



WETLAND DELINEATION REPORT

for

***Falcon Ranchettes Filing No. 1A
El Paso County, Colorado***

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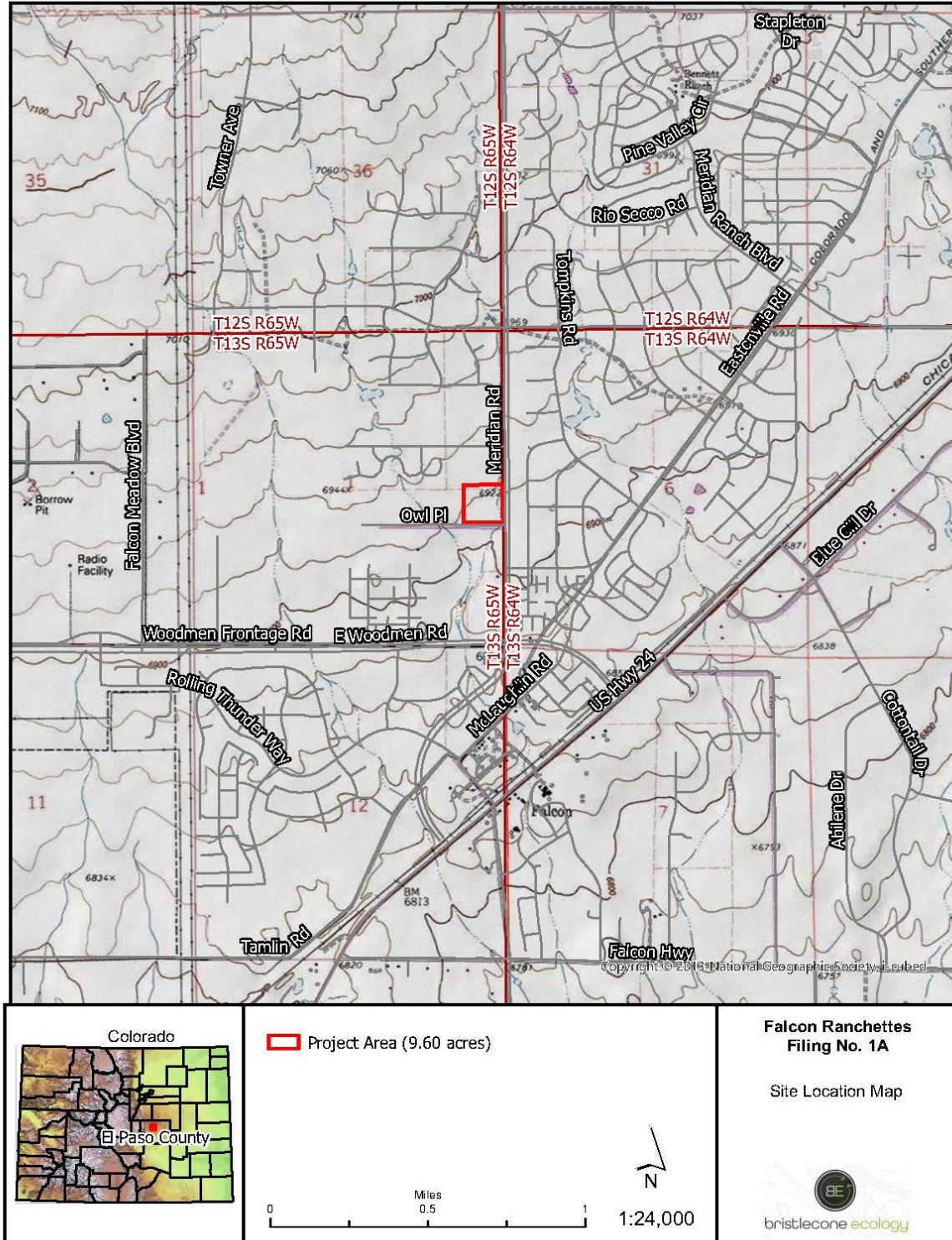
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1 INTRODUCTION

Meridian Storage, LLC (“Proponent”) has retained Bristlecone Ecology, LLC (“B.E.” or “Agent”) to perform a wetland assessment and prepare a Wetland Delineation Report for the proposed Falcon Ranchettes Filing No. 1A (“Project”) located in the unincorporated community of Falcon, El Paso County, Colorado. The Project Area is located north of Owl Place and west of Meridian Road in El Paso County Parcel Nos. 5301001001 and 5301001002 (**Figure 1: Site Location Map**). The Project is located in Section 1 of Township 13 South, Range 65 West, and can be found on the U.S. Geological Survey’s (USGS) Falcon 7.5-minute quadrangle (USGS 2020). The purpose of the Project is to subdivide the existing parcels into two new lots, tracts, public rights-of-way, and easements. Elevations at the site range between approximately 6,910 and 6,930 feet above mean sea level (AMSL). The area delineated for the Project (hereinafter referred to as the “Project Area”) is located along the eastern edge of the Project Area, running north to south along Meridian Road. The Project Area eventually drains to Black Squirrel Creek No. 2 about 19 miles southeast of the site; it is found in the Black Squirrel Creek drainage basin, 10-digit hydrologic unit code (HUC) 1102000402.

Figure 1: Site Location Map



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2 ECOLOGICAL SETTING

The Project Area is located in the Foothill Grasslands Level IV Ecoregion of Colorado (Chapman et al. 2006). The Foothills Grasslands ecoregion is composed of a mixture of tall and mid-grasses and isolated pine woodlands (Chapman et al. 2006). Dominant species in this ecoregion include little bluestem (*Schizachyrium scoparium*), big bluestem (*Andropogon gerardii*), switchgrass (*Panicum virgatum*), and yellow Indiangrass (*Sorghastrum nutans*) (Chapman et al. 2006).

The topography of the Project Area consists of a mix of flat to gently rolling grasslands, interspersed with scattered plains cottonwoods (*Populus deltoides*), ponderosa pines (*Pinus ponderosa*), and a few shrubs. A constructed ditch runs through the easternmost side of the site from north to south along Meridian Road and conveys flows from the site under Owl Place through a small culvert. A swale in the east-central portion of the site joins the constructed ditch a few hundred feet north of the culvert.

The majority of the site can be characterized by vegetation typical of the Foothills Grasslands ecoregion such as smooth brome (*Bromus inermis*), little bluestem, and switchgrass, along with a few weeds, including great mullein (*Verbascum thapsus*) and Canada thistle (*Cirsium arvense*). The ditch corridor has low plant diversity and is overall the least vegetated area on the site. Wetter conditions just north of the culvert under Owl Place, and in the swale to the north, support the growth of hydrophytes such as Baltic rush (*Juncus balticus*) and Nebraska sedge (*Carex nebrascensis*). The ditch and swale are both surrounded by New Mexico locust (*Robinia neomexicana*), smooth brome, switchgrass, blue grama, and common sunflowers (*Helianthus annuus*), among other upland vegetation. Rough cocklebur (*Xanthium strumarium*) and Canada thistle (*Cirsium arvense*) are common in both wetland and upland areas.

3 METHODS

The purpose of the wetland delineation was to survey and delineate the boundaries of any aquatic resources within the Project Area, as defined under Section 404 of the Clean Water Act (CWA) and Section 10 of the Rivers and Harbors Act (RHA). Aquatic resources include jurisdictional wetlands and other regulated Waters of the U.S. (WOTUS) such as streams/riders, ponds/lakes, and ditches, as well as non-regulated wetlands, streams/riders, ponds/lakes, ditches, and other surface water features.

Prior to the on-site assessments, a preliminary desktop analysis was performed to evaluate overall aquatic resource characteristics of the Project Area and identify the locations of potential wetlands and watercourses. Spatial data, aerial imagery sources, and other publicly available data reviewed included:

- USGS National Aerial imagery Program (NAIP),
- USGS National Hydrography Dataset (NHD),
- U.S. Fish and Wildlife Service (USFWS) National Wetland Inventory (NWI) maps,
- Natural Resource Conservation Service (NRCS) soil survey maps,
- and Federal Emergency Management Agency (FEMA) floodplain maps.

A formal wetland delineation was conducted on February 1st, 2024. Watercourses and other aquatic features identified in the desktop analysis were inspected in the field to assess their presence/absence and jurisdictional potential. The wetland delineation was performed in accordance with the Great Plains Regional Supplement (Version 2.0) (USACE 2010) to the 1987 USACE Wetland Delineation Manual (USACE 1987).

The determination of a wetland depends on the presence or absence of three parameters: 1) hydrophytic vegetation, 2) hydric soils, and 3) wetland hydrology during the wettest season. Vegetation, soils, and hydrology were analyzed to determine the presence of wetlands, watercourses, and other aquatic features. The boundaries of any identified wetlands, watercourses, or other aquatic features were delineated using a handheld Trimble mapping unit with sub-meter accuracy (**Appendix A: Wetland Location Maps**). Photographs were taken depicting field conditions at the time of the site visits (**Appendix B: Photographic Log**). Results of the field assessment and descriptions of observed features are detailed below in **Appendix C: Wetland Determination Data Forms**, and **Appendix D: OHWM Delineation Datasheets**. Wetland indicator status for vegetation was based on the National Wetland Plant List (Lichvar et al. 2020).

