lining, M=Matrix.
		: (Applic	cable to all	LRRs, unless other	wise noted.)		cators for Problematic Hydric Soils ³ :
Black H	ol (A1) Epipedon (A: Histic (A3) en Sulfide (ed Below Da Dark Surface	A4) ark Surfac	ce (A11)	Sandy Redox (S Stripped Matrix (Loamy Mucky M Loamy Gleyed M Depleted Matrix Redox Dark Surf	(S6) lineral (F1) (except l' Matrix (F2) (F3)	MLRA 1)	2 cm Muck (A10) Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) cators of hydrophytic vegetation and
	Mucky Mine			Depleted Dark S	Surface (F7)		retland hydrology must be present,
☐ Sandy (Gleyed Mat	rix (S4)		Redox Depression	ons (F8)	u	nless disturbed or problematic.
Restrictive	Layer (if p	resent):					
Туре:							
Depth (in	nches):					Hydric 9	Soil Present? Yes 🔲 No 🔽
IVDDOLG	201						
		dicators					
Wetland Hy	/drology ln			d: check all that apply)	Se	econdary Indicators (2 or more required)
Wetland Hy	drology In	imum of o		d; check all that apply	•		econdary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1 2
Wetland Hy Primary Indi	drology In icators (min Water (A1)	imum of o		Water-Stain	ned Leaves (B9) (ex		Water-Stained Leaves (B9) (MLRA 1, 2
Wetland Hy Primary Indi Surface High W	ydrology In icators (min e Water (A1) ater Table (imum of o		Water-Stain	ned Leaves (B9) (exc , 2, 4A, and 4B)		Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B)
Wetland Hy Primary Indi Surface High W Saturati	drology In icators (min Water (A1) ater Table (ion (A3)	imum of o		Water-Stain MLRA 1 Salt Crust (ned Leaves (B9) (ex o , 2, 4A, and 4B) B11)		Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Drainage Pattems (B10)
Wetland Hy Primary Indi Surface High W Saturati	ydrology In icators (min e Water (A1) /ater Table (ion (A3) Marks (B1)	imum of o) A2)		Water-Stain MLRA 1 Salt Crust (Aquatic Inve	ned Leaves (B9) (exc , 2, 4A, and 4B) B11) ertebrates (B13)		Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2)
Wetland Hy Primary Indi Surface High W Saturati Water M Sedime	ydrology In icators (min w Water (A1) ater Table (ion (A3) Warks (B1) ent Deposits	imum of o) A2)		Water-Stain MLRA 1 □ Salt Crust (□ Aquatic Inve	ned Leaves (B9) (exc , 2, 4A, and 4B) B11) ertebrates (B13) Sulfide Odor (C1)		Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9
Wetland Hy Primary Indi Surface High W Saturati Water M Sedime Drift De	ydrology In icators (min w Water (A1) fater Table (ion (A3) Marks (B1) ent Deposits eposits (B3)	imum of () A2) (B2)		── Water-Stain MLRA 1 □─ Salt Crust (I) □─ Aquatic Inve □── Hydrogen S □─ Oxidized Rl	ned Leaves (B9) (exo , 2, 4A, and 4B) B11) ertebrates (B13) Sulfide Odor (C1) hizospheres along Li		Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (CS) Geomorphic Position (D2)
Wetland Hy Primary Indi Surface High W Saturati Water M Sedime Drift De Algal M	ydrology In icators (min w Water (A1) /ater Table (ion (A3) Marks (B1) ent Deposits eposits (B3) lat or Crust	imum of () A2) (B2)		── Water-Stain MLRA 1 ── Salt Crust (I ── Aquatic Inve ── Hydrogen S ── Oxidized RI ── Presence o	ned Leaves (B9) (exo , 2, 4A, and 4B) B11) ertebrates (B13) Sulfide Odor (C1) hizospheres along Li f Reduced Iron (C4)	ving Roots (C3)	Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9 Geomorphic Position (D2) Shallow Aquitard (D3)
Wetland Hy Primary Indi Surface High W Saturati Water M Sedime Drift De Algal M Iron De	ydrology In icators (min water (A1) fater Table (ion (A3) Marks (B1) ent Deposits eposits (B3) lat or Crust posits (B5)	imum of () A2) (B2) (B4)			ned Leaves (B9) (exc , 2, 4A, and 4B) B11) ertebrates (B13) Sulfide Odor (C1) hizospheres along Li f Reduced Iron (C4) n Reduction in Tilled	ving Roots (C3)	Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9 Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)
Wetland Hy Primary Indi Surface High W Saturati Water M Sedime Drift De Algal M Iron De Surface	ydrology In icators (min water (A1) ater Table (ion (A3) Marks (B1) ent Deposits eposits (B3) lat or Crust eposits (B5) e Soil Crack	imum of () A2) (B2) (B4) s (B6)	one require		ned Leaves (B9) (exo , 2, 4A, and 4B) B11) ertebrates (B13) Sulfide Odor (C1) hizospheres along Li f Reduced Iron (C4)	ving Roots (C3)	Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Wetland Hy Primary Indi Surface High W Saturati Water M Sedime Drift De Algal M Iron De Surface	ydrology In icators (min water (A1) fater Table (ion (A3) Marks (B1) ent Deposits eposits (B3) lat or Crust posits (B5)	imum of () A2) (B2) (B4) s (B6) on Aerial	one require	Water-Stain MLRA 1 □ Salt Crust (i □ Aquatic Invo □ Hydrogen Si □ Oxidized Ri □ Presence oi □ Recent Iron □ Stunted or Si 7) □ Other (Expl	ned Leaves (B9) (exo , 2, 4A, and 4B) B11) ertebrates (B13) Sulfide Odor (C1) hizospheres along Li f Reduced Iron (C4) n Reduction in Tilled Stressed Plants (D1)	ving Roots (C3)	Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9 Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)
Wetland Hy Primary Indi Surface High W Saturati Water M Sedime Drift De Algal M Iron De Surface	ydrology In icators (min w Water (A1) fater Table (ion (A3) Marks (B1) ent Deposits eposits (B3) lat or Crust eposits (B5) e Soil Crack- tion Visible of	imum of () A2) (B2) (B4) s (B6) on Aerial	one require	Water-Stain MLRA 1 □ Salt Crust (i □ Aquatic Invo □ Hydrogen Si □ Oxidized Ri □ Presence oi □ Recent Iron □ Stunted or Si 7) □ Other (Expl	ned Leaves (B9) (exo , 2, 4A, and 4B) B11) ertebrates (B13) Sulfide Odor (C1) hizospheres along Li f Reduced Iron (C4) n Reduction in Tilled Stressed Plants (D1)	ving Roots (C3)	Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Wetland Hy Primary Indi Surface High W Saturati Water M Sedime Drift De Algal M Iron De Surface Inundat Sparsel	ydrology In icators (min water (A1) fater Table (ion (A3) Marks (B1) ent Deposits (B3) lat or Crust posits (B5) e Soil Cracks tion Visible of ly Vegetated rvations:	imum of o) (B2) (B4) s (B6) on Aerial d Concav	Imagery (B e Surface (Water-Stain MLRA 1 □ Salt Crust (□ Aquatic Invo □ Hydrogen S □ Oxidized Rt □ Presence o □ Recent Iron □ Stunted or S 7) □ Other (Expl	ned Leaves (B9) (exe , 2, 4A, and 4B) B11) ertebrates (B13) Sulfide Odor (C1) hizospheres along Li f Reduced Iron (C4) n Reduction in Tilled Stressed Plants (D1)	ving Roots (C3) Soils (C6) (LRR A)	Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9 Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Primary Indi Surface High W Saturati Water M Sedime Drift De Algal M Iron De Surface Inundat Sparsel	rdrology In icators (min water (A1) fater Table (ion (A3) Marks (B1) ent Deposits eposits (B3) fat or Crust eposits (B5) e Soil Crack- tion Visible of ly Vegetated rvations:	imum of () A2) (B2) (B4) s (B6) on Aerial d Concav	Imagery (B	Water-Stain MLRA 1 Salt Crust (Aquatic Inventor Hydrogen S Oxidized Ri Presence o Recent Iron Stunted or S Other (Expl	ned Leaves (B9) (exc , 2, 4A, and 4B) B11) ertebrates (B13) Sulfide Odor (C1) hizospheres along Li f Reduced Iron (C4) a Reduction in Tilled Stressed Plants (D1) lain in Remarks)	ving Roots (C3) Soils (C6) (LRR A)	Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9 Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Wetland Hy Primary Indi Surface High W Saturati Water M Sedime Drift De Algal M Iron De Surface Inundat Sparsel Field Obser Surface Water Table Saturation F	rdrology In icators (min e Water (A1) ater Table (ion (A3) Marks (B1) at or Crust aposits (B5) at or Crust aposits (B5) a Soil Crack ation Visible of ly Vegetated rvations: ter Present?	imum of () A2) (B2) (B4) s (B6) on Aerial d Concav	Imagery (B e Surface (Water-Stain MLRA 1 Salt Crust (Aquatic Inventor Hydrogen S Oxidized Ri Presence o Recent Iron Stunted or S Other (Expl B8) No V Depth (incl	ned Leaves (B9) (exe , 2, 4A, and 4B) B11) ertebrates (B13) Sulfide Odor (C1) hizospheres along Li f Reduced Iron (C4) n Reduction in Tilled Stressed Plants (D1)	ving Roots (C3) Soils (C6) (LRR A)	Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Wetland Hy Primary Indi Surface High W Saturati Water M Sedime Drift De Algal M Iron De Surface Inundat Sparsel Field Obset Surface Wa Water Table Saturation F (includes ca	ydrology In icators (min icator	imum of () A2) (B2) (B4) s (B6) on Aerial d Concav ? '	Imagery (B e Surface (/es /es	Water-Stain MLRA 1 Salt Crust (Aquatic Inventor Hydrogen S Oxidized Ri Presence o Recent Iron Stunted or S Other (Expl B8) No V Depth (incl	ned Leaves (B9) (exc , 2, 4A, and 4B) B11) ertebrates (B13) Sulfide Odor (C1) hizospheres along Li f Reduced Iron (C4) n Reduction in Tilled Stressed Plants (D1) lain in Remarks)	ving Roots (C3) Soils (C6) (LRR A)	Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Wetland Hy Primary Indi Surface High W Saturati Water M Sedime Drift De Surface Inundat Sparsel Field Obser Surface Water Table Saturation F (includes car Remarks:	ydrology In icators (min water (A1) fater Table (ion (A3) Marks (B1) ent Deposits (B3) lat or Crust posits (B5) e Soil Cracks tion Visible of ly Vegetated rvations: ter Present? e Present? Present? ecorded Dat	imum of one (B2) (B4) s (B6) on Aerial d Concav ? y e) :a (stream	Imagery (B e Surface (/es /es	Water-Stain MLRA 1 Salt Crust (Aquatic Inventor Hydrogen S Oxidized Ri Presence o Recent Iron Stunted or S Other (Expl B8) No V Depth (incl No Depth (incl priction of the contioning well, aerial place	ned Leaves (B9) (exc , 2, 4A, and 4B) B11) ertebrates (B13) Sulfide Odor (C1) hizospheres along Li f Reduced Iron (C4) n Reduction in Tilled Stressed Plants (D1) lain in Remarks)	ving Roots (C3) Soils (C6) (LRR A)	Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Wetland Hy Primary Indi Surface High W Saturati Water M Sedime Drift De Algal M Iron De Surface Inundat Sparsel Field Obser Surface Wa Water Table Saturation F (includes ca	ydrology In icators (min water (A1) fater Table (ion (A3) Marks (B1) ent Deposits (B3) lat or Crust posits (B5) e Soil Cracks tion Visible of ly Vegetated rvations: ter Present? e Present? Present? ecorded Dat	imum of one (B2) (B4) s (B6) on Aerial d Concav ? y e) :a (stream	Imagery (B e Surface (/es /es	Water-Stain MLRA 1 Salt Crust (Aquatic Inventor Hydrogen S Oxidized Ri Presence o Recent Iron Stunted or S Other (Expl B8) No V Depth (incl No Depth (incl priction of the contioning well, aerial place	ned Leaves (B9) (exc , 2, 4A, and 4B) B11) ertebrates (B13) Sulfide Odor (C1) hizospheres along Li f Reduced Iron (C4) n Reduction in Tilled Stressed Plants (D1) lain in Remarks)	ving Roots (C3) Soils (C6) (LRR A)	Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C3) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Wetland Hy Primary Indi Surface High W Saturati Water M Sedime Drift De Algal M Iron De Surface Inundat Sparsel Field Obser Surface Water Table Saturation F (includes ca	ydrology In icators (min water (A1) fater Table (ion (A3) Marks (B1) ent Deposits (B3) lat or Crust posits (B5) e Soil Cracks tion Visible of ly Vegetated rvations: ter Present? e Present? Present? ecorded Dat	imum of one (B2) (B4) s (B6) on Aerial d Concav ? y e) :a (stream	Imagery (B e Surface (/es /es	Water-Stain MLRA 1 Salt Crust (Aquatic Inventor Hydrogen S Oxidized Ri Presence o Recent Iron Stunted or S Other (Expl B8) No V Depth (incl No Depth (incl priction of the contioning well, aerial place	ned Leaves (B9) (exc , 2, 4A, and 4B) B11) ertebrates (B13) Sulfide Odor (C1) hizospheres along Li f Reduced Iron (C4) n Reduction in Tilled Stressed Plants (D1) lain in Remarks)	ving Roots (C3) Soils (C6) (LRR A)	Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)

Project/Site: Schrieber Meadows	City/County: Lincoln	Sa	ampling Date: 7/13/2022
Applicant/Owner: MDT			ampling Point: DP02-w
••	Section, Township, Range: _		R 30W
Landform (hillslope, terrace, etc.): Toeslope	Local relief (concave, convex	x, none): flat	Slope (%):3
Subregion (LRR): LRR E	48.113381 _{Lonς}	g:115.4	118482 Datum: NAD 83
Soil Map Unit Name: 105: Aquic udifluvents, poorly drained		NWI classificatio	_{on:} Not mapped
Are climatic / hydrologic conditions on the site typical for this time of ye	ar? Yes 🔽 No 🔲	(If no, explain in Rem	arks.)
Are Vegetation, Soil, or Hydrology significantly	disturbed? Are "Norma	al Circumstances" pres	ent? Yes 🗹 No 🗌
Are Vegetation, Soil, or Hydrology naturally pro	blematic? (If needed,	explain any answers in	n Remarks.)
SUMMARY OF FINDINGS – Attach site map showing	sampling point locati	ons, transects, ir	nportant features, etc.
Hydrophytic Vegetation Present?			
Hydric Soil Present? Yes <u>✓</u> No <u> </u>	Is the Sampled Area within a Wetland?		No 🗆
Wetland Hydrology Present? Yes <u>✓</u> No <u> </u>			
Wetland sample point located between Cell 6 and the former h	ouse/barn site.		
VEGETATION - Use scientific names of plants	_		
<u>Tree Stratum</u> Plot size (30 Foot Radius) Absolute Domiant % Cover: Species		ominance Test worksl	neet
——— Openies	Nu	ımber of Dominant Spe at are OBL, FACW or F	
		tal Number of Dominar secies Across All Strata	0
Sapling/Shrub Stratum Plot size (15 Foot Radius)		rcent of Dominant Spe at Are OBL, FACW, or	
<u> </u>	Pro	evalence Index works	
		Total % Cover of: 3L species 0	X 1 0
			X 1 0 yo
		C species 55	X 3 165
Harbassas Chrotism Plateins (5 Feet Padius)			X 4 0
Herbaceous Stratum Plot size (5 Foot Radius)	E4.0		X 5 0
Alopecurus pratensis 10 ☐ Elymus repens 45 ✔	FAC Co	olumn Totals 100	(A) <u>255</u> (B)
Phalaris arundinacea 45	FACW	Prevalence Index =	B/A = 2.55
	Hy	drophytic Vegetation	
		✓ 2 - Dominance	or Hydrophytic Vegetation
		✓ 3 - Prevalence I	
			al Adaptations (Provide in remarks or on separate
		5 - Wetland Non	n-Vascular Plants
		☐ Problematic Hyd	drophytic Vegetation (Explain)
	l Indi	•	I wetland hydrology must be
Woody Vine Stratum Plot size (30 Foot Radius)			or problematic for #3, 4, 5.
Danisart Danis Carasard 0	Ve	rdrophytic egetation Yes esent?	✓ NO □
Percent Bare Ground 0 Remarks:	Fit		
Evidence of a hydrophytic vegetation community is found in a	positive dominance test ar	nd a prevalence inde	ex below three.
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SOIL										Sampling Point: DP02-w
Profile Des	cription: (Describe	e to the de	pth nee	ded to docu	ment the i	ndicato	r or confirn	n the absen	ce of indicators.)
Depth		Matrix				x Features				
(inches)		(moist)	%	Co	lor (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-09	10YR	2/2	100						Loam	
09-16	10YR	6/2	98	7.5YF	R 4/6	2	С	M	Loam	Bottom of pit
										_
										_
					ced Matrix, C			ted Sand G		_ocation: PL=Pore Lining, M=Matrix.
		s: (Appli	cable to a		, unless othe		ed.)			ators for Problematic Hydric Soils ³ :
Histoso	` '				andy Redox (cm Muck (A10)
	pipedon (A	(2)			tripped Matrix					ed Parent Material (TF2)
_	istic (A3)				oamy Mucky I			pt MLRA 1)		ery Shallow Dark Surface (TF12)
	en Sulfide ((4.4.4)		oamy Gleyed	•)		0	other (Explain in Remarks)
	d Below Da		ce (A11)		epleted Matri				3	
	ark Surface				ledox Dark Su					ators of hydrophytic vegetation and
_	Mucky Mine				epleted Dark		7)			etland hydrology must be present,
Restrictive	Gleyed Mat			<u> </u>	edox Depress	sions (F8)			uni	less disturbed or problematic.
	Layer (ii p	nesenij.								
Type:	\.								Livednia C	oil Present? Yes <u>V</u> No
Depth (in Remarks:	iches):								Hydric Sc	oil Present? Yes <u> </u>
1)/DDQLQ	201/									
HYDROLO Wetland Hy		ndicators	<u> </u>							
-				ed; ched	ck all that appl	y)			Sec	condary Indicators (2 or more required)
Surface	Water (A1)			☐ Water-Sta	ined Leave	es (B9) (except		Water-Stained Leaves (B9) (MLRA 1,
High Wa	ater Table ((A2)				1, 2, 4A, a				4A, and 4B)
Saturati		` '			☐ Salt Crust		•			Drainage Patterns (B10)
=	/larks (B1)			_	=	vertebrates	s (B13)			Dry-Season Water Table (C2)
	nt Deposits	s (B2)		_		Sulfide Oc				Saturation Visible on Aerial Imagery (C
	posits (B3)			_				g Living Roc	ots (C3)	Geomorphic Position (D2)
	at or Crust			_		of Reduce			`	Shallow Aquitard (D3)
	posits (B5)			_				ed Soils (C6	s) <u> </u>	FAC-Neutral Test (D5)
	Soil Crack			_				D1) (LRR A		Raised Ant Mounds (D6) (LRR A)
	ion Visible		Imagery (I	- 37)	_	plain in Re	•	, (Frost-Heave Hummocks (D7)
_	y Vegetate						,			,
Field Obser	vations:									
Surface Wat	ter Present	? `	Yes 🔲	No	Depth (in	ches):				
Water Table	Present?	•	Yes 🔲	No	✓ Depth (in	ches):				
Saturation P (includes ca	pillary fring	je)	Yes		✓ Depth (in					ogy Present? Yes 🔽 No 🔲
Describe Re	corded Da	ta (strear	n gauge, n	nonitorir	ıg well, aerial	photos, pre	evious ir	spections),	if available:	
Remarks:										
	f wetland	hydrolog	y present	in a po	ositive FAC-	neutral te	st and t	he point's	geomorphic	c position.
			·	•				- '		

Project/Site: Schrieber Meadows	City/County: Linco	oln Sampling Date: 7/13/2022
		State: Montana Sampling Point: DP03-u
		o, Range: S 11 T 27N R 30W
Landform (hillslope, terrace, etc.): Hillside		
Soil Map Unit Name: 108: Andic dystric eutrocrepts, lacustrine to	erraces-andic dys	trocrepts, gla NWI classification: Not mapped
Are climatic / hydrologic conditions on the site typical for this time of y	ear? Yes 🔽 🛚 1	No (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly	y disturbed?	Are "Normal Circumstances" present? Yes 🗹 No 🔲
Are Vegetation, Soil, or Hydrology naturally pr	roblematic?	(If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing	g sampling poi	nt locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No		
Hydric Soil Present? Yes No	Is the Sam	pled Area ∕etland? Yes No _ ⊻
Wetland Hydrology Present? Yes ☐ No ☑ Remarks:	-	
This point is located along the project boudary near Cell 7.		
VEGETATION - Use scientific names of plants		
Tree Stratum Plot size (30 Foot Radius) Absolute Domian % Cover: Specie		Dominance Test worksheet
Pinus contorta 5	FAC	Number of Dominant Species that are OBL, FACW or FAC: 2 (A)
		Total Number of Dominant
		Species Across All Strata: 4 (B)
		Percent of Dominant Species That Are OBL, FACW, or FAC: 50 % (A/B)
Sapling/Shrub Stratum Plot size (15 Foot Radius)		Prevalence Index worksheet
Mahonia repens 5 ✓	UPL	Total % Cover of: Multiply by:
Symphoricarpos albus 5	FACU	OBL species 0 X 1 0
		FACW species 0 X 2 0
		FAC species 85 X 3 255 FACU species 5 X 4 20
Herbaceous Stratum Plot size (5 Foot Radius)		UPL species 5 X 5 25
Alopecurus pratensis 5	FAC	Column Totals 95 (A) 300 (B)
Elymus repens 75	FAC	Prevalence Index = B/A = 3.15789
		Hydrophytic Vegetation Indicators
		1 - Rapid Test for Hydrophytic Vegetation
		☐ 2 - Dominance Test is >50%
		☐ 3 - Prevalence Index is <= 3.0
		4 - Morphological Adaptations (Provide supporting data in remarks or on separate
		sheet. 5 - Wetland Non-Vascular Plants
		Problematic Hydrophytic Vegetation (Explain)
Woody Vine Stratum Plot size (30 Foot Radius)		Indicators of hydric sil and wetland hydrology must be present, unless disturbed or problematic for #3, 4, 5.
		Hydrophytic Vegetation Yes □ NO ✓
Percent Bare Ground 20 Remarks:		Present?
Vegetation at this data point is dominated by upland species.		
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1 33 / mmy Golpo of Engineers		

SOIL											(Sampling F	oint: DP03-u
Profile Des	cription: (Describe	to the dep	th need	ed to docu	ment the	indicator	or con	firm the ab	sence			
Depth		Matrix			Red	ox Featui	res						
(inches)	Color	(moist)	%	Colo	r (moist)	%	Type ¹	Loc ²	Text	ture		Rema	ırks
0-07	10YR	2/2	100						Loar	n			
07-15	10YR	4/3	100						Sandy L	oam	Grave	s, bottor	n of pit
Type: C=C								ed Sand					ng, M=Matrix.
Hydric Soil		: (Appli	cable to all				oted.)		In	_			Hydric Soils ³ :
Histoso	. ,	0)			ndy Redox				<u></u>		Muck (A		- `
	pipedon (A	.2)			pped Matri	` '	=4) (<u> </u>			aterial (TF2	
_	listic (A3) en Sulfide ((A4)			ımy Mucky ımy Gleyed		F1) (excep F2)	t MLRA	(1) <u> </u>			Dark Surfa in Remark	, ,
	ed Below Da		ce (A11)	_	oleted Matr		,				` .		,
	ark Surface			Rec	dox Dark S	urface (F	6)		³ lı	ndicato	rs of hydro	phytic veg	getation and
Sandy	Mucky Mine	eral (S1)		Dep	oleted Dark	Surface	(F7)			wetla	nd hydrolc	gy must be	e present,
Sandy	Gleyed Mat	rix (S4)		Rec	dox Depres	sions (F8	3)			unles	s disturbe	d or proble	matic.
Restrictive	Layer (if p	resent):											
Type:												_	
Depth (ir	nches):								Hydr	ic Soil	Present?	Yes	No <u></u> ⊻
IVDDOLG	201												
HYDROLC Wetland Hy		dicators	:										
Primary Indi	icators (min	imum of	one required	d; check	all that app	oly)				Secon	dary Indic	ators (2 or	more required
Surface	Water (A1)] Water-Sta	ained Lea	aves (B9) (e	xcept		w	/ater-Stain	ed Leaves	(B9) (MLRA 1
High W	ater Table ((A2)			MLRA	1, 2, 4A	, and 4B)				4A, and	4B)	
Saturat	ion (A3)				Salt Crus	t (B11)					rainage Pa	atterns (B1	0)
Water N	Marks (B1)				Aquatic Ir	nvertebra	tes (B13)				ry-Season	Water Tak	ole (C2)
Sedime	nt Deposits	(B2)			Hydroger	Sulfide (Odor (C1)			s	aturation ∖	'isible on A	Aerial Imagery
Drift De	posits (B3)				Oxidized	Rhizosph	neres along	Living I	Roots (C3)	G	eomorphic	: Position ((D2)
Algal M	at or Crust	(B4)			Presence	of Redu	ced Iron (C	4)			hallow Aqı	itard (D3)	
Iron De	posits (B5)				Recent In	on Reduc	ction in Tille	d Soils	(C6)	F/	AC-Neutra	l Test (D5))
Surface	Soil Crack	s (B6)		<u>_</u>	Stunted o	r Stresse	ed Plants (D	1) (LRF	R A)	R	aised Ant	Mounds (D	06) (LRR A)
Inundat	ion Visible	on Aerial	Imagery (B	7)	Other (Ex	cplain in F	Remarks)			Fr	ost-Heave	Hummocl	ks (D7)
Sparsel	ly Vegetate	d Conca	/e Surface (B8)									
Field Obse	rvations:				_								
Surface Wa	ter Present	?	Yes	No <u>_</u>									
Water Table	Present?	,	Yes	No	🙎 Depth (ir	nches): _							
Saturation F (includes ca			Yes	No 🔽	Depth (ir	nches): _		_ ^	etland Hyd	drology	/ Present	? Yes _	No <u>▼</u>
Describe Re			m gauge, mo	nitoring	well, aerial	photos, p	previous ins	spection	ns), if availa	ble:			
Remarks:													
No evidenc	e of wetla	nd hydro	ology obse	rved.									