4 BACKGROUND DOCUMENTATION REVIEW

Aerial photographs, NWI maps, FEMA flood hazard maps, and county soil survey maps were utilized to document background information on the Project Area prior to the on-site delineation. A discussion of each evaluation process follows.

4.1 Aerial Photograph Review

Aerial photographs dated 1999, 2003, 2004, 2005, 2006, 2011, 2013, 2015, 2017, 2019, 2020, 2021, and 2022 were obtained from the U.S. Department of Agriculture (USDA) Farm Service Agency (USDA 2022). Aerial photograph interpretation was conducted to identify potential wetlands, watercourses, and other notable landscape features within the property. Aerial imagery showed darker vegetation along a stretch of the eastern portion of the site, running from north to south, potentially indicative of wetlands. This darker vegetation appears to be comprised of primarily emergent vegetation with shrubs surrounding it. The shrubby vegetation is thickest and emergent vegetation appears darkest in the southern half of the Project Area. Other potential wetland areas were not noted on aerial images. Aerial images may provide a starting point for determining the locations of wetlands, but they are often inaccurate and must be field verified.

4.2 National Hydrography Dataset and National Wetlands Inventory Review

The USFWS' NWI and USGS' NHD datasets were reviewed for the possible presence of wetlands and streams, respectively, within the Project Area. The NHD and NWI datasets depict the probable locations of aquatic resources based on aerial photograph interpretation. Aquatic resources include jurisdictional wetlands and other regulated WOTUS such as streams/rivers, ponds/lakes, and ditches, as well as non-regulated wetlands, streams/rivers, ponds/lakes, ditches, and other surface water features. NHD and NWI maps may not accurately depict the extent or existence of wetland and river systems in a specific area, nor do maps consistently and accurately identify wetland type. As such, the maps were utilized for preliminary analysis only. Aquatic features that were depicted in the data can be seen in **Figure 2: National Wetland Inventory & National Hydrography Dataset**, and included the following feature:

- A wetland was identified in the NWI dataset as Riverine, Intermittent, Streambed, Temporarily Flooded wetland (R4SBA) running throughout the site; the R4SBA wetland was shown joining another Riverine wetland south of the site. The NHD data showed an unnamed stream in the same location as the R4SBA wetland.

4.3 County Soil Survey Map Review

County soil survey data indicate that the site is composed entirely of Columbine gravelly sandy loam, 0 to 3 percent slopes (**Figure 3: NRCS Soils**). The Columbine soil series is a consociation, so other, minor soil series may be present within it (NRCS 2023). The primary minor series that forms the remainder of the consociation is the Pleasant series, which is typically found in depressions and is rated as hydric in El Paso County (NRCS 2023).

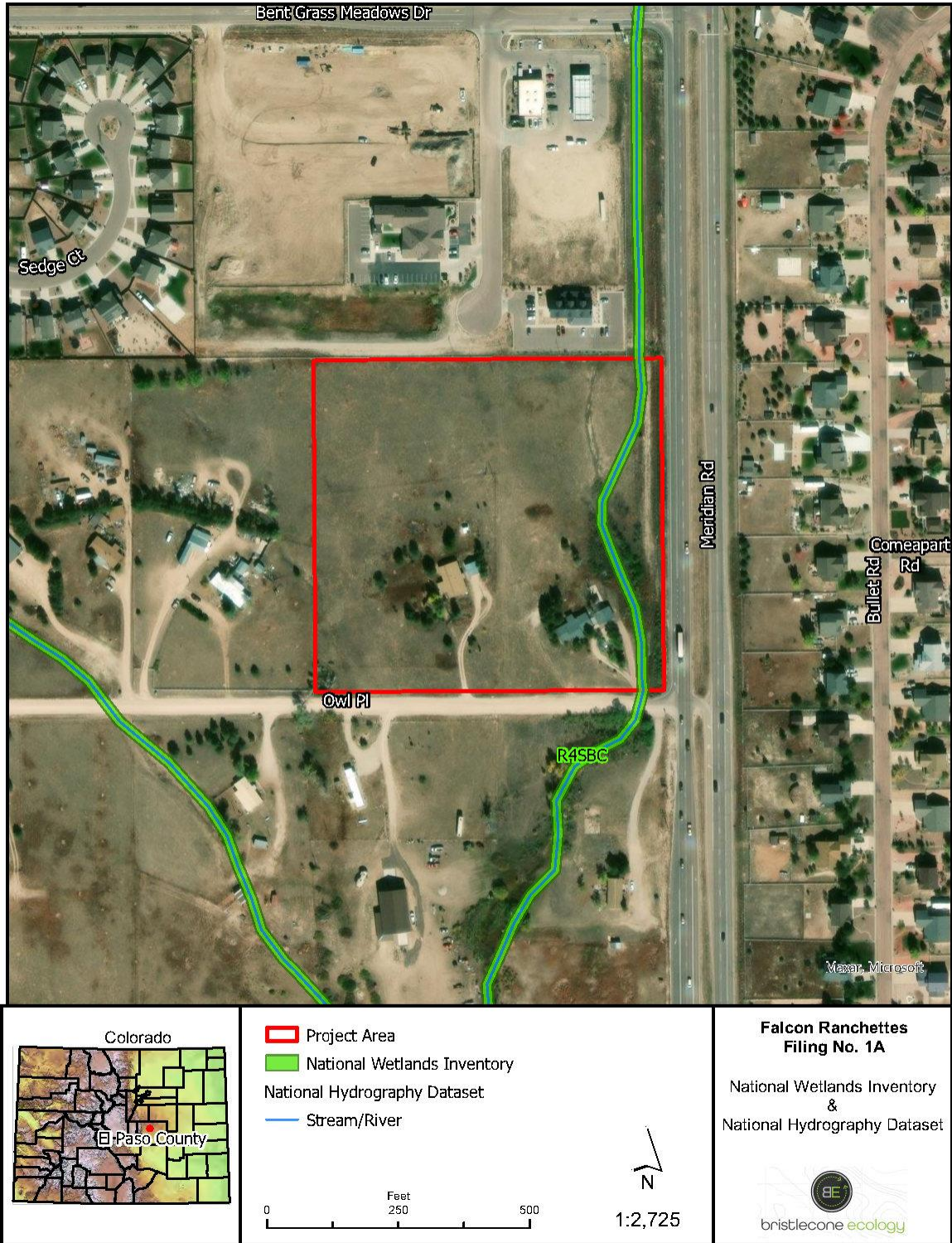
A review of the hydric soil ratings for all soil components present in the Project Area was performed to aid in the determination of wetland habitats during the site reconnaissance. Hydric soils are those that form under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions, and their formation is required for the establishment of wetlands to take place. The Columbine series was described as having a hydric rating of 2 out of 100, with lower ratings being less hydric (NRCS 2020). The minor Pleasant component of the Columbine series is rated as hydric in EPC under the criterion that it is “frequently ponded for long or very long duration during the growing season” (NRCS 2020). Based on these ratings, the suitability of the site for the development of hydric soils, and thus wetlands, is moderate within swales and other depressions where the Pleasant component is more likely to be found, and low everywhere else. If wetlands occur onsite, they are most likely to form along swales and possibly within other isolated depressions.

4.4 FEMA Floodplain Map Review

A review of FEMA floodplain hazard maps (FEMA 2023) was conducted to determine the existence, location, and extent of floodplains located within the Project Area. The floodplain hazard maps depict floodplain areas along rivers and tributaries. The maps record the following data: 100-year floodplains (1% chance of annual flooding) and 500-year floodplains (0.2% annual chance of flooding), the height of the base flood (Base Flood Elevations), and the risk premium zones developed from topographical information across a floodplain. FEMA generates floodplain maps for flood insurance purposes.

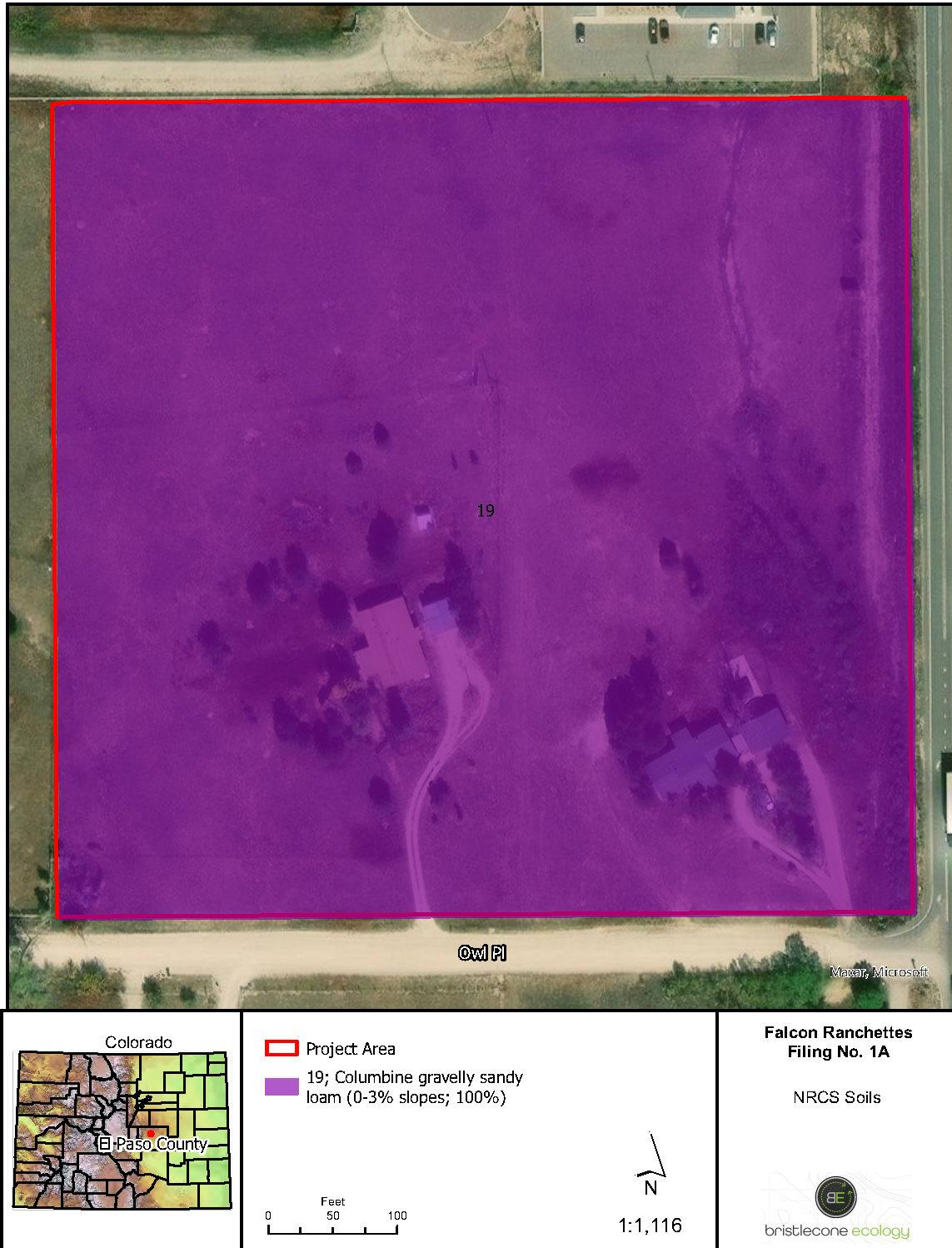
A review of the National FEMA flood hazard layer (2023) indicated that the entirety of the Project Area is in Zone X and is thus in an area of minimal flood hazard and higher than the elevation of the 0.2-percent-annual-chance flood (**Figure 4: FEMA Flood Hazard Layer; FEMA 2023**).

Figure 2: National Wetland Inventory & National Hydrography Dataset



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Figure 3: NRCS Soils



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Figure 4: FEMA Flood Hazard Layer



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5 FIELD SURVEY RESULTS

B.E. performed a formal wetland delineation on the site on February 1st, 2024, to determine whether any potential aquatic resources (particularly areas identified during the desktop review) were present. The field delineation determined that two wetlands (W1 and W2) were present, separated by a stretch of swale that was determined to be uplands (**Appendix A: Wetland Location Map**). Additionally, an ordinary high water mark (OHWM) was present and delineated, extending along the eastern border of the site from a headcut to the northern edge of W1. The presence of an OHWM was confirmed using the USACE’s *National Ordinary High Water Mark Field Delineation Manual for Rivers and Streams* (see datasheets in **Appendix D**). W2 was determined to be isolated, separated from W1 by an upland swale and thus lacking connection to downstream WOTUS. Sample points SP1 and SP4 were taken within wetlands, while SP2, SP3, Sp5, Sp6, and Sp7 were determined to be in uplands based on the vegetation, soils, and hydrology observed. The wetlands delineated on the site are further classified in **Table 1** below.

Table 1. Project Area Wetland Locations and Classifications

Wetland ID	Latitude	Longitude	Wetland Type	Size	Regulatory Status ¹
W1	38.94633°	-104.60797°	PEM1A – Palustrine, Emergent, Persistent, Temporarily Flooded	0.02 acres	Presumed Non-Jurisdictional
W2	38.94687°	-104.60810°	PEM1A – Palustrine, Emergent, Persistent, Temporarily Flooded	0.04 acre	Presumed Non-Jurisdictional

¹ Presumed status based on professional opinion. Only the USACE may determine official regulatory status.

The features listed in **Table 1** above are described in greater detail below. Photographs of the site can be seen in **Appendix B**, which includes general overview photos of the site. Datasheets for wetland and upland sampling and for OHWM delineations are provided in **Appendix C** and **Appendix D**, respectively.

- The R4SBC wetland and stream depicted in the NWI and NHD, respectively, do not exist to the same extent as shown in those datasets (**Figure 2**). The feature instead exists as two wetlands (W1 and W2), separated by an upland swale. The swale does not contain an OHWM. Both wetlands are dominated by Baltic rush, and W2 is co-dominated by Nebraska sedge. Overall function is low to moderate, with a general lack of diversity in all strata and noxious weeds present within both wetlands (especially W2 to the north). Seven sample points were taken to determine the extents of these two wetlands. One sample point was taken within each wetland to establish the wetlands’ characteristics. These points were paired with upland points laterally and longitudinally to confirm the extents of the wetlands. SP2 confirmed the western extent of W1, while SP3 confirmed that W1 did not extend further north along the line of the constructed ditch (**Appendix A**). SP5 and SP6 confirmed the western and northern extents of W2, and SP7 confirmed that W2 is not abutting W1 (**Appendix A**). The transition from wetland to upland conditions was clearly evident in all sample points, as the upland points did not support hydrophytic vegetation, hydric soil indicators, or indicators of wetland hydrology. Only one upland sample point (SP5) showed indicators of wetland hydrology, as discussed further below.

- An additional aquatic feature was present that was not shown in the NWI or NHD. The constructed ditch along Meridian Road, which shows a faint OHWM starting from a headcut at the center of the eastern border to the northern boundary of W1, was observed in the field (**Appendix B**). This ditch is characterized by gravelly sediment deposits along the bottom of the ditch and gradual slope and subtle vegetation breaks along both sides of the ditch.

5.1 Vegetation

Dominant vegetation at wetland locations included the aforementioned Baltic rush and Nebraska sedge, facultative wetland (FACW) and obligate (OBL) plants, respectively, within the Great Plains Region (Lichvar *et al.* 2020). Overall, both wetlands were somewhat sparsely vegetated and, in some cases, less vegetated than adjacent upland areas. The upland locations were dominated by New Mexico locust, smooth brome, little bluestem, switchgrass, and blue grama (*Bouteloua gracilis*). There were no shrubs within the wetlands, and the transition to upland habitat was often marked by the presence of smooth brome and New Mexico locusts, along with sunflowers.

5.2 Soils

Seven soil samples were taken at soil sample pits within the Project Area (**Appendix C**). Soil samples were taken in either Columbine gravelly sandy loams or the minor Pleasant soil component. Soils in W1 predominantly corresponded to the Columbine series' soil profile, while soils in W2 corresponded with the Pleasant series (**Appendix C**).

For W1, one sample point was taken within the swale where the wetland exists (SP1), and two sample points were taken in uplands: SP2 along the western edge of the swale to confirm the extent of the wetland laterally to the swale, and SP3 longitudinally to confirm that W1 did not extend further north along the swale/ditch (**Appendix A**). The soils in the wetland were clearly hydric, while those outside the wetland were clearly nonhydric (**Appendix C**). Positive hydric soil indicators at the soil sample location within W1 included S5 (Sandy Redox) and F3 (Depleted Matrix).

At W2, one wetland sample point (SP4), located within the center of the wetland, was paired with three upland sample points to the west, north, and south of the wetland (**Appendix A**). Similar to W1, soils within this wetland were clearly hydric, while those outside the wetland were clearly nonhydric. Positive hydric soil indicators at the soil sample location within W2 included A4 (Hydrogen Sulfide) and F6 (Redox Depressions) (**Appendix C**). Three upland soil pits (SP5, SP6, and SP7) were dug to confirm extents of W2 and further support the disconnection from W1. SP5 and SP6 established the limits of W2 to the west and north, while SP7 also showed nonhydric soil conditions and further confirmed that the two wetlands were not connected. See **Appendix A** and **Appendix C**.

5.3 Hydrology

Hydrology across all wetlands in the Project Area is provided primarily by normal precipitation and runoff events. Positive hydrologic indicators within both wetland areas were prominent, while almost all the upland sample points, except SP3, showed no indication of hydrologic indicators. At SP1 within W1, positive hydrologic indicators included B3 (Drift Deposits), B10 (Drainage Patterns), D2 (Geomorphologic Position), and D5 (FAC-Neutral Test) (**Appendix C**). At sample point within W2 (SP4), positive hydrologic indicators included A3 (Saturation), C1 (Hydrogen Sulfide Odor), C3 (Oxidized Rhizospheres on Living Roots), D2 (Geomorphologic Position), and D3 (FAC-Neutral Test) (**Appendix C**).

Upland sample point SP3 did contain one primary and one secondary indicator of wetland hydrology – B3 (Drift Deposits) and D2 (Geomorphic Position) – however, it did not pass the vegetation or soil requirements for wetlands. Hydrologic indicators were expected at this sample location, which was located within the constructed ditch and demonstrated indicators of an OHWM. See **Appendix A** and **Appendix C**.