Project/Site: Schrieber Meadows	City/County: Lincoln	Sampling Date:7/13/2022
Applicant/Owner: MDT	, ,	State: Montana Sampling Point: DP03-w
Investigator(s): W Fouts	Section, Township, Rand	
• • • •		
Landform (hillslope, terrace, etc.): Toeslope Subregion (LRR): LRR E Lat:	48.113796	Long: -115.420978 Datum: NAD 83
Soil Map Unit Name: 108: Andic dystric eutrocrepts, lacustrine to	erraces-andic dystrocre	pts, gla _{NWI classification:} PEM
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		ded, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing	,	
Hydrophytic Vegetation Present? Yes <u>✓</u> No		
Hydric Soil Present? Yes Ves No	Is the Sampled A	
Wetland Hydrology Present? Yes Ves No No	Within a Wetland	TES NO CO
Remarks: Wetland sample point located near Cell 7.		
Westaria Campio point located floar Coll 7.		
VEGETATION - Use scientific names of plants		
To Stratus Plateirs (00 Feet Pedius) Absolute Domiar		Dominance Test worksheet
ree Stratum Plot size (30 Foot Radius) % Cover: Specie	s? Status	Number of Dominant Species
		that are OBL, FACW or FAC: 2 (A)
		Total Number of Dominant Species Across All Strata: 2 (B)
		Demonstrat Demoissant Operation
Sapling/Shrub Stratum Plot size (15 Foot Radius)		That Are OBL, FACW, or FAC: 100 % (A/B)
Sapinig/Sirrub Stratum Flot size (15 Foot Nations)		Prevalence Index worksheet
		Total % Cover of: Multiply by:
		OBL species 0 X 1 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
		FACW species 0 X 2 0 FAC species 85 X 3 255
		FACU species 0 X 4 0
Herbaceous Stratum Plot size (5 Foot Radius)		UPL species 10 X 5 50
Alopecurus arundinaceus 65	FAC	Column Totals 95 (A) 305 (B)
Bromus inermis 10	UPL	Prevalence Index = B/A = 3.21053
Elymus repens 20	FAC	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 □
Percent Bare Ground 5 Remarks:		
A hydrophytic vegetation community is present at this data po	oint, indicated by a posi	itive dominance test.
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Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Depth Matrix (niches)	SOIL										Sampling Point: DP03-w
Color (moist)	Profile Des	cription: (Describe	to the de	th need	ded to docu	ment the ir	ndicato	r or confirn	n the absence	
0-99 10YR 2/1 100 Silty Clay 09-16 2.5Y 5/2 98 7.5YR 5/8 2 C M.PL Silty Clay Bottom of pit "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.) Histosoi (A1)					-						
09-16 2.5Y 5/2 98 7.5YR 5/8 2 C M.PL Slity Clay Bottom of pit "Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. PL=Pore Lining, M=Mat Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soil Histosoi (A1) Sandy Redox (S5) Z orm Muck, (A1) Red Parent Material (TF2) Depleted Below Dark Surface (A1) Depleted Matrix (S6) Depleted Matrix (S6) Depleted Matrix (S6) Depleted Matrix (S6) Depleted Matrix (S7) Redox Dark Surface (FF1) Redox Dark	_				Cold	or (moist)	%	_Type'	Loc ² _		Remarks
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators (Or Problematic Hydric Soil Histosoil (A1) Sandy Redox (S5) Indicators (Or Problematic Hydric Soil Histosoil (A1) Sandy Redox (S5) Red Parent Material (TF2) Red Parent Material (TF2) Users Mutck (A10) Users Mutck	0-09	10YR	2/1	100						Silty Clay	
Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Histosol (A2) Bisck Histosol (A2) Bisck Histosol (A3) Depleted Dark Surface (A4) Depleted Below Dark Surface (A11) Depleted Below Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Redox Depressions (F8) Depth (inches): Type: Depth (inches): Prominent redoximorphic concentrations common within the matrix and along pore linings within the depleted matrix. AyDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Saturation (A3) Saturation (A4) Saturation (A5) Saturation (A	09-16	2.5Y	5/2	98	7.5YR	5/8	2	С	M,PL	Silty Clay	Bottom of pit
Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Histosol (A2) Black Histic (A3) Depleted Dark Surface (A11) Depleted Below Dark Surface (A11) Depleted Below Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Depleted Dark Surface (A12) Redox Dark Surface (F7) Sandy Wucky Mineral (S1) Depleted Dark Surface (F7) Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Depth (inches): Prominent redoximorphic concentrations common within the matrix and along pore linings within the depleted matrix. Hydric Soil Present? Yes No No No No No No No No No Remarks: Primary Indicators (minimum of one required: check all that apply) Saturation (A3) Saturation (A4) Saturation (A5) Satura				 			 		- ——— - ———		
Histosol (A1) Sandy Redox (S5) 2 cm Muck (A10) Red Parent Malerial (TF2) Salistic Epiped Matrix (S8) Delpted Matrix (S8) Redox Dark Surface (A12) Hydrogen Sulfide (A4) Delpted Matrix (F2) Delpted Matrix (F2) Delpted Below Dark Surface (A11) Delpted Matrix (F2) Delpted Below Dark Surface (A12) Redox Dark Surface (F5) Redox Dark Surface (A12) Redox Dark Surface (F6) Redox Dark Surface (A12) Redox Dark Surface (F7) Redox Da									ted Sand G		cation: PL=Pore Lining, M=Matrix.
Histic Epipedon (A2)			s: (Appli	cable to all				ed.)			
Thick Dark Surface (A12)	Histic E Black H Hydrog	Epipedon (A Histic (A3) en Sulfide	(A4)	(1.11)	Sti	ripped Matrix amy Mucky amy Gleyed	(S6) Mineral (F1 Matrix (F2)		ot MLRA 1)	Red	d Parent Material (TF2) ry Shallow Dark Surface (TF12)
Restrictive Layer (if present):	Thick D	ark Surfac Mucky Mine	e (A12) eral (S1)	ce (A11)	Re	edox Dark Su pleted Dark	urface (F6) Surface (F	7)		wetla	and hydrology must be present,
Type:		-			<u> </u>	dox Depres	Sions (Fo)			unie	ss disturbed of problematic.
Depth (inches):		Layer (ii p	nesenty.								
Remarks: Prominent redoximorphic concentrations common within the matrix and along pore linings within the depleted matrix. Apple	•••	nches).								Hydric Soi	I Present? Yes ✓ No □
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Secondary Indicators (2 or more required; check all that apply) □ Surface Water (A1) □ Water-Stained Leaves (B9) (except □ Water-Stained Leaves (B9) (MLF □ High Water Table (A2) MLRA 1, 2, 4A, and 4B) 4A, and 4B) □ Saturation (A3) □ Salt Crust (B11) □ Drainage Patterns (B10) □ Water Marks (B1) □ Aquatic Invertebrates (B13) □ Dry-Season Water Table (C2) □ Sediment Deposits (B2) □ Hydrogen Sulfide Odor (C1) □ Saturation Visible on Aerial Image Patterns (B10) □ 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) ☑ Other (Explain in Remarks) □ Frost-Heave Hummocks (D7) □ Sturation Present? Yes □ No ☑ Depth (inches): ☑ Wetlan	Prominent	redoximo	rpnic cor	ncentratior	is comr	non Within	tne matrix	and al	ong pore II	nings within	tne depleted matrix.
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Secondary Indicators (2 or more required; check all that apply) Surface Water (A1) High Water Table (A2) MLRA 1, 2, 4A, and 4B) Saturation (A3) Salt Crust (B11) Water Marks (B1) Drainage Patterns (B10) Dry-Season Water Table (C2) Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Sulface Soil Crusk (B6) Surface Soil Cracks (B6) Surface Soil Cracks (B6) Surface Soil Cracks (B6) Surface Soil Cracks (B6) Surface Water Present? Yes No Depth (inches): Water At apply) Secondary Indicators (2 or more required; check all that apply) Water-Stained Leaves (B9) (MLF 4A, and 4B) A4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Image Presence of Reduced Iron (C4) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Cincludes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	IVDDOLG	20V									
Primary Indicators (minimum of one required; check all that apply) Secondary Indicators (2 or more required; check all that apply) Surface Water (A1) High Water Table (A2) MLRA 1, 2, 4A, and 4B) Saturation (A3) Salt Crust (B11) Drainage Patterns (B10) Drainage Pa			ndicators								
Surface Water (A1)	-				d; check	all that app	lv)			Seco	ndary Indicators (2 or more required)
High Water Table (A2) Saturation (A3) Salt Crust (B11) Water Marks (B1) Aquatic Invertebrates (B13) Dry-Season Water Table (C2) Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Saturation Visible on Aerial Image Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Sulface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Reased Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7) Frost-Heave Hummocks (D7) Saturation Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Remarks:					Γ			s (B9) (except		
Saturation (A3)									олоор.	<u> </u>	
Water Marks (B1)			(-/			_		,			•
□ Sediment Deposits (B2) □ Hydrogen Sulfide Odor (C1) □ Saturation Visible on Aerial Image 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): □ Wetland Hydrology Present? Yes □ No ☑ Depth (inches): □ No Includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:					Ī	=	. ,	(B13)			
□ 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): □ 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:		. ,	s (B2)		_	_					Saturation Visible on Aerial Imagery (C
□ 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): □ 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:					_				a Livina Roc	_	5 ,
□ 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 (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:					Ī		-		-		. , ,
Surface Soil Cracks (B6)						=		,	,		
□ 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): □ No Includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:						_				_	` '
Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes □ No ☑ Depth (inches): □ Water Table Present? Yes □ No ☑ Depth (inches): □ Saturation Present? Yes □ No ☑ Depth (inches): □ Wetland Hydrology Present? Yes ☑ No (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:				Imagery (E	7)	_			, (
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 (inches): No	Sparse	ly Vegetate	d Conca	ve Surface	B8)	- ,		ŕ			, ,
Water Table Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No	Field Obse	rvations:									
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 Wa	ter Present	:?	Yes 🗆	No_	Depth (in	iches):				
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	Water Table	e Present?	,	Yes	_						
Remarks:	(includes ca	pillary fring	je)								y Present? Yes <u>V</u> No <u> </u>
	Describe Re	ecorded Da	ta (strear	n gau <mark>ge, m</mark>	onitoring	well, aerial	photos, pre	vious ir	spections),	if available:	
The geomorphic position of the point and a positive FAC-neutral test provide evidence of wetland hydrology.										<u> </u>	
	The geomo	orphic posi	ition of th	ne point ar	nd a pos	sitive FAC-	neutral tes	st provi	ae evidend	ce of wetland	nyarology.

Project/Site: Schrieber Meadows	City/County: Lincoln	Sampling Date:7/13/2022
Applicant/Owner: MDT		State: Montana Sampling Point: DP04-u
Investigator(s): J Trilling	Section, Township, Rang	
Landform (hillslope, terrace, etc.): Hillside	Local relief (concave, co	onvex, none): flat Slope (%):
Subregion (LRR): LRR E Lat:	48.113139	Long:115.420241 Datum: NAD 83
Soil Map Unit Name: 108: Andic dystric eutrocrepts, lacustrine te	rraces-Andic dystrocre	pts, glNWI classification:Not mapped
Are climatic / hydrologic conditions on the site typical for this time of ye	ar? Yes 🔽 No 🗵	(If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly	disturbed? Are "N	lormal Circumstances" present? Yes 🔽 No 🔲
Are Vegetation, Soil, or Hydrology naturally pro	oblematic? (If nee	ded, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing	յ sampling point lo	cations, transects, important features, etc
Hydrophytic Vegetation Present? Yes No		
Hydric Soil Present? Yes No V	Is the Sampled A	
Wetland Hydrology Present? Yes No V		···
Upland sample point located along southwest boundary.		
VEGETATION - Use scientific names of plants		
Tree Stratum Plot size (30 Foot Radius) Absolute Oomian Species		Dominance Test worksheet
	· Otatas	Number of Dominant Species that are OBL, FACW or FAC:
		Total Number of Dominant Species Across All Strata: 1 (B)
Sapling/Shrub Stratum Plot size (15 Foot Radius)		Percent of Dominant Species That Are OBL, FACW, or FAC: 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 80 X 3 240
Harbassas Chartura Platains (5 Foot Police)		FACU species 0 X 4 0
Herbaceous Stratum Plot size (5 Foot Radius)	FAC	UPL species 4 X 5 20
Alopecurus pratensis 5	FAC UPL	Column Totals 84 (A) 260 (B)
Elymus repens 75	FAC	Prevalence Index = B/A = 3.09524
Mahonia repens 2	UPL	Hydrophytic Vegetation Indicators 1 - Rapid Test for Hydrophytic Vegetation
		✓ 2 - Dominance Test is >50%
		3 - Prevalence Index is <= 3.0
		 4 - Morphological Adaptations (Provide supporting data in remarks or on separate sheet.
		5 - Wetland Non-Vascular Plants
		Problematic Hydrophytic Vegetation (Explain
Woody Vine Stratum Plot size (30 Foot Radius)		Indicators of hydric sil and wetland hydrology must be present, unless disturbed or problematic for #3, 4, 5.
		Hydrophytic Vegetation Yes ✓ NO
Percent Bare Ground 16		Present?
Remarks: Although this point contains hydrophytic vegetation it does no	t contain hydric soils o	r wetland hydrology.
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OO Army Corps of Engineers	<u>'</u>	rvosiom mountains, valicys, and obasis - version 2.0

SOIL									Sai	mpling Point: DPC)4-u
Profile Des	cription: (Describe	to the dep	th needed to docu	nent the	indicator o	or confirm	n the absence			
Depth	-	Matrix		Redo	x Feature						
(inches)	Color	(moist)	%	Color (moist)	%	Type ¹	_Loc ²	Texture		Remarks	
0-10	10YR	2/2	100					Loam	Cobbles		
10-14	10YR	3/2	100				I	Loamy Sand	Cobbles		
14+								Cobbles	Rock ref	usal	
				Reduced Matrix, C			 d Sand G			ore Lining, M=Mat	
Hydric Soil	Indicators	: (Appli	cable to all	LRRs, unless othe	rwise not	ted.)		Indicato	rs for Proble	ematic Hydric So	ils³:
Black H Hydroge Deplete	pipedon (A listic (A3) en Sulfide (ed Below Da	(A4) ark Surfa	ce (A11)	Sandy Redox (Stripped Matrix Loamy Mucky I Loamy Gleyed Depleted Matrix	(S6) Mineral (F Matrix (F2 < (F3)	2)	MLRA 1)	Red Very	er (Explain in	rial (TF2) rk Surface (TF12) Remarks)	
	ark Surface Mucky Mine			☐ Redox Dark Su ☐ Depleted Dark						nytic vegetation an must be present,	.a
	Gleyed Mat			Redox Depress	ions (F8)			unles	s disturbed o	r problematic.	
Restrictive	Layer (if p	resent):									
Type:											
Depth (in	nches):							Hydric Soil	Present?	Yes 🔲 No	<u> </u>
HYDROLC Wetland Hy		dicators	<u> </u>								
-				; check all that appl	v)			Secon	dary Indicate	ors (2 or more requ	uired)
	Water (A1		<u>-</u>			res (B9) (e x	cept		•	Leaves (B9) (MLI	
	ater Table (1, 2, 4A,		СОСР	••	4A, and 4B		VA 1, 2,
Saturati		(* (*)		☐ Salt Crust		una 45,		Пр	rainage Patte	•	
\equiv	/larks (B1)			Aquatic In	` '	es (B13)				ater Table (C2)	
	nt Deposits	(B2)		Hydrogen					-	ble on Aerial Imag	iery (C9
	posits (B3)					res along L	ivina Ro		eomorphic P	_	,., (
	at or Crust					ed Iron (C4)	-	` ' —	hallow Aquita		
	posits (B5)	(5.)		_		ion in Tilled	•		AC-Neutral T		
	Soil Crack	s (B6)				l Plants (D1				unds (D6) (LRR A	4)
_			Imagery (B7	_			., (=	_		ummocks (D7)	7
			e Surface (E	<i>,</i> — , ,		,					
Field Obser	• •			,							
Surface Wat		? `	res 🗆 1	No 🔽 Depth (in	ches).						
Water Table				No Depth (in							
Saturation P	resent?	,		No Depth (in				land Hydrology	/ Present?	Yes No	<u> </u>
(includes ca Describe Re			n gauge, mo	nitoring well, aerial	photos, p	evious insp	oections),	if available:			
Remarks: No evidence	e of wetla	nd hvdro	ology obser	ved.							
	2	,	9, 2,2201								

Project/Site: Schrieber Meadows	City/County: Lincoln	Sampling [Date: 7/13/2022
Applicant/Owner: MDT	, ,	State: Montana Sampling F	Point: DP04-w
	Section, Township, Rang		30W
Landform (hillslope, terrace, etc.): Toeslope	Local relief (concave. co	nvex. none): flat	Slope (%): 2
Subregion (LRR): LRR E Lat:			
Soil Map Unit Name: 108: Andic dystric eutrocrepts, lacustrine te			
Are climatic / hydrologic conditions on the site typical for this time of ye			
Are Vegetation, Soil, or Hydrology significantly			as 🗸 No 🗆
Are Vegetation, Soil, or Hydrology naturally pro			
SUMMARY OF FINDINGS – Attach site map showing			
Hydrophytic Vegetation Present? Yes No			
Hydric Soil Present? Yes No	Is the Sampled A		✓
Wetland Hydrology Present? Yes <u>✓</u> No	within a Wetland	r res <u> </u>	<u> </u>
Remarks: Wetland sample point located across Cell 7 from DP03-u and	DD03.w		
Wetland Sample point located across Och 7 Hom Dr 05-d and	DI 05-W.		
VEGETATION - Use scientific names of plants			
Absolute Domian	t Indicator	Dominance Test worksheet	
Tree Stratum Plot size (30 Foot Radius) % Cover: Species	? Status	Number of Dominant Species that are OBL, FACW or FAC:	1 (A)
		Total Number of Dominant Species Across All Strata:	1 (B)
Sapling/Shrub Stratum Plot size (15 Foot Radius)		Percent of Dominant Species That Are OBL, FACW, or FAC:	100 % (A/B)
Sapling/Shrub Stratum Plot size (15 Foot Radius)	-	Prevalence Index worksheet	
		Total % Cover of:	Multiply by:
		OBL species 1 X 1	1
		FACW species 92 X 2 FAC species 8 X 3	<u>184</u> 24
		FACU species 0 X 4	0
Herbaceous Stratum Plot size (5 Foot Radius)		UPL species 0 X 5	0
Alopecurus pratensis 5	FAC	Column Totals 101 (A)	209 (B)
Carex utriculata 1	OBL	Prevalence Index = B/A =	2 06034
Cirsium arvense 3	FAC	Hydrophytic Vegetation Indicate	
Persicaria maculosa 10	FACW	✓ 1 - Rapid Test for Hydro	
Phalaris arundinacea 82 🔽	FACW	✓ 2 - Dominance Test is >	50%
		✓ 3 - Prevalence Index is	<= 3.0
		4 - Morphological Adapta supporting data in remar	
		sheet.	•
		5 - Wetland Non-Vascula	ar Plants
		Problematic Hydrophytic	Vegetation (Explain)
Woody Vine Stratum Plot size (30 Foot Radius)		Indicators of hydric sil and wetland present, unless disturbed or proble	
Percent Bare Ground 0		Hydrophytic Vegetation Present? Ves V NO) [
Remarks:			
A prevalence index below three and a positive dominance tes	t indicate the presence	of a hydrophytic plant commun	ity.
US Army Corps of Engineers	V	Vestern Mountains, Valleys, and Co	pasts - Version 2.0

SOIL											Sampling Point: DP04-w
Profile Des	cription: (Describe	to the de	pth need	ed to docur	nent the i	ndicato	or or cor	nfirm the at	sence	of indicators.)
Depth		Matrix				x Features					
(inches)	Color	(moist)	%	Colo	r (moist)	%	Type ¹	1 Loc	z² Tex	ture	Remarks
0-18	10YR	2/1	85	10YR	5/1	3	С	M	Loa	m	
0-18	10YR	2/1	85	10YR	5/6	12			Loa	m	Bottom of pit
			_								
						-					
¹ Type: C=C	oncentratio	on, D=Dei	oletion, RN	. ——— ∕I=Reduce	ed Matrix, CS	S=Covered	d or Coa	— —— ated San	d Grains.	² Lo	cation: PL=Pore Lining, M=Matrix.
					ınless othei					ndicato	ors for Problematic Hydric Soils ³ :
Histoso				☐ Sai	ndy Redox (S5)			<u>]</u>		m Muck (A10)
_	pipedon (A	.2)		_	ipped Matrix	. ,			<u> </u>	=	d Parent Material (TF2)
	listic (A3)				amy Mucky N			pt MLR	A 1)	_	y Shallow Dark Surface (TF12)
	en Sulfide (ed Below Da		so (A11)		amy Gleyed pleted Matrix)		<u>_L</u>	_ Oth	er (Explain in Remarks)
	ark Surface		Ze (⊼11)	_	dox Dark Su	. ,			³ I	ndicate	ors of hydrophytic vegetation and
_	Mucky Mine				pleted Dark		7)				and hydrology must be present,
	Gleyed Mat			Re	dox Depress	ions (F8)	***			unles	ss disturbed or problematic.
Restrictive	Layer (if p	resent):									
Type:											
Depth (in Remarks:	iches):			_					Hydr	ic Soil	I Present? Yes _ U No _ 🗹
HYDROLO	GY										
Wetland Hy		dicators	:								
-				ed; check	all that appl	y)				Seco	ndary Indicators (2 or more required)
Surface	Water (A1)			☐ Water-Stai	ined Leave	es (B9)	(except		v	Vater-Stained Leaves (B9) (MLRA 1, 2 ,
<u>✓</u> High Wa	ater Table ((A2)			MLRA	1, 2, 4A, a	nd 4B)				4A, and 4B)
<u>✓</u> Saturati	ion (A3)				Salt Crust	, ,					Orainage Patterns (B10)
	/larks (B1)				Aquatic Inv		. ,				Ory-Season Water Table (C2)
	nt Deposits				Hydrogen						Saturation Visible on Aerial Imagery (C9
	posits (B3)							-	Roots (C3)		Geomorphic Position (D2)
	at or Crust	(B4)			Presence		•	,	· (C6)	_	Shallow Aquitard (D3)
	posits (B5) Soil Crack	c (B6)			☑ Recent Iro ☑ Stunted or						FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
	ion Visible		lmagen/ (l	37)	Other (Exp			(D1) (LR	AR A)		Frost-Heave Hummocks (D7)
	y Vegetate						markoj			'	Tost Heave Hammooks (B1)
Field Obser	· · ·										
Surface Wat	ter Present	? \	/es	No	Depth (inc	ches):					
Water Table	Present?	١	res 🔽	No	Depth (inc	ches):		7			
Saturation P			res 🔽	No	Depth (ind	ches):		<u> </u>	Wetland Hy	drolog	y Present? Yes 🗹 No 🔲
(includes ca Describe Re			n gauge, n	nonitorina	well, aerial i	photos, pre	evious ir	nspectio	ns), if availa	ble:	
		•	0 0 /	J	,				,,		
Remarks:											
						orphic po	osition,	a posit	ive FAC-ne	eutral	test, and a water table 7 inches
from the su	nace, as \	weii as s	aturation	at the so	ni surface.						

Project/Site: Schrieber Meadows		c	City/County:	Lincoln	Sampling Date:7/13/2022
Applicant/Owner: MDT					State: Montana Sampling Point: DP05-u
					ge: S 11 T 27N R 30W
Landform (hillslope, terrace, etc.): 1	<u>at</u>		Local relief ((concave, co	onvex, none): flat Slope (%): 0
Subregion (LRR): LRR E		Lat:	40	8.115039	Long:115.422037 Datum: NAD 83
Soil Map Unit Name: 105: Aquic ud	difluvents, poorly draine	ed			NWI classification:Not mapped
Are climatic / hydrologic conditions o	n the site typical for this ti	ime of yea	ır?Yes 🔽		(If no, explain in Remarks.)
Are Vegetation Soil	or Hydrology Sign	nificantly d	disturbed?	Are "N	Iormal Circumstances" present? Yes 🔽 No 🔲
Are Vegetation, Soil,		-			eded, explain any answers in Remarks.)
-					cations, transects, important features, etc.
Hydrophytic Vegetation Present?	Yes No	✓			
Hydric Soil Present?	Yes No _	✓		e Sampled A	Area
Wetland Hydrology Present?	Yes No _	✓	withi	n a Wetland	d? Yes 🔲 No 🔽
Remarks:					
This point located in the west co					
	Absolute	D omiant	Indicato	r	<u> </u>
Tree Stratum Plot size (30 Fo	at Dadiua	Species?			Dominance Test worksheet Number of Dominant Species
Abies grandis	5		FACU	_	that are OBL, FACW or FAC:
Amelanchier alnifolia	2		FACU	_	Total Number of Dominant
Larix occidentalis	60	✓	FACU	_	Species Across All Strata: 4 (B)
Picea engelmannii	10		FAC	-	Percent of Dominant Species That Are OBL FACW or FAC: 0 % (A/B)
Sapling/Shrub Stratum Plot s	size (15 Foot Radius)				That Are OBL, FACW, or FAC:
Rosa woodsii	2	✓	FACU		Prevalence Index worksheet
Symphoricarpos albus	10	V	FACU	_	Total % Cover of: Multiply by: OBL species 0 X 1 0
				_	OBL species 0 X 1 0 FACW species 5 X 2 10
					FAC species 18 X 3 54
					FACU species 81 X 4 324
Herbaceous Stratum Plot s	size(5 Foot Radius)				UPL species 81 X 5 405
Achillea millefolium	1		FACU		Column Totals 185 (A) 793 (B)
Agrostis exarata	5		FACW		
Bromus inermis	15		UPL	_	Prevalence Index = B/A = 4.42865
Clematis hirsutissima	1		UPL	_	Hydrophytic Vegetation Indicators
Clematis ligusticifolia	5		FAC		1 - Rapid Test for Hydrophytic Vegetation
Equisetum arvense	3		FAC	_	2 - Dominance Test is >50%
Fragaria virginiana	1		FACU	_	☐ 3 - Prevalence Index is <= 3.0
Hieracium aurantiacum	65	<u> </u>	UPL		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 s	size (30 Foot Radius)				Indicators of hydric sil and wetland hydrology must be present, unless disturbed or problematic for #3, 4, 5.
Percent Bare Ground	4				Hydrophytic Vegetation Present? NO ✓
Remarks: The vegetation community at th	iis data point is domina	ted by up	oland vege	etation spec	cies.