5.4 Ordinary High Water Mark

An OHWM delineation was performed at sample locations within the constructed ditch and swale between W1 and W2 to determine whether the wetlands on the site were hydrologically connected to one another and to other aquatic resources. OHWM SP1 determined that a faint OHWM was present along the constructed ditch north of W1 up to a headcut, north of which the ditch transitioned to a vegetated swale lacking OHWM indicators (**Appendix A** and **Appendix D**). OHWM SP2, located between W1 and W2 along a separate swale, confirmed that no OHWM indicators were present and the that two wetlands were hydrologically disconnected (**Appendix A** and **Appendix D**).

6 CONCLUSIONS AND RECOMMENDATIONS

In summary, two Palustrine emergent wetlands (W1 and W2) were delineated within the Project Area. The two wetlands were separated by an upland swale and were not connected hydrologically, as there was no evidence of an OHWM in the swale between them, nor were they abutting. There was an OHWM present north of W1 that began at a distinct headcut along the eastern border of the site where channelization began and a defined streambed and banks formed. The OHWM was present in a constructed ditch which connected to the northern extent of W1.

These features occurred in similar location to those shown in the NWI and NHD, but to a lesser extent (as confirmed by sample points). Both W1 and W2 appeared to receive hydrology from normal precipitation and runoff events with no other sources of hydrology present. A primary source of hydrology was the constructed ditch along the eastern boundary of the site. The two wetlands contained similar vegetation, however W2 was slightly more diverse and vegetated than W1. W2 appeared to be non-jurisdictional based on field observations of a lack of continuous surface connection to W1 or any other downstream WOTUS. W1 may also be disconnected from downstream WOTUS due to significant offsite development downstream Project Area that appeared on aerial imagery to sever connection. Should it be determined that these wetlands are jurisdictional, any impacts would require permitting through the USACE under Section 404 of the CWA.

The USACE typically has jurisdiction over navigable or traditionally navigable waters (TNWs), perennial and intermittent tributaries to TNWs, lakes, ponds, and impoundments of jurisdictional waters, and wetlands adjacent to such waters (85 Federal Register 22250). Following the announcement of the U.S. Supreme Court's ruling on May 25th, 2023 (SCOTUS 2023), jurisdictional wetlands include only those wetlands that abut or maintain "a continuous surface connection" to WOTUS. Isolated and adjacent wetlands (i.e., those not abutting or otherwise hydrologically connected to other jurisdictional waters) are not considered WOTUS and are not under USACE's jurisdiction. An approved jurisdictional determination (AJD) may be required to determine the regulatory status of presumably non-jurisdictional aquatic resources, such as isolated or adjacent wetlands, including both W1 and W2.

Pursuant to CWA requirements, impacts to WOTUS should be avoided and minimized to the extent possible. A permit under Section 404 of the CWA is required for the discharge of dredged or fill material into WOTUS and mitigation may be required.

While the USACE regulates only those activities resulting in a discharge of dredge or fill material into WOTUS, the Colorado Department of Public Health and Environment (CDPHE) has the authority to regulate activities resulting in a discharge of pollutants into state waters. The CDPHE conducts Section 401 certification reviews of projects in Colorado requiring a Section 404 permit from the USACE. The purpose of certification review is to determine whether a proposed discharge will comply with Colorado water quality standards. CDPHE has an interest in Waters of the State, which currently have a broader definition than WOTUS.

In Colorado, joint Section 404 and 401 permitting is authorized through the Nationwide Permit (NWP) program. An NWP is a simplified 404 permit for some small-scale activities which minimally affect WOTUS, and is designed to streamline the permitting process and eliminate the need to issue an Individual Permit (IP). NWPs allow certain activities to take place which result in minimal impacts to

WOTUS, including wetlands. If the Project should require a permit, an NWP 29 for Residential Developments would likely be the applicable NWP for the Project. The extent of wetlands on the site is minimal and any impacts would be permissible under an NWP, should one be required.

In the event that all aquatic resources on the site are determined to be non-jurisdictional by the USACE, the wetlands present may still be Waters of the State. CDPHE advises anyone who would conduct activities causing the dredge or fill of Waters of the State that are not regulated by the USACE to notify CDPHE of the activity.

Should you have any questions regarding the information or recommendations provided in this report, please feel free to contact Bristlecone Ecology at dmaynard@bristleconeecology.com.

Sincerely,
Bristlecone Ecology, LLC



Daniel Maynard
Ecologist

7 REFERENCES

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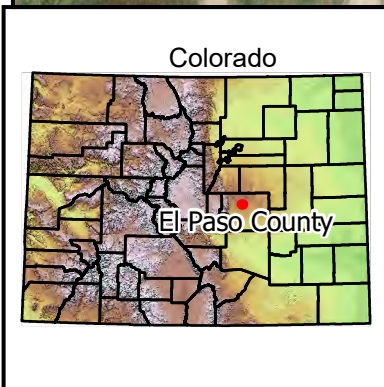
USGS. 1986a. Geologic map of the Falcon, CO quadrangle. Scale = 1:24,000.



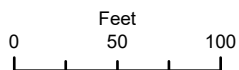
APPENDIX A:
WETLAND LOCATION MAP



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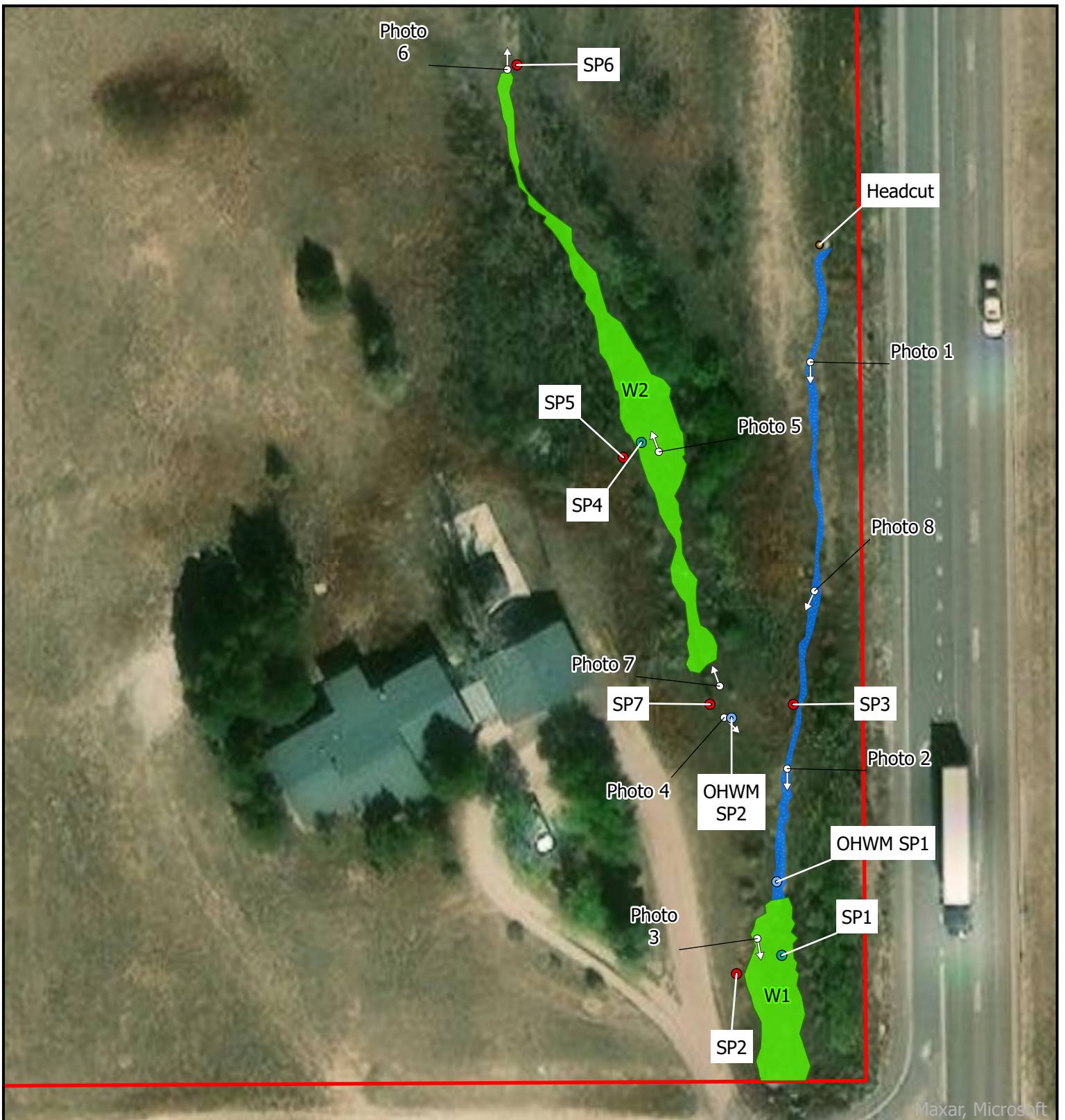
- Project Area
- OHWM Sample Point
- OHWM
- Upland Sample Point
- Wetlands
- Wetland Sample Point



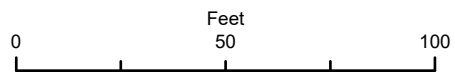
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**Falcon Ranchettes
Filing No. 1A**
Wetland Location Overview





- OHWM
- Wetlands
- Project Area
- OHWM Point
- Upland Point
- Wetland Point
- Headcut
- Photo Point



1:550

**Falcon Ranchettes
Filing No. 1A**

Wetland Location Detail





APPENDIX B:
PHOTOGRAPHIC LOG



Photo 1 – View facing south of the constructed ditch showing the topographic, sediment, and vegetation changes of an OHWM; the ditch eventually connects with Wetland 1 to the south.



Photo 2 – Another view facing south of the constructed ditch and OHWM, just north of OHWM SP1. The confluence between the ditch and W1 can be seen in the top half of the photo. Rock riprap has been installed in this section of the ditch and can be seen in the photo.



Photo 3 – View facing south-southeast, looking at W1 and the culvert under Owl Place, taken near SP1, SP2, and OHWM SP1. Baltic rush dominates the wetland and the transition to uplands is marked by the presence of smooth brome, common sunflower, and New Mexico locust. The wetland ends at the culvert under Owl Place that can be seen under the roadway.



Photo 4 – Photo taken at SP7 and OHWM SP2, looking southeast at the vegetated swale between W1 and W2. Sampling confirmed that no wetlands or OHWM are present in the connecting swale. The area is a transition from the depression containing W2, and is dominated by smooth brome, little bluestem, and switchgrass.



Photo 5 – View facing north-northwest of W2, taken near SP4. W2 is a depressional wetland within a swale that does not contain surface connection to W1 downstream. This wetland is dominated by Baltic rush and Nebraska sedge (both visible in the photo) and is surrounded by smooth brome, switch grass, and New Mexico locust at the edges of the depression. Noxious weeds including common mullein and Canada thistle are also present in the transition area from wetland to upland in W2.



Phot 6 – View facing north of the northernmost limit of W2, taken near SP6, where vegetation transitions to upland grass dominated by smooth brome, little bluestem, and blue grama.



Photo 7 – View facing north-northwest of the transition area between W2 and the upland swale south of the wetland behind the viewer. The abrupt vegetative transition from Baltic rush to smooth brome is clear in the foreground.



Photo 8 – View facing south-southwest of the heavily vegetated area along the constructed ditch, north of W1. This area is dominated by little bluestem and switchgrass and contains a very faint OHWM, marked primarily by sediment deposits along the bottom of the ditch and subtle topographic changes along the side slopes of the ditch on both sides.



APPENDIX C:
WETLAND DETERMINATION DATA FORMS

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Great Plains Region
 See ERDC/EL TR-10-1; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp: 11/30/2024
 Requirement Control Symbol EXEMPT:
 (Authority: AR 335-15, paragraph 5-2a)

Project/Site: Falcon Ranchettes City/County: El Paso County Sampling Date: 2/1/24
 Applicant/Owner: Meridian Storage LLC State: CO Sampling Point: SP1
 Investigator(s): Dan Maynard, Emily DeAlto Section, Township, Range: S1, T13S, R65W
 Landform (hillside, terrace, etc.): ditch/swale Local relief (concave, convex, none): Concave Slope (%): 4
 Subregion (LRR/MLRA): LRR G Lat: 38.946427 Long: -104.607953 Datum: WGS84
 Soil Map Unit Name: Columbine (Torriothenic Haplustolls) NWI classification: R4SBC

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u> Hydric Soil Present? Yes <u>X</u> No <u> </u> Wetland Hydrology Present? Yes <u>X</u> No <u> </u>	Is the Sampled Area within a Wetland? Yes <u>X</u> No <u> </u>
Remarks:	

VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: <u>30x30'</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1.					Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)
2.					
3.					
4.					
=Total Cover					
Sapling/Shrub Stratum	(Plot size: <u>15x15'</u>)				
1.					Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>60</u> x 2 = <u>120</u> FAC species <u>15</u> x 3 = <u>45</u> FACU species <u>6</u> x 4 = <u>24</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>81</u> (A) <u>189</u> (B) Prevalence Index = B/A = <u>2.33</u>
2.					
3.					
4.					
5.					
=Total Cover					
Herb Stratum	(Plot size: <u>5x5'</u>)				
1.	<u>Juncus balticus</u>	<u>60</u>	<u>Yes</u>	<u>FACW</u>	Hydrophytic Vegetation Indicators: <u> </u> 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% <u>X</u> 3 - Prevalence Index is ≤3.0 ¹ <u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2.	<u>Helianthus annuus</u>	<u>5</u>	<u>No</u>	<u>FACU</u>	
3.	<u>Xanthium strumarium</u>	<u>15</u>	<u>No</u>	<u>FAC</u>	
4.	<u>Cirsium arvense</u>	<u>1</u>	<u>No</u>	<u>FACU</u>	
5.					
6.					
7.					
8.					
9.					
10.					
81 =Total Cover					
Woody Vine Stratum	(Plot size: <u>15x15'</u>)				
1.					Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>
2.					
=Total Cover					
% Bare Ground in Herb Stratum		<u>20</u>			

Remarks:

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-7	10YR 3/2	99	5YR 4/6	1	C	M	Sandy	Loamy sand
7-15	10YR 4/2	98	5YR 4/6	2	C	PL/M	Loamy/Clayey	Sandy loam
15-24	10YR 3/2	96	5YR 4/6	4	C	M	Loamy/Clayey	Sandy clay loam

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> 1 cm Muck (A9) (LRR I, J)
<input type="checkbox"/> Histic Epipedon (A2)	<input checked="" type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> High Plains Depressions (F16)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Stripped Matrix (S6)	(LRR H outside of MLRA 72 & 73)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Stratified Layers (A5) (LRR F)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (F21)
<input type="checkbox"/> 1 cm Muck (A9) (LRR F, G, H)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Very Shallow Dark Surface (F22)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)	<input type="checkbox"/> High Plains Depressions (F16)	
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR F)	(MLRA 72 & 73 of LRR H)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: <u>N/A</u> Depth (inches): <u> </u>	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
--	---

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:	
Primary Indicators (minimum of one is required; check all that apply) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input checked="" type="checkbox"/> Drift Deposits (B3) (where not tilled) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Water-Stained Leaves (B9)	Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) (where tilled) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Geomorphic Position (D2) <input checked="" type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Frost-Heave Hummocks (D7) (LRR F)

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u> </u> Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u> </u> Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u> </u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Great Plains Region
 See ERDC/EL TR-10-1; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp: 11/30/2024
 Requirement Control Symbol EXEMPT:
 (Authority: AR 335-15, paragraph 5-2a)

Project/Site: Falcon Ranchettes City/County: El Paso County Sampling Date: 2/1/24
 Applicant/Owner: Meridian Storage LLC State: CO Sampling Point: SP2
 Investigator(s): Dan Maynard and Emily DeAlto Section, Township, Range: S1, T13S, R65W
 Landform (hillside, terrace, etc.): side slope Local relief (concave, convex, none): none Slope (%): 7
 Subregion (LRR/MLRA): LRR G Lat: 38.946362 Long: -104.608033 Datum: WGS84
 Soil Map Unit Name: Columbine (Torriothenic Haplustolls) NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u> </u> No <u>X</u>	Is the Sampled Area within a Wetland? Yes <u> </u> No <u>X</u>
Hydric Soil Present? Yes <u> </u> No <u>X</u>	
Wetland Hydrology Present? Yes <u> </u> No <u>X</u>	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30x30'</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
=Total Cover				
Sapling/Shrub Stratum (Plot size: <u>15x15'</u>)				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>10</u> x 2 = <u>20</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>18</u> x 4 = <u>72</u> UPL species <u>81</u> x 5 = <u>405</u> Column Totals: <u>109</u> (A) <u>497</u> (B) Prevalence Index = B/A = <u>4.56</u>
1. <u>Robinia neomexicana</u>	<u>10</u>	<u>Yes</u>	<u>UPL</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
<u>10</u> =Total Cover				
Herb Stratum (Plot size: <u>5x5'</u>)				Hydrophytic Vegetation Indicators: <u> </u> 1 - Rapid Test for Hydrophytic Vegetation <u> </u> 2 - Dominance Test is >50% <u> </u> 3 - Prevalence Index is ≤3.0 ¹ <u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Bromus inermis</u>	<u>70</u>	<u>Yes</u>	<u>UPL</u>	
2. <u>Juncus balticus</u>	<u>10</u>	<u>No</u>	<u>FACW</u>	
3. <u>Helianthus annuus</u>	<u>2</u>	<u>No</u>	<u>FACU</u>	
4. <u>Chenopodium album</u>	<u>3</u>	<u>No</u>	<u>FACU</u>	
5. <u>Verbascum thapsus</u>	<u>1</u>	<u>No</u>	<u>UPL</u>	
6. <u>Salsola tragus</u>	<u>10</u>	<u>No</u>	<u>FACU</u>	
7. <u>Hordeum pusillum</u>	<u>3</u>	<u>No</u>	<u>FACU</u>	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
<u>99</u> =Total Cover				
Woody Vine Stratum (Plot size: <u>15x15'</u>)				Hydrophytic Vegetation Present? Yes <u> </u> No <u>X</u>
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
=Total Cover				
% Bare Ground in Herb Stratum <u>5</u>				

Remarks:

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-6	10YR 4/3	100					Sandy	Loamy sand
6-12	10YR 4/3	100					Loamy/Clayey	Sandy loam
12-24	2.5Y 5/3	100					Sandy	Loamy sand