B-34

SOIL										Sampling Point: DP05-u
Profile Des	cription: (Describe	to the de	pth need	ed to docur	ment the i	ndicato	r or confirm	the absence	of indicators.)
Depth		Matrix				x Features				
(inches)	_	(moist)	%	Colo	r (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-10	10YR	5/3	100						Loam	
10-16	99	6/3	10	10YR	5/6	1	С	M	Loam	Bottom of pit
¹ Type: C=C	oncentratio	on. D=De	pletion. RM	=Reduce	ed Matrix, CS	S=Covered	or Coa	– ——— ted Sand Gr	rains. ² Loc	cation: PL=Pore Lining, M=Matrix.
					unless othe					ors for Problematic Hydric Soils ³ :
Histoso	. ,			Sai	ndy Redox (S5)				m Muck (A10)
	pipedon (A	(2)		_	ipped Matrix	. ,			=	d Parent Material (TF2)
	listic (A3)	(4.4)			amy Mucky M			pt MLRA 1)		y Shallow Dark Surface (TF12)
	en Sulfide ed Below D		ce (A11)		amy Gleyed pleted Matrix)		<u> </u>	er (Explain in Remarks)
	ark Surfac		CC (/ (11)	=	dox Dark Su	. ,			3Indicate	ors of hydrophytic vegetation and
_	Mucky Mine	. ,			pleted Dark		7)			and hydrology must be present,
	Gleyed Ma			Re	dox Depress	ions (F8)			unles	ss disturbed or problematic.
Restrictive	Layer (if p	resent):								
Type:										
Depth (ir	nches):								Hydric Soil	Present? Yes No _ 🗹
1)/DDOLG	201/									
HYDROLC Wetland Hy		ndicators								
-				d check	all that appl	v)			Seco	ndary Indicators (2 or more required)
$\overline{}$: Water (A1		one require	one on	_ Water-Sta		es (R9) (excent		Vater-Stained Leaves (B9) (MLRA 1, 2 ,
	ater Table					1, 2, 4A, a		схосрі	,	4A, and 4B)
	ion (A3)	(//			Salt Crust		,			Orainage Patterns (B10)
	Marks (B1)				_ ☐ Aquatic In	,	s (B13)			Ory-Season Water Table (C2)
Sedime	nt Deposits	s (B2)			Hydrogen	Sulfide Od	lor (C1)		s	Saturation Visible on Aerial Imagery (CS
Drift De	posits (B3)				Oxidized F	Rhizospher	es alon	g Living Roo	ots (C3) 🔲 G	Seomorphic Position (D2)
	at or Crust	, ,			Presence			-		Shallow Aquitard (D3)
	posits (B5)			Ļ	_			ed Soils (C6		AC-Neutral Test (D5)
_	Soil Crack	` '			_		,	D1) (LRR A)	_	Raised Ant Mounds (D6) (LRR A)
	ion Visible				_l Other (Exp	olain in Rei	marks)		F	rost-Heave Hummocks (D7)
Field Obser	ly Vegetate	d Concav	/e Surrace	(B0)						
Surface Wa		2 ,	Yes \square	No N	Depth (in	ches):				
Water Table			Yes \square		Depth (in					
Saturation F			Yes 🗌	_	Depth (in				and Hvdrolog	y Present? Yes 🔲 No 🔽
(includes ca	pillary fring	je)		-						,
Describe Re	ecorded Da	ta (strear	n gauge, m	onitoring	well, aerial	photos, pre	evious ir	ispections),	if available:	
Damada										
Remarks: No evidenc	e of wetla	nd hvdro	ology obse	erved						

Project/Site: Schrieber Meadows	City/County: Lincoln	Sar	mpling Date: 7/13/2022
Applicant/Owner: MDT		_{State:} Montana _{Sar}	
	_ Section, Township, Range		R 30W
Landform (hillslope, terrace, etc.): Terrace slope	Local relief (concave, cor	nvex. none): flat	Slope (%): 2
Subregion (LRR): LRR E Lat:			
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			
SUMMARY OF FINDINGS – Attach site map showin	· ·		,
Hydrophytic Vegetation Present? Yes Ves No	_		
Hydric Soil Present? Yes V No No	Is the Sampled All within a Wetland?		No.
Wetland Hydrology Present? Yes Ves No	- Within a Welland	1es	
Remarks: Wetland sample point located along edge of wetland Cell 1.			
Treating campie point recailed along ongo or menanta con in			
VEGETATION - Use scientific names of plants			
Trac Strature Plot size (20 Foot Redive) Absolute Domia		Dominance Test worksho	eet
Tree Stratum Plot size (30 Foot Radius) % Cover: Specie	es? Status	Number of Dominant Specthat are OBL, FACW or FA	cies —
		Total Number of Dominant Species Across All Strata:	t
Sapling/Shrub Stratum Plot size (15 Foot Radius)		Percent of Dominant Spec That Are OBL, FACW, or F	
Sapinigistifub Stratum 1 fot 3/20 (13 1 oot reading)		Prevalence Index worksh	neet
		Total % Cover of:	Multiply by:
		•	X 1 X 2 6
		•	X 3 270
			X 4 8
Herbaceous Stratum Plot size (5 Foot Radius)		UPL species 0	X 5 0
Agrostis capillaris 85	FAC	Column Totals 95	(A) 284 (B)
Carex athrostachya 3	FACW	Prevalence Index = E	3/A = 2.98947
Dactylis glomerata 2	FACU FAC	Hydrophytic Vegetation I	
Pinus contorta 2	FAC		r Hydrophytic Vegetation
Tindo contorta	17.0	2 - Dominance Te	est is >50%
		3 - Prevalence In	idex is <= 3.0
		supporting data in	l Adaptations (Provide n remarks or on separate
		sheet.	
		5 - Wetland Non-	Vascular Plants
		☐ Problematic Hydr	rophytic Vegetation (Explain)
Woody Vine Stratum Plot size (30 Foot Radius)		Indicators of hydric sil and v present, unless disturbed o	
Percent Bare Ground 5		Hydrophytic Vegetation Present? Yes	☑ NO □
Remarks:			
A positive dominance test indicates the presence of a hydro	ohytic vegetation commu	inity at this data point.	
US Army Corps of Engineers	W	Vestern Mountains, Valleys,	and Coasts - Version 2.0

SOIL										Sampling Po	oint: DP05-w
Profile Des	cription: (Describe	to the de	pth nee	ded to docu	ment the i	ndicato	r or conf	irm the absenc	e of indicators.)	
Depth		Matrix				x Feature:					
(inches)		(moist)	%	Co	lor (moist)	%	Type ¹	Loc ²	Texture	Remark	<s .<="" th=""></s>
0-05	10YR	5/2	100						Loam		
05-16	10YR	6/2	90	10YR	5/6	10	С	M	Sandy Loam	Bottom of pit	
			_				-	_			
								_			
Type: C=C	oncentration	on, D=De	 pletion, RN	====== /i=Redu	ced Matrix, C	S=Covered	d or Coa	 ted Sand	Grains. ² Lo	- ————————————————————————————————————	a, M=Matrix.
					, unless othe					ors for Problematic Hy	
Histoso	I (A1)			□ s	andy Redox (S5)			2 0	cm Muck (A10)	
Histic E	pipedon (A	(2)		<u>□</u> s	tripped Matrix	(S6)			_	d Parent Material (TF2)	
	listic (A3)				oamy Mucky I			pt MLRA		ry Shallow Dark Surface	
	en Sulfide				oamy Gleyed)		Ot	her (Explain in Remarks	5)
	ed Below Da		ce (A11)		epleted Matri				3,		
	ark Surface Mucky Mine				edox Dark Su					tors of hydrophytic vege and hydrology must be	
_	viucky iviine Gleyed Mat				epleted Dark edox Depress		.7)			and nydrology must be ess disturbed or problem	
Restrictive	-			<u> </u>	edox Depress	310113 (1 0)			dille	sas disturbed of problem	latio.
Type:	_u, o. (p										
Depth (in	ochee):								Hydric So	il Present? Yes <u> </u>	No 🗆
Remarks:									- Tryuno ee		
HYDROLO Wetland Hy		dicatore	•								
-				ed; chec	ck all that appl	v)			Sec	ondary Indicators (2 or n	nore required)
	Water (A1				Water-Sta	**	es (B9) (except		Water-Stained Leaves (-
	ater Table			-		1, 2, 4A, a		охоорт	<u> </u>	4A, and 4B)	50) (2.10 (1, 2
Saturati		(/ (2)			☐ Salt Crust		a 4 . 2,			Drainage Patterns (B10))
=	/larks (B1)			-	Aquatic In	, ,	s (B13)			Dry-Season Water Table	
	nt Deposits	s (B2)		_	Hydrogen					Saturation Visible on Ae	, ,
	posits (B3)			_	Oxidized F			a Livina F	_	Geomorphic Position (D	• • •
	at or Crust			_	Presence	•			· · · —	Shallow Aquitard (D3)	_,
	posits (B5)				Recent Irc			-		FAC-Neutral Test (D5)	
	Soil Crack			_	Stunted or					Raised Ant Mounds (D6) (LRR A)
	ion Visible		Imagery (I	37) <u> </u>	Other (Ex			, ,		Frost-Heave Hummocks	
Sparsel	y Vegetate	d Concav	e Surface	(B8)							
Field Obser	rvations:										
Surface Wat	ter Present	? `	Yes 🔲	No	Depth (in	ches):					
Water Table	Present?	,	Yes 🔲	No	✓ Depth (in	ches):					
Saturation P (includes ca			Yes	No	✓ Depth (in	ches):		w	etland Hydrolo	gy Present? Yes	<u>'</u> No <u>□</u>
			n gauge, n	onitorin	ıg well, aerial	photos, pr	evious ir	spection	s), if available:		
Remarks:											
	f wetland	hydroloc	y present	in a po	ositive FAC-	neutral te	st and t	he data	point's geomo	rphic position.	
		, 5.08	,, ,	P'		10			, - 30		

Project/Site: Schrieber Meadows	City/County: Lincoln Sampling Date: 7/13/20	22
	State: Montana Sampling Point: DP06-u	
	Section, Township, Range: S 11 T 27N R 30W	
Landform (hillslope, terrace, etc.). Flat	Local relief (concave, convex, none): flat Slope (%):	0
Subregion (LRR): LRR E Lat:	48.115912 Long: -115.420771 Datum: NAD 83	3
Soil Map Unit Name: 105: Aquic udifluvents, poorly drained.	NWI classification: Not mapped	
Are climatic / hydrologic conditions on the site typical for this time of y		
	ly disturbed? Are "Normal Circumstances" present? Yes 🗹 No 🗍	
Are Vegetation, Soil, or Hydrology naturally p		
	ng sampling point locations, transects, important features, e	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 Wettand? Tes NO	
Remarks: This point located outside of wetland cell 2B, near project both	uindarv	
This point located outside of wetland cen 2B, hear project bot	undary.	
VEGETATION - Use scientific names of plants		
Absolute Domia	ant Indicator Dominance Test worksheet	
Tree Stratum Plot size (30 Foot Radius) % Cover: Specie	es? Status Number of Dominant Species	
Pinus contorta 3	that are OBL, FACW or FAC: 1 (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: 25 % (A/B	;)
Symphoricarpos albus 5	FACU Prevalence Index worksheet	
Sympholical pos aibus 5 🔻	Total % Cover of: Multiply by:	_
	OBL species 0 X 1 0 FACW species 1 X 2 2	
	FAC species 23 X 3 69	
	FACU species 5 X 4 20	
Herbaceous Stratum Plot size (5 Foot Radius)	UPL species 80 X 5 400	
Agrostis capillaris 10	FAC Column Totals 109 (A) 491	(B)
Alopecurus pratensis 5	FAC Prevalence Index = B/A = 4.50459	
Bromus inermis 60	UPL Hydronbytic Veretation Indicators	
Carex athrostachya 1	FACW FAC A graph of the second of the seco	ı
Penstemon confertus 20	UPL 2 - Dominance Test is >50%	
1 dilaterilari definatas	3 - Prevalence Index is <= 3.0	
	4 - Morphological Adaptations (Provide supporting data in remarks or on separate sheet.	Э
	5 - Wetland Non-Vascular Plants	
	Problematic Hydrophytic Vegetation (Expl	laın)
Woody Vine Stratum Plot size (30 Foot Radius)	Indicators of hydric sil and wetland hydrology must l present, unless disturbed or problematic for #3, 4, 5	
Percent Bare Ground 0	Hydrophytic Vegetation Present? Ves □ NO ✓	
Remarks:		
The vegetation community at this data point is dominated by	vupland species.	
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SOIL											Sampling Poin	ıt: DP06-u
Profile Des	cription: ([Describe	to the dept	h neede	d to docur	nent the	indicator	or confir	m the abser			
Depth		Matrix				x Feature		2	_			
(inches)	Color (%	Color	(moist)	%	Type ¹	Loc ²	Texture		Remarks	
0-10	10YR	3/3	100						Loam			
10-16	10YR 5/4 100 L									Botto	m of pit	
			pletion, RM=					ed Sand (_=Pore Lining,	
Histoso Histic E Black H Hydroge Deplete		2) A4) irk Surfac		Sand Strip Loar Loar Depl	dy Redox (S ped Matrix ny Mucky M ny Gleyed eted Matrix ox Dark Su	S5) (S6) Mineral (F Matrix (F2 ((F3)	1) (excep 2)	t MLRA 1	2 F I) \ 0	2 cm Muck (A Red Parent M /ery Shallow Other (Explai	=	(TF12)
Sandy I	ark Surface Mucky Mine Gleyed Matr	ral (S1)	,	Depl	eted Dark su ox Depress	Surface (F7)		W	etland hydrol	ogy must be pr ed or problema	resent,
Restrictive	•			iveat	DX Depiess	10115 (1 0)	1		ui ui	iless disturbe	su or problema	
Type:		,-										
	ches):								Hydric S	oil Present	? Yes	No 🔽
JVDBOL C	OCV.											
HYDROLC Wetland Hy		dicators	•									
-			one required	: check a	ll that appl	v)			Se	condary Indi	cators (2 or mo	ore required)
Surface High Wa	Water (A1) ater Table (/		,		Water-Sta	ined Leav 1, 2, 4A, (B11)	and 4B)	except	Water-Stained Leaves (B9) (MLRA 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2)			
Sedime Drift De	nt Deposits posits (B3) at or Crust (Hydrogen Oxidized F Presence	Sulfide O Rhizosphe	dor (C1) eres along	_	pots (C3)	Saturation	Visible on Aeria ic Position (D2)	al Imagery (C9
Surface Inundat		n Aerial	Imagery (B7 ve Surface (E	r)	Recent Iro Stunted or Other (Exp	Stressed	d Plants (D		_	Raised Ant	al Test (D5) : Mounds (D6) (re Hummocks (
Field Obser												
Surface Wat Water Table				10 <u>▼</u> 10 <u>▼</u>	Depth (in							
Saturation P (includes ca	resent?	`			Depth (in				tland Hydrol	ogy Present	t? Yes	No <u></u>
			n gauge, mo	nitoring v	vell, aerial ∣	photos, p	revious ins	spections)), if available:			
Remarks: No evidenc	e of wetlar	nd hydro	ology obser	ved.								

Project/Site: Schrieber Meadows City/County: Lit	ncoln Sampling Date: 7/13/2022
	State: Montana Sampling Point: DP06-w
Investigator(s): J Trilling Section, Towns	
Landform (hillslope, terrace, etc.): Flat Local relief (co	
Subregion (LRR): LRR E Lat: 48.1	15851 Long: -115.420651 Datum: NAD 83
	NWI classification: Not mapped
Are climatic / hydrologic conditions on the site typical for this time of year? Yes	
Are Vegetation, Soil, or Hydrology significantly disturbed?	
Are Vegetation, Soil, or Hydrology naturally problematic?	
SUMMARY OF FINDINGS – Attach site map showing sampling p	oint locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes Veg No	
Tryane contricion:	ampled Area ∣Wetland? Yes No
vvetiand Hydrology Present? Yes <u>V</u> No <u> </u>	vvenanu: Tes No
Remarks: Wetland sample point located near cell 2B.	
Troubling sample point resulted floar SSM 25.	
VEGETATION - Use scientific names of plants	
Tree Streeture Plot eige (20 Feet Redive) Absolute Domiant Indicator	Dominance Test worksheet
Tree Stratum Plot size (30 Foot Radius) % Cover: Species? Status	Number of Dominant Species that are OBL, FACW or FAC: 2 (A)
	Total Number of Dominant Species Across All Strata: 2 (B)
	Percent of Dominant Species That Are OBL, FACW, or FAC: 100 % (A/B)
Sapling/Shrub Stratum Plot size (15 Foot Radius)	Prevalence Index worksheet
	Total % Cover of: Multiply by:
	OBL species 0 X 1 0
	FACW species 0 X 2 0
	FAC species 72 X 3 216
Herbaceous Stratum Plot size (5 Foot Radius)	FACU species 0 X 4 0 UPL species 15 X 5 75
Alopecurus pratensis 50 FAC	
Bromus inermis 15 UPL	Column Totals 87 (A) 291 (B)
Elymus repens 20 🗸 FAC	Prevalence Index = B/A = 3.34483
Potentilla gracilis 2 FAC	Hydrophytic Vegetation Indicators
	
	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 13	Present?
Remarks: A positive dominance test indicates the presence of a hydrophytic vegetation	n community at this data point.
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SOIL										5	Sampling Poin	t: DP06-w
Profile Desc	cription: (Desc	ribe to the de	pth need	ed to docui	ment the i	ndicato	or con	firm t	the absence			
Depth	Mat	rix		Redo	x Features							
(inches)	Color (mois	st) %	Colo	r (moist)	%	Type ¹	Loc	2	Texture	_	Remarks	
0-16	10YR 5/2	90	10YR	5/6	10	С	М	Silty	Clay Loan	Botton	1 of pit	
			-				-					
	oncentration, Danie Indicators: (A)						ed San	d Grai			=Pore Lining, I blematic Hyd	
Histosol		- P		ndy Redox (· · · · · ·				m Muck (A1	_	
_	pipedon (A2)			pped Matrix							aterial (TF2)	
	istic (A3)			amy Mucky ľ	` ,) (0×00r	MI D	۸ ۱۱			Dark Surface (TE12\
	en Sulfide (A4)			amy Gleyed) L IVILK	4 1)		-	in Remarks)	,1F12 <i>)</i>
	d Below Dark S			pleted Matrix								
	ark Surface (A1:	•		dox Dark Su		- `				-	phytic vegeta	
_	Mucky Mineral (ร์ Gleyed Matrix (S		_	pleted Dark dox Depress	•	/)					gy must be pro d or problemat	
	Layer (if prese			dox Depiese	510113 (1 0)				unic	33 distarbed	or problemat	
Type:	, , ,											
Depth (in	ches):								Hydric Soi	Present?	Yes 🔽	_ No <u></u>
Remarks:												
HYDROLO												
	drology Indicat		مام مام ماد	all that and					Saaa	مامسر اسطام	-t (2	
	<u>, </u>	i or one require	ea; cneck	<u>ali triat appi</u> ☑ Water-Sta		- (BO) (•	ators (2 or mo	• •
	Water (A1) ater Table (A2)				1, 2, 4A, a		except		v	4A, and		9) (MLRA 1, 2,
Saturati				Salt Crust		·····,					itterns (B10)	
Water M	larks (B1)			Aquatic In	vertebrates	s (B13)				ry-Season	Water Table ((C2)
	nt Deposits (B2)				Sulfide Od				_			al Imagery (C9
	posits (B3)			Oxidized F	-	_	_	Roots		-	Position (D2)	
	at or Crust (B4)		<u> </u>	Presence		•	•	(0.0)		Shallow Aqu		
	posits (B5) Soil Cracks (B6	1	<u> </u>	Recent Iro Stunted or						AC-Neutra	i Test (D5) Mounds (D6) ((LDD A)
_	ion Visible on A	•	B7) -	Other (Exp) (L K	K A)			Hummocks (I	
_	y Vegetated Cor		· —	⊒ Outor (EX		namo,			<u> </u>	1001110010	Trainino ono (57)
Field Obser	vations:		. ,									
Surface Wat	ter Present?	Yes	No	Depth (in	ches):							
Water Table	Present?	Yes	No	Depth (in	ches):						_	_
Saturation P (includes cap		Yes	No	Depth (in	ches):		_ v	Vetlar	nd Hydrolog	y Present?	Yes <u> </u>	No
	corded Data (st	ream gauge, n	nonitoring	well, aerial	photos, pre	evious in	spectio	ns), if	available:			
Domarka												
Remarks: Evidene of	wetland hydrol	ogy observe	d in the p	oint's geor	norphic p	osition	as well	as a	positive FA	C-neutral	test.	
	,	37		3								

Project/Site: Schrieber Meadows	City/County: Lincoln	Sampling Date:7/14/2022
Applicant/Owner: MDT		State: Montana Sampling Point: DP07-u
Investigator(s): J Trilling	Section, Township, Rang	
Landform (hillslope, terrace, etc.): Valley bottom	Local relief (concave, co	onvex, none): flat Slope (%): 0
Subregion (LRR): LRR E	t: 48.115627	Long: -115.419173 Datum: NAD 83
Soil Map Unit Name: 105: Aquic udifluvents, poorly drained		NWI classification: Not mapped
Are climatic / hydrologic conditions on the site typical for this time		
Are Vegetation, Soil, or Hydrology signific		
Are Vegetation, Soil, or Hydrology natura		ded, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map show		
Hydrophytic Vegetation Present? Yes No Hydric Soil Present? Yes No No No No No No No No No No	Is the Sampled A	
Wetland Hydrology Present? Yes No	<u>V</u>	
Remarks: This sample point is located in the northern corner of the	site.	
VEGETATION - Use scientific names of plants		
Tues Chushama Districts (OO Foot Dadius)	omiant Indicator	Dominance Test worksheet
Plot size (30 Poot Radius) % Cover: Sp	pecies? Status	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>Japhing/Onrab Gratain</u>		Prevalence Index worksheet
		Total % Cover of: Multiply by:
		OBL species 0 X 1 0
		FAC species 69 X 3 207
		FACU species 1 X 4 4
Herbaceous Stratum Plot size (5 Foot Radius)	П	UPL species 30 X 5 <u>150</u>
	▼ FAC	Column Totals 100 (A) 361 (B)
Bromus inermis 30 [Potentilla gracilis 2	✓ UPL FAC	Prevalence Index = B/A = 3.61
Taraxacum officinale 1	FACU	Hydrophytic Vegetation Indicators
Taraxacam emenaio	17.00	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 0		Hydrophytic Vegetation Present? NO ✓
Remarks:	t by unland ansaiss	
The vegetation community at this data point is dominated	u by upland species.	
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SOIL											Sa	mpling Point:	DP07-u
Profile Des	cription: (Describe	to the de	pth need	ed to docui	ment the i	ndicato	r or co	nfirm	the absence			
Depth		Matrix			Redo	x Features							
(inches)	Color	(moist)	%	Colo	r (moist)	%	Type ¹	Lo	c ²	Texture		Remarks	
0-11	10YR	2/2	100							Loam			
11-18	10YR	6/1	98	10YR	5/6	2	С	M	Silt	y Clay Loam	Bottom	of pit	
									·				
Type: C=C	Concentration	on, D=De	 pletion, RM	l=Reduce	ed Matrix, CS	S=Covered	 I or Coa	ted Sa	nd Gra	ins. ² Loc	ation: PL=P	ore Lining, M	=Matrix.
Hydric Soil												ematic Hydri	
Black H Hydroge Deplete Thick D Sandy I Sandy (pipedon (A distic (A3) en Sulfide (ed Below Da park Surface Mucky Mine Gleyed Mat	(A4) ark Surface (A12) eral (S1) trix (S4)	ce (A11)	Stri Loa Loa De Re	ndy Redox (pped Matrix amy Mucky I amy Gleyed bleted Matrix dox Dark Su bleted Dark dox Depress	(S6) Mineral (F1 Matrix (F2) x (F3) rface (F6) Surface (F)	ot MLF	RA 1)	Red Very Othe	r (Explain in s of hydropl id hydrology	erial (TF2) rk Surface (T	on and sent,
Restrictive	Layer (if p	resent):											
Туре:													
Depth (in	nches):									Hydric Soil	Present?	Yes	No
HYDROLO		alia a ta ua	_										
Wetland Hy Primary Indi				d chack	all that anni	v)				Secon	dany Indicate	ors (2 or more	required)
	,		one require	u, check			- (BO) (4		-	•	
	e Water (A1 ater Table (ined Leave		excep	L			Leaves (B9)	(IVILKA I, Z
	ion (A3)	(A2)		Г	Salt Crust	1, 2, 4A, a	11u 4D)				4A, and 4E ainage Patte	•	
_	` '				_	vertebrates	(D12)					/ater Table (C	•2)
	Marks (B1)	(B2)			_	Sulfide Od					-	ible on Aerial	
	nt Deposits			+					. Daak				imagery (Cs
	posits (B3)			누	_	Rhizospher		-	J KOOL		· ·	osition (D2)	
	at or Crust	(D4)		-	_	of Reduce			~ (CC)		allow Aquita		
	posits (B5)	- (DC)		<u> </u>	_	n Reduction Stressed					C-Neutral T		DD 4\
_	Soil Crack	. ,	l (F)7)	_		•) (Li	KK A)			ounds (D6) (L	-
	ion Visible ly Vegetate				_ Otner (Exp	olain in Rei	marks)			_ <u>_</u> _ Fr	ost-Heave F	lummocks (D	/)
Field Obser	• •	4 5511541		(50)									
Surface Wat	ter Present	? `	res 🔲	No	Depth (in	ches):							
Water Table	Present?	•	res	No	Depth (in	ches):							
Saturation P			Yes		Depth (in				Wetla	nd Hydrology	Present?	Yes	No 🔽
Describe Re			n gauge, m	onitoring	well, aerial	photos, pre	evious ir	spection	ons), if	available:			
Remarks: No evidence	e of wetla	nd hydro	ology obse	erved									

Project/Site: Schrieber Meadows	City/Cc	ounty. Lincoln		Sampling Da	ate 7/14/2022
Applicant/Owner: MDT					
			ge: S 11 T		
Landform (hillslope, terrace, etc.): Valley bottom					
Subregion (LRR): LRR E Lat:					
Soil Map Unit Name: 105: Aquic udifluevents, poorly drained			NWI classific		
Are climatic / hydrologic conditions on the site typical for this time					•
Are Vegetation, Soil, or Hydrology signification					No 🗆
Are Vegetation, Soil, or Hydrology naturall					
SUMMARY OF FINDINGS – Attach site map show					
Hydrophytic Vegetation Present? Yes No					
Hydric Soil Present? Yes No		Is the Sampled A within a Wetland	Area	No	7
Wetland Hydrology Present? Yes V No		within a vvetiand	r 165		<u> </u>
Remarks: This sample point is located in the northern corner of the s	site				
The dample point is isolated in the horatern come of the	Sito.				
VEGETATION - Use scientific names of plants					
Absolute Doi	miant Inc	dicator	Dominance Test wor	ksheet	
Tree Stratum Plot size (30 Foot Radius) % Cover: Spe	ecies? Sta	atus	Number of Dominant that are OBL, FACW	Species	1 (A)
			Total Number of Domi Species Across All Str	nant	1 (B)
Sapling/Shrub Stratum Plot size (15 Foot Radius)			Percent of Dominant S That Are OBL, FACW		100 % (A/B)
Sapinig/Sirrub Stratum Flot Size (15 Flot Nations)			Prevalence Index wo	rksheet	
			Total % Cover o		Multiply by:
			OBL species	0 X1 5 X2	0
			FACW species FAC species	92 X3	<u>10</u> 276
			FACU species	0 X4	0
Herbaceous Stratum Plot size (5 Foot Radius)			UPL species	1 X5	5
Alopecurus pratensis 90	✓ FAC	<u> </u>	Column Totals 9	(A)	291 (B)
Bromus inermis 1	UPL		Prevalence Inde	c = R/Δ = 2	06030
Carex athrostachya 3	FAC		Hydrophytic Vegetat		
Potentilla gracilis 2	FAC				nytic Vegetation
Stellaria longifolia 2	FAC	, V V	✓ 2 - Dominan	ce Test is >50)%
			✓ 3 - Prevalen	ce Index is <=	= 3.0
					ions (Provide s or on separate
			sheet.		•
			5 - Wetland	Non-Vascular	Plants
			Problematic	- Hydrophytic √	/egetation (Explain)
Woody Vine Stratum Plot size (30 Foot Radius)			Indicators of hydric sil a present, unless disturb		
Percent Bare Ground 2			Hydrophytic Vegetation Present?	es 🗹 NO	
Remarks:					
A positive dominance test indicates the presence of a hyd	drophytic pl	lant community a	at this data point.		
US Army Corps of Engineers		\	Vestern Mountains, Vall	evs. and Coa	sts - Version 2.0