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> 1 cm Muck (A9) (LRR I, J)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> High Plains Depressions (F16)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Stripped Matrix (S6)	(LRR H outside of MLRA 72 & 73)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Stratified Layers (A5) (LRR F)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (F21)
<input type="checkbox"/> 1 cm Muck (A9) (LRR F, G, H)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Very Shallow Dark Surface (F22)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)	<input type="checkbox"/> High Plains Depressions (F16)	
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR F)	(MLRA 72 & 73 of LRR H)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: <u>N/A</u> Depth (inches): _____	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Remarks:

HYDROLOGY

Wetland Hydrology Indicators:	
Primary Indicators (minimum of one is required; check all that apply) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) (where not tilled) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Water-Stained Leaves (B9)	Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) (where tilled) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Frost-Heave Hummocks (D7) (LRR F)

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Great Plains Region
 See ERDC/EL TR-10-1; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp: 11/30/2024
 Requirement Control Symbol EXEMPT:
 (Authority: AR 335-15, paragraph 5-2a)

Project/Site: Falcon Ranchettes City/County: El Paso County Sampling Date: 2/1/24
 Applicant/Owner: Meridian Storage LLC State: CO Sampling Point: SP3
 Investigator(s): Dan Maynard and Emily DeAlto Section, Township, Range: S1, T13S, R65W
 Landform (hillside, terrace, etc.): Ditch Local relief (concave, convex, none): Concave Slope (%): 3
 Subregion (LRR/MLRA): LRR G Lat: 38.946619 Long: -104.607968 Datum: WGS84
 Soil Map Unit Name: Columbine (Torriothenic Haplustolls) NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u> </u> No <u>X</u> Hydric Soil Present? Yes <u> </u> No <u>X</u> Wetland Hydrology Present? Yes <u>X</u> No <u> </u>	Is the Sampled Area within a Wetland? Yes <u> </u> No <u>X</u>
Remarks:	

VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: <u>30x30'</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1.					
2.					
3.					
4.					
=Total Cover					
Sapling/Shrub Stratum	(Plot size: <u>15x15'</u>)				
1.	<u>Robinia neomexicana</u>	<u>5</u>	<u>Yes</u>	<u>UPL</u>	
2.					
3.					
4.					
5.					
=Total Cover					
Herb Stratum	(Plot size: <u>5x5'</u>)				
1.	<u>Schizachyrium scoparium</u>	<u>25</u>	<u>Yes</u>	<u>FACU</u>	
2.	<u>Helianthus annuus</u>	<u>2</u>	<u>No</u>	<u>FACU</u>	
3.	<u>Bromus inermis</u>	<u>18</u>	<u>No</u>	<u>UPL</u>	
4.	<u>Juncus dudleyi</u>	<u>2</u>	<u>No</u>	<u>FACW</u>	
5.	<u>Panicum virgatum</u>	<u>45</u>	<u>Yes</u>	<u>FAC</u>	
6.	<u>Other grass</u>	<u>4</u>	<u>No</u>	<u>FAC</u>	
7.	<u>Xanthium strumarium</u>	<u>1</u>	<u>No</u>	<u>FAC</u>	
8.					
9.					
10.					
=Total Cover					
Woody Vine Stratum	(Plot size: <u>15x15'</u>)				
1.					
2.					
=Total Cover					
% Bare Ground in Herb Stratum <u> </u>					

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.3% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>2</u>	x 2 = <u>4</u>
FAC species <u>50</u>	x 3 = <u>150</u>
FACU species <u>27</u>	x 4 = <u>108</u>
UPL species <u>23</u>	x 5 = <u>115</u>
Column Totals: <u>102</u> (A)	<u>377</u> (B)
Prevalence Index = B/A = <u>3.70</u>	

Hydrophytic Vegetation Indicators:

 1 - Rapid Test for Hydrophytic Vegetation

 2 - Dominance Test is >50%

 3 - Prevalence Index is ≤3.0¹

 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

 Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes No X

Remarks:

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-7	10YR 3/2	99	7.5YR 4/6	1	C	M	Loamy/Clayey	Prominent redox concentrations
7-24	10YR 4/3	100					Sandy	Loamy sand

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> 1 cm Muck (A9) (LRR I, J)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> High Plains Depressions (F16)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Stripped Matrix (S6)	(LRR H outside of MLRA 72 & 73)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Stratified Layers (A5) (LRR F)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (F21)
<input type="checkbox"/> 1 cm Muck (A9) (LRR F, G, H)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Very Shallow Dark Surface (F22)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)	<input type="checkbox"/> High Plains Depressions (F16)	
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR F)	(MLRA 72 & 73 of LRR H)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):	Hydric Soil Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Type: <u>N/A</u>		
Depth (inches): <u> </u>		

Remarks:
Redox present in uppermost layer, not enough to pass any indicator metrics

HYDROLOGY

Wetland Hydrology Indicators:	
Primary Indicators (minimum of one is required; check all that apply) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input checked="" type="checkbox"/> Drift Deposits (B3) (where not tilled) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Water-Stained Leaves (B9)	Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) (where tilled) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Frost-Heave Hummocks (D7) (LRR F)

Field Observations:	Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u> </u>		
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u> </u>		
Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u> </u>		
(includes capillary fringe)		

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-12	10YR 3/1	93	5YR 4/6	7	C	PL/M	Loamy/Clayey	Prominent redox concentrations

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> 1 cm Muck (A9) (LRR I, J)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> High Plains Depressions (F16)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Stripped Matrix (S6)	(LRR H outside of MLRA 72 & 73)
<input checked="" type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Stratified Layers (A5) (LRR F)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (F21)
<input type="checkbox"/> 1 cm Muck (A9) (LRR F, G, H)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Very Shallow Dark Surface (F22)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input checked="" type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)	<input type="checkbox"/> High Plains Depressions (F16)	
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR F)	(MLRA 72 & 73 of LRR H)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: <u>N/A</u> Depth (inches): <u> </u>	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Remarks:

HYDROLOGY

Wetland Hydrology Indicators:	
Primary Indicators (minimum of one is required; check all that apply) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Invertebrates (B13) <input checked="" type="checkbox"/> Saturation (A3) <input checked="" type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Sediment Deposits (B2) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) (where not tilled) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Water-Stained Leaves (B9)	Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) (where tilled) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input checked="" type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Frost-Heave Hummocks (D7) (LRR F)

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u> </u> Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u> </u> Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Great Plains Region
 See ERDC/EL TR-10-1; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp: 11/30/2024
 Requirement Control Symbol EXEMPT:
 (Authority: AR 335-15, paragraph 5-2a)

Project/Site: Falcon Ranchettes City/County: El Paso County Sampling Date: 2/1/24
 Applicant/Owner: Meridian Storage LLC State: CO Sampling Point: SP5
 Investigator(s): Dan Maynard and Emily DeAlto Section, Township, Range: S1, T13S, R65W
 Landform (hillside, terrace, etc.): Side of ditch Local relief (concave, convex, none): None Slope (%): 11
 Subregion (LRR/MLRA): LRR G Lat: 38.946854 Long: -104.608171 Datum: WGS84
 Soil Map Unit Name: Columbine (Torriothenic Haplustolls) NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u> </u> No <u>X</u> Hydric Soil Present? Yes <u> </u> No <u>X</u> Wetland Hydrology Present? Yes <u> </u> No <u>X</u>	Is the Sampled Area within a Wetland? Yes <u> </u> No <u>X</u>
Remarks:	

VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: <u>30x30'</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1.					Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)
2.					
3.					
4.					
=Total Cover					
Sapling/Shrub Stratum	(Plot size: <u>15x15'</u>)				
1.	<u>Robinia neomexicana</u>	<u>40</u>	<u>Yes</u>	<u>UPL</u>	Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>2</u> x 3 = <u>6</u> FACU species <u>20</u> x 4 = <u>80</u> UPL species <u>122</u> x 5 = <u>610</u> Column Totals: <u>144</u> (A) <u>696</u> (B) Prevalence Index = B/A = <u>4.83</u>
2.					
3.					
4.					
5.					
40 =Total Cover					
Herb Stratum	(Plot size: <u>5x5'</u>)				
1.	<u>Bromus inermis</u>	<u>80</u>	<u>Yes</u>	<u>UPL</u>	Hydrophytic Vegetation Indicators: <u> </u> 1 - Rapid Test for Hydrophytic Vegetation <u> </u> 2 - Dominance Test is >50% <u> </u> 3 - Prevalence Index is ≤3.0 ¹ <u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2.	<u>Melilotus officinalis</u>	<u>10</u>	<u>No</u>	<u>FACU</u>	
3.	<u>Cirsium arvense</u>	<u>10</u>	<u>No</u>	<u>FACU</u>	
4.	<u>Potentilla gracilis</u>	<u>2</u>	<u>No</u>	<u>FAC</u>	
5.	<u>Brassica rapa</u>	<u>2</u>	<u>No</u>	<u>UPL</u>	
6.					
7.					
8.					
9.					
10.					
104 =Total Cover					
Woody Vine Stratum	(Plot size: <u>15x15'</u>)				
1.					Hydrophytic Vegetation Present? Yes <u> </u> No <u>X</u>
2.					
=Total Cover					
% Bare Ground in Herb Stratum		<u>10</u>			

Remarks:

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-6	10YR 3/2	100					Loamy/Clayey	Sandy loam
6-14	10YR 3/3	100					Sandy	Loamy sand
14-24	2.5Y 5/4	100					Sandy	Loamy sand

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> 1 cm Muck (A9) (LRR I, J)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> High Plains Depressions (F16)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Stripped Matrix (S6)	(LRR H outside of MLRA 72 & 73)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Stratified Layers (A5) (LRR F)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (F21)
<input type="checkbox"/> 1 cm Muck (A9) (LRR F, G, H)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Very Shallow Dark Surface (F22)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)	<input type="checkbox"/> High Plains Depressions (F16)	
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR F)	(MLRA 72 & 73 of LRR H)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):	Hydric Soil Present?
Type: <u>N/A</u>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Depth (inches): <u> </u>	

Remarks:
No indicators present.