SOIL												S	ampling P	oint: DP07-w
Profile Desc	cription: (Describe	to the dep	oth need	led to docu	ment the in	ndicato	or or co	nfirm t	the absence	ce of			
Depth		Matrix			Redo	x Features								
(inches)	Color	(moist)	%	Cold	or (moist)	%	_Type ¹	Loc	²	Texture			Rema	rks
0-05	10YR	2/1	100						Fib	orous Ioan	n			
05-16	10YR	6/1	95	10YR	5/6	5	С	M	Silty	/ Clay Loa	ım I	Bottom	of pit	
			- ——— - ———			- ——— - ———			 		 			
Type: C=C	oncentratio	n, D=Dej	oletion, RM	=Reduc	ed Matrix, C	S=Covered	l or Coa	ated San	ıd Grai					ng, M=Matrix.
Hydric Soil	Indicators	: (Applio	able to all	LRRs,	unless othe	rwise note	ed.)			Indica	tors	for Prob	lematic F	Hydric Soils³:
Black H Hydroge Deplete	(A1) pipedon (Aistic (A3) en Sulfide (d Below Da ark Surface	A4) ark Surfac	ce (A11)	Str Los	ndy Redox (ripped Matrix amy Mucky I amy Gleyed pleted Matrix dox Dark Su	x (S6) Mineral (F1 Matrix (F2) x (F3)		pt MLR	A 1)	Re Ve	ed Pa ery Sh ther (l	nallow D Explain i	erial (TF2 ark Surfac n Remark	ce (TF12)
	Jucky Mine				pleted Dark		7)						-	e present,
= -	Sleyed Mat			_	dox Depress		.,						or proble	
Restrictive	-												-	
Туре:														
Depth (in	ches):									Hydric Sc	oil Pre	sent?	Yes	✓ No 🗆
Remarks:		phic con	centration	ns comr	non within t	the deplet	ed ma	trix.						
Remarks: Prominent ı	redoximor	phic con	centration	ns comr	non within t	the deplet	ed ma	trix.		-				
Remarks: Prominent i	redoximor GY			ns comn	non within t	the deplet	ed ma	trix.						
Remarks: Prominent i	edoximor GY drology In	dicators	:				ed ma	trix.						more required
Remarks: Prominent I IYDROLO Wetland Hy Primary India	GY drology In	dicators:	:		all that appl	ly)				Sec	conda	ry Indica	tors (2 or	more required
Remarks: Prominent I IYDROLO Wetland Hy Primary India	GY drology In cators (min	dicators:	:		all that appl	ly) ined Leave	es (B9)	(except		Sec	conda Wate	ry Indica er-Staine	tors (2 or d Leaves	more required
Remarks: Prominent I IYDROLO Wetland Hy Primary India Surface High Wa	GY drology In cators (min Water (A1)	dicators:	:		all that appl Water-Sta	ly) ined Leave 1, 2, 4A, a	es (B9)	(except		<u>Sec</u>	conda Wate	ry Indica er-Staine A, and 4	tors (2 or d Leaves B)	(B9) (MLRA
HYDROLO Wetland Hy Primary India Surface High Wa	GY drology In eators (min Water (A1) ater Table (on (A3)	dicators:	:		all that appl Water-Sta MLRA Salt Crust	ly) ined Leave 1, 2, 4A, a (B11)	es (B9) nd 4B)	(except		Sec	conda Wate 4 Drair	ry Indica rr-Staine 4, and 4	tors (2 or d Leaves B) terns (B10	(B9) (MLRA 2
HYDROLO Wetland Hy Primary India Surface High Wa	GY drology In cators (min Water (A1) ater Table (on (A3) larks (B1)	dicators: imum of o) A2)	:		all that appl Water-Sta MLRA Salt Crust Aquatic In	ly) iined Leave 1, 2, 4A, a (B11) vertebrates	es (B9) nd 4B) s (B13)	(except		Sec	condal Wate 4 Drair Dry-S	ry Indica er-Staine A, and 4 nage Pat Season \	tors (2 or d Leaves B) terns (B1 Vater Tab	(B9) (MLRA 200) 0) ble (C2)
HYDROLO Wetland Hy Primary India Surface High Wa Saturatia Water M Sedimel	GY drology In cators (min Water (A1) ater Table (on (A3) larks (B1) nt Deposits	dicators: imum of o) A2)	:		all that appl Water-Sta MLRA Salt Crust Aquatic In	ly) lined Leave 1, 2, 4A, a (B11) vertebrates Sulfide Od	es (B9) nd 4B) s (B13) lor (C1)	(except		Sec	condar Wate 4/ Drair Dry-S Satur	ry Indica er-Staine A, and 4 nage Pat Season Vi	tors (2 or d Leaves B) terns (B10 Vater Tab sible on A	(B9) (MLRA 200) Ole (C2) Lerial Imagery
HYDROLO Wetland Hy Primary India Surface High Wa Saturatia Water M Sedimer Drift De	GY drology In cators (min Water (A1) ater Table (on (A3) larks (B1)	dicators: imum of o) A2) (B2)	:		all that appl Water-Sta MLRA Salt Crust Aquatic In Hydrogen Oxidized F	ly) iined Leave 1, 2, 4A, a (B11) vertebrates	es (B9) nd 4B) s (B13) lor (C1) es alon	(except		<u>Sec</u>	condal Wate 4/ Drair Dry-S Satur Geor	ry Indica er-Staine A, and 4 nage Pat Season V ration Vi norphic	tors (2 or d Leaves B) terns (B10 Water Tab sible on A Position (I	(B9) (MLRA 200) Ole (C2) Lerial Imagery
HYDROLO Wetland Hy Primary India Surface High Water M Sedimer Drift Dep Algal Ma	GY drology In cators (min Water (A1) ater Table (on (A3) larks (B1) nt Deposits posits (B3)	dicators: imum of o) A2) (B2)	:		all that appl Water-Sta MLRA Salt Crust Aquatic In Hydrogen Oxidized F	ly) ined Leave 1, 2, 4A, a (B11) vertebrates Sulfide Od Rhizospher	es (B9) nd 4B) s (B13) lor (C1) res alon d Iron (d	(except	Roots	Sec	wate 4,0 Drair Dry-& Satul Geor Shall	ry Indica er-Staine A, and 4 nage Pat Season V ration Vi morphic ow Aqui	tors (2 or d Leaves B) terns (B10 Vater Tab sible on A	(B9) (MLRA 200) O) ole (C2) erial Imagery D2)
AYDROLO Wetland Hy Primary India Surface High Wa Saturatia Water M Sedimer Algal Ma	GY drology In cators (min Water (A1) ater Table (on (A3) larks (B1) nt Deposits cosits (B3) at or Crust	dicators: imum of o) A2) (B2) (B4)	:		all that appl Water-Sta MLRA Salt Crust Aquatic In Hydrogen Oxidized F Presence	ly) ined Leave 1, 2, 4A, a (B11) vertebrates Sulfide Od Rhizospher of Reduced	es (B9) nd 4B) s (B13) lor (C1) res alon d Iron (con in Til	(except g Living C4) led Soils	Roots s (C6)	Sec	condal Wate 4/ Drair Dry-S Satu Geor Shall	ry Indica er-Staine A, and 4 lage Pat Season Vi ration Vi morphic ow Aqui .Neutral	tors (2 or d Leaves B) terns (B1) Water Tab sible on A Position (I tard (D3) Test (D5)	(B9) (MLRA 200) O) ole (C2) erial Imagery D2)
AYDROLO Wetland Hy Primary India Surface High Wa Saturatia Water M Sedimer Algal Ma	GY drology In cators (min Water (A1) ater Table (on (A3) larks (B1) nt Deposits cosits (B3) at or Crust cosits (B5) Soil Crack	dicators: imum of o) A2) (B2) (B4) (B4)	: one require	d; check	water-Sta MLRA Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Irc	ly) ined Leave 1, 2, 4A, a (B11) vertebrates Sulfide Od Rhizospher of Reduced	es (B9) nd 4B) s (B13) lor (C1) res alon d Iron (Gon in Til	(except g Living C4) led Soils	Roots s (C6)	Sec	condal Wate 4/ Drair Dry-S Satul Geor Shall FAC- Raise	ry Indica er-Staine A, and 4 nage Pat Season Vi ration Vi morphic ow Aqui Neutral	tors (2 or d Leaves B) terns (B1) Water Tab sible on A Position (I tard (D3) Test (D5)	(B9) (MLRA 200) Ole (C2) Aerial Imagery D2) Ole (LRR A)
Remarks: Prominent I IYDROLO Wetland Hy Primary India Surface High Wa Saturatia Water M Sedimel Algal Ma Iron Dep Surface Inundati	GY drology In cators (min Water (A1) ater Table (on (A3) larks (B1) nt Deposits cosits (B3) at or Crust cosits (B5) Soil Crack on Visible of	dicators: imum of o) A2) (B2) (B4) s (B6) on Aerial	: one require	d; check	water-Sta MLRA Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Irc	ly) lined Leave 1, 2, 4A, a (B11) vertebrates Sulfide Od Rhizospher of Reduced on Reduction	es (B9) nd 4B) s (B13) lor (C1) res alon d Iron (Gon in Til	(except g Living C4) led Soils	Roots s (C6)	Sec	condal Wate 4/ Drair Dry-S Satul Geor Shall FAC- Raise	ry Indica er-Staine A, and 4 nage Pat Season Vi ration Vi morphic ow Aqui Neutral	tors (2 or d Leaves B) terns (B10 Water Tab sible on A Position (I tard (D3) Test (D5)	(B9) (MLRA 200) Ole (C2) Aerial Imagery D2) Ole (LRR A)
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Remarks: Prominent I IYDROLO Wetland Hy Primary India Surface High Wa Saturatia Water M Sedimer Orift Dep Algal Ma Iron Dep Surface Inundati Sparsely	GY drology In cators (min Water (A1) ater Table (on (A3) larks (B1) nt Deposits cosits (B3) at or Crust cosits (B5) Soil Crack on Visible of y Vegetated vations: er Present	dicators: imum of o) A2) (B2) (B4) s (B6) on Aerial d Concav	Imagery (B e Surface (d; check	all that appl Water-Sta MLRA Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Irc Stunted or	ly) ined Leave 1, 2, 4A, a (B11) vertebrates Sulfide Od Rhizospher of Reduced on Reduction r Stressed plain in Rer	es (B9) nd 4B) s (B13) lor (C1) res alon d Iron (con in Til Plants (marks)	g Living C4) led Soils (D1) (LR	Roots s (C6)	Sec	condal Wate 4/ Drair Dry-S Satul Geor Shall FAC- Raise	ry Indica er-Staine A, and 4 nage Pat Season Vi ration Vi morphic ow Aqui Neutral	tors (2 or d Leaves B) terns (B10 Water Tab sible on A Position (I tard (D3) Test (D5)	(B9) (MLRA 200) Ole (C2) Aerial Imagery D2) Ole (LRR A)
Remarks: Prominent I IYDROLO Wetland Hy Primary India Surface High Water N Sedimen Algal Ma Iron Dep Surface Inundati Sparsely Field Obser Surface Water Table Saturation P (includes cap	GY drology In cators (min Water (A1) ater Table (on (A3) larks (B1) nt Deposits cosits (B3) at or Crust cosits (B5) Soil Crack on Visible of y Vegetate vations: er Present' Present? resent?	dicators: imum of () A2) (B2) (B4) s (B6) on Aerial d Concav	Imagery (B e Surface (es /es /es	d; check	water-Sta MLRA Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Irc Stunted or Other (Exp	ly) lined Leave 1, 2, 4A, a (B11) vertebrates Sulfide Od Rhizospher of Reducetor of Reduction r Stressed plain in Rer ches): ches): ches):	es (B9) nd 4B) s (B13) lor (C1) res alon d Iron (con in Til Plants (marks)	g Living C4) led Soils (D1) (LF	Roots s (C6) RR A)	Sec	condal Wate 4/ Drair Dry-Satul Geor Shall FAC- Raiss Frost	ry Indica er-Staine A, and 4 nage Pat Geason V ration Vi morphic ow Aqui Neutral ed Ant M	tors (2 or d Leaves B) Vater Tab sible on A Position (I tard (D3) Test (D5) lounds (D Hummock	(B9) (MLRA 200) Ole (C2) Aerial Imagery D2) 6) (LRR A) As (D7)
Remarks: Prominent I Prominent I IYDROLO Wetland Hy Primary India Surface High Wa Saturatia Water M Sedimel Algal Ma Iron Dep Surface Inundati Sparsely Field Obser Surface Wat Water Table Saturation P	GY drology In cators (min Water (A1) ater Table (on (A3) larks (B1) nt Deposits cosits (B3) at or Crust cosits (B5) Soil Crack on Visible of y Vegetate vations: er Present' Present? resent?	dicators: imum of () A2) (B2) (B4) s (B6) on Aerial d Concav	Imagery (B e Surface (es /es /es	d; check	water-Sta MLRA Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Irc Stunted or Other (Exp	ly) lined Leave 1, 2, 4A, a (B11) vertebrates Sulfide Od Rhizospher of Reducetor of Reduction r Stressed plain in Rer ches): ches): ches):	es (B9) nd 4B) s (B13) lor (C1) res alon d Iron (con in Til Plants (marks)	g Living C4) led Soils (D1) (LF	Roots s (C6) RR A)	Sec	condal Wate 4/ Drair Dry-Satul Geor Shall FAC- Raiss Frost	ry Indica er-Staine A, and 4 nage Pat Geason V ration Vi morphic ow Aqui Neutral ed Ant M	tors (2 or d Leaves B) Vater Tab sible on A Position (I tard (D3) Test (D5) lounds (D Hummock	(B9) (MLRA 200) Ole (C2) Aerial Imagery D2) 6) (LRR A) As (D7)
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Remarks: Prominent in the state of the state	GY drology In cators (min Water (A1) ater Table (con (A3) larks (B1) nt Deposits cosits (B3) at or Crust cosits (B5) Soil Crack con Visible of y Vegetater vations: er Present? Present? pillary fringe corded Date	dicators: imum of () A2) (B2) (B4) s (B6) on Aerial d Concav ?) e) :a (stream	Imagery (Be Surface (d; check	water-Sta MLRA Salt Crust Aquatic In Oxidized F Presence Recent Irc Stunted or Other (Exp	ly) ined Leave 1, 2, 4A, a (B11) vertebrates Sulfide Od Rhizospher of Reduced on Reduction r Stressed plain in Rer ches): ches): photos, pre	es (B9) nd 4B) s (B13) lor (C1) res alon d Iron (C) on in Til Plants (C) marks)	g Living C4) led Soils (D1) (LR	Roots s (C6) RR A) Wetlan ms), if	Sec	conda Wate 4/ Drair Dry-S Satur Geor Shall FAC- Raise Frost	ry Indica er-Staine A, and 4 lage Pat Season V ration Vi morphic ow Aqui Neutral ed Ant M Heave	tors (2 or d Leaves B) Vater Tab sible on A Position (I tard (D3) Test (D5) lounds (D Hummock	(B9) (MLRA 200) Ole (C2) Aerial Imagery D2) 6) (LRR A) As (D7)
Remarks: Prominent in the state of the state	GY drology In cators (min Water (A1) ater Table (con (A3) larks (B1) nt Deposits cosits (B3) at or Crust cosits (B5) Soil Crack con Visible of y Vegetater vations: er Present? Present? pillary fringe corded Date	dicators: imum of () A2) (B2) (B4) s (B6) on Aerial d Concav ?) e) :a (stream	Imagery (Be Surface (d; check	water-Sta MLRA Salt Crust Aquatic In Oxidized F Presence Recent Irc Stunted or Other (Exp	ly) ined Leave 1, 2, 4A, a (B11) vertebrates Sulfide Od Rhizospher of Reduced on Reduction r Stressed plain in Rer ches): ches): photos, pre	es (B9) nd 4B) s (B13) lor (C1) res alon d Iron (C) on in Til Plants (C) marks)	g Living C4) led Soils (D1) (LR	Roots s (C6) RR A) Wetlan ms), if	Sec	conda Wate 4/ Drair Dry-S Satur Geor Shall FAC- Raise Frost	ry Indica er-Staine A, and 4 lage Pat Season V ration Vi morphic ow Aqui Neutral ed Ant M Heave	tors (2 or d Leaves B) Vater Tab sible on A Position (I tard (D3) Test (D5) lounds (D Hummock	(B9) (MLRA 200) Ole (C2) Aerial Imagery D2) 6) (LRR A) As (D7)
Remarks: Prominent in the state of the state	GY drology In cators (min Water (A1) ater Table (con (A3) larks (B1) nt Deposits cosits (B3) at or Crust cosits (B5) Soil Crack con Visible of y Vegetater vations: er Present? Present? pillary fringe corded Date	dicators: imum of () A2) (B2) (B4) s (B6) on Aerial d Concav ?) e) :a (stream	Imagery (Be Surface (d; check	water-Sta MLRA Salt Crust Aquatic In Oxidized F Presence Recent Irc Stunted or Other (Exp	ly) ined Leave 1, 2, 4A, a (B11) vertebrates Sulfide Od Rhizospher of Reduced on Reduction r Stressed plain in Rer ches): ches): photos, pre	es (B9) nd 4B) s (B13) lor (C1) res alon d Iron (C) on in Til Plants (C) marks)	g Living C4) led Soils (D1) (LR	Roots s (C6) RR A) Wetlan ms), if	Sec	conda Wate 4/ Drair Dry-S Satur Geor Shall FAC- Raise Frost	ry Indica er-Staine A, and 4 lage Pat Season V ration Vi morphic ow Aqui Neutral ed Ant M Heave	tors (2 or d Leaves B) Vater Tab sible on A Position (I tard (D3) Test (D5) lounds (D Hummock	(B9) (MLRA 200) Ole (C2) Aerial Imagery D2) 6) (LRR A) As (D7)

AppleamicNomer_MOT	Project/Site: Schrieber Meadows	City/County: Lincoln	Sampling Date: 7/13/2022
Investigator(s): W Fouts			
Landtom (fillslope, ferrace, etc.): Valley bottom Local roter (concave convex, none): Convex A8.10929 Long:	Investigator(s): W Fouts	Section, Township, Ran	
Soil May Dint Name; 105: Aquic udifluvents, poorly drained NWi classification, Not mapped Are climatic? hydrologic conditions on the site typical for this time of year? Yes	Landform (hillslope, terrace, etc.): Valley bottom	Local relief (concave, c	onvex, none): convex Slope (%): 1
Soil May Dint Name; 105: Aquic udifluvents, poorly drained NWi classification, Not mapped Are climatic? hydrologic conditions on the site typical for this time of year? Yes	Subregion (LRR): LRR E	Lat: 48.10929	Long:115.413534 Datum: NAD 83
Are Vegetation Soil or Hydrology significantly disturbed? Are 'Normal Circumstances' present? Yes No Are Vegetation Soil or Hydrology naturally problemate? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc. Hydrology (Vegetation Present? Yes No within a Wettand? Ves Within a Wettand? Ves No Within a Wettand? Ves Within a Wettand? Ves Within a Wettand? Ves No Within a Wettand? Ves Within a Wettand? Ves No Within a Wettand? Ves No Within a Wettand? Ves Within a Wettand? Ves Within a Wettand? Ves No Within a Wettand? Ves Within a Wettand? Ves Within a Wettand? Ves No Within a Wettand hydrology must be present. Wettand Non-Vascular Plants Problematic	Soil Map Unit Name: 105: Aquic udifluvents, poorly drain		
Are Vegetation	Are climatic / hydrologic conditions on the site typical for this t	ime of year? Yes 🗹 No[(If no, explain in Remarks.)
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 Hydrology Present? Yes No W Within a Wetlandr? Yes No No	Are Vegetation, Soil, or Hydrology sig	nificantly disturbed? Are "N	Normal Circumstances" present? Yes 🗹 No 🗌
Flydrophytic Vegetation Present?	Are Vegetation, Soil, or Hydrology nat	turally problematic? (If nee	eded, explain any answers in Remarks.)
Hydric Soil Present? Yes No Westand? Yes No Within a Wetland? Yes No No Within a Wetland? Yes Yes No No Wetland hydrology.	SUMMARY OF FINDINGS - Attach site map si	howing sampling point lo	cations, transects, important features, etc.
Westand Hydrology Present? Yes	Hydrophytic Vegetation Present? Yes ✓ No		-
VEGETATION - Use scientific names of plants Tree Stratum Plot size (30 Foot Radius) Absolute Domiant Indicator Status Sapilina/Shrub Stratum Plot size (30 Foot Radius) Absolute Domiant Indicator Status Sapilina/Shrub Stratum Plot size (15 Foot Radius) Absolute Domiant Indicator Status Domiant Species Total Number of Domiant Species Across All Strata: 2 (B)			
Upland sample point located southwest of the Coyote Creek channel on south edge of project area. VEGETATION - Use scientific names of plants		within a vvetiant	ur res <u> </u>
VEGETATION - Use scientific names of plants Indicator Status In	5 Section 4 Control (1984 A)	Creek channel on south edge	of project area.
Tree Stratum Plot size (30 Foot Radius) Absolute % Cover: Species? Status Status		3	,
Sapting/Shrub Stratum	VEGETATION - Use scientific names of plant	S	
Number of Dominant Species that are OBL, FACW or FAC: 2 (A)	Total Otto Access Districts (OO Freet Destina)		Dominance Test worksheet
Sapling/Shrub Stratum Plot size (15 Foot Radius) Herbaceous Stratum Plot size (5 Foot Radius) Alopecurus pratensis Cirsium arvense Phalaris arundinacea 30 FACW Prevalence Index worksheet Total % Cover of: Multiply by: OBL species 0 X 1 0 FACW species 0 X 4 0 UPL species 0 X 5 0 Column Totals 100 (A) 270 (B) Prevalence Index = B/A = 2.7 Hydrophytic Vegetation Indicators 1 - Rapid Test for Hydrophytic Vegetation 2 - Deminance Test is >50% 3 - Prevalence Index = B/A = 2.7 Hydrophytic Vegetation Indicators 1 - Rapid Test for Hydrophytic Vegetation 2 - Deminance Test is >50% 3 - Prevalence Index = Ground 1 - Rapid Test for Hydrophytic Vegetation (Explain) 2 - Weden Hydrophytic Vegetation (Explain) 2 - Weden Hydrophytic Vegetation (Explain) 3 - Prevalence Index Set a - Developed Set a	(COVEL	Species? Status	Number of Dominant Species that are OBL, FACW or FAC: 2 (A)
That Are OBL, FACW, or FAC: 100 % (A/B)			
Herbaceous Stratum Plot size (5 Foot Radius) Alopecurus pratensis 66	Sanling/Shruh Stratum Plot size # 5 Foot Radius)		
Herbaceous Stratum Plot size (5 Foot Radius) Alopecurus pratensis 66	Sapining/Stratum Flot size (15 Flot Naulus)		Prevalence Index worksheet
Herbaceous Stratum Plot size (5 Foot Radius) Alopecurus pratensis			
Herbaceous Stratum Plot size (5 Foot Radius) Alopecurus pratensis 66			
Herbaceous Stratum			
Alopecurus pratensis Girsium arvense Phalaris arundinacea 4			FACU species 0 X 4 0
Cirsium arvense	Herbaceous Stratum Plot size (5 Foot Radius)		UPL species 0 X 50
Phalaris arundinacea 30 ▼ FACW Prevalence Index = B/A = 2.7			Column Totals 100 (A) 270 (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			Prevalence Index = B/A = 2.7
	Thalans alunumacea 30	V TACW	Hydrophytic Vegetation Indicators
Woody Vine Stratum Plot size (30 Foot Radius) Woody Vine Stratum Plot size (30 Foot Radius) Percent Bare Ground 0 Remarks: Although this point contains hydrophytic vegetation it does not contain hydric soils or wetland hydrology. 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?			1 - Rapid Test for Hydrophytic Vegetation
Woody Vine Stratum Plot size (30 Foot Radius) Woody Vine Stratum Plot size (30 Foot Radius) Percent Bare Ground 0 Remarks: Although this point contains hydrophytic vegetation it does not contain hydric soils or wetland hydrology. 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?			✓ 2 - Dominance Test is >50%
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 0 Remarks: Although this point contains hydrophytic vegetation it does not contain hydric soils or wetland hydrology.			✓ 3 - Prevalence Index is <= 3.0
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 0 Remarks: Although this point contains hydrophytic vegetation it does not contain hydric soils or wetland hydrology.			supporting data in remarks or on separate
Woody Vine Stratum Plot size (30 Foot Radius) Percent Bare Ground 0 Percent Bare Ground 10 Remarks: Although this point contains hydrophytic vegetation it does not contain hydric soils or wetland hydrology.			
Woody Vine Stratum Plot size (30 Foot Radius) Percent Bare Ground 0 Remarks: Although this point contains hydrophytic vegetation it does not contain hydric soils or wetland hydrology. Indicators of hydric sil and wetland hydrology must be present, unless disturbed or problematic for #3, 4, 5. Hydrophytic Vegetation Yes NO Present? Remarks:			
Plot size (30 Foot Radius) Percent Bare Ground 0 Permarks: Although this point contains hydrophytic vegetation it does not contain hydric soils or wetland hydrology.			Problematic Hydrophytic Vegetation (Explain)
Percent Bare Ground 0 Remarks: Although this point contains hydrophytic vegetation it does not contain hydric soils or wetland hydrology.	Woody Vine Stratum Plot size (30 Foot Radius)		
Remarks: Although this point contains hydrophytic vegetation it does not contain hydric soils or wetland hydrology.	Percent Bare Ground 0		Vegetation Yes ✓ NO
	Remarks:		
US Army Corps of Engineers Western Mountains, Valleys, and Coasts, Version 2.0	Although this point contains hydrophytic vegetation it	does not contain hydric soils c	or wetland hydrology.
	US Army Corps of Engineers		Western Mountains, Valleys, and Coasts - Version 2.0

SOIL											S	ampling Poi	int: DP08-u
Profile Desc	cription: ((Describe	to the de	oth need	ed to docu	ment the i	ndicato	r or confir	m the ab	sence	of indicate	ors.)	
Depth		Matrix				x Features		. 2					
(inches)		(moist)	<u>%</u>	Coloi	(moist)	%	Type ¹	Loc ²	Text		-	Remark	S
0-09	10YR	2/2	100						Loan	n			
09-18	10YR	4/2	99	7.5YR	4/6	1	C	M	Clay		Charco	oal, bottom	n of pit
¹ Type: C=C								ted Sand C				Pore Lining	
Hydric Soil		s: (Applio	cable to all				ed.)		ln _	_		_	dric Soils³:
Histosol	I (A1) pipedon (A	(2)			dy Redox (oped Matrix				+	=	Muck (A1	u) iterial (TF2)	
	istic (A3)	12)			my Mucky I	. ,) (exce	of MIRA 1	n 📙	=		oark Surface	(TF12)
	en Sulfide	(A4)			my Gleyed			P	·' <u> </u>			in Remarks)	
	d Below D		ce (A11)		leted Matri								
	ark Surfac			$\overline{}$	lox Dark Su	٠,			³ lr		•	phytic veget	
_	Mucky Mind Gleyed Ma			_	leted Dark lox Depress		7)					gy must be p I or problema	
Restrictive				<u></u>	ox Deples	SIOTIS (FO)				unies	s disturbed	or problems	alic.
Type:													
Depth (in									Hvdri	c Soil	Present?	Yes 🗌	No 🗸
HYDROLO	nGV												
Wetland Hy		ndicators	;										
Primary Indi	cators (mir	nimum of o	one require	d; check	all that appl	ly)				Secon	dary Indica	ators (2 or m	ore required)
Surface	Water (A1	1)			Water-Sta	ined Leave	es (B9) (except		w	ater-Staine	ed Leaves (E	39) (MLRA 1, 2
High Wa	ater Table	(A2)			MLRA	1, 2, 4A, a	nd 4B)				4A, and	ŧB)	
Saturati	on (A3)				Salt Crust	. ,				_	_	tterns (B10)	
_	/larks (B1)				, .	vertebrates					-	Water Table	
_	nt Deposits	, ,		<u> </u>	, , ,	Sulfide Od	, ,			$\overline{}$			rial Imagery (C
	posits (B3)			<u> </u>		Rhizospher			oots (C3)			Position (D2	2)
	at or Crust posits (B5)			-		of Reduce on Reduction	,	•	26)	_	nallow Aqu \C-Neutral		
	Soil Crack				1	r Stressed						Nounds (D6)	(IRRA)
			Imagery (E	(7)		plain in Rei		Di) (Little)	- -y			Hummocks	
_			e Surface	· —	(,						()
Field Obser	vations:												
Surface Wat	ter Present	t? Y	′es _□	No		ches):							
Water Table	Present?	١	/es	_	Depth (in								_
Saturation P	pillary fring	ge)			Depth (in						Present?	Yes	No <u>✓</u>
Describe Re	corded Da	iia (siiean	ı yauye, m	omioing '	wen, aenal	рпогоз, рге	zvious If	ispections)	,, ii avallal	JI C .			
Remarks:	in main ()		4in /2	NI a costano 111		·		alamite P	-44			al la colon 1	
Although thi	is point h	as a posi	uve FAC-	neutral t	est, it lack	s another	secon	uary indic	ator to q	uality t	or wetlan	a nyarolog	y.

Project/Site: Schrieber Meadows City/Cour	ty: Lincoln Sampling Date: 7/14/2	:022
Applicant/Owner: MDT	State: Montana Sampling Point: DP08-w	
• •	Fownship, Range: S 13 T 27N R 30W	
Landform (hillslope, terrace, etc.): Valley bottom Local rel		5
Subregion (LRR): LRR E	48.109356 Long: -115.41338 Datum: NAD 8	
Soil Map Unit Name: 105: aquic udifluvents, poorly drained	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 significantly disturbed	? Are "Normal Circumstances" present? Yes 🔽 No	
Are Vegetation, Soil, or Hydrology naturally problematic?	(If needed, explain any answers in Remarks.)	
SUMMARY OF FINDINGS - Attach site map showing sample	ing point locations, transects, important features,	etc.
Hydrophytic Vegetation Present? Yes Ves No No		
Tryunc doi: 1 tesetit: 1 tes No wi	the Sampled Area thin a Wetland? Yes No	
Wetland Hydrology Present? Yes <u>✓</u> No <u></u> Will Remarks:	Tes No	
This point located about 6 inches lower in elevation than DP08-u.		
VEGETATION - Use scientific names of plants		
Tree Stratum Plot size (30 Foot Radius) Absolute Domiant Indic Statu	i Dominance rest worksneet	
/// Cover. Species: State	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)
Sapinigranius Stratum 1 lot 3/20 (13 1 oot radius)	Prevalence Index worksheet	
	Total % Cover of: Multiply by:	_
	OBL species 0 X 1 0 140	-
	FAC species 70 X2 140 140 140 140 140 140 140 140 140 140	1
	FACU species 0 X 4 0	j
Herbaceous Stratum Plot size (5 Foot Radius)	UPL species 0 X 5 0	
Alopecurus arundinaceus 30 ✓ FAC	Column Totals 100 (A) 230	(B)
Phalaris arundinacea 70 FACW	Prevalence Index = B/A = 2.3	
	Hydrophytic Vegetation Indicators	
	1 - Rapid Test for Hydrophytic Vegetation	n
	✓ 2 - Dominance Test is >50%	
	✓ 3 - Prevalence Index is <= 3.0	
	4 - Morphological Adaptations (Provide supporting data in remarks or on separa	ate
	sheet. 5 - Wetland Non-Vascular Plants	
	Problematic Hydrophytic Vegetation (Ex	plain)
Woody Vine Stratum Plot size (30 Foot Radius)	Indicators of hydric sil and wetland hydrology mus	t be
(00.000.000.000)	present, unless disturbed or problematic for #3, 4,	ວ.
	Hydrophytic Vegetation Yes ✓ NO	
Percent Bare Ground 0 Remarks:	Present?	
A prevalence index below three indicates the presence of a hydrophyti	c vegetation community.	
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OO Army Corps of Engineers	vvestern iviountains, valieys, and coasts - Version .	∪

SOIL											Sampling Point	DP08-w
Profile Desc	cription: ([Describe	to the de	pth neede	ed to docun	nent the i	ndicato	r or con	firm the abse	ence of indica		
Depth		Matrix				x Features						
(inches)	Color (moist)	%	Color	(moist)	%	Type ¹	Loc	² Textur	<u>e</u>	Remarks	
0-01									Loam	Dense	roots	
01-08	10YR	2/1	98	7.5YR	4/6	2	С	PL	Loam	Greas	y, high OM c	ontent.
08-16	7.5YR	5/2	96	10YR	5/4	4	С	M	Clay Loa	m Charc	oal, bottom	of pit
								_ ,				
			-	-			-					
1 _{T.max} C=C		- D-Dor		/	d Matrix CC	·				21 continue DI	—Doro Lining I	A-DA atrix
¹ Type: C=C Hydric Soil								ileu San			.=Pore Lining, Noblematic Hydi	
Histosol		. (Applie	able to a				su.,			2 cm Muck (A	_	ne dona .
	r (AT) pipedon (A2	2)			dy Redox (S oped Matrix				十	Red Parent M		
		<u>2)</u>		= :	•	,	() (, ,	TE40)
	istic (A3)				my Mucky M			pt MLR/	~ 1) -	-	Dark Surface (IF12)
	en Sulfide (/		(4.4.4)		my Gleyed I)			Other (Explain	i in Remarks)	
	d Below Da		e (A11)		leted Matrix				3.			
	ark Surface				lox Dark Sur					-	ophytic vegetat	
	Nucky Mine			_ :	leted Dark S	,	7)			-	ogy must be pre	
	Gleyed Matr			<u> </u>	lox Depress	ions (F8)				unless disturbe	d or problemati	c.
Restrictive	Layer (if pr	resent):										
Type:												
Depth (in	ches):								Hydric	Soil Present?	Yes	_ No <u> </u>
HYDROLO												
Wetland Hy Primary India				ed: check :	all that annly	v)			S	Secondary India	cators (2 or mor	re required)
$\overline{}$	•		no roquii	<u> </u>	Water-Stai		oc (P0) ((oxoont		_	*	
✓ High Wa	(A1) Water / Water (A1)							except	_		ned Leaves (B9) (IVILKA 1, 2,
		A2)			1	1, 2, 4A, a	iliu 46)			4A, and	•	
<u>✓</u> Saturati	-			-	Salt Crust	. ,	/= /a\		_		atterns (B10)	
	larks (B1)			늗	Aquatic Inv		, ,		_		Water Table (
	nt Deposits	(B2)		<u> </u>	Hydrogen				_	_	√isible on Aeria	I Imagery (C9
	posits (B3)				Oxidized R			-	Roots (C3) _	_	c Position (D2)	
	at or Crust ((B4)			Presence of	of Reduce	d Iron (C	C4)	_	Shallow Aq	uitard (D3)	
Iron Der	posits (B5)				Recent Iron	n Reductio	on in Till	ed Soils	(C6)	✓ FAC-Neutra	ıl Test (D5)	
Surface	Soil Cracks	s (B6)			Stunted or	Stressed	Plants (D1) (LR	R A) _	🔲 Raised Ant	Mounds (D6) (I	LRR A)
Inundati	ion Visible o	n Aerial I	lmagery (B7)	Other (Exp	lain in Re	marks)			Frost-Heav	e Hummocks ([07)
	y Vegetated				, ,		,		_		,	,
Field Obser												
Surface Wat) Y	es 🗆	No 🔽	Depth (inc	ches).						
Water Table				No [Depth (inc			15				
Saturation P				No [Depth (inc			7 _V	Vetland Hydro	ology Present	? Yes <u> </u>	No \square
(includes ca	pillary fringe))										
Describe Re	corded Dat	a (stream	ı gauge, n	nonitoring	well, aerial p	photos, pre	evious ir	nspectio	ns), if availabl	e:		
Remarks:												
	within 7 inc	thes of the	he soil si	urface and	d a positive	e FAC-ne	eutral te	st indic	ate wetland	hvdrologv. Ad	dditionally, a h	igh water
table was of								. St II IGIO	Houand	, a. 5.5gy. A	, a I	
				Janua								

Project/Site: Schrieber Meadows Cit	v/County: Lincoln	Sampling Date	e: 7/14/2022
Applicant/Owner: MDT	,	State: Montana Sampling Poin	
.,	ction, Township, Rang	ge: S 13 T 27N R 30	
Landform (hillslope, terrace, etc.): Valley bottom			Slope (%):5
Subregion (LRR): LRR E Lat:			
Are climatic / hydrologic conditions on the site typical for this time of year?	Yes 🗹 No 🗀	(If no, explain in Remarks.)	
Are Vegetation, Soil, or Hydrology significantly dis	sturbed? Are "N	ormal Circumstances" present? Yes _	✓ No
Are Vegetation, Soil, or Hydrology naturally proble	ematic? (If need	ded, explain any answers in Remarks.)	ı
SUMMARY OF FINDINGS – Attach site map showing sa	ampling point lo	cations, transects, important	features, etc.
Hydrophytic Vegetation Present? Yes No			
Hydric Soil Present? Yes No	Is the Sampled A		
Wetland Hydrology Present? Yes No Ves No Ves	Within a Welland	. 103 110	
Upland sample point located southwest of wetland cell 3.			
VEGETATION - Use scientific names of plants			
Tree Stratum Plot size (30 Foot Radius) Absolute Domiant Species?	Indicator Status	Dominance Test worksheet	
// Cover. Species!	Status	Number of Dominant Species that are OBL, FACW or FAC:	2 (A)
		Total Number of Dominant Species Across All Strata:	3 (B)
Sapling/Shrub Stratum Plot size (15 Foot Radius)		Percent of Dominant Species That Are OBL, FACW, or FAC:	66.7 % (A/B)
<u>Japinigi Stratum</u> 1 lot 3/23 (13 1 35t Hadida)		Prevalence Index worksheet	
			Multiply by:
		OBL species 0 X 1 FACW species 25 X 2	50
		FAC species 48 X 3	144
		FACU species 7 X 4	28
Herbaceous Stratum Plot size (5 Foot Radius)		UPL species 20 X 5	100
	AC	Column Totals 100 (A)	322 (B)
	FAC	Prevalence Index = B/A =	3.22
	FACU	Hydrophytic Vegetation Indicators	
	ACW	☐ 1 - Rapid Test for Hydrophy	tic Vegetation
		✓ 2 - Dominance Test is >50%	6
		3 - Prevalence Index is <= 3	3.0
		4 - Morphological Adaptation supporting data in remarks	
		sheet. 5 - Wetland Non-Vascular P	Plants
		Problematic Hydrophytic Ve	
		Indicators of hydric sil and wetland hydric	
Woody Vine Stratum Plot size (30 Foot Radius)		present, unless disturbed or problema	
		Hydrophytic Vegetation Yes ✓ NO	
Percent Bare Ground 0		Present?	
Remarks: Although this point contains hydrophytic vegetation it does not contain the contain the contain the contains hydrophytic vegetation it does not contain the contain the contain the contains hydrophytic vegetation it does not contain the contain t	ontain hydric soils or	r wetland hydrology.	
LIC Amount Common of Francisco	•	Mantana Marintalia - Vall	ha Manatan 2.2
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SOIL										Sampling Point: DP09-u
Profile Des	cription: (Describe	to the de	th nee	ded to docu	ment the i	ndicato	r or confir	m the absence	e of indicators.)
Depth		Matrix			Redo	x Features				
(inches)	Color	(moist)	%	Co	lor (moist)	%	Type	Loc ²	Texture	Remarks
0-11	10YR	2/2	100						Loam	
11-16	10YR	4/2	99	10YR	4/4	1	С	M	Loam	Bottom of pit
					ced Matrix, C			 ited Sand G		cation: PL=Pore Lining, M=Matrix.
_		s: (Appli	cable to al	LRRs,	unless othe	rwise note	ed.)			ors for Problematic Hydric Soils ³ :
Histoso	. ,				andy Redox (m Muck (A10)
	pipedon (A	.2)		_	tripped Matrix	. ,			_	d Parent Material (TF2)
	listic (A3) en Sulfide ((A4)			oamy Mucky l oamy Gleyed			pt MLRA 1)	_	ry Shallow Dark Surface (TF12) ner (Explain in Remarks)
	d Below Da		ce (A11)		epleted Matri		,			(,
	ark Surface		` ′	\square R	edox Dark Su	ırface (F6)			³ Indicate	ors of hydrophytic vegetation and
Sandy I	Mucky Mine	eral (S1)		□ D	epleted Dark	Surface (F	7)		wetla	and hydrology must be present,
	Gleyed Mat			<u>□</u> R	edox Depres	sions (F8)			unle	ss disturbed or problematic.
Restrictive	Layer (if p	resent):								
Туре:										
Depth (in	nches):								Hydric Soi	l Present? Yes 🖳 No 🔽
IVPPOLO	201									
HYDROLC Wetland Hy		ndicators	:							
Primary Indi	cators (min	imum of	one require	d; chec	k all that app	ly)			Seco	ndary Indicators (2 or more required)
Surface	Water (A1)		_	Uater-Sta	ined Leave	es (B9)	(except	v	Water-Stained Leaves (B9) (MLRA 1, 2
High Wa	ater Table ((A2)			MLRA	1, 2, 4A, a	nd 4B)			4A, and 4B)
Saturati	ion (A3)				🔲 Salt Crust	(B11)				Orainage Patterns (B10)
Water N	/larks (B1)				🔲 Aquatic In	vertebrates	s (B13)			Dry-Season Water Table (C2)
Sedime	nt Deposits	s (B2)		_	Hydrogen	Sulfide Od	lor (C1)		s	Saturation Visible on Aerial Imagery (CS
Drift De	posits (B3)			_	Oxidized I	Rhizospher	es alon	g Living Ro	ots (C3) 📙 C	Geomorphic Position (D2)
	at or Crust			_		of Reduce		-		Shallow Aquitard (D3)
	posits (B5)			_				led Soils (C		FAC-Neutral Test (D5)
	Soil Crack			_				(D1) (LRR A		Raised Ant Mounds (D6) (LRR A)
			Imagery (E		U Other (Ex	plain in Rei	marks)		F	Frost-Heave Hummocks (D7)
		d Conca	ve Surface	(B8)						
Field Obser			. \square							
Surface Wat			Yes		Depth (in			l l		
Water Table					Depth (in					
Saturation P (includes ca	pillary fring	e)			⊻ Depth (in					gy Present? Yes No
Describe Re	corded Da	ta (strear	m gauge, m	onitorin	g well, aerial	photos, pre	evious ii	nspections),	, if available:	
Remarks:										
No evidenc	e of wetla	nd hydro	ology obse	rved. S	Soils were n	oted to be	dry th	roughout t	he profile.	

Project/Site: Schrieber Meadows	City/County: Lincoln	Sa	ampling Date: 7/13/2022
Applicant/Owner: MDT			ampling Point: DP09-w
	Section, Township, Range	s 13 T 271	N R 30W
Landform (hillslope, terrace, etc.): Valley bottom			
Subregion (LRR): LRR E Lat:			
Soil Map Unit Name: 105: Aquic udifluvents, poorly drained			on:Not mapped
Are climatic / hydrologic conditions on the site typical for this time of ye			
Are Vegetation, Soil, or Hydrology significantly			
Are Vegetation, Soil, or Hydrology naturally pro		ed, explain any answers i	
SUMMARY OF FINDINGS – Attach site map showing			
Hydrophytic Vegetation Present? Yes ✓ No ✓			•
Hydric Soil Present? Yes Ves No	Is the Sampled Ar		N
Wetland Hydrology Present? Yes <u>✓</u> No	within a Wetland?	Yes <u>▼</u>	. NO <u> </u>
Remarks: Weltand sample point located along southwest edge of site.			
weitand sample point located along southwest edge of site.			
VEGETATION - Use scientific names of plants			
<u>Tree Stratum</u> Plot size (30 Foot Radius) Absolute Domian Species		Dominance Test works	neet
/// Cover. Openes	: Status	Number of Dominant Spethat are OBL, FACW or F	
		Total Number of Dominar Species Across All Strata	4
Sapling/Shrub Stratum Plot size (15 Foot Radius)		Percent of Dominant Spe That Are OBL, FACW, or	
, ,		Prevalence Index works	
		Total % Cover of: OBL species 0	X 1 0
		•	X 2 180
		·	X 3 30
			X 4 0
Herbaceous Stratum Plot size (5 Foot Radius)		UPL species 0	X 50
Alopecurus pratensis 10	FAC	Column Totals 100	(A) <u>210</u> (B)
Phalaris arundinacea 90 ✓	FACW	Prevalence Index =	B/A = 2.1
		Hydrophytic Vegetation	
			or Hydrophytic Vegetation
		✓ 2 - Dominance	
		✓ 3 - Prevalence I	ndex is <= 3.0
			al Adaptations (Provide in remarks or on separate
		sheet.	
		5 - Wetland Nor	n-Vascular Plants
		Problematic Hyd	drophytic Vegetation (Explain)
Woody Vine Stratum Plot size (30 Foot Radius)			wetland hydrology must be or problematic for #3, 4, 5.
	ļ-	Hydrophytic	
Percent Bare Ground 0		Vegetation Yes Present?	✓ NO L
Remarks: A prevalence index below three and a positive dominance tes	t indicate the presence	of a hydrophytic vegeta	ation community at this
data point.			
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SOIL								Sam	npling Point:	DP09-w
Profile Des	cription: (Describe	to the dep	oth needed to docu	ment the indicator	or confirm	the absence			
Depth		Matrix			ox Features					
(inches)	Color	(moist)	%	Color (moist)	% Type ¹	Loc ²	Texture		Remarks	
0-12	10YR	2/1	100				Silt Loam			
12-20	10YR	5/1	100			(Clay Loam	Charcoal	, bottom of	pit
17		- D-D-		- Dadi and Matrix O						B.d. = A.viv
				LRRs, unless othe	S=Covered or Coate	a Sana Gra		cation: PL=Po		
Histoso Histic E Black H Hydroge Deplete Thick D Sandy I Sandy O	I (A1) Ipipedon (A Iistic (A3) en Sulfide (Id Below Da Iark Surface Mucky Mine Gleyed Mat	2) (A4) ark Surfa e (A12) eral (S1) rix (S4)		Sandy Redox (Stripped Matrix	S5) ((S6) Mineral (F1) (except Matrix (F2) x (F3) urface (F6) Surface (F7)	: MLRA 1)	2 cr Rec Oth 3Indicate wetla	m Muck (A10) d Parent Mater y Shallow Dark er (Explain in F ors of hydrophy and hydrology i ss disturbed or	ial (TF2)	12) n and
Restrictive	Layer (if p	resent):								
Type:	vehee):						Lludvia Cail	ا Present?	/aa 🗸	No 🗆
Depth (in Remarks:	iches)						Hydric Soil	resent	res <u> </u>	NO <u></u>
- IVPPOL	201									
HYDROLC		-l' 4								
Wetland Hy				d; check all that app	hv)		Seco	ndary Indicator	es (2 or more	required)
Surface High W. Saturati Water M Sedime Drift De Algal M Iron De Surface Inundat Sparsel	Water (A1 ater Table (ion (A3) Marks (B1) nt Deposits posits (B3) at or Crust posits (B5) Soil Crack ion Visible of	(A2) (B2) (B4) s (B6) on Aerial	Imagery (B /e Surface (Water-Sta MLRA Salt Crust Aquatic In Hydrogen Oxidized I Presence Recent Irc Stunted o Other (Ex	ined Leaves (B9) (ex 1, 2, 4A, and 4B)	Living Root l) d Soils (C6)		Vater-Stained I 4A, and 4B) Orainage Patter Ory-Season Was Saturation Visib Geomorphic Po Shallow Aquitar FAC-Neutral Te Raised Ant Mou	Leaves (B9) (This (B10) Inter Table (C2) Inter Table (C2	MLRA 1, 2 2) magery (CS
Field Obser Surface Wat		o ,	Yes 🗆	No Depth (in	ches):					
Water Table					ches):	l l				
Saturation F					ches):		nd Hydrolog	y Present?	Yes 🗸	No \square
(includes ca Describe Re				· `	photos, previous ins			•		
Remarks: A positive F	-AC-neutra	al test a	nd the geo	morphic position a	at the data point inc	dicate the	presence of	f wetland hyd	rology.	

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

Project/Site: Schrieber Meadows C	itv/County: Lincoln	Sampling Date	e: 7/13/2022
Applicant/Owner: MDT		State: Montana Sampling Poin	
Investigator(s): W Fouts, M Hickey			
Landform (hillslope, terrace, etc.): Valley bottom/low terrace			
Subregion (LRR): LRR E Lat:			
Soil Map Unit Name: 105: Aquic udifluvents, poorly drained			
Are climatic / hydrologic conditions on the site typical for this time of year			
Are Vegetation, Soil, or Hydrology significantly d			✓ No
Are Vegetation, Soil, or Hydrology naturally prob			
SUMMARY OF FINDINGS – Attach site map showing s	sampling point lo	cations, transects, important	features, etc.
Hydrophytic Vegetation Present? Yes No			
Hydric Soil Present? Yes No	Is the Sampled A		
Wetland Hydrology Present? Yes No	within a Wetland	ir res <u> </u>	<u> </u>
Remarks: Upland sample point located to the west of the start of vegetatio	n transect 3.		
Opinina campro pomo rocatos do mo mostor uno cambo rogenado			
VEGETATION - Use scientific names of plants			
Tree Stratum Plot size (30 Foot Radius) Absolute Domiant	Indicator	Dominance Test worksheet	
Plot size (30 Foot Radius) % Cover: Species?	Status	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)
Sapling/Shrub Stratum Plot size (15 Foot Radius)		Prevalence Index worksheet	
			Multiply by:
		OBL species 0 X 1	0
		FACW species 15 X 2 FAC species 55 X 3	30 165
		FACU species 5 X 4	20
<u>Herbaceous Stratum</u> Plot size (5 Foot Radius)		UPL species 25 X 5	125
Alopecurus arundinaceus 45 ✓	FAC	Column Totals 100 (A)	340 (B)
	FAC	Prevalence Index = B/A =	3.4
	UPL	Hydrophytic Vegetation Indicators	0. 4
	FACU FACW	☐ 1 - Rapid Test for Hydrophy	tic Vegetation
Filalatis arunumacea 15	FACV	2 - Dominance Test is >50%	6
		☐ 3 - Prevalence Index is <= 3	3.0
		4 - Morphological Adaptatio supporting data in remarks	
		sheet. 5 - Wetland Non-Vascular P	· ·lants
		Problematic Hydrophytic Ve	getation (Explain)
		Indicators of hydric sil and wetland hy	
Woody Vine Stratum Plot size (30 Foot Radius)		present, unless disturbed or problema	
		Hydrophytic Vegetation Yes NO	✓
Percent Bare Ground 0 Remarks:		Present?	
An upland vegetation community is present at this data point.			
U0.4 0 (5)		A/ / A / / A / / A	
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SOIL									Sampling Point: DP10-u
Profile Des	cription: (Describe	to the dep	th needed to d	ocument th	e indicator o	or confir	m the absence	
Depth		Matrix			Redox Featu		2	-	
(inches)	Color	(moist)	%	Color (mois	t) %	Type ¹	_Loc ²	Texture	Remarks
0-08	10YR	2/1	100					Clay Loam	Many fine roots
08-16	2.5Y	5/2	100					Loamy Sand	Bottom of pit
							d Sand 0		cation: PL=Pore Lining, M=Matrix.
		: (Appli	cable to all	LRRs, unless		oted.)			ors for Problematic Hydric Soils ³ :
Black H	ol (A1) Epipedon (A Histic (A3) Jen Sulfide (Ed Below Da	(A4)	ce (A11)		latrix (S6) cky Mineral cyed Matrix ((F1) (except F2)	MLRA 1	Red Very	n Muck (A10) I Parent Material (TF2) y Shallow Dark Surface (TF12) er (Explain in Remarks)
Thick D	Dark Surface Mucky Mine	e (A12) eral (S1)	ce (ATT)	Redox Da	rk Surface (F Dark Surface	(F7)		wetla	ors of hydrophytic vegetation and nd hydrology must be present,
	Gleyed Mat	. ,		Redox De	oressions (F	3)		unles	s disturbed or problematic.
Restrictive	Layer (if p	resent):							
Туре:									
Depth (ir	nches):							Hydric Soil	Present? Yes No
HYDROLO		diantoro							
Wetland Hy				d; check all that	annly)			Secon	ndary Indicators (2 or more required)
	Water (A1		one required			aves (B9) (e x	rcent		Vater-Stained Leaves (B9) (MLRA 1, 2,
	/ater Table (LRA 1, 2, 4A		ксері		4A, and 4B)
	ion (A3)	(//2)			Crust (B11)	, and 4 <i>D</i>)		Пр	rainage Patterns (B10)
_	Marks (B1)			_	tic Invertebra	tes (B13)			ry-Season Water Table (C2)
	ent Deposits	(B2)			gen Sulfide				aturation Visible on Aerial Imagery (CS
	posits (B3)				-	neres along l	Livina Ro		eomorphic Position (D2)
	lat or Crust					ced Iron (C4	_	` ′ —	hallow Aquitard (D3)
	posits (B5)	()		_		ction in Tilled	•		AC-Neutral Test (D5)
_	Soil Crack	s (B6)				ed Plants (D1			aised Ant Mounds (D6) (LRR A)
_			Imagery (B7	_	(Explain in I		, (_	rost-Heave Hummocks (D7)
			/e Surface (I	· —		,			, ,
Field Obse	rvations:			•					
Surface Wa	ter Present	? '	Yes 🔲 I	No Dept	th (inches):				
Water Table	e Present?	,	Yes I				I		
Saturation F (includes ca	apillary fring	e)		No <u>V</u> Dep	th (inches): _		_ We		y Present? Yes 🔲 No 🔽
Describe Re	ecorded Da	ta (strear	n gauge, mo	nitoring well, a	erial photos,	previous insp	pections)	ı, ıt available:	
Remarks: No evidenc	ce of wetla	nd hydro	ology obser	ved.					

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

Project/Site: Schrieber Meadows	City/County: Lincoln	Sampling Date:7/13/2022
Applicant/Owner: MDT		State: Montana Sampling Point: DP10-w
Investigator(s): W Fouts, M Hickey	Section Township Rang	
Landform (hillslope, terrace, etc.): Valley bottom		
		Long: -115.416425 Datum: NAD 83
Subregion (LRR): LRR E Lat		
Soil Map Unit Name: 105: Aquic udifluvents, poorly drained		NWI classification: Not mapped
Are climatic / hydrologic conditions on the site typical for this time	•	(If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology signific	antly disturbed? Are "N	Iormal Circumstances" present? Yes 🔽 No 🔲
Are Vegetation, Soil, or Hydrology natural	lly problematic? (If nee	ded, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map show	wing sampling point lo	cations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes <u>✓</u> No]	
Hydric Soil Present? Yes No	Is the Sampled /	
Wetland Hydrology Present? Yes No	within a Wetland	1? Yes <u> </u>
Remarks:		
Wetland sample point located to the west of the start of ve	egetation transect 3, near p	project boundary.
VEGETATION - Use scientific names of plants Absolute Do	miant Indicator	
Tree Ctreture Districts (OC Foot Doding)	ecies? Status	Dominance Test worksheet
		Number of Dominant Species that are OBL, FACW or FAC:
		Total Number of Dominant Species Across All Strata: 1 (B)
Sapling/Shrub Stratum Plot size (15 Foot Radius)		Percent of Dominant Species That Are OBL, FACW, or FAC: 100 % (A/B)
,		Prevalence Index worksheet
		Total % Cover of: Multiply by:
		OBL species 5 X 1 5
		FACW species 75 X 2 150 FAC species 15 X 3 45
		FACU species 0 X 4 0
Herbaceous Stratum Plot size (5 Foot Radius)		UPL species 0 X 5 0
Alopecurus arundinaceus 10	FAC	Column Totals 95 (A) 200 (B)
Alopecurus pratensis 5	FAC	
Persicaria amphibia 5	OBL	Prevalence Index = B/A = 2.10526
Phalaris arundinacea 75	✓ FACW	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? Ves ✓ NO
Remarks: A prevalence index below three indicates the presence of US Army Corps of Engineers		community. Western Mountains, Valleys, and Coasts - Version 2.0

SOIL											Sam	pling Point:	DP10-w
Profile Des	scription: (Describe	to the dep	th need	ed to docu	ment the	indicator	or conf	irm the al	bsence	of indicators.		
Depth		Matrix			Red	ox Featur	es						
(inches)	Color	(moist)	%	Colo	r (moist)	%	Type ¹	Loc ²	Tex	ture		Remarks	
0-09	10YR	2/2	100						Silt Lo	oam			
09-18	10YR	5/1	100						Cla	1)/	Bottom of	nit	
09-10	1011	3/ 1	100						Cla	ıy	Bottom of	pit	
-				-									
-	_												
	_		_										
	-			-		_		-	_		-		
	_												
	Concentration							ed Sand			cation: PL=Poi		
	I Indicators	: (Appli	cable to all				otea.)		II.	_	ors for Probler	natic Hydri	c Soils":
Histoso	. ,	•			ndy Redox				_		m Muck (A10)	L (TEO)	
	Epipedon (A	2)		_	pped Matri	` '	E4) /		4 \ 7		d Parent Materi		- 40)
	Histic (A3)	(A.4)					F1) (except	t MLRA	· 1)	_	y Shallow Dark	,	-12)
	gen Sulfide (ed Below Da		ce (A11)		my Gleyed oleted Matr		-2)		_!		er (Explain in F	(emarks)	
	ed Below Da Dark Surface		CC (A11)		dox Dark S		3)		3	Indicate	ors of hydrophy	tic vegetatio	n and
_	Mucky Mine				oleted Dark						and hydrology n	-	
	Gleyed Mat			_	dox Depres						ss disturbed or		
	Layer (if p	. ,				()	,						-
Type:		•											
	nches):								Hvd	ric Soil	Present? Y	es 🗸	No \square
Remarks:													
HYDROLO													
	ydrology In licators (min			مام مام ماد		J. A				Casa		- (2 av maana	ma musima al\
			one require	a; cneck			(20) (ndary Indicators	•	
	e Water (A1						ves (B9) (e	xcept		v	Vater-Stained L	eaves (B9)	(MLRA 1, 2,
	/ater Table((A2)			1		and 4B)				4A, and 4B)	(5.40)	
	tion (A3)				Salt Crus		(546)				Orainage Patter		•
	Marks (B1)	(D0)			Aquatic Ir						Ory-Season Wa		
	ent Deposits				Hydroger						Saturation Visibl		Imagery (C9)
	eposits (B3)				_	•	eres along	-	Roots (C3)	_	Geomorphic Pos		
	fat or Crust	(B4)					ced Iron (C4		(00)	_	Shallow Aquitare	, ,	
	eposits (B5)	- (DC)		<u> </u>			tion in Tille				AC-Neutral Te		DD 4\
_	e Soil Crack		l (D	-\- <u>-</u>			d Plants (D	1) (LKF	(A)		Raised Ant Mou		-
	tion Visible				∫ Other (Ex	cpiain in F	(emarks)				rost-Heave Hu	mmocks (D	()
	ly Vegetate	d Concav	/e Surrace (Бо)									
Field Obse		• ,											
	ter Present			No	_ ' '			-					
Water Table					Depth (ir		4	_					
Saturation I			Yes <u> V </u>	No	」 Depth (ir	nches):	1	<u>_</u> w	etland Hy	drolog	y Present? \	′es <u> </u>	No
	apillary fring ecorded Da		n gauge, m	onitorina	well, aerial	photos, r	revious ins	pection	s), if availa	able:			
		•	_ • ,	3	,			-					
Remarks:													
								AC-ne	utral test,	satura	ation within 1"	of the soil	surface,
oxidized rh	ıızospheres	s on livin	ng roots, ai	nd the p	oint's geo	morphic	position.						

MDT Montana Wetland Assessment Form (revised March 2008)

						•		,		
1. Project name Schrie	eber Meadows		2. MDT p	oroject#	NH	H 27 (021)		Contr	ol# 1	027001
3. Evaluation Date 11/28/2	2022 4. Evaluators	J Trilli	ing	5.	Wet	land/Site# (s)	Creation			
6. Wetland Location(s): T	27N R 3	0W	Sec1	11,12,13	Т	R	1	Sec2		
Approx Stationing or Milep	osts Approximately M	lilepos	st 53.5		_					
Watershed 1 - Kootena			ed/Count	y Lincolr	1					
7. Evaluating Agency	CCI for MDT					8. Wetland	size acres			24.67
Purpose of Evaluation						How asses		Measured	d e.a. by	
☐ Wetlands potentially at	fected by MDT project					9. Assesss			<u> </u>	24.67
☐ Mitigation Wetlands: p	re-construction					(AA) size (a	•	N.4		000
✓ Mitigation Wetlands: pe	ost construction					How asses	sea:	Measured	e.g. by	GPS
Other										
10. Classification of Wetla	nd and Aquatic Habitats	in AA	١							
HGM Class (Brinson)	Class (Cowardin)		Modifie	r (Cowardi	n)	Water F	Regime	9	% of AA	
Depressional	Emergent Wetland		Excavat	ed		Permanent	/Perennial			35
Depressional	Aquatic Bed		Excavat	ed		Permanent	/Perennial			10
Slope	Emergent Wetland					Seasonal/I	ntermittent			20
Slope	Emergent Wetland					Permanent	/Perennial			35
 General Condition of A Disturbance: (use matrix aquatic nuisance vegetation 	below to determine [circle] a	ppropri	iate respon			ns for Montana				
Conditions w	ithin AA	natura hayed conve roads	aged in predor al state; is no d, logged, or derted; does no s or buildings; l or ANVS cov	minantly t grazed, otherwise ot contain and noxious	Land mod sele subj few	d not cultivated, but lerately grazed or citively logged; or lect to minor cleari roads or buildings d or ANVS cover i	ut may be hayed or has been ng; contains; noxious	Land cultiv or logged; placement hydrologic	subject to , grading, al alteration ensity; or r	eavily grazed substantial fill clearing, or on; high road or oxious weed 30%.
AA occurs and is managed in predom grazed, hayed, logged, or otherwise or roads or occupied buildings; and noxi <=15%.	converted; does not contain	lo	ow disturk	pance		low disturb	ance	moder	rate dis	turbance
AA not cultivated, but may be modera selectively logged; or has been subje- placement, or hydrological alteration; noxious weed or ANVS cover is <=30	ct to relatively minor clearing, fill contains few roads or buildings;		modera disturbar		m	oderate dist	urbance	high	n distur	bance
AA cultivated or heavily grazed or log substantial fill placement, grading, cle high road or building density; or noxid >=30%.	earing, or hydrological alteration;	hiç 	gh disturt	pance	_	high disturb	ance	high	n distur	bance
Comments: (types of distur Highway 2 and USFS roads a 2021 but still occupies a smal ii. Prominent noxious, aqua Cirsium arvense, Leucanthe	re adjacent to the AA, lan I portion of the AA. atic nuisance, other exo	d is no	ot cultivate	d, and low	distu	rbance. Ox-ey	e daisy has	rapidly inc	creased	in cover sir
iii. Provide brief descriptive										
AA includes constructed wetla channels, creation of a new si managed in a natural state. U	tream channel and subsid	ence o	of the histo	osol soil ele						

13. Structural Diversity: (based on number of "Cowardin" vegetated classes present [do not include unvegetated classes], see #10 Initial Is current management preventing (passive) Modified existence of additional vegetated classes? Existing # of "Cowardin" Vegetated Classes in AA Rating Rating >= 3 (or 2 if 1 is forested) classes NA NΑ Н 2 (or 1 if forested) classes NA NΑ NA М 1 class, but not a monoculture М <NO YES> L 1 class, monoculture (1 species comprises>=90% of total cover) NA NΑ NA L Comments: Emergent and aquatic bed classes are present SECTION PERTAINING to FUNCTIONS VALUES ASSESSMENT 14A. Habitat for Federally Listed or Proposed Threatened or Endangered Plants or Animals: i. AA is Documented (D) or Suspected (S) to contain (check one based on definitions contained in instructions): Primary or critical habitat (list species) D S ● D ○ S Secondary habitat (list Species) Grizzly bear D S Incidental habitat (list species) S No usable habitat ii. Rating (use the conclusions from i above and the matrix below to arrive at [check] the functional points and rating) Highest Habitat Level doc/primary sus/primary doc/secondary sus/secondary doc/incidental sus/incidental None Functional Points and 1H .9H .8H .7M .3L .1L 0L Rating USFWS database, MTNHP, MDT observations Sources for reports from FWP. USFWS, and FS on use. documented use 14B. Habitat for plant or animals rated S1, S2, or S3 by the Montana Natural Heritage Program: (not including species listed in14A above) i. AA is Documented (D) or Suspected (S) to contain (check one based on definitions contained in instructions): Primary or critical habitat (list species) D
 S Western toad (S2) D S Secondary habitat (list Species) Incidental habitat (list species) D S S No usable habitat ii. Rating (use the conclusions from i above and the matrix below to arrive at [check] the functional points and rating) Highest Habitat Level doc/primary sus/primary doc/secondary sus/secondary doc/incidental sus/incidental None S1 Species: Functional Points and .7M 0L 1H .8H .6M .2L .1L Rating S2 and S3 Species: Functional Points and .7M .6M .5M .2L .1L 0L .9H Rating

Sources for documented use	MTNHP and documented breeding on site by MDT and USFS personnel.

																			Subs	stant	ial	
ıbstantial (based	d on any	of the	followin	g [che	ck]):						Minir	nal (b	ased or	n any of	the foll	owing	[check])):				
observations	of abun	dant wil	dlife #s	or hig	h specie	es diver	sity (du	ring an	y period	d)	fe	w or r	o wildlif	e obse	vations	during	ı peak u	ıse peri	ods			
abundant wild	llife sign	such a	ıs scat,	tracks	, nest st	tructure	s, game	e trails,	etc.		lit	tle to i	no wildli	fe sign								
presence of e	xtremel	y limitin	g habita	t featu	ıres not	availab	ole in the	e surro	unding	area	s	parse	adjacen	t uplan	d food s	ources	;					
interviews with	h local b	oiologist	s with k	nowle	dge of t	he AA					in	tervie	ws with	local bi	ologists	with k	nowledg	ge of th	e AA			
oderate (based o	on any c	of the fo	llowing	[check]):																	
observations			-					-		_		eriods										
common occu			-		s scat,	tracks,	nest str	ucture	s, game	trails, e	etc.											
adequate adja interviews with																						
•																	0.					
i. Wildlife habited from #13. For continuous terms continuous terms of the cormolar in the cor	class c of their	over to perce	be control	nside positi	ered ev	enly d	listribut (see #	ted, th ‡10).	ne mos Abbrev	t and I viations	east p	revale urface	ent veg water	jetate durati	d class ons ar	es mi e as f	ust be sollows:	within : P/P =	20% o	f each		
erms]) Structural iversity (see ±13)				Hi	gh							Mod	erate					Lo	ow.			
Class cover listribution (all regetated classes)		Eve	en			Une	ven			Eve	en			Une	ven			Ev	en			
Duration of curface water in ≥ 10% of AA	P/P	S/I	T/E	Α	P/P	S/I	T/E	А	P/P	S/I	T/E	Α	P/P	S/I	T/E	А	P/P	S/I	T/E	А		
.ow disturbance t AA (see #12i)	Е	Е	E	н	Е	Е	Н	Н	Е	Н	Н	М	E	Н	М	М	Е	Н	М	М		
, ,													-	_				_	$\overline{}$		1	
Moderate disturbance at AA	Н	Н	н	Н	Н	н	Н	М	Н	Н	М	М	Н	М	М	L	Н	М	L	L		
Moderate listurbance at AA see #12i) ligh disturbance		Н	Н	H	М	H M	H	M L	Н	М	M	M L	М	_ M	M L	L	H	M L	L	L		
Inderate isturbance at AA see #12i) Iligh disturbance t AA (see #12i) iii. Rating (L	н м use th	M e cond	M	ns fro	м om i a	м nd ii а	L	L	M	M atrix b	elow t	L o arr	M	L [chec	L k] the	funct	L	L	L	L		
Moderate iisturbance at AA see #12i) digh disturbance It AA (see #12i) iii. Rating (U	н м use th	M e cond	M	ns fro	om i a	nd ii a	L	L	M	M atrix b	elow t	L o arr	M ive at	L [chec	k] the	funct g (ii) derat	L	L	L	L	Low	1
Moderate iisturbance at AA see #12i) iiigh disturbance at AA (see #12i) iii. Rating (U Evidence of W	н м use th	M e cond	M	ns fro	om i a	nd ii a	L	L	M	atrix b	elow t	L o arr	M ive at	L [chec	k] the	funct g (ii) derat 8H	L	L	L	L	Low .7M	
Moderate disturbance at AA (see #12i) High disturbance at AA (see #12i) iii. Rating (u Evidence of w Substantial Moderate	н м use th	M e cond	M	ns fro	om i a	nd ii a	L	L	M	M atrix b	elow t	L o arr	M ive at	L [chec	k] the	funct g (ii) derat	L	L	L	L	Low	
Moderate ilisturbance at AA see #12i) digh disturbance at AA (see #12i) digh disturbance at AA (see #12i) iii. Rating (u Evidence of w Substantial Moderate Minimal omments I.D. General Fould be used it	Use the vil difference of the by fish to half	e conduse (water tt Rati	ns fro	M Exception i a 1E .6M wildlift Assessible precipion is r	nd ii a	d wildles funct	and the control of th	M hhe ma	M High .91 .71 .41	L L L L L L L L L L L L L L L L L L L	o arrice hab	M M M M M M M M M M M M M M M M M M M	[chec classes L L L L L L L L L	k] the rating Moo	funct g (ii) derat 8H 5M .2L	L L e e e e e e e e e e e e e e e e e e	points correct d by f	s and l	" suc	Low .7M .3L .1L th that the is not	
Moderate disturbance at AA see #12i) High disturbance at AA (see #12i) High disturbance at AA (see #12i) iii. Rating (u Evidence of w Substantial Moderate Minimal omments 4D. General Fould be used a storable due a NA here a Habitat Qua Duration of surface	Observit different distribution of the last of the las	e conduse (water tt Rati fish u ponstra	fowl, ng: (see is ints, 4E.)	M Exception 1 a Property 1 a Assess precion or is r Color cted F	nd ii a tional H fe, and uded not ded d War	d wildles functiby persired ter	and the street of the street o	M hhe ma	M High 99 .71 .41 cat du	L L Wildlife H WING H W WING W WING W W W W W W W W W W W W W	o arrice hab	M M ive at itat fee	L [chec chec check	k] the rating Mod	functing (ii) derat 8H 5M 2L tuation	e e e tusectrappe	points correct d by field in a	s and d	" success the use of t	Low .7M .3L .1L h that the is not en chec	k
isturbance at AA see #12i) ligh disturbance t AA (see #12i) ligh disturbance t AA (see #12i) lii. Rating (U Evidence of M Substantial Moderate Minimal comments DD. General F ould be used be storable due NA here a	Obsorbish to hak and property and ewater	e conduse (water tt Rati fish u ponstra	fowl, ng: (se is se is ints, itE.)	M Dom i a Except 1E .9h .6N wildlift Assess preclicor is r Cold	nd ii a tional H fe, and uded not ded d War	d wildles function by persired ter	and the street of the street o	M he ma	M High 99 .71 .41 A is u	L L Wildlife H WING H W WING W WING W W W W W W W W W W W W W	o arrice hab	M ive at itat fe.	L [chec chec check	k] the rating Mo	functing (ii) derat 8H 5M 2L tuation	e e e tusectrappe	points correct d by field in a	s and state of the	" succesh used li], the	Low .7M .3L .1L th that the is not	k

i. Habitat Quality and	Known	/ Suspec	ted Fish	Specie	s in A	A (usen	natrix to	arrive a	t [check	the funct	ional po	intsan	drating)					
Duration of surface water in AA		Pe	rmanent / I	nent / Perennial Adequate Poor				Se	easonal /	Intermitten	t		Te		porary/	Epheme	eral	
Aquatic hiding / resting / escape cover	Ор	timal	Adeq	uate	Po	oor	Opti	mal	Ade	quate	Po	or	Opti	mal	Adeo	quate	Po	or
Thermal cover optimal/ suboptimal	0	S	0	S	0	S	0	S	0	S	0	S	0	S	0	S	0	S
FWP Tier I fish species	1E	.9H	.8H	.7M	.6M	.5M	.9H	.8H	.7M	.6M	.5M	.4M	.7M	.6M	.5M	.4M	.3L	.3L
FWP Tier II or Native Game fish species	.9H	.8H	.7M	.6M	.5M	.5M	.8H	.7M	.6M	.5M	.4M	.4M	.6M	.5M	.4M	.3L	.2L	.2L
FWP Tier III or Introduced Game fish	.8Н	.7M	.6M	.5M	.5M	.4M	.7M	.6M	.5M	.4M	.4M	.3L	.5M	.4M	.3L	.2L	.2L	.1L
FWP Non-Game Tier IV or No fish species	.5M	.5M	.5M	.4M	.4M	.3L	.4M	.4M	.4M	.3L	.3L	.2L	.2L	.2L	.2L	.1L	.1L	.1L

Sources used for identifying fish sp. potentially for	und in AA	\ :								
ii. Modified Rating (NOTE: Modified score car 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 nuisa yes, reduce score in i above by 0.1: Modified I	culvert, d TMDL de nce plant	like, or other m velopment with	nan-made s n listed "Pr	structure or obable Imp	aired Úses	s" includin	g cold or w	arm water		
b) Does the AA contain a documented spawning a comments) for native fish or introduced game fish	_	ther critical hab		e (i.e., sand add 0.1 to t Modifed	he adjuste				า	
iii. Final Score and Rating: 6 M	Comme	ents: Pumpki open wa 2022.							itoring cre vere obse	
14E. Flood Attenuation: (Applies only to wetlan channel or overbank flow, click NA here		ect to flooding veed to 14F.)	∕ia in-chan	nel or overl	oank flow.	If wetland	ls in AA ar	e not floode	ed from in-	
i. Rating (working from top to bottom, use the n Estimated or Calculated Entrenchment (Rosgen 1994, 1996)		ow to arrive at ly entrenched - stream types	- C, D, E	Moderat	points and ely entrend stream type	hed – B	Entrencl	hed-A, F, G	stream	
% of flooded wetland classified as forested and/or scrub/shrub	75%	'	<25%	75%	25-75%		75%	25-75%	<25%	
AA contains no outlet or restricted outlet	1H	.9H	.6M	.8H	.7M	.5M	.4M	.3L	.2L	
AA contains unrestricted outlet	.9H	.8H	.5M	.7M	6M	.4M	.3L	.2L	.1L	
Slightly Entrenched ER = >2.2		Moderately I	41 – 2.2			ER	ntrenched 2 = 1.0 – 1.4			
C stream type D stream type E stream	type	B strea	m type	Å	stream type		F stream typ	de G	stream type	
Floodprone 35 ii. Are ≥10 acres of wetland in the AA subject to within 0.5 mile downstream of the AA (check)? Comments: Highway adjacent to the site	/ Ban wid flooding / Y	AND are man-r	made featu		Ban 5 =	ratio	th chment	7 by floods loo	cated	
14F. Short and Long Term Surface Wat upland surface flow, or groundwater flow. I 14G.)	er Stora If no we f	ge: (Applies dands in the A	to wetlan AA are su	ds that flo bject to flo	od or pon ooding or	d from o ponding,	verbank o dick [nel flow, proce e and proce	
 i. Rating (Working from top to bottom, us water durations are as follows: P/P = perma further definitions of these terms].) 										
Estimated maximum acre feet of water contained in wetlands within the AA that are subject to periodic flooding or ponding		>5 acre feet			1.1 to 5	acre feet			≤1 acre foot	
Duration of surface water at wetlands within the AA	P/P	S/I	T/E	P/F	,	S/I	T/E	P/P	S/I	T/E
Wetlands in AA flood or pond ≥ 5 out of 10 years	1H	.9H	.8H	.81	+	.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: Extensive areas of perennial inundation greater than 2 feet deep were observed in 2022.

	h influ			/Toxicar or ground														ortoxic and prod	
i. Ra = low]		orking 1	from t	op to bot	tom, us	e the m	natrix be	elow to	arrive a	at [chec	k] the fu	unctiona	al points	s and ra	ting [H	= high,	M = m	oderate,	or L
Sedime		ient, and 4	toxica	nt input	com not	o deliver pounds a substan	levels o at levels tially imp	f sedimo such the paired. No ts or tox	and use vents, nutrat other fi dinor sed cicants, or present.	ients, or unctions imentatio	are on,	deve nutrient with po compour	lopment s, or toxi tential to nds such	t for "prolicants or deliver l that other ation, sou	oable ca AA recenigh leve er functinces of r	uses" relatives or solutions of sed on sare s	ated to surround iments, ubstanti or toxica	d of TMDL ediment, ing land u nutrients, ally impai ants, or sig	se or red.
		land vego oding / p			Yes	≥ 70%	No	Ye	< 70	% No		Yes	≥ 70	% No)	Yes	< 70	% No	
AA con	tains no	or rest	ricted	outlet	11-		вн	.71	1	.5M	1	.51		.41	1	.3L		.2L	
AA con	ntains ur	restri ct	ed out	let	.91	1 .	7М	.6N	1	.4M	1	.41	1	.3	L	.2L	i	.1L	
Comr	nents	: AA do	omina	ted by >7	70% ree	d cana	rygrass	, prese	nce of f	looding	pondin	g, unres	stricted	outlet f	ows int	to Schrie	eber La	ike.	
drainag procee i. Rat	ge, or or d to 14I ing (wo	the sho .) rking fro	oreline m top t	abilization of a stand	ling wate	er body v	vhich is	subject arrive a	to wave t [check]	action. I	f 14H do	oes not a	apply, cli d rating)			man-mac ere and	le		
shorelin		<u>ind</u> strear cies with s			Pern	nanent / F	Perennial	Duration	of surface Sea	e <i>water ad</i> asonal / In				emporary	/ Epheme	eral			
≥ 65%	oc Appel	idix i).				1H	_			.9H	1				M				
35-64%						.7M				.61	1				5M				
< 35%						.3L				.21	-				1L				
	Produc	perim	eters	of excav	ated are	eas. ort:					es with I	high sta	bility ra	tings ar	e estat	olished o	on the		
Gen	eral Fis	h Habit					Habitat		ratings [(14C.iii.										
R	ating (1	-		E/H H	1		M H	+	ı	м 1									
	<u>E/I</u>			н	-		М			м									
	<u>M</u> L			M		_	М			L									
	N/	4		Н			М			L									
wetland subsur [see ins	d compo face out	nent in t let; the f ns for fur	the AA inal the ther de	to botton ; Factor E ree rows p	s = level pertain to of these	of biolog duratio	ical acti	vity ratir ace wat	ng from a ter in the	AA, whe	4I.i.); Fa ere P/P,	ctor C =	whether	or not to as previ	ne AA c ously de	ontains a efined, ar	surface	e or	
A B C	Hi Yes	gh No		oderate No		ow No	H Yes	gh No	Mod Yes	lerate No		ow No	Hi Yes	gh No		ponent <1 a lerate No		ow No	
P/P	1E	.7H	.8H		.6M	.4M	.9H	.6M	.7H	.4M	.5M	.3L	.8H	.6M	.6M	.4M	.3L	.2L	
S/I	.9Н	.6M	.7H	.4M	.5M	.3L	.8H	.5M	.6M	.3L	.4M	.2L	.7H	.5M	.5M	.3L	.3L	.2L	
T/E/A	.8H	.5M	.6M	.3L	.4M	.2L	.7H	.4M	.5M	.2L	.3L	.1L	.6M	.4M	.4M	.2L	.2L	.1L	
plant cov control).	ver, ≤ 15 re an av rore in i	i above	ous wee 50 foo and ad	Modified ed or ANV at-wide veg fjust rating f biologic	/S cover getated ι g accordi	, and tha upland b ingly: N	at is not uffer arc	subjecte ound ≥ 7 I Ratin	ed to per 75% of th g 1	iodic me e AA ciro E	chanical	nce?	orcleài	ring (unle	ess for v	veed es, add 0.	1		

i. Discharge Ind The AA is a slope we Springs or seeps are Vegetation growing of Wetland occurs at the Seeps are present at AA permanently flood Wetland contains an Shallow water table a	etland known or obsection of the toe of a natuate the wetland ended during droutlet, but no its and the site is seand t	t season/dro ral slope dge ught periods inlet saturated to	s the surface	Wetl	neable substrand contains am is a knowr	ate present v	utlet	ying impeding e volume decr	
iii. Rating (use the inform	nation from i a		and the table Duration of sate	uration at AA	Wetlands FR	OM GROUND	WATER DISC	HARGE OR WIT	TH WATER
Onit a ni a			D/D	THAT IS	RECHARGING	THE GROUI			
Criteria Groundwater Discharge or R	lecharge		P/P 1H		.7M		.4M	No.	L L
Insufficient Data/Information	<u> </u>					NA			
14K. Uniqueness:			turation to the		140. 6		- d		
i. Rating (working from to	AA contains or mature wetland or as "S	s fen, bog, v e (>80 yr-old plant assoc	warm springs d) forested ciation listed ITNHP	AA does cited ra diversity plant ass	s not contain re types and (#13) is high ociation listed the MTNHP	previously structural or contains I as "S2" by	AA does	s not contain per types or assuctural diversit	sociations y (#13) is
Estimated relative abundance (#11)	rare	commo	abundant	rare	common	abundant	rare	common	abundant
Low disturbance at AA (#12i)	1H	.9H	.8H	.8H	.6M	.5M	.5M	.4M	.3L
Moderate disturbance at AA (#12i)	.9H	.8H	.7M	.7M	.5M	.4M	.4M	.3L	.2L
High disturbance at AA (#12i)	.8H	.7H	.6M	.6M	.4M	.3L	.3L	.2L	.1L
14L. Recreation/Education i. Is the AA a known or posterior here and proceed to the categori Other iii. Check categori Other iiii. Rating (use the matrix	on Potential: otential rec./e to the overall s ies that apply	(affords "bo ed. site: (ch summary ar to the AA:	neck) Y nd rating page) V Education	AA provides N) nal/scientific	recreation or (if 'Yes' con' study;	education c	pportunity) e evaluation;	if 'No' then cli	ick NA
Known or Potential Recreation							k	nown Pot	ential
Public ownership or public e			` '		uired)			.2H	.15H
Private ownership with gene	ral public acces	ss (no permi	ssion required)					.15H	.1M
Private or public ownership	without general	public acce	ess, or requiring	permission	for public acce	ess		.1M	.05L
· · · · · · · · · · · · · · · · · · ·									
Comments: Known recreation site									

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

Function & Value Variables	Rating	Actual Functional Points	Possible Functional Points	Functional Units: (Actual Points x Estimated AA Acreage)	Indicate the four most prominent functions with an asterisk (*)
A. Listed/Proposed T&E Species Habitat	Н	.8	1	19.74	
B. MT Natural Heritage Program Species Habitat	Н	.9	1	22.20	
C. General Wildlife Habitat	Е	1	1	24.67	✓
D. General Fish Habitat	М	.6	1	14.80	
E. Flood Attenuation	М	.5	1	12.34	
F. Short and Long Term Surface Water Storage	Н	1	1	24.67	V
G. Sediment/Nutrient/Toxicant Removal	Н	.9	1	22.20	
H. Sediment/Shoreline Stabilization	Н	1	1	24.67	
Production Export/Food Chain Support	E	1	1	24.67	✓
J. Groundwater Discharge/Recharge	Н	1	1	24.67	✓
K. Uniqueness	М	.4	1	9.87	
L. Recreation/Education Potential (bonus points)	Н	.2	NA	4.93	
Totals:		9.3	11		
Percent of Possible Score	•		84.55 %		

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

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

I	II	III	IV

MDT Montana Wetland Assessment Form (revised March 2008)

1. Project name Schrieber Meadows	2. MDT	project#	NF	1 27 (021)		Control	# 1027001
3. Evaluation Date 11/28/2022 4. Evaluators	J Trilling	5.	Wet	and/Site# (s)	Enhance	ment	
5. Wetland Location(s): T 27N R 3	0W Sec1	11.12.13	т	R		Sec2	
Approx Stationing or Mileposts Approximately M		11,12,10		K		3602	
	atershed/Cour	nty Lincolr	1				
7. Evaluating Agency CCI for MDT				8. Wetland s	size acres		6.36
Purpose of Evaluation				How assess		Measured e	
. ☐ Wetlands potentially affected by MDT project				9. Assesssn	nent area		6.36
☐ Mitigation Wetlands: pre-construction				(AA) size (ac	•		
✓ Mitigation Wetlands: post construction				How assess	ed:	Measured e.	g. by GPS
☐ Other							
10. Classification of Wetland and Aquatic Habitats	in AA						
HGM Class (Brinson) Class (Cowardin)	Modifi	er (Cowardi	in)	Water Re	gime	% (of AA
Slope Emergent Wetland				Permanent/F	Perennial		58
Slope Emergent Wetland				Seasonal/Int	termittent		20
Slope Aquatic Bed				Permanent/F	Perennial		22
11. Estimated Relative Abundance Common							
General Condition of AA i. Disturbance: (use matrix below to determine [circle] a aquatic nuisance vegetation species (ANVS) lists)	ppropriate respo	nse – see inst	tructio	ns for Montana-li	sted noxiou	ıs weed and	
				conditions adjacent			
Conditions within AA	Managed in pred natural state; is r hayed, logged, o converted; does roads or building weed or ANVS or	not grazed, r otherwise not contain s; and noxious	mod sele subj few	d not cultivated, but erately grazed or ha ctively logged; or ha ect to minor clearing roads or buildings; r d or ANVS cover is	ayed or as been g; contains noxious	or logged; sub placement, gr hydrological a	ind or heavily grazed object to substantial fill ading, clearing, or alteration; high road or ity; or noxious weed er is >=30%.
AA occurs and is managed in predominantly natural state; is not grazed, hayed, logged, or otherwise converted; does not contain roads or occupied buildings; and noxious weed or ANVS cover is <=15%.	low distu	rbance	Г	low disturba	ince	moderat	e disturbance
AA not cultivated, but may be moderately grazed or hayed or selectively logged; or has been subject to relatively minor clearing, fill placement, or hydrological alteration; contains few roads or buildings; noxious weed or ANVS cover is <=30%.	moder <u>disturba</u>		m	oderate distu	rbance	high o	listurbance
AA cultivated or heavily grazed or logged; subject to relatively substantial fill placement, grading, clearing, or hydrological alteration; high road or building density; or noxious weed or ANVS cover is >=30%.	high distu	rbance		high disturba	nce	high o	listurbance
Comments: (types of disturbance, intensity, season Highway 2 and USFS roads are adjacent to the AA, lar	nd is not cultiva	ited, minimal	noxi	ous weeds, and	d low distu	rbance.	
ii. Prominent noxious, aquatic nuisance, other exol	ic species:						
On Smill di voliso							
iii. Provide brief descriptive summary of AA and su				_			
AA includes existing wetlands located between stream grass and Alopecurus spp. Restoration efforts and beau some of the emergent wetland transitioning to aquatic be	er activity sout	th of Schrieb	er La	ke have resulte	ed in incre		

13. Structural Diversity: (based on number of "Cowardin" vegetated classes present [do not include unvegetated classes], see #10 Initial Is current management preventing (passive) Modified Existing # of "Cowardin" Vegetated Classes in AA Rating existence of additional vegetated classes? Rating >= 3 (or 2 if 1 is forested) classes NA NΑ Н 2 (or 1 if forested) classes NA NΑ NA М 1 class, but not a monoculture М <NO YES> L 1 class, monoculture (1 species comprises>=90% of total cover) NA NΑ NA Comments: Aquatic bed, and emergent wetland dominated by primarily reed canary grass. SECTION PERTAINING to FUNCTIONS VALUES ASSESSMENT 14A. Habitat for Federally Listed or Proposed Threatened or Endangered Plants or Animals: i. AA is Documented (D) or Suspected (S) to contain (check one based on definitions contained in instructions): Primary or critical habitat (list species) D S ● D ○ S Secondary habitat (list Species) Grizzly bear Incidental habitat (list species) D S S No usable habitat ii. Rating (use the conclusions from i above and the matrix below to arrive at [check] the functional points and rating) Highest Habitat Level doc/primary sus/primary doc/secondary sus/secondary doc/incidental sus/incidental None Functional Points and 1H .9H .8H .7M .3L .1L 0L Rating USFWS database, MTNHP, MDT observations Sources for reports of use from FWP, USFS, and USFWS. documented use 14B. Habitat for plant or animals rated S1, S2, or S3 by the Montana Natural Heritage Program: (not including species listed in14A above) i. AA is Documented (D) or Suspected (S) to contain (check one based on definitions contained in instructions): Primary or critical habitat (list species) D
 S Western toad (S2) D S Secondary habitat (list Species) Incidental habitat (list species) D S S No usable habitat ii. Rating (use the conclusions from i above and the matrix below to arrive at [check] the functional points and rating) sus/primary Highest Habitat Level doc/primary doc/secondary sus/secondary doc/incidental sus/incidental None S1 Species: Functional Points and .7M 1H .8H .6M .2L 0L .1L

Rating							
S2 and S3 Speci Functional Points Rating		.7M	.6M	.5M	2L	.1L	_OL_
Sources for documented use	MTNHP and docum	ented breeding	on site by MDT and	d USFS personnel.			

																			Subs	stantia	I
bstantial (base	d on an	y of the	followin	g [che	eck]):								ased or	-							
observations	of abun	dant wile	dlife #s	or hig	h speci	es dive	sity (dur	ring an	y period	i)	\equiv		o wildlif		vations	during	g peak u	se perio	ods		
abundant wil	•												no wildli	•							
presence of							ole in the	e surro	unding	area			adjacen								
interviews wi	th local t	iologist	s with k	nowle	edge of	he AA					ir ir	ntervie	ws with I	local bio	ologists	with k	nowledo	ge of the	e AA		
derate (based	-		-	-																	
observations			•	•				•	•	·		eriods									
common occ			•		as scat,	tracks,	nest stru	uctures	s, game	trails, e	etc.										
adequate adj interviews wi					dae ef	-h - A A															
interviews wi	ui iocai i	Jologist	.S WILLI K	liowie	age or	IIE AA															
om #13. For ther in terms ermanent/per erms]) tructural versity (see	of their	percer	nt com	positi al/int	ion of t	he ÅA	(see #	10).	Abbrev	/iation	s for s	urface A = ab	water	durati	ons are	e as f	ollows:	P/P =	itions o		
13)				П	ign							iviou	erate					LO	w		
Class cover listribution (all egetated lasses)		Eve	∍n			Une	ven			Eve	en			Une	ven			Eve	en		
uration of urface water in ≥ 0% of AA	P/P	S/I	T/E	Α	P/P	S/I	T/E	А	P/P	S/I	T/E	А	P/P	S/I	T/E	Α	P/P	S/I	T/E	А	
ow disturbance t AA (see #12i)	Е	Е	E	н	Е	Е	Н	н	Е	Н	Н	М	E	Н	М	М	Е	н	М	м	
oderate sturbance at AA ee #12i)	Н	Н	Н	Н	Н	н	Н	М	Н	Н	М	М	н	М	М	L	Н	М	L	L	
gh disturbance AA (see #12i)	М	М	М	L	М	М	L	L	М	М	L	L	М	L	L	L	L	L	L		
i. Rating (Evidence of							above a	and t	he ma	V	Vildlife		ive at		rating	g (ii)		points	and r	rating)	
Sl44'1			+		Excep	tion al		┢		High	1				Mod	derat	e				Low
Substantial			_		16			L		.91	Н					.8H	L				.7M
Moderate					.91	1		╙		.71	М					5M			_		.3L
Minimal					.6N	1		L		.41	М					.2L					.1L
	Sub		al wildl due tr			hin th	e AA;	howe	ever, L	JS Hiç	ghway	2 ab	uts thi	s area	a and	prec	ludes	wildlife	e usa(ge at va	arious t
omments		e uay																			

i. Habitat Quality and	Known	/ Suspec	ted Fish	Specie	s in A	A (usen	natrix to	arrive a	t[check	the funct	ional po	ints and	drating)					
Duration of surface water in AA		Pe	rmanent / I	Perennial				Se	easonal /	Intermitten	ıt			Tem	porary/	Epheme	eral	
Aquatic hiding / resting / escape cover	Opt	imal	Adeq	uate	Po	oor	Opti	mal	Ade	quate	Po	or	Opti	mal	Aded	quate	Po	or
Thermal cover optimal/ suboptimal	0	S	0	S	0	S	0	S	0	S	0	S	0	S	0	S	0	S
FWP Tier I fish species	1E	.9H	.8H	.7M	.6M	.5M	.9H	.8H	.7M	.6M	.5M	.4M	.7M	.6M	.5M	.4M	.3L	.3L
FWP Tier II or Native Game fish species	.9H	.8H	.7M	.6M	.5M	.5M	.8H	.7M	.6M	.5M	.4M	.4M	.6M	.5M	.4M	.3L	.2L	.2L
FWP Tier III or Introduced Game fish	.8H	.7M	.6М	.5M	.5M	.4M	.7M	.6M	.5M	.4M	.4M	.3L	.5M	.4M	.3L	.2L	.2L	.1L
FWP Non-Game Tier IV or No fish species	.5M	.5M	.5M	.4M	.4M	.3L	.4M	.4M	.4M	.3L	.3L	.2L	.2L	.2L	.2L	.1L	.1L	.1L

Sources used for	identifying fish sp.	potentially four	nd in AA	:											
a) Is fish use of the current final MDE fishery or aquatic	ing (NOTE: Modi the AA significantly in EQ list of waterbodie life support, or do the in i above by 0.1:	reduced by a c es in need of T aquatic nuisan	ulvert, d MDL dev ce plant	ike, or other m velopment with	an-made [°] s n listed "Pr	obable Imp	aired Úses'	' including	g cold or v	varm water					
comments) for na	ontain a documente	ced game fish?	0	Y • N	If yes, a	Modifed	he adjusted Rating	score in	i or iia ab	ove:					
iii. Final Score a	and Rating: 🗀 🗀		Comme	nts: Minimal	i fish hab	oitat pres	ent, no fis	sh have	been o	bserved	in AA.				
i. Rating (work	ing from top to bott	NA here a	atrix belo	eed to 14F.) ow to arrive at	[check] the	e functional	points and	rating)							
Estimated or Ca 1994, 1996)	alculated Entrenchn	nent (Rosgen	Slightl	y entrenched - stream types			ely entrench stream type	ned – B	Entrenc	hed-A, F, G types	3 stream				
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	etland classified as rub	forested	75%	25-75%	<25%	75%	25-75%	<25%	75%	25-75%	<25%				
AA contains no	AA contains no outlet or restricted outlet 1H														
AA contains un	AA contains no outlet or restricted outlet 1H .9H .6M .8H .7M .5M .4M .3L .2L AA contains unrestricted outlet .9H .8H .5M .7M .6M .4M .3L .2L .1L														
	Slightly Entrench	nd .		Moderately I	Entropohod				ntrenched			_			
0	ER = >2.2			ER = 1.4	11 – 2.2		-4	ER	= 1.0 - 1.4		\	_			
C stream type	D stream type	E stream ty	ре	B stream	m type	A	stream type	Ę	stream typ		s stream type				
	2 x	Bankfull Dept	h	Bankfull Do	epth	44	L'AYL I	lood-pror full Widt							
Floodprone width		35	/ Ban	kfull :h			5 =	Entrend ratio	hment	7					
	s of wetland in the A ownstream of the A	-	ooding A Y	ND are man-n	nade featu	res which r	may be sign	ificantly o	lamaged b	y floods lo	cated				
Comments: A	A inundated fro	m restricted	l outlet	, minimal tr	ees or sl	hrubs pre	esent.								
14F. Short a upland surfact 14G.)	nd Long Term S e flow, or ground	urface Wate water flow. If	r Stora no wet	ge: (Applies lands in the A	to wetlan AA are su	ds that flo bject to flo	od or pond ooding or p	from ov	verbank o		nel flow, proce e and proce				
water duration	orking from top to as are as follows: ons of these term	P/P = perma													

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

Comments:

AA includes constructed wetland depressions and adjacent wetland habitat that has been created by inundation from restoration efforts. These efforts include plugging of existing ditches and channels and creation of a new stream channel.

	gh influ																		ortoxicand proc	
	• •	working	from	top to b	otton	n, use	e the m	natrix be	elow to	arrive a	at [chec	k] the f	unctiona	al points	and ra	iting [H	= high,	M = m	oderate,	or L
			I toxic	ant input		comp not s	deliver ounds a substan	levels of at levels tially imp f nutrien	f sedime such tha paired. M	ents, nutr at otherf linorsed icants, o	with poter rients, or functions imentation r signs of	are on,	deve nutrient with po compour	elopment s, or toxi tential to nds such	for "prol cants or deliver l that othe tion, sou	bable cau AA rece high leve er functio	uses" rela sives or s ls of sedi ons are si utrients	ated to surround iments, ubstantior toxical	d of TMDL ediment, ing land u nutrients, ally impail ints, or sig	ise or red.
		tland veg			-		≥ 70%	Ċ		< 70)%			≥ 70	%			< 70	%	
		o or rest			-	Yes	<u> </u>	No I	Yes	3	No	1	Yes	· ·	No)	Yes	-	No	_
						1H		8H	.7N	1	.5M		.5N	1	.41	М	.3L	Щ	.2L	
AA coi	ntains u	nrestrict	ed o	utlet		.9H		7М 📗	.6N	1	.4M		.4N	1	.3	L	.2L		.1L	
				ated prin													man-mac	le		
drainag proces	ge, or o ed to 14 ting (wo	n the sho	orelin m top	e of a sta	nding	wate	r body v	vhich is	subject arrive a	to wave t [check]	action.	lf 14H do	oes not a	apply, cli		NA he		ı		
shorelin		cies with s				Perm	anent / F	Perennial	Duration		asonal / Ir			<u> </u>	emporary	/ Epheme	ral			
≥ 65%	ee Appe	iidix i).					1H	_			.91	4				<u>.</u> м]				
35-64%)						_l ''' .7M	_			.61	и				5M				
< 35%							.3L	-			.21					1L				
<u>i. L</u>	Produ	etion Ex	oport	/Food Ch	nain S	Suppo	rt: wildlife	and fish	habitat	ratings [check])		nocuitu	Te or re-	eu cana	ii ygi ass	•			
		sh Habit 14D.iii.)	at	E/		eral W	/ildlife	Habitat M	Rating	(14C.iii. I) L									
	E/	Ή		H				н			М									
	N	1		H				М			М									
	L	-		N	<u></u>			М			L									
	N/	'A		F				М			L									
wetlan subsur	d comp face ou	onent in tlet; the t ns for fur	the A final t	op to botto A; Factor hree rows definitions	B = I s perta s of th	level cain to nese to	of biolog duratio	jical acti	vity ratir ace wat	ng from a er in the	above (1	4I.i.); Fa ere P/P,	ctor C =	whether	or not to as previ	he AA co	ontains a fined, an	surface d A = "a	e or	
B C	Yes	ligh No		Moderate		Lov /es	w No	H Yes	igh No		derate No		ow No	Hi Yes	gh No	Mode Yes			No No	
P/P	1E	.7H		BH .5M	T	.6M	.4M	.9H	.6M	.7H	.4M	.5M	.3L	.8H	.6M	.6M	.4M	.3L	.2L	
S/I	.9H	.6M	.7	H .4M		.5M	.3L	.8H	.5M	.6M	.3L	.4M	.2L	.———	.5M	.5M	.3L	.3L	.2L	
T/E/A	.8H	.5M	.6	M .3L	1-	.4M	.2L	.7H	.4M	.5M	.2L	.3L	.1L	.6M	4M	.4M	.2L	.2L	.1L	
plant control).	ver, ≤ 1 ere an a core in	5% noxic verage ≥ ii above	ous w 50 fc and a	E: Modificeed or Alloct-wide values rational contents of the c	NVS o regeta ing ac	cover, ated u ccordir	and that pland b	at is not uffer arc	subjecte ound ≥ 7 d Ratin	ed to per 5% of th g	riodic me ne AA cir DH	chanical	mowing	orcleài Y ●	ring (unle	ess for w	veed s, add 0.		d	
- 5	J.163.	outlet			-	-		-				-		-		٠.				

ii. Recharge Indicators The AA is a slope wetland Springs or seeps are known or observed Vegetation growing during domant season/drought Wetland occurs at the toe of a natural slope 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: Directarge Indicators Permeable substrate present without underlying impeding layer Wetland contains inlet but no outlet Stream is a known 'losing' stream; discharge volume decreases Other: Other: Directarge Indicators Permeable substrate present without underlying impeding layer Wetland contains inlet but no outlet Stream is a known 'losing' stream; discharge volume decreases Other: Other: Directarge Indicators Permeable substrate present without underlying impeding layer Wetland contains inlet but no outlet Stream is a known 'losing' stream; discharge volume decreases Other: Other: Directarge Indicators Fermeable substrate present without underlying impeding layer Wetland contains inlet but no outlet Stream is a known 'losing' stream; discharge volume decreases Other: Directarge Indicators												
iii. Rating (use the illion)	iation nom i			uration at AA		OM GROUNDY	VATER DISC	HARGE OR WITH	<u>WATER</u>			
Criteria			P/P	THAT IS	S/I	THE CHOOK	T	None				
Groundwater Discharge or R	echarge		1H		.7M		.4M	.1L				
Insufficient Data/Information						NA NA			_			
14K. Uniqueness:			perennial sui									
i. Rating (working from to	AA contair or matu wetland o		varm springs d) forested ciation listed	AA does cited rai diversity (k] the function of the types and (#13) is high obciation listed the MTNHP	previously structural or contains I as "S2" by	AA does	s not contain pre re types or assoc uctural diversity (low-moderate	ciations			
Estimated relative abundance (#11)	rare	commo	abundant	rare	common	abundant	rare	common	abundant			
Low disturbance at AA (#12i)	1H	.9H	.8H	.8H	.6M	.5M	.5M	.4M	.3L			
Moderate disturbance at AA (#12i)	.9H	.8H	.7M	.7M	.5M	.4M	.4M	.3L	.2L			
High disturbance at AA (#12i)	.8H	.7H	.6M	.6M	.4M	.3L	.3L	.2L	.1L			
14L. Recreation/Education i. Is the AA a known or puthere and proceed to ii. Check categoric Other iii. Rating (use the matrix	otential rec. to the overall es that appl	./ed. site: (ch	neck) Y nd rating page Education	N O	(if 'Yes' conformation of the study; ✓ C	tinue with the	e evaluation;	if 'No' then click				
Known or Potential Recreation							k	Known Potent	ial			
Public ownership or public e		<u> </u>		rmission req	uired)			.2H .15	iH I			
Private or public ownership v				normies! (or nublic	200		.15H .1I	И			
Comments: Known recreation at site	-	ai public acce	os, or requiring	permission	or public acce			.1M .05	iL .			
General Site Notes												

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

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	Н	.8	1	5.09	V
B. MT Natural Heritage Program Species Habitat	Н	.9	1	5.72	
C. General Wildlife Habitat	E	1	1	6.36	
D. General Fish Habitat	L	.3	0	1.91	
E. Flood Attenuation	М	.6	1	3.82	
F. Short and Long Term Surface Water Storage	Н	1	1	6.36	~
G. Sediment/Nutrient/Toxicant Removal	Н	1	1	6.36	✓
H. Sediment/Shoreline Stabilization	Н	1	1	6.36	
Production Export/Food Chain Support	Н	.9	1	5.72	✓
J. Groundwater Discharge/Recharge	Н	1	1	6.36	
K. Uniqueness	М	.4	1	2.54	
L. Recreation/Education Potential (bonus points)	Н	.2	NA	1.27	
Totals:		9.1	10		
Percent of Possible Score			91 %		

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

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

I	II	III	IV
•			

MDT Montana Wetland Assessment Form (revised March 2008)

1. Project name Schrieber Meadows	2.	MDT pro	ject#	NF	H 27 (021)		Cont	rol# 10	27001
3. Evaluation Date 11/28/2022 4. Evaluators	J Trilling		5.	Wetl	land/Site# (s)	Restorat	ion		
6. Wetland Location(s): T 27N R	30W	Sec1 11	1,12,13	т	R		Sec2		
Approx Stationing or Mileposts Approximately			,,,,,,,	_ •			0002		
	atershed		Lincolr) 1					
7. Evaluating Agency CCI for MDT		•							0.05
Purpose of Evaluation					8. Wetland s			d a a bu (2.35
☐ Wetlands potentially affected by MDT project					9. Assesssn			d e.g. by (
					(AA) size (ac				2.35
 ✓ Mitigation Wetlands: pre-construction ✓ Mitigation Wetlands: post construction 					How assess	ed:	Measure	d e.g. by C	SPS
Other									
- Julier									
10. Classification of Wetland and Aquatic Habitat	s in AA								
HGM Class (Brinson) Class (Cowardin)	N	Modifier (C	owardi	n)	Water Re	gime		% of AA	
Depressional Aquatic Bed	E	xcavated			Permanent/F	Perennial			35
Depressional Emergent Wetland	E	xcavated			Seasonal/Int	ermittent			30
Depressional Emergent Wetland	E	xcavated			Permanent/F	Perennial			35
]				
Estimated Relative Abundance Common General Condition of AA i. Disturbance: (use matrix below to determine [circle] aquatic nuisance vegetation species (ANVS) lists)		response -	- see inst	ructio	ns for Montana-li	sted noxiou	us weed and	d	
					conditions adjacent				
Conditions within AA	natural st hayed, lo converted roads or b	in predomina tate; is not gra gged, or other d; does not co buildings; and ANVS cover is	zed, rwise ntain noxious	mod sele subj few	d not cultivated, but lerately grazed or ha ctively logged; or ha lect to minor clearing roads or buildings; r d or ANVS cover is	ayed or as been g; contains noxious	or logged placemen hydrologic building d	vated or hear; subject to so to so to grading, cle cal alteration; lensity; or no cover is >=30	ubstantial fill earing, or high road or kious weed
AA occurs and is managed in predominantly natural state; is not grazed, hayed, logged, or otherwise converted; does not contain roads or occupied buildings; and noxious weed or ANVS cover is <=15%.	low	disturban	ice		low disturba	nce	moderate disturbanc		
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%.		noderate sturbance		m	oderate distu	rbance	hig	ance	
AA cultivated or heavily grazed or logged; subject to relatively substantial fill placement, grading, clearing, or hydrological alteration; high road or building density; or noxious weed or ANVS cover is >=30%.	high	disturbar	nce		high disturba	ince	high disturbance		
Comments: (types of disturbance, intensity, seaso Highway 2 and USFS roads are adjacent to the AA, la		cultivated,	minimal	noxio	ous weeds, and	l low distu	ırbance.		
ii. Prominent noxious, aquatic nuisance, other exc	otic specie	es:							
Cirsium arvense, Leucanthemum vulgare, isolated H	ieracium a	urantiacur	m						
iii. Provide brief descriptive summary of AA and s	ırroundin	a land uc	o/habita	ıt.					
The AA includes pre-existing wetlands identified within and provide a greater diversity of wetland habitat and	the project	ct area tha			ed by excavation	on to incre	ase the gr	oundwate	r availabili

13. Structural Diversity: (based on number of "Cowardin" vegetated classes present [do not include unvegetated classes], see #10 Initial Is current management preventing (passive) Modified Existing # of "Cowardin" Vegetated Classes in AA Rating existence of additional vegetated classes? Rating >= 3 (or 2 if 1 is forested) classes NA NΑ Н 2 (or 1 if forested) classes NA NΑ NA М 1 class, but not a monoculture Μ <NO YES> L 1 class, monoculture (1 species comprises>=90% of total cover) NA NΑ NA L Comments: Emergent and aquatic bed classes SECTION PERTAINING to FUNCTIONS VALUES ASSESSMENT 14A. Habitat for Federally Listed or Proposed Threatened or Endangered Plants or Animals: i. AA is Documented (D) or Suspected (S) to contain (check one based on definitions contained in instructions): Primary or critical habitat (list species) D S ● D ○ S Secondary habitat (list Species) Grizzly bear D S Incidental habitat (list species) S No usable habitat ii. Rating (use the conclusions from i above and the matrix below to arrive at [check] the functional points and rating) Highest Habitat Level doc/primary sus/primary doc/secondary sus/secondary doc/incidental sus/incidental None Functional Points and 1H .9H .8H .7M .3L .1L 0L Rating USFWS database, MTNHP, MDT observations Sources for documented use 14B. Habitat for plant or animals rated S1, S2, or S3 by the Montana Natural Heritage Program: (not including species listed in14A above) i. AA is Documented (D) or Suspected (S) to contain (check one based on definitions contained in instructions): Primary or critical habitat (list species) D O S Western toad (S2) D S Secondary habitat (list Species) Incidental habitat (list species) D S S No usable habitat ii. Rating (use the conclusions from i above and the matrix below to arrive at [check] the functional points and rating) sus/primary Highest Habitat Level doc/primary doc/secondary sus/secondary doc/incidental sus/incidental None S1 Species: Functional Points and .7M 0L 1H .8H .6M .2L .1L Rating S2 and S3 Species: Functional Points and .7M .6M .5M .2L .1L 0L .9H Rating

MTNHP and documented breeding on site by MDT and USFS personnel

Sources for documented use

observations																			Subs	stanti	ial
observations of	d on any	of the	followin	g [che	ck]):						Minir	nal (b	ased or	any of	the follo	owing	[check])):			
							• •	•		i)					vations	during	g peak u	ise peri	ods		
abundant wild													no wildlii								
presence of ex			-				ole in the	surro	unding	area			adjacen	•							
interviews with	h local b	oiologist	s with k	nowle	dge of t	he AA					in	tervie	ws with I	ocal bio	ologists	with k	nowledo	ge of the	e AA		
derate (based o	-																				
observations of								•				eriods									
common occu adequate adja			_		is scat,	tracks,	nest str	uctures	s, game	traiis, e	eic.										
interviews with					dae of t	ho AA															
interviews with	ii local b	nologist	.5 WILLI K	HOWIC	age or t	IIC AA															
om #13. For o ther in terms o ermanent/pere erms]) tructural	of their	percei	nt com	positi al/inte	ion of t ermitte	he AA	(see #	10).	Abbrev	/iation:	s for su	urface \ = ab	water sent [s	durati	ons are	e as f	ollows:	P/P =	itions		
diversity (see #13)				Hi	igh							Mod	erate					Lo	w		
Class cover distribution (all vegetated classes)		Eve	en			Une	ven			Eve	en			Une	ven			Eve	en		
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	Α	P/P	S/I	T/E	Α	P/P	S/I	T/E	А	
_ow disturbance at AA (see #12i)	Е	Е	Е	н	Е	Е	Н	н	Е	Н	Н	М	E	Н	М	М	Е	Н	М	М	
Moderate listurbance at AA see #12i)	н	Н	Н	н	н	Н	Н	М	Н	Н	М	М	Н	М	М	L	н	М	L	٦	
High disturbance at AA (see #12i)	М	М	М	L	М	М	L	L	М	М	L	L	М	L	L	L	L	L	L	L	
iii. Rating (u					om i a		above a	and t	he ma		Vildlife		ive at		rating			points	and I	rating) Low
Substantial					1E					.91	H					8H					.7M
Moderate					.9⊦	1				.71	И					5M					.3L
					.6N	. [ı		.41						2L					.1L

i. Habitat Quality and	Known	/ Suspec	ted Fish	Specie	s in A	A (usen	natrix to	arrive a	t[check	the funct	ional po	intsan	drating)					
Duration of surface water in AA	Permanent / Perennial						Seasonal / Intermittent						Temporary / Ephemeral					
Aquatic hiding / resting / escape cover	Ор	timal	Adeq	uate	Po	oor	Opti	mal	Ade	quate	Po	or	Opti	mal	Adeo	quate	Po	or
Thermal cover optimal/ suboptimal	0	S	0	S	0	S	0	S	0	S	0	S	0	S	0	S	0	S
FWP Tier I fish species	1E	.9H	.8H	.7M	.6M	.5M	.9H	.8H	.7M	.6M	.5M	.4M	.7M	.6M	.5M	.4M	.3L	.3L
FWP Tier II or Native Game fish species	.9H	.8H	.7M	.6M	.5M	.5M	.8H	.7M	.6M	.5M	.4M	.4M	.6M	.5M	.4M	.3L	.2L	.2L
FWP Tier III or Introduced Game fish	.8Н	.7M	.6М	.5M	.5M	.4M	.7M	.6M	.5M	.4M	.4M	.3L	.5M	.4M	.3L	.2L	.2L	.1L
FWP Non-Game Tier IV or No fish species	.5M	.5M	.5M	.4M	.4M	.3L	.4M	.4M	.4M	.3L	.3L	.2L	.2L	.2L	.2L	.1L	.1L	.1L

Sources used for identifying fish sp. potentially	found in AA:									
ii. Modified Rating (NOTE: Modified score of a) Is fish use of the AA significantly reduced by current final MDEQ list of waterbodies in need of fishery or aquatic life support, or do aquatic nuityes, reduce score in i above by 0.1: Modified	a culvert, di of TMDL dev sance plant	ke, or other n elopment wit	nan-made s h listed "Pr	obable Imp	paired Úses	a" includin	g cold or v	varm water	ne If	
b) Does the AA contain a documented spawning comments) for native fish or introduced game fish		ner critical hai Y			the adjusted				,	
iii. Final Score and Rating: 0 NA	Commer	nts: No fish	habitat i	dentified	within re	estoratio	n AA			
14E. Flood Attenuation: (Applies only to wet channel or overbank flow, click NA he	lands subjected and proce		via in-chanı	nel or over	bank flow.	If wetland	ls in AA ar	e not floode	ed from in-	
i. Rating (working from top to bottom, use the Estimated or Calculated Entrenchment (Rosge		w to arrive at entrenched			l points and telv entrenc		Entropo	hed-A, F, G	stroom	
1994, 1996)	Slightly	stream type			stream type		Littlefic	types	Sucam	
% of flooded wetland classified as forested and/or scrub/shrub	75%	25-75%	<25%	75%	25-75%	<25%	75%	25-75%	<25%	
AA contains no outlet or restricted outlet	1H	.9H	.6M	.8H	.7M	.5M	.4M	.3L	.2L	
AA contains unrestricted outlet	.9H	.8H	.5M	.7M	.6M	.4M	.3L	.2L	.1L	
Slightly Entrenched ER = >2.2			Entrenched 41 – 2.2				ntrenched R = 1.0 – 1.4	1		
C stream type D stream type E stream	m type		m type	А	stream type		F stream ty		stream type	
	===				<u></u>					
2 x Bankfull E		Bankfull D	epth	44	Banl	Flood-proi				
width	width	n			5 =	ratio		7		
ii. Are ≥10 acres of wetland in the AA subject t within 0.5 mile downstream of the AA (check)? Comments: All wetland cells subject to	Y ()	N 💿			may be sigi	nificantly o	damaged I	oy floods loo	cated	
 14F. Short and Long Term Surface Waupland surface flow, or groundwater flow. 14G.) i. Rating (Working from top to bottom, water durations are as follows: P/P = per 	If nowetta use the ma	ands in the trix below to	AA are su arrive at	bject to fl [check] th	ooding or ne function	ponding, nal points	dick [and ratin	NA here	and proce	eed to surface
further definitions of these terms].) Estimated maximum acre feet of water contained in										
wetlands within the AA that are subject to periodic flooding or ponding		>5 acre feet			1.1 to 5	acre feet			≤1 acre foot	
Duration of surface water at wetlands within the AA	P/P	S/I	T/E	P/F		S/I	T/E	P/P	S/I	T/E
Wetlands in AA flood or pond ≥ 5 out of 10 years	1H	.9H	.8H	8.	вн	.6M	.5M	.4M	.3L	.2L
Wetlands in AA flood or pond < 5 out of 10 years	.9H	.8H	.7M	.7	М	.5M	.4M	.3L	.2L	.1L

B-75

= low	ating (wo	orking f	rom top	to bot	tom, us	e the m	natrix be	elow to a	arrive at	t [check	() the f	unctiona	l points	and ra	ting [H	= high,	M = m	oderate	, or
evels	nent, nutrie within AA				com not	o deliver pounds a substan ources o	levels o at levels tially imp f nutrien	Inding lar f sedimer such that paired. Mi ts or toxic cation pr	nts, nutrion tother fund inor sedire cants, or resent.	ents, or inctions a mentatio signs of	are n,	devel nutrients	lopment , or toxi ential to ds such dimenta	for "prob cants or deliver h that othe tion, sou of eutr	oable can AA rece nigh leve er function rces of r	uses" releives or sels of sed	ated to surround diments, substant or toxic nt.	ants, or s	use , or aired.
	er of wetla nce of floo					≥ 70%			< 70%	<u>%</u>			≥ 70'	%			< 7)%	
AA co	ntains no	or restr	icted ou	tlet	Yes	+ '	No 1	Yes	1	No		Yes	1	No	1	Yes	3	No	_
		0. 100.			1F	ł	BH	.7M		.5M		.5M		.41	И	.3L	-	.2L	
A co	ntains unr	restricte	ed outlet		.91	1 .:	7М	.6M		.4M		.4M		.31		.2L	-]	.1L	
4H S	ments: sediment/	Shoreli the sho	ne Stab	ilizatior	1 : (Appl	lies only	if AA oc	curs on o	or within						ural or r		de		
Ra Cov	ed to 141.) ting (work er of <u>wetlar</u> ne by speci	king fror nd strean	nbank or						of surface	water ad	acent to	rooted veg	etation]		
	see Append	dix F).	-		Perr	nanent / F	erennial		Seas	sonal / Int	1	t	Te	emporary i	1	eral	-		
65%						1H				.9H				.7	М		1		
5-64%	ó					.7M				.6N	ı				5M				
						21				.2L					1L				
35% omm	nents:	Veget	ation ha	as filled	in arou	.3L und exc	avated	areas.						_			.		
14I i. L Ge	ents: Product Level of B Deral Fish Rating (14	tion Ex Biologic n Habita	port/Foo	od Chai	n Supp	und exc	and fish				<u>-</u>			_					
14l i. L Ge	Product	tion Ex siologic n Habita 4D.iii.)	port/Foo	od Chai i ty (synt Go	n Supp	und excort: wildlife	and fish Habitat	habitat r		check])									
14l	Product evel of B neral Fish Rating (14	tion Ex siologic n Habita 4D.iii.)	port/Foo	od Chair ity (synt Go E/H	n Supp	ort: Wildlife	and fish Habitat M	habitat r	14C.iii.) L	check])									
14l i. L Ge	Product Level of B neral Fish Rating (14 E/H	tion Ex siologic n Habita 4D.iii.)	port/Foo	od Chair ity (synt G E/H H	n Supp	ort: wildlife	and fish Habitat M	habitat r	14C.iii.) L	check])									
14l i. L Ge	Product evel of B neral Fish Rating (14	tion Ex tiologic n Habita 4D.iii.)	port/Foo	od Chair	n Supp	ort: Wildlife	and fish Habitat M	habitat r	14C.iii.) L M	check])							1		
14I. Geel Rayettar ubsussee in	E/H M L N/A ating (Woodd comporristructions	rking from the title to the tit	port/Foo al Activi at om top to he Ad; F ther defil tated comp	ed Chair ity (syntic Grant Synthesis	n Supponental Name of these supponents of the supponen	e matrix of biologo duratio terms].)	and fish Habitat M H M M below to	habitat r. Rating (M N L at [check g from al er in the A tated components.]	theck])	ctional I.i.); Fa re P/P,	S/I, and	whether Γ/E are	or not thas previous	ne AA co ously de	ontains a fined, ar	a surfac nd A = '	e or absent"	
14I. i. L Ge	E/H M L N/A ating (Woodd comporrface outle	rking from the title to the tit	port/Foo al Activi at om top to he AA; F inal three ther defii	ed Chair ity (syntic Grant Synthesis	n Supponental Name of these supponents of the supponen	e matrix of biologo duratio	and fish Habitat M H M M below to	habitat r. Rating (N L L L L L L L L L L L L L	theck])	ctional I.i.); Fa re P/P,	ictor C = \	whether	or not thas previous	ne AA co ously de	ontains a efined, ar	a surfac nd A = '	e or	
14I. i. L Ge I	E/H M L N/A ating (Wood comportace outlets are under the second of the second of the second outlets are under the second outlets	rking froment in tet; the fistory further further former f	port/Foo al Activi at	ed Chair ity (synt) E/H H M H O bottom Factor B e rows p nitions o oonent >5 a erate	n Supponess of eneral No., use the level ertain to fitness acres	e matrix of biologo duratio terms].)	and fish Habitat M H M below to	habitat r. Rating (D arrive a avity rating ace water the second	Model	theck]) If the function the function of the f	ctional II.i.); Fare P/P,	ow	whether Γ/E are _{Hi}	or not the as previous Vega	ne AA co ously de etated com Mod	ontains a fined, ar ponent <1 erate	a surfacend A = '	e or absent"	
14I. i. L Ger	E/H M L N/A ating (Wo and comporr frace outlestructions	rking from the tet; the first for furnity to the tet; the first for furnity the tet; the tet; the tet; the first for furnity the tet; the	port/Foc al Activi at om top to the AA; F inal ther definitated comp Mode Yes	E/H H H M H Po bottom Factor B be rows pointions o onent > 5 a rate No	n Supponental National Nationa	e matrix of biologo duratio	and fish Habitat M H M M below to gical action of surf	habitat r. Rating (D arrive a vity rating ace water veges	Moder Yes	theck]) If the fun bove (14 AA, whe sorate No	ctional II.i.); Fa re P/P,	ow No	whether Γ/Ε are	or not the as previous Vego	ne AA co busly de etated com Mod Yes	ontains a efined, ar ponent <1 erate No	a surfacend A = '	e or absent"	
14I. i. L Gee	E/H M L N/A ating (Wo and comporr face outlestructions	rking from the tet; the first for furnity to the tet; the first for furnity the tet; the tet; the tet; the first for furnity the tet; the	port/Focal Activitation Activit	E/H H H M H Factor B Be rows positions of content > 5 a rate No .5M	n Supponental National Nationa	e matrix of biologo duratio terms].)	and fish Habitat M H M M below tr jical acti n of surf	habitat r. Rating (D arrive a vity rating ace water veges and ve	Mode Yes .7H	theck]) If the function the function of the f	ctional il.i.); Fa re P/P, acres L Yes	ow No	whether Γ/Ε are Hi Yes .8H	veggh No	ne AA co busly de etated com Mod Yes	ontains a efined, ar apponent <1 erate No .4M	a surfacend A = '	e or absent" ow No 2L	

The AA is a slope well Springs or seeps are Vegetation growing di Wetland occurs at the Seeps are present at AA permanently flood Wetland contains and Shallow water table a Other:	known or obse luring dormant e toe of a natur the wetland ed ded during drou outlet, but no i	season/dro ral slope dge ught periods nlet		Wetl	neable substr and contains am is a knowr	ate present v	outlet	S Ilying impeding ge volume decr	,	
iii. Rating (use the inform	nation from i a		and the table Duration of satu						TH WATER	
				THAT IS	RECHARGING	G THE GROU		<u>(STEM</u>		
Criteria Groundwater Discharge or Re	echarge		P/P		.7M		.4M		nne 1L	
nsufficient Data/Information			1H		. / IVI		.4101			
						NA				
omments: Perennial	spring locate	ed near AA								
14K. Uniqueness: i. Rating (working from to	op to bottom ı	use the mat	rix below to an	rive at Icheo	:k] the functio	onal points a	nd rating)			
Replacement potential	AA contains		varm springs	AA does cited ra	not contain re types and (#13) is high	previously structural	AA doe	s not contain re types or as		
r topracomom potomia.	wetland or	plant assoc	ciation listed		ociation listed	d as "S2" by		uctural diversi	ty (#13) is	
Estimated relative abundance (#11)	rare	1" by the M commo n	abundant	rare	the MTNHF common	abundant	rare common abundant			
L ow disturbance at AA	1H	.9H	.8Н	.8H	.6M	.5M	.5M	.4M	.3L	
#12i) Moderate disturbance at	.9H	.8H	.7M	.7M	.5M	.4M	.4M	.3L	.2L	
AA (#12i) High disturbance at AA (#12i)	.8H	.7H	.6M	.6M	.4M	.3L	.3L	.2L	.1L	
·			efore and afte							
14L. Recreation/Educatio i. Is the AA a known or po here and proceed to ii. Check categorie Other iii. Rating (use the matrix	otential rec./e to the overall s es that apply below to arriv	ed. site: (checummary arto the AA:	eck) Y nd rating page) Education	N Onal/scientific	(if 'Yes' con study; C	tinue with th	e evaluation	· · · · · · · · · · · · · · · · · · ·	/e rec.;	
Known or Potential Recreation			c accoss (no no	rmission roa	uirod)			Known Po	tential	
Dublic ownership or mubit		•		mission req	uii eu)		$\perp \perp$.2H	.15H	
Public ownership or public ea	Private ownership with general public access (no permission required)									
Private ownership with gener		public acce	ss. or requiring			ess				
Private ownership with gener		public acce	ss, or requiring	permission		ess 		.1M	.05L	
Private ownership with gener		public acce	ss, or requiring	permission		ess		.1M	.05L	
Private ownership with gener Private or public ownership v		public acce	ss, or requiring	permission		ess		.1M	.05L	
<u> </u>		public acce	ss, or requiring	permission		ess		.1M	.05L	

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	Н	.8	1	1.88	
B. MT Natural Heritage Program Species Habitat	Н	.9	1	2.12	
C. General Wildlife Habitat	Е	1	1	2.35	✓
D. General Fish Habitat	NA	0	0	0.00	
E. Flood Attenuation	М	.5	1	1.18	
F. Short and Long Term Surface Water Storage	Н	.8	1	1.88	
G. Sediment/Nutrient/Toxicant Removal	М	.6	1	1.41	
H. Sediment/Shoreline Stabilization	Н	1	1	2.35	V
Production Export/Food Chain Support	E	1	1	2.35	✓
J. Groundwater Discharge/Recharge	Н	1	1	2.35	✓
K. Uniqueness	М	.4	1	0.94	
L. Recreation/Education Potential (bonus points)	Н	.2	NA	0.47	
Totals:		8.2	10		
Percent of Possible Score			82 %		

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

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

I	II	III	IV

Table B-1. Schrieber Meadows Wetland Mitigation Site. Comprehensive vegetation species list 2015-2022

Scientific Names	Common Names	WMVC Indicator Status ^(a)
Achillea millefolium	Common Yarrow	FACU
Achnatherum nelsonii	Nelson's Rice Grass	UPL
Agastache urticifolia	Nettle-Leaf Giant-Hyssop	FACU
Agropyron cristatum	Crested Wheatgrass	UPL
<i>Agropyron</i> sp.	Wheatgrass	N/A
Agrostis capillaris	Colonial Bent	FAC
Agrostis exarata	Spiked Bent	FACW
Agrostis gigantea	Black Bent	FAC
Agrostis scabra	Rough Bent	FAC
Agrostis stolonifera	Spreading Bent	FACW
Algae, brown	Algae, brown	N/A
Algae, green	Algae, green	N/A
Alisma gramineum	Narrow-Leaf Water-Plaintain	OBL
Alisma triviale	Northern Water-Plantain	OBL
Alnus incana	Speckled Alder	FACW
Alopecurus aequalis	Short-Awn Meadow-Foxtail	OBL
Alopecurus arundinaceus	Creeping Meadow-Foxtail	FAC
Alopecurus pratensis	Field Meadow-Foxtail	FAC
Amelanchier alnifolia	Saskatoon Service-Berry	FACU
Arctium minus	Lesser Burrdock	UPL
Arnica chamissonis	Leafy Leopardbane	FACW
<i>Aster</i> sp.	Aster	N/A
Beckmannia syzigachne	American Slough Grass	OBL
Bromus carinatus	California Brome	UPL
Bromus inermis	Smooth Brome	FAC
Calamagrostis canadensis	Bluejoint	FACW
Carex aquatilis	Leafy Tussock Sedge	OBL
Carex athrostachya	Slender-Beak Sedge	FACW
Carex bebbii	Bebb's Sedge	OBL
Carex lasiocarpa	Woolly-Fruit Sedge	OBL
Carex microptera	Small-Wing Sedge	FACU
Carex nebrascensis	Nebraska Sedge	OBL
Carex pachystachya	Thick-Head Sedge	FAC
Carex pellita	Woolly Sedge	OBL
Carex scoparia	Pointed Broom Sedge	FACW
<i>Carex</i> sp.	Sedge	N/A

Scientific Names	Common Names	WMVC Indicator Status ^(a)
Carex stipata	Stalk-Grain Sedge	OBL
Carex utriculata	Northwest Territory Sedge	OBL
Centaurea stoebe	Spotted Knapweed	UPL
Cerastium arvense	Field Mouse-Ear Chickweed	FACU
Cerastium fontanum	Common Mouse-Ear Chickweed	FACU
Ceratophyllum demersum	Coon's-Tail	OBL
<i>Chara</i> sp.	Muskgrass	N/A
Cirsium arvense	Canadian Thistle	FAC
Cirsium vulgare	Bull Thistle	FACU
Collomia linearis	Narrow-Leaf Mountain-Trumpet	FACU
Cynoglossum officinale	Gypsy-Flower	FACU
Dactylis glomerata	Orchard Grass	FACU
Deschampsia cespitosa	Tufted Hairgrass	FACW
Eleocharis flavescens	Yellow Spike-Rush	OBL
Eleocharis palustris	Common Spike-Rush	OBL
Eleocharis quinqueflora	Few-Flower Spike-Rush	OBL
Elymus lanceolatus	Streamside Wild Rye	FACU
Elymus repens	Creeping Wild Rye	FAC
Elymus trachycaulus	Slender Wild Rye	FAC
Epilobium ciliatum	Fringed Willowherb	FACW
<i>Epilobium</i> sp.	Willowherb	N/A
Equisetum arvense	Field Horsetail	FAC
Equisetum hyemale	Tall Scouring-Rush	FACW
Erysimum cheiranthoides	Worm-Seed Wallflower	FACU
Festuca rubra	Red Fescue	FAC
Fragaria virginiana	Virginia Strawberry	FACU
Galium mexicanum	Mexican Bedstraw	FAC
Galium trifidum	Three-Petal Bedstraw	FACW
Geum macrophyllum	Large-Leaf Avens	FAC
Glyceria elata	Tall Manna Grass	FACW
Glyceria grandis	American Manna Grass	OBL
<i>Glyceria</i> sp.	Manna Grass	N/A
Glyceria striata	Fowl Manna Grass	OBL
Gnaphalium palustre	Western Marsh Cudweed	FACW
Hieracium aurantiacum	Orange Hawkweed	UPL
Hippuris vulgaris	Common Mare's-Tail	OBL
Juncus articulatus	Joint-Leaf Rush	OBL
Juncus bufonius	Toad Rush	FACW

Scientific Names	Common Names	WMVC Indicator Status ^(a)	
Juncus confusus	Colorado Rush	FAC	
Juncus ensifolius	Dagger-Leaf Rush	FACW	
Juncus nodosus	Knotted Rush	OBL	
Juncus tenuis	Lesser Poverty Rush	FAC	
Lemna minor	Common Duckweed	OBL	
<i>Lepidium</i> sp.	Pepperwort	N/A	
Leucanthemum vulgare	Ox-Eye Daisy	FACU	
Marsilea vestita	Hairy Water-Clover	OBL	
Matricaria discoidea	Pineapple-Weed	FACU	
Medicago lupulina	Black Medick	FACU	
Mentha arvensis	American Wild Mint	FACW	
Mimulus guttatus	Seep Monkey-Flower	OBL	
Myriophyllum sibiricum	Siberian Water-Milfoil	OBL	
Pascopyrum smithii	Western-Wheat Grass	FACU	
Pedicularis groenlandica	Bull Elephant-Head	OBL	
Penstemon confertus	Yellow Beardtongue	UPL	
Peritoma serrulata	Rocky Mountain Bee Plant	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	FACU	
Pinus contorta	Lodgepole Pine	FAC	
Pinus ponderosa	Ponderosa Pine	FACU	
Plantago major	Great Plantain	FAC	
Poa palustris	Fowl Blue Grass	FAC	
Poa pratensis	Kentucky Blue Grass	FAC	
<i>Poa</i> sp.	Blue Grass	N/A	
Polygonum douglasii	Douglas' Knotweed	FACU	
Polypogon monspeliensis	Annual Rabbit's-Foot Grass	FACW	
Populus balsamifera	Balsam Poplar	FAC	
Potamogeton foliosus	Leafy Pondweed	OBL	
Potamogeton natans	Broad-Leaf Pondweed	OBL	
Potentilla gracilis	Graceful Cinquefoil	FAC	
Potentilla norvegica	Norwegian Cinquefoil	FAC	
Prunella vulgaris	Common Selfheal	FACU	
Pseudotsuga menziesii	Douglas-Fir	FACU	
Ranunculus aquatilis	Whitewater Crowfoot	OBL	

Scientific Names	Common Names	WMVC Indicator Status ^(a)
Ranunculus sceleratus	Cursed Buttercup	OBL
Rosa woodsii	Woods' Rose	FACU
Rumex acetosella	Common Sheep Sorrel	FACU
Rumex crispus	Curly Dock	FAC
Salix bebbiana	Gray Willow	FACW
Salix candida	Sage Willow	OBL
Salix drummondiana	Drummond's Willow	FACW
Scirpus cyperinus	Cottongrass Bulrush	OBL
Scirpus microcarpus	Red-Tinge Bulrush	OBL
Senecio hydrophiloides	Stout Meadow Ragwort	FACW
Sisymbrium altissimum	Tall Hedge-Mustard	FACU
Solidago canadensis	Canadian Goldenrod	FACU
Sparganium emersum	European Burr-Reed	OBL
Sparganium natans	Arctic Burr-Reed	OBL
Spiranthes romanzoffiana	Hooded Ladies'-Tresses	FACW
Stuckenia pectinata	Sago False Pondweed	OBL
Suaeda calceoliformis	Paiuteweed	FACW
Symphoricarpos albus	Common Snowberry	FACU
Symphyotrichum spathulatum	Mountain American-Aster	FAC
Taraxacum officinale	Common Dandelion	FACU
Thlaspi arvense	Field Pennycress	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
Verbascum thapsus	Great Mullein	FACU
Veronica americana	American-Brooklime	OBL
Veronica anagallis-aquatica	Blue Water Speedwell	OBL
Veronica peregrina	Neckweed	OBL
Veronica serpyllifolia	Thyme-Leaf Speedwell	FAC

^a 2020 NWPL (USACE 2020)

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

APPENDIX C PROJECT AREA PHOTOGRAPHS

MDT Wetland Mitigation Monitoring Schrieber Meadows Lincoln County, Montana



Photo Point 1 – Panorama; Location: SW Corner of site; Bearing 270 degrees; Year 2012



Photo Point 1 – Panorama; Location: SW Corner of site; Bearing 270 degrees; Year 2022



Photo Point 3; Location: Cell 2 (Constructed in 2007); Bearing 90 degrees; Year 2010



Photo Point 3; Location: Cell 2 (Constructed in 2007); Bearing 90 degrees; Year 2022



Photo Point 4; Location: Cell 2 (Constructed in 2007); Bearing 180 degrees; Year 2010



Photo Point 4; Location: Cell 2 (Constructed in 2007); Bearing 180 degrees; Year 2022



Photo Point 5; Location: Cell 2 (Constructed in 2007); Bearing 300 degrees; Year 2010



Photo Point 5; Location: Cell 2 (Constructed in 2007); Bearing 300 degrees; Year 2022



Photo Point 6; Location: Cell 2 (Constructed in 2007); Bearing 40 degrees; Year 2010



Photo Point 6; Location: Cell 2 (Constructed in 2007); Bearing 40 degrees; Year 2022



Photo Point 7; Location: Lower Coyote Creek; Bearing 0 degrees; Year 2012



Photo Point 7; Location: Lower Coyote Creek; Bearing 0 degrees; Year 2022



Photo Point 10; Location: Cell 3; Bearing 0 degrees; Year 2010



Photo Point 10; Location: Cell 3; Bearing 0 degrees; Year 2022



Photo Point 11; Location: Cell 2B; Bearing 190 degrees; Year 2012



Photo Point 11; Location: Cell 2B; Bearing 190 degrees; Year 2022



Photo Point 12; Location: Cell 1 (Constructed in 2011); Bearing 180 degrees; Year 2012



Photo Point 12; Location: Cell 1 (Constructed in 2011); Bearing 180 degrees; Year 2022



Photo Point 13; Cell 3A (Constructed in 2011); Bearing 280 degrees; Year 2012



Photo Point 13; Cell 3A (Constructed in 2011); Bearing 280 degrees; Year 2022



Photo Point 14; Location: Cell 4C (Constructed in 2011); Bearing 230 degrees; Year 2012



Photo Point 14; Location: Cell 4C (Constructed in 2011); Bearing 230 degrees; Year 2022



Photo Point 15; Location: Cell 5A (Constructed in 2011); Bearing 180 degrees; Year 2012



Photo Point 15; Location: Cell 5A (Constructed in 2011); Bearing 180 degrees; Year 2022



Photo Point 16; Cell 6 (Constructed in 2011); Bearing 70 degrees; Year 2012



Photo Point 16; Cell 6 (Constructed in 2011); Bearing 70 degrees; Year 2022



Photo Point 17; Location: Cell 6 (Constructed in 2011); Bearing 270 degrees; Year 2012



Photo Point 17; Location: Cell 6 (Constructed in 2011); Bearing 270 degrees; Year 2022



Photo Point 2 Bearing: 150 degrees

Location: Cell 7 (Created in 2007) Year: 2010



Photo Point 2 Bearing: 150 degrees

Location: Cell 7 (Created in 2007) Year: 2022



Photo Point 8 Location: Cell 3 (Constructed in 2007) Year: 2010 Bearing: 190 degrees



Photo Point 8 Location: Cell 3 (Constructed in 2007) Year: 2022 Bearing: 190 degrees



Photo Point 9 Bearing: 280 degrees

Location: Cell 3 **Year:** 2010



Photo Point 9 Location: Cell 3 Bearing: 280 degrees Year: 2022



Photo Point 16 Bearing: 290 degrees



Location: Cell 5A **Year:** 2010



Photo Point 16 Bearing: 290 degrees



Location: Cell 5A Year: 2022



Photo Point 18 Bearing: 90 degrees

Location: Cell 3 (Constructed 2007) **Year:** 2012



Photo Point 18 Location: Cell 3 (Constructed 2007) Bearing: 90 degrees Year: 2022



Photo Point 19 Bearing: 10 degrees



Location: West Boundary

Year: 2012



Photo Point 19 Bearing: 10 degrees

Location: West Boundary



Photo Point 19 Bearing: 100 degrees

Location: West Boundary

Year: 2012



Photo Point 19 Bearing: 100 degrees

Location: West Boundary

Schrieber Meadows: Vegetation Transect Photographs



Transect 1: Start Bearing: 115 degrees

Location: T-1 Year: 2010



Transect 1: Start Bearing: 115 degrees

Location: T-1 Year: 2022

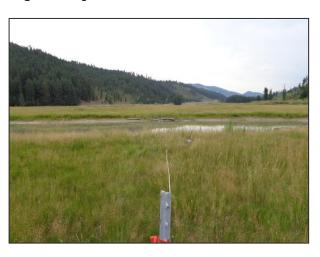


Transect 1: End Bearing: 295 degrees

Location: T-1 Year: 2010



Transect 1: End Location: T-1
Bearing: 295 degrees Year: 2022



Transect 2: Start Bearing: 100 degrees

Location: T-2 Year: 2013



Transect 2: Start Bearing: 100 degrees

Location: T-2 Year: 2022

Schrieber Meadows: Vegetation Transect Photographs

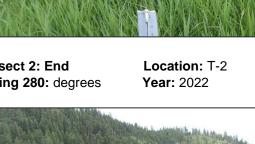


Transect 2: End Bearing 280: degrees





Transect 2: End Bearing 280: degrees





Transect 3: Start Bearing: 45 degrees

Location: T-3 Year: 2012



Transect 3: Start Location: T-3 Bearing: 45 degrees Year: 2022



Transect 3: End Bearing: 225 degrees

Location: T-3 **Year:** 2012



Transect 3: End Bearing: 225 degrees

Location: T-3 Year: 2022



Data Point: DP01w Year: 2022



Location: Veg Com 3



Data Point: DP01u Year: 2022



Data Point: DP02w Year: 2022



Location: Veg Com 3



Data Point: DP02u Year: 2022

Location: Veg Com 8



Data Point: DP03w



Location: Veg Com 16



Data Point: DP03u

Location: Veg Com 9

Year: 2022



Data Point: DP04w Year: 2022



Data Point: DP04u Year: 2022

Location: Veg Com 9



Data Point: DP05w Year: 2022



Location: Veg Com 14

Location: Veg Com 3



Data Point: DP05u Year: 2022

Location: Veg Com 9



Data Point: DP06w

Location: Veg Com 16



Data Point: DP06u

Location: Veg Com 9

Year: 2022



Data Point: DP07w

Location: Veg Com 16



Data Point: DP07u Year: 2022

Location: Veg Com 9

Year: 2022



Data Point: DP08w Year: 2022

Location: Veg Com 3



Data Point: DP08u

Location: Veg Com 9

Year: 2022



Data Point: DP09w Year: 2022

: DP09w Location: Veg Com 3



Data Point: DP09u

Location: Veg Com 9



Data Point: DP10w

Location: Veg Com 3



Data Point: DP10u Year: 2022

Location: Veg Com 9



Cross-Section: XS-1 Bearing: 280 degrees



Location: Upper Coyote Creek **Cross-Section: XS-1**



Location: Upper Coyote Creek

Bearing: 280 degrees Year: 2022



Year: 2012

Cross-Section: XS-2 Bearing: 320 degrees



Location: Upper Coyote Creek

Year: 2012



Cross-Section: XS-2

Location: Upper Coyote Creek

Bearing: 320 degrees Year: 2022



Cross-Section: XS-3 Location: Coyote Creek Spring Area

Bearing: 320 degrees **Year:** 2012



Cross-Section: XS-3 Location: Coyote Creek Spring Area

Bearing: 320 degrees Year: 2022



Cross-Section: XS-4 Bearing: 290 degrees

Location: Middle Coyote Creek
Year: 2012



Cross-Section: XS-4
Bearing: 290 degrees

Location: Middle Coyote Creek Year: 2022



Cross-Section: XS-5
Bearing: 150 degrees

Location: Middle Coyote Creek
Year: 2012



Cross-Section: XS-5
Bearing: 150 degrees

Location: Middle Coyote Creek Year: 2022



Cross-Section: XS-6
Bearing: 90 degrees

Location: Perennial Spring Creek **Year**: 2012



Cross-Section: XS-6
Bearing: 90 degrees

Location: Perennial Spring Creek **Year:** 2022



Cross-Section: XS-7 Bearing: 90 degrees

Location: Middle Coyote Creek



Cross-Section: XS-7
Bearing: 220 degrees

Location: Middle Coyote Creek **Year:** 2022



Cross-Section: XS-8
Bearing: 170 degrees

Location: Middle Coyote Creek
Year: 2012



Cross-Section: XS-8
Bearing: 170 degrees

Location: Middle Coyote Creek Year: 2022



Cross-Section: XS-9 Location: Middle Coyote
Crk/Schrieber Crk **Bearing:** 130 degrees **Year:** 2012



Cross-Section: XS-9 Location: Middle Coyote
Crk/Schrieber Crks Bearing: 130 degrees Year: 2022



Cross-Section: XS-10 Location: Middle Coyote
Crk/Schrieber Crks **Bearing:** 140 degrees **Year:** 2012



Cross-Section: XS-10 Location: Middle Coyote
Crk/Schrieber Crks **Bearing:** 270 degrees **Year:** 2022



Cross-Section: XS-11 Location: Middle Coyote
Crk/Schrieber Crks **Bearing:** 100 degrees **Year:** 2012



Cross-Section: XS-11 Location: Middle Coyote
Crk/Schrieber Crks

Bearing: 100 degrees Year: 2022

APPENDIX D Surveyed Stream Cross Sections

MDT Wetland Mitigation Monitoring Schrieber Meadows Lincoln County, Montana