HYDROLOGY

Wetland Hydrology Indicators:	
Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)
<input type="checkbox"/> Sediment Deposits (B2)	(where tilled)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Frost-Heave Hummocks (D7) (LRR F)
<input type="checkbox"/> Salt Crust (B11)	
<input type="checkbox"/> Aquatic Invertebrates (B13)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	
(where not tilled)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Thin Muck Surface (C7)	
<input type="checkbox"/> Other (Explain in Remarks)	

Field Observations:	Wetland Hydrology Present?
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u> </u>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u> </u>	
Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u> </u>	
(includes capillary fringe)	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Great Plains Region
 See ERDC/EL TR-10-1; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp: 11/30/2024
 Requirement Control Symbol EXEMPT:
 (Authority: AR 335-15, paragraph 5-2a)

Project/Site: Falcon Ranchettes City/County: El Paso County Sampling Date: 2/1/24
 Applicant/Owner: Meridian Storage LLC State: CO Sampling Point: SP6
 Investigator(s): Dan Maynard and Emily DeAlto Section, Township, Range: S1, T13S, R65W
 Landform (hillside, terrace, etc.): Swale Local relief (concave, convex, none): Concave Slope (%): 4
 Subregion (LRR/MLRA): LRR G Lat: 38.947211 Long: -104.608314 Datum: WGS84
 Soil Map Unit Name: Columbine (Torriothenic Haplustolls) NWI classification: R4SBC

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u> </u> No <u>X</u> Hydric Soil Present? Yes <u> </u> No <u>X</u> Wetland Hydrology Present? Yes <u> </u> No <u>X</u>	Is the Sampled Area within a Wetland? Yes <u> </u> No <u>X</u>
Remarks:	

VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: <u>30x30'</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1.					
2.					
3.					
4.					
=Total Cover					
Sapling/Shrub Stratum	(Plot size: <u>15x15'</u>)				
1.	<u>Robinia neomexicana</u>	<u>4</u>	<u>No</u>	<u>UPL</u>	
2.					
3.					
4.					
5.					
4 =Total Cover					
Herb Stratum	(Plot size: <u>5x5'</u>)				
1.	<u>Bromus inermis</u>	<u>50</u>	<u>Yes</u>	<u>UPL</u>	
2.	<u>Juncus balticus</u>	<u>15</u>	<u>No</u>	<u>FACW</u>	
3.	<u>Bouteloua gracilis</u>	<u>25</u>	<u>Yes</u>	<u>UPL</u>	
4.	<u>Koeleria macrantha</u>	<u>7</u>	<u>No</u>	<u>UPL</u>	
5.	<u>Pascopyrum smithii</u>	<u>5</u>	<u>No</u>	<u>FACU</u>	
6.	<u>Artemisia frigida</u>	<u>2</u>	<u>No</u>	<u>UPL</u>	
7.					
8.					
9.					
10.					
104 =Total Cover					
Woody Vine Stratum	(Plot size: <u>15x15'</u>)				
1.					
2.					
=Total Cover					
% Bare Ground in Herb Stratum <u>15</u>					

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>15</u>	x 2 = <u>30</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>5</u>	x 4 = <u>20</u>
UPL species <u>88</u>	x 5 = <u>440</u>
Column Totals: <u>108</u> (A)	<u>490</u> (B)
Prevalence Index = B/A = <u>4.54</u>	

Hydrophytic Vegetation Indicators:

 1 - Rapid Test for Hydrophytic Vegetation

 2 - Dominance Test is >50%

 3 - Prevalence Index is ≤3.0¹

 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

 Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes No X

Remarks:

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-4	10YR 3/1	100					Loamy/Clayey	Sandy clay loam
4-12	10YR 4/2	100					Loamy/Clayey	Sandy loam
12-24	2.5Y 5/4	100					Sandy	Loamy sand

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> 1 cm Muck (A9) (LRR I, J)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> High Plains Depressions (F16)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Stripped Matrix (S6)	(LRR H outside of MLRA 72 & 73)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Stratified Layers (A5) (LRR F)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (F21)
<input type="checkbox"/> 1 cm Muck (A9) (LRR F, G, H)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Very Shallow Dark Surface (F22)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)	<input type="checkbox"/> High Plains Depressions (F16)	
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR F)	(MLRA 72 & 73 of LRR H)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: <u>N/A</u> Depth (inches): _____	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Remarks:

HYDROLOGY

Wetland Hydrology Indicators:	
Primary Indicators (minimum of one is required; check all that apply) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) (where not tilled) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Water-Stained Leaves (B9)	Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) (where tilled) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Frost-Heave Hummocks (D7) (LRR F)

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Great Plains Region
 See ERDC/EL TR-10-1; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp: 11/30/2024
 Requirement Control Symbol EXEMPT:
 (Authority: AR 335-15, paragraph 5-2a)

Project/Site: Falcon Ranchettes City/County: El Paso County Sampling Date: 2/1/24
 Applicant/Owner: Meridian Storage LLC State: CO Sampling Point: SP7
 Investigator(s): Dan Maynard and Emily DeAlto Section, Township, Range: S1, T13S, R65W
 Landform (hillside, terrace, etc.): Swale Local relief (concave, convex, none): None Slope (%): 4
 Subregion (LRR/MLRA): LRR G Lat: 38.946620 Long: -104.608069 Datum: WGS84
 Soil Map Unit Name: Columbine (Torriothenic Haplustolls) NWI classification: R4SBC

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u> </u> No <u>X</u> Hydric Soil Present? Yes <u> </u> No <u>X</u> Wetland Hydrology Present? Yes <u> </u> No <u>X</u>	Is the Sampled Area within a Wetland? Yes <u> </u> No <u>X</u>
Remarks: Swale between W1 and W2.	

VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: <u>30x30'</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1.					
2.					
3.					
4.					
=Total Cover					
Sapling/Shrub Stratum	(Plot size: <u>15x15'</u>)				
1.	<u>Robinia neomexicana</u>	<u>3</u>	<u>No</u>	<u>UPL</u>	
2.	<u>Rosa woodsii</u>	<u>1</u>	<u>No</u>	<u>FACU</u>	
3.					
4.					
5.					
=Total Cover					
Herb Stratum	(Plot size: <u>5x5'</u>)				
1.	<u>Bromus inermis</u>	<u>99</u>	<u>Yes</u>	<u>UPL</u>	
2.	<u>Cirsium arvense</u>	<u>1</u>	<u>No</u>	<u>FACU</u>	
3.	<u>Rumex crispus</u>	<u>1</u>	<u>No</u>	<u>FAC</u>	
4.	<u>Other forbs</u>	<u>2</u>	<u>No</u>	<u>FAC</u>	
5.					
6.					
7.					
8.					
9.					
10.					
=Total Cover					
Woody Vine Stratum	(Plot size: <u>15x15'</u>)				
1.					
2.					
=Total Cover					
% Bare Ground in Herb Stratum <u>0</u>					

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>3</u>	x 3 = <u>9</u>
FACU species <u>2</u>	x 4 = <u>8</u>
UPL species <u>102</u>	x 5 = <u>510</u>
Column Totals: <u>107</u> (A)	<u>527</u> (B)
Prevalence Index = B/A = <u>4.93</u>	

Hydrophytic Vegetation Indicators:

 1 - Rapid Test for Hydrophytic Vegetation

 2 - Dominance Test is >50%

 3 - Prevalence Index is ≤3.0¹

 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

 Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes No X

Remarks:
 ENG FORM 6116-5, JUL 2018

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-6	10YR 3/2	100					Loamy/Clayey	Sandy loam
6-14	10YR 4/3	100					Loamy/Clayey	Sandy loam
14-24	2.5Y 5/4	100					Sandy	Loamy sand

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> 1 cm Muck (A9) (LRR I, J)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> High Plains Depressions (F16)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Stripped Matrix (S6)	(LRR H outside of MLRA 72 & 73)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Stratified Layers (A5) (LRR F)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (F21)
<input type="checkbox"/> 1 cm Muck (A9) (LRR F, G, H)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Very Shallow Dark Surface (F22)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)	<input type="checkbox"/> High Plains Depressions (F16)	
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR F)	(MLRA 72 & 73 of LRR H)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):	Hydric Soil Present?
Type: <u>N/A</u>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Depth (inches): _____	

Remarks:
No indicators present.

HYDROLOGY

Wetland Hydrology Indicators:	
Primary Indicators (minimum of one is required; check all that apply) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) (where not tilled) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Water-Stained Leaves (B9)	Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) (where tilled) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Frost-Heave Hummocks (D7) (LRR F)

Field Observations:	Wetland Hydrology Present?
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	
Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:



APPENDIX D:
OHWM DELINEATION DATASHEETS

U.S. Army Corps of Engineers (USACE)
RAPID ORDINARY HIGH WATER MARK (OHWM) FIELD IDENTIFICATION DATA SHEET

OMB Control No. 0710-XXXX

Approval Expires:

The proponent agency is Headquarters USACE CECW-CO-R.

Project ID #:

Site Name: Falcon Ranchettes Fil. No. 1A

Date and Time: 02/01/2024 2:30pm

Location (lat/long): 104.6079798°W 38.9464435°N

Investigator(s): Dan Maynard and Emily DeAlto

Step 1 Site overview from remote and online resources

Check boxes for online resources used to evaluate site:

- | | | |
|---|---|---|
| <input type="checkbox"/> gage data | <input type="checkbox"/> LIDAR | <input type="checkbox"/> geologic maps |
| <input type="checkbox"/> climatic data | <input checked="" type="checkbox"/> satellite imagery | <input type="checkbox"/> land use maps |
| <input checked="" type="checkbox"/> aerial photos | <input checked="" type="checkbox"/> topographic maps | <input checked="" type="checkbox"/> Other: <u>NWI & NHD</u> |

Describe land use and flow conditions from online resources.

Were there any recent extreme events (floods or drought)?

No extreme events have occurred recently. The ditch on the eastern side of the site was constructed and storm runoff flows through this ditch to the culvert under Owl Place, south of the site.

Step 2 Site conditions during field assessment

First look for changes in channel shape, depositional and erosional features, and changes in vegetation and sediment type, size, density, and distribution. Make note of natural or man-made disturbances that would affect flow and channel form, such as bridges, riprap, landslides, rockfalls etc.

Within a constructed ditch, there is a gentle slope change at the bottom of the swale and on the east bank, a second slope change at the top of bank. There is a higher content of gravel and sand at the base of the swale that has been deposited. Vegetation is for the most part absent in the ditch, up to a topographic break on both sides, at which vegetation transitions to graminoids. In one area of the ditch, riprap and netting has been installed to control erosion.

Step 3 Check the boxes next to the indicators used to identify the location of the OHWM.

OHWM is at a transition point, therefore some indicators that are used to determine location may be just below and above the OHWM. From the drop-down menu next to each indicator, select the appropriate location of the indicator by selecting either just below 'b', at 'x', or just above 'a' the OHWM.

OHWM. Go to page 2 to describe overall rationale for location of OHWM, write any additional observations, and to attach a photo log.

Geomorphic indicators

- Break in slope:** b
 - on the bank: a
 - undercut bank:
 - valley bottom: b
 - Other: _____
- Shelving:**
 - shelf at top of bank:
 - natural levee:
 - man-made berms or levees:
 - other berms: _____
- Channel bar:**
 - shelving (berms) on bar:
 - unvegetated:
 - vegetation transition (go to veg. indicators)
 - sediment transition (go to sed. indicators)
 - upper limit of deposition on bar:
- Instream bedforms and other bedload transport evidence:**
 - deposition bedload indicators (e.g., imbricated clasts, gravel sheets, etc.) b
 - bedforms (e.g., poofs, riffles, steps, etc.):
 - erosional bedload indicators (e.g., obstacle marks, scour, smoothing, etc.)
- Secondary channels:**

Sediment indicators

- Soil development:**
- Changes in character of soil:** b
- Mudcracks:**
- Changes in particle-sized distribution:** b
 - transition from sand to gravelly
 - upper limit of sand-sized particles
 - silt deposits:

Vegetation Indicators

- Change in vegetation type and/or density:** a
 - Check the appropriate boxes and select the general vegetation change (e.g., graminoids to woody shrubs). **Describe the vegetation transition looking from the middle of the channel, up the banks, and into the floodplain.**
 - vegetation absent to: graminoids
 - moss to:
 - forbs to:
 - graminoids to: woody shrubs
 - woody shrubs to:
 - deciduous trees to:
 - coniferous trees to:
 - Vegetation matted down and/or bent:**
 - Exposed roots below intact soil layer:**

Ancillary indicators

- Wracking/presence of organic litter:** x
- Presence of large wood:**
- Leaf litter disturbed or washed away:**
- Water staining:**
- Weathered clasts or bedrock:**

Other observed indicators?

Describe:

Riprap has been installed and erosion control netting is present in the ditch bottom.

Step 4 Is additional information needed to support this determination?

- Yes No

If yes, describe and attach information to datasheet:

Project ID #: _____

Step 5 Describe rationale for location of OHWM

The combination of indicators present convey the presence of an OHWM at this sample point within the ditch where the sample point was taken. The OHWM is present up until a prominent headcut within the ditch, after which the conditions within the ditch change and indicators of an OHWM are no longer present. Within the OHWM, there are two changes in slope, a deposition of gravel and sand along the base of the ditch, absence of vegetation along the base of the ditch, and a transition to graminoid and woody vegetation along the top of slope of the ditch.

Additional observations or notes

Attach a photo log of the site. Use the table below, or attach separately.

Photo log attached? Yes No If no, explain why not: _____

List photographs and include descriptions in the table below.

Number photographs in the order that they are taken. Attach photographs and include annotations of features.

Photo Number	Photograph description
	see photographic log

U.S. Army Corps of Engineers (USACE)
RAPID ORDINARY HIGH WATER MARK (OHWM) FIELD IDENTIFICATION DATA SHEET

OMB Control No. 0710-XXXX

Approval Expires:

The proponent agency is Headquarters USACE CECW-CO-R.

Project ID #:

Site Name: Falcon Ranchettes Filing No. 1A

Date and Time: 02/01/2024 2:00pm

Location (lat/long): 104.6080344°W 38.9466039°N

Investigator(s): DJM + ESD

Step 1 Site overview from remote and online resources
Check boxes for online resources used to evaluate site:

- | | | |
|---|---|--|
| <input type="checkbox"/> gage data | <input type="checkbox"/> LIDAR | <input type="checkbox"/> geologic maps |
| <input type="checkbox"/> climatic data | <input checked="" type="checkbox"/> satellite imagery | <input type="checkbox"/> land use maps |
| <input checked="" type="checkbox"/> aerial photos | <input checked="" type="checkbox"/> topographic maps | <input type="checkbox"/> Other: _____ |

Describe land use and flow conditions from online resources.
 Were there any recent extreme events (floods or drought)?
 No extreme events have occurred recently. The ditch on the eastern side of the site was constructed and hydrology flows through this ditch to the culvert under Owl Place, south of the site. The culvert north of the site is down gradient from the southern half of the site, and thus does not provide hydrology to this portion of the site.

Step 2 Site conditions during field assessment

First look for changes in channel shape, depositional and erosional features, and changes in vegetation and sediment type, size, density, and distribution. Make note of natural or man-made disturbances that would affect flow and channel form, such as bridges, riprap, landslides, rockfalls etc.

Located in an upland swale between the two wetlands identified in the wetland delineation. Vegetation is almost monotypic and does not change throughout the swale. There is a very slight break in slope at the toe of the slope. There is a utility pole just north of this sample point.

Step 3 Check the boxes next to the indicators used to identify the location of the OHWM.

OHWM is at a transition point, therefore some indicators that are used to determine location may be just below and above the OHWM. From the drop-down menu next to each indicator, select the appropriate location of the indicator by selecting either just below 'b', at 'x', or just above 'a' the OHWM.

OHWM. Go to page 2 to describe overall rationale for location of OHWM, write any additional observations, and to attach a photo log.

Geomorphic indicators

- Break in slope:**
 - on the bank: a
 - undercut bank:
 - valley bottom:
 - Other: _____
- Shelving:**
 - shelf at top of bank:
 - natural levee:
 - man-made berms or levees:
 - other berms: _____
- Channel bar:**
 - shelving (berms) on bar:
 - unvegetated:
 - vegetation transition (go to veg. indicators)
 - sediment transition (go to sed. indicators)
 - upper limit of deposition on bar:
- Instream bedforms and other bedload transport evidence:**
 - deposition bedload indicators (e.g., imbricated clasts, gravel sheets, etc.)
 - bedforms (e.g., poofs, riffles, steps, etc.):
 - erosional bedload indicators (e.g., obstacle marks, scour, smoothing, etc.)
- Secondary channels:**

Sediment indicators

- Soil development:**
- Changes in character of soil:**
- Mudcracks:**
- Changes in particle-sized distribution:**
 - transition from _____ to _____
 - upper limit of sand-sized particles
 - silt deposits:

Vegetation Indicators

- Change in vegetation type and/or density:**
 Check the appropriate boxes and select the general vegetation change (e.g., graminoids to woody shrubs). **Describe the vegetation transition looking from the middle of the channel, up the banks, and into the floodplain.**
 - vegetation absent to:
 - moss to:
 - forbs to:
 - graminoids to:
 - woody shrubs to:
 - deciduous trees to:
 - coniferous trees to:
- Vegetation matted down and/or bent:**
- Exposed roots below intact soil layer:**

Ancillary indicators

- Wracking/presence of organic litter:**
- Presence of large wood:**
- Leaf litter disturbed or washed away:**
- Water staining:**
- Weathered clasts or bedrock:**

Other observed indicators?

Describe:

Step 4 Is additional information needed to support this determination?

- Yes No

If yes, describe and attach information to datasheet:

