# NATURAL RESOURCES REPORT

Overlook at Homestead El Paso County, Colorado

> June 28, 2023 Revised September 22, 2023

Prepared for:



PT OVERLOOK, LLC. 1864 Woodmoor Drive, Ste 100, Monument, CO 80132

# **Kimley**»Horn

© KIMLEY-HORN & ASSOCIATES, INC. 2 N Nevada Ave, Ste 900, Colorado Springs, CO 80903

# TABLE OF CONTENTS

1.0	INTRODUCTION	1
1.1	PURPOSE	1
1.2	PROJECT DESCRIPTION	1
2.0	METHODOLOGY	2
3.0	EXISTING CONDITIONS	3
3.1	HISTORIC USE	3
3.2	SOILS	3
3.3	LAND COVER AND NATURAL COMMUNITIES	
3.4	NOXIOUS WEEDS	
3.5	WILDLIFE UTILIZATION AND PROTECTED WILDLIFE SPECIES	
3.6	WILDFIRE HAZARD	-
3.7	FEMA FLOOD HAZARD	
4.0	SUMMARY OF IMPACTS	17
4.1	LAND COVER AND NATURAL COMMUNITIES	
4.2	NOXIOUS WEEDS	17
4.3	WILDLIFE	
4.4	WILDFIRE	
5.0	RECOMMENDATIONS	
5.1	CLEAN WATER ACT	
5.2	ENDANGERED SPECIES ACT	19
5.3	MIGRATORY BIRD TREATY ACT AND BALD AND GOLDEN EAGLE PROTECTION ACT	
5.4	COLORADO NOXIOUS WEED ACT	
5.5	NON-STATUTORY CONSIDERATIONS	

# LIST OF TABLES

TABLE 1 NRCS SOILS WITHIN THE PROJECT SITE	3
TABLE 2 POTENTIALLY IMPACTED VEGETATION COMMUNITIES WITHIN THE PROJECT SITE	
TABLE 3 CPW SAM WILDLIFE POTENTIAL FOR OCCURRENCE	9
TABLE 4 SPECIES OBSERVED WITHIN THE PROJECT SITE	10
TABLE 5 LISTED SPECIES WITH THE POTENTIAL TO OCCUR WITHIN THE PROJECT SITE	12

# LIST OF FIGURES

FIGURE 1 PROJECT LOCATION MAP FIGURE 2 USGS QUAD MAP FIGURE 3 USDA/NRCS SOILS MAP FIGURE 4 NLCD MAP FIGURE 5 DATABASE REVIEW MAP FIGURE 6 AQUATIC RESOURCE LOCATION MAP FIGURE 7 WILDFIRE RISK MAP FIGURE 8 BURN PROBABILITY MAP FIGURE 9 FEMA FLOOD HAZARD MAP

# APPENDICES

APPENDIX A	SITE PLAN
APPENDIX B	AQUATIC RESOURCE DELINEATION REPORT
APPENDIX C	COLORADO STATE NOXIOUS WEED LIST
APPENDIX D	USFWS IPAC
APPENDIX E	RECOMMENDED BUFFER ZONES AND RESTRICTIONS FOR COLORADO RAPTORS (2020)
APPENDIX F	RECOMMENDED SURVEY PROTOCOL AND ACTIONS TO PROTECT NESTING BURROWING OWLS (2021)

# 1.0 INTRODUCTION

# 1.1 PURPOSE

The following technical memorandum summarizes a review of readily available documentation and the results of field reconnaissance conducted at the project site. The purpose of this Natural Resources Report is to characterize the existing conditions of the project site in accordance with El Paso County standards and relative to existing environmental conditions including historical use, soils, land cover and natural communities, noxious weeds, wildlife utilization and protected species, wildfire hazards, and flood hazards. The primary reason for this documentation is to provide available, complete information of the anticipated effects of the proposed development and determine if a land development proposal may affect to any significant degree the quality of the environment in El Paso County. The scope of this assessment includes reviewing readily available natural resource documentation, existing permits, listed species information, historic aerials, historic resources, and existing Geographic Information System (GIS) databases regarding known occurrences of listed species on and near the project site; site reconnaissance; and mapping and assessment of existing environmental conditions.

#### **1.2 PROJECT DESCRIPTION**

Kimley-Horn and Associates, Inc. (Kimley-Horn) is pleased to provide this Natural Resources Report to PT Overlook, LLC for the 350.81-acre Overlook at Homestead (Overlook) project site located east of Elbert Road within the Town of Peyton, El Paso County, Colorado. A Project Location Map is attached as *Figure* **1**. It is situated at approximately 7,300 feet above mean sea level (MSL) with hydrologic unit codes (HUC) of 1019001001, 1019001102 and 1102000401. The project site consists of vacant, undeveloped grassland with undulating channels running throughout the site (Parcel ID 4100000255 and 4100000256) and a rural single-family residential home situated within the north (Parcel ID 4122000005). North of the project site is agricultural and rural residential land, to the east is Homestead Ranch Park, and to the south and west is Homestead Ranch subdivisions. Project development will consist of 62, five (5) acre residential lots with associated general site grading, roadways, and drainage improvements. The site plan is provided in **Appendix A**. The project site is located directly east of Elbert Road in Sections 22 and 27 of Township 11 South and Range 64 West within El Paso County, Colorado. A portion of the U.S. Geological Service (USGS) 7.5-Minute Eastonville, Colorado quadrangle maps depicting the location of the project site is attached as **Figure 2**.

# 2.0 METHODOLOGY

The methodology for this assessment included an initial desktop review to identify potential wetland and upland habitats, key habitats or resources for protected flora and fauna, known local species occurrences, mapped cultural or historic resources, and hazardous areas. The desktop review utilized the following resources:

- Colorado Natural Heritage Program (CNHP) Colorado's Conservation Data Explorer (CODEX) (https://codex.cnhp.colostate.edu/content/map)
- Various Geographic Information System (GIS) data layers from the U.S. Fish and Wildlife Service (USFWS), U.S. Geological Survey (USGS)
- USFWS Information for Planning and Conservation (IPaC) data [(https://ecos.fws.gov/ipac/)]
- U.S. Department of Agriculture (USDA) / Natural Resources Conservation Service (NRCS) Soil Survey of El Paso County, Colorado
- USFWS National Wetlands Inventory (NWI) Maps (Web-based maps available from http://www.fws.gov/wetlands/Data/mapper.html)
- CNHP Natural Plant Communities; NatureServe Explorer (https://cnhp.colostate.edu/ourdata//trackinglist/, https://explorer.natureserve.org/)
- USGS Quadrangle Maps (https://topobuilder.nationalmap.gov/)
- Colorado Department of Natural Resources (DNR) (https://dnr.colorado.gov/)
- Colorado Division of Water Resources (DWR) (https://dwr.colorado.gov/)
- U.S. Army Corps of Engineers (USACE) 1987 Wetland Delineation Manual and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region (Version 2.0) (https://www.usace.army.mil/Missions/Civil-Works/Regulatory-Program-and-Permits/reg\_supp/)
- State Historic Preservation Officer (SHPO), Colorado Natural Heritage Program (CNHP) (https://cnhp.colostate.edu)
- Colorado Wildfire Risk Assessment Portal (https://co-pub.coloradoforestatlas.org/#/)
- Federal Emergency Management Agency (FEMA) Digital Flood Insurance Rate Maps (FIRM; Webbased maps available from http://msc.fema.gov/)
- El Paso County Land Development Code

Field reconnaissance was conducted June 12, 2023, by Kimley-Horn scientists to ground-truth the existing conditions, map habitats, and survey for environmental constraint features. The field review included pedestrian and vehicular transects across accessible habitat classifications.

# 3.0 EXISTING CONDITIONS

# 3.1 HISTORIC USE

A review of readily available historic aerials of the project site is included as a part of this investigation. A historic aerial from 1947 depicts the site as an undisturbed grassland with a few unimproved roads as well as erosional channels sloping southwest to the southern project site perimeter. Two springs can be observed within the southwest of the site since the earliest aerial of 1947. The residential homestead within the north of the project site was built in 1942. Rural residential development began within the site surroundings in 1999, however, little to no change occurred throughout the site from the earliest aerial to today. Evidence of cattle grazing was observed during field reconnaissance; however, no cattle are present on the site as of writing of this report.

# 3.2 SOILS

The USDA / NRCS *Soil Survey of El Paso County, Colorado*, documents six (6) soil classifications within the project site. *Figure 3* shows the mapped soils within the project site and **Table 1** provides details of each soil classification.

Table 1 – NRCS Soils Within the Project Site						
Soil ID <sup>1</sup>	Soil Name	Occurrence	Characteristics	Drainage Class	Groundwater Depth	Hydric, Hydric Inclusions, or Non- hydric <sup>2</sup>
19	Columbine gravelly sandy loam, 0 to 3 percent slopes	Fans, fan terraces, flood plains	Very rapid permeability	Well drained	>80 inches	Non-hydric
42	Kettle-Rock outcrop complex	Hills	Rapid permeability	Somewhat excessively drained	>80 inches	Non-hydric
66	Peyton sandy loam, 1 to 5 percent slopes	Flats, hills	Moderate permeability	Well drained	>80 inches	Non-hydric
68	Peyton-Pring complex, 3 to 8 percent slopes	Hills	Moderate to rapid permeability	Well drained	>80 inches	Non-hydric
71	Pring coarse sandy loam, 3 to 8 percent slopes	Hills	Rapid permeability	Well drained	>80 inches	Non-hydric
72	Pring coarse sandy loam, 8 to 15 percent slopes	Hills	Rapid permeability	Well drained	>80 inches	Non-hydric
1: Reference: Soil Survey of El Paso County - https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx 2: Reference: Soil Series - https://soilseries.sc.egov.usda.gov						

#### 3.3 LAND COVER AND NATURAL COMMUNITIES

The project site is located within the Foothill Grasslands Ecoregion (26j) occurring within east-central Colorado characterized by dissected and irregular plains between 5900-7000 feet above MSL (Chapman, et al. 2006). Natural vegetation in this ecoregion includes yellow Indiangrass (*Sorghastrum nutans*), big and little bluestem (*Andropogon gerardii* and *Schizachyrium scoparium*), switchgrass (*Panicum virgatum*), fescues (*Festuca spp.*), wheatgrass (*Pascopyrum spp.*), and sideoats grama (*Bouteloua curtipendula*) within the foothill prairies and ponderosa pine (*Pinus ponderosa*), mountain mahogany (*Cercocarpus ledifolius*), and Gambel oak (*Quercus gambelii*) within the pine woodlands. Land uses include grassland, rangeland, and scattered woodland and cropland with currently increasing urban and residential development.

The project site is within the Rocky Mountain Range and Forest Land Resource Region (LRR) and Southern Rocky Mountain Foothills Major Land Resource Area (MLRA) (NRCS 2006). This LRR is characterized by rugged mountains with some broad valleys and high plateaus. This MLRA includes the Southern Rocky Mountains and Wyoming Basin Provinces as well as sections of the Great Plains Province. The climate of this MLRA consists of an average annual precipitation of 12 to 15 inches, increasing with elevation. Most of the land in this region is privately owned grasslands and forests, with some federally owned grasslands (NRCS 2006).

Field reconnaissance was conducted on June 12, 2023. Vegetative communities within the proposed project site were identified through pedestrian transects and aerial photograph interpretation and classified using the *National Land Cover Database* (NLCD, United States Geological Survey, 2019). A description of the upland land cover classifications is provided below and characterizes the dominant vegetation observed along random pedestrian transects. The vegetation listed does not represent an all-inclusive vegetative inventory. An NLCD Map is provided as *Figure 4*.

#### 21 DEVELOPED, OPEN SPACE

This classification comprises a small area of the project that includes the rural residential development and associated roads within the northern extent of the project site. These areas are mostly vegetation in the form of lawn grasses such as blue grama (*Bouteloua gracilis*), sideoats grama (*Bouteloua curtipendula*), and western wheatgrass (*Pascopyrum smithii*).

#### **41 EVERGREEN FOREST**

This classification comprises the ridge line along the eastern perimeter of the project site and consists of ponderosa pine (*Pinus ponderosa*) creating a dominant canopy layer along with scattered saplings.

#### 52 SHRUB/SCRUB

This classification comprises the ecotone between the grassland and forested areas within the project site and consists of primarily yucca (*Yucca glauca*), rubber rabbitbrush (*Chrysothamnus nauseosus*) and fringed sagebrush (*Artemisia frigida*).

# 71 GRASSLAND/HERBACEOUS

This classification comprises the majority of the project site surrounding the wetland areas and consisted of various wildflowers including mountain bluebells (*Mertensia ciliata*), Rocky Mountain penstemon (*Penstemon strictus*), Indian paintbrush (*Castilleja indivisa*), stemless 4-nerval daisy (*Tetraneuris acaulis*), wooly groundsel (*Packera cana*), lanceleaf stonecrop (*Sedum lancolatum*), sticky gilia (*Aliciella pinnatifida*), and prairie junegrass (*Koeleria macrantha*).

The USFWS National Wetland Inventory (NWI) database was reviewed for potential wetlands and surface waters within the project site shown in the database review map attached as *Figure 5*. NWI documented an intermittent riverine classified as R4SBC that runs into a freshwater emergent wetland classified as PEM1C throughout the western portion. Centrally, a freshwater pond classified as PUSC was identified emptying into an intermittent riverine classified as R4SBC. The presence of wetlands and surface waters within the project site was evaluated based on the U.S. Army Corps of Engineers (USACE) 1987 Wetland Delineation Manual and the Regional Supplement: Great Plains Region. These methods consider prevalence of wetland vegetation, hydric soil indicators, and wetland hydrology. Surface waters include both natural and manmade bodies of water, such as streams, lakes, ponds, canals, and ditches.

An aquatic resource delineation for the project site was completed and is included in *Appendix B*. The results of this aquatic resource investigation conclude that nine (9) wetlands totaling 4.01 acres, four (4) surface waters totaling 0.47 acres, and 11 drainage swales totaling 6,901.5 LF are present within the project site (*Figure 6*). Based on onsite observations, the water source of the surface water and wetland features is predominantly precipitation and some contributions from alluvial springs. The aquatic resources within the site appear to lack a continuous surface connection to a Relatively Permanent Waterway (RPW) and thus are not likely jurisdictional. A request for Jurisdictional Determination (JD) through the USACE Pueblo Regulatory Office has been completed to determine if the aquatic resources within the project site would be jurisdictional to USACE and therefore require Section 404 permitting for aquatic resource impacts associated with development.

The northern extent of the project site is located in the Headwaters Kiowa Creek watershed (HUC101900100103) and the Headwaters West Bijou Creek watershed (101900110201). The southern extent of the project site is located in the Headwaters Black Squirrel Creek watershed (110200040204) and the Middle Brackett Creek watershed (110200040103). The source of hydrology is predominantly groundwater discharge springs. Drainage features within the southwest empty into Black Squirrel Creek approximately 3.5 miles southeast of the project site. Drainage features within the southeast empty into Black Squirrel Creek approximately 18 miles of the project site continuing southeast until running into Chico Creek and shortly after the Arkansas River, a Water of the U.S. (WOTUS).

Using data derived from the Colorado Natural Heritage Program (CNHP), potential impacts to significant natural communities within the project site were reviewed and described below in **Table 2**.

Plant Community Type	Status	Presence and Location	Probability of Impacts
Bouteloua gracilis – Bouteloua dactyloides Grassland (Short Grass Prairie)	G4, S2	Occurs in the central and southern Great Plains on flat to rolling uplands. Surface soil may be sandy loam, loam, silt loam, or loamy clay. Characterized by a moderate to dense sod of short grasses with scattered mid grasses and forbs such as <i>Bouteloua hirsuta, Carex spp., Schizachyrium scoparium</i> , and <i>Ratibida columnifera</i> .	Likely. Community type covers the uplands within southern portion of the project site.
Carex nebrascensis Wet Meadow	G4, S4	Occurs on the western Great Plains in open meadows that occur along the margins of streambanks, flat floodplains, and lakes. Found on well-developed soil, but occurs on a wide variety of soil types that tend to be fine-textured alluvium, or clay to organic. Characterized by <i>Carex nebrascensis, Carex</i> <i>praegracilis, Calamagrostis stricta, Deschampsia cespitosa,</i> <i>Eleocharis palustris, Glyceria striata, Juncus arcticus ssp.</i> <i>littoralis, Schoenoplectus pungens</i> , or <i>Triglochin maritima</i> .	Not likely. Wetland impacts will be minimal.

1=Critically Imperiled; 2=Imperiled; 3=Rare or Uncommon; 4=Widespread, Abundant, and Apparently Secure; 5=Demonstrably Widespread, Abundant, and Secure.

#### 3.4 NOXIOUS WEEDS

Scattered concentrations of noxious weeds were found in portions of the project site. Cheatgrass (*Bromus tectorum*) and musk thistle (*Carduus nutans*) were observed in low abundance throughout the site. The project site is relatively undisturbed, however, has been historically used for grazing which is likely the source of noxious weeds within the project site.

Weed management is best achieved by employing aggressive control early on and persistent control efforts over several growing seasons. This includes direct treatments, prevention through best management practices, monitoring of treatment efficacy, and subsequent detection efforts. Weed management methods such as preventative, cultural, mechanical, biological, and chemical treatment are effective means of noxious weed control and should be considered post-construction. These methods are discussed below and recommended for the project site, where applicable.

To meet the requirements of the Colorado Noxious Weed Act weed management goals, management techniques for noxious weeds will be implemented for species listed on the CDA State Weed List included in **Appendix C**:

- List A designated for statewide eradication
- List B managed to prevent further spread and, for selected species, designated for eradication in large areas
- List C of more localized concern, but for which the State will provide education, research, and biological control assistance to jurisdictions that choose to manage the species

Chemical Treatment and Timing: Spot spray or broadcast spray with selective broadleaf herbicides such as aminopyralid, chlorsulfuron, 2,4-D, dicamba, or triclopyr. Non-selective herbicides, such as glyphosate, can also be used as a spot treatment. Great care must be taken to avoid non-target species when using glyphosate. Herbicide application rates must not exceed the rates recommended on the manufacturer's label. Adherence to state and federal laws must also be a priority. In addition, only aquatic herbicides approved to be used in water shall be used where wetlands, waters of the US, and groundwater table are present. Treat weed-infested areas at least twice per year. The first treatment should coincide with initial weed germination in the spring. Plants are most susceptible during this stage, requiring a smaller dose of herbicide and reducing the amount of chemicals released into the environment. A second treatment mid-summer will target any early season germinators missed during the first treatment, as well as late season germinators.

Mechanical Treatment and Timing: Hand pulling, chopping, mowing, and seed head collection are all effective mechanical treatments. Though labor intensive, mechanical treatments limit the number of viable seeds entering the seed bank. These efforts can be paired with chemical treatments for a multi-faceted approach to noxious weed control. Annual weeds with shallow root systems can be successfully eradicated if hand pulled early in its life cycle. Other rhizomatous perennial species are best targeted with seed head collection prior to seed maturation in mid-summer.

Cultural Treatment and Timing: Planting and/or maintaining a robust native plant community is the most effective means of noxious weed and invasive plant control. A healthy native plant community will outcompete noxious weeds for water, nutrients, and sunlight. A self-sustaining native plant community; however, is typically the end stage in restoration timeline and requires several seasons of chemical and mechanical control prior to reaching this objective. Each plant community should be visited at a minimum of once a year during the growing season to monitor for the presence of new populations of noxious weeds and other factors that may lead to the spread of noxious weeds such as flooding and erosional events.

# 3.5 WILDLIFE UTILIZATION AND PROTECTED WILDLIFE SPECIES

CPW's Species Activity Mapping (SAM) data reported the potential for 44 species including the state threatened burrowing owl, the state special concern black-tailed prairie dog, and the federally protected golden eagle to occur within the project site. These species are listed below in **Table 3** along with their type of occurrence and federal and/or state status.

Table 3 – CP\	N SAM Wildlife Potential for O	ccurrence (CPW 2022)	
Common Name	Scientific Name	Type of Occurrence	Status
Avian			
Band-tailed pigeon	Patagioenas fasciata	Breeding range	S4B
Brewer's sparrow	Spizella breweri	Breeding range	S4B
Burrowing owl	Athene cunicularia	Breeding range	ST
Cassin sparrow	Peucaea cassinii	Breeding range	n/a
Golden eagle	Aquila chrysaetos	Breeding range	BGEPA,
			S3S4B
Grasshopper sparrow	Ammodramus savannarum	Breeding range	S3S4B
Lark bunting	Calamospiza melanocorys	Breeding range	S4
Lazuli bunting	Passerina amoena	Breeding range	S5B
Lesser sandhill crane	Grus canadensis	Overall range	n/a
Northern harrier	Circus hudsonius	Breeding range	S3B
Prairie falcon	Falco mexicanus	Breeding range	S4B, S4N
Rufous hummingbird	Selasphorus rufus	Migration range	n/a
Swainson's hawk	Buteo swainsoni	Overall range	S5B
Wild turkey	Meleagris gallopavo	Overall range	n/a
Mammalian			
Big brown bat	Odocoileus hemionus	Overall range	n/a
Black bear	Ursus americanus	Overall range	n/a
		Overall range	SC, S3
Black-tailed prairie dog	Cynomys ludovicianus	Colony potential occurrence	,
Elk	Cervus elaphus	Overall range	n/a
Fringed Myotis	Myotis thysanodes	Overall range	n/a
Hoary bat	Lasiurus cinereus	Overall range	n/a
Little brown myotis	Myotis lucifugus	Overall range	n/a
Mountain lion	Puma concolor	Overall range	n/a
		Overall range	n/a
Mule deer	Odocoileus hemionus	Concentration area	., .
Olive-backed pocket mouse	Perognathus fasciatus	Overall range	n/a
Pronghorn	Antilocapra americana	Overall range	n/a
Red bat	Lasiurus borealis	Overall range	n/a
Silver-haired bat	Lasionycteris noctivagans	Overall range	n/a
White-tailed deer	Odocoileus virginianus	Overall range	n/a
White-tailed jackrabbit	Lepus townsendii	Overall range	n/a
•	Lepus townsenun	OverailTange	iiy a
Reptilian and Amphibian	Dituophic actor if a sawi	Overall research	n/a
Bullsnake	Pituophis catenifer sayi	Overall range	-
Common lesser earless lizard	Holbrookia maculate	Overall range	n/a
Greater short-horned lizard	Phrynosoma hernadesi	Overall range	n/a
Hernandez's short-horned lizard	Phrynosoma hernandesi	Overall range	n/a
Milksnake	Lampropeltis elapsoides	Overall range	n/a
Many-lined skink	Plestiodon multivirgatus	Overall range	n/a
Ornate box turtle	Terrapene ornata ornata	Overall range	n/a
Painted turtle	Chrysemys picta	Overall range	n/a
Plains garter snake	Thamnophis radix	Overall range	n/a

Prairie lizard	Sceloporus consobrinus	Overall range	n/a		
Plateau fence lizard	Sceloporus tristichus	Overall range	n/a		
Prairie rattlesnake	Crotalus viridis	Overall range	n/a		
Six-lined racerunner	Aspidoscelis sexlineata	Overall range	n/a		
Terrestrial gartersnake	Thamnophis elegans	Overall range	n/a		
Variable skink	Plestiodon multivirgatus	Overall range	n/a		
Legend: FE - Federally Endangered; FT - Federally Threatened; C - Candidate for Listing; SE - State Endangered; ST - State Threatened SC – State Species of Concern, BGEPA – Bald and Golden Eagle Protection Act, N/A - Not Listed State (S) or Global (G) CNHP Status: 1 - Critically Imperiled; 2 - Imperiled; 3 - Vulnerable; 4 - Apparently Secure, but Cause for Long Term Concern; 5 - Demonstrably Secure; B - Breeding; N - non-breeding					

Wildlife, or signs of wildlife, observed within the project site during field reconnaissance are included below in **Table 4**. Signs of wildlife include burrows, tracks, scat, etc.

Table 4 – Wildlife Species Observed within the Project Site					
Common Name	Scientific Name	Status			
Avian					
Barred owl	Strix varia	NL*			
Wild turkey	Meleagris gallopavo	NL			
Mammalian					
Northern pocket gopher	Thomomys talpoides	NL			
Amphibian					
Western tiger salamander	Ambystoma mavortium	NL			
Legend: FE - Federally Endangered; FT - Federally Threatened; FT(S/A) – Threatened due to Similarity of Appearance; C - Candidate for Listing SE - State Endangered; ST - State Threatened NL* - Not Listed, but have other regulatory protections NL - Not Listed					

A database review of potential protected species occurring within the project site and immediate vicinity was conducted. Results of the database reviews are summarized below.

CPW's 2023 Raptor Nest Database documented no raptor nests within the project site, however, one (1) active red-tailed hawk nest occurs 0.22 miles to the east. According to CPW's *Recommended Buffer Zones and Seasonal Restrictions for Colorado Raptors* (2020) attached as **Appendix D**, surface occupancy is restricted within  $\frac{1}{3}$  mile radius of active red-tailed hawk nest and human encroachment activities are restricted within  $\frac{1}{3}$  mile radius from February 15 through July 15. Two inactive stick nests were documented within a  $\frac{1}{2}$  mile radius to the project site but are likely not occupied and not raptor nests, therefore, impacts are not anticipated.

The USFWS Information, Planning, and Conservation (IPAC) online system was used to determine if any federally listed species could potentially occur in the vicinity of the project site. The IPaC Trust Resources

includes historical data for species which can result in some species findings that do not reflect current on-site conditions.

The following listed species are identified in the data report and were reviewed further to determine if there was suitable habitat within the project limits: gray wolf (*Canis lupus*), Preble's meadow jumping mouse (*Zapus hudsonius preblei*), eastern black rail (*Laterallus jamaicensis spp. Jamaicensis*), Ute Ladies'-tresses (*Spiranthes diluvialis*), and monarch butterfly (*Danaus plexippus*). Listed species in the data report that do not have suitable habitat on-site include: piping plover (*Charadrius melodus circumcintus*), whooping crane (*Grus americana*), Greenback cutthroat trout (*Oncorhynchus clarkii stomias*), pallid sturgeon (*Scaphirhynchus albus*), and Western prairie fringed orchid (*Platanthera praeclara*). No perennial features are present onsite to support water-dependent species. Additionally, the project does not involve water-related activities within the North Platte, South Platte, or Laramie River basins. The project site is not located within any USFWS-designated critical habitat. A copy of the IPaC Report is included in **Appendix E.** 

Based on field reconnaissance and database reviews, a listing of the protected species potentially occurring within the immediate vicinity of the project site has been compiled. **Table 5** lists species that may occur and their likelihood of occurrence. Likelihood of occurrence is based on actual observation of the species, signs of the species (burrows, tracks, scat, etc.), observance of suitable habitat, or documented occurrences of the species within various databases.

A Low ranking indicates that preferred habitat for that species was found within the project site, but the species has not been documented within one (1) mile of the project site. A Moderate ranking indicates that suitable habitat exists, and the species has been documented within one (1) mile of the project site. A High ranking indicates that suitable habitat exists, and the species has been documented within one (1) mile of the project site. A High ranking indicates that suitable habitat exists, and the species has been documented within one (1) mile of the project site.

Common Name	Scientific Name	Status	Documented (<1 mile)	Habitat Present	Likelihood of Occurrence		
Avian					•		
Eastern black rail	Laterallus jamaicensis ssp. jamaicensis	FT	No	No	None		
Western burrowing owl	Athene cunicularia	ST	No	Yes, foraging	Low		
Red-tailed hawk	Buteo jamaicensis	NL*	Yes	Yes; foraging	Moderate		
Barred owl	Strix varia	NL*	Yes	Yes; foraging	Moderate		
Golden eagle	Aquila chrysaetos	BGEPA	No	Yes, foraging	Low		
Mammalian							
Gray wolf	Canis lupus	FE/SE	No	No	None		
Preble's meadow jumping mouse	Zapus hudsonius preblei	FT	No	No	None		
Black-tailed prairie dog	Cynomys Iudovicianus	SC	No	Yes	Low		
Plant							
Ute ladies'- tresses orchid	Spiranthes diluvialis	FT	No	Yes	Low		
Insect							
Monarch butterfly	Danaus plexippus	С	No	No	None		
DUTTERTIY         Image: Constraint of the second seco							

Species in **bold** were observed on-site during field reconnaissance

Based on the database review and field reconnaissance, the following species could occur on-site or require additional evaluation, survey, or permitting:

#### EASTERN BLACK RAIL

Eastern black rail is a subspecies of black rail that occurs east of the Rocky Mountains in North America. Black rails are small, cryptic marsh/wetland specialists, and depend entirely upon these habitats to support their resource needs. Requires dense overhead cover (usually cattails [*Typha* 

*spp*.] or bulrushes [*Schoenoplectus / Scirpus spp*.]) and moist to saturated soils. Eastern black rails have been expanding their range in Colorado. There is no suitable habitat on the project site.

#### **BURROWING OWL**

The western burrowing owl is federally protected under the MBTA and is a state threatened avian species. This small, long-legged owl is found in grasslands, steppe landscapes, and deserts (CPW 2021). This species requires a matrix of multiple excavated dens or burrows to nest and hunt. In Colorado, burrowing owls typically occupy prairie dog (*Cynomys spp*.) burrows but can also be found in fox (*Vulpes spp*.), coyote (*Canis latrans*), badger (*Taxidea taxus*), or Wyoming ground squirrel (*Urocitellus elegans*) dens and burrows (CPW 2021). In addition to a matrix of burrows or dens, burrowing owls also require a mixture of short and medium length vegetation. The project site lacks suitable habitat such as excavated burrows and short and medium vegetation length. No burrowing owls or evidence of habitation were observed during the site visit on June 12, 2023, which is within burrowing owl nesting season. CPW has published the *Recommended Survey Protocol and Actions to Protect Nesting Burrowing Owls* (2021) included as **Appendix F.** 

#### RAPTORS

All raptors in Colorado, including the red-tailed hawk, barred owl, and golden eagle, are protected by the Migratory Bird Treaty Act (MBTA). CPW has published the *Recommended Buffer Zones and Seasonal Restrictions for Colorado Raptors* (2020), **Appendix D, that** was created to provide developers with recommended buffers to avoid impacts to raptors in Colorado. The CPW Raptor Nest Database documented one (1) active raptor nest as occurring within the restricted radii for raptors. An active red-tailed hawk nest was documented 0.22 miles east of the project site. There are no documented or observed nests for the additional raptors that have the potential to occur within the project site; however suitable foraging habitat is present.

#### **GRAY WOLF**

The gray wolf is listed as endangered by both USFWS and CPW. This adaptive species can thrive in a variety of habitats. The historical range for this species covered much of the continental United States, including Colorado. However, this species was eradicated from Colorado in the 1940's due to shooting, trapping, and poisoning. The USFWS has restored gray wolf populations in Colorado's neighboring states over the past decade and there have been occasional wolf migrants observed in Colorado. The current range is limited to a few individual animals located in north-central Colorado counties that share a border with Wyoming.

Gray wolves should be considered in the effect analysis only if the project in question has a predator management program. The proposed project does not include a predator management program; therefore, this species is not considered further as the proposed actions would not affect the species or its habitat. Block clearance areas are portions of land where Preble's meadow jumping mouse ESA precautions are no longer necessary. The project site is outside of critical habitat for this species. No suitable habitat is present within the project site; thus, no impacts to this species are anticipated.

#### PREBLE'S MEADOW JUMPING MOUSE

Preble's meadow jumping mouse is a nocturnal mouse that occupies the eastern edges of the Front Range in Colorado. Habitat for Preble's is typically comprised of well-developed riparian vegetation with adjacent, relatively undisturbed grassland communities and a nearby water source (USFWS 2018). Preble's riparian habitats are close to creeks, typically within the 100-year floodplain, and feature dense, multi-story horizontal cover of shrubs and trees with an understory of forbs and grasses. Upland habitats are usually immediately adjacent to the riparian habitats or within 300 feet of the 100-year floodplain. The USFWS has designated critical habitat, as well a block clearance area for this species.

#### **BLACK-TAILED PRAIRIE DOG**

Black-tailed prairie dogs, a State of Colorado Species of Special Concern, are considered a keystone species due to the large number of wildlife species that utilize prairie dog colonies for survival. This species inhabits the grasslands of eastern Colorado and once covered up to seven (7) million acres of land. The black-tailed prairie dog population in Colorado has seen a dramatic decline in numbers due to a host of different factors such as habitat loss, habitat fragmentation, sylvatic plague, and poisoning (NPS 2017). No active black-tailed prairie dog colonies or burrows were observed within the project site. No impacts to this species are anticipated.

#### UTE LADIES'-TRESSES ORCHID

Ute ladies'-tresses occurs near the base of the eastern slope of the Rocky Mountains in central Colorado, within the Columbia Plateau and Utah-Wyoming Rocky Mountains ecoregions in Utah, Wyoming, Idaho, and Washington, within the Northern Great Plains ecoregion in Nebraska, and within the Middle Rockies-Blue Mountains ecoregion in Montana (Fertig et al. 2005).

The species was first known to inhabit moist meadows with low vegetative cover associated with floodplains, perennial stream terraces, and oxbows (Fertig et al. 2005). With further research, it is found they also inhabit seasonally flooded river terraces, spring-fed abandoned stream channels and valleys, lakeshores, and human-modified wetlands such as canals, berms, gravel pits, barrow pits, and reservoirs (Fertig et al. 2005). Critical habitat has not been designated for the species. The species was found to occur in El Paso County, Colorado, in 1896 but has since been presumed extirpated by CNHP. The flowering period for this species is between July and September. Within the project site, the wetland drainages offer potential suitable habitat, however, the elevation of the site is higher than what is typically considered suitable for the species. Species flowering surveys are planned for July 2023; however, null results are anticipated.

#### MONARCH BUTTERFLY

The monarch butterfly is listed as a candidate by USFWS. This insect is a migratory species that can be found in North America. Monarchs breed throughout most of the United States and southern Canada and overwinter in central Mexico. The monarch butterfly requires milkweed (*Asclepias sp.*) for survival. Adult monarchs feed on the nectar of flowering milkweed, and larvae require milkweed as a host plant. No milkweed species were observed within the project site during the site visit on June 12, 2023. Consultation with USFWS under the Endangered Species Act (ESA) is not required for candidate species, like the monarch butterfly. No impacts to this species are anticipated.

# 3.6 WILDFIRE HAZARD

Wildfire risks and adequate fire protection was reviewed for the proposed development pursuant with El Paso County Development Standards for fire protection and wildfire mitigation. The project site is located in the Peyton Fire Protection District located at 13665 Railroad St, 3.80 miles from the project site. The project site additionally borders the Falcon Fire Protection District. Within this district, Fire Station 1 is located at 12072 Royal County Down Rd, 7.30 miles from the project site and Fire Station 3 is located at 7020 Old Meridian Rd, 9.70 miles from the project site.

Colorado State Forest Service's (CSFS) Wildfire Risk Assessment Portal (WRAP) was used to evaluate wildfire hazard for the Overlook project site. WRAP accounts for temperature, relative humidity, and wind speed and direction to evaluate wildfire hazards within Colorado's landscape.

This tool provides access to statewide data to be used by the public and state and local planners. According to WRAP, the wildfire risk for the project site is documented as predominantly "Low Risk" with smaller areas of "Moderate Risk" and "Lowest Risk" as shown in the wildfire risk map attached as *Figure 7*. The burn probability for the project site is rated "Moderate" as shown in the burn probability map attached as *Figure 8*.

# 3.7 FEMA FLOOD HAZARD

The project site is covered by FEMA FIRM panel (08041C0350G) dated December 7, 2018. The FEMA FIRM panels indicate the project site is within Flood Zone X, located outside of the 100-year and 50-year flood plains. A FEMA flood hazard map is attached as *Figure 9*.

# 4.0 SUMMARY OF IMPACTS

# 4.1 LAND COVER AND NATURAL COMMUNITIES

The project site is within the foothill grasslands ecoregion and contains primarily a shortgrass prairie natural community. While impacts are not expected to cause a substantial loss to this ecoregion or natural community, the shortgrass prairie community is a state-sensitive vegetation community according to CNHP (CNHP 2019). Due to the topography of the site, the eastern extent containing the ponderosa pine habitat will remain largely undisturbed. Additionally, most of the wetland habitats and natural springs will remain as key drainageways through the site. Approximately 11 drainage features were documented within the project site. The majority of these drainage features are spring-fed tributaries to Black Squirrel Creek, therefore, are potentially jurisdictional to USACE. Two (2) drainage features are mapped as wetlands by NWI, shown in *Figure 5*. The western wetland is mapped as a freshwater emergent wetland and riverine. The south-central wetland is mapped as a freshwater pond and riverine. Impacts to these wetlands from project development could require a Section 404 permit from the USACE. Impacts to aquatic resources may occur depending on project design.

#### 4.2 NOXIOUS WEEDS

Noxious weeds are present on the Project site in scattered areas but in generally limited quantities. There were no large concentrations of noxious weeds, but scattered noxious weeds were found throughout various portions of the site. It is possible that additional noxious weed populations may be present on the site. A site inventory to identify and map noxious weeds during the growing season would be required to accurately catalogue all populations on the site.

#### 4.3 WILDLIFE

While impacts to wildlife habitats are unavoidable, designated open space will aid in conserving the foothill grassland ecosystem wetland drainages. Implementation of a stormwater management plan will assist in protecting water quality in downstream reaches, which will provide additional benefits to aquatic species including amphibians and invertebrates. Detention facilities may add seasonal water features that could support additional wildlife such as waterfowl. Negligible impacts to forest species are expected as few trees will be cleared for construction and wildfire hazard reduction.

A portion of the project site will remain undisturbed due to the topography of the site, which will preserve portions of the ponderosa pine habitat along the eastern boundary. Since grasslands are the most dominant habitat type, grassland species are expected to experience the greatest adverse impacts. Deer, foxes, and bears may experience adverse effects from the increase in urbanization in close proximity to wildland areas in the greater vicinity.

No impacts are anticipated for federally or state listed threatened and endangered species. The recommended buffer zones and restrictions for Colorado raptors included as **Appendix D** will be implemented during active construction in regard to the protected raptor species observed within the vicinity of the project site.

# 4.4 WILDFIRE

According to WRAP, the wildfire risk for the project site is documented as predominantly "Low Risk" with smaller areas of "Moderate Risk" and "Lowest Risk" shown in the wildfire risk map attached as *Figure 7*. The burn probability for the project site is rated "Moderate", shown in the burn probability map attached as *Figure 8*. The Overlook project site is located within the Peyton Fire Protection District located at 13665 Railroad St, 3.80 miles from the project site. Wildfire risk and burn probability are not expected to change with development of the project site.

# 5.0 **RECOMMENDATIONS**

# 5.1 CLEAN WATER ACT

The Clean Water Act (CWA) Section 404 permitting program prohibits the discharge of dredge or fill material into WOTUS without a permit. Wetlands and surface waters within the project site are potentially jurisdictional to USACE, and thus could require permitting with USACE depending on the results of a jurisdictional determination. If deemed jurisdictional, impacts less than 0.5 acres to WOTUS typically qualify for a nationwide permit, whereas impacts greater than 0.5 acres would require an Individual Permit. It is recommended that the Applicant determine the need for Section 404 permits through coordination with USACE and obtain any necessary permits prior to beginning construction.

#### 5.2 ENDANGERED SPECIES ACT

Section 9(a)(1) of the Endangered Species Act prohibits the take of federally listed species and their habitats, and defines such take as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct" (16 U.S.C. § 1531). No listed species were observed within the project site. No impacts to any federally listed species are anticipated and further coordination is not needed at this time.

#### 5.3 MIGRATORY BIRD TREATY ACT AND BALD AND GOLDEN EAGLE PROTECTION ACT

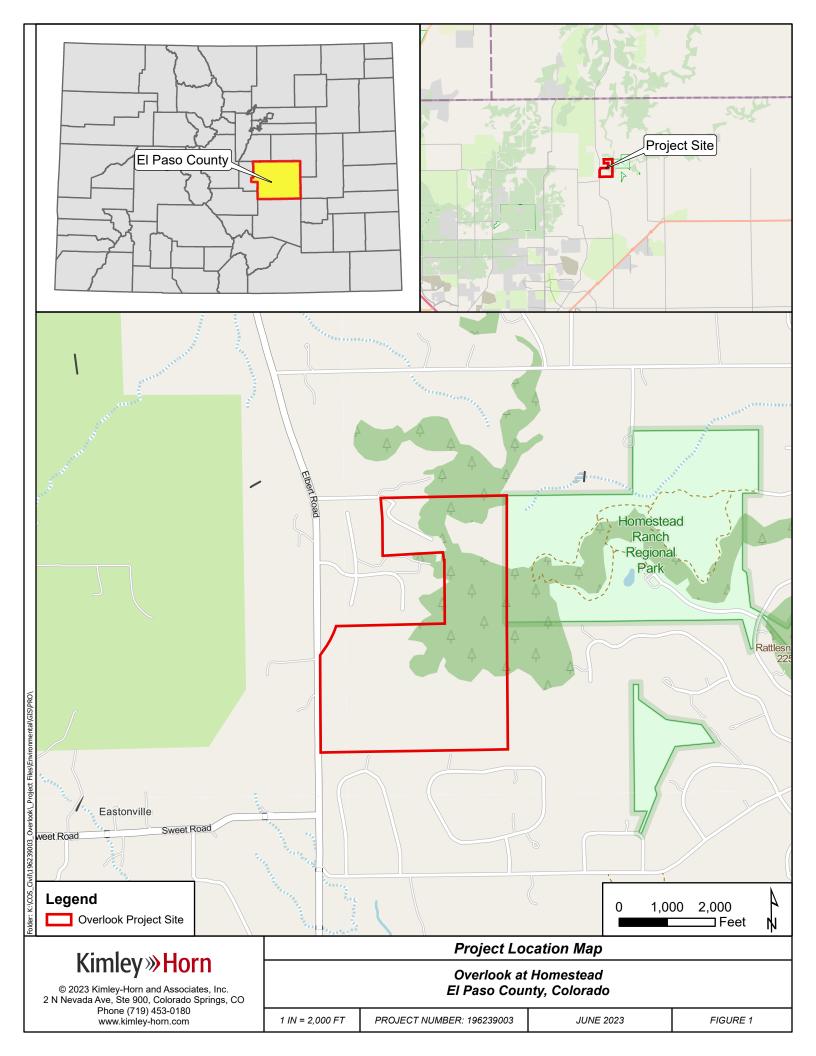
The MBTA was implemented in 1918 to provide protection to birds, including raptors, known to be endemic to the United States, Canada, Mexico, Japan, and Russia during migration. The MBTA prohibits the taking, killing, capturing, selling, trading, and transporting of protected species. The bald eagle (*Haliaeetus leucocephalus*) and golden eagle (*Aquila chrysaetos*) are additionally protected under the Bald and Golden Eagle Protection Act (BGEPA). It is recommended that vegetation clearing/grubbing of the site occur outside of the nesting season (March 15th to July 31st) to avoid disturbing nesting migratory birds. If activities are to occur within the nesting season, a migratory bird nesting survey is recommended.

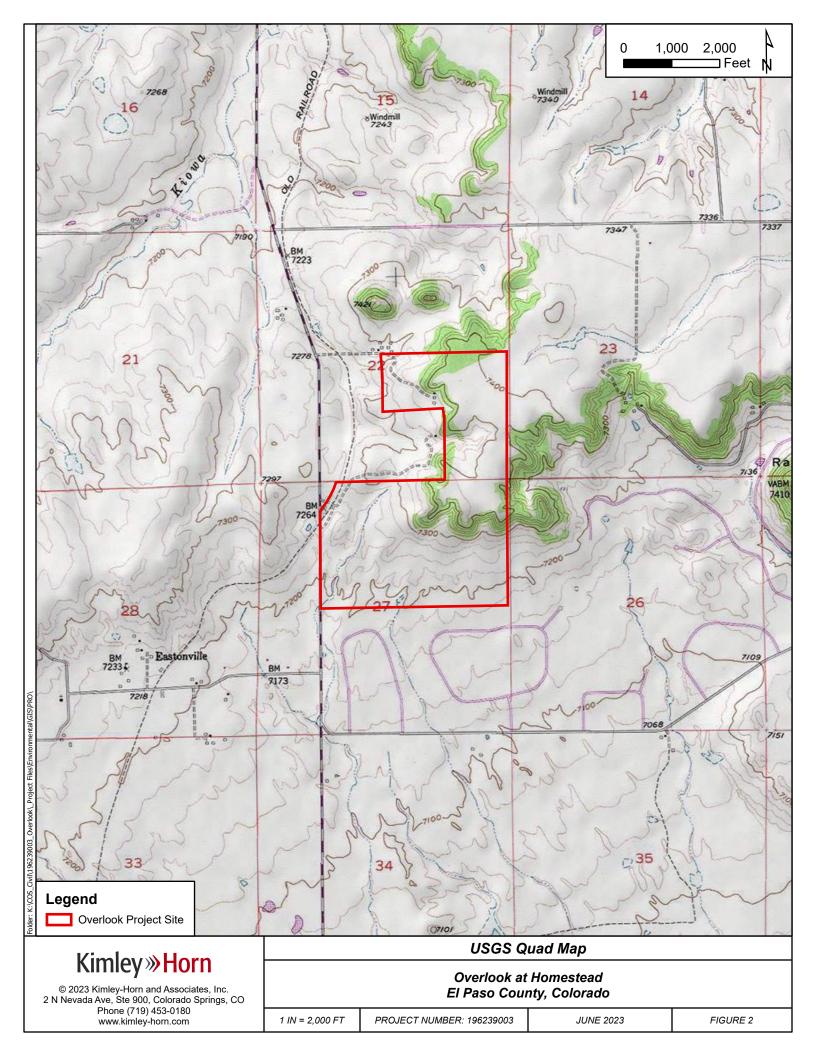
#### 5.4 COLORADO NOXIOUS WEED ACT

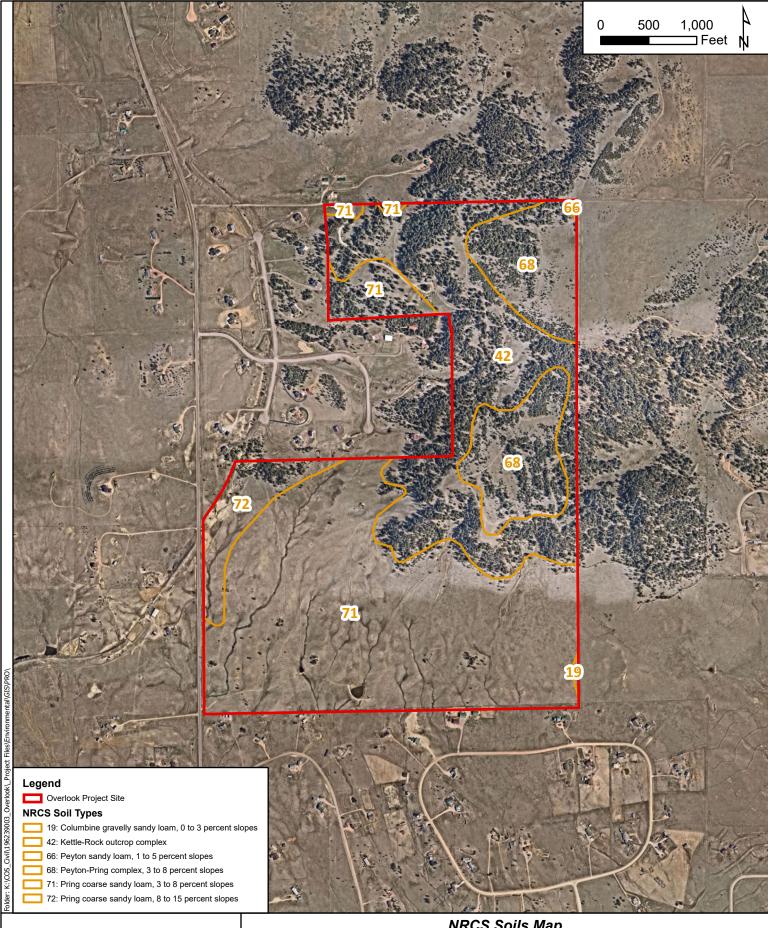
A Noxious Weed Management Plan will be prepared for the Project detailing recommendations for identifying and controlling the spread of noxious weeds prior to, during, and/or post-construction.

# 5.5 NON-STATUTORY CONSIDERATIONS

Additional potential wildlife such as big game species or migratory birds may occur within the project site, however, there are no big game migratory routes throughout the project site and the project site has little canopy cover for nesting birds. Coordination with CPW would provide further appropriate impact mitigation measures for potential wildlife during and after construction.







# Kimley »Horn

older: K:\COS\_

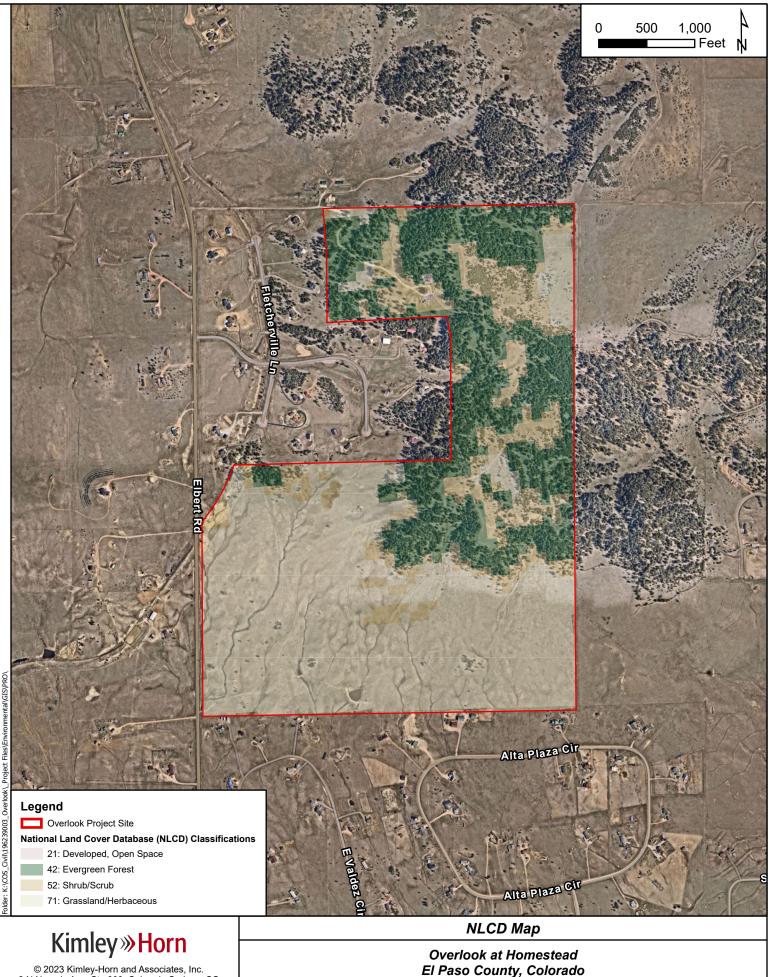
© 2023 Kimley-Horn and Associates, Inc. 2 N Nevada Ave, Ste 900, Colorado Springs, CO Phone (719) 453-0180 www.kimley-horn.com

NRCS Soils Map

# **Overlook at Homestead** El Paso County, Colorado

PROJECT NUMBER: 196239003

JUNE 2023



© 2023 Kimley-Horn and Associates, Inc. 2 N Nevada Ave, Ste 900, Colorado Springs, CO Phone (719) 453-0180 www.kimley-horn.com

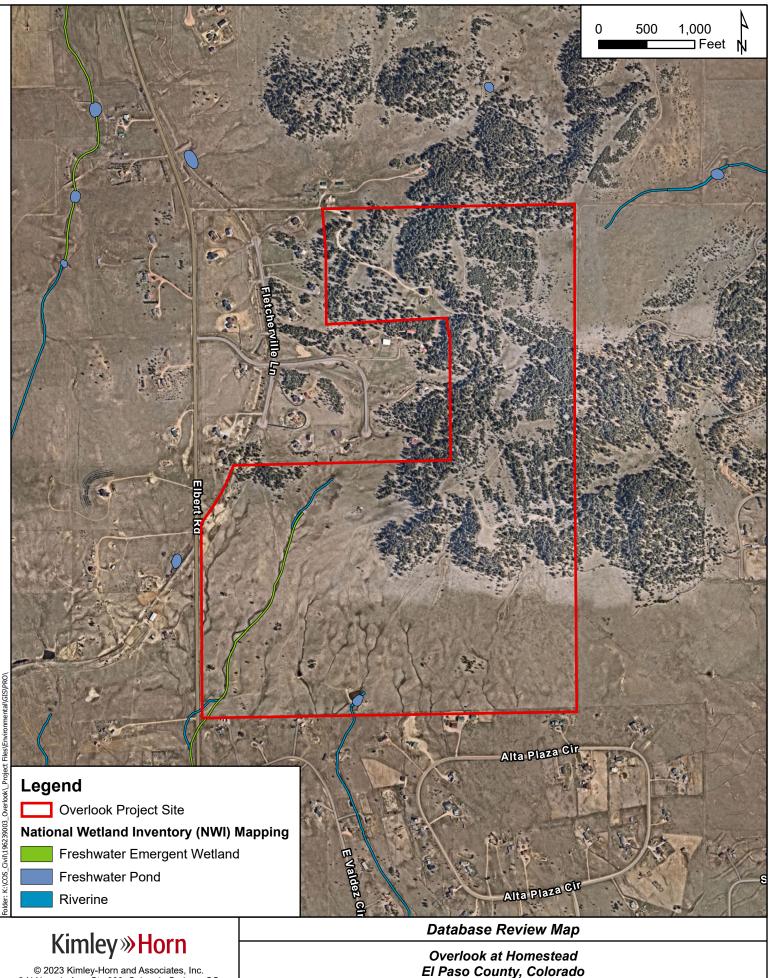
K-\COS

older.

PROJECT NUMBER: 196239003

JUNE 2023

FIGURE 4



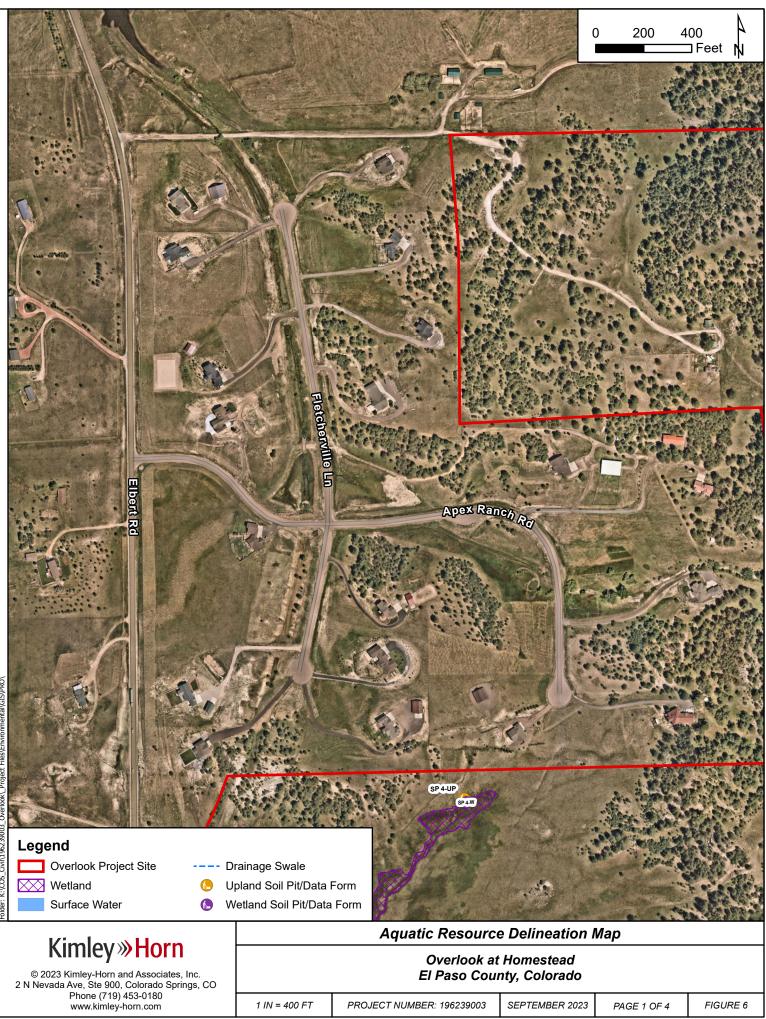
© 2023 Kimley-Horn and Associates, Inc. 2 N Nevada Ave, Ste 900, Colorado Springs, CO Phone (719) 453-0180 www.kimley-horn.com

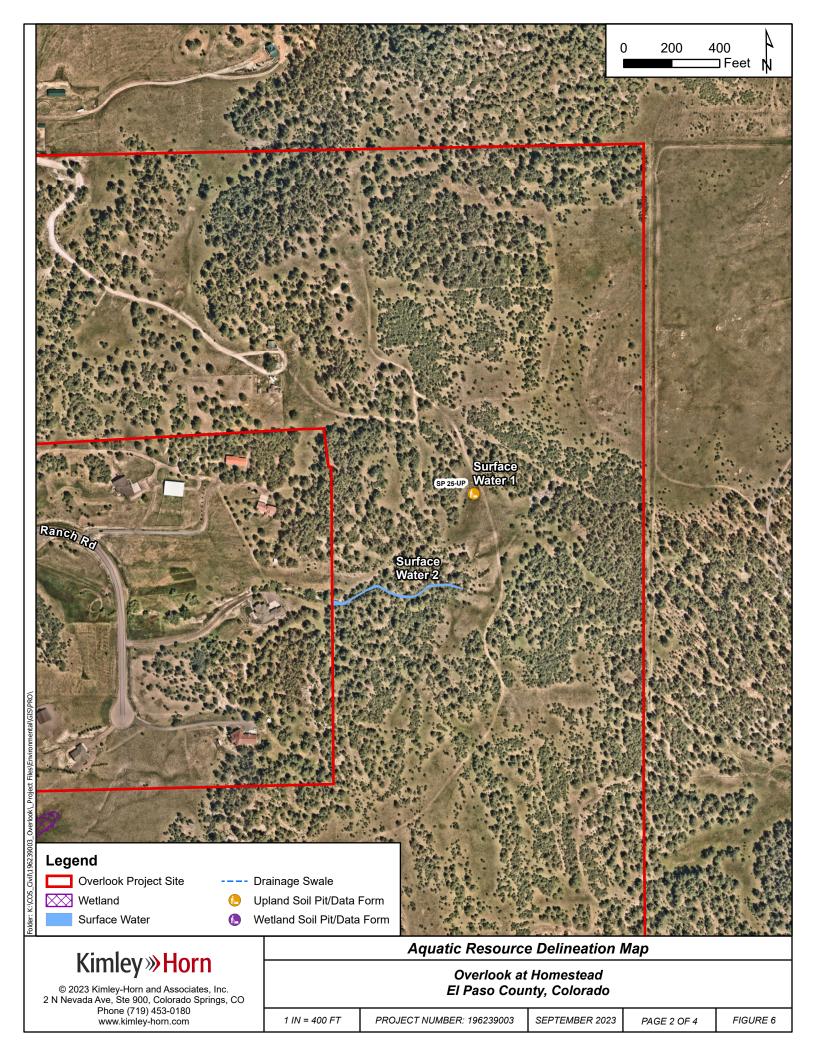
1 IN = 1,000 FT P

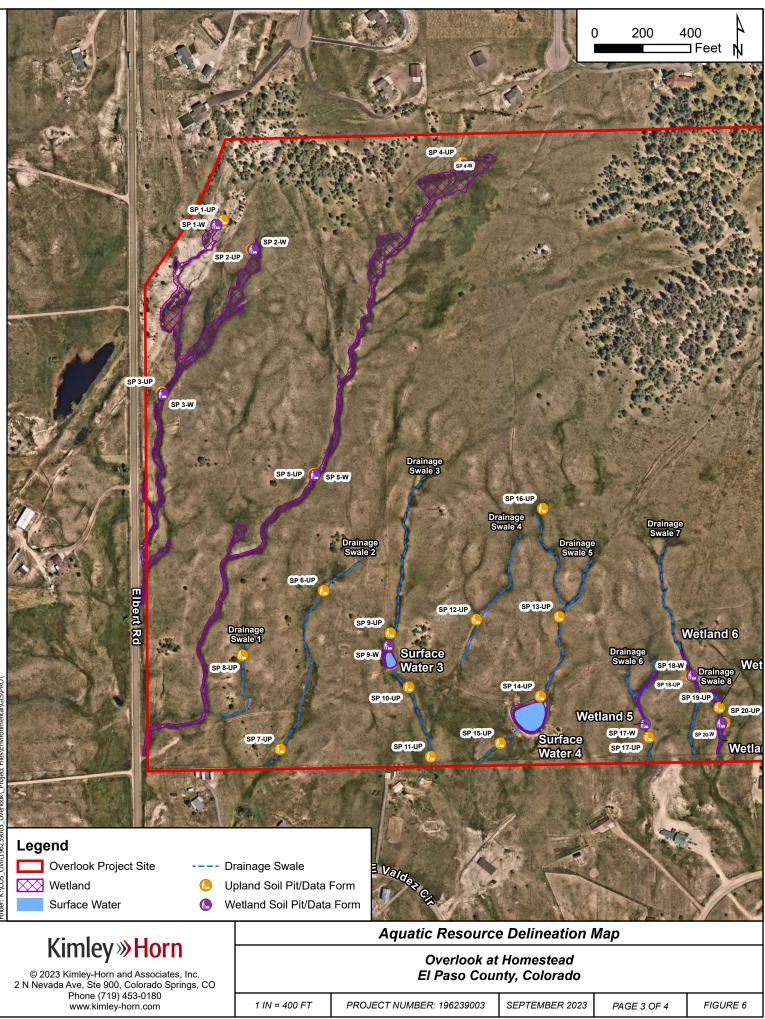
PROJECT NUMBER: 196239003

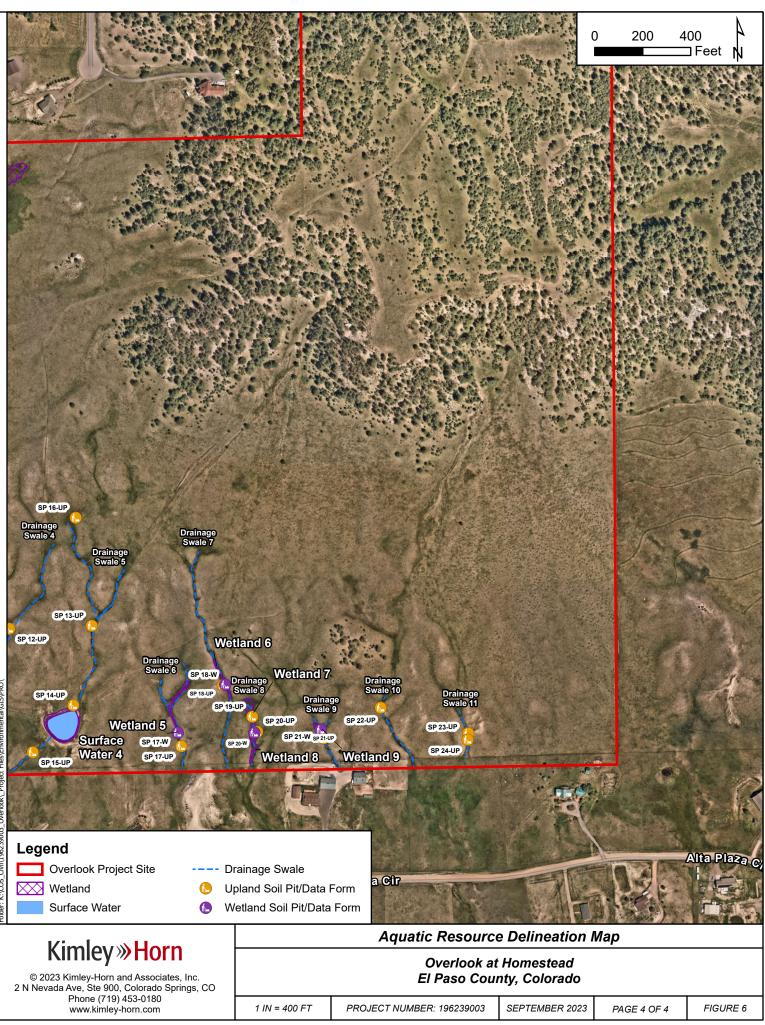
JUNE 2023

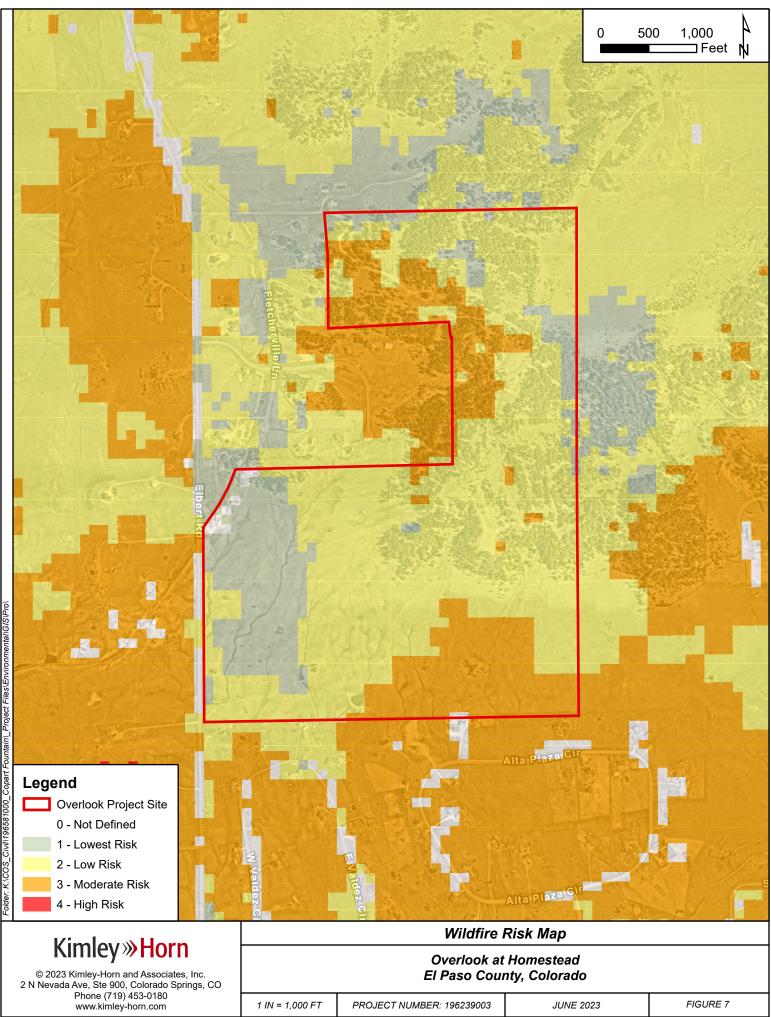
FIGURE 5

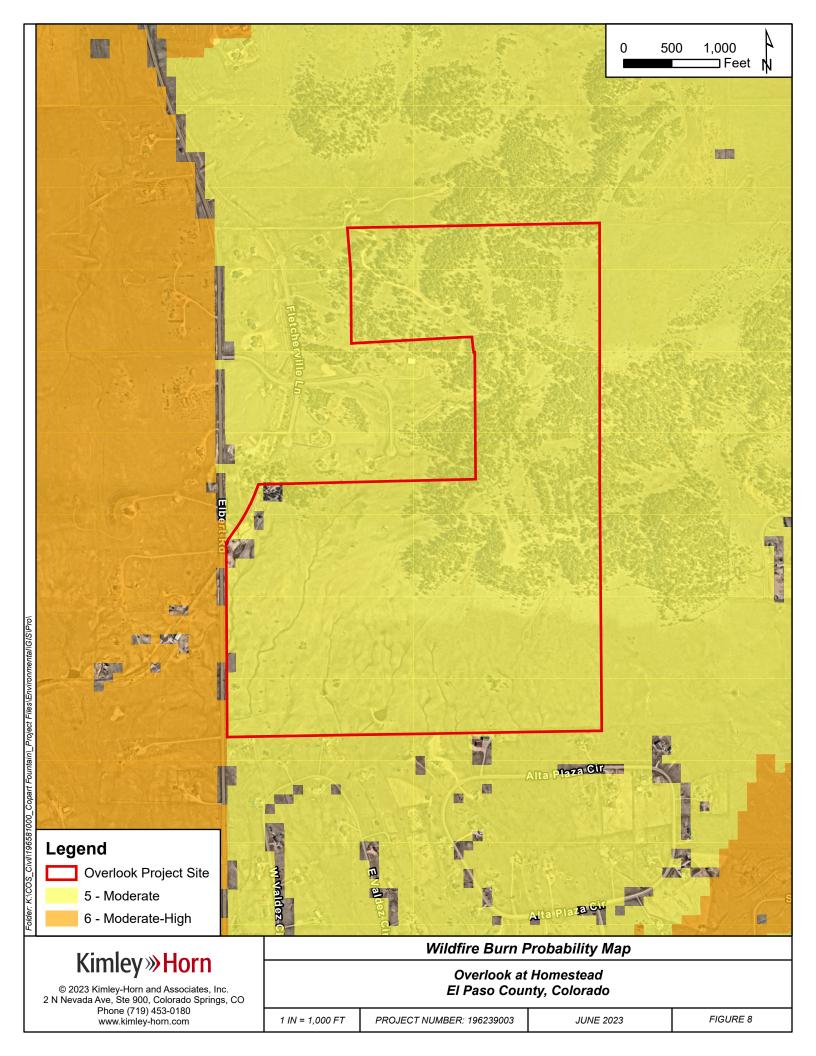


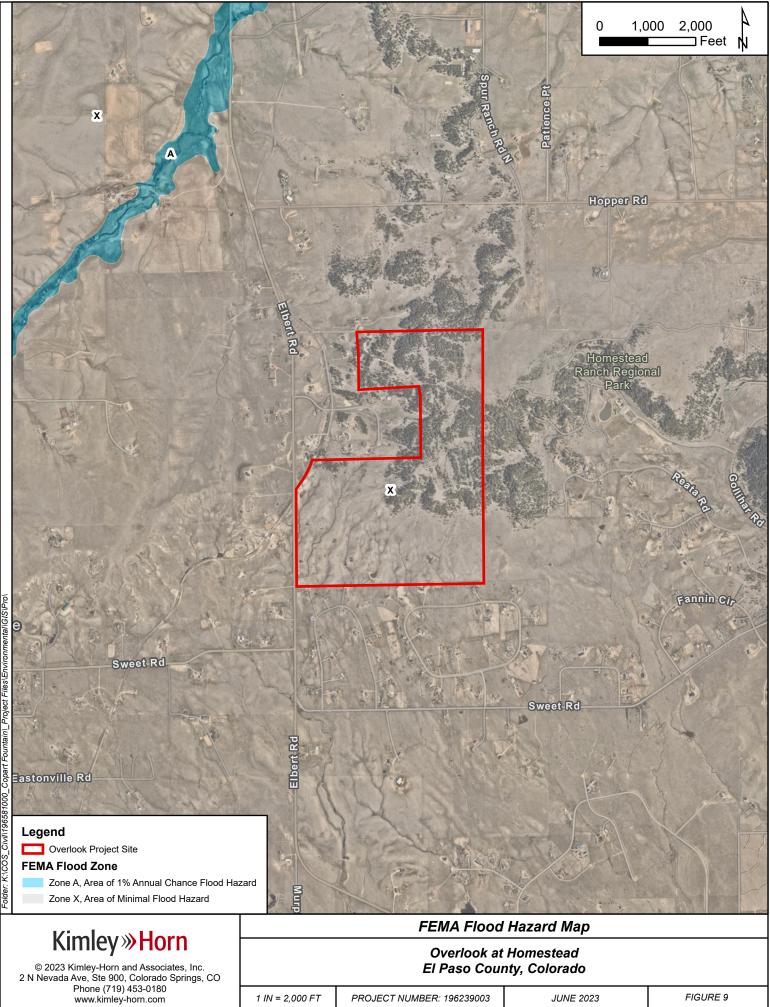












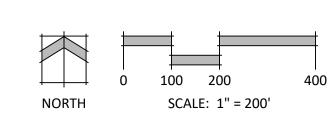
JUNE 2023

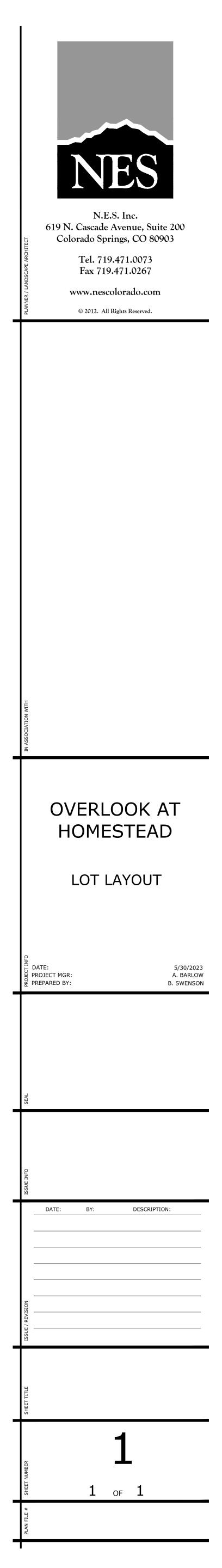
APPENDIX A

SITE PLAN



o Terra\Dooley Parcel\Drawings\Basedwg\hzdwg\Overlook\_Homestead\_LOT-LAYOUT.dwg [Layout4-30x42] 5/30/2023 4:31:15 PM bswenson





**APPENDIX B** 

AQUATIC RESOURCE DELINEATION REPORT

# **Aquatic Resource Delineation Report**

Overlook at Homestead, El Paso County, Colorado

September 22, 2023

Prepared for



PT Overlook, LLC. 1864 Woodmoor Drive, Ste 100, Monument, CO 80132

## **Kimley**»Horn

© Kimley-Horn & Associates, Inc.
 2 N. Nevada Ave, Suite 900
 Colorado Springs, Co 80903

## **Table of Contents**

1.0 Introduction
1.1 Purpose1
1.2 Project Description1
2.0 Site Description
3.0 Methodology
3.1 Literature Review
3.2 Field Data Collection
3.3 Mapping
3.4 Aquatic Feature Classification
3.5 Wetland Functional Assessment
3.6 Jurisdictional Status
4.0 Wetlands
4.1 General Landscape Description
4.2 Vegetation
4.3 Soils
4.4 Hydrology9
4.5 Wetland Functional Condition9
5.0 Surface Waters
5.1 General Landscape Description10
6.0 Wetland and Surface Water Jurisdictional Evaluation
7.0 Summary
8.0 Literature Cited

### **Figures**

Figure 1 – Project Location Map Figure 2 – USGS Map Figure 3 – Database Review Map Figure 4 – Aquatic Resource Delineation Map Figure 5 – NRCS Soils Map

### Appendices

Appendix A – Site Plan

Appendix B – Wetland Determination / Ordinary High Water Mark Data Forms

Appendix C – Site Photos

### **1.0 Introduction**

#### 1.1 Purpose

On May 15, 2023, Kimley-Horn and Associates, Inc. (Kimley-Horn) was retained by PT Overlook, LLC to conduct a delineation of the wetlands and surface waters (aquatic features) within the 350.81-acre Overlook at Homestead (Overlook) project site located east of Elbert Road within the city of Peyton, El Paso County, Colorado (see *Figure 1 – Project Location Map, Figure 2 – USGS Map*). The purpose of this report is to formally document the aquatic features present within the project site. The primary reason for this documentation is to assist with project planning and design, which is intended to maximize the avoidance of these features wherever practicable. The aquatic described in this report include all those present, not just those that may be considered jurisdictional under Section 404 of the Clean Water Act (CWA).

#### **1.2 Project Description**

The Overlook project consists of the development of approximately 350.81 acres of mostly undeveloped grassland within the surroundings of Homestead Ranch and Subdivisions. Project development consists of 62, five (5) acre residential lots with associated general site grading, roadways, and drainage improvements. The site plan is included as **Appendix A**.

#### 2.0 Site Description

The 350.81-acre project site is located in El Paso County, Colorado (see *Figure 1*). It is situated at approximately 7,300 feet above mean sea level (MSL) with hydrologic unit codes (HUC) of 10-1900100103 and 11-0200040103. It can be found on the United States Geological Survey (USGS) 7.5-minute Eastonville, Colorado quadrangle map (see *Figure 2*). It has the following coordinates (datum is NAD 83):

- Township 11S, Range 64W, Sections 22 and 27
- Universal Transversal Mercator (UTM): -46S 20556.14E, 4339202.51N
- Latitude/Longitude: 39.070199N, -104.540864W

The project site primarily consists of vacant, undeveloped grassland with undulating channels running throughout the site. The eastern portion consists of a forested ridge. The northern extent consists of a rural residential property. North of the project site is agricultural and rural residential land, to the east is Homestead Ranch Park, and to the south and west is Homestead Ranch subdivisions.

The project site is located within the Foothill Grasslands Ecoregion (26j) occurring within east-central Colorado characterized by dissected and irregular plains between 5900-7000 feet above MSL (Chapman, et al. 2006). Natural vegetation in this ecoregion includes Yellow Indiangrass (*Sorghastrum nutans*), big and little bluestem (*Andropogon gerardii* and *Schizachyrium scoparium*), switchgrass (*Panicum virgatum*), fescues (*Festuca spp.*), wheatgrass (*Pascopyrum spp.*), and sideoats grama (*Bouteloua curtipendula*) within the foothill prairies and ponderosa pine (*Pinus ponderosa*), mountain mahogany (*Cercocarpus ledifolius*), and Gambel oak (*Quercus gambelii*) within the pine woodlands. Land uses include grassland, rangeland, and scattered woodland and cropland with currently increasing urban and residential development.

The project site is within the Rocky Mountain Range and Forest Land Resource Region (LRR) and Southern Rocky Mountain Foothills Major Land Resource Area (MLRA) (NRCS 2006). This LRR is characterized by rugged mountains with some broad valleys and high plateaus. This MLRA includes the Southern Rocky Mountains and Wyoming Basin Provinces as well as sections of the Great Plains Province. The climate of this MLRA consists of an average annual precipitation of 12 to 15 inches, increasing with elevation. Most of the land in this region is privately owned grasslands and forests, with some federally owned grasslands (NRCS 2006).

#### 3.0 Methodology

#### 3.1 Literature Review

Prior to conducting the field survey, numerous sources of data were reviewed to gain an understanding of the ecology of the project site. These sources included aerial imagery, topographic maps, United States (U.S.) Fish and Wildlife (USFWS) Wetlands Mapper (USFWS 2019), U.S. Geological Survey (USGS) National Hydrography Dataset (NHD) (USGS 2023), USGS Natural Resource Conservation Service (NRCS) Web Soil Survey (NRCS 2022), other state and federal agency websites, and other relevant data.

#### 3.2 Field Data Collection

Stephen Myers, Professional Wetland Scientist and Alexis Marchando, Environmental Scientist (Kimley-Horn) surveyed the entire project site on June 26 and July 26, 2023, to identify aquatic features. These features were delineated within the defined project site using the U.S. Army Corps of Engineers (USACE) 1987 Wetland Delineation Manual and Regional Supplement: Western Mountains, Valleys, and Coast Region (Version 2.0) (USACE 2010), Guide to Ordinary High Water Mark Delineation for Non-perennial Streams in the Western Mountains, Valleys, and Coast Region of the United States (USACE 2014), and National Ordinary High Water Mark Field Delineation Manual for Rivers and Streams – Interim Version (USACE 2022).

The detailed examination of wetlands involves the collection of vegetation, soil, and hydrological data at corresponding data points. These corresponding points include one (1) point within the suspected wetland and one (1) point in the adjacent upland. However, if numerous wetlands are in close proximity and surrounded by the same or similar upland plant community, then upland data points of nearby sites are often utilized.

All hydrophytic vegetation, as well as other commonly observed species, were identified and are listed in this report. During field examinations, a list of dominant plants was compiled for each potential wetland area and was referenced to the National Wetland Plant List (NWPL) (USACE 2020) to determine the indicator status of each species. Indicator ratings are as follows (USACE 2012): obligate (OBL): almost always occur in wetlands; facultative wet (FACW): usually occur in wetlands but may occur in non-wetlands; facultative (FAC): occur in wetlands; and non-wetlands; facultative upland (FACU): usually occur in non-wetlands but may occur in wetlands; and upland (UPL): almost never occur in wetlands. If the species is not documented in the NWPL, then the indicator rating is presumed to be UPL. The indicator ratings are provided in the text of this report and follow the plant's scientific name. Generally, if at least 50 percent of those species had an indicator rating of FAC or wetter, the potential wetland area would satisfy the USACE criterion for hydrophytic vegetation. The botanical nomenclature presented in this report follows the NWPL. If a species is not listed in the NWPL, then the nomenclature follows PLANTS Database (USDA, NRCS 2018).

Soils were examined at various locations throughout the project site to identify the presence of hydric soil indicators. If indicators were found, multiple test pits may have been dug along the gradient to identify the extent of hydric soils. While recording plant species and identifying soil characteristics, potential wetlands within the project site were assessed for evidence and potential sources of wetland hydrology. This evidence consisted of primary indicators including the presence of surface water and saturation and secondary indicators including geomorphic position and drainage patterns.

Most surrounding uplands were not formally sampled or recorded on data forms and were generally examined while attempting to identify wetland areas. Data collected for all areas investigated and deemed non-wetland are not necessarily included in this report.

Delineation of the Ordinary High Water Mark (OHWM) within this region is consistent with the physical and biological signature established and maintained at the boundaries of the active channel. Delineation of the active channel signature, and thus the OHWM, is based largely on identification of three primary physical or biological indicators—topographic break in slope, change in sediment characteristics, and change in vegetation characteristics. During field examinations, the extent of the surface water within the project site is walked to determine which hydrogeomorphic units and potential OHWM indicators are present and take note of any variability in these features within the project site. A cross section of the surface water system is then conducted and documented along with OHWM indicators on the OHWM Delineation Datasheet.

#### 3.3 Mapping

After determining the extent of the aquatic features within the project site based on the information presented in **Section 3.2**, these features were recorded using a sub-meter Global Navigation Satellite System (GNSS) device.

#### **3.4 Aquatic Feature Classification**

Aquatic features in the project site were classified in accordance with the Classification of Wetlands and Deep-Water Habitats of the United States (Cowardin, et al. 1979). Three (3) Cowardin feature types are relevant to aquatic features in the project site, including palustrine emergent persistent wetland, seasonally flooded, (PEM1C) intermittent riverine streambed, temporarily flooded (R4SBA), and seasonally flooded (R4SBC), and palustrine unconsolidated shore, seasonally flooded (PUSC). PEM1C features are those with herbaceous hydrophytic or perennial plants that remain standing for most of the growing season and surface water that is typically present early in the growing season and absent by the end of it. R4SB features include wetlands contained within a channel with flowing water only part of the year. PUSC features include wetlands containing a mixture of stones and sediment and predominantly pioneer plants.

#### 3.5 Wetland Functional Assessment

A preliminary wetland functional condition assessment was completed using the concepts presented in the Functional Assessment of Colorado Wetlands (FACWet) Method (Johnson, et al. 2013). FACWet is a rapid assessment method that provides a reliable and consistent approach to rating the condition of wetlands relative to their natural potential by focusing on the presence of stressors. Stressors are human-caused changes to a wetland or adjacent lands that alter a wetland's ability to perform ecological functions and processes.

#### 3.6 Jurisdictional Status

The jurisdictional status of aquatic features is based on the USACE Jurisdictional Determination Form Instructional Guidebook (USACE 2007) and the *Revised Definition of "Waters of the United States"*; *Conforming* (USACE, EPA 2023). In order for an aquatic resource to be considered a Water of the U.S. (WOTUS) and jurisdictional under Section 404 of CWA, it must be at least one of the following:

- (a)(1) Traditional navigable waters, the territorial seas, and interstate waters
- (a)(2) Impoundments of "waters of the United States"
- (a)(3) Tributaries to traditional navigable waters, the territorial seas, interstate waters, or paragraph (a)(2) impoundments that are relatively permanent, standing or continuously flowing bodies of water
- (a)(4) Wetlands adjacent to paragraph (a)(1) waters, wetlands adjacent to relatively permanent, standing or continuously flowing bodies of water identified in paragraph (a)(2) impoundments or paragraph (a)(3) tributaries with a continuous surface connection to those waters
- (a)(5) Intrastate lakes and ponds not identified in paragraphs (a)(1) through (4) that are relatively permanent, standing or continuously flowing bodies of water with a continuous surface connection to the waters identified in paragraph (a)(1) or (a)(3).

Adjacent is defined at (c)(2) as "having a continuous surface connection".

All jurisdictional determinations are determined by the USACE office, and the reviewer assigned to a specific project. All information presented within this report is based on the best available science at the time of the field reconnaissance and report creation but is in no way meant to replace formal coordination with USACE.

#### 4.0 Wetlands

#### 4.1 General Landscape Description

The project site contains 10 wetlands totaling 4.0066 acres, situated within the southern portion of the project site (see *Figure 3 – Aquatic Resource Location Map*). They are classified according to Cowardin, et al. (1979) as PEM1C and PUS3C and according to the Hydrogeomorphic (HGM) Classification System as Depressional Wetlands (Brinson 1993). Wetlands 1-2 and 5-9 are narrow, spring-fed drainage channels that slope from north to south exiting the site through the southern boundary. Wetlands 3, 4, and 10 exist as wetland fringes surrounding excavated ponds influenced by spring and precipitation runoff.

Table 1. Wetland Types and Sizes Within the Project Site								
Feature ID	Wetland Type	Wetland Size (Ac.)	Sample Point(s)					
Wetland 1	PEM1C	1.59	SP 1-3 (UP; W)					
Wetland 2	PEM1C	2.04	SP 4-5 (UP; W)					
Wetland 3	PUS3C	0.034	SP 9 (UP; W)					
Wetland 4	PUS3C	0.11	SP 14 (UP)					
Wetland 5	PEM1C	0.046	SP 17 (UP; W)					
Wetland 6	PEM1C	0.031	SP 18 (UP; W)					
Wetland 7	PEM1C	0.057	SP 19 (UP)					
Wetland 8	PEM1C	0.072	SP 20 (UP; W)					
Wetland 9	PEM1C	0.025	SP 21 (UP; W)					
Total		4.0066	-					

Wetlands 1-9 are described in the following sections and shown on *Figure 3*. Wetland Determination Data Forms were completed at 22 locations and are included in **Appendix B**. Site photographs are included in **Appendix C**. Summaries of vegetation, soils, and wetland hydrology indicators are provided below:

#### 4.2 Vegetation

Tab	Table 2. Vegetative Characteristics of Wetland Systems Within the Project Site						
Feature ID	<b>Dominant Vegetation</b>	<b>Boundary Characteristics</b>	Other Notes				
Wetland 1	Arctic rush ( <i>Juncus arcticus</i> – FACW), slender wheatgrass ( <i>Elymus trachycaulus</i> – FACU), and fowl bluegrass ( <i>Poa palustris</i> – FACW).	Characterized by a transition in vegetation from fringed sage ( <i>Artemisia frigida</i> – UPL) and prairie junegrass ( <i>Koeleria</i> <i>macrantha</i> – UPL) to arctic rush and fowl bluegrass. Topographical breaks are gradual but distinct.	Wetland 1 exists as a spring- fed drainage feature that runs south until draining into a culvert under Elbert Rd to the west. Some areas exist as ponding at the base of head cuts. Hydric soil indicators included depleted matrix and redox dark surface.				
Wetland 2	Arctic rush, small-headed rush ( <i>Juncus brachycephalus</i> – OBL), and fowl bluegrass.	Characterized by a transition in vegetationRockyMountainpenstemon(Penstemon strictus – UPL), sticky gilia (Aliciella pinnatifida)	Wetland 2 exists as a spring- fed drainage feature that runs south until draining into a culvert under Elbert Rd to the west. Some areas exist as				

		- FAC), and prairie junegrass to	ponding at the base of head
		arctic rush and small-headed rush. Topographical breaks are gradual but distinct.	cuts. Hydric soil indicators included depleted matrix.
Wetland 3	Common three-square bulrush ( <i>Schoenoplectus</i> <i>pungens</i> – OBL), fowl bluegrass, and arctic rush.	Little to no transition in vegetation due to above average rainfall during the month of the site visit. Topographical breaks are gradual but distinct.	Wetland 3 exists as an associated wetland to a depressional, excavated pond that is fed by spring runoff from the north. Hydric soil indicators included depleted matrix.
Wetland 4	Three-square bulrush, arctic rush, fowl bluegrass, and Nebraska sedge ( <i>Carex</i> <i>nebrascensis</i> – OBL).	Characterized by a transition from prairie junegrass and common yarrow to three-square bulrush and Nebraska sedge. Topographical breaks are slightly sharp and distinct.	Wetland 4 exists as a depressional, excavated pond fed by spring runoff from the north. Hydric soil indicators included depleted matrix.
Wetland 5	Arctic rush, fowl bluegrass, Canada bluegrass ( <i>Poa</i> compressa – FACU), Reed canary grass ( <i>Phalaris</i> arundinacea – FACW), and redtop ( <i>Agrostis gigantea</i> – FACW).	Characterized by a transition in vegetation from annual ragweed ( <i>Ambrosia artemisiifolia</i> – FACU) and common yarrow ( <i>Achillea millefolium</i> – FACU) to arctic rush and Timothy canary grass. Topographical breaks are gradual but distinct.	Wetland 5 is situated within a drainage swale that runs south through the southern boundary and fed by spring runoff from the north. Hydric soil indicators included thick dark surface.
Wetland 6	Small-headed rush, arctic bluegrass ( <i>Poa arctica</i> – FACW), shortawn foxtail ( <i>Alopecurus aequalis</i> – OBL), and foxtail barley ( <i>Hordeum</i> <i>jubatum</i> – FACW).	Characterized by a transition in vegetation from fringed sage, blue grama ( <i>Bouteloua gracilis</i> – UPL), and tall goldenrod ( <i>Solidago altissima</i> – FACU) to small-headed rush and arctic bluegrass. Topographical breaks are gradual but distinct.	Wetland 6 is situated within a drainage swale than runs south through the southern boundary and fed and spring runoff from the north. Hydric soil indicators included depleted matrix.
Wetland 7	Slender wheatgrass and arctic rush.	Characterized by a transition in vegetation from blue grama and hairy false goldenaster ( <i>Heterotheca villosa</i> – UPL) to arctic rush. Topographical breaks are gradual but distinct.	Wetland 7 is situated within a drainage swale than runs south through the southern boundary and fed and spring runoff from the north. Hydric soil indicators included thick dark surface.
Wetland 8	Arctic rush, Kentucky bluegrass ( <i>Poa pratensis</i> – FACU), and wild mint ( <i>Mentha arvensis</i> – FACW).	Characterized by a transition in vegetation from blue grama, fringed sage, and Sulphur cinquefoil ( <i>Potentilla recta –</i> UPL). Topographical breaks are gradual but distinct.	Wetland 8 is situated within a drainage swale than runs south through the southern boundary and fed and spring runoff from the north. Hydric soil indicators included depleted matrix.

	Small-headed	rush	slender	Characte	rized b	v a tra	nsition in	Wetland 9 is situated within a
	wheatgrass,	N	lentucky	vegetatio			e grama,	drainage swale than runs
	bluegrass,	and	arctic	fringed	sage,	and	Sulphur	south through the southern
Wetland 9	bluegrass.			cinquefo	il to sm	all-hea	ded rush	boundary and fed and spring
				and	arctic	b	luegrass.	runoff from the north. Hydric
				Topogra	phical	brea	ks are	soil indicators included thick
				gradual l	out disti	nct.		dark surface.

#### 4.3 Soils

According to the Web Soil Survey (NRCS 2022, *Figure 4 – NRCS Soils Map*), the soils in the project site are mapped as more than half of Pring coarse sandy loam (3-8 percent slopes), with areas of Kettle-Rock outcrop complex and Peyton-Pring complex (3-8 percent slopes), and other minor components (**Table 3**).

Table 3. NRCS Soils Within the Project Site							
Map Unit Symbol	Map Unit Name	Acres within Project Site	Percent of Project Site				
19	Columbine gravelly sandy loam, 0 to 3 percent slopes	0.5	0.1				
42	Kettle-Rock outcrop complex	94.7	27.2				
66	Peyton sandy loam, 1 to 5 percent slopes	0.4	0.1				
68	Peyton-Pring complex, 3 to 8 percent slopes	55.6	16.0				
71	Pring coarse sandy loam, 3 to 8 percent slopes	179.2	51.6				
72	Pring coarse sandy loam, 8 to 15 percent slopes	17.0	4.9				
Total		350.81	100				

Major soil components greater than 10 percent of the project site are described further below.

Pring coarse sandy loam, 3 to 8 percent slopes, (51.6 percent of the project site) is commonly found on hills and is well drained. The parent material is arkosic alluvium derived from sedimentary rock. The typical profile consists of coarse sandy loam from 0 to 14 inches and gravelly sandy loam from 14 to 60 inches. Depth to water table is more than 80 inches and this soil type is not listed as hydric.

Kettle-Rock outcrop complex (27.2 percent of the project site) is commonly found on hills and is somewhat excessively drained. The parent material is sandy alluvium derived from arkose. The typical profile is gravelly loamy sand from 0 to 16 inches, gravelly sandy loam from 16 to 40 inches, and extremely gravelly loamy sand from 40 to 60 inches. Depth to water table is more than 80 inches and this soil type is not listed as hydric.

Peyton-Pring complex, 3to 8 percent slopes, (16.0 percent of the project site) is commonly found on hills and is well drained. The parent material is arkosic alluvium derived from sedimentary rock and/or arkosic residuum weathered from sedimentary rock. The typical profile for Peyton soils consists of sandy loam from 0 to 12 inches, sandy clay loam from 12 to 25 inches, and sandy loam from 25 to 60 inches. The typical profile for Pring soils consists of coarse sandy loam from 0 to 14 inches and gravelly sandy loam from 14 to 60 inches. Depth to water table is more than 80 inches and this soil type is not listed as hydric.

Soil pits excavated to 16 inches below ground surface (BGS) in Wetland 9 and 14 confirmed the presence of the Pring coarse sandy loam and revealed coarse sandy loam within the upper 16 inches. Hydric soil indicators observed in Wetland 4 and 9 included Depleted Matrix (F3) and Thick Dark Surface (A12).

#### 4.4 Hydrology

The southern project extent is located in the Chico watershed (HUC11020004) and the northern extent is located in the Kiowa watershed (HUC10190010) and Bijou watershed (HUC10190011). Hydrology flows from the eastern-central portion of the project site to the southwest with multiple natural springs making up the southern portion. Wetlands 1 and 2 drain intermittently through an unnamed system into Black Squirrel Creek approximately 3.5 miles southeast of the project site. Wetlands 3-9 lack a clear, continuous connection into an RPW. Black Squirrel Creek continues southeast until running into Chico Creek and shortly after the Arkansas River, a WOTUS.

The primary source of hydrology for the wetlands within the project site is via precipitation and aquifer influenced alluvial springs. Wetland hydrology indicators observed include Surface Water (A1), High Water Table (A2), Inundation Visible on Aerial Imagery (B7), Drainage Patterns (B10), Saturation Visible on Aerial Imagery (C9), and Geomorphic Position (D2).

#### 4.5 Wetland Functional Condition

Based on the concepts presented in the FACWet Method (Johnson, et al. 2013), the primary condition of the wetlands in the project site is "B" or "Highly Functioning." The wetlands have moderate habitat connectivity, and the source is reliant upon spring recharge and precipitation. There are few stressors present in the project site that have resulted in alterations to the system. The most substantial stressors are various detention ponds on site and residential development south of the site that have modified connectivity to downstream wetlands. Other human disturbances include proximity to Elbert Rd, as well as ditches, drain systems, diversions, and noxious weeds.

#### 5.0 Surface Waters

#### 5.1 General Landscape Description

The project site contains four (4) surface waters totaling 0.47 acres and 775 LF and 11 drainage swales totaling 6,901.49 LF (see *Figure 3 – Aquatic Resource Delineation Map*). Surface Water 1, 3, and 4 are classified according to Cowardin, et al. (1979) as PUS3Cx and according to the HGM Classification System as Depressional Wetlands (Brinson 1993). Surface Water 2 is classified according to Cowardin, et al. (1979) as R4SB4A and according to the HGM Classification System as a Riverine Wetland (Brinson 1993). Drainage Swale 1-11 do not meet the classifications according to Cowardin et al. (1979) or the HGM Classification System. The surface waters exist as alluvial springs and precipitation runoff from the east-central cliff within the project site. Drainage Swales 1-11 are predominantly dependent on precipitation as a water source.

Table 4. Surface Water Types and Sizes Within the Project Site							
Feature ID	Surface Water Type	NHD Status	Surface Water Size (AC/LF)	Sample Point(s)			
Surface Water 1	PUS3Cx	N/A	0.012/29.56	SP 25 (UP)			
Surface Water 2	R4SB4A	N/A	0.14/547.64	OHWM Form			
Surface Water 3	PUS3Cx	N/A	0.052/64.92	SP 9 (UP; W)			
Surface Water 4	PUS3Cx	Artificial Path	0.27/132.82	SP 14 (UP)			
Drainage Swale 1	N/A	N/A	312.37	SP 8 (UP)			
Drainage Swale 2	N/A	N/A	932.67	SP 6-7 (UP)			
Drainage Swale 3	N/A	N/A	1,198.16	SP 9-11 (UP)			
Drainage Swale 4	N/A	N/A	552.67	SP 12 (UP)			
Drainage Swale 5	N/A	N/A	1,397.78	SP 13, 15, 16 (UP)			
Drainage Swale 6	N/A	N/A	568.29	SP 17 (UP)			
Drainage Swale 7	N/A	N/A	913.50	SP 18 (UP)			
Drainage Swale 8	N/A	N/A	289.52	SP 19-20 (UP)			
Drainage Swale 9	N/A	N/A	235.93	SP 21 (UP)			
Drainage Swale 10	N/A	N/A	308.58	SP 22 (UP)			
Drainage Swale 11	N/A	N/A	192.02	SP 23-24 (UP)			
Total			0.47/7,676.43	-			

The surface waters are described in the following sections and shown on *Figure 4*. Wetland Determination Data Forms were completed at 12 locations and OHWM Delineation Forms were completed at one (1) location and are included in **Appendix B**. Site photographs are included in **Appendix C**. Summaries of stream condition, OHWM boundary characteristics, and vegetation are provided below:

	Table 5. Characteristics	s of Surface Water Sys	stems Within the Pr	oject Site
Feature ID	Stream Condition	OHWM Boundary Characteristics	Vegetation	Other Notes
Surface Water 1	Shallow, excavated pond with a gently sloping shore; Predominantly mud sediment composition; No pond/wetland complex present.	Characterized by gentle break in slope, Changes from sandy loam to loam sediment composition; Highly influenced by precipitation and run off.	Overstory of ponderosa pine ( <i>Pinus ponderosa</i> – UPL). Understory vegetation absent.	Surface Water 1 overflows towards the southwest to likely run into Surface Water 2 during high precipitation events. Base flows from the pond at the time of the site visit were 0 Cubic Feet per Second (CFS).
Surface Water 2	Narrow, sharply sloping channel with a narrow (<1') low flow channel; Predominantly cobbly sediment composition; single thread system; Stream/wetland complex present; distinct bedforms present.	Characterized by sharp break in slope to OHWM; cut banks below OHWM; sediment texture is predominantly cobble and sand below OHWM.	Overstory of ponderosa pine with an understory of shortawn foxtail (OBL).	Surface Water 2 flows west into a ditched feature along Apex Ranch Rd and runs north following Elbert Rd until reaching a pond north of the site. Base flows at the time of the site visit were a slight trickle.
Surface Water 3	Shallow, excavated pond with a gently sloping shore and associated wetland fringe (Wetland 3); Predominantly mud sediment composition; Pond/wetland complex present.	Characterized by gentle break in slope, Changes from clay loam to mud sediment composition; Highly influenced by precipitation and run off.	Three-square bulrush (OBL).	Surface Water 3 overflows into Drainage Swale 3. Base flows from the pond at the time of the site visit were 0 CFS.
Surface Water 4	Excavated pond with a gently sloping shore and associated wetland fringe (Wetland 4); Predominantly mud sediment composition; Pond/wetland complex present.	Characterizedbygentle break in slope,Changes from clayloam to mud sedimentcomposition;Highlyinfluencedbyprecipitation and runoff.	Three-square bulrush and fowl bluegrass (FACW).	Surface Water 4 overflows into Drainage Swale 5. Base flows from the bond at the time of the site visit were 0 CFS.

Upland Swale 1-11 (TYP.)	Narrow, gently sloping channel; Predominantly clay loam and gravel composition; single thread system; Upland Swales 3, 5, 6, 7, 8, and 9 had stream/wetland complexes; Drainage exits the south boundary of the site; No observed sediment sorting or distinct bedforms.	Characterized by gentle break in slope, Changes from gravelly sand to clay loam sediment composition, small drainage basin.	Groundcover dominated by prairie junegrass and fringed sage (UPL) with scattered fowl bluegrass and arctic rush (FACW).	Upland Swale 1-11 are primarily driven by precipitation. Hydrophytic vegetation was mixed with upland species. Hydric soil and wetland hydrology was not consistent. Base flows at the time of the site visit ranged from 0 CFS to a slight trickle.
-----------------------------------	--	--	--	--

Black Squirrel Creek is situated south of the project site running northwest to southeast. Wetland 1 and 2 likely flow into Black Squirrel Creek via a direct channel approximately 3.5 miles south of the project site. Black Squirrel Creek empties into Chico Creek approximately 45 miles south of the project site. From this junction, Chico Creek joins with the Arkansas River 12 miles south. Surface water 2 flows west meeting with a roadside ditch along Fletcherville Lane and runs north until emptying into the Kiowa Creek Watershed Y-77 Reservoir. This reservoir may exhibit downstream connections to Kiowa Creek that exists 0.75 miles to the northwest. Kiowa Creek meets with the South Platte River 90 miles north of the project site.

### 6.0 Wetland and Surface Water Jurisdictional Evaluation

Jurisdictional determination is being assessed under section 404 of the CWA and the *Revised Definition of Waters of the United States: Conforming* (USACE, EPA 2023). A jurisdictional evaluation is presented for each aquatic feature in **Table 6** below.

	Table 6. Aquatic Reso	ource Jurisdictional Evaluation
WL/SW ID	Jurisdictional Evaluation	Justification
Wetland 1	Not Likely Jurisdictional	Wetland 1 exhibits hydrophytic vegetation, hydric soil, and wetland hydrology; however, terminates into a pond east of Elbert Road and North of Sweet Road. The pond has an overflow to enter into a stream system to the south but appears to lack continuous surface connection.
Wetland 2	Not Likely Jurisdictional	Wetland 2 exhibits hydrophytic vegetation, hydric soil, and wetland hydrology; however, terminates into a pond east of Elbert Road and North of Sweet Road. The pond has an overflow to enter into a stream system to the south but appears to lack continuous surface connection.
Wetland 3	Not Likely Jurisdictional	Wetland 3 appears to terminate in uplands within the site and to lack a continuous surface connection to an RPW.
Wetland 4	Not Likely Jurisdictional	Wetland 4 appears to terminate in uplands within the site and to lack a continuous surface connection to an RPW.
Wetland 5	Not Likely Jurisdictional	Wetland 5 appears to terminate in uplands within the site and to lack a continuous surface connection to an RPW.
Wetland 6	Not Likely Jurisdictional	Wetland 6 appears to terminate in uplands within the site and to lack a continuous surface connection to an RPW.
Wetland 7	Not Likely Jurisdictional	Wetland 7 appears to terminate in uplands to the south of the site and appears to lack a continuous surface connection to an RPW.
Wetland 8	Not Likely Jurisdictional	Wetland 8 appears to terminate in uplands to the south of the site and appears to lack a continuous surface connection to an RPW.
Wetland 9	Not Likely Jurisdictional	Wetland 9 appears to terminate in uplands to the south of the site and appears to lack a continuous surface connection to an RPW.
Surface Water 1	Not Likely Jurisdictional	Surface Water 1 likely falls under exclusion (b)(5) – artificial lakes or ponds created by excavating or diking dry land that are used exclusively for such purposes as stock watering, irrigation, settling basins, or rice growing (88 FR 61964, 2023).
Surface Water 2	Not Likely Jurisdictional	Surface Water 2 exhibits an OHWM, hydrophytic vegetation, and wetland hydrology; however, terminates into a pond east of Elbert road and North of Fletcherville Lane. The pond has an overflow to enter into a stream system to the north but appears to lack continuous surface connection.
Surface Water 3	Not Likely Jurisdictional	Surface Water 3 likely falls under exclusion (b)(5) – artificial lakes or ponds created by excavating or diking dry land that

		are used exclusively for such purposes as stock watering, irrigation, settling basins, or rice growing (88 FR 61964, 2023).
Surface Water 4	Not Likely Jurisdictional	Surface Water 4 likely falls under exclusion (b)(5) – artificial lakes or ponds created by excavating or diking dry land that are used exclusively for such purposes as stock watering, irrigation, settling basins, or rice growing (88 FR 61964, 2023).
Drainage Swale 1- 11	Not Likely Jurisdictional	Drainage Swale 1-11 appear to be ephemeral, lack an OHWM, and lack a continuous surface connection to an RPW.

#### 7.0 Summary

On May 15, 2023, Kimley-Horn and Associates, Inc. (Kimley-Horn) was retained by PT Overlook, LLC to conduct a delineation of the wetlands and surface waters (aquatic features) within the 350.81-acre Overlook at Homestead project site located east of Elbert Road within the city of Peyton, El Paso County, Colorado (see *Figure 1 – Project Location Map*, *Figure 2 – USGS Map*). The purpose of this report is to formally document the aquatic features present within the project site.

The results of this aquatic resource investigation conclude that nine (9) wetlands totaling 4.01 acres, four (4) surface waters totaling 0.47 acres, and 11 drainage swales totaling 6,901.5 LF are present within the project site (see *Figure 3 – Aquatic Resource Delineation Map*). Based on onsite observations, the water source of the surface water and wetland features is predominantly precipitation and some contributions from alluvial springs. The aquatic resources within the site appear to lack a continuous surface connection to an RPW and thus are not likely jurisdictional (**Table 6**). Jurisdictional determination was assessed under section 404 of the CWA and the *Revised Definition of Waters of the United States; Conforming* (USACE, EPA 2023).

A request for Jurisdictional Determination (JD) through the USACE Pueblo Regulatory Office has been completed and will be submitted with this report to determine if the aquatic resources within the project site would be jurisdictional to USACE and therefore require Section 404 permitting for aquatic resource impacts associated with development.

#### 8.0 Literature Cited

Chapman, SS, Griffith, GE, Omernik, JM, Price, AB, Freeouf, J, and Schrupp, DL. 2006. *Ecoregions of Colorado* (color poster with map, descriptive text, summary tables, and photographs): Reston, Virginia, U.S. Geological Survey (USGS) (map scale 1:1,200,000).

Cowardin, LM, Carter, V, Golet, FC, and LaRoe, ET. 1979. *Classification of Wetlands and Deepwater Habitats of the United States*. U.S. Department of the Interior (DOI), U.S. Fish and Wildlife Service (USFWS), FWS/OBS-79/31.

Department of the Army, U.S. Army Corps of Engineers (USACE), Department of Defense; and Environmental Protection Agency (EPA). 2023. *Revised Definition of "Waters of the United States"; Conforming*, 88 Fed. Reg. 3004-3144. (Final rule Sept 8, 2023) (to be codified at 33 CFR 328 and 40 CFR 120).

Johnson, B, Beardsley, M, and Doran, J. 2013. *The Functional Assessment of Colorado Wetlands (FACWet) Method.* Version 3.0. Prepared for the Colorado Department of Transportation DTD Applied Research and Innovation Branch.

Natural Resources Conservation Service (NRCS). 2006. *Land Resource Regions and Major Land Resource Areas of the United States, the Caribbean, and the Pacific Basin*. United States Department of Agriculture (USDA) Handbook 296.

NRCS. 2018. Web Soil Survey. http://websoilsurvey.nrcs.usda.gov/app/.

USACE. 2007. U.S. Army Corps of Engineers Jurisdictional Determination Form Instructional Guidebook. Prepared by US EPA.

USACE. 2008. Clean Water Act Jurisdiction Following the US Supreme Court's Decision in Rapanos v. United States & Carabell v. United States.

USACE. 2014. *Guide to Ordinary High Water Mark (OHWM) delineation for non-perennial streams in the Western Mountains, Valleys, and Coast Region of the United States.* ERDC/CRREL TR-14-13. August.

USACE. 2022. National Ordinary High Water Mark Field Delineation Manual for Rivers and Streams – Interim Version. ERDC/CRREL TR-22-26. November.

USACE. 2010. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region. ERDC/EL TR-10-3. May.

USACE. 2012. National Wetland Plant List Indicator Rating Definitions. ERDC/CRREL N-12-1.

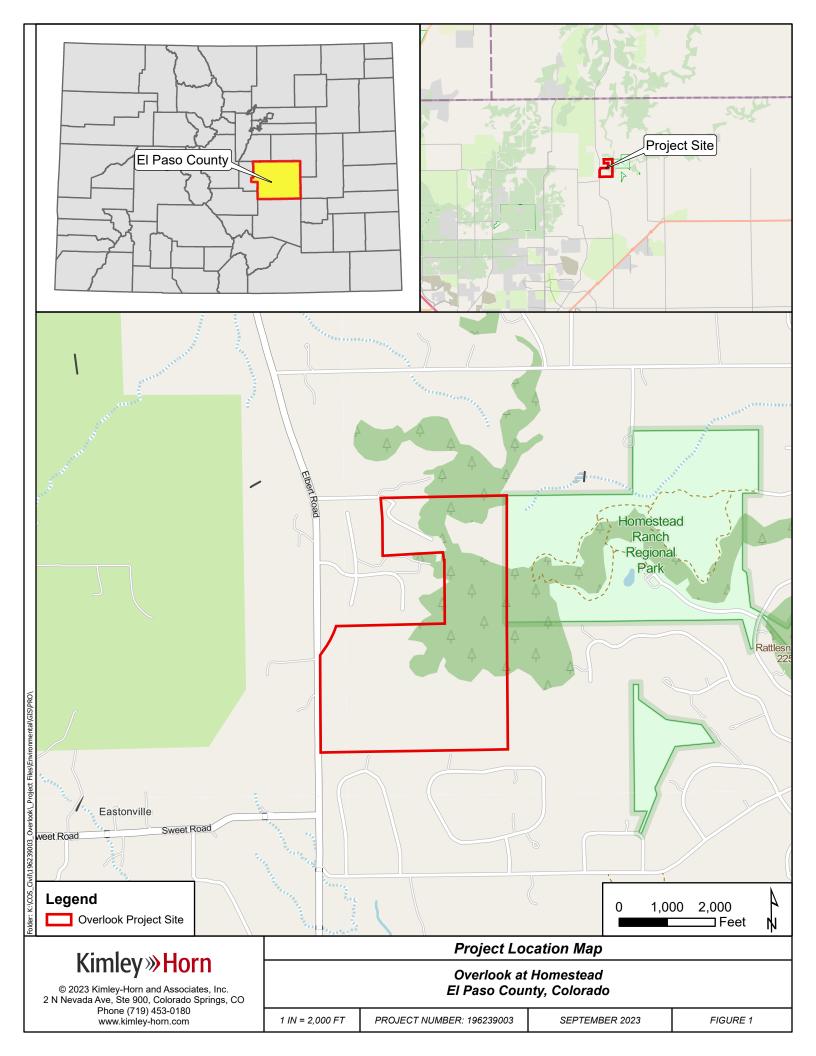
USACE. 2021. Final 2020 National Wetland Plant List. https://wetland-plants.sec.usace.army.mil/

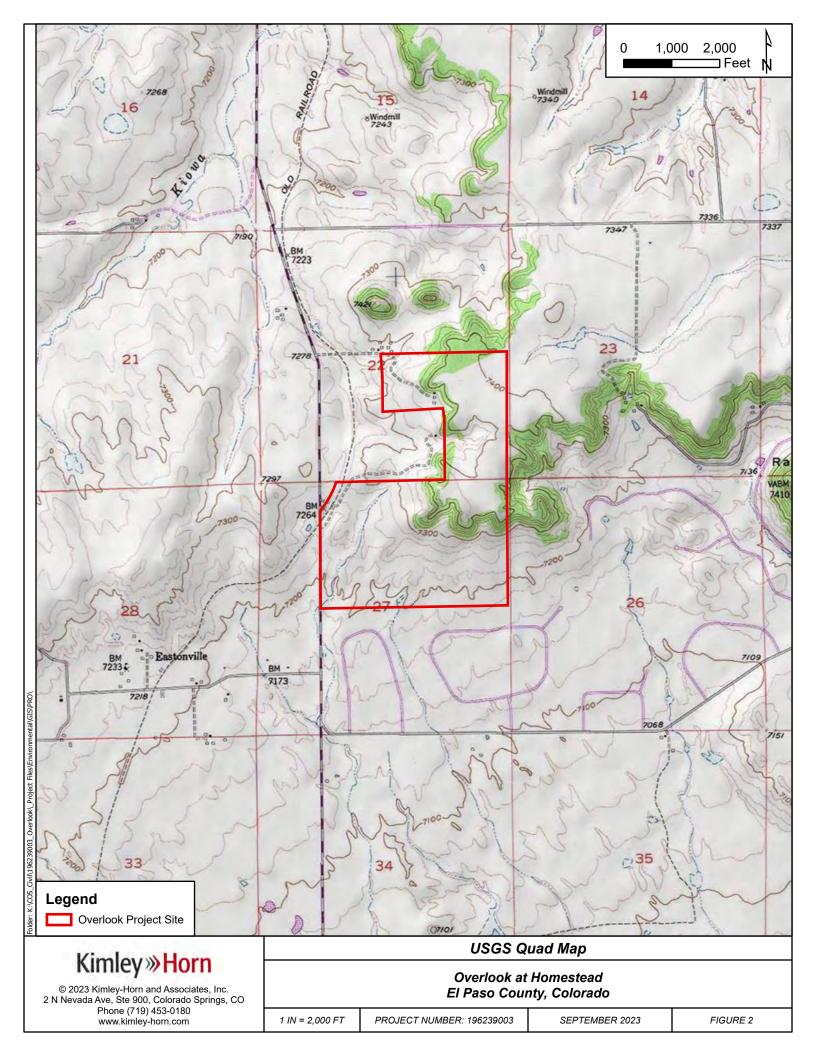
USDA, NRCS. 2022. The PLANTS Database (http://plants.usda.gov, 11/22/2022). National Plant Data Team, Greensboro, NC USA.

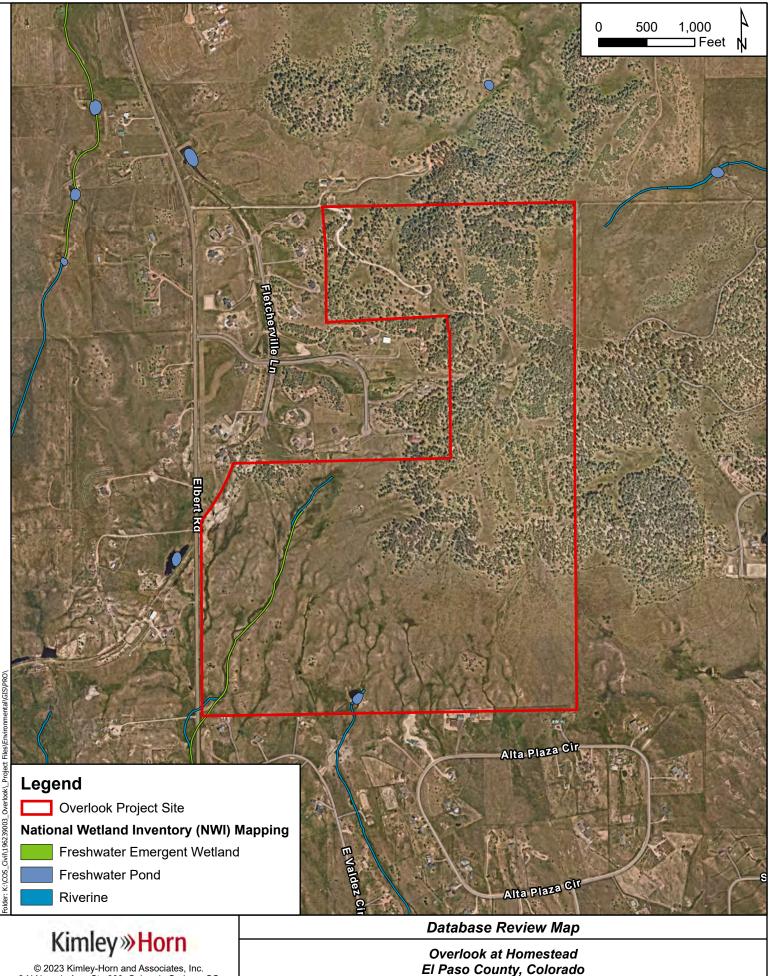
USFWS. 2022. *Wetlands Mapper*, https://www.fws.gov/wetlands/data/mapper.HTML.

## Figures

Figure 1 – Project Location Map Figure 2 – USGS Map Figure 3 – Database Review Map Figure 4 – Aquatic Resource Delineation Map Figure 5 – NRCS Soils Map







© 2023 Kimley-Horn and Associates, Inc. 2 N Nevada Ave, Ste 900, Colorado Springs, CO Phone (719) 453-0180 www.kimley-horn.com

Civil\1

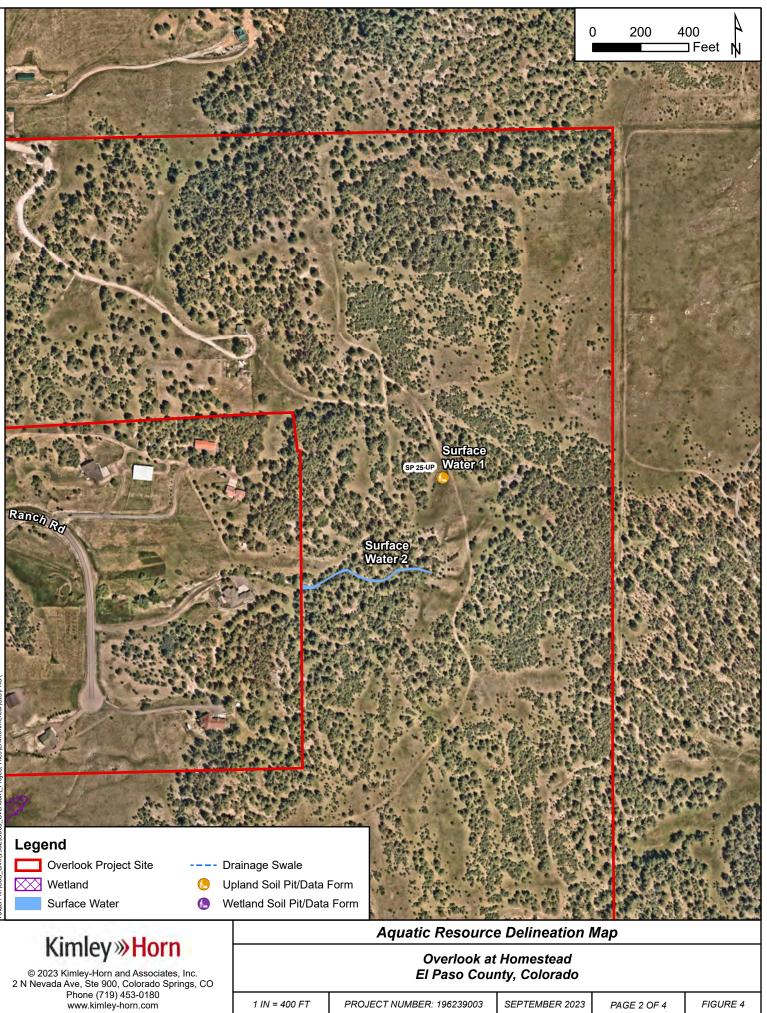
1 IN = 1,000 FT

PROJECT NUMBER: 196239003

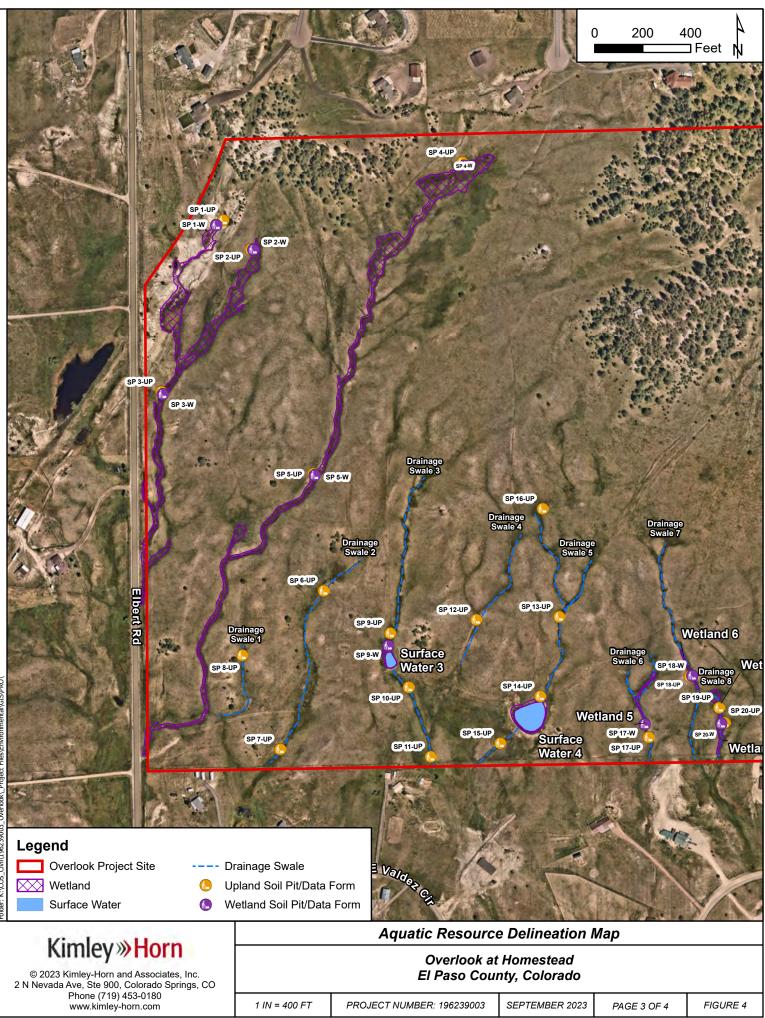
SEPTEMBER 2023

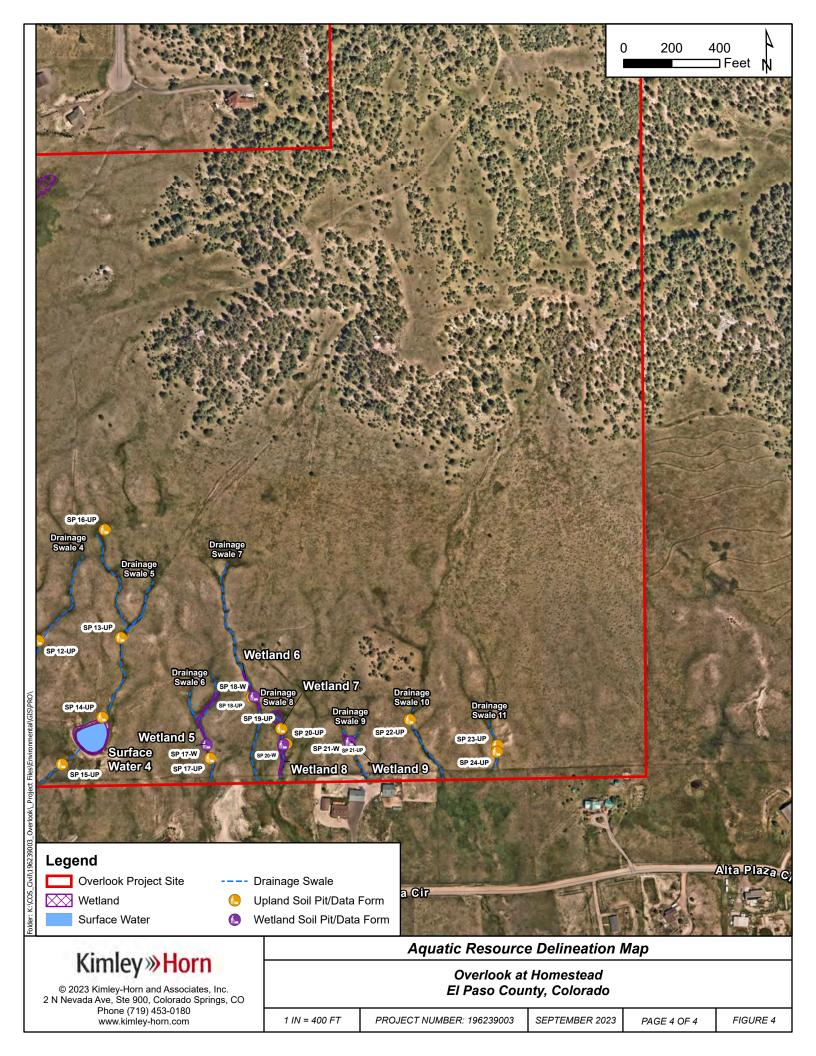
FIGURE 3

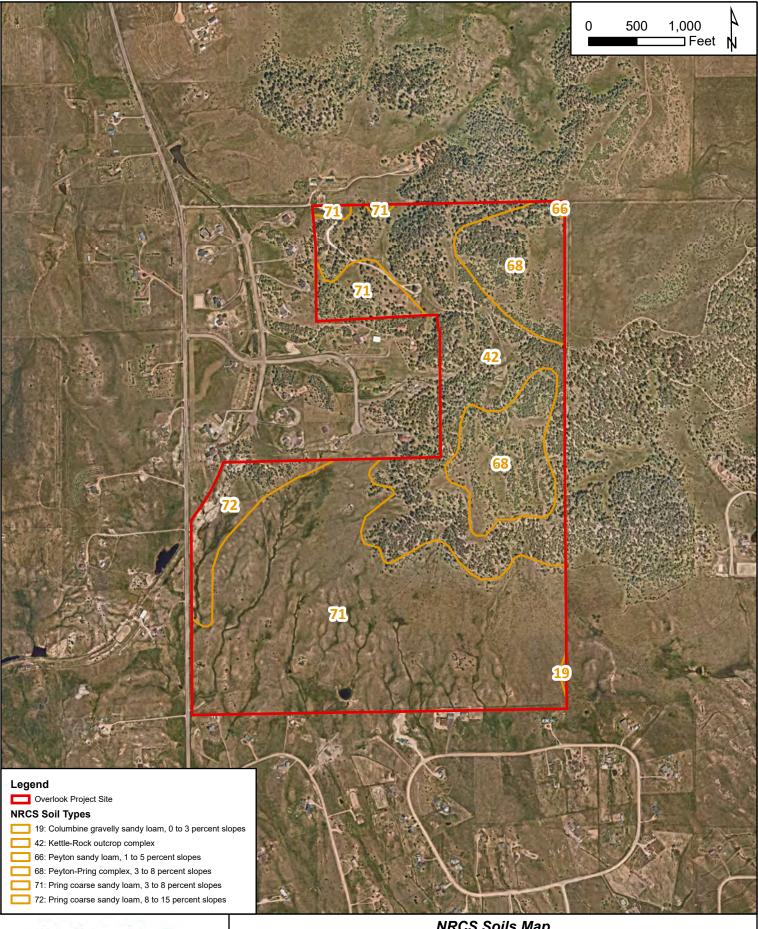




K:\COS\_Civil\196239003\_Overlook\\_Project Files\Environr







## Kimley »Horn

Civil\196239003\_Overlook\\_

older: K:\COS\_

© 2023 Kimley-Horn and Associates, Inc. 2 N Nevada Ave, Ste 900, Colorado Springs, CO Phone (719) 453-0180 www.kimley-horn.com

NRCS Soils Map

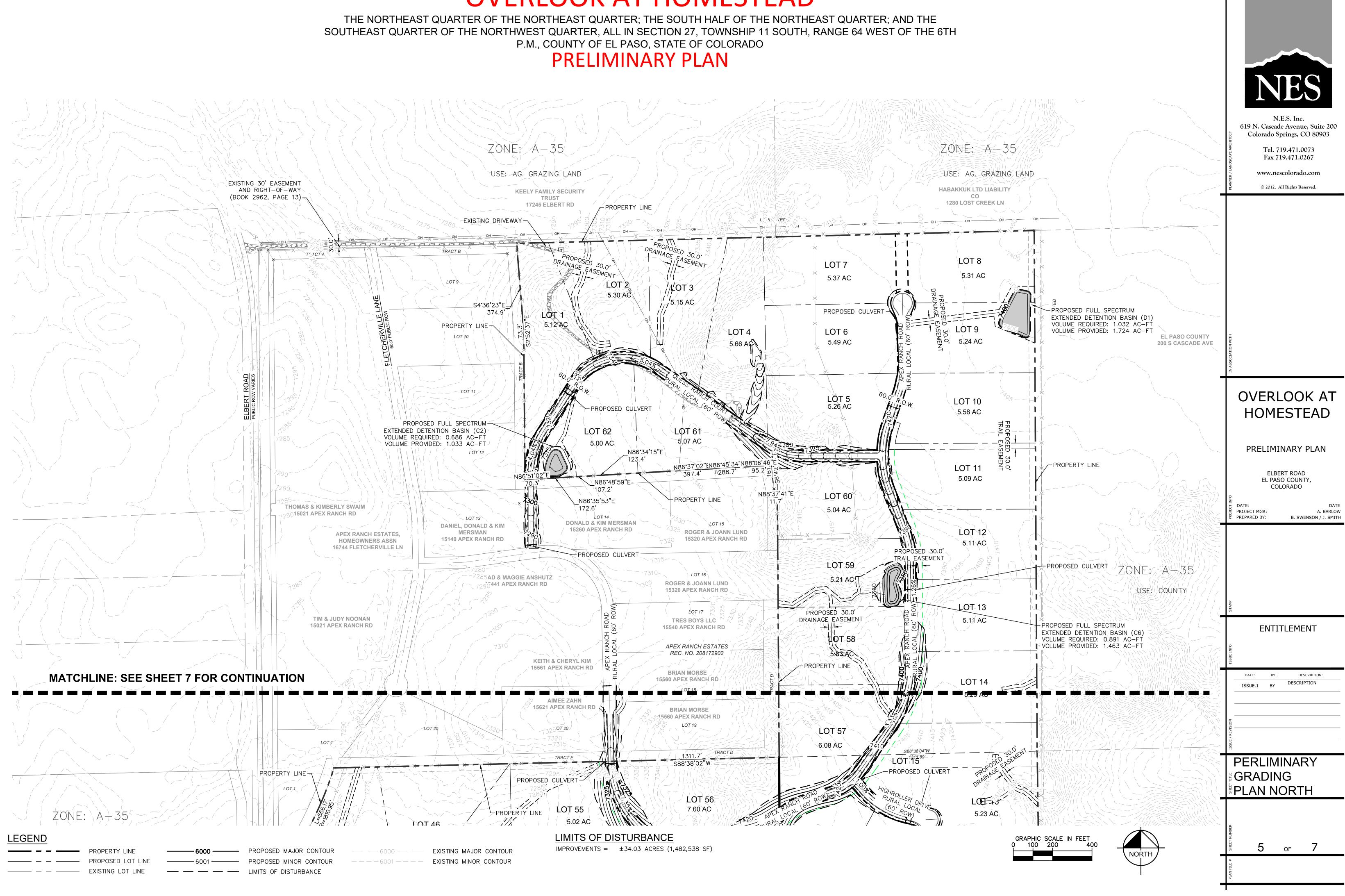
#### **Overlook at Homestead** El Paso County, Colorado

1 IN = 1,000 FT

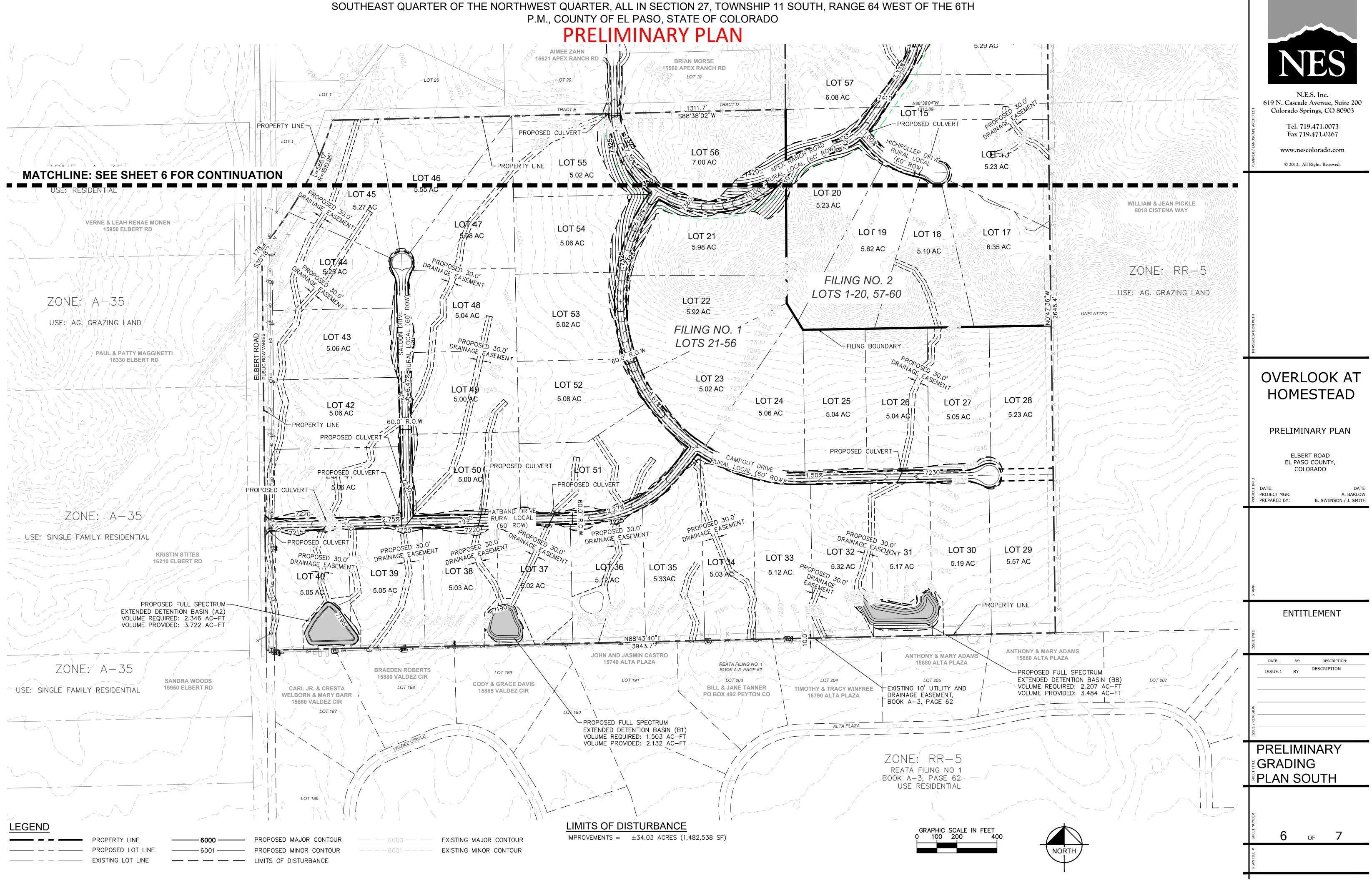
PROJECT NUMBER: 196239003

SEPTEMBER 2023

Appendix A Site Plan



# **OVERLOOK AT HOMESTEAD**



# **OVERLOOK AT HOMESTEAD**

THE NORTHEAST QUARTER OF THE NORTHEAST QUARTER; THE SOUTH HALF OF THE NORTHEAST QUARTER; AND THE

Appendix B Wetland Determination / Ordinary High Water Mark Data Forms

Ĵ	<i>c</i>	WETLAND [	DETE

#### WETLAND DETERMINATION DATA FORM -- Great Plains Region

Project/Site: Overlack			City/County:	Peylo	n/11 Paso Sampling Date: 6/96/93			
Applicant/Owner:				Ų	State: <u>CO</u> Sampling Point: <u>SP 1-UP</u>			
Investigator(s): <u>SMAM</u> Section, Township, Range: <u>27, TIIS, RG4W</u>								
Landform (hillslope, terrace, etc.):	lepression		Local relief	(concave,	convex, none): <u>CONCOUL</u> Slope (%): <u>O</u>			
Subregion (LRR): <u>Rocky Min</u>	Range	Lat: <u>3</u>	9.0706	341	_ Long: <u>-104.54662474</u> Datum: <u>NAO83</u>			
Soil Map Unit Name:; Orin	<u>a Coarse</u>	sandy	10am.	8-1	5NWI classification:/A			
Are climatic / hydrologic conditions on	the site typical for	this time of ye	ar? Yes	No	(If no, explain in Remarks.)			
Are Vegetation, Soil, o	r Hydrology 🔼	_ significantly	disturbed?	Are	"Normal Circumstances" present? Yes 📈 No			
Are Vegetation _ $$ , Soil _ $$ , o	r Hydrology	naturally pro	blematic?	(lf ne	eeded, explain any answers in Remarks.)			
SUMMARY OF FINDINGS - A	Attach site ma	p showing	sampling	g point l	ocations, transects, important features, etc.			
Hydrophytic Vegetation Present? Yes		No			/			
Hydric Soil Present?	Yes		Is the Sample		/ /			
Wetland Hydrology Present?			with	n a Wetlai	na? YesNo <u>Y</u>			
Remarks:			<b>.</b>					
significantly above			21) ( <b>F</b> )	. 6./20	0.2.3 			
VEGETATION – Use scientifi	c names of pla							
Tree Stratum (Plot size;	)		Dominant Species?		Dominance Test worksheet:			
1					Number of Dominant Species That Are OBL, FACW, or FAC			
2					(excluding FAC-): (A)			
3					Total Number of Dominant			
4					Species Across All Strata: () (B)			
Sapling/Shrub Stratum (Plot size:			= Total Cov		Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)			
1 2					Prevalence Index worksheet:			
3.					Total % Cover of:Multiply by:			
4					OBL species x 1 =			
5					FACW species x 2 =			
			= Total Cov	er	FAC species x 3 =			
Herb Stratum (Plot size:		11		FARLS	FACU species x 4 =			
1. Poa palustris		<u> </u>		FACW				
2. Potentilla recta				OPL	Column Totals: $\underline{(A)}$ (A) $\underline{(S)}$ (B)			
3					Prevalence Index = B/A =2,5			
5					Hydrophytic Vegetation Indicators:			
6					1 - Rapid Test for Hydrophytic Vegetation			
7					2 - Dominance Test is >50%			
8					<u>V</u> 3 - Prevalence Index is ≤3.0 <sup>1</sup>			
9					4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)			
10					Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)			
Woody Vine Stratum (Plot size:	X	60	= Total Cov	er	<sup>1</sup> Indicators of hydric soil and wetland hydrology must			
woody vine Stratum         (Plot size:					be present, unless disturbed or problematic.			
2				,	Hydrophytic /			
	40		= Total Cov	er	Vegetation Present? Yes No			
Remarks:					1			

÷

÷

#### SOIL

#### Sampling Point: <u>SPL-OP</u>

Profile Desc	Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)							
Depth	Matrix			Features	·····			
<u>(inches)</u> () ・ ろ	<u>Color (moist)</u> 10 48 5/2	- <u>%</u>	Color (moist)	<u>%</u> <u>Type</u> <sup>1</sup>	Loc <sup>2</sup>	Remarks		
				<u> </u>		<u>rlay zuki</u>		
3-6	104R 5/3				·····	class rand, tore gravel		
<u>6-16</u>	104R 3/9	<u>. 202</u> _				clog sand		
· ·	104Ru/2	50%				day sand		
	104RU/4	<u>    30%                                </u>				class sand		
						i de la companya de		
		· ·····				·······		
<sup>1</sup> Type: C=Cc	Differentiation, D=Dep	letion RM=Re	educed Matrix_CS	=Covered or Coater		ains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.		
	Indicators: (Applic					Indicators for Problematic Hydric Soils <sup>3</sup> :		
Histosol				leyed Matrix (S4)		1 cm Muck (A9) (LRR I, J)		
	pipedon (A2)			edox (S5)		Coast Prairie Redox (A16) (LRR F, G, H)		
Black His	stic (A3)		Stripped	Matrix (S6)		Dark Surface (S7) (LRR G)		
Hydroge	n Sulfide (A4)		Loamy M	lucky Mineral (F1)		High Plains Depressions (F16)		
Stratified	l Layers (A5) (LRR I	F)	Loamy (	leyed Matrix (F2)		(LRR H outside of MLRA 72 & 73)		
1 cm Mu	ick (A9) ( <b>LRR F, G,</b> I	H)	Depleted	l Matrix (F3)		Reduced Vertic (F18)		
	Below Dark Surfac	e (A11)		ark Surface (F6)		Red Parent Material (TF2)		
	ark Surface (A12)			I Dark Surface (F7)		Very Shallow Dark Surface (TF12)		
	lucky Mineral (S1)			epressions (F8)		Other (Explain in Remarks)		
	lucky Peat or Peat (		·	ins Depressions (F1		<sup>3</sup> Indicators of hydrophytic vegetation and		
5 cm Mu	icky Peat or Peat (S	3) (LR <b>R</b> F)	(MLI	RA 72 & 73 of LRR	H)	wetland hydrology must be present,		
Postrictivo I	_ayer (if present):					unless disturbed or problematic.		
1	Layer (in present): Κ)1Δ							
Type:			_					
Depth (inc	ches):					Hydric Soll Present? Yes No _V		
Remarks:								
HYDROLO	GY							
	drology Indicators:							
	ators (minimum of c		heck all that apply	)		Secondary Indicators (minimum of two required)		
1	Water (A1)		Sait Crust (			Surface Soil Cracks (B6)		
1	ter Table (A2)			ertebrates (B13)		Sparsely Vegetated Concave Surface (B8)		
Saturatio	• •			Sulfide Odor (C1)		T Drainage Patterns (B10)		
	arks (B1)			Water Table (C2)		Oxidized Rhizospheres on Living Roots (C3)		
	t Deposits (B2)			hizospheres on Livir	a Roote //			
	oosits (B3)		(where n	•	ig i toota (i	Crayfish Burrows (C8)		
	t or Crust (B4)		•	f Reduced Iron (C4)	L	Saturation Visible on Aerial Imagery (C9)		
-	osits (B5)			Surface (C7)	,	Geomorphic Position (D2)		
·	on Visible on Aerial I	maden/ (97)		ain in Remarks)		FAC-Neutral Test (D5)		
	tained Leaves (B9)	mayary (Dr)		an in renders)				
Field Observ			i			Frost-Heave Hummocks (D7) (LRR F)		
		on N-	Derth (	haalt				
Surface Wate			<b>,</b> , , , , , , , , , , , , , , , , , ,	hes):	1			
Water Table I				hes):	_	· · · · · · · · · · · · · · · · · · ·		
Saturation Pr (includes can	resent? Y	es No	_ y Depth (inc	hes):	_   Wetla	and Hydrology Present? Yes No 📝		
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:								
			<b>V</b> 1 · · · · · · · ·	•••••••	,, .			
Remarks:								

14

#### WETLAND DETERMINATION DATA FORM -- Great Plains Region

	(	City/County:	Deyton	/ F1 Paso Sampling Date: 6/26/23					
Applicant/Owner:			0	State: <u>     CO        </u> Sampling Point: <u> </u>					
Investigator(s):MAIM		Section, Town	iship, Ran	ge: 27, TTIS, REUW					
Landform (hillslope, terrace, etc.): <u>cupression</u>									
Subregion (LRR): Rocky Min Range Lat: 39.07058175 Long: -104.54672642 Datum: NAD83									
Soil Map Unit Name: 172 Pring Course sandy 10am, 8-15 NWI classification: N/A									
Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)									
Are Vegetation <u>N</u> , Soil <u>N</u> , or Hydrology <u>N</u> s				lormal Circumstances" present? Yes No					
Are Vegetation, Soil, or Hydrology n	aturally pro	blematic?		ded, explain any answers in Remarks.)					
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.									
Hydrophytic Vegetation Present? Yes No Is the s				ampled Area					
	No within a Wetlan			1? Yes_√No					
Remarks:		1							
above average rainfall 6/2023									
VEGETATION – Use scientific names of plan	ts.		•						
		Dominant In Species? S		Dominance Test worksheet: Number of Dominant Species					
1.       2.				That Are OBL, FACW, or FAC (excluding FAC-): (A)					
3				Total Number of Dominant					
4				Species Across All Strata: (B)					
Sapling/Shrub Stratum (Plot size:) 1		= Total Cover	1	Percent of Dominant Species That Are OBL, FACW, or FAC:OO (A/B)					
2			ŀ	Prevalence Index worksheet:					
3				Total % Cover of:Multiply by:					
4				OBL species <u>30</u> x1 = <u>30</u>					
5				FACW species $\underline{50}$ x 2 = $\underline{100}$					
Herb Stratum (Plot size: )		= Total Cover		FAC species $10$ x 3 = $30$ FACU species $10$ x 4 = $40$					
1. Juncus acchico>	EST	./ F		FACU species         10         x4 =         40           UPL species         x5 =         10         10					
2. Potrntilla efforce		<b></b>	<u> </u>	Column Totais: $(OO)$ (A) $(A)$ (B)					
3. Tarayacum officinate	10								
4. Corex sp.			361	Prevalence Index = B/A = $2$					
5				Hydrophytic Vegetation Indicators:					
6,				1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50%					
7				$\frac{1}{\sqrt{2}}$ 3 - Prevalence Index is $\leq 3.0^{1}$					
8				4 - Morphological Adaptations <sup>1</sup> (Provide supporting					
9				data in Remarks or on a separate sheet)					
10				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)					
Woody Vine Stratum         (Plot size:)           1		= Total Cover		<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.					
2				Hydrophytic					
% Bare Ground in Herb Stratum		- Total Cover		Vegetation Present? Yes No					
Remarks:	·····								

Sampling Point: \_\_\_\_

Profile Desc	ription: (Describe	to the depth ne	eded to docum	nent the ir	ndicator o	or confirm	n the absence of indicators.)
Depth	Matrix			Features			
<u>(inches)</u>	Color (moist)	<u>%</u> Co	olor (moist)	%	Type <sup>1</sup>	_Loc <sup>2</sup>	Texture Remarks
<u>0-5</u>	10 4R 6/2						SILLY Clark
<u>Scito</u>	LOYRS/2	<u> </u>					nravel
	1048 3/3	50					Stare 1
							$\overline{\mathbf{U}}$
	:	<u> </u>					
							,
<sup>1</sup> Type: C=Ce	oncentration, D=Der	oletion, RM=Redu	iced Matrix, CS	=Covered	or Coate	d Sand Gr	irains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.
	Indicators: (Applic						Indicators for Problematic Hydric Soils <sup>3</sup> :
Histosol	(A1)		Sandy G	leyed Mat	trix (S4)		1 cm Muck (A9) (LRR I, J)
Histic Ep	oipedon (A2)		Sandy R	ledox (S5)			Coast Prairie Redox (A16) (LRR F, G, H)
	stic (A3)			Matrix (S			Dark Surface (S7) (LRR G)
	en Sulfide (A4)	-		Aucky Min			High Plains Depressions (F16)
	Layers (A5) (LRR			Gleyed Ma			(LRR H outside of MLRA 72 & 73) Reduced Vertic (F18)
	uck (A9) ( <b>LRR F, G,</b> d Below Dark Surfac		·	d Matrix (F )ark Surfa	-		Red Parent Material (TF2)
· · ·	ark Surface (A12)	2 (7.17)		d Dark Sur			Very Shallow Dark Surface (TF12)
	lucky Mineral (S1)			epression			Other (Explain in Remarks)
2.5 cm M	Mucky Peat or Peat	(S2) (L <b>RR G, H</b> )	High Pla	ins Depre	ssions (F	16)	<sup>3</sup> Indicators of hydrophytic vegetation and
5 cm Mu	ucky Peat or Peat (S	3) (L <b>RR F</b> )	(MLI	RA 72 & 7	3 of LRR	H)	wetland hydrology must be present,
							unless disturbed or problematic.
	Layer (if present):						
	water tal	<u> </u>					
Depth (in	ches): <u> </u>		···				Hydric Soil Present? Yes No
Remarks:							
HYDROLO	GY						
	drology Indicators	•		·····			
-	cators (minimum of		ck all that apply	λ			Secondary Indicators (minimum of two required)
	Water (A1)		Salt Crust		·		Surface Soil Cracks (B6)
	ater Table (A2)		Aquatic Inv	• •	s (B13)		Sparsely Vegetated Concave Surface (B8)
Saturati			Hydrogen i				$\underline{\times}$ Drainage Patterns (B10)
	larks (B1)		Dry-Seaso				Oxidized Rhizospheres on Living Roots (C3)
	nt Deposits (B2)		Oxidized R			ng Roots (	
	posits (B3)			not tilled)		-	Crayfish Burrows (C8)
	at or Crust (B4)		Presence of	of Reduce	d Iron (C4	)	Saturation Visible on Aerial Imagery (C9)
Iron Dep	posits (B5)		Thin Muck	Surface (0	27)		Geomorphic Position (D2)
<u>X</u> Inundati	on Visible on Aerial	Imagery (B7)	Other (Exp	lain in Rei	marks)		FAC-Neutral Test (D5)
Water-S	Stained Leaves (B9)						Frost-Heave Hummocks (D7) (LRR F)
Field Obser	vations:		/				
Surface Wat	er Present?	Yes No <u>V</u>	Depth (ind				
Water Table	Present?	Yes 🔟 No 💻		ches):	10.5	_	/
Saturation P		Yes No	🖌 🔤 Depth (ind	ches):		Weth	land Hydrology Present? Yes <u>\</u> No
(includes ca	pillary fringe) corded Data (strear				wioue inc	nections	if available:
Describe Re	corded Data (streah	n gauge, monitori	ng well, aerial p	motos, pre	svious ins	pecaons),	
	······						·····
Remarks:							

-----

1

Project/Site: <u>Overlook</u>	······································		City/County	: Perte	on/151 Paso Sampling Date: 6/26/83
Applicant/Owner:				<u></u>	State: CO Sampling Point: SP2-00
Investigator(s): <u> </u>			Section, Ta	wnship, Ra	ange: <u>97, TILS, RELLW</u>
Landform (hillslope, terrace, etc.): <u><math>h</math></u>	illslope		Local relief	f (concave,	convex, none): <u>COAVEX</u> Slope (%): <u>CO</u>
Subregion (LRR): <u>Rocky Me</u>	n Range	Lat: <u>.3</u> 4	1.07629	1936	_ Long: <u>-104.5462241</u> Datum: <u>NA083</u>
					NWI classification: 10/A
Are climatic / hydrologic conditions on t					
Are Vegetation <u>N</u> , Soil <u>N</u> , or					"Normal Circumstances" present? Yes
Are Vegetation <u>N</u> , Soil <u>N</u> , or	•				eeded, explain any answers in Remarks.)
				-	locations, transects, important features, etc.
Hydrophytic Vegetation Present?	Yes	No V	1_1_1	0	
Hydric Soil Present?	Yes	1		e Sampleo	nd? Yes No
Wetland Hydrology Present?	Yes		WIT	iin a wetia	NO Yes No Yes
Remarks:					
above average rain	ntau 612	202*3			
VEGETATION – Use scientific	names of pl				<u> </u>
Tree Stratum (Plot size:	)	Absolute <u>% Cover</u>	Dominant Species?		Dominance Test worksheet:
1.					Number of Dominant Species That Are OBL, FACW, or FAC
					(excluding FAC-):
2 3	/				Total Number of Dominant
4					Species Across All Strata: (B)
Sapling/Shrub Stratum (Plot size:			= Total Cov		Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
1					Prevalence Index worksheet:
3.					Total % Cover of: Multiply by:
4					OBL species x 1 =
5					FACW species x 2 =
			= Total Cov	ver	FAC species $15 \times 3 = 45$
Herb Stratum (Plot size:	)	-500 elle	1		FACU species x 4 =
1. Artemisia frigida		_ <u>- 30</u> _		DPL	UPL species $65 \times 5 = 325$
2. Koeleria madantha		2Q		<u>UPL</u>	Column Totals: <u>50</u> (A) <u>370</u> (B)
3. <u>Aliciella pinnatifid</u> 4. Castilleia minicta	<u>c</u> v	<u> </u>		FAC.	Prevalence index = $B/A = 4.6$
5. Penstemon strictus				UPL	Hydrophytic Vegetation Indicators:
6. Artenisia ludovic		$-\frac{10}{10}$		UPL	1 - Rapid Test for Hydrophytic Vegetation
7				<u> </u>	2 - Dominance Test is >50%
8					3 - Prevalence Index is <3.01
9					4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
10					Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Woody Vine Stratum (Plot size:	)	<u>50</u>	= Total Cov		<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1			<u></u>		
2					Hydrophytic Vegetation
			= Total Cov	ver	
% Bare Ground in Herb Stratum(	<u> </u>				Present? Yes No

i

#### Sampling Point: \_\_\_\_\_

•

Profile Description: (Describe to the depth ne	eded to document the indicator or	confirm the absence of indicators.}
Depth <u>Matrix</u>	Redox Features	
	olor (moist) <u>%</u> Type <sup>1</sup>	Loc <sup>2</sup> Texture Remarks
0-6 1042 1/2 100		mond 2096 gravel
<u>(12 1648 */3 100</u>		manch 30% gravel
		U
·····		
<sup>1</sup> Type: C=Concentration, D=Depletion, RM=Redu	uced Matrix_CS=Covered or Coated (	Sand Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators: (Applicable to all LRRs	· · · · · · · · · · · · · · · · · · ·	Indicators for Problematic Hydric Soils <sup>3</sup> :
Histosol (A1)	Sandy Gleyed Matrix (S4)	1 cm Muck (A9) (LRR I, J)
Histic Epipedon (A2)	Sandy Redox (S5)	Coast Prairie Redox (A16) (LRR F, G, H)
Black Histic (A3)	Stripped Matrix (S6)	Dark Surface (S7) (LRR G)
Hydrogen Sulfide (A4)	Loamy Mucky Mineral (F1)	High Plains Depressions (F16)
Stratified Layers (A5) (LRR F)	Loamy Gleyed Matrix (F2)	(LRR H outside of MLRA 72 & 73)
1 cm Muck (A9) (LRR F, G, H)	Depleted Matrix (F3)	Reduced Vertic (F18)
Depleted Below Dark Surface (A11) Thick Dark Surface (A12)	Redox Dark Surface (F6) Depleted Dark Surface (F7)	Red Parent Material (TF2) Very Shallow Dark Surface (TF12)
Sandy Mucky Mineral (S1)	Redox Depressions (F8)	Other (Explain in Remarks)
2.5 cm Mucky Peat or Peat (S2) (LRR G, H)	High Plains Depressions (F16)	
5 cm Mucky Peat or Peat (S3) (LRR F)	(MLRA 72 & 73 of LRR H	
		unless disturbed or problematic.
Restrictive Layer (if present):		
Туре: <u>N/A</u>		. / )
Depth (inches):		Hydric Soil Present? Yes No 🗶
Remarks:		2
HYDROLOGY		
Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required; che		Secondary Indicators (minimum of two required)
Surface Water (A1)	Salt Crust (B11)	Surface Soil Cracks (B6)
High Water Table (A2)	Aquatic Invertebrates (B13)	Sparsely Vegetated Concave Surface (B8)
Saturation (A3)	Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
Water Marks (B1)	Dry-Season Water Table (C2)	Oxidized Rhizospheres on Living Roots (C3)
Sediment Deposits (B2)	Oxidized Rhizospheres on Living	
Drift Deposits (B3)	(where not tilled)	Crayfish Burrows (C8)
Algal Mat or Crust (B4)	Presence of Reduced Iron (C4)	Saturation Visible on Aerial Imagery (C9)
Iron Deposits (B5)	Thin Muck Surface (C7)	Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9)	Other (Explain in Remarks)	FAC-Neutral Test (D5) Frost-Heave Hummocks (D7) (LRR F)
Field Observations:		
	Depth (inches)	
Surface Water Present? Yes No 🧷	Depth (inches):	
Saturation Present? Yes No (includes capillary fringe)	X Depth (inches):	Wetland Hydrology Present? Yes No
Describe Recorded Data (stream gauge, monitori	ng well, aerial photos, previous inspe	ctions), if available:
Remarks:		

Project/Site: Overlook		City/County:	Peuto	n/EI Paco Sampling Date:6/26/23
Applicant/Owner:			J	State: Sampling Point:
Investigator(s): Э́м Дм		Section, Tov	vnship, Rar	nge: 27, TIID, RGUIN
Landform (hillslope, terrace, etc.): <u>depression</u>		Local relief	(concave, c	convex, none): <u>CONCOV</u> Slope (%):
Subregion (LRR): <u>Rocky Mtn Range</u>	Lat: <u>3</u>	9.0702	9527	Long: -104.54618695 Datum: NAD83
Soli Map Unit Name: 71: Pring coarse sar				
Are climatic / hydrologic conditions on the site typical for this i	<u> </u>			• •
Are Vegetation, Soil, or Hydrology sig				· · · · · · · · · · · · · · · · · · ·
Are Vegetation, Soil, or Hydrology na				eded, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map s	howing	sampling	y point la	ocations, transects, important features, etc.
1				
		Is the	Sampled	
I /		withi	n a Wetlan	d? Yes_√No
Remarks:				
above average rainfall 6/2	023			
VEGETATION – Use scientific names of plants	5.			
	Absolute % Cover	Dominant Species?		Dominance Test worksheet:
1	<u>// 00/01</u>	000001		Number of Dominant Species That Are OBL, FACW, or FAC
2				(excluding FAC-): (A)
3				Total Number of Dominant
4				Species Across All Strata: (B)
<u>Sapling/Shrub Stratum</u> (Plot size:)		= Total Cove	er	Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
1 2		·		Prevalence Index worksheet:
3.				Total % Cover of:Multiply by:
4				OBL species x 1 =
5				FACW species $30$ x 2 = $60$
		= Total Cove	er	FAC species x 3 = FACU species x 4 =
Herb Stratum (Plot size:) 1. Poa Dalustris	20		FACUS	
2. Juncos arcticos		·	FACW	
3. Elymos trachycaulus	70	·	FACU	
4	_,		1 / Kathan	Prevalence Index = B/A = <u>3.4</u>
5				Hydrophytic Vegetation Indicators:
6				✓ 1 - Rapid Test for Hydrophytic Vegetation
7				2 - Dominance Test is >50%
8				3 - Prevalence Index is ≤3.0 <sup>1</sup>
9				4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
10				Problematic Hydrophylic Vegetation <sup>1</sup> (Explain)
<u>Woody Vine Stratum</u> (Plot size:) 1		= Total Cove		<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2		·		Hydrophytic
		= Total Cove	er	Vegetation Present? Yes No
Remarks:				

Depth	Matrix			x Features		<u> </u>		(		
(inches)	Color (moist)	<u>%</u> -	Color (moist)			Loc <sup>2</sup>	Texture		Remarks	
0-10-1	104R 2/	. <u>97</u> -	1048 2/8		<u> </u>	M	CL	10%	C,ravel	
		. <u> </u>				<u> </u>			Q	
				_						
				-						
	· · · · · · · · · ·							,	·····	
			· · · · ·					<u> </u>		
	ncentration, D=Dep					Sand Gra			ore Lining, M	
	ndicators: (Applic	able to all L							natic Hydric S	Soils":
Histosol (			Sandy (		ix (S4)			/luck (A9) (Ll		
Histic Epi			Sandy I		、				x (A16) (LRR	F, G, H)
Black His	n Sulfide (A4)			d Matrix (S6) Mucky Mine	-			Surface (S7) Plains Depres	• •	
	Layers (A5) (LRR F	=)		Gleyed Matr	• •				e of MLRA 72	& 73)
	ck (A9) (LRR F, G, I			d Matrix (F3			•	ed Vertic (F1		/
	Below Dark Surface		<u> </u>	Dark Surface	•		Red P	arent Materia	al (TF2)	
Thick Dat	rk Surface (A12)			d Dark Surfa	. ,				Surface (TF1	2)
	ucky Mineral (S1)			Depressions				(Explain in R		
	ucky Peat or Peat (			ains Depres:					ic vegetation	
o cm Muc	ky Peat or Peat (S	3) (LKK F)	(ML	RA 72 & 73		)			nust be prese problematic.	int,
Restrictive L	ayer (if present):								problematic,	
Туре: 🔡									1	
	hes):						Hydric Soil	Present?	Yes V	No
YDROLOG	GY rology Indicators:									
YDROLOC Wetland Hyd			check all that app	γ)					: (minimum of	two required)
YDROLOC Wetland Hyd Primary Indica Surface V	rology Indicators: ators (minimum of o Vater (A1)		<u>check all that app</u>				Seconda			two required)
YDROLOC Wetland Hyd Primary Indica Surface V	rology Indicators: ators (minimum of o Vater (A1)		Salt Crust		(B13)		<u>Seconda</u> Sur	ary Indicators face Soil Cra	cks (B6)	
YDROLOC Wetland Hyd Primary Indica Surface V X High Wat	rology Indicators: ators (minimum of o Vater (A1) er Table (A2)		Salt Crust Aquatic In	(B11)			<u>Seconda</u> Sur Spa	ary Indicators face Soil Cra	cks (B6) ted Concave	
YDROLOC Wetland Hyd Primary Indica Surface V X High Wat	rology Indicators: ators (minimum of o Vater (A1) er Table (A2) n (A3)		Salt Crust Aquatic In Hydrogen	(B11) vertebrates	r (C1)		<u>Seconda</u> Sur Spa Dra	ary Indicators face Soil Cra rsely Vegeta inage Patterr	cks (B6) ted Concave as (B10)	
YDROLOC Wetland Hyd Primary Indica Surface V High Wat Saturatio Water Ma	rology Indicators: ators (minimum of o Vater (A1) er Table (A2) n (A3)		Salt Crust Aquatic In Hydrogen Dry-Seaso	(B11) vertebrates Sulfide Odo	er (C1) ble (C2)	J Roots ((	Seconda Sur Spa Dra Oxio	ary Indicators face Soil Cra rsely Vegeta inage Patterr	cks (B6) ted Concave as (B10)	Surface (B8)
YDROLOC Wetland Hyd Primary Indica Surface V X High Wat Saturation Water Ma Sediment Drift Depo	rology Indicators: ators (minimum of o Vater (A1) er Table (A2) n (A3) arks (B1) t Deposits (B2) posits (B3)		Salt Crust Aquatic In Hydrogen Dry-Seaso Oxidized F (where	(B11) vertebrates Sulfide Odo on Water Tal Rhizosphere <b>not tilled)</b>	er (C1) ble (C2) is on Living	J Roots (C	<u>Seconda</u> Sur Spa Dra Oxio C3) (w	ary Indicators face Soil Cra rsely Vegeta inage Patterr dized Rhizos /here tilled) yfish Burrows	cks (B6) ted Concave ns (B10) pheres on Liv s (C8)	Surface (B8) ing Roots (C3)
YDROLOC Wetland Hyd Primary Indica Surface V X High Wat Saturatio Water Ma Sediment Drift Depo Algal Mat	rology Indicators: ators (minimum of o Vater (A1) er Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) : or Crust (B4)		Salt Crust Aquatic In Hydrogen Dry-Seaso Oxidized F (where I Presence	(B11) vertebrates a Sulfide Odo on Water Tal Rhizosphere <b>not tilled</b> ) of Reduced	r (C1) ble (C2) s on Living Iron (C4)	J Roots (C	<u>Seconda</u> Spa Spa Ora Oxio C3)Cra Satu	ary Indicators face Soil Cra rsely Vegeta inage Patterr dized Rhizos <b>/here tilled</b> ) yfish Burrows uration Vísibl	cks (B6) ted Concave ns (B10) pheres on Liv s (C8) e on Aerial Im	Surface (B8) ing Roots (C3)
YDROLOC         Wetland Hyd         Primary Indica         Surface V         High Wat         Saturation         Water Ma         Sediment         Drift Depo         Algal Mat         Iron Depo	rology Indicators: ators (minimum of o Vater (A1) er Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) c or Crust (B4) osits (B5)	ne required;	Salt Crust Aquatic In Hydrogen Dry-Seaso Oxidized F Presence Thin Muck	(B11) vertebrates Sulfide Odo on Water Tal Rhizosphere <b>not tilled</b> ) of Reduced : Surface (C	or (C1) ble (C2) is on Living Iron (C4) 7)	J Roots (C	<u>Seconda</u> Spa Spa Ora Oxi C3) (w Cra Satu Sec	ary Indicators face Soil Cra rsely Vegeta inage Patterr dized Rhizos / <b>here tilled</b> ) yfish Burrows uration Vísibl omorphic Pos	cks (B6) ted Concave ns (B10) pheres on Liv s (C8) e on Aerial Im sition (D2)	Surface (B8) ing Roots (C3)
YDROLOC         Wetland Hyd         Primary Indica         Surface V         High Wat         Saturation         Water Ma         Sediment         Drift Depo         Algal Mat         Iron Depo         Y Inundatio	rology Indicators: ators (minimum of o Vater (A1) er Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) c or Crust (B4) osits (B5) n Visible on Aerial I	ne required;	Salt Crust Aquatic In Hydrogen Dry-Seaso Oxidized F Presence Thin Muck	(B11) vertebrates a Sulfide Odo on Water Tal Rhizosphere <b>not tilled</b> ) of Reduced	or (C1) ble (C2) is on Living Iron (C4) 7)	J Roots (C	<u>Seconda</u> Spa Spa Ora Oxi C3) (w Cra Satu Gec FAC	ary Indicators face Soil Cra inage Patterr dized Rhizos /here tilled) yfish Burrowa uration Visibl omorphic Pos C-Neutral Tes	cks (B6) ted Concave ns (B10) pheres on Liv s (C8) e on Aerial Im sition (D2) st (D5)	Surface (B8) ing Roots (C3) agery (C9)
YDROLOC         Wetland Hyd         Primary Indica         Surface V         High Wat         Saturation         Water Ma         Sediment         Drift Depo         Algal Mat         Iron Depo         Mater-Station         Water-Station	rology Indicators: ators (minimum of o Vater (A1) er Table (A2) n (A3) arks (B1) t Deposits (B2) posits (B3) c or Crust (B4) posits (B5) n Visible on Aerial I alned Leaves (B9)	ne required;	Salt Crust Aquatic In Hydrogen Dry-Seaso Oxidized F Presence Thin Muck	(B11) vertebrates Sulfide Odo on Water Tal Rhizosphere <b>not tilled</b> ) of Reduced : Surface (C	or (C1) ble (C2) is on Living Iron (C4) 7)	J Roots (C	<u>Seconda</u> Spa Spa Ora Oxi C3) (w Cra Satu Gec FAC	ary Indicators face Soil Cra inage Patterr dized Rhizos /here tilled) yfish Burrowa uration Visibl omorphic Pos C-Neutral Tes	cks (B6) ted Concave ns (B10) pheres on Liv s (C8) e on Aerial Im sition (D2)	Surface (B8) ing Roots (C3) agery (C9)
IYDROLOC         Wetland Hyd         Primary Indica         Surface V         High Wat         Saturation         Water Ma         Sediment         Drift Depo         Algal Mat         Iron Depo         X         Inundation         Water-Sta         Field Observ	rology Indicators: ators (minimum of o Vater (A1) er Table (A2) n (A3) arks (B1) t Deposits (B2) posits (B3) c or Crust (B4) posits (B5) n Visible on Aerial I ained Leaves (B9) ations:	ine required; imagery (B7)	Salt Crust Aquatic In Hydrogen Dry-Seaso Oxidized F Presence Thin Muck ) Other (Exp	(B11) vertebrates Sulfide Odo on Water Tal Rhizosphere not tilled) of Reduced Surface (C olain in Rem	r (C1) ble (C2) s on Living Iron (C4) 7) aarks)		<u>Seconda</u> Spa Spa Ora Oxi C3) (w Cra Satu Gec FAC	ary Indicators face Soil Cra inage Patterr dized Rhizos /here tilled) yfish Burrowa uration Visibl omorphic Pos C-Neutral Tes	cks (B6) ted Concave ns (B10) pheres on Liv s (C8) e on Aerial Im sition (D2) st (D5)	Surface (B8) ing Roots (C3) agery (C9)
IYDROLOC         Wetland Hyd         Primary Indica         Surface V         High Wat         Saturation         Water Ma         Sediment         Drift Depo         Algal Mat         Iron Depo         Mater-Sta         Field Observ         Surface Wate	rology Indicators: ators (minimum of o Vater (A1) er Table (A2) n (A3) arks (B1) t Deposits (B2) posits (B3) c or Crust (B4) posits (B5) n Visible on Aerial I ained Leaves (B9) ations: r Present? Y	magery (B7	Salt Crust Aquatic In Hydrogen Dry-Seaso Oxidized F Presence Thin Muck ) Other (Exp	(B11) vertebrates Sulfide Odo on Water Tal Rhizosphere not tilled) of Reduced Surface (C olain in Rem	r (C1) ble (C2) s on Living Iron (C4) 7) aarks)		<u>Seconda</u> Spa Spa Ora Oxi C3) (w Cra Satu Gec FAC	ary Indicators face Soil Cra inage Patterr dized Rhizos /here tilled) yfish Burrowa uration Visibl omorphic Pos C-Neutral Tes	cks (B6) ted Concave ns (B10) pheres on Liv s (C8) e on Aerial Im sition (D2) st (D5)	Surface (B8) ing Roots (C3) agery (C9)
IYDROLOC         Wetland Hyd         Primary Indica         Surface V         High Wat         Saturation         Water Ma         Sediment         Drift Depa         Algal Mat         Iron Depa         Water-Sta         Field Observ         Surface Water         Surface Table F	rology Indicators: ators (minimum of o Vater (A1) er Table (A2) n (A3) arks (B1) t Deposits (B2) posits (B3) c or Crust (B4) posits (B5) n Visible on Aerial I ained Leaves (B9) ations: r Present? Y	magery (B7)	Salt Crust Aquatic In Hydrogen Dry-Seaso Oxidized F Presence Thin Muck ) Other (Exp  lo Depth (in lo Depth (in	(B11) vertebrates i Sulfide Odo on Water Tal Rhizosphere <b>not tilled</b> ) of Reduced Surface (C: olain in Rem ches): ches):	r (C1) ble (C2) s on Living Iron (C4) 7) aarks)		<u>Seconda</u> Spa Spa Ora Cra Cra Satu Satu FAC Fros	ary Indicators face Soil Cra rsely Vegeta inage Patterr dized Rhizos <b>/here tilled</b> ) yfish Burrows uration Visibl omorphic Pos S-Neutral Tes st-Heave Hui	cks (B6) ted Concave ns (B10) pheres on Liv s (C8) e on Aerial Im sition (D2) st (D5) mmocks (D7)	Surface (B8) ing Roots (C3) agery (C9)
YDROLOC         Wetland Hyd         Primary Indica         Surface V         High Wat         Saturation         Water Ma         Sediment         Drift Depo         Algal Mat         Iron Depo         Water-Sta         Field Observ         Surface Wate         Water Table F         Saturation Press	rology Indicators: ators (minimum of o Vater (A1) er Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) c or Crust (B4) osits (B5) n Visible on Aerial I ained Leaves (B9) ations: r Present? Y Present? Y	magery (B7)	Salt Crust Aquatic In Hydrogen Dry-Seaso Oxidized F Presence Thin Muck ) Other (Exp	(B11) vertebrates i Sulfide Odo on Water Tal Rhizosphere <b>not tilled</b> ) of Reduced Surface (C: olain in Rem ches): ches):	r (C1) ble (C2) s on Living Iron (C4) 7) aarks)		<u>Seconda</u> Spa Spa Ora Oxi C3) (w Cra Satu Gec FAC	ary Indicators face Soil Cra rsely Vegeta inage Patterr dized Rhizos <b>/here tilled</b> ) yfish Burrows uration Visibl omorphic Pos S-Neutral Tes st-Heave Hui	cks (B6) ted Concave ns (B10) pheres on Liv s (C8) e on Aerial Im sition (D2) st (D5) mmocks (D7)	Surface (B8) ing Roots (C3) agery (C9)
YDROLOC         Wetland Hyd         Primary Indica         Surface V         X         High Wat         Saturation         Water Ma         Sediment         Drift Depo         Algal Mat         Iron Depo         X         Inundation         Water-Sta         Field Observ         Surface Wate         Surface Table F         Saturation Pre-         Algal Aster Table F	rology Indicators: ators (minimum of o Vater (A1) er Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) c or Crust (B4) osits (B5) n Visible on Aerial I ained Leaves (B9) ations: r Present? Y Present? Y	imagery (B7) es N es N	Salt Crust     Aquatic In     Hydrogen     Dry-Seasc     Oxidized F     (where f         (where f	(B11) vertebrates Sulfide Odo on Water Tal Rhizosphere <b>not tilled)</b> of Reduced Surface (C olain in Rem ches): ches):	r (C1) ble (C2) is on Living Iron (C4) 7) narks)	Wetla	Seconda Sur Spa Spa Spa Dra Oxio Oxio C3) (W C3) (W C3) (W C3) From From Multiple Multiple Multiple Satur Satu	ary Indicators face Soil Cra rsely Vegeta inage Patterr dized Rhizos <b>/here tilled</b> ) yfish Burrows uration Visibl omorphic Pos S-Neutral Tes st-Heave Hui	cks (B6) ted Concave ns (B10) pheres on Liv s (C8) e on Aerial Im sition (D2) st (D5) mmocks (D7)	Surface (B8) ing Roots (C3) agery (C9)
YDROLOC         Wetland Hyd         Primary Indica         Surface V         High Wat         Saturation         Water Ma         Sediment         Drift Depo         Algal Mat         Iron Depo         Water-Sta         Field Observ         Surface Water         Surface Water         Saturation Pre-         Saturation Pre-         Mater Table F         Saturation Pre-         Saturation Pre-         Saturation Pre-	rology Indicators: ators (minimum of o Vater (A1) er Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) c or Crust (B4) osits (B5) n Visible on Aerial I ained Leaves (B9) ations: r Present? Y Present? Y esent? Y	imagery (B7) es N es N	Salt Crust     Aquatic In     Hydrogen     Dry-Seasc     Oxidized F     (where f         (where f	(B11) vertebrates Sulfide Odo on Water Tal Rhizosphere <b>not tilled)</b> of Reduced Surface (C olain in Rem ches): ches):	r (C1) ble (C2) is on Living Iron (C4) 7) narks)	Wetla	Seconda Sur Spa Spa Spa Dra Oxio Oxio C3) (W C3) (W C3) (W C3) From From Multiple Multiple Multiple Satur Satu	ary Indicators face Soil Cra rsely Vegeta inage Patterr dized Rhizos <b>/here tilled</b> ) yfish Burrows uration Visibl omorphic Pos S-Neutral Tes st-Heave Hui	cks (B6) ted Concave ns (B10) pheres on Liv s (C8) e on Aerial Im sition (D2) st (D5) mmocks (D7)	Surface (B8) ing Roots (C3) agery (C9)
Primary Indica Surface V X High Wat Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo X Inundatio Water-Sta Field Observ Surface Wate Saturation Pro (includes capi	rology Indicators: ators (minimum of o Vater (A1) er Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) c or Crust (B4) osits (B5) n Visible on Aerial I ained Leaves (B9) ations: r Present? Y Present? Y esent? Y	imagery (B7) es N es N	Salt Crust     Aquatic In     Hydrogen     Dry-Seasc     Oxidized F     (where f         (where f	(B11) vertebrates Sulfide Odo on Water Tal Rhizosphere <b>not tilled)</b> of Reduced Surface (C olain in Rem ches): ches):	r (C1) ble (C2) is on Living Iron (C4) 7) narks)	Wetla	Seconda Sur Spa Spa Spa Dra Oxio Oxio C3) (W C3) (W C3) (W C3) From From Multiple Multiple Multiple Satur Satu	ary Indicators face Soil Cra rsely Vegeta inage Patterr dized Rhizos <b>/here tilled</b> ) yfish Burrows uration Visibl omorphic Pos S-Neutral Tes st-Heave Hui	cks (B6) ted Concave ns (B10) pheres on Liv s (C8) e on Aerial Im sition (D2) st (D5) mmocks (D7)	Surface (B8) ing Roots (C3) agery (C9)
IYDROLOC         Wetland Hyd         Primary Indica         Surface V         High Wat         Saturation         Water Ma         Sediment         Drift Depo         Algal Mat         Iron Depo         Yater-Sta         Field Observ         Surface Water         Surface Water         Saturation Pre-         Saturation Pre-         Mater Table F         Saturation Pre-         Saturation Pre-         Includes capi	rology Indicators: ators (minimum of o Vater (A1) er Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) c or Crust (B4) osits (B5) n Visible on Aerial I ained Leaves (B9) ations: r Present? Y Present? Y esent? Y	imagery (B7) es N es N	Salt Crust     Aquatic In     Hydrogen     Dry-Seasc     Oxidized F     (where f         (where f	(B11) vertebrates Sulfide Odo on Water Tal Rhizosphere <b>not tilled)</b> of Reduced Surface (C olain in Rem ches): ches):	r (C1) ble (C2) is on Living Iron (C4) 7) narks)	Wetla	Seconda Sur Spa Spa Spa Dra Oxio Oxio C3) (W C3) (W C3) (W C3) From From Multiple Multiple Multiple Satur Satu	ary Indicators face Soil Cra rsely Vegeta inage Patterr dized Rhizos <b>/here tilled</b> ) yfish Burrows uration Visibl omorphic Pos S-Neutral Tes st-Heave Hui	cks (B6) ted Concave ns (B10) pheres on Liv s (C8) e on Aerial Im sition (D2) st (D5) mmocks (D7)	Surface (B8) ing Roots (C3) agery (C9)
IYDROLOC         Wetland Hyd         Primary Indica         Surface V         High Wat         Saturation         Water Ma         Sediment         Drift Depo         Algal Mat         Iron Depo         Yater-Sta         Field Observ         Surface Water         Surface Water         Saturation Pre-         Saturation Pre-         Mater Table F         Saturation Pre-         Saturation Pre-         Includes capi	rology Indicators: ators (minimum of o Vater (A1) er Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) c or Crust (B4) osits (B5) n Visible on Aerial I ained Leaves (B9) ations: r Present? Y Present? Y esent? Y	imagery (B7) es N es N	Salt Crust     Aquatic In     Hydrogen     Dry-Seasc     Oxidized F     (where f         (where f	(B11) vertebrates Sulfide Odo on Water Tal Rhizosphere <b>not tilled)</b> of Reduced Surface (C olain in Rem ches): ches):	r (C1) ble (C2) is on Living Iron (C4) 7) narks)	Wetla	Seconda Sur Spa Spa Spa Dra Oxio Oxio C3) (W C3) (W C3) (W C3) From From Multiple Multiple Multiple Satur Satu	ary Indicators face Soil Cra rsely Vegeta inage Patterr dized Rhizos <b>/here tilled</b> ) yfish Burrows uration Visibl omorphic Pos S-Neutral Tes st-Heave Hui	cks (B6) ted Concave ns (B10) pheres on Liv s (C8) e on Aerial Im sition (D2) st (D5) mmocks (D7)	Surface (B8) ing Roots (C3) agery (C9)
YDROLOC         Wetland Hyd         Primary Indica         Surface V         High Wat         Saturation         Water Ma         Sediment         Drift Depo         Algal Mat         Iron Depo         Water-Sta         Field Observ         Surface Water         Surface Water         Saturation Pre-         Saturation Pre-         Mater Table F         Saturation Pre-         Saturation Pre-         Saturation Pre-	rology Indicators: ators (minimum of o Vater (A1) er Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) c or Crust (B4) osits (B5) n Visible on Aerial I ained Leaves (B9) ations: r Present? Y Present? Y esent? Y	imagery (B7) es N es N	Salt Crust     Aquatic In     Hydrogen     Dry-Seasc     Oxidized F     (where f         (where f	(B11) vertebrates Sulfide Odo on Water Tal Rhizosphere <b>not tilled)</b> of Reduced Surface (C olain in Rem ches): ches):	r (C1) ble (C2) is on Living Iron (C4) 7) narks)	Wetla	Seconda Sur Spa Spa Spa Dra Oxio Oxio C3) (W C3) (W C3) (W C3) From From Multiple Multiple Multiple Satur Satu	ary Indicators face Soil Cra rsely Vegeta inage Patterr dized Rhizos <b>/here tilled</b> ) yfish Burrows uration Visibl omorphic Pos S-Neutral Tes st-Heave Hui	cks (B6) ted Concave ns (B10) pheres on Liv s (C8) e on Aerial Im sition (D2) st (D5) mmocks (D7)	Surface (B8) ing Roots (C3) agery (C9)
YDROLOC Wetland Hyd Primary Indica Surface W High Wat Saturation Water Ma Sediment Drift Depo Algal Mat Inn Depto Vater-Sta Field Observ Surface Wate Water Table F Saturation Pre (includes capi Describe Rec Remarks:	rology Indicators: ators (minimum of o Vater (A1) er Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) c or Crust (B4) osits (B5) n Visible on Aerial I alined Leaves (B9) ations: r Present? Y Present? Y esent? Y esent? Y lilary fringe) orded Data (stream	imagery (B7) es N es N	Salt Crust     Aquatic In     Hydrogen     Dry-Seasc     Oxidized F     (where f         (where f	(B11) vertebrates Sulfide Odo on Water Tal Rhizosphere <b>not tilled)</b> of Reduced Surface (C olain in Rem ches): ches):	r (C1) ble (C2) is on Living Iron (C4) 7) narks)	Wetla	Seconda Sur Spa Spa Spa Dra Oxio Oxio C3) (W C3) (W C3) (W C3) From From Multiple Multiple Multiple Satur Satu	ary Indicators face Soil Cra rsely Vegeta inage Patterr dized Rhizos <b>/here tilled</b> ) yfish Burrows uration Visibl omorphic Pos S-Neutral Tes st-Heave Hui	cks (B6) ted Concave ns (B10) pheres on Liv s (C8) e on Aerial Im sition (D2) st (D5) nmocks (D7)	Surface (B8) ing Roots (C3) agery (C9) (LRR F)
YDROLOC Wetland Hyd Primary Indica Surface V High Wat Saturation Water Ma Sediment Drift Depo Algal Mat Inn Depto Vater-Sta Field Observ Surface Wate Water Table F Saturation Pre (includes capi Describe Rec Remarks:	rology Indicators: ators (minimum of o Vater (A1) er Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) c or Crust (B4) osits (B5) n Visible on Aerial I ained Leaves (B9) ations: r Present? Y Present? Y esent? Y	imagery (B7) es N es N	Salt Crust Aquatic In Hydrogen Dry-Seaso Oxidized F Presence Thin Muck ) Other (Exp  ) Other (Exp  ) Depth (in lo Depth (in	(B11) vertebrates Sulfide Odo on Water Tal Rhizosphere <b>not tilled)</b> of Reduced Surface (C olain in Rem ches): ches):	r (C1) ble (C2) is on Living Iron (C4) 7) narks)	Wetla	Seconda Sur Spa Spa Spa Dra Oxio Oxio C3) (W C3) (W C3) (W C3) From From Multiple Multiple Multiple Satur Satu	ary Indicators face Soil Cra rsely Vegeta inage Patterr dized Rhizos <b>/here tilled</b> ) yfish Burrows uration Visibl omorphic Pos S-Neutral Tes st-Heave Hui	cks (B6) ted Concave ns (B10) pheres on Liv s (C8) e on Aerial Im sition (D2) st (D5) nmocks (D7)	Surface (B8) ing Roots (C3) agery (C9)

· ---

Project/Site:		City/County: Peuto	on/El Paso_Sampling Date: 6/26/23
Applicant/Owner: <u>PT</u>		<u> </u>	
Investigator(s): <u>SMAM</u>		Section, Township, Ra	nge: 27, TUS, REUW
			convex, none): Slope (%):
			Long: -104.94756318 Datum: NADE
Soil Map Unit Name: 72. Princ. coarse			• · · · · ·
Are climatic / hydrologic conditions on the site typical for thi	. 1	•	1
Are Vegetation $\underline{N}$ , Soil $\underline{N}$ , or Hydrology $\underline{N}$ ,			
			Normal Circumstances" present? Yes No
Are Vegetation <u>N</u> , Soil <u>W</u> , or Hydrology <u>A</u>		-	eded, explain any answers in Remarks.) ocations, transects, important features, etc.
		,	
Hydrophytic Vegetation Present? Yes N	1	Is the Sampled	Area
Hydric Soil Present? Yes N		within a Wetlar	nd? Yes No
Wetland Hydrology Present? Yes N Remarks:	10 <u>V</u>		
Remarks,			
above average rainfail 6/2	2023		
VEGETATION – Use scientific names of plar	nts.		
-	Absolute	Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	<u>% Cover</u>	Species? Status	Number of Dominant Species
1			That Are OBL, FACW, or FAC (excluding FAC-):
2			(excluding FAC-): (A)
3			Total Number of Dominant Species Across All Strata:
4			Species Across All Strata. (B)
Sapling/Shrub Stratum (Plot size:)		_ = Total Cover	Percent of Dominant Species That Are OBL, FACW, or FAC: O (A/B)
1			That Are OBL, FACW, or FAC: (A/B)
2			Prevalence Index worksheet:
3		× ••••	Total % Cover of: Multiply by:
4			OBL species x 1 =
5			FACW species $x_2 = 10$
		_= Total Cover	FAC species $10 \times 3 = 30$
Herb Stratum (Plot size:)	20	UPL	FACU species         x 4 =           UPL species         75         x 5 =         375
1. <u>Actemisia frigida</u> 2. <u>Koelaria macrantha</u>			UPL species $\underline{75}$ x 5 = $\underline{375}$ Column Totals: $\underline{90}$ (A) $\underline{115}$ (B)
3. Actemisia Iudoviciana	_	<u></u>	$\begin{array}{c} \text{Column rotals.} \\ \hline \end{array} \\ (A) \\ \hline \end{array} \\ (A) \\ \hline \end{array} \\ (B) \\ \hline \end{array} \\ (B) \\ \hline \end{array}$
· ~ · · · · · · · · · · · · · · · · · ·	Æ		Prevalence index = $B/A = -\frac{21.6}{1.6}$
5. Alliciella pinnatifela		<u> </u>	Hydrophytic Vegetation Indicators:
6. Penstemon strictus			1 - Rapid Test for Hydrophytic Vegetation
7. Tetrancuris acaulis			2 - Dominance Test is >50%
8			3 - Prevalence Index is ≤3.0 <sup>1</sup>
9			4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
10			Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
		_ = Total Cover	
Woody Vine Stratum (Plot size:)			<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic,
1			· · · · · · · · · · · · · · · · · · ·
2			Hydrophytic Vegetation
% Bare Ground in Herb Stratum [ 📿	·····	_ = Total Cover	Present? Yes No
Remarks:			

Sampling Point:

-

Depth	Matrix		Red	ox Feature				
<u>inches)</u>	Color (moist)	<u>%</u> C	olor (moist)	%		Loc <sup>2</sup>	Texture	Remarks
-3,5	104R4/3	100					<u> 10020</u>	
<u>5-121</u>	10425/4	001		····			sitty san	ol 20 % gravel
								Ų
	<u></u>	·			<u> </u>			
							<u> </u>	
			***************					
					······			
	ncentration, D=Dep					d Sand Gr		n: PL=Pore Lining, M=Matrix.
	ndicators: (Applic	able to all LRRs			-			Problematic Hydric Soils <sup>3</sup> :
_ Histosol (				Gleyed Ma	• •			: (A9) (LRR I, J)
_ Histic Epi _ Black His	ipedon (A2)			Redox (S5 d Matrix (S				rie Redox (A16) ( <b>LRR F, G, H</b> ) ce (S7) ( <b>LRR G</b> )
	n Sulfide (A4)			Mucky Mir				s Depressions (F16)
	Layers (A5) (LRR F	=1		Gleyed Ma			-	outside of MLRA 72 & 73)
	ck (A9) (LRR F, G, I			ed Matrix (I	. ,		Reduced V	
	Below Dark Surface			Dark Surfa	,			t Material (TF2)
-	rk Surface (A12)	- (****)		ed Dark Suna	• •			ow Dark Surface (TF12)
	ucky Mineral (S1)			Depressio				lain in Remarks)
	lucky Peat or Peat (	S2) (L <b>RR G. H</b> )		ains Depre		16)		ydrophytic vegetation and
	ky Peat or Peat (S			RA 72 & 7	•			drology must be present,
_			<b>\</b>			/		urbed or problematic.
estrictive L	ayer (if present):							
Туре:	<u>N/A</u>							
Depth (incl	hes):						Hydric Soil Pre	sent? Yes No 🗸
etland Hyd	rology Indicators:				-			
letland Hyd rimary Indica	rology Indicators: ators (minimum of o				· · · · · · · · · · · · · · · · · · ·			ndicators (minimum of two require
<b>fetland Hyd</b> rimary Indica _ Surface V	rology Indicators: ators (minimum of o Vater (A1)		Salt Crust	(B11)			Surface	Soil Cracks (B6)
<b>letland Hyd</b> imary Indica Surface V High Wat	rology Indicators: ators (minimum of o Nater (A1) eer Table (A2)		Salt Crust Aquatic Ir	: (B11) ivertebrate			Surface Sparsely	Soil Cracks (B6) / Vegetated Concave Surface (B
<b>letland Hyd</b> rimary Indica Surface V High Wat Saturatio	rology Indicators: ators (minimum of o Nater (A1) er Table (A2) n (A3)		Salt Crust Aquatic Ir Hydrogen	: (B11) ivertebrate Sulfide Oc	ior (C1)		Surface Sparsely Drainage	Soil Cracks (B6) / Vegetated Concave Surface (B e Patterns (B10)
<b>letland Hyd</b> rimary Indica Surface V High Wat Saturation Water Ma	rology Indicators: ators (minimum of o Nater (A1) er Table (A2) n (A3) arks (B1)		Salt Crust Aquatic Ir Hydrogen Dry-Seas	(B11) wertebrate Sulfide Oc on Water T	ior (C1) able (C2)		Surface Sparsely Drainage Oxidized	Soil Cracks (B6) / Vegetated Concave Surface (B
fetland Hyd rimary Indica Surface V High Wat Saturation Water Ma Sediment	rology Indicators: ators (minimum of o Nater (A1) er Table (A2) n (A3) arks (B1) t Deposits (B2)		Salt Crust Aquatic Ir Hydrogen Dry-Seas	: (B11) ivertebrate Sulfide Oc	ior (C1) able (C2)	ng Roots (	Surface Sparsely Drainage Oxidized	Soil Cracks (B6) / Vegetated Concave Surface (B e Patterns (B10)
fetland Hyd rimary Indica Surface V High Wat Saturation Water Ma Sediment Drift Depo	rology Indicators: ators (minimum of o Nater (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3)		Salt Crust Aquatic Ir Hydrogen Dry-Seast Oxidized	(B11) wertebrate Sulfide Oc on Water T	ior (C1) able (C2)	ng Roots (	Surface Sparsely Drainage Oxidized C3) (where	Soil Cracks (B6) / Vegetated Concave Surface (B e Patterns (B10) I Rhizospheres on Living Roots (
fetland Hyd rimary Indica Surface V High Wat Saturation Water Ma Sediment Drift Depo	rology Indicators: ators (minimum of o Nater (A1) er Table (A2) n (A3) arks (B1) t Deposits (B2)		Salt Crust Aquatic Ir Hydrogen Dry-Seaso Oxidized (where	: (B11) ivertebrate Sulfide Oc on Water T Rhizosphei	ior (C1) able (C2) res on Livi	-	Surface Sparsely Drainage Oxidized C3) (where Crayfish	Soil Cracks (B6) / Vegetated Concave Surface (B e Patterns (B10) I Rhizospheres on Living Roots ( e <b>tille</b> d)
fetland Hyd rimary Indica Surface V High Wat Saturation Water Ma Sediment Drift Depo	rology Indicators: ators (minimum of o Nater (A1) er Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4)		Salt Crust Aquatic Ir Hydrogen Dry-Seas Oxidized (where Presence	(B11) wertebrate Sulfide Oc on Water T Rhizospher <b>not tilled</b> )	ior (C1) able (C2) res on Livi d Iron (C4	-	Surface Sparsely Drainage Oxidized C3) (where Crayfish Saturatio	Soil Cracks (B6) / Vegetated Concave Surface (B e Patterns (B10) I Rhizospheres on Living Roots ( e tilled) Burrows (C8)
fetland Hyd rimary Indica Surface V High Wat Saturatio Water Ma Sediment Drift Depo Algal Mat Iron Depo	rology Indicators: ators (minimum of o Nater (A1) er Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4)	ne required; che	Salt Crust Aquatic Ir Hydrogen Dry-Sease Oxidized (where Presence Thin Mucl	(B11) vertebrate Sulfide Oc on Water T Rhizospher <b>not tilled</b> ) of Reduce	ior (C1) able (C2) res on Livi d Iron (C4 C7)	-	Surface Sparsely Drainage Oxidized C3) (where Crayfish Saturatio Geomore	Soil Cracks (B6) / Vegetated Concave Surface (B e Patterns (B10) I Rhizospheres on Living Roots ( e <b>tille</b> d) Burrows (C8) on Visible on Aerial Imagery (C9)
fetland Hyd rimary Indica Surface V High Wat Saturation Water Ma Sediment Sediment Drift Depo Algal Mat Iron Depo Inundatio	rology Indicators: ators (minimum of o Nater (A1) er Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5)	ne required; che	Salt Crust Aquatic Ir Hydrogen Dry-Sease Oxidized (where Presence Thin Mucl	(B11) vertebrate Sulfide Oc on Water T Rhizospher <b>not tilled</b> ) of Reduce c Surface (	ior (C1) able (C2) res on Livi d Iron (C4 C7)	-	Surface Sparsely Drainage Oxidized C3) (where Crayfish Saturatio Geomore FAC-Net	Soil Cracks (B6) / Vegetated Concave Surface (B e Patterns (B10) f Rhizospheres on Living Roots ( e tilled) Burrows (C8) on Visible on Aerial Imagery (C9) phic Position (D2)
etland Hyd imary Indica Surface V High Wat Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo Inundatio Water-Sta	rology Indicators: ators (minimum of o Nater (A1) er Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) n Visible on Aerial I ained Leaves (B9)	ne required; che	Salt Crust Aquatic Ir Hydrogen Dry-Sease Oxidized (where Presence Thin Mucl	(B11) vertebrate Sulfide Oc on Water T Rhizospher <b>not tilled</b> ) of Reduce c Surface (	ior (C1) able (C2) res on Livi d Iron (C4 C7)	-	Surface Sparsely Drainage Oxidized C3) (where Crayfish Saturatio Geomore FAC-Net	Soil Cracks (B6) / Vegetated Concave Surface (Bi e Patterns (B10) d Rhizospheres on Living Roots ( e tilled) Burrows (C8) on Visible on Aerial Imagery (C9) phic Position (D2) utral Test (D5)
Ideiland Hyd         rimary Indica         Surface V         High Wat         Saturation         Water Ma         Sediment         Drift Depa         Algal Mat         Iron Depa         Inundatio         Water-State	rology Indicators: ators (minimum of o Nater (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) n Visible on Aerial I ained Leaves (B9) ations: r Present? Ye	magery (B7)	Salt Crust Aquatic Ir Hydrogen Dry-Sease Oxidized (where Presence Thin Much Other (Ex	(B11) vertebrate Sulfide Oc on Water T Rhizospher not tilled) of Reduce Surface ( plain in Re	lor (C1) able (C2) res on Livi d Iron (C4 C7) , marks)	)	Surface Sparsely Drainage Oxidized C3) (where Crayfish Saturatio Geomore FAC-Net	Soil Cracks (B6) / Vegetated Concave Surface (Bi e Patterns (B10) d Rhizospheres on Living Roots ( e tilled) Burrows (C8) on Visible on Aerial Imagery (C9) phic Position (D2) utral Test (D5)
etland Hyd imary Indica Surface V High Wat Saturation Water Ma Sediment Drift Depe Algal Mat Iron Depo Inundatio Water-Sta eld Observ urface Wate	rology Indicators: ators (minimum of o Nater (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) n Visible on Aerial I ained Leaves (B9) ations: r Present? Ye	magery (B7)	Salt Crust Aquatic Ir Hydrogen Dry-Sease Oxidized (where Presence Thin Much Other (Ex	(B11) vertebrate Sulfide Oc on Water T Rhizospher not tilled) of Reduce Surface ( plain in Re	lor (C1) able (C2) res on Livi d Iron (C4 C7) , marks)	)	Surface Sparsely Drainage Oxidized C3) (where Crayfish Saturatio Geomore FAC-Net	Soil Cracks (B6) / Vegetated Concave Surface (Bi e Patterns (B10) d Rhizospheres on Living Roots ( e tilled) Burrows (C8) on Visible on Aerial Imagery (C9) phic Position (D2) utral Test (D5) eave Hummocks (D7) (LRR F)
Vetland Hyd rimary Indica Surface V High Wat Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo Inundatio Water-Sta Vater State Faturation Pre	rology Indicators: ators (minimum of o Nater (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) n Visible on Aerial I ained Leaves (B9) ations: r Present? Present? Ye	magery (B7)	Salt Crust Aquatic Ir Hydrogen Dry-Sease Oxidized (where Presence Thin Much Other (Ex	(B11) vertebrate Sulfide Oc on Water T Rhizospher <b>not tilled</b> ) of Reduce (Surface ( plain in Re uches): ches):	lor (C1) able (C2) res on Livi d Iron (C4 C7) . marks)	)	Surface Sparsely Drainage Oxidized C3) (where Crayfish Saturatio Geomore FAC-Nee Frost-He	Soil Cracks (B6) / Vegetated Concave Surface (Bi e Patterns (B10) d Rhizospheres on Living Roots ( e tilled) Burrows (C8) on Visible on Aerial Imagery (C9) phic Position (D2) utral Test (D5)
rimary Indica Surface V High Wat Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo Inundatio Water-Sta Water-Sta Vater Table F aturation Pre ncludes capi	rology Indicators: ators (minimum of o Nater (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) n Visible on Aerial I ained Leaves (B9) ations: r Present? Present? Ye	magery (B7) es No es No	Salt Crust Aquatic Ir Hydrogen Dry-Sease Oxidized I (where Presence Thin Muck Other (Ex	(B11) vertebrate Sulfide Oc on Water T Rhizospher <b>not tilled</b> ) of Reduce (Surface ( plain in Re uches): ches):	lor (C1) able (C2) res on Livi d Iron (C4 C7) . marks)	) 	Surface Sparsely Drainage Oxidized C3) (where Crayfish Saturatio FAC-Nei Frost-He	Soil Cracks (B6) / Vegetated Concave Surface (Bi e Patterns (B10) d Rhizospheres on Living Roots ( e tilled) Burrows (C8) on Visible on Aerial Imagery (C9) phic Position (D2) utral Test (D5) eave Hummocks (D7) (LRR F)
Vetland Hyd rimary Indica Surface V High Wat Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo Inundatio Water-Sta Vater-Sta Vater Table F aturation Pre Includes capi escribe Reco	rology Indicators: ators (minimum of o Nater (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) n Visible on Aerial I ained Leaves (B9) rations: r Present? Present? Ye esent? Ye	magery (B7) es No es No	Salt Crust Aquatic Ir Hydrogen Dry-Sease Oxidized I (where Presence Thin Muck Other (Ex	(B11) vertebrate Sulfide Oc on Water T Rhizospher <b>not tilled</b> ) of Reduce (Surface ( plain in Re uches): ches):	lor (C1) able (C2) res on Livi d Iron (C4 C7) . marks)	) 	Surface Sparsely Drainage Oxidized C3) (where Crayfish Saturatio FAC-Nei Frost-He	Soil Cracks (B6) / Vegetated Concave Surface (Bi e Patterns (B10) d Rhizospheres on Living Roots ( e tilled) Burrows (C8) on Visible on Aerial Imagery (C9) phic Position (D2) utral Test (D5) eave Hummocks (D7) (LRR F)
Ideiland Hyd         rimary Indica         Surface V         High Wat         Saturation         Water Ma         Drift Depo         Aigal Mat         Iron Depo         Inundatio         Water-State         Ield Observ         urface Wate         /ater Table F         aturation Pre-         aturation Pre-	rology Indicators: ators (minimum of o Nater (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) n Visible on Aerial I ained Leaves (B9) rations: r Present? Present? Ye esent? Ye	magery (B7) es No es No es No	Salt Crust Aquatic Ir Hydrogen Dry-Sease Oxidized I (where Presence Thin Muck Other (Ex	(B11) vertebrate Sulfide Oc on Water T Rhizospher <b>not tilled</b> ) of Reduce (Surface ( plain in Re uches): ches):	lor (C1) able (C2) res on Livi d Iron (C4 C7) . marks)	) 	Surface Sparsely Drainage Oxidized C3) (where Crayfish Saturatio FAC-Nei Frost-He	Soil Cracks (B6) / Vegetated Concave Surface (Bi e Patterns (B10) d Rhizospheres on Living Roots ( e tilled) Burrows (C8) on Visible on Aerial Imagery (C9) phic Position (D2) utral Test (D5) eave Hummocks (D7) (LRR F)
etland Hyd imary Indica _ Surface V _ High Wat _ Saturation _ Saturation _ Water Ma _ Drift Depo _ Algal Mat _ Iron Depo _ Inundatio _ Iron Depo _ Inundatio _ Water-Sta eld Observ urface Wate aturation Pre- aturation Pre- acturation Pre- ascribe Reco	rology Indicators: ators (minimum of o Nater (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) n Visible on Aerial I ained Leaves (B9) rations: r Present? Present? Ye esent? Ye	magery (B7) es No es No es No	Salt Crust Aquatic Ir Hydrogen Dry-Sease Oxidized I (where Presence Thin Muck Other (Ex	(B11) vertebrate Sulfide Oc on Water T Rhizospher <b>not tilled</b> ) of Reduce (Surface ( plain in Re uches): ches):	lor (C1) able (C2) res on Livi d Iron (C4 C7) . marks)	) 	Surface Sparsely Drainage Oxidized C3) (where Crayfish Saturatio FAC-Nei Frost-He	Soil Cracks (B6) / Vegetated Concave Surface (Bi e Patterns (B10) d Rhizospheres on Living Roots ( e tilled) Burrows (C8) on Visible on Aerial Imagery (C9) phic Position (D2) utral Test (D5) eave Hummocks (D7) (LRR F)

*L* ·

Project/Site:Var1colu	(	City/County:	n/E1 Paso_Sampling Date: 6/26/23
Applicant/Owner:		U	State: <u>CO</u> Sampling Point: <u>SP3-</u> W
Investigator(s): <u>5M</u> AM		Section, Township, Rar	198: 27 TIS, REUW
			convex, none): <u>CONCOVC</u> Slope (%): <u>()</u>
Subregion (LRR): Rocky Min Range	_ Lat: <u>ع</u>	1.06865255	Long: -104,54753642 Datum: 10AD&3
Soil Map Unit Name: 72 Pring course 5	sandy 1	0am, 8-15	NWI classification: <u>11/A</u>
Are climatic / hydrologic conditions on the site typical for this			41°
			Normal Circumstances" present? Yes No
Are Vegetation, Soil, or Hydrology r	naturally pro	blematic? (If ne	eded, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map	showing	sampling point lo	ocations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes 🟒 N	o		
	0	is the Sampled within a Wetlan	
	o		
Remarks:			
above average rainfall 6,	12023	,	
VEGETATION Use scientific names of plan	ts.		
<u>Tree Stratum</u> (Plot size:)		Dominant Indicator Species? Status	Dominance Test worksheet:
1			Number of Dominant Species That Are OBL, FACW, or FAC
2			(excluding FAC-): (A)
3			Total Number of Dominant
4			Species Across All Strata: (B)
Sapling/Shrub Stratum (Plot size:)		= Total Cover	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>LOO</u> (A/B)
1,			Prevalence Index worksheet:
2			Total % Cover of:Multiply by:
3			OBL species x 1 =
5,			FACW species 100 x2= 200
		= Total Cover	FAC species x 3 =
Herb Stratum (Plot size:)	10	FACW	FACU species x 4 =
1. Pra palustris 2. Juncus accticus			UPL species x 5 = Column Totals: <u>100</u> (A) <u>200</u> (B)
3. Phalacis anndinacea		FACW	
4			Prevalence Index = B/A = <u>2</u>
5			Hydrophytic Vegetation Indicators:
6			$\sqrt{2}$ - Dominance Test is >50%
7			$\underline{\underline{V}}$ 3 - Prevalence Index is $\leq 3.0^1$
8 9			4 - Morphological Adaptations <sup>1</sup> (Provide supporting
10			data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
		= Total Cover	
Woody Vine Stratum (Plot size:)			<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1 2			
		= Total Cover	Hydrophytic Vegetation
% Bare Ground in Herb Stratum	······		Present? Yes <u>V</u> No
Remarks:			
			0

A Street

-2g

Sampling	Point:	
----------	--------	--

	ription: (Describe	to the depth				or confirm	the absence o	of Indicators.)	
Depth	Matrix			x Feature		Loc <sup>2</sup>		_	
(inches)	<u>Color (moist)</u> つらな良りな	%	Color (moist)	%	Type'	LOC	<u>Texture</u>	Remar	KS
0-25					••••••				
3.5-12+	1046/2	<u> </u>	1092 6/2	10		<u>PL,M</u>	<u>lq_lq</u>	20m 10%	gravel
	ncentration, D=Dep		Peduced Matrix CS					tion: PL=Pore Lining	
	idicators: (Applic							or Problematic Hyd	ric Soils <sup>3</sup> :
Histosol ( Histic Epi Black His Hydroger Stratified Depleted Thick Dai Sandy Mi 2.5 cm Mu 5 cm Mu Restrictive L Type:	A1) pedon (A2) tic (A3) n Sulfide (A4) Layers (A5) (LRR F sck (A9) (LRR F, G, I Below Dark Surface tk Surface (A12) ucky Mineral (S1) ucky Peat or Peat (S1) ucky Pe	<sup>=</sup> ) H) e (A11) S2) (L <b>RR G,</b>	<pre> Sandy C Sandy F Stripped Loamy f Loamy C Deplete Redox D Deplete Redox D H)</pre>	Gleyed Ma Redox (S5 d Matrix (S Mucky Mir Gleyed Ma	atrix (S4) ) 66) heral (F1) atrix (F2) F3) ice (F6) irface (F7) ns (F8) essions (F	16)	1 cm Mu Coast Pi Dark Su High Pla (LRR Reduced Red Par Very Shi Other (E <sup>3</sup> Indicators of wetland unless d	uck (A9) (LRR I, J) rairie Redox (A16) (L rface (S7) (LRR G) sins Depressions (F1 R Houtside of MLRA d Vertic (F18) rent Material (TF2) allow Dark Surface ( explain in Remarks) f hydrophytic vegetat hydrology must be pr listurbed or problema	RR F, G, H) 6) A 72 & 73) TF12) ion and resent,
Depth (incl Remarks:	hes):						Hydric Soil P	resent?Yes 🗸	No
HYDROLOG					-				
-	rology Indicators:								
Surface V ▲ High Wat Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo ▲ Inundatio	n (A3) irks (B1) Deposits (B2) osits (B3) or Crust (B4) osits (B5) n Visible on Aerial I ained Leaves (B9)		Salt Crust Aquatic Inv Hydrogen Dry-Seaso Oxidized R Oxidized R Presence o Thin Muck	(B11) vertebrate Sulfide Oo on Water T Rhizosphe <b>not tilled</b> ) of Reduce Surface (	dor (C1) Table (C2) res on Liv d Iron (C4 C7)		Surfac Spars J Draina Oxidiz C3) (wh Crayfi Satura A Geom FAC-N	v Indicators (minimur ce Soil Cracks (B6) ally Vegetated Conce age Patterns (B10) ced Rhizospheres on ere tilled) ish Burrows (C8) ation Visible on Aeria atorphic Position (D2) Neutral Test (D5) Heave Hummocks (I	ave Surface (B8) Living Roots (C3) I Imagery (C9)
		~ \ N	Daath (iac	- <b>-</b>	۱				
Surface Wate Water Table F Saturation Pre (includes capi Describe Reco	Present? Y esent? Y	es No es No	Depth (ind Depth (ind Depth (ind Depth (ind Itoring well, aerial p	ches): ches):	evious Ins			Present? Yes 🔨	No
Remarks:									

.

Project/Site: Overlook		City/County: Peyto	n/E1_Pass
Applicant/Owner: _ P T			State: <u>CO</u> Sampling Point: <u>SPU-U</u> P
			nge: 27, THS. RGUW
			convex, none): <u>CONVCX</u> Slope (%): <u>C</u>
Subregion (LRR): Rocky MLn Range	Lat:	9.07126723	Long: -104.54310636 Datum: NAD83
			NWI classification: N/A
Are climatic / hydrologic conditions on the site typical for th			
	-		"Normal Circumstances" present? Yes V No
Are Vegetation $N$ , Soil $N$ , or Hydrology $N$			
	-		ocations, transects, important features, etc.
Hydrophytic Vegetation Present?       Yes         Hydric Soil Present?       Yes		is the Sampled	
Wetland Hydrology Present? Yes		within a Wetlar	nd? Yes No
Remarks:		I	
above average rainfall 6/2	023		
VEGETATION – Use scientific names of pla	nts.		
	Absolute		Dominance Test worksheet:
Tree Stratum (Plot size:)		Species? Status	Number of Dominant Species
1			That Are OBL, FACW, or FAC       (excluding FAC-):
3,			Total Number of Dominant
4			Species Across All Strata: $\mathcal{O}$ (B)
		. ≕ Total Cover	Percent of Dominant Species
Sapling/Shrub Stratum (Plot size:)			That Are OBL, FACW, or FAC: (A/B)
1			Prevalence Index worksheet:
2			Total % Cover of:Multiply by:
3			OBL species x1 =
4			FACW species x 2 =
5		= Total Cover	FAC species <u>20</u> x 3 = <u>60</u>
Herb Stratum (Plot size:)	t		FACU species x 4 =
1. Aliciella pinnatificla	<u>_ 20</u>	FAC	UPL species <u>70</u> x 5 = <u>350</u>
2. Penstemon strictus	25	UPL	Column Totals: <u>90</u> (A) <u>410</u> (B)
3. Artemisia Iudoviciana	()>	UPL	Prevalence index = $B/A = 4.5$
4. Artemisia Prigida	<u> </u>	UPL	Hydrophytic Vegetation Indicators:
5. Vocleria Macrantha		UPL	1 - Rapid Test for Hydrophytic Vegetation
6. Thermopsis Mombifolia		UPL UPL	2 - Dominance Test is >50%
7			3 - Prevalence Index is ≤3.0 <sup>1</sup>
8			4 - Morphological Adaptations <sup>1</sup> (Provide supporting
9			data in Remarks or on a separate sheet)
10	 	= Total Cover	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Woody Vine Stratum         (Plot size:)           1			<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2			Hydrophytic
% Bare Ground in Herb Stratum 10		= Total Cover	Vegetation Present? Yes No
Remarks:			

## Sampling Point: SPU-UP

Profile Dese Depth	cription: (Describe Matrix	to the depth		ent the indicator	or confirn	n the absence of indi	cators.)
(inches)	Color (moist)	%	Color (moist)	<u>%</u> <u>Type</u>	Loc <sup>2</sup>	Texture	Remarks
0-5	_104R 5/2	100				sitte loam.	10% grand
29	10426/3	$\frac{1}{100}$				Super Calling	15 march areas
CI-t.		00				CIN 200	(\
4.1		<u> </u>				<u> </u>	÷,
					·	·	
				·			
	Potence						
	oncentration, D=Dep				d Sand G	rains. <sup>2</sup> Location:	PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Application	able to all LF	RRs, unless other	vise noted.)		Indicators for Pro	blematic Hydric Soils <sup>3</sup> :
Histosol				leyed Matrix (S4)		1 cm Muck (A	
	pipedon (A2)		Sandy R				Redox (A16) (LRR F, G, H)
	istic (A3)		<u> </u>	Matrix (S6)		Dark Surface	
	en Sulfide (A4) d Layers (A5) ( <b>LRR F</b>	'n	-	lucky Mineral (F1) leyed Matrix (F2)			epressions (F16) tside of MLRA 72 & 73)
	uck (A9) (LRR F, G, F			Matrix (F3)		Reduced Vert	,
	d Below Dark Surface			ark Surface (F6)		Red Parent M	
	ark Surface (A12)	. /		Dark Surface (F7)	ł		Dark Surface (TF12)
-	/lucky Mineral (S1)			epressions (F8)		Other (Explain	
	Mucky Peat or Peat (		· _ 1 -	ns Depressions (F			ophytic vegetation and
5 cm Mi	ucky Peat or Peat (S3	i) (LRR F)	) (MLR	A 72 & 73 of LRR	H)		ogy must be present,
Destrictive	Layer (if present):	······································				unless disturb	ed or problematic.
	N/A		\				
			- \				
	ches):					Hydric Soll Presen	t? Yes <u>No Y</u>
Remarks:							
	· · · · · · · · · · · · · · · · · · ·						
HYDROLO	GY						
Wetland Hy	drology Indicators:						
Primary Indi	cators (minimum of o	ne required; (	check all that apply	)		Secondary Indic	ators (minimum of two required)
Surface	Water (A1)		Salt Crust (I	B11)		Surface Soi	l Cracks (B6)
High Wa	ater Table (A2)		Aquatic Inve	ertebrates (B13)		Sparsely Ve	getated Concave Surface (B8)
Saturati	on (A3)		Hydrogen S	ulfide Odor (C1)		Drainage Page 1	atterns (B10)
	larks (B1)			Water Table (C2)			izospheres on Living Roots (C3)
	nt Deposits (B2)			iizospheres on Livi	ing Roots (		,
	posits (B3)		(where no			Crayfish Bu	
-	at or Crust (B4)			FReduced Iron (C4	l)		isible on Aerial Imagery (C9)
	posits (B5)		Thin Muck S				Position (D2)
	on Visible on Aerial I	nagery (B7)	Other (Expl	ain in Rema <b>r</b> ks)		FAC-Neutra	· ,
	itained Leaves (B9)					Frost-Heave	Hummocks (D7) (LRR F)
Field Obser			1				
Surface Wat		es No	Depth (incl				
Water Table		es 义 No	/	nes): <u>9.5</u>			$\boldsymbol{\mathcal{C}}$
Saturation P		es No	Depth (incl	1es):	_   Wetla	and Hydrology Prese	nt? Yes No <u>\</u>
(includes cap Describe Re	corded Data (stream	gauge, moni	toring well, aerial of	totos, previous ins	pections)	if available:	
-	,	/		• • • • • • • •			
Remarks:							

Project/Site:	City	County: Porto	State: CO Sampling Date: 6/26/23
Applicant/Owner:	·····	<u> </u>	State: <u>CO</u> Sampling Point: <u>SPU-U</u>
Investigator(s): <u>SM AM</u>	Sec	tion, Township, Rai	
Landform (hillslope, terrace, etc.): <u>depression</u>			
Subregion (LRR): Rocky Men Range	Lat: 39.0	07122876	Long: -104.543078 Datum: NAD83
Soil Map Unit Name: 71: Pring Coarse Sou	ndu loc	im, 3-8	NWI classification: RUSBC
Are climatic / hydrologic conditions on the site typical for this			
Are Vegetation, Soll, or Hydrology sig			
Are Vegetation, Soil, or Hydrology na			eded, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map s			
		Is the Sampled within a Wetlan	
above average rainfall 6/2	023		
VEGETATION – Use scientific names of plants	s.		
<u>Tree Stratum</u> (Plot size:) 1	% Cover Sr	ominant Indicator pecies? <u>Status</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC
2			(excluding FAC-): (A)
3 4			Total Number of Dominant Species Across All Strata: (B)
Sapling/Shrub Stratum (Plot size:) 1		otal Cover	Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)
2			Prevalence Index worksheet:
3			Total % Cover of: Multiply by:
4			OBL species $30$ x 1 = $30$
5	···		FACW species $50 \times 2 = 100$
Herb Stratum (Plot size: )	= T	otal Cover	FAC species x 3 = FACU species x 4 = 중O
1. Taxavacum officinal	5	FACU	
2. Pua palustris	20	FACW	Column Totals: 100 (A) 210 (B)
3. Junius arcticus	30_	Y FAW	
4. Juncos brachycephalus		081	Prevalence Index = B/A =
5. Elymus trachycaulus	<u>_10</u>	FACU	Hydrophytic Vegetation Indicators:
6. <u>Allium geyeri</u>	_5	FACU	$\sqrt{2}$ - Dominance Test is >50%
7			$\frac{1}{2}$ 3 - Prevalence Index is $\leq 3.0^{1}$
8			4 - Morphological Adaptations <sup>1</sup> (Provide supporting
9			data in Remarks or on a separate sheet)
10	<u>100</u> = T		Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Woody Vine Stratum         (Plot size:)           1			<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2			Hydrophytic
% Bare Ground in Herb Stratum	= T	otal Cover	Vegetation Present? Yes <u>No</u>
Remarks:			

ر بر نسب

### Sampling Point: <u>3PU-IN</u>)

Profile Desc	ription: (Describe	to the depth	n needed to docu	ment the	indicator	or confirm	the absence of i	ndicators.)
Depth	Matrix			ox Feature		1052	Touture	Remarks
<u>(inches)</u>	<u>Color (moist)</u>		Color (moist)	- <u>%</u>	<u>Type<sup>1</sup></u>	Loc <sup>2</sup>	<u>    Texture                                    </u>	Remarks
0-55	<u>-10492 5/1</u>	<u> </u>	1040 6/8	~	$- \frac{C}{2}$		<u> </u>	
<u>55-12+</u>	1042 1/2	98	10482/6	2		<u> </u>	<u> </u>	
	-							
·								
							~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	
	· · · · · · · · · · · · · · · · · · ·					<u></u>		
1							21 a a a ti a	PL-Doro Lining M-Matrix
	oncentration, D=Dep Indicators: (Applic					a Sana Gr		on: PL=Pore Lining, M=Matrix. Problematic Hydric Soils <sup>3</sup> :
Histosol				Gleyed M				(A9) (LRR I, J)
	bipedon (A2)			Redox (S				irie Redox (A16) (LRR F, G, H)
Black Hi			Strippe	d Matrix (	S6)		Dark Surfa	ace (S7) (LRR G)
· - · ·	n Sulfide (A4)				neral (F1)			s Depressions (F16)
	Layers (A5) (LRR I			Gleyed M			•	f outside of MLRA 72 & 73)
	ick (A9) ( <b>LRR F, G,</b> I Below Dark Surfac			ed Matrix ( Dark Surf				/ertic (F18) nt Material (TF2)
· ·	ark Surface (A12)	0 (111)			urface (F7)	1		ow Dark Surface (TF12)
· —	lucky Mineral (S1)			Depressio			Other (Exp	plain in Remarks)
	Aucky Peat or Peat (			•	essions (F			ydrophytic vegetation and
5 cm Mu	icky Peat or Peat (S	3) (LRR F)	(ML	.RA 72 &	73 of LRR	: H)		drology must be present, turbed or problematic.
Restrictive I	ayer (if present):							
Туре:	$\sim 14$							1
Depth (inc	ches):						Hydric Soil Pre	esent? Yes V No
Remarks:								
HYDROLO								
-	drology Indicators:							
Primary Indic	cators (minimum of c	one required;						ndicators (minimum of two required)
	Water (A1)		Salt Crust	• •				Soil Cracks (B6)
17	ter Table (A2)		Aquatic Ir					y Vegetated Concave Surface (B8)
Saturatio			Hydrogen		Table (C1)		<i>r</i>	e Patterns (B10) d Rhizospheres on Living Roots (C3)
Water M	nt Deposits (B2)				eres on Liv			re tilled)
Drift Dep				not tilled		ing receic		Burrows (C8)
	at or Crust (B4)		•		, ed Iron (C4	4)		on Visible on Aerial Imagery (C9)
	osits (B5)		Thin Mucl	k Surface	(C7)			rphic Position (D2)
🛛 🔬 Inundatio	on Visible on Aerial	lmagery (B7)	) Other (Ex	plain in R	emarks)		FAC-Ne	eutral Test (D5)
Water-S	tained Leaves (B9)	7					Frost-H	eave Hummocks (D7) (LRR F)
Field Obser								
Surface Wate	er Present? Y	′es N	lo Depth (ir lo Depth (ir lo Depth (ir	nches):		_		
Water Table	Present? Y	′es 🔟 N	lo Depth (ir	nches):	6	_		(
Saturation Pr	resent? Y	'es N	lo <u> </u>	nches):		Weti	and Hydrology Pi	resent? Yes <u>\</u> No
(includes cap Describe Re	corded Data (stream	i dauge, mor	nitoring well, aerial	photos, p	revious ins	pections).	if available:	
		J	······					
Remarks:		`			·····			
			5					
	·•							

ŗ~

· · ·			0	1		
Project/Site: <u>Overlook</u>		City/Cour	ity: <u>Verto</u>	n/El Paso	Sampling Date: <u>6</u>	<u>26/23</u>
Applicant/Owner: 1* (				State: <u></u> :	Sampling Point: <u></u>	<u>5-01</u>
Investigator(s): <u>SMAM</u>		Section,	Township, Ra	nge: <u>27, TINS, (</u>	26462	
Landform (hillslope, terrace, etc.): hillslope		Local reli	ief (concave, o	convex, none): <u>CONV</u>	<u>%</u> Slope (%	): <u>C</u>
Subregion (LRR): Rocky Men Range	Lat: _ 3	9.067	72461	Long: -104, 5453	3932 Datum: N	5.8CTAC
Soll Map Unit Name: 711 Pring coarse 5	andy	loam	3-8	NWI classifica	tion: N/A	
Are climatic / hydrologic conditions on the site typical for this			•	/	•	
Are Vegetation $\underline{N}$ , Soil $\underline{N}$ , or Hydrology $\underline{N}$ s				Normal Circumstances" pro		ho
Are Vegetation $\underline{N}$ , Soil $\underline{N}$ , or Hydrology $\underline{N}$ r				eded, explain any answers		
SUMMARY OF FINDINGS – Attach site map						ac ata
		sampi	ing point i			es, etc.
Hydrophytic Vegetation Present? Yes N		ls	the Sampled	Area	1	
Hydric Soil Present? Yes N	°/		thin a Wetlar		No 🗸	
Wetland Hydrology Present? Yes N	o_ <u>V</u>					
Remarks:						
above average rainfall 6/205						
0						
VEGETATION – Use scientific names of plan	ts.					
<b>_</b>			nt Indicator	Dominance Test works	heet:	
Tree Stratum (Plot size:)			? Status	Number of Dominant Spe		
1				That Are OBL, FACW, or (excluding FAC-):	Ď	(A)
2						
4				Total Number of Domina Species Across All Strate	1	(B)
			over	Percent of Dominant Spe	ndoc	
Sapling/Shrub Stratum (Plot size:)				That Are OBL, FACW, of		(A/B)
1				Prevalence Index work	choot:	
2					Multiply by:	
3				OBL species		
4				FACW species		
5		= Total C		FAC species 30	x 3 =	
Herb Stratum (Plot size:)			OVEI	FACU species		
1. Penstemon stricta	5_	. <u></u>	_UPL	UPL species		_
2. Aliciella pinnatifida	15		FAC	Column Totals: <u>QU</u>	(A) <u>390</u>	(B)
3. Eriogonum ovalifatium			_UPL	Prevalence Index :	= B/A = 11.3	
4. Artemisia frigida	<u> </u>	- <u>/</u> -	<u>_ UPL</u>	Hydrophytic Vegetation		
5. Koeleria macrantha	<u></u>	<u> </u>	_UPL		ydrophytic Vegetation	
6. Potentilla effusa	15		_ FAC_	2 - Dominance Test		
7				3 - Prevalence Index		
8 9					laptations <sup>1</sup> (Provide su	
10.					or on a separate sheet	

<u><u><u>a</u>O</u> = Total Cover</u>

\_\_\_\_\_ = Total Cover

\_)

\_ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

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

Yes

Hydrophytic Vegetation Present?

% Bare Ground in Herb Stratum \_\_\_\_ 1 O

Woody Vine Stratum (Plot size: \_\_\_\_

Remarks:

1.\_\_\_\_

2.

No

# Sampling Point: $\underline{SP5-0P}$

ŧ

Profile Description: (Describe to the dept	h needed to docun	ent the indicator or	confirm the abs	sence of indicators.)
Depth <u>Matrix</u>	Redo	<u> Features</u>		
(inches) Color (moist) %	Color (moist)		Loc <sup>2</sup> Text	
0-8 104K 3/3 100	·····		<u></u>	<u>3046 gravel</u>
8-121 104R 4/3 100		······	<u> </u>	<u></u>
7				0
M				
			·	
	****			
<sup>1</sup> Type: C=Concentration, D=Depletion, RM=	Reduced Matrix, CS	=Covered or Coated :	Sand Grains.	<sup>2</sup> Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators: (Applicable to all I				ators for Problematic Hydric Soils <sup>3</sup> :
Histosol (A1)	Sandy G	ileyed Matrix (S4)	1	i cm Muck (A9) (LRR I, J)
Histic Epipedon (A2)	Sandy R	edox (S5)		Coast Prairie Redox (A16) (LRR F, G, H)
Black Histic (A3)		Matrix (S6)		Dark Surface (S7) (LRR G)
Hydrogen Sulfide (A4)		lucky Mineral (F1)	H	High Plains Depressions (F16)
Stratified Layers (A5) (LRR F)		Bleyed Matrix (F2)	-	(LRR H outside of MLRA 72 & 73)
1 cm Muck (A9) (LRR F, G, H) Depleted Below Dark Surface (A11)		l Matrix (F3) lark Surface (F6)		Reduced Vertic (F18) Red Parent Material (TF2)
Thick Dark Surface (A12)		Dark Surface (F7)		/ery Shallow Dark Surface (TF12)
Sandy Mucky Mineral (S1)		epressions (F8)		Dther (Explain in Remarks)
2.5 cm Mucky Peat or Peat (S2) (LRR G		ins Depressions (F16		ators of hydrophytic vegetation and
5 cm Mucky Peat or Peat (S3) (LRR F)	(MLI	RA 72 & 73 of LRR H	v (	etland hydrology must be present,
			L	Inless disturbed or problematic.
Restrictive Layer (if present):				
Туре:/Д				
Depth (inches):			Hydrid	c Soil Present? Yes No _V
Remarks:				
HYDROLOGY				
Wetland Hydrology Indicators:				
Primary Indicators (minimum of one required	chack all that apply	٨	50	condary Indicators (minimum of two required)
Surface Water (A1)	Salt Crust (			Surface Soil Cracks (86)
High Water Table (A2)		ertebrates (B13)		Sparsely Vegetated Concave Surface (B8)
Saturation (A3)		Sulfide Odor (C1)		Drainage Patterns (B10)
Water Marks (B1)		Water Table (C2)		Oxidized Rhizospheres on Living Roots (C3)
Sediment Deposits (B2)		hizospheres on Living	Roots (C3)	(where tilled)
Drift Deposits (B3)	(where n			Crayfish Burrows (C8)
Algal Mat or Crust (B4)	•	f Reduced Iron (C4)		Saturation Visible on Aerial Imagery (C9)
Iron Deposits (B5)		Surface (C7)		Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7		lain in Remarks)	_	FAC-Neutral Test (D5)
Water-Stained Leaves (B9)	· _ · ·			Frost-Heave Hummocks (D7) (LRR F)
Field Observations:	2		1	
Surface Water Present? Yes N	lo 📝 Depth (inc	hes):		
		hes):		1
Saturation Present? Yes N		hes);	Wetland Hvd	rology Present? Yes No
(includes capillary fringe)				
Describe Recorded Data (stream gauge, mor	nitoring well, aerial p	hotos, previous inspe	ctions), if availab	le:
Remarks:				

SOIL

Project/Site: Overlook		City/County: _	Peyto	n/El Pase	Sampling D	)ate: <u> </u>	6123
Applicant/Owner: PT			ں 	State: <u>CC</u>	Sampling F	oint: <u>SP</u>	5-L
Investigator(s): <u>AM 5M</u>							
Landform (hillslope, terrace, etc.): <u>depression</u>				•	-		
Subregion (LRR): Rocky Mtn Range							
Soli Map Unit Name: 71? Pring COOSS 30							
Are climatic / hydrologic conditions on the site typical for this	<b>i i</b>			/			
Are Vegetation $N$ , Soil $N$ , or Hydrology $N$ s						s V N	n
Are Vegetation $\underline{N}$ , Soil $\underline{N}$ , or Hydrology $\underline{N}$ n				eded, explain any ar		•	
SUMMARY OF FINDINGS – Attach site map	-		-				s, etc.
Hydrophytic Vegetation Present? Yes V	0			-			
V -	°		Sampled		. / N-		
Wetland Hydrology Present? Yes 🖌 N	o 0	Within	a Wetlan	d? Yes_	<u> </u>		
Remarks:							
above average rainfall 61	2023	e.					
VEGETATION – Use scientific names of plan	ts.					<u></u>	
	Absolute	Dominant I		Dominance Test v	vorksheet:		
<u>Tree Stratum</u> (Plot size:) 1		<u>Species?</u>	Status	Number of Domina That Are OBL, FAC			
2		·		(excluding FAC-):		<u> </u>	(A)
3			1	Total Number of D	ominant		
4,				Species Across All		1	(B)
Sapling/Shrub Stratum (Plot size:)		= Total Cove	r	Percent of Domina That Are OBL, FAC		100	(A/B)
1				Prevalence Index	worksheet:		
2				Total % Cover	<u>of: N</u>	Aultiply by:	_
3 4				OBL species	<u> </u>	: 50	_
5.				FACW species			
		- Total Cove	r	FAC species			
Herb Stratum (Plot size:)	E12	./	- A - A - A	FACU species			
1. Poa palustris	<u>    50   </u> 20			UPL species			
2. Erigonum ovalifatium			UPL FACU	Column Totals:		270	_ (B)
3. Elymus trachycaulus				Prevalence Ir	ndex = B/A =	â.7	_
5				Hydrophytic Vege			
6				V 1 - Rapid ⊺est		Vegetation	
7,				$\frac{1}{\sqrt{2}}$ - Dominance			
8				Y 3 - Prevalence			
9				4 - Morphologi data in Rer	ical Adaptations' narks or on a sep	(Provide sup parate sheet)	porting
10				Problematic H	-		
Woody Vine Stratum (Plot size:)		= Total Cove		<sup>1</sup> Indicators of hydri be present, unless	ic soil and wetlan	d hydrology r	
1 2		· <u> </u>		Hydrophytic			
		= Total Cove	r	Vegetation			
% Bare Ground in Herb Stratum				Present?	Yes	No	
Remarks:							

### 

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)									
Depth Matrix Redox Features									
	marks								
0-7 04R 1/2 94 109R -1/8 6 C. PL CL									
7-12+ 104R4/1 94 104R5/8 3 C OL CL									
	·								
	-Hertifie								
	*****								
<sup>1</sup> Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup> Location: PL=Pore L									
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic	Hydric Soils <sup>3</sup> :								
Histosol (A1) Sandy Gleyed Matrix (S4) 1 cm Muck (A9) (LRR I,									
Histic Epipedon (A2) Sandy Redox (S5) Coast Prairie Redox (A1									
Black Histic (A3) Stripped Matrix (S6) Dark Surface (S7) (LRR									
Hydrogen Sulfide (A4)       Loamy Mucky Mineral (F1)       High Plains Depressions         Stratified Layers (A5) (LRR F)       Loamy Gleyed Matrix (F2)       (LRR H outside of M									
	ILKA / 2 & / 3)								
1 cm Muck (A9) (LRR F, G, H)       X Depleted Matrix (F3)       Reduced Vertic (F18)         Depleted Below Dark Surface (A11)       Redox Dark Surface (F6)       Red Parent Material (TF3)	סא								
Thick Dark Surface (A12)     Depleted Dark Surface (F7)     Very Shallow Dark Surface (F7)	-								
Sandy Mucky Mineral (S1) Redox Depressions (F8) Other (Explain in Remark									
2.5 cm Mucky Peat or Peat (S2) (LRR G, H) High Plains Depressions (F16)									
5 cm Mucky Peat or Peat (S3) (LRR F) (MLRA 72 & 73 of LRR H) wetland hydrology must	present,								
unless disturbed or problem	ematic.								
Restrictive Layer (if present):									
Туре:/Д	(								
Depth (inches): Yes	<u> </u>								
Remarks:									
	:								
HYDROLOGY									
Wetland Hydrology Indicators:									
Primary Indicators (minimum of one required; check all that apply)	imum of two required)								
Surface Water (A1) Salt Crust (B11) Surface Soil Cracks (E									
High Water Table (A2) Aquatic Invertebrates (B13) Sparsely Vegetated C									
Saturation (A3) Hydrogen Sulfide Odor (C1) Drainage Patterns (B1	· · ·								
Water Marks (B1) Dry-Season Water Table (C2) Oxidized Rhizosphere									
Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) (where tilled)									
Drift Deposits (B3) (where not tilled) Crayfish Burrows (C8)									
Algal Mat or Crust (B4) Presence of Reduced iron (C4) Saturation Visible on A									
Iron Deposits (B5) Thin Muck Surface (C7) Geomorphic Position (									
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) FAC-Neutral Test (D5)	,								
Water-Stained Leaves (B9)									
Field Observations:	···· (- · / (-··· (/								
Surface Water Present? Yes No Depth (inches);	- /								
Water Table Present? Yes No / Depth (inches): 10	/								
	V								
Saturation Present? Yes No V Depth (inches): Wetland Hydrology Present? Yes (includes capillary fringe)	<u>V</u> No								
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Province necessary para (sucan yange, monitoring weil, denai photos, previous inspections), il available:								
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:									
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:									

Project/Site:	City/C	County: Deutor	$\sqrt{EI}$	Paso	Sampling Da	ite: 6/26/23
Project/Site:		- J-	Stat	te:CO	Sampling Po	int:
Investigator(s): <u>SIM AM</u>						
Landform (hillslope, terrace, etc.):	Loca	l relief (concave, co	onvex, no	ne): <u>^^O// </u>		Slope (%):
Subregion (LRR): <u>Rocky Mbn Range</u> Lat:	39.0	6638736	Long: 🚬	104.545	30832 1	Datum: <u>NAD83</u>
Soil Map Unit Name: 71: Ang coasse sandy						
Are climatic / hydrologic conditions on the site typical for this time of	of year? Y	/es No	, (lf n	o, explain in R	emarks.)	<i>p</i>
Are Vegetation _ $\mathcal{N}_{}$ , Soil _ $\mathcal{N}_{}$ , or Hydrology _ $\mathcal{N}_{}$ significa	ntly distur	bed? Are "N	lormal Cìr	cumstances" p	resent? Yes	No
Are Vegetation $N$ , Soil $N$ , or Hydrology $N$ naturally	y problema	atic? (If nee	ded, expl	ain any answe	rs in Remarks	i.)
SUMMARY OF FINDINGS – Attach site map show	ing san	npling point lo	cations	, transects	, importan	t features, etc.
Hydrophytic Vegetation Present?       Yes No         Hydric Soil Present?       Yes No         Wetland Hydrology Present?       Yes No	· · · · · · · · · · · · · · · · · · · ·	is the Sampled / within a Wetland		Yes	No <u>\</u>	
Remarks:		L				
significantly large anount of prec	W Protecto	ien. 06 <b>/20</b>	<b>4</b> 3		a.	
VEGETATION – Use scientific names of plants.						
Abso		ninant Indicator	Dominar	nce Test work	sheet:	
Tree Stratum (Plot size:) <u>% Cc</u>	ver Spe	cles? <u>Status</u>		of Dominant S		

<u></u> /		Number of Dominant Species
1		That Are OBL, FACW, or FAC (excluding FAC-):
2		(excluding FAC=). $(-)$ (A)
3		Total Number of Dominant
4		Species Across All Strata: [1] (B)
	= Total Cover	Demont of Developed Operator
Sapling/Shrub Stratum (Plot size:)		Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
1		
2		Prevalence Index worksheet:
3		Total % Cover of:Multiply by:
4		OBL species x 1 =
		FACW species x 2 =
5		FAC species 50 x 3 = 150
Herb Stratum (Plot size:)	= Total Cover	FACU species x 4 =
1. Koeleria macrointha	25 UPL	UPL species x 5 = 175
2. Artemisia frigida	IS , UPL	Column Totals: <u>_ ろう</u> (A) <u>_ ろみろ</u> (B)
3. Potentilla effusa	30 V FAC	
4. Doa palustris	SO FAC	Prevalence Index = $B/A = \underline{3, 8}$
5. Crindelia squarosa		Hydrophytic Vegetation Indicators:
		1 - Rapid Test for Hydrophytic Vegetation
6		2 - Dominance Test is >50%
7		3 - Prevalence Index is ≤3.0 <sup>1</sup>
8		4 - Morphological Adaptations <sup>1</sup> (Provide supporting
9		data in Remarks or on a separate sheet)
10		Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
	<u> 85</u> = Total Cover	
Woody Vine Stratum (Plot size:)		<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1		
2		Hydrophytic
NE - NALES IK	= Total Cover	Vegetation Present? Yes No
8 Bare Ground in Herb Stratum	-58	
Remarks:		

### Sampling Point: <u>596-0</u>9

Profile Description: (Descri	be to the depth ne	eded to docume	nt the indicator or o	onfirm the absence of indicators.)
Depth <u>Matri</u>		Redox F	eatures	<u> </u>
(inches) Color (moist)		olor (moist)	<u>% Type<sup>1</sup> L</u>	.oc <sup>2</sup> Texture Remarks
0-7 108R 4/-	<u> </u>			Silty and 30th grovel
7-9.5 104R3/	<u>    100                               </u>			loamy clay 10% gravel
95-12 104RG/	3 100			
<sup>1</sup> Type: C=Concentration, D=I	Depletion RM=Redu		Covered or Coated S	and Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators: (App				Indicators for Problematic Hydric Soils <sup>3</sup> :
Histosol (A1)			yed Matrix (S4)	1 cm Muck (A9) (LRR I, J)
Histic Epipedon (A2)		Sandy Rec	• • •	Coast Prairie Redox (A16) (LRR F, G, H)
Black Histic (A3)		Stripped M		Dark Surface (S7) (LRR G)
Hydrogen Sulfide (A4)		Loamy Mu	cky Mineral (F1)	High Plains Depressions (F16)
Stratified Layers (A5) (LR			yed Matrix (F2)	(LRR H outside of MLRA 72 & 73)
1 cm Muck (A9) (LRR F,		Depleted N		Reduced Vertic (F18)
Depleted Below Dark Sur			k Surface (F6)	Red Parent Material (TF2)
Thick Dark Surface (A12) Sandy Mucky Mineral (S1			erk Surface (F7) pressions (F8)	Very Shallow Dark Surface (TF12) Other (Explain in Remarks)
2.5 cm Mucky Peat or Pe			Depressions (F16)	<sup>3</sup> Indicators of hydrophytic vegetation and
5 cm Mucky Peat or Peat			72 & 73 of LRR H)	wetland hydrology must be present,
	(, ()	(		unless disturbed or problematic.
Restrictive Layer (if present	):			
Туре:/Д				
Depth (inches):				Hydric Soil Present? Yes No 🕥
Remarks:				
HYDROLOGY				
Wetland Hydrology Indicato	rs:			
Primary Indicators (minimum	of one required; che	ck all that apply)		Secondary Indicators (minimum of two required)
X Surface Water (A1)		Salt Crust (B1	1)	Surface Soil Cracks (B6)
High Water Table (A2)	-	·	tebrates (B13)	Sparsely Vegetated Concave Surface (B8)
Saturation (A3)	•		fide Odor (C1)	Drainage Patterns (B10)
Water Marks (B1)			Vater Table (C2)	Oxidized Rhizospheres on Living Roots (C3)
Sediment Deposits (B2)	-	Oxidized Rhiz	ospheres on Living I	
Drift Deposits (B3)		(where not		Crayfish Burrows (C8)
Algal Mat or Crust (B4)		•	Reduced Iron (C4)	Saturation Visible on Aerial Imagery (C9)
Iron Deposits (B5)	-	Thin Muck Su	Iface (C7)	Geomorphic Position (D2)
$\underline{\times}$ Inundation Visible on Aer	ial Imagery (B7)		n in Remarks)	FAC-Neutral Test (D5)
Water-Stained Leaves (B	9)	-		Frost-Heave Hummocks (D7) (LRR F)
Field Observations:	1			
Surface Water Present?	Yes _√_ No	Depth (inche	s):(),	
Water Table Present?	Yes No	1 .	s);	/
Saturation Present?	Yes No		s):	Wetland Hydrology Present? Yes V No
(includes capillary fringe)				
Describe Recorded Data (stre	am gauge, monitorir	ng well, aerial pho	tos, previous inspec	tions), if available:
Remarks:				
1				

Project/Site: <u>()pelaste</u>	c	ity/County: <u>Perfo</u>	VEL Paso	_ Sampling Date: <u>6/26/23</u>
Applicant/Owner: <u>Y \</u>			State: <u>\\</u>	_ Sampling Point: <u>_ ろドー・ノー ()</u>
Investigator(s): <u>SMAN</u>				
Landform (hillslope, terrace, etc.):				
Subregion (LRR): Rockey Min Region	Lat: <u>39</u>	06457675	_ Long: <u>- 104,546</u>	586716 Datum: <u>A)AD83</u>
Soil Map Unit Name: <u>71 Frimer Course</u>	sciencity 1	CXCI419	NWI classif	fication: <u>N/A</u>
Are climatic / hydrologic conditions on the site typical fo	r this time of yea	? Yes No	⊻ (If no, explain in	Remarks.)
Are Vegetation, Soil, or Hydrology	significantly d	sturbed? Are	'Normal Circumstances'	present? Yes No
Are Vegetation, Soil, or Hydrology	naturally prob	lematic? (If ne	eded, explain any answ	/ers in Remarks.)
SUMMARY OF FINDINGS – Attach site m	ap showing s	sampling point l	ocations, transect	s, important features, etc.
Hydrophytic Vegetation Present? Yes	No V.			
		Is the Sampled		No
Hydric Soil Present?       Yes         Wetland Hydrology Present?       Yes	No	within a Wetlar	107 Yes	No <u></u>
Remarks:		·······		
significant large concurd	of purec	ipitation of	3/2023	
VEGETATION – Use scientific names of p			·····	
Tree Stratum (Plot size:)		Dominant Indicator Species? <u>Status</u>	Dominance Test wo	
1			Number of Dominant That Are OBL, FACW	
2			(excluding FAC-):	(A)
3.			Total Number of Dom	inant -
4.			Species Across All St	
Sapling/Shrub Stratum (Plot size:)		Total Cover	Percent of Dominant That Are OBL, FACW	
1			Prevalence Index wo	orksheet:
2			Total % Cover of	
3			OBL species	
4			FACW species	$O_{\times 2} = 40$
D		Total Cover	FAC species	10 x3= 120
Herb Stratum (Plot size:)	~	Total Cover	FACU species	15 x4= 100
1. Juncus arcticus	<u>20</u>	<u>FACIN</u>	UPL species	<u>'5</u> x5= <u>75</u>
2. Pour palustris	40	FAC	Column Totals:	<u>X)</u> (A) <u>335</u> (B)
3. Bassia scoperia	<u>20</u>	V FACU	Derveter er bede	ex = B/A = _3,4
4. Taraxacum officinale	<u> </u>	FACU	Hydrophytic Vegeta	
5. Koclaria macrantha		<u> 190 </u>		r Hydrophytic Vegetation
6			2 - Dominance Te	
7			3 - Prevalence In	
8				Adaptations <sup>1</sup> (Provide supporting
9			data in Remar	ks or on a separate sheet)
10			Problematic Hydr	ophytic Vegetation <sup>1</sup> (Explain)
<u>Woody Vine Stratum</u> (Plot size:) 1	•	· Total Cover		oil and wetland hydrology must sturbed or problematic.
2			Hydrophytic	
		Total Cover	Vegetation	/es No
% Bare Ground in Herb Stratum			11030111.	

· - .

Sampling Point: \_\_\_\_\_

	ription: (Describe	to the depth nee				or confirm	n the absence of in	ndicators.)
Depth (inches)	Matrix Color (moist)	% Co	<u>Redo</u> olor (moist)	<u>x Features</u> %		Loc <sup>2</sup>	Texture	Remarks
								Remarks
<u>L'idi</u>	101R / 3					******	loam_	
·					·			
		***************************************						
					h			
	Antonia da composita						••••••••••••••••••••••••••••••••••••••	
l								
<sup>1</sup> Type: C=Co	ncentration, D=Dep	letion, RM=Redu	ced Matrix, CS	 S=Covered	d or Coate	d Sand Gr	ains. <sup>2</sup> Locatio	n: PL=Pore Lining, M=Matrix.
	ndicators: (Applic							Problematic Hydric Soils <sup>3</sup> :
Histosol	(A1)		Sandy (	Gleyed Ma	trîx (S4)		1 cm Muck	(A9) ( <b>LRR I</b> , J)
Histic Ep	ipedon (A2)			Redox (S5			Coast Prair	ie Redox (A16) (LRR F, G, H)
Black His	stic (A3)		Stripped	l Matrix (S	6)		Dark Surfac	ce (S7) (LRR G)
-	n Sulfide (A4)			Mucky Min	• •			Depressions (F16)
	Layers (A5) (LRR I	•		Gleyed Ma			•	outside of MLRA 72 & 73)
	ck (A9) (LRR F, G, '			d Matrix (F			Reduced V	
	Below Dark Surfac rk Surface (A12)	e (ATT)		Dark Surfa d Dark Su				t Material (TF2) w Dark Surface (TF12)
	ucky Mineral (S1)		-	Depression				lain in Remarks)
	lucky Peat or Peat (	(S2) (LRR G. H)		ains Depre		16)		/drophytic vegetation and
	cky Peat or Peat (S		— ·	RA 72 & 7	•			Irology must be present,
		,						urbed or problematic.
Restrictive L	ayer (if present):							
Type:	<u>N/A</u>							<i>r</i>
Depth (inc	hes):						Hydric Soil Pres	sent? Yes No _
Remarks:							.F	
***								
	21/							······································
HYDROLO								
_	rology Indicators:						<b>.</b>	
	ators (minimum of c	one required; cheo						dicators (minimum of two required)
X Surface \	. ,	-	Salt Crust	• •				Soil Cracks (B6)
	ter Table (A2)	-	Aquatic In					Vegetated Concave Surface (B8)
Saturatio	· /	-	Hydrogen					e Patterns (B10)
Water Ma	. ,	-	Dry-Seaso		• • •			Rhizospheres on Living Roots (C3)
	t Deposits (B2)	-	Oxidized F		res on Livi	ng Roots (		tilled)
· - ·	osits (B3)		•	not tilled)		,		Burrows (C8)
	t or Crust (B4)	-	Presence		•	.)		n Visible on Aerial Imagery (C9)
iron Depo	• •	-	Thin Muck				-	phic Position (D2)
	n Visible on Aerial I	magery (B7)	Other (Exp	ain in Rei	manks)			utral Test (D5)
	ained Leaves (B9)						Frost-He	ave Hummocks (D7) (LRR F)
Field Observ		$\sim \sqrt{1}$	<b>N</b>	- <b>b</b> V				
Surface Wate		'es <u> </u>	1	ches):				
Water Table I		es No	7 ' `	-				.(
Saturation Pro (includes cap		'es No	I Depth (ind	ches):		Wetla	and Hydrology Pre	esent? Yes <u>V</u> No
	orded Data (stream	gauge, monitorir	ıg well, aerial ı	photos, pre	evious insi	pections). i	if available:	
				,,				
Remarks:								

Project/Site: <u>Overlock</u>	c	ity/County: <u>Peyte</u>	<u> </u>				
Applicant/Owner:			State: <u></u> Sampling Point: <u>うP- &amp;-し</u> や				
Investigator(s): <u>5M A</u> M	s	ection, Township, Ra	inge: <u>27, TIIS, RGUW</u>				
Landform (hillslope, terrace, etc.): <u> </u>							
Subregion (LRR): Rocky Mtn Region 1	Lat: <u>39</u>	106565957	Long: -104.54640993 Datum: NAIS83				
Soil Map Unit Name: 71 ? Pring course	sand	y loam 3.	NWI classification:N/ A				
Are climatic / hydrologic conditions on the site typical for this tir		<b>1 1</b>					
Are Vegetation, Soil, or Hydrology sign			"Normal Circumstances" present? Yes No				
Are Vegetation, Soil, or Hydrology natu			eeded, explain any answers in Remarks.)				
SUMMARY OF FINDINGS – Attach site map sh							
Hydrophytic Vegetation Present? Yes No	/						
Hydric Soil Present? Yes No _		Is the Sampled Area					
Wetland Hydrology Present? Yes No		within a Wetla	nd? Yes No				
Remarks:							
abore average rainfall 6/21	023						
VEGETATION – Use scientific names of plants.							
		Dominant Indicator Species? Status	Dominance Test worksheet:				
1			Number of Dominant Species That Are OBL, FACW, or FAC				
2			(excluding FAC-):(A)				
3			Total Number of Dominant				
4			Species Across All Strata: (B)				
Sapling/Shrub Stratum (Plot size:)		- Total Cover	Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)				
1 2			Prevalence Index worksheet:				
3			Total % Cover of:Multiply by:				
4			OBL species x 1 =				
5			FACW species $45$ x 2 = $30$				
		Total Cover	FAC species $15$ $x_3 = 45$ FACU species $15$ $x_4 = 60$				
Herb Stratum (Plot size:) 1. Kcelaria Macrantha	2.5	V DR	$\begin{array}{c} \text{FACU species}  \underline{15}  x4 = \underline{60} \\ \text{UPL species}  \underline{45}  x5 = \underline{235} \end{array}$				
2. Erigeron glabellus	<u> </u>	FACW	Column Totals: $\underline{-40}$ (A) $\underline{-360}$ (B)				
3. Rosa woodsii	<u>ຼ</u>	FACU					
4. Poa palustris	10	FACU	Prevalence Index = B/A =				
5. Potentilla effusa	15	FAC	Hydrophytic Vegetation Indicators:				
6. Artemisia friciala		UPL	1 - Rapid Test for Hydrophytic Vegetation				
7			2 - Dominance Test is >50%				
8			3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting				
9			data in Remarks or on a separate sheet)				
10			Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)				
Woody Vine Stratum (Plot size:)		- Total Cover	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.				
1			Hudronhutio				
		Total Cover	Hydrophytic Vegetation Present? Yes <u>No</u>				
Remarks:							

- · .,

4 . j

### Sampling Point: <u>3P & -U</u>P

Profile Description: (Describe to the dept	h needed to document the indicator or o	confirm the absence of indicators.)
Depth <u>Matrix</u>	Redox Features	
(inches) Color (moist) %	Color (moist) % Type <sup>1</sup> I	Loc <sup>2</sup> Texture Remarks
C)-8.5 104R 3/3 100		silly sand 60°20 gravel
35-12 104R 1/2 100		<u>CI 20% arourel</u>
· · · ·		L T
· · · · · · · · · · · · · · · · · · ·		
		Cond Overing 21 exertions DI - Dave Living M-Metric
Type: C=Concentration, D=Depletion, RM= Hydric Soil Indicators: (Applicable to all		Sand Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Soils <sup>3</sup> :
Histosol (A1)	Sandy Gleyed Matrix (S4)	1 cm Muck (A9) (LRR I, J)
Histic Epipedon (A2)	Sandy Redox (S5)	Coast Prairie Redox (A16) (LRR F, G, H)
Black Histic (A3)	Stripped Matrix (S6)	Dark Surface (S7) (LRR G)
Hydrogen Sulfide (A4)	Loamy Mucky Mineral (F1)	High Plains Depressions (F16)
Stratified Layers (A5) (LRR F)	Loamy Gleyed Matrix (F2)	(LRR H outside of MLRA 72 & 73)
1 cm Muck (A9) (LRR F, G, H)	Depleted Matrix (F3)	Reduced Vertic (F18)
Depleted Below Dark Surface (A11)	Redox Dark Surface (F6)	Red Parent Material (TF2)
Thick Dark Surface (A12)	Depleted Dark Surface (F7)	Very Shallow Dark Surface (TF12)
Sandy Mucky Mineral (S1)	Redox Depressions (F8)	Other (Explain in Remarks)
2.5 cm Mucky Peat or Peat (S2) (LRR G		
5 cm Mucky Peat or Peat (S3) (LRR F)	(MLRA 72 & 73 of LRR H)	
Destulation 1 aven (if are ant).		unless disturbed or problematic.
Restrictive Layer (if present): Type:1∕A		
Depth (inches):		Hydric Soil Present? Yes No _⊻
Remarks:		
HYDROLOGY		
Wetland Hydrology Indicators:		
		Concerdant (relianters (relations) of two wards)
Primary Indicators (minimum of one required		Secondary Indicators (minimum of two required)
Surface Water (A1)	Salt Crust (B11)	Surface Soil Cracks (B6)
High Water Table (A2)	Aquatic Invertebrates (B13)	Sparsely Vegetated Concave Surface (B8)
Saturation (A3)	Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
Water Marks (B1)	Dry-Season Water Table (C2)	Oxidized Rhizospheres on Living Roots (C3)
Sediment Deposits (B2)	Oxidized Rhizospheres on Living	
Drift Deposits (B3)	(where not tilled)	Crayfish Burrows (C8)
Algal Mat or Crust (B4)	Presence of Reduced Iron (C4)	Saturation Visible on Aerial Imagery (C9)
Iron Deposits (B5)	Thin Muck Surface (C7)	Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7	<ol> <li>Other (Explain in Remarks)</li> </ol>	FAC-Neutral Test (D5)
Water-Stained Leaves (B9)		Frost-Heave Hummocks (D7) (LRR F)
Field Observations:		
Surface Water Present? Yes !	<b>A</b>	
Water Table Present? Yes !	5	
Saturation Present? Yes !	No Depth (inches):	Wetland Hydrology Present? Yes No <u>V</u>
(includes capillary fringe) Describe Recorded Data (stream gauge, mo	nitoring well aerial photos, previous insper	tions) if available:
1		
Remarks:		
Remarks:		
Remarks:		

Project/Site:		City/County: Peyto	0/ E1 Paso_Sampling Date: 6/26/23
Applicant/Owner:		J	State: <u>CO</u> Sampling Point: <u>SP 9 - U</u>
Investigator(s): <u>SMAM</u>		Section, Township, Ra	nge: 27, TIIS, RGUW
			convex, none): Slope (%):
Subregion (LRR): Rocky Mtn	Region Lat: 2	39.0658935	Long: -104.54423586Datum: NADS3
	·		NWI classification: N/A
Are climatic / hydrologic conditions on the s		•	
			"Normal Circumstances" present? Yes No
Are Vegetation, Soil, or Hyd			
			ocations, transects, important features, etc.
Hudrophytic Vegetation Propert?	Yes V No 2		
, , , , , , , , , , , , , , , , , , , ,	Yes No V/	Is the Sampled	/
	Yes No	within a Wetlar	nd? Yes No
Remarks:		<b>I</b>	i i
above average raint	Fall 6/2023		
VEGETATION – Use scientific na	ames of plants.		
Tree Stratum (Plot size:	Absolute	Dominant Indicator	Dominance Test worksheet:
1			Number of Dominant Species That Are OBL, FACW, or FAC
2			(excluding FAC-):
3			Total Number of Dominant
4			Species Across All Strata: (B)
Sapling/Shrub Stratum (Plot size:	)	_ = Total Cover	Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
1			Prevalence Index worksheet:
2			Total % Cover of: Multiply by:
3			OBL species x1 =
4			FACW species $50$ x2= $100$
5		= Total Cover	FAC species x 3 =
Herb Stratum (Plot size:	)		FACU species x 4 =
1. Juncus arcticus		FACu	UPL species x 5 =
2. <u>Poa palustris</u>	<u> 46,</u>	FACW	
3. Eriaeran alabeilus		FACW	Prevalence Index = B/A =
4			Hydrophytic Vegetation Indicators:
5			$\underline{V}$ 1 - Rapid Test for Hydrophytic Vegetation
6			2 - Dominance Test is >50%
7			$\cancel{4}$ 3 - Prevalence Index is $\leq 3.0^{1}$
8			4 - Morphological Adaptations <sup>1</sup> (Provide supporting
9 10.			data in Remarks or on a separate sheet)
107		_ = Total Cover	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Woody Vine Stratum         (Plot size:	)	_	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2			Hydrophytic /
% Bare Ground in Herb Stratum		= Total Cover	Vegetation Present? Yes No
Remarks:		•	·

# Sampling Point: <u>SP 4 0</u>P

Profile Desc	cription: (Describe	to the depth ne	eded to docun	ent the i	ndicator	or confirm	n the absence	of indicators	5.)
Depth	Matrix			Feature	s				
(inches)	Color (moist)	<u>%</u> <u>C</u>	olor (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture		Remarks
0-6	104R 4/2	100		*****			<u> </u>	<u> 80%</u>	gravel
6-9	104R 3/3						-ilter:	Served	36%
9-12+	1048 3/3	98				2	still	sand	era h
	<u>, , , , , , , , , , , , , , , , , , , </u>		·*				0		<u>, na stander and stand</u>
							<u> </u>		
				,	*****		<u> </u>		
<sup>1</sup> Type: C=C	oncentration, D=Dep	letion RM=Red	uced Matrix CS	=Coverer	t or Coate	d Sand Gr			ore Lining, M=Matrix.
	Indicators: (Applic								atic Hydric Soils <sup>3</sup> :
Histosol				ileyed Ma	-			/uck (A9) (LR	-
	pipedon (A2)			edox (S5					(A16) (LRR F, G, H)
	istic (A3)			Matrix (S	-			iurface (S7) (	
Hydroge	en Sulfide (A4)			lucky Min				lains Depress	
Stratified	d Layers (A5) ( <b>LRR I</b>	F_)	Loamy C	Bleyed Ma	atrix (F2)		(LR	R H outside	of MLRA 72 & 73)
1	uck (A9) ( <b>LRR F, G,</b> i			l Matrix (F	•			ed Vertic (F18	•
	d Below Dark Surfac	e (A11)		ark Surfa				arent Materia	
	ark Surface (A12)				rface (F7)				Surface (TF12)
<b>-</b>	/lucky Mineral (S1) /lucky Peat or Peat (	(92) <b>/ PD C U</b>		epression	ns (F8) essions (F	16)		(Explain in Re	marks) c vegetation and
	ucky Peat or Peat (S				3 of LRR	•			ust be present,
		o)( <b>Liu</b> (1))		u() = u )		••,		disturbed or	
Restrictive	Layer (if present):						1		
Type:	NI/A								/
Depth (in	ches):						Hydric Soil	Present?	Yes No 🗸
Remarks:									
HYDROLO	GY								
Wetland Hy	drology Indicators:							·	
Primary India	cators (minimum of o	ne required; che	ck all that apply	')			Seconda	ry Indicators	(minimum of two required)
1	Water (A1)		Salt Crust (					ace Soil Crac	· · · · ·
1	ter Table (A2)		Aquatic Inv	•	s (B13)				ed Concave Surface (B8)
Saturatio			 Hydrogen S		• •			nage Patterns	
	larks (B1)		Dry-Season					-	heres on Living Roots (C3)
	nt Deposits (B2)		Oxidized R		• •	ng Roots (		here tilled)	
	posits (B3)		 (where n			- `		/fish Burrows	(C8)
	at or Crust (B4)		Presence o	'	d Iron (C4	)			on Aerial Imagery (C9)
Iron Dep	oosits (B5)		Thin Muck					morphic Posit	
Inundati	on Visible on Aerial I	magery (B7)	Other (Exp	ain in Rei	marks)		FAC	-Neutral Test	(D5)
Water-S	tained Leaves (B9)						Fros	t-Heave Hum	mocks (D7) (LRR F)
Field Obser	vations:		1						······································
Surface Wate	er Present? Y	'es No	Depth (inc	hes):					
Water Table	Present? Y	'es 📝 No 🗌	Depth (inc		8	_			,
Saturation P	resent? Y	es No	Depth (inc		· · · ·	Wetla	and Hydrology	/ Present?	Yes No
(includes cap	oillary fringe)								··· - ¥
Describe Re	corded Data (stream	gauge, monitori	ng well, aerial p	hotos, pre	evious insp	pections),	if available:		
	····								
Remarks:									

	(	City/Cou	nty: <u>Perto</u>	n/EL Paro Sampling Date: <u>6/26/23</u>
Applicant/Owner:			<u> </u>	State: <u></u> Sampling Point: <u></u> SP <u>タール</u>
				nge: 27, TUS, QGUM
				convex, none): <u></u>
Subregion (LRR): <u>Rocky Mtn Region</u>	_ Lat: <u>3</u>	0.065	574683	_Long: <u>~104.544264347</u> Datum: <u>NAD83</u>
Soil Map Unit Name: MIPCIAG coarse 20	indy 1	Carl	<u>-8-8</u>	NWI classification:N/A
Are climatic / hydrologic conditions on the site typical for this				
Are Vegetation, Soil, or Hydrology s	ignificantly (	disturbed	d? Are '	'Normal Circumstances' present? Yes No
Are Vegetation, Soil, or Hydrology n	aturally pro	blematic		eeded, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map				
Hydric Soil Present? Yes V	0 0 0		the Sampleo Athin a Wetlan	
above average rainfall 6/3	2023			
VEGETATION – Use scientific names of plan	ts.			
<u>Tree Stratum</u> (Plot size:) 1		Specie	ant Indicator <u>s? Status</u>	Dominance Test worksheet:         Number of Dominant Species         That Are OBL, FACW, or FAC         (excluding FAC-):         (A)
2 3 4				Total Number of Dominant Species Across All Strata: 1 (B)
Sapling/Shrub Stratum (Plot size:)		= Total (	Cover	Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
1 2				Prevalence Index worksheet:
3,				Total % Cover of: Multiply by:
4				OBL species <u>10</u> x 1 = <u>10</u>
5				FACW species x 2 =
		= Total (	Cover	FAC species x 3 =
Herb Stratum (Plot size:)	6		r	FACU species x 4 =
1. the palostris	10		<u>— Facu</u> Facu	UPL species $\underline{1}$ x 5 = $\underline{5}$ Column Totals: $\underline{26}$ (A) $\underline{125}$ (B)
3. Schoenoplectus pungens			_ <u> </u>	Column Totals: $(A)$ $(A)$ $(B)$
4. Trifolium fragiferum	· _40	¥	1.0	Prevalence Index = B/A = 1.3
5				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7				✓ 2 - Dominance Test is >50%
8				$\cancel{1}$ 3 - Prevalence Index is $\leq 3.0^{1}$
9				4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
10				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
<u>Woody Vine Stratum</u> (Plot size:) 1	_96			<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2				Hydrophytic
% Bare Ground in Herb StratumU Remarks:		= Total (	Cover	Vegetation Present? Yes V No

### Sampling Point: <u>SP 9--</u>W

	ription: (Describe	to the depth r				or confirm	the absence	e of indicat	ors.)
Depth	<u>Matrix</u> Color (moist)	%	Redox Color (moist)	<pre>     Feature:</pre>		Loc <sup>2</sup>	Texture		Demerke
(inches)	1042 4/2							Grand and	Remarks
0-10	UTK 72	98		2		Herterterterterterterterterterterterterte		2076	gan
									0
									***************************************
					<u> </u>				
************************	******			*****	······		<u>++++++</u>		
					·				
<sup>1</sup> Type: C=Co	incentration, D=Dep	letion. RM=Re	duced Matrix. CS	=Covered	d or Coate	d Sand Gr	ains. <sup>2</sup> Lo	cation: PL=	=Pore Lining, M=Matrix.
	ndicators: (Applic	······		*******					ematic Hydric Soils <sup>3</sup> :
Histosol				leyed Ma	-			Muck (A9) (	-
	ipedon (A2)			edox (S5	• •				dox (A16) (LRR F, G, H)
Black His	stic (A3)		Stripped	Matrix (S	6)			Surface (S7	
Hydroge	n Sulfide (A4)		Loamy N	/lucky Mir	neral (F1)		High I	Plains Depr	essions (F16)
	Layers (A5) (LRR I			Bleyed Ma			•		de of MLRA 72 & 73)
	ck (A9) (L <b>RR F, G,</b>	•	<u>X.</u> Depleted	•	•			ed Vertic (l	
	Below Dark Surfac	e (A11)		ark Surfa	• •			arent Mate	
	rk Surface (A12)		·		rface (F7)		-		rk Surface (TF12)
	ucky Mineral (S1) lucky Peat or Peat (			epression	ns (F8) essions (F1	16)		(Explain in	Remarks) Nytic vegetation and
	cky Peat or Peat (S			-	3 of LRR	•			y must be present,
	oxy roar of roar (or	0) (LIU(1)	(1112)			•••			or problematic.
Restrictive L	ayer (if present):								
	N/A								and the second se
	:hes):						Hydric Soi	Present?	Yes 🗸 No
Remarks:	· · ·					1.5			
						× 1			
						1			*******
HYDROLO	GY								
Wetland Hyd	Irology Indicators:								
t s	ators (minimum of c		heck all that apply	A)			Second	arv Indicato	rs (minimum of two required)
X Surface			Salt Crust					face Soil C	
1	ter Table (A2)		Aquatic Inv		s (B13)				tated Concave Surface (B8)
Saturatio			Hydrogen S		, ,			inage Patte	
	arks (B1)		Dry-Seaso					-	ospheres on Living Roots (C3)
	t Deposits (B2)		Oxidized R		• •	na Roots (		vhere tilled	
	osits (B3)			ot tilled)		J		yfish Burro	•
	t or Crust (B4)		Presence of	,		)		•	ble on Aerial Imagery (C9)
-	osits (B5)		Thin Muck		•	•			osition (D2)
	on Visible on Aerial I	Imagery (B7)	Other (Exp					C-Neutral T	. ,
I —	ained Leaves (B9)	3 , ( ,			,				ummocks (D7) (LRR F)
Field Observ	ations:	/							
Surface Wate	er Present? Y	es V No	Depth (inc	hes):	05				
Water Table			Depth (inc			-			j.
Saturation Pr		es <u> </u>					and Hydrolog	v Present	Yes V No
(includes cap		UVI 1NU _						y i reachtili	. 163 <u>4</u> MU
	orded Data (stream	i gauge, monito	oring well, aerial p	hotos, pr	evious insp	pections),	if available:		
Remarks:									
		ļ							
		1							

		c	ity/County: _	Peuto	N/El Paso Sampling Date: 6/3	26/23
	•				State: CO Sampling Point: State:	
Investigator(s): <u>AM 5M</u>		S	ection, Towr	nship, Rar	nge: 24, TIIS, RGUW	
Landform (hillslope, terrace, etc.):	vale	l	_ocal relief (c	oncave, c	convex, none): <u>CONCAVE</u> Slope (%):	0
Subregion (LRR): Rocky Mtr	Region	Lat: <u>39</u>	.06526	વહર	Long: -104.54397546 Datum: K	JADS 2
Soil Map Unit Name: 71: Pring	coarse =	andu lo	am, 3	-8	NWI classification: 1/A	
Are climatic / hydrologic conditions on th	e site typical for t	his time of year	r? Yes	No`		*****
Are Vegetation <u>N</u> , Soil <u>N</u> , or I	Hydrology <u>N</u>	_significantly d	isturbed?	Are "I	Normal Circumstances" present? Yes N	o
Are Vegetation, Soil, or I	Hydrology <u>N</u>	_ naturally prob	lematic?		eded, explain any answers in Remarks.)	
SUMMARY OF FINDINGS - A	tach site ma	p showing s	sampling		ocations, transects, important feature	s, etc.
Hydrophytic Vegetation Present?	Yes	No V			-	
Hydric Soil Present?	Yes	No 🔨		Sampled		
Wetland Hydrology Present?	Yes 🔨	No	within	a Wetlan	a? Yes No <u></u>	
Remarks:						
above rerage rai	infall e	12023				
VEGETATION – Use scientific	names of pla	nts.				
Tree Stratum (Piot size:	\		Dominant In Species? S		Dominance Test worksheet:	
1	,				Number of Dominant Species That Are OBL, FACW, or FAC	
2					(excluding FAC-):	(A)
3					Total Number of Dominant	
4					Species Across All Strata:	(B)
Sapling/Shrub Stratum (Plot size:			Total Cover		Percent of Dominant Species	
1	,				That Are OBL, FACW, or FAC:	(A/B)
2				t	Prevalence Index worksheet:	
3					Total % Cover of:Multiply by:	
4					OBL species $36 \times 1 = 30$	
5			•••••		FACW species $x_2 = 60$	-
Horb Strature (Dist size)	,	=	Total Cover		FAC species x3 =	-
Herb Stratum (Plot size:	)	AK	٢	have	FACU species $35 \times 4 = 146$ UPL species $x 5 =$	-
2. Erigeron alabellis		_ <del>4</del> _		Acw Acw		 (D)
3. Taxavacum officin	na le			ACU		_ (B)
4. Allion acueri	<u> </u>			FACU	Prevalence Index = B/A = <u>2.6</u>	
5. Achillea millefolium		$\overline{-10}$		AU	Hydrophytic Vegetation Indicators:	
6. Poa pratensis		10		ACU	1 - Rapid Test for Hydrophytic Vegetation	
7. Juncos brachycept	nalus	20		DBL	2 - Dominance Test is >50%	
8					✓ 3 - Prevalence Index is ≤3.0 <sup>1</sup>	
9			P4000		4 - Morphological Adaptations <sup>1</sup> (Provide supplications) (Provide supplicat	porting
10					Problematic Hydrophytic Vegetation <sup>1</sup> (Explai	n)
Woody Vine Stratum (Plot size:			Total Cover		<sup>1</sup> Indicators of hydric soil and wetland hydrology m be present, unless disturbed or problematic.	,
1					· · · · · · · · · · · · · · · · · · ·	
% Bare Ground in Herb Stratum		×	Total Cover		Hydrophytic Vegetation Present? Yes <u>No</u>	
% bare Ground in Herb Stratum	)			4		

,

į

Sampling Point:

Profile Desc	ription: (Describ	e to the depth	needed to docur	nent the i	ndicator	or confirm	n the absence of inc	licators.)
Depth	Matrix		Redo	x Feature	s			
(inches)	<u>Color (moist)</u>	%	Color (moist)			Loc <sup>2</sup>		Remarks
<u>0-6</u>	104R 3/3						<u>100m</u>	
6-12+	108R º/2						<u>silty loan</u>	s soz graver
								<u> </u>
				_	• • • • • • • • • • • • • • • • • • •			
	P				·	<u> </u>		
			1			,		
	····							
	oncentration, D=De Indicators: (Appl					d Sand Gr	rains. <sup>2</sup> Location: Indicators for P	PL=Pore Lining, M=Matrix.
-								A9) (LRR I, J)
Histosol Histic Er	oipedon (A2)		Sandy Sandy I					e Redox (A16) (LRR F, G, H)
	istic (A3)			d Matrix (S				e (S7) (LRR G)
	en Sulfide (A4)			Mucky Mi				Depressions (F16)
Stratified	d Layers (A5) (LRF	<b>₹</b> F)		Gleyed M				outside of MLRA 72 & 73)
	uck (A9) (LRR F, G			d Matrix (			Reduced Ve	
·	d Below Dark Surfa	ace (A11)	Married and a second	Dark Surfa M Dark Su	ace (⊢6) ⊥rface (F7)			Material (TF2) v Dark Surface (TF12)
	ark Surface (A12) /lucky Mineral (S1)			Depressio	• •			ain in Remarks)
	Mucky Peat or Pea				essions (F	16)		trophytic vegetation and
5 cm Μι	icky Peat or Peat (	(S3) (LRR F)	(ML	RA 72 &	73 of LRR	<b>H</b> )		rology must be present,
					·····		unless distu	rbed or problematic.
i	Layer (if present)							/
Type:	je <sup>n</sup>		_					
Depth (in	ches):				·····		Hydric Soll Pres	ent? Yes No
Remarks:								
HYDROLO	GY							
Wetland Hy	drology Indicator	s:						
Primary Indi	cators (minimum o	fone required; a	check all that app	ly)			Secondary Inc	dicators (minimum of two required)
Surface	Water (A1)		Salt Crust	(B11)				oil Cracks (B6)
Length High Wa	ater Table (A2)		Aquatic Ir				1	Vegetated Concave Surface (B8)
Saturati			Hydrogen		• •		~	Patterns (B10)
	larks (B1)	× .	-		Table (C2)			Rhizospheres on Living Roots (C3)
	nt Deposits (B2)				eres on Liv	ing Roots		•
	posits (B <b>3</b> ) at an Crust (B4)		(where Presence	not tilled		4)		Burrows (C8) n Visible on Aerial Imagery (C9)
	at or Crust (B4) posits (B5)		Thin Mucl			* <i>1</i>		hic Position (D2)
• <del></del> ·	ion Visible on Aeria	al Imagery (B7)	Other (Ex					tral Test (D5)
· · ·	Stained Leaves (BS		(=		· ···,			ave Hummocks (D7) (LRR F)
Field Obser		•				T		•••
Surface Wat	ter Present?	Yes No	Depth (ir	nches):				
Water Table			· ·	nches):				2
Saturation F		Yes No	Depth (ir			Wet	land Hydrology Pre	sent? Yes 🗹 🛛 No
(includes ca	pillary fringe)							······
Describe Re	corded Data (strea	an gauge, mon	ioring well, aerial	priotos, p		spections),	, и ауанале;	
Domenticat								
Remarks:								
			2					

Project/Site: <u>Overlook</u>		Ci	ty/County: _	Peyte				
Applicant/Owner: <u>PT</u>					State: <u></u>			<u>2 11-0</u> F
Investigator(s): <u>SM_AM</u>								·
Landform (hillslope, terrace, etc.):t								
Subregion (LRR): <u>Qocku Mtn</u>	64							
Soil Map Unit Name: <u>711 126 n.q.</u>	roasie se	ndy loar	<u>1, 3-8</u>		NWI classifi	cation: <u> </u>	<u> </u>	
Are climatic / hydrologic conditions on the	site typical for the	is time of year	? Yes	No	(If no, explain in F	≀emarks.)	<i>k</i>	
Are Vegetation <u>N</u> , Soil <u>N</u> , or H	ydrology	significantly di	sturbed?	Are "	Normal Circumstances"	present? Ye	∗s <u>V</u> N	No
Are Vegetation _ $ igcarrow$ _, Soil _ $ igcarrow$ _, or H	ydrology <u>N</u> r	naturally probl	ematic?	(If ne	eded, explain any answe	ers in Remark	(s.)	
SUMMARY OF FINDINGS - Att	ach site map	showing s	ampling	point le	ocations, transects	s, importa	nt feature	es, etc.
Hydrophytic Vegetation Present?	Yes N	10_V	lo the f	2 mm m la ul	A		<i></i>	
Hydric Soil Present?	Yes N	4o <u>√/</u>		Sampled a Wetlan		No		
Wetland Hydrology Present?	Yes N	40 <u> </u>	Within .	a wetian	iui res	NU	<u> </u>	
Remarks:								
above currage rains	iall 6/2	023						
VEGETATION Use scientific	names of plar	nts.				<u></u>		
Tree Stratum (Plot size:	)	Absolute I % Cover S	Dominant In		Dominance Test worl			
1					Number of Dominant S That Are OBL, FACW,			
2					(excluding FAC-):		<u> </u>	(A)
3					Total Number of Domi	nant		
4					Species Across All Stra		<u> </u>	(B)
Sapling/Shrub Stratum (Plot size:		=	Total Cover		Percent of Dominant S That Are OBL, FACW,		0	_ (A/B)
1					Prevalence Index wo	rksheet:		
2					Total % Cover of:		luitiply by:	
3					OBL species	x1=		
45.					FACW species _ 23	<u>5                                    </u>	<u>_60</u>	
			Total Cover			x 3 =		_
Herb Stratum (Plot size:	)				FACU species1	Śx4 ≃	_60_	_
1. Koeleria macrantha			(	JPL	UPL species	<u>ン</u> ×5=	_200	_
2. Achillec millefolium		<u> </u>		<u>ACU</u>	Column Totals: <u> </u>	<u>)</u> (A)	310	(B)
3. Artemisia frigida		<u> </u>		JPL	Prevalence Index	( = Β/Δ =	29	
4. <u>Poa palustris</u>				Acw	Hydrophytic Vegetati			
5. Taraxacum officine	•			<u>6004</u>	1 - Rapid Test for			
6					2 - Dominance Te			
7					3 - Prevalence Ind			
8					4 - Morphological	Adaptations <sup>1</sup>	(Provide sur	pporting
9					data in Remark	s or on a sep	arate sheet	)
10			Total Cover		Problematic Hydro	phytic Veget	ation <sup>1</sup> (Expla	ain)
Woody Vine Stratum (Plot size: 1					<sup>1</sup> Indicators of hydric so be present, unless dist	il and wetland urbed or prot	i hydrology Jematic,	must
2					Hydrophytic			
% Bare Ground in Herb Stratum			Total Cover		Vegetation	es I	No	
Remarks:								

# Sampling Point: <u>SP 11 - U</u>P

Profile Desc	ription: (Describe to the	depth needed to docum	ent the indicator or	confirm th	e absence	of indicators.)
Depth	Matrix		Features	<u> </u>		
(inches)	Color (moist) %	Color (moist)	<u>% Type<sup>1</sup></u>	Loc <sup>2</sup>	Texture	Remarks
0-12	104R 3/2				<u>CL</u>	
						·
			·			
				·····		
			••••••••••••••••••••••••••••••••••••••			
<u> </u>						
	ncentration, D=Depletion,					ation: PL=Pore Lining, M=Matrix.
	ndicators: (Applicable to					for Problematic Hydric Soils <sup>3</sup> :
Histosol			leyed Matrix (S4)			luck (A9) (LRR I, J)
	olpedon (A2)	Sandy R	· ·			Prairie Redox (A16) (LRR F, G, H)
Black His	stic (A3) n Sulfide (A4)	Stripped	· · ·			urface (S7) (LRR G)
	Layers (A5) (LRR F)	—	lucky Mineral (F1) leyed Matrix (F2)		— •	lains Depressions (F16) R H outside of MLRA 72 & 73)
	ck (A9) (LRR F, G, H)		Matrix (F3)		•	ed Vertic (F18)
	Below Dark Surface (A11	— ·	ark Surface (F6)			arent Material (TF2)
	nk Surface (A12)		Dark Surface (F7)			hallow Dark Surface (TF12)
1	lucky Mineral (S1)		epressions (F8)			Explain in Remarks)
2.5 cm M	lucky Peat or Peat (S2) (L		ns Depressions (F16)		<sup>3</sup> Indicators	of hydrophytic vegetation and
5 cm Mu	cky Peat or Peat (S3) (LRF	RF) (MLF	A 72 & 73 of LRR H	)	wetland	I hydrology must be present,
					uniess	disturbed or problematic.
	ayer (if present):					
Type:	<u>N/A</u>					
Depth (inc	ches):			1	lydric Soil	Present? Yes No
Remarks:						
HYDROLO						
Wetland Hyd	frology Indicators:					
Primary Indic	ators (minimum of one req	uired; check all that apply	)		<u>Seconda</u>	ry Indicators (minimum of two required)
Surface	Water (A1)	Salt Crust (	B11)		Surfa	ace Soil Cracks (B6)
🛛 🔄 High Wa	ter Table (A2)	Aquatic Inv	ertebrates (B13)		Spar	sely Vegetated Concave Surface (B8)
Saturatio	on (A3)	Hydrogen 8	Sulfide Odor (C1)		Drair	nage Patterns (B10)
Water M	arks (B1)	Dry-Seasor	n Water Table (C2)		Oxid	lized Rhizospheres on Living Roots (C3)
Sedimen	nt Deposits (B2)	Oxidized R	nizospheres on Living	Roots (C3	) (w	here tilled)
Drift Dep	oosits (B3)	(where n	ot tilled)		Cray	fish Burrows (C8)
🛛 🔄 Algal Ma	t or Crust (B4)	Presence of	f Reduced Iron (C4)		Satu	ration Visible on Aerial Imagery (C9)
Iron Dep	osits (B5)	Thin Muck	Surface (C7)		Geor	morphic Position (D2)
Inundatio	on Visible on Aerial Imagen	/ (B7) Other (Exp	ain in Remarks)		FAC	-Neutral Test (D5)
Water-St	tained Leaves (B9)				Fros	t-Heave Hummocks (D7) (LRR F)
Field Observ	vations:			1		
Surface Wate	er Present? Yes	No Depth (inc	hes):			
Water Table	Present? Yes $$	No Depth (inc				www
Saturation Pr	resent? Yes	No Depth (inc	•	Wetland	l Hydrology	/ Present? Yes No
(includes cap	illary fringe)		-			· · · · · · · · · · · · · · · · · · ·
Describe Red	corded Data (stream gauge	, monitoring well, aerial p	hotos, previous inspe	ctions), if a	vailable:	
Remarks:						
*****						

Project/Site: Ownow		-	City/County: Peyt	on/El Paso_Sampling Date: <u>6/26/23</u>
Applicant/Owner:			·	State: <u>CO</u> Sampling Point: SP 12-(
Investigator(s): <u> </u>			Section, Township, Ra	ange: <u>27, T115, R64W</u>
Landform (hillslope, terrace, etc.):	wale		Local relief (concave,	convex, none): <u>Oone</u> Slope (%): <u>O</u>
Subregion (LRR): Rocky Mtr	, Region	Lat: 🔀	9.06603313	Long: -104.54297164 Datum: NAD83
Soil Map Unit Name: 71: Poince	COASe	nandu	100m 3-8	NWI classification: Datum
ل Are climatic / hydrologic conditions on t				
Are Vegetation $\underline{N}$ , Soil $\underline{N}$ , or				
				"Normal Circumstances" present? Yes <u>V</u> No
Are Vegetation <u>い</u> , Soil <u>い</u> , or SUMMARY OF FINDINGS – A			-	eeded, explain any answers in Remarks.) ocations, transects, important features, etc.
				· · · · · · · · · · · · · · · · · · ·
Hydrophytic Vegetation Present?	Yes		Is the Sampled	f Area
Hydric Soil Present?	Yes		within a Wetla	nd? Yes No
Wetland Hydrology Present? Remarks:	Yes <u>V</u>	No		••••••••••••••••••••••••••••••••••••••
above everage rai	nfall 6,	12023		
VEGETATION – Use scientific	names of pl			
Tree Stratum (Plot size:	)	Absolute % Cover	Dominant Indicator Species? Status	Dominance Test worksheet:
1				Number of Dominant Species That Are OBL, FACW, or FAC
2				(excluding FAC-):
3				Total Number of Dominant
4				Species Across All Strata: (B)
Sapling/Shrub Stratum (Plot size:	-		= Total Cover	Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
12			······	Prevalence Index worksheet:
23				Total % Cover of: Multiply by:
				OBL species $10$ $x1 = 10$
45	٦			FACW species 10 x2 = 20
			= Total Cover	FAC species x 3 =
Herb Stratum (Plot size:	)	****		FACU species 10 x4= 40
1. Poa palustris			FACW	
2. Juneus brachycer	shalus	<u>    io  </u>	OBL	Column Totals: <u>55</u> (A) <u>195</u> (B)
3. Actenisia Iudovici	anci	5	UPL	
4. Voa pratensis			FACU	Prevalence index = B/A = <u>3.5</u>
5. Artemisia frigida		<u> </u>	UPL	Hydrophytic Vegetation Indicators:
6. Bromus tectorium			UPL	1 - Rapid Test for Hydrophytic Vegetation
7. Koeleria Macranthe			UPL	2 - Dominance Test is >50%
8				3 - Prevalence Index is ≤3.0 <sup>1</sup>
9				<ul> <li>4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</li> </ul>
10				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Woody Vine Stratum (Plot size: 1	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		= Total Cover	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2				Hydrophytic
% Bare Ground in Herb Stratum			= Total Cover	Vegetation Present? Yes No
Remarks:				

Sampling Point:

uonth			<b>D</b> = -1	- Fostures				
Depth (inches)	<u>Matrix</u> Color (moist)	%	Color (moist)	<u>K Features</u>	oc <sup>2</sup> Tex	ture	Remarks	
0-8	10424/9					-y scinct	65460	VONE /
					<u> </u>	<u>G</u>	10%	)
8-12-	10 dK / 3					the	10 /2 '	<u>, , , , , , , , , , , , , , , , , , , </u>
				-Covered or Coated S	and Grains.		L=Pore Lining,	
-	Indicators: (App	licable to all LF					blematic Hydrid	: 50lis :
Histoso	· · /			eleyed Matrix (S4)		1 cm Muck (A9		
	pipedon (A2)			Redox (S5) I Matrix (S6)	—	Dark Surface (	Redox (A16) ( <b>LR</b> S7) <i>(</i> L <b>PR G</b> )	кг, ө, п)
	listic (A3) en Sulfide (A4)			Mucky Mineral (F1)	_		pressions (F16)	
	ed Layers (A5) (LRI	R F)		Gleyed Matrix (F2)			side of MLRA 7	
	uck (A9) (LRR F, C			d Matrix (F3)	<u> </u>	Reduced Verti		,
	d Below Dark Surf			Dark Surface (F6)		Red Parent Ma		
	oark Surface (A12)	-		d Dark Surface (F7)			Dark Surface (TF	12)
	Mucky Mineral (S1)			Depressions (F8)	3.	Other (Explain		
	Mucky Peat or Pea		,	ains Depressions (F16)	"Inc	-	phytic vegetatio	
_ 5 cm M	ucky Peat or Peat	(S3) (LRR F)	(ML	RA 72 & 73 of LRR H)		-	ogy must be prea ed or problemation	
lastrictiva	Layer (if present)	) =						J.
Type:	a Jan							,
туре	ia / / ***							
Depth (ir	achor);		_		Hvd	ric Soil Presen	t? Yes	No
	nches):				Hyd	ric Soil Presen	t? Yes	No
Depth (ir Remarks:	nches):				Hyd	ric Soil Presen	t? Yes	No
	nches):				Hyd	ric Soil Presen	t? Yes	No
	nches):				Hyd	ric Soil Presen	t? Yes	No
Remarks:					Hyd	ric Soil Presen	t? Yes	No
Remarks:	DGY	15:			Hyd	ric Soil Presen	t? Yes	No
emarks: YDROLO	DGY ydrology Indicatol		check all that app	γ)			t? Yes	
Vetland Hy	DGY ydrology Indicator icators (minimum c					Secondary Indic	ators (minimum	
emarks: /DROLC /etland Hy rimary Ind	DGY ydrology Indicator licators (minimum c a Water (A1)		Salt Crust	(B11)		Secondary Indic	<u>ators (minimum</u> I Cracks (B6)	of two required)
Primary Ind	DGY ydrology Indicator licators (minimum c e Water (A1) /ater Table (A2)		Salt Crust Aquatic In	(B11) vertebrates (B13)		Secondary Indic Surface Soi Sparsely Ve	<u>ators (minimum</u> I Cracks (B6) getated Concav	of two required)
emarks: /DROLC /etland Hy rimary Ind Surface High W Saturat	DGY ydrology Indicator licators (minimum c e Water (A1) /ater Table (A2) tion (A3)		Salt Crust Aquatic In Hydrogen	(B11) vertebrates (B13) Sulfide Odor (C1)		Secondary Indic Surface Soi Sparsely Ve Drainage Pa	<u>ators (minimum</u> I Cracks (B6) getated Concav atte <b>r</b> ns (B10)	of two required) e Surface (B8)
Vetland Hy Vetland Hy Vetland Hy Vetland Hy Vetland Hy Vetland Hy Saurat Saturat Saturat Water	DGY ydrology Indicator icators (minimum c e Water (A1) /ater Table (A2) tion (A3) Marks (B1)		Salt Crust Aquatic In Hydrogen Dry-Seaso	(B11) vertebrates (B13)	<u>5</u> 	Secondary Indic Surface Soi Sparsely Ve Drainage Pa	ators (minimum I Cracks (B6) ogetated Concav atterns (B10) nizospheres on L	of two required) e Surface (B8)
temarks: YDROLO Vetland Hy Primary Ind Carface Garface High W Saturat Water I Sedime	<b>DGY</b> ydrology Indicator icators (minimum c e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2)		Salt Crust Aquatic In Hydrogen Dry-Seaso Oxidized I	(B11) vertebrates (B13) Sulfide Odor (C1) m Water Table (C2)	<u>5</u> 	Secondary Indic Surface Soi Sparsely Ve Drainage Pa Oxidized Rh	ators (minimum I Cracks (B6) ogetated Concav atterns (B10) nizospheres on L led)	of two required) e Surface (B8)
Primary Ind Contract Primary Ind Contract High W Satural Satural Satural Drift De	DGY ydrology Indicator icators (minimum c e Water (A1) /ater Table (A2) tion (A3) Marks (B1)		Salt Crust Aquatic In Hydrogen Dry-Seaso Oxidized I (where	(B11) vertebrates (B13) Sulfide Odor (C1) on Water Table (C2) Rhizospheres on Living	<u>5</u> 	Secondary Indic Surface Soi Sparsely Ve Drainage Pa Oxidized Rh (where til Crayfish Bu	ators (minimum I Cracks (B6) ogetated Concav atterns (B10) nizospheres on L led)	of two required) e Surface (B8) iving Roots (C3
Primary Ind Primary Ind Carimary Ind Carimary Ind Surface High W Saturat Water I Sedime Drift De Algal M	DGY ydrology Indicator icators (minimum c e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) fat or Crust (B4)		Salt Crust Aquatic In Hydrogen Dry-Seaso Oxidized I (where Presence	(B11) vertebrates (B13) Sulfide Odor (C1) on Water Table (C2) Rhizospheres on Living not tilled)	<u>5</u> 	Secondary Indic Surface Soi Sparsely Ve Drainage Pa Oxidized Rh (where til Crayfish Bu Saturation \	ators (minimum I Cracks (B6) ogetated Concav atterns (B10) nizospheres on L Ied) rrows (C8)	of two required) e Surface (B8) iving Roots (C3
Primary Ind Primary Ind Called High W Saturat Water I Sedime Drift De Algal M Iron De	DGY ydrology Indicator icators (minimum c e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3)	of one required;	Salt Crust Aquatic In Hydrogen Dry-Seaso Oxidized I (where Presence Thin Muck	(B11) vertebrates (B13) Sulfide Odor (C1) on Water Table (C2) Rhizospheres on Living not tilled) of Reduced Iron (C4)	<u>5</u> 	Secondary Indic Surface Soi Sparsely Ve Drainage Pa Oxidized Rh (where til Crayfish Bu Saturation N Saturation N Geomorphic FAC-Neutra	ators (minimum I Cracks (B6) ogetated Concav atterns (B10) nizospheres on L led) rrows (C8) /isible on Aerial c Position (D2) I Test (D5)	of two required) e Surface (B8) lving Roots (C3 Imagery (C9)
Primary Ind Primary Ind Contract High W Saturat Water I Sedime Drift De Algal M Iron De	DGY ydrology Indicator icators (minimum c e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) fat or Crust (B4) eposits (B5)	of one required; ial Imagery (B7)	Salt Crust Aquatic In Hydrogen Dry-Seaso Oxidized I (where Presence Thin Muck	(B11) vertebrates (B13) Sulfide Odor (C1) on Water Table (C2) Rhizospheres on Living not tilled) of Reduced Iron (C4) c Surface (C7)	<u>5</u> 	Secondary Indic Surface Soi Sparsely Ve Drainage Pa Oxidized Rh (where til Crayfish Bu Saturation N Saturation N Geomorphic FAC-Neutra	ators (minimum I Cracks (B6) ogetated Concav atterns (B10) nizospheres on L led) rrows (C8) /isible on Aerial c Position (D2)	of two required) e Surface (B8) lving Roots (C3 Imagery (C9)
Vetland Hy Primary Ind Contract High W Saturat Water I Sedime Drift De Algal M Iron De Linunda Water-	DGY ydrology Indicator icators (minimum of a Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) aposits (B3) fat or Crust (B4) aposits (B5) tion Visible on Aeri Stained Leaves (B3)	of one required; ial Imagery (B7)	Salt Crust Aquatic In Hydrogen Dry-Seaso Oxidized I (where Presence Thin Muck	(B11) vertebrates (B13) Sulfide Odor (C1) on Water Table (C2) Rhizospheres on Living not tilled) of Reduced Iron (C4) c Surface (C7)	<u>5</u> 	Secondary Indic Surface Soi Sparsely Ve Drainage Pa Oxidized Rh (where til Crayfish Bu Saturation V Saturation V Geomorphic FAC-Neutra	ators (minimum I Cracks (B6) ogetated Concav atterns (B10) nizospheres on L led) rrows (C8) /isible on Aerial c Position (D2) I Test (D5)	of two required) e Surface (B8) lving Roots (C3 Imagery (C9)
Primary Ind Primary Ind Contract Primary Ind Contract Surface High W Satural Satural Satural Drift De Drift De Algal M Iron De X. Inunda Water- Field Obse	DGY ydrology Indicator icators (minimum of a Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) aposits (B3) fat or Crust (B4) aposits (B5) tion Visible on Aeri Stained Leaves (B3)	of one required; ial Imagery (B7)	Salt Crust Aquatic In Hydrogen Dry-Seaso Oxidized I (where Presence Thin Muck Other (Ex	(B11) vertebrates (B13) Sulfide Odor (C1) on Water Table (C2) Rhizospheres on Living not tilled) of Reduced Iron (C4) c Surface (C7)	<u>5</u> 	Secondary Indic Surface Soi Sparsely Ve Drainage Pa Oxidized Rh (where til Crayfish Bu Saturation V Saturation V Geomorphic FAC-Neutra	ators (minimum I Cracks (B6) ogetated Concav atterns (B10) nizospheres on L led) rrows (C8) /isible on Aerial c Position (D2) I Test (D5)	of two required) e Surface (B8) lving Roots (C3 Imagery (C9)
Remarks: YDROLO Vetland Hy Primary Ind Control Control Primary Ind Primary Ind Control Control Primary Ind Sedime Sedime Algal M Iron De Nagal M Iron De Control Control Selication Print De Control Control Control Control Control Control Control Control Control Control Cont	DGY vdrology Indicator icators (minimum c e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) fat or Crust (B4) eposits (B5) tion Visible on Aeri Stained Leaves (B5) trvations:	of one required; al Imagery (B7) 9) Yes No	Salt Crust Aquatic In Hydrogen Dry-Seaso Oxidized I (where Presence Thin Muck Other (Ex	(B11) vertebrates (B13) Sulfide Odor (C1) on Water Table (C2) Rhizospheres on Living not tilled) of Reduced Iron (C4) : Surface (C7) olain in Remarks)	<u>5</u> 	Secondary Indic Surface Soi Sparsely Ve Drainage Pa Oxidized Rh (where til Crayfish Bu Saturation V Saturation V Geomorphic FAC-Neutra	ators (minimum I Cracks (B6) ogetated Concav atterns (B10) nizospheres on L led) rrows (C8) /isible on Aerial c Position (D2) I Test (D5)	of two required) e Surface (B8) iving Roots (C3 Imagery (C9)
Remarks: YDROLC Vetland Hy Primary Ind Contract High W Saturat Water I Sedime Sedime Sedime Algal M Iron De Linnda Water- Field Obse Surface Wa Water Tabl	DGY ydrology Indicator icators (minimum c a Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) aposits (B3) fat or Crust (B4) aposits (B5) tion Visible on Aeri Stained Leaves (B4) ervations: ater Present? e Present?	of one required; ial Imagery (B7) 9) Yes No Yes No	Salt Crust Aquatic In Hydrogen Dry-Seaso Oxidized I (where Presence Thin Muck Other (Ex	(B11) vertebrates (B13) Sulfide Odor (C1) on Water Table (C2) Rhizospheres on Living not tilled) of Reduced Iron (C4) c Surface (C7) plain in Remarks)	Roots (C3)	Secondary Indic Surface Soi Sparsely Ve Drainage Pa Oxidized Rh (where til Crayfish Bu Saturation V Saturation V Geomorphic FAC-Neutra	ators (minimum I Cracks (B6) ogetated Concav atterns (B10) nizospheres on L led) rrows (C8) /isible on Aerial c Position (D2) I Test (D5) e Hummocks (D2)	of two required) e Surface (B8) lving Roots (C3 Imagery (C9)
Remarks: YDROLC Vetland Hy Primary Ind Carlor High W Saturation Sedime Algal M Iron De Algal M Iron De Algal M Iron De Sedime Sedime Sedime Algal M Iron De Sedime	DGY ydrology Indicator icators (minimum of a Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) aposits (B3) fat or Crust (B4) aposits (B5) tion Visible on Aeri Stained Leaves (B4) aposits (B5) tion Visible on Aeri aposits (B5) tion Visible on Aeri Aer	of one required; ial Imagery (B7) 9) Yes No Yes No Yes No	Salt Crust Aquatic In Hydrogen Dry-Seaso Oxidized I (where Presence Thin Muck Other (Ex Depth (ir p Depth (ir p Depth (ir	(B11) vertebrates (B13) Sulfide Odor (C1) on Water Table (C2) Rhizospheres on Living not tilled) of Reduced Iron (C4) c Surface (C7) plain in Remarks) ches): ches):	Roots (C3)	Secondary Indic Surface Soi Sparsely Ve Drainage Pa Oxidized Rh (where til Crayfish Bu Saturation N Geomorphic FAC-Neutra Frost-Heave	ators (minimum I Cracks (B6) ogetated Concav atterns (B10) nizospheres on L led) rrows (C8) /isible on Aerial c Position (D2) I Test (D5) e Hummocks (D2)	of two required) e Surface (B8) iving Roots (C3 Imagery (C9) 7) (L <b>RR F</b> )
Remarks: YDROLC Vetland Hy Primary Ind Carlor High W Saturation Sedime Algal M Iron De Algal M Iron De Algal M Iron De Sedime Sedime Sedime Algal M Iron De Sedime	DGY ydrology Indicator icators (minimum of a Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) aposits (B3) fat or Crust (B4) aposits (B5) tion Visible on Aeri Stained Leaves (B4) aposits (B5) tion Visible on Aeri aposits (B5) tion Visible on Aeri Aer	of one required; ial Imagery (B7) 9) Yes No Yes No Yes No	Salt Crust Aquatic In Hydrogen Dry-Seaso Oxidized I (where Presence Thin Muck Other (Ex Depth (ir p Depth (ir p Depth (ir	(B11) vertebrates (B13) Sulfide Odor (C1) on Water Table (C2) Rhizospheres on Living not tilled) of Reduced Iron (C4) (Surface (C7) plain in Remarks) ches):	Roots (C3)	Secondary Indic Surface Soi Sparsely Ve Drainage Pa Oxidized Rh (where til Crayfish Bu Saturation N Geomorphic FAC-Neutra Frost-Heave	ators (minimum I Cracks (B6) ogetated Concav atterns (B10) nizospheres on L led) rrows (C8) /isible on Aerial c Position (D2) I Test (D5) e Hummocks (D2)	of two required) e Surface (B8) iving Roots (C3 Imagery (C9) 7) (L <b>RR F</b> )
Remarks: YDROLC Wetland Hy Primary Ind Carling Water High W Saturation Sedime Algal M Iron De X. Inunda Water- Field Obse Surface Wa Water Tabl Saturation I includes ci	DGY ydrology Indicator icators (minimum of a Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) aposits (B3) fat or Crust (B4) aposits (B5) tion Visible on Aeri Stained Leaves (B4) aposits (B5) tion Visible on Aeri aposits (B5) tion Visible on Aeri Aer	of one required; ial Imagery (B7) 9) Yes No Yes No Yes No	Salt Crust Aquatic In Hydrogen Dry-Seaso Oxidized I (where Presence Thin Muck Other (Ex Depth (ir p Depth (ir p Depth (ir	(B11) vertebrates (B13) Sulfide Odor (C1) on Water Table (C2) Rhizospheres on Living not tilled) of Reduced Iron (C4) c Surface (C7) plain in Remarks) ches): ches):	Roots (C3)	Secondary Indic Surface Soi Sparsely Ve Drainage Pa Oxidized Rh (where til Crayfish Bu Saturation N Geomorphic FAC-Neutra Frost-Heave	ators (minimum I Cracks (B6) ogetated Concav atterns (B10) nizospheres on L led) rrows (C8) /isible on Aerial c Position (D2) I Test (D5) e Hummocks (D2)	of two required) e Surface (B8) iving Roots (C3 Imagery (C9) 7) (L <b>RR F</b> )
Primary Ind Primary Ind Primary Ind Primary Ind Surface High W Saturat Water I Algal M Iron De Algal M Iron De Surface Water- Field Obse Surface Water Tabl Saturation I includes c	DGY ydrology Indicator icators (minimum of a Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) aposits (B3) fat or Crust (B4) aposits (B5) tion Visible on Aeri Stained Leaves (B4) aposits (B5) tion Visible on Aeri aposits (B5) tion Visible on Aeri Aer	of one required; ial Imagery (B7) 9) Yes No Yes No Yes No	Salt Crust Aquatic In Hydrogen Dry-Seaso Oxidized I (where Presence Thin Muck Other (Ex Depth (ir p Depth (ir p Depth (ir	(B11) vertebrates (B13) Sulfide Odor (C1) on Water Table (C2) Rhizospheres on Living not tilled) of Reduced Iron (C4) c Surface (C7) plain in Remarks) ches): ches):	Roots (C3)	Secondary Indic Surface Soi Sparsely Ve Drainage Pa Oxidized Rh (where til Crayfish Bu Saturation N Geomorphic FAC-Neutra Frost-Heave	ators (minimum I Cracks (B6) ogetated Concav atterns (B10) nizospheres on L led) rrows (C8) /isible on Aerial c Position (D2) I Test (D5) e Hummocks (D2)	of two required) e Surface (B8) iving Roots (C3 Imagery (C9) 7) (L <b>RR F</b> )
A light water A ligh	DGY ydrology Indicator icators (minimum of a Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) aposits (B3) fat or Crust (B4) aposits (B5) tion Visible on Aeri Stained Leaves (B4) aposits (B5) tion Visible on Aeri aposits (B5) tion Visible on Aeri Aer	of one required; ial Imagery (B7) 9) Yes No Yes No Yes No	Salt Crust Aquatic In Hydrogen Dry-Seaso Oxidized I (where Presence Thin Muck Other (Ex Depth (ir p Depth (ir p Depth (ir	(B11) vertebrates (B13) Sulfide Odor (C1) on Water Table (C2) Rhizospheres on Living not tilled) of Reduced Iron (C4) c Surface (C7) plain in Remarks) ches): ches):	Roots (C3)	Secondary Indic Surface Soi Sparsely Ve Drainage Pa Oxidized Rh (where til Crayfish Bu Saturation N Geomorphic FAC-Neutra Frost-Heave	ators (minimum I Cracks (B6) ogetated Concav atterns (B10) nizospheres on L led) rrows (C8) /isible on Aerial c Position (D2) I Test (D5) e Hummocks (D2)	of two required e Surface (B8) iving Roots (C3 Imagery (C9) 7) (L <b>RR F</b> )

Project/Site: Over lests		City/County: <u>Peyto</u>	<u>on/E1 Pase</u> Sampling Date: <u>6/26/23</u>			
Applicant/Owner:			State: <u>CO</u> Sampling Point: <u>5P13 U</u>			
Investigator(s): <u>5M AM</u>		Section, Township, Range: <u>27, TIIS, RGUW</u>				
Landform (hillslope, terrace, etc.): <u>ういへし</u>		Local relief (concave,	convex, none): <u>Concave</u> Slope (%): <u>2-3</u>			
Subregion (LRR): Rocky Men Realing	Lat: <u>3</u>	A.OGEONC	Long: -104.541759 Datum: NADE3			
Soil Map Unit Name: 41: Pring course 30	andu lu	3am 3-8	NWI classification: NV/A			
Are climatic / hydrologic conditions on the site typical for t						
Are Vegetation, Soil, or Hydrology						
Are Vegetation <u>N</u> , Soil <u>N</u> , or Hydrology <u>N</u>						
			eeded, explain any answers in Remarks.) ocations, transects, important features, etc.			
		Į				
Hydrophytic Vegetation Present?       Yes No _√         Hydric Soil Present?       Yes ∠ No √		Is the Sampled	/			
	No No	within a Wetlar	nd? Yes <u>No V</u>			
Remarks:						
above average rainfall 613	1023 10	•				
VEGETATION Use scientific names of pla	nts.					
	Absolute	Dominant Indicator	Dominance Test worksheet:			
Tree Stratum (Plot size:)		<u>Species?</u> Status	Number of Dominant Species			
1			That Are OBL, FACW, or FAC     \       (excluding FAC-):     \			
2						
3			Total Number of Dominant Species Across All Strata:			
4						
Sapling/Shrub Stratum (Plot size;) 1		= Total Cover	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B)			
2			Prevalence Index worksheet:			
3		4.4 Autobarrane	Total % Cover of: Multiply by:			
4			OBL species x 1 =			
5.		tonning tonning	FACW species <u>40</u> x 2 = <u>80</u>			
		= Total Cover	FAC species <u>10</u> x 3 = <u>30</u>			
<u>Herb Stratum</u> (Plot size: $a \not\in (\mathcal{O})$	******		FACU species x4 =			
1. <u>Rotentilla effusa</u>		FAC	UPL species <u>25</u> x 5 = <u>126</u>			
2. Poa palustris	5	FACW	Column Totais: <u>IOO</u> (A) <u>335</u> (B)			
3. Koeleria macrantha	15	<u></u>	Prevalence Index = B/A =3, 3			
4. Actemisia frigida			Hydrophytic Vegetation Indicators:			
5. Juneus arcticus		V FACW	1 - Rapid Test for Hydrophytic Vegetation			
6. <u>Achillea millefolium</u>		FACU	2 - Domínance Test is >50%			
7. Pensterion strictus	_ <u>5</u>		$\sqrt{3}$ - Prevalence Index is $\leq 3.0^{1}$			
8. Taraxarum officinale	<u> </u>	<u> </u>	4 - Morphological Adaptations <sup>1</sup> (Provide supporting			
9. Erigon glabellus	<u>lo</u>	FACW	data in Remarks or on a separate sheet)			
10			Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)			
Woody Vine Stratum (Plot size:)		= Total Cover	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.			
1			Hydrophytic			
% Bare Ground in Herb Stratum		= Total Cover	Vegetation Present? Yes No			
Remarks:						

Profile Desc	Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)									
Depth	Matrix		Redo	x Features						
(inches)	Color (moist)	%	Color (moist)	%	Type'	Loc <sup>2</sup>				
0-11+	101R312	loo					CL	60% grow		
								V		
	<u></u>									
******	<u></u>					~	,			·····
	······									
17. 0.0										
	oncentration, D=D Indicators: (App					d Sand G		cation: PL=P		
-					-				-	30115 1
Histosol	pipedon (A2)		Sandy C Sandy F					Muck (A9) (LF Prairie Redo)		
1	istic (A3)		Sandy F					Surface (S7)		(r, <b>0</b> , n)
-	en Sulfide (A4)			Jucky Min				lains Depres	• •	
· — · ·	d Layers (A5) (LR	RF)		Gleyed Ma				R H outside		2 & 73)
	Jck (A9) (LRR F, (			d Matrix (F				ed Vertic (F1		
Depleted	d Below Dark Surf			ark Surfa			Red P	arent Materia	l (TF2)	
	ark Surface (A12)			d Dark Su				Shallow Dark		2)
	/lucky Mineral (S1			epression)				(Explain in Re		
	Mucky Peat or Pea			ins Depre	•			of hydrophyti		
5 cm ML	ucky Peat or Peat	(S3) (LRR F)	(ML	RA 72 & 7	3 of LRR	H)		d hydrology n		
Postriotivo I	Layer (if present)						uniess	disturbed or	problematic.	
									1	
	- <b>t</b> - •}		_				11	D	V	N- X
· · ·	ches):	<u> </u>	_				Hydric Soli	Present?	res	NO <u>~</u>
Remarks:										
HYDROLO	GY							·		
-	drology Indicato		1 I. 31 E				0		( <u>1.</u>	<b>6 b</b>
	cators (minimum c	f one required; o								f two required)
Surface	. ,		Salt Crust	•	(5.4.5)			face Soil Crac	• •	0 ( ( 0 0)
1	ater Table (A2)		Aquatic Inv		, ,					Surface (B8)
Saturati			Hydrogen					inage Pattern	• •	
	farks (B1)		Dry-Seaso					•	oneres on Liv	ing Roots (C3)
	nt Deposits (B2)			-	es on Livi	ng Roots		vhere tilled)	(00)	
· · ·	posits (B3)		-	ot tilled)		、		yfish Burrows	• •	(00)
	at or Crust (B4)		Presence			•)		uration Visible		nagery (C9)
,	oosits (B5) Ion Visible on Asri		Thin Muck					omorphic Pos		
1	on Visible on Aeri		Other (Exp	ilain in Rer	marks)			C-Neutral Tes		
Field Obser	itained Leaves (B	"					Fi0:	st-Heave Hun	nmocks (D7)	
1		V X 11	D 4 4	1 X.	۰ <b>٬</b> ۱					
Surface Wat			Depth (ind		Ŧ					
Water Table			Depth (ind					_		
Saturation P		Yes No	Depth (ind	ches):		_   Weti	and Hydrolog	y Present?	Yes 🗡	No
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:										
	(	0 0-1	J,,	-164		//				
Remarks:										
- Aomana,										
***										

Project/Site: Our line la		City/County: Perste	on/ El Pasc Sampling Date: <u>(~/26,183</u>			
Applicant/Owner:		/ J	State: Sampling Point: SP 14			
Investigator(s): <u>AM_5M</u>		Section, Township, Range: <u>24</u> , TIIS, R64(W)				
Landform (hillsiope, terrace, etc.):horeline		Local relief (concave.	, convex, none): <u>france (%)</u> : <u>1-2-24</u>			
Subregion (LRR): Rocky Men Region	Lat: 3	1.06515053	_ Long: -104.54204248 Datum: NADE3			
Soil Map Unit Name: 71: Prince COASS 30	andy 1	0am - 3-8	NWI classification: N/A			
Are climatic / hydrologic conditions on the site typical for th	ر tis time of ve	ar? Yes No	//////			
Are Vegetation N . Soil N or Hydrology N	significantly	disturbed? Are	"Normal Circumstances" present? Yes No			
Are Vegetation <u>N</u> , Soil <u>N</u> , or Hydrology <u>N</u>	naturally pro		eeded, explain any answers in Remarks.)			
			locations, transects, important features, etc.			
	Is the Sample					
	No No	within a Wetla	nd? Yes No 5			
Remarks:	<u> </u>					
above aperage rainfall 6,						
VEGETATION – Use scientific names of plan						
Tree Stratum (Plot size:)	Absolute % Cover	Dominant Indicator Species? Status	Dominance Test worksheet:			
1			Number of Dominant Species That Are OBL, FACW, or FAC			
2			(excluding FAC-):			
3			Total Number of Dominant			
4			Species Across All Strata; (B)			
Sapling/Shrub Stratum (Plot size:)		= Total Cover	Percent of Dominant Species			
1)			That Are OBL, FACW, or FAC: $(A/B)$			
2			Prevalence Index worksheet:			
3			Total % Cover of: Multiply by:			
4			OBL species <u>45</u> x1 = <u>45</u>			
5			FACW species $30 \times 2 = 60$			
		= Total Cover	FAC species x 3 =			
Herb Stratum (Plot size:)	<b>a</b> 0	hard .	FACU species x 4 =			
1. Poa palustris		FACW				
2. Schoenoplectus pungens 3. Joncus arcticus	<u> </u>	Y OBL	Column Totals: <u>75</u> (A) <u>105</u> (B)			
4. Carex nebrascensis	<u>    10     </u>	<u> </u>	Prevalence Index = $B/A = 1.4$			
5			Hydrophytic Vegetation Indicators:			
6			1 - Rapid Test for Hydrophytic Vegetation			
7			⊻ 2 - Dominance Test is >50%			
8			<u>V</u> 3 - Prevalence Index is ≤3.0 <sup>1</sup>			
9		·	4 - Morphological Adaptations <sup>1</sup> (Provide supporting			
10			data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)			
	76	= Total Cover				
Woody Vine Stratum (Plot size:)			<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.			
12						
% Bare Ground in Herb Stratum		T-t-LO	Hydrophytic Vegetation Present? Yes No			
Remarks:	-1					
25% open w	CATE V					

US Army Corps of Engineers

Great Plains - Version 2.0

i

Sampling Point: <u>SPIUU</u>P

$\begin{array}{c c c c c c c c c c c c c c c c c c c $	<u>Color (moist) % Tyr</u>		Texture Rema SL 20% grow L J	
	0 4x 5/5 10 C		5L 20% grav	vel
	04K 5/15 10 C			
			alata Pilina Angela	P.4.44444
<sup>1</sup> Type: C=Concentration, D=Depletion, RM=R	educed Matrix, CS=Covered or C	Coated Sand Grain	ns. <sup>2</sup> Location: PL=Pore Linit	
Hydric Soil Indicators: (Applicable to all LR			Indicators for Problematic Hy	dric Soils <sup>3</sup> :
Histosol (A1)	Sandy Gleyed Matrix (\$	S4)	1 cm Muck (A9) (LRR I, J)	
Histic Epipedon (A2)	Sandy Redox (S5)		Coast Prairie Redox (A16)	
Black Histic (A3)	Stripped Matrix (S6)		Dark Surface (S7) (LRR G	
Hydrogen Sulfide (A4)	Loamy Mucky Mineral	(F1)	High Plains Depressions (F	16)
Stratified Layers (A5) (LRR F)	Loamy Gleyed Matrix (		(LRR H outside of MLR	
1 cm Muck (A9) (LRR F, G, H)	X Depleted Matrix (F3)		Reduced Vertic (F18)	
Depleted Below Dark Surface (A11)	Redox Dark Surface (F	-6)	Red Parent Material (TF2)	
Thick Dark Surface (A12)	Depleted Dark Surface		Very Shallow Dark Surface	(TF12)
Sandy Mucky Mineral (S1)	Redox Depressions (Fi		Other (Explain in Remarks)	
2.5 cm Mucky Peat or Peat (S2) (LRR G,			<sup>3</sup> Indicators of hydrophytic veget	
	(MLRA 72 & 73 of		wetland hydrology must be	
5 cm Mucky Peat or Peat (S3) (LRR F)	(WERA / 2 & / 3 OF		unless disturbed or problem	
Restrictive Layer (if present):		T		
Type water table				v
Depth (inches): <u> </u>			Hydric Soil Present? Yes	<u>~No</u>
suburged sedlement limite	ر س <sup>ا</sup>			
		· · · · · · · · · · · · · · · · · · ·		
Wetland Hydrology Indicators:			Casa day Indiastan (minim	
Primary Indicators (minimum of one required;	check all that apply)		Secondary Indicators (minim	
<u> ⊀</u> Surface Water (A1)	Salt Crust (B11)		Surface Soil Cracks (B6)	
High Water Table (A2)	Aquatic Invertebrates (B1	13)	Sparsely Vegetated Con	icave Surface (i
Saturation (A3)	Hydrogen Sulfide Odor (0		Drainage Patterns (B10)	I
Water Marks (B1)	Dry-Season Water Table		Oxidized Rhizospheres of	
	Oxidized Rhizospheres o			<u>a</u> · · · <i>p</i> ·
Sediment Deposits (B2)		in Living Roots (C.		
Drift Deposits (B3)	(where not tilled)		Crayfish Burrows (C8)	
Algal Mat or Crust (B4)	Presence of Reduced Iro	n (C4)	Saturation Visible on Ae	
Iron Deposits (B5)	Thin Muck Surface (C7)		K Geomorphic Position (D:	2)
<ul> <li>Inundation Visible on Aerial Imagery (B7)</li> </ul>	Other (Explain in Remark	ks)	FAC-Neutral Test (D5)	
<u> </u>		-	Frost-Heave Hummocks	(D7) ( <b>LRR F</b> )
Water-Stained Leaves (B9)		1		
Water-Stained Leaves (B9)	Depth (inches):			
Water-Stained Leaves (B9)	o Depth (inches): (''	11		
Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes <u>4</u> No Water Table Present? Yes <u>4</u> No	o Depth (inches): o Depth (inches):	<u>ייר</u>		<
Water-Stained Leaves (B9) Field Observations: Surface Water Present? Water Table Present? Yes No Saturation Present? (includes capillary fringe)	o Depth (inches):	Wetlan	d Hydrology Present? Yes _	< No
Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes <u>4</u> No Water Table Present? Yes <u>4</u> No	o Depth (inches):	Wetlan		< No
Water-Stained Leaves (B9) Field Observations: Surface Water Present? Water Table Present? Yes No Saturation Present? (includes capillary fringe)	o Depth (inches):	Wetlan		< No
Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes <u> No</u> Water Table Present? Yes <u> No</u> Saturation Present? Yes <u> No</u> (includes capillary fringe) Describe Recorded Data (stream gauge, mon	o Depth (inches):	Wetlan		< No
Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes No Water Table Present? Yes No Saturation Present? Yes No (includes capillary fringe) Describe Recorded Data (stream gauge, mon	o Depth (inches):	Wetlan		< No
Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes <u> No</u> Water Table Present? Yes <u> No</u> Saturation Present? Yes <u> No</u> (includes capillary fringe) Describe Recorded Data (stream gauge, mon	o Depth (inches):	Wetlan		< No

Project/Site: ()vertocik		City/County: <u>Peuto</u>	00/E1 Pasc Sampling Date: 6/36/3
Applicant/Owner:		······································	State: <u>(()</u> Sampling Point: <u>SP 15- U</u>
			inge: 27, TI13, RG4W
Landform (hillslope, terrace, etc.): <u>Swale</u>		Local relief (concave,	convex, none): <u>CONTRAME</u> Slope (%): <u>I-CS</u>
Subregion (LRR): <u>Rocky Men Region</u>	Lat:	A. 06 461733	Long: -104, 542643 Datum: NADE
			NWI classification: N/A
Are climatic / hydrologic conditions on the site typical for			
			"Normal Circumstances" present? Yes V No
Are Vegetation, Soil, or Hydrology			eeded, explain any answers in Remarks.)
			ocations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes Hydric Soil Present? Yes Wetland Hydrology Present? Yes Remarks:	No No No	Is the Sampled within a Wetlan	I Area /
above average rainstall 6		>	
VEGETATION – Use scientific names of pla			
<u>Tree Stratum</u> (Plot size:)	Absolute <u>% Cover</u>	Dominant Indicator Species? Status	Dominance Test worksheet: Number of Dominant Species
1			That Are OBL, FACW, or FAC
2			(excluding FAC-); (A)
3			Total Number of Dominant
4			Species Across All Strata: [B]
Sapling/Shrub Stratum (Plot size:) 1	······	= Total Cover	Percent of Dominant Species That Are OBL, FACW, or FAC: $100$ (A/B)
2			Prevalence Index worksheet:
3			Total % Cover of:Multiply by:
4			OBL species <u>20</u> x 1 = <u>20</u>
5			FACW species <u>60</u> x 2 = <u>120</u>
		= Total Cover	FAC species x 3 =
<u>Herb Stratum</u> (Plot size: $10 \times 10^{-1}$ )	5	1 Edmin	FACU species $10$ $x4 = 20$ UPL species $10$ $x5 = 50$
1. Poa palustris	_ <u>50</u>	-V FACW	100 000
2. <u>Erigon glabellus</u> 3. Kocleria macrantha	<u> </u>	<u> </u>	Column Totals: $100$ (A) $-350$ (B)
4. Achilles millefolium		FACU	Prevalence Index = B/A =
5. Juncos brachycephanos			Hydrophytic Vegetation Indicators:
6. Penstemon strictus			$\frac{V}{\sqrt{2}}$ - Rapid Test for Hydrophytic Vegetation
7			↓ 2 - Dominance Test is >50%
8			$\frac{V}{2}$ 3 - Prevalence Index is ≤3.0 <sup>†</sup>
9			4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
10			Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
<u>Woody Vine Stratum</u> (Plot size:) 1		= Total Cover	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2			Hydrophytic /
		= Total Cover	Vegetation
% Bare Ground in Herb Stratum()			Present? Yes <u>V</u> No

# Sampling Point: <u>3P 15</u> 00

Profile Desc	ription: (Describ	e to the depth	needed to docur	nent the indicat	or or confirm	the absence	of indicators.)
Depth	Matrix			x Features			
(inches)	Color (moist)	%	Color (moist)	%Түре	<sup>1</sup> Loc <sup>2</sup>		Remarks
5-0	10 YR 4/2	100				<u> </u>	20 % 10001
8-12	10 YR 4/2	100				SIL	20% good 30% good 1
					ttt		
l							
	A						
	oncentration, D=D		Peduced Matrix C	S=Covered or Co	 ated Sand Gr	aine <sup>2</sup> lo	cation: PL=Pore Lining, M=Matrix.
	Indicators: (Appl	****			ateu oanu on		for Problematic Hydric Soils <sup>3</sup> ;
Histosol				Gleyed Matrix (S	1)		Muck (A9) (LRR I, J)
	oipedon (A2)			Redox (S5)	·/		Prairie Redox (A16) (LRR F, G, H)
ł	istic (A3)			Matrix (S6)			Surface (S7) (LRR G)
· —	n Sulfide (A4)		Loamy	Mucky Mineral (F	-1)	High F	Plains Depressions (F16)
Stratified	d Layers (A5) (L <b>RF</b>	RF)	Loamy	Gleyed Matrix (F	2)	(LF	RR H outside of MLRA 72 & 73)
	Jok (A9) (L <b>RR F, G</b>			d Matrix (F3)			ced Vertic (F18)
	d Below Dark Surfa	ace (A11)		Dark Surface (F6	•		Parent Material (TF2)
	ark Surface (A12)			d Dark Surface (			Shallow Dark Surface (TF12)
	/lucky Mineral (S1) /lucky Peat or Pea			Depressions (F8) ains Depressions			(Explain in Remarks) of hydrophytic vegetation and
	ucky Peat of Peat (			RA 72 & 73 of L			id hydrology must be present,
0 011 (AC			(		,		s disturbed or problematic.
Restrictive	Layer (if present)	1				1	· · · · · · · · · · · · · · · · · · ·
Type:							,
Depth (in	ches):					Hydric Sol	I Present? Yes No
Remarks:							
				······································			
HYDROLO	GY						
Wetland Hy	drology Indicator	s:					
Primary India	cators (minimum o	f one required;	check all that app	γ)		<u>Second</u>	ary Indicators (minimum of two required)
K Surface	Water (A1)		Salt Crust	(B11)		Sur	face Soil Cracks (B6)
High Wa	ater Table (A2)		Aquatic In	vertebrates (B13	)	Spa	arsely Vegetated Concave Surface (B8)
Saturati			Hydrogen	Sulfide Odor (C	)	Dra	inage Patterns (B10)
Water N	larks (B1)		Dry-Seaso	on Water Table (	C2)	Oxi	dized Rhizospheres on Living Roots (C3)
Sedime	nt Deposits (B2)		Oxidized I	Rhizospheres on	Living Roots (	(C3) (v	where tilled)
Drift De	posits (B3)		(where	not tilled)		Cra	yfish Burrows (C8)
🛛 🔄 Algal Mi	at or Crust (B4)		Presence	of Reduced Iron	(C4)	Sat	uration Visible on Aerial Imagery (C9)
Iron Dep	posits (B5)		Thin Mucl	Surface (C7)		<u> </u>	omorphic Position (D2)
Inundati	ion Visible on Ae <b>ri</b> a	al Imagery (B7)	Other (Ex	plain in Remarks	)	FA(	C-Neutral Test (D5)
Water-S	Stained Leaves (B9	)				Fro	st-Heave Hummocks (D7) (LRR F)
Field Obser	vations:						
Surface Wat	er Present?	Yes <u> </u>	o Depth (in	ches):			
Water Table	Present?	Yes <u>x</u> N	o Depth (in o Depth (in	ches): <u>10 "</u>			h
Saturation P	resent?		o Depth (ir		Wetla	and Hydrolog	ју Present? Yes 🦄 No
(includes ca	pillary fringe)					97	
Describe Re	corded Data (strea	am gauge, mon	ntoring well, aerial	pnotos, previous	inspections),	it available:	
Remarks:							
1							

Project/Site: Over Closel	(	City/County Deute	on/E1 Raco Sampling Date: 7/26/23
Applicant/Owner: <u>PT</u>	`	0	$\underline{\qquad} \text{State: } \underline{\bigcirc} \text{Sampling Point: } \underline{\bigcirc} \underline{\bigcirc} \text{State: } \underline{\bigcirc} \text{Sampling Point: } \underline{\bigcirc} \underline{\widehat} Sampl$
Investigator(s):		Section Townshin Ray	<u> </u>
Landform (hillslope, terrace, etc.): <u>DWG1C</u>			1 1
			Long: -104, 54198026 Datum: NAO83
Soil Map Unit Name: 71: Pring coase sai	<u>en u</u>		
Are climatic / hydrologic conditions on the site typical for this			
Are Vegetation $N$ , Soil $N$ , or Hydrology $N$ si			
Are Vegetation <u>N</u> , Soil <u>N</u> , or Hydrology <u>N</u> na			eded, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map s	showing	sampling point lo	ocations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No			
Hydric Soil Present? Yes No		is the Sampled	
Wetland Hydrology Present? Yes No		within a Wetlan	nd? Yes No
Remarks:			
VEGETATION – Use scientific names of plan		·	
	Absolute	Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)		<u>Species?</u> Status	Number of Dominant Species
1			That Are OBL, FACW, or FAC
2			(excluding FAC-): 1 (A)
3		<u></u>	Total Number of Dominant
4			Species Across All Strata: (B)
Sapling/Shrub Stratum (Plot size:)		= Total Cover	Percent of Dominant Species
1)			That Are OBL, FACW, or FAC:(A/B)
2			Prevalence Index worksheet:
3			Total % Cover of: Multiply by:
4			OBL species <u> </u>
5			FACW species 10 x 2 = <u>20</u>
/		= Total Cover	FAC species x 3 =
( <u>Herb Stratum</u> (Plot size:)	110	1	FACU species $30$ x4 = $120$
1. Juneus brachycephalus	40	V <u>OBL</u>	UPL species $\underline{20}$ x 5 = $\underline{100}$
2. Koeleria maciantha	_10_	<u> </u>	Column Totals: <u>100</u> (A) <u>えきの</u> (B)
3. Elymus trachycaulus	<u> </u>	FACU FACU	Prevalence index = B/A = $2.8$
4. Allion generil 5. Ambrosia artemistilia	15	FACU	Hydrophytic Vegetation Indicators:
6. Achillea millelation	-15	FACU	1 - Rapid Test for Hydrophytic Vegetation
7. Poa palustris	10	FACW	2 - Dominance Test is >50%
8. Actemisia trianda	NO	UPL	$\underline{V}$ 3 - Prevalence Index is ≤3.0 <sup>1</sup>
9			<ul> <li>4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</li> </ul>
10			Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
		= Total Cover	
Woody Vine Stratum (Plot size:)			<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1		<u></u>	
2			Hydrophytic Vegetation
% Bare Ground in Herb Stratum	·	= Total Cover	Present? Yes V No
Remarks:			
			(

-		needed to document the indicator	or confirm the absence of	of indicators.)
Depth (inches) Colo	<u>Matrix</u> or (moist) %	Redox Features Color (moist) % Type <sup>1</sup>	Loc <sup>2</sup> Texture	Remarks
	10 A KA		CL	
6-12+ 100				
Hydric Soil Indicato Histosol (A1) Histic Epipedon (A3) Hydrogen Sulfide Stratified Layers 1 cm Muck (A9) Depleted Below Thick Dark Surfa Sandy Mucky Mi 2,5 cm Mucky Pe	(A2) (A2) (A2) (A5) (LRR F) (LRR F, G, H) Dark Surface (A11) (ce (A12) neral (S1) eat or Peat (S2) (LRR G, t or Peat (S3) (LRR F)	educed Matrix, CS=Covered or Coate (Rs, unless otherwise noted.) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Coarny Mucky Mineral (F1) Loarny Gleyed Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depressions (F8) H) High Plains Depressions (F8)	Indicators 1 1 cm Mi Coast P Dark Su High Pla (LRF Reduce Red Pa Very Sh Other (E 16) <sup>3</sup> Indicators co H) wetland	ation: PL=Pore Lining, M=Matrix. For Problematic Hydric Soils <sup>3</sup> : uck (A9) (LRR I, J) Prairie Redox (A16) (LRR F, G, H) urface (S7) (LRR G) ains Depressions (F16) R H outside of MLRA 72 & 73) id Vertic (F18) rent Material (TF2) hallow Dark Surface (TF12) Explain in Remarks) of hydrophytic vegetation and hydrology must be present, disturbed or problematic.
Remarks:			Hydric Soil I	Present? Yes <u>No V</u>
HYDROLOGY				
Surface Water (A     High Water Table     Saturation (A3)     Water Marks (B1     Sediment Depos     Drift Deposits (B     Algal Mat or Crus     Iron Deposits (B2     Inundation Visible     Water-Stained Level	ninimum of one required; . A1) e (A2) ) iits (B2) 3) st (B4) 5) le on Aerial Imagery (B7) eaves (B9)	<ul> <li>Salt Crust (B11)</li> <li>Aquatic Invertebrates (B13)</li> <li>Hydrogen Sulfide Odor (C1)</li> <li>Dry-Season Water Table (C2)</li> <li>Oxidized Rhizospheres on Liv (where not tilled)</li> <li>Presence of Reduced Iron (C4)</li> <li>Thin Muck Surface (C7)</li> <li>Other (Explain in Remarks)</li> </ul>	4) Surfa Spars Drain Oxidi ing Roots (C3) Crayl Satur Crayl Geon FAC-	v Indicators (minimum of two required) ice Soil Cracks (B6) sely Vegetated Concave Surface (B8) nage Patterns (B10) zed Rhizospheres on Living Roots (C3) nere tilled) fish Burrows (C8) ration Visible on Aerial Imagery (C9) norphic Position (D2) Neutral Test (D5) -Heave Hummocks (D7) (LRR F)
Field Observations: Surface Water Prese Water Table Present Saturation Present? (includes capillary frii Describe Recorded D Remarks:	nt? Yes No ? Yes No Yes No nge)	Depth (inches):	Wetland Hydrology	Present? Yes <u>No</u>

Project/Site: Overlook	_ City/County: Peuton/FI Page Sampling Date: 17/26/23
Applicant/Owner: <u>PT</u>	_ City/County: <u>Peyton/F1 Paso</u> Sampling Date: <u>7/26/2</u> 3 State: <u>CO</u> Sampling Point: <u>30 17-</u> UR
Investigator(s): <u>SM</u>	_ Section, Township, Range: <u>27, TUS, RGHW</u>
Landform (hillslope, terrace, etc.): <u>うい</u> வe	
Subregion (LRR): Rocky Men Region Lat:	3.9.06467145 Long: -104.5464621 Datum: NADE3
Soil Map Unit Name: MI Pring coarse mody	Dam, 3-8% NWI classification: N/A
Are climatic / hydrologic conditions on the site typical for this time of	year? Yes No (If no, explain in Remarks.)
Are Vegetation $\_\underline{\mathcal{N}}_{}$ , Soil $\underline{\mathcal{N}}_{}$ , or Hydrology $\_\underline{\mathcal{N}}_{}$ significant	ly disturbed? Are "Normal Circumstances" present? Yes No
Are Vegetation $\underline{N}$ , Soil $\underline{N}$ , or Hydrology $\underline{M}$ naturally p	roblematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showin	g sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No V	

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes No Yes No Yes No	Is the Sampled Area within a Wetland?	Yes No	
Remarks:				

# VEGETATION – Use scientific names of plants.

	Absolute		t Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)		<u>Species?</u>		Number of Dominant Species
1			•	That Are OBL, FACW, or FAC
2		·	-	(excluding FAC-): (A)
3				Total Number of Dominant
4			<u></u>	Species Across All Strata: (B)
		= Total Co	ver	Percent of Dominant Species
Sapling/Shrub Stratum (Plot size:)				That Are OBL, FACW, or FAC:(A/B)
1		<u></u>	- <u> </u>	
2			·	Prevalence Index worksheet:
3	_			Total % Cover of: Multiply by:
4				OBL species $10$ x 1 = $10$
5			· ·	FACW species x 2 = 80
		= Total Cov	ver	FAC species x 3 =
Herb Stratum (Plot size:)				FACU species <u>50</u> x4= <u>200</u>
1. Juneus brachycephalus	10		OBL	UPL species x 5 =
	<u>\0</u> _		FACU	Column Totals: $100$ (A) $290$ (B)
3. Achillea millefolium	01		FACU	
4. Ambrosia artemisiifolia	20	$\checkmark$	FACU	Prevalence Index = $B/A = 2.2$
5. Agrostis cigantea	40	$\overline{}$	FACIN	Hydrophytic Vegetation Indicators:
6. Elynus trachercaulus	10	,	FACU	1 - Rapid Test for Hydrophytic Vegetation
7			<u>, 1</u>	2 - Dominance Test is >50%
8	•		······	<u> </u>
9				4 - Morphological Adaptations <sup>1</sup> (Provide supporting
10	, <u></u>			data in Remarks or on a separate sheet)
	$\overline{100}$	= Total Cov		Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Woody Vine Stratum (Plot size:)		- 10(81/COV	ver	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
1				be present, unless disturbed or problematic.
2				Hydrophytic
		= Total Cov	Ver	Vegetation
% Bare Ground in Herb Stratum 🔿		10(2) 001		Present? Yes No _/
Remarks:				Languada da Angelanda

# Sampling Point: <u>SPVTU</u>P.

Profile Desc	ription: (Describe	to the depth ne	eded to docur	nent the i	ndicator o	or confirm	the absence of	findicators.)
Depth	Matrix			x Features				
(inches)	Color (moist)	<u>%</u> <u>C</u>	olor (moist)		Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
<u> </u>	104R 4/4						loam_	
6-12-	1048 3/1						CL	
<u>,</u>								
		<u> </u>						
	·····							
<u></u>					<u> </u>			
				-	<u></u>			
	oncentration, D=Dep	etion PM=Ped	uced Matrix, CS	 S=Coverec	Lor Coste	 d Sand Gr	ains <sup>2</sup> l ocat	tion: PL=Pore Lining, M=Matrix.
	Indicators: (Applic					a Ganu Gi		or Problematic Hydric Soils <sup>3</sup> :
Histosol	•		Sandy (					ck (A9) (LRR I, J)
	oipedon (A2)			Redox (S5)				airie Redox (A16) (LRR F, G, H)
Black Hi				d Matrix (S				face (S7) (LRR G)
	en Sulfide (A4)			Mucky Min	•			ins Depressions (F16)
	d Layers (A5) (LRR	F)		Gleyed Ma				H outside of MLRA 72 & 73)
	uck (A9) (LRR F, G,			d Matrix (F			•	I Vertic (F18)
	d Below Dark Surfac	-		Dark Surfa				ent Material (TF2)
	ark Surface (A12)	( )		d Dark Su	• •			allow Dark Surface (TF12)
	Aucky Mineral (S1)			Depression				xplain in Remarks)
	Mucky Peat or Peat	(S2) (LRR G, H)		ains Depre	• •	(6)		hydrophytic vegetation and
	ucky Peat or Peat (S			RA 72 & 7				hydrology must be present,
	,	-, ( ,	,			,		isturbed or problematic.
Restrictive	Layer (if present):		*****					
Type: 🔼	2/L							/
Depth (in	ches):						Hydric Soil P	resent? Yes No/
Remarks:								
HYDROLO	GY							
Wetland Hy	drology Indicators	:						
Primary Indi	cators (minimum of	one required; cha	eck all that appl	ly)			Secondary	Indicators (minimum of two required)
Surface	Water (A1)		Salt Crust	(B11)			Surfac	ce Soil Cracks (B6)
	ater Table (A2)		Aquatic In		s (B13)			ely Vegetated Concave Surface (B8)
Saturati			Hydrogen					age Patterns (B10)
	larks (B1)		Dry-Seaso					ed Rhizospheres on Living Roots (C3)
	nt Deposits (B2)		Oxidized F		• •	na Roots		ere tilled)
				not tilled)				sh Burrows (C8)
	posits (B3) at an Cruat (B4)		Presence		d Iron (C.4	<b>۱</b>		ation Visible on Aerial Imagery (C9)
	at or Crust (B4)				•	7		
	posits (B5)	;		(Surface (				orphic Position (D2)
	ion Visible on Aerial	Imagery (B7)	Other (Exp	piain in Re	marks)			Neutral Test (D5)
	itained Leaves (B9)		***				Frost-	Heave Hummocks (D7) (LRR F)
Field Obser		,		-1 - X				
Surface Wat		Yes No	1	iches):				
Water Table	Present?	Yes No _'	27	ches):				
Saturation P		Yes No	¥ Depth (in	ches):		Weti	and Hydrology I	Present? Yes NoV
	<u>pillary fringe)</u> corded Data (strear	n daude monitor	ing well periol	nhotos pr	evique ine	nectione)	if available	
		n yanye, momor	ng wen, acidi	prioroa, pr		poonona),	n avanadio.	
<b>D</b>								
Remarks:								

Project/Site: <u>Overlook</u>		City/County	· Perto	n/ El Paso Sampling Date: <u>7/26/23</u>
Applicant/Owner:			L	State: <u>CO</u> Sampling Point: <u>50 VI W</u>
Investigator(s): M		Section, To	wnship, Rai	nge: 27, TIIS, ROUW
Landform (hillslope, terrace, etc.): <u>5000000</u>		Local relief	f (concave, o	convex, none): <u>CONCOVC</u> Slope (%): <u>6</u>
				Long: - 104,54051726 Datum: NAD83
Soil Map Unit Name: 711 Pring charse =				
Are climatic / hydrologic conditions on the site typical for th				
Are Vegetation N, Soil N, or Hydrology N				Normal Circumstances" present? Yes V No
Are Vegetation, Soil, or Hydrology	• •			eded, explain any answers in Remarks.)
				ocations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes Hydric Soil Present? Yes Yes Yes Yes	No No No	is th	e Sampled in a Wetlar	Area
Remarks:				
VEGETATION – Use scientific names of pla	nts.			
Trop Stratum (Dist size:		Dominant		Dominance Test worksheet:
Tree Stratum         (Plot size:)           1				Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): (A)
3				Total Number of Dominant
4				Species Across All Strata: <u>2</u> (B)
Sapling/Shrub Stratum (Plot size:) 1		= Total Cov		Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
2				Prevalence Index worksheet:
3,				Total % Cover of: Multiply by:
4				OBL species <u>5</u> x 1 = <u>5</u>
5	<u> </u>			FACW species $\underline{45}$ x 2 = $\underline{40}$
		= Total Cov	/er	FAC species x 3 =
Herb Stratum (Plot size:)	<u>a</u> a	/	- N 41 - N	FACU species <u>50</u> x 4 = <u>200</u>
1. Juncus articus	_ <u>_20</u> _ 145	_ <del>/</del>	FACW	UPL species x 5 =
2. <u>Poa compressa</u> 3. Achillea millefollum			FACU	Column Totals: <u>IOO</u> (A) <u>29.5</u> (B)
4. Ambrosia artemisiifolia			FACU	Prevalence Index = B/A =
5. Poa pratonsis		$\overline{}$	<u>FACU</u> FACU	Hydrophytic Vegetation Indicators:
6. Juncts brachyrephalus		<u> </u>	<u>ABL</u>	✓ 1 - Rapid Test for Hydrophytic Vegetation
7. Agrostis rigantea		••••••	FACU	$V_{f}$ 2 - Dominance Test is >50%
8. Phalaris angusta	15		FACW	<u> </u>
9				4 - Morphological Adaptations <sup>1</sup> (Provide supporting
10				data in Remarks or on a separate sheet)
Woody Vine Stratum (Plot size:) 1	100	= Total Cov	/er	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2		·····		Hydrophytic
% Bare Ground in Herb Stratum		= Total Cov	/er	Vegetation Present? Yes No
Remarks:				

Profile Desc	ription: (Describe	to the dep				or confirn	n the absence o	of indicators.)
Depth (inches)	<u>Matrix</u> Color (moist)	%	Re Color (moist)	dox Feature %	sTγpe <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
<u>(inches)</u> 0-2	104R 4/3	100	Calor (maist)	70			loam	Remarks
2-6	104R 5/2	97	104R 5/8	3			loam	MC94
	10424/2		· // · ·				lam	30%
<u>(;-12+</u>	10483/1			······			loam	
		·			- <u></u>		······································	
	ncentration, D=Dep					d Sand G		ation: PL=Pore Lining, M=Matrix.
-	ndicators: (Applic	able to all						or Problematic Hydric Soils <sup>3</sup> :
Histosol				ly Gleyed Ma	• •			uck (A9) (LRR I, J)
	ipedon (A2)			y Redox (S	-			rairie Redox (A16) (LRR F, G, H)
Black His				oed Matrix (S	•			Inface (S7) (LRR G)
	n Sulfide (A4)   Layers (A5) (LRR <b>f</b>	=)		ny Mucky Mi Ny Gleyed M				ains Depressions (F16) R H outside of MLRA 72 & 73)
	ck (A9) (LRR F, G, I			eted Matrix (			•	d Vertic (F18)
	Below Dark Surface	-		x Dark Surfa	-			rent Material (TF2)
	rk Surface (A12)	- ( )		eted Dark Si				allow Dark Surface (TF12)
	ucky Mineral (S1)			x Depressio	• •		-	Explain in Remarks)
2.5 cm M	lucky Peat or Peat (	S2) (L <b>RR</b> (		Plains Depr		16)	<sup>3</sup> Indicators o	f hydrophytic vegetation and
5 cm Mu	cky Peat or Peat (S3	3) (LRR F)	(	MLRA 72 &	73 of LRR	H)	wetland	hydrology must be present,
							unless o	listurbed or problematic.
Restrictive I Type: Depth (inc	.ayer (if present): 10//A ches):		· ·				Hydric Soil F	Present? Yes 🗸 No
Remarks:								
		ı						
HYDROLO								
-	trology Indicators:							
	ators (minimum of o	ne required						y Indicators (minimum of two required)
	Water (A1)			ıst (B11)				ce Soil Cracks (B6)
	ter Table (A2)			Invertebrate			/	sely Vegetated Concave Surface (B8)
Saturatio				en Sulfide O				age Patterns (B10)
	arks (B1)		=	ason Water				zed Rhizospheres on Living Roots (C3)
	t Deposits (B2)			d Rhizosphe		ng Roots	. , .	here tilled)
	osits (B3)			re not tilled)		<b>、</b>	· · ·	ish Burrows (C8)
	t or Crust (B4)			ce of Reduce	•	)		ation Visible on Aerial Imagery (C9)
	osits (B5)	· · · · · /D		ick Surface	· ·			norphic Position (D2)
	on Visible on Aerial I	magery (B)	') Other (i	Explain in Re	emarks)			Neutral Test (D5)
	tained Leaves (B9)		· · · ·			·	Frost	-Heave Hummocks (D7) (LRR F)
Field Observ				Constant A				
Surface Wate		•		(inches):				
Water Table		es		(inches):				./
Saturation Pr (includes cap		es I	No <u>V</u> Depth	(inches):		_   Weti	and Hydrology	Present? Yes <u>/</u> No
	corded Data (stream	gauge, mo	nitoring well, aeri	al photos, pi	evious insp	pections),	if available:	
						****	****	
Remarks:								

Dural Ourclosed.	<b>a</b> 11 <b>a b</b>	Day 10	<u></u>		MINING
Project/Site: <u>Over lock</u> Applicant/Owner: <u>PT</u>	City/County:	<u>rechanges</u>	1250	Sampling Date	: 1126/23
			State: <u>CO</u>	Sampling Poin	t <u>30 18-07</u> -
Investigator(s):	Section, Tow	mship, Range: 🖄	M,TILS, RO	<u>4(1)</u>	
Landform (hillslope, terrace, etc.): hillslope	Local relief (	concave, convex,	none): <u>COriva</u>	<u> </u>	ilope (%): <u>6</u>
Subregion (LRR): Racky Min Range	Lat: <u>_39,06536</u>	<u>332</u> Long:	-104.5398	<u>34685</u> Da	itum: <u>NAD83</u>
Soil Map Unit Name: M: Pring COarse sar					
Are climatic / hydrologic conditions on the site typical for the					,
Are Vegetation _ $N$ , Soil _ $N$ , or Hydrology _ $N$	significantly disturbed?	Are "Normai	Circumstances" p	resent? Yes	V No
Are Vegetation $N$ , Soil $N$ , or Hydrology $N$			explain any answe		
SUMMARY OF FINDINGS – Attach site map	showing sampling	point locatio	ons, transects	, important	features, etc.
Hydrophytic Vegetation Present?       Yes         Hydric Soil Present?       Yes         Wetland Hydrology Present?       Yes		Sampled Area n a Wetland?	Yes	No	_
Remarks:	L		and a part of the second s		4971.1.4.4
VEGETATION – Use scientific names of pla	nts.				
	Absolute Dominant		nance Test work	sheet:	
Tree Stratum (Plot size:)	<u>% Cover Species?</u>	Status Numb	er of Dominant Sr	oecies	

	% Cover	Species?	Status	Number of Dominant Species	
1		. <u></u>		That Are OBL, FACW, or FAC (excluding FAC-);	(A)
2					$\overline{\mathcal{A}}$
3			-	Total Number of Dominant Species Across All Strata:	B)
4,					)
Sapling/Shrub Stratum (Plot size:)		= Total Co	ver	Percent of Dominant Species That Are OBL, FACW, or FAC:(/	A/B)
1			• •	Prevalence Index worksheet:	
2				Total % Cover of: Multiply by:	
3			· ·	OBL species $1O$ $x 1 = IO$	
4			·	FACW species $10$ x 2 = $20$	
5		- <b>T</b> + 10		FAC species x 3 =	
Herb Stratum (Plot size:)		= Total Co	ver	FACU species $20$ x4 = $80$	
	30	$\checkmark$	UPL	UPL species x 5 = 300	
2. Koeleria marrantha			UPL	Column Totals: 100 (A) 410	(B)
3. Bouteloua gracilis			DPL		``
4. Achillea millefolium				Prevalence Index = B/A =	
5. Juncos brachurephalus	10		OBL	Hydrophytic Vegetation Indicators:	
6. Heterotheca villasa	5		UPL	1 - Rapid Test for Hydrophytic Vegetation	
7. Hordeum jubatum	10		FACW	2 - Dominance Test is >50%	
8. Dalea ourpurea	5		UPL	3 - Prevalence Index is ≤3.0 <sup>1</sup>	
9. Solidago altissing	10		FACO	<ul> <li>4 - Morphological Adaptations<sup>1</sup> (Provide suppol data in Remarks or on a separate sheet)</li> </ul>	rting
10		· <u> </u>		Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
Woody Vine Stratum (Plot size:)	100	= Total Co	ver	<sup>1</sup> Indicators of hydric soil and wetland hydrology mus	-+
· · · · · · · · · · · · · · · · · · ·				be present, unless disturbed or problematic.	SL
2			·		
2		= Total Co		Hydrophytic Vegetation	
% Bare Ground in Herb Stratum			VCI	Present? Yes No	
Remarks:				1 And the second se	

		to the depth	needed to document the indicator or co	onfirm the absence	of Indicators.)
Depth (inches)	<u>Matrix</u> Color (moist)	<u> </u>	Redox Features Color (moist) % Type <sup>1</sup> Lo	DC <sup>2</sup> Texture	Remarks
					<u> </u>
0-12+	104R4/3	100		loam	
		· ·····			
			······································		
		· ·····	······································		
	·····	· ·			
<u></u>					······
<sup>1</sup> Type: C=C	oncentration D=Den	letion BM=B	educed Matrix, CS=Covered or Coated Sa	und Grains <sup>2</sup> I o	cation: PL=Pore Lining, M=Matrix.
			RRs, unless otherwise noted.)		for Problematic Hydric Soils <sup>3</sup> :
Histosol			Sandy Gleyed Matrix (S4)		- Muck (A9) (LRR I, J)
	pipedon (A2)		Sandy Redox (S5)		Prairie Redox (A16) (LRR F, G, H)
Black Hi			Stripped Matrix (S6)		Surface (S7) (LRR G)
Hydroge	n Sulfide (A4)		Loamy Mucky Mineral (F1)	High F	Plains Depressions (F16)
Stratified	l Layers (A5) (L <b>RR</b> I	F)	Loamy Gleyed Matrix (F2)	(LF	RR H outside of MLRA 72 & 73)
	ick (A9) ( <b>LRR</b> F <b>, G</b> , I	•	Depleted Matrix (F3)		ced Vertic (F18)
	Below Dark Surfac	e (A11)	Redox Dark Surface (F6)		Parent Material (TF2)
	ark Surface (A12) lucky Mineral (S1)		Depleted Dark Surface (F7) Redox Depressions (F8)		Shallow Dark Surface (TF12) (Explain in Remarks)
	lucky Mineral (ST) Aucky Peat or Peat (	S2) /I RR G			of hydrophytic vegetation and
	icky Peat or Peat (S		(MLRA 72 & 73 of LRR H)		id hydrology must be present,
0 0.01 0.01		_, (,	(		s disturbed or problematic.
Restrictive I	Layer (if present):				· · · · · · · · · · · · · · · · · · ·
Type:	N/A				
Depth (inc	ches):			Hydric Soi	l Present? Yes No 🗸
Remarks:	,				
riomania.					
,					
HYDROLO	GY				
Wetland Hv	drology Indicators:				
-			check all that apply)	Second	ary Indicators (minimum of two required)
	Water (A1)	no roquirou,	Salt Crust (B11)		face Soil Cracks (B6)
	iter Table (A2)		Aquatic Invertebrates (B13)		arsely Vegetated Concave Surface (B8)
Saturatio			Hydrogen Sulfide Odor (C1)		linage Patterns (B10)
	larks (B1)		Dry-Season Water Table (C2)		dized Rhizospheres on Living Roots (C3)
	nt Deposits (B2)		Oxidized Rhizospheres on Living R		where tilled)
	posits (B3)		(where not tilled)		yfish Burrows (C8)
	at or Crust (B4)		Presence of Reduced Iron (C4)		uration Visible on Aerial Imagery (C9)
-	osits (B5)		Thin Muck Surface (C7)		emorphic Position (D2)
	on Visible on Aerial	magery (B7)			C-Neutral Test (D5)
	tained Leaves (B9)		<u> </u>		st-Heave Hummocks (D7) (LRR F)
Field Obser	· ·			<u></u>	
Surface Wat		′es No	o_√ Depth (inches):		
Water Table		'es No			
			3/	Wational Hydrolog	y Present? Yes No _/
Saturation P (includes car		'es No			y resent res No
Describe Re	corded Data (stream	gauge, mon	itoring well, aerial photos, previous inspect	ions), if available:	
Remarks:			*****************		

Project/Site; Overlock	City/County: <u>Peyton/El Paso</u> Sampling Date: <u>7/26/23</u> State: <u>CO</u> Sampling Point: <u>30 (8 · W</u>
Applicant/Owner:	State: <u>C()</u> Sampling Point: 52 (8 · W)
Investigator(s): <u>SM</u>	Section, Township, Range: <u>27, Two.</u> RGUW
Landform (hillslope, terrace, etc.):	Local relief (concave, convex, none): CONCOVE Slope (%): C
Subregion (LRR): <u>Rocky Man Region</u> Lat	.at: <u>39,06536764</u> Long: <u>104,53981302</u> Datum: <u>NAD</u> &3
Soil Map Unit Name: 71: Princy COard Sandy	10am, 3-8 NWI classification: N/A
Are climatic / hydrologic conditions on the site typical for this time	ne of year? Yes V No (If no, explain in Remarks.)
Are Vegetation $\_N$ , Soil $\_N$ , or Hydrology $\_N$ signific	ificantly disturbed? Are "Normal Circumstances" present? Yes V No
Are Vegetation <u>N</u> , Soil <u>N</u> , or Hydrology <u>N</u> natura	rally problematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map show	owing sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No	
Hydric Soil Present? Yes // No	─────────────────────────────────────
Wetland Hydrology Present? Yes V No	
Remarks:	

# VEGETATION – Use scientific names of plants.

· · · · · · · · · · · · · · · · · · ·	Abcoluto	Dominant	Indiantes	Deminence Testanolista
Tree Stratum (Plot size:)		Species?		Dominance Test worksheet:
1				Number of Dominant Species That Are OBL, FACW, or FAC
2				(excluding FAC-):
3				Total Number of Dominant
4				Species Across All Strata: (B)
		= Total Co	ver	Percent of Dominant Species
Sapling/Shrub Stratum         (Plot size:)           1				That Are OBL, FACW, or FAC: (A/B)
2				Prevalence Index worksheet:
3				Total % Cover of:Multiply by:
4				OBL species $45$ x1= $45$
	·····			FACW species 30 x 2 = 60
5				FAC species x 3 =
Herb Stratum (Plot size:)		= Total Co	/er	FACU species _2() x 4 =
1. Poa pratensis	5		FACU	UPL species x 5 =
2. Pag compresses	5		FACU	Column Totals: 100 (A) 120 (B)
3. Hordeum jubatum		·	FACW	
4. Alopecuris acqualis			OBL	Prevalence Index = $B/A = 1$ , $B_{A}$
5. Juncus Grachyceahalus		$\overline{}$	OBL	Hydrophytic Vegetation Indicators:
6. Achillea millefolium			FACU	1 - Rapid Test for Hydrophytic Vegetation
7. Elynus trachycaulus	5		FACU	$\sqrt{\frac{2}{2}}$ - Dominance Test is >50%
8. Pour arctice	20	$\overline{}$	FACW	$\underline{V}$ 3 - Prevalence Index is $\leq 3.0^{1}$
9. Rumer mospoo			FAC	4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
10				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
	<u> </u>	= Total Cov	/er	
Woody Vine Stratum (Plot size:)				<sup>1</sup> Indicators of hydric soil and wetland hydrology must
1				be present, unless disturbed or problematic.
2				Hydrophytic
% Bare Ground in Herb Stratum		= Total Cov		Vegetation Present? Yes <u>V</u> No
Remarks:				

epth	Matrix	10 110 40		ox Features			m the absence of in	,
nches)	Color (moist)	%	Color (moist)	%	_Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
>-4	<u>10424/2</u>	50	1046/8	50	<u> </u>	<u> </u>	<u>loamy clae</u>	<u> </u>
1-6	1040 4/a	50	÷			•	loanydly si	376 gravel
5-124	104Ru/	90	108R %	10	C	<u> </u>	100th day	U
							1 0	
	····		<u></u>					
	<u></u>							
								· · · · · ·
	oncentration D=Der	nletion RM	I=Reduced Matrix, C	 S=Covered	or Coat	ed Sand C	 Grains. <sup>2</sup> Location	: PL=Pore Lining, M=Matrix.
/dric Soil	Indicators: (Applic	cable to al	I LRRs, unless othe	erwise not	ed.)			Problematic Hydric Solls <sup>3</sup> :
_ Histoso	I (A1)		Sandy	Gleyed Ma	trix (S4)			(A9) (LRR I, J)
_ Histic E	pipedon (A2)			Redox (S5				e Redox (A16) (LRR F, G, H)
	istic (A3)			d Matrix (S				e (S7) (LRR G)
	en Sulfide (A4)	E)		Mucky Mir	• •	ļ.		Depressions (F16) outside of MLRA 72 & 73)
	d Layers (A5) (LRR uck (A9) (LRR F, G,			Gleyed Ma ed Matrix (I			Reduced Ve	
	d Below Dark Surfac			Dark Surfa				Material (TF2)
	ark Surface (A12)			ed Dark Su		7)		w Dark Surface (TF12)
	Mucky Mineral (S1)			Depressio				ain in Remarks)
	Mucky Peat or Peat	(S2) (LRR	G, H) High P	lains Depre	essions (l	F16)		drophytic vegetation and
_ 5 cm M	ucky Peat or Peat (S	63) ( <b>LRR</b> F	) (M	LRA 72 & 7	73 of LR	RH)		rology must be present,
							uniess distu	rbed or problematic.
	Layer (if present):							
	8 ~ 8 8 2							
Туре:							Ibuduie Cail Drag	No. Von V
Depth (ir emarks:	iches):						Hydric Soil Pres	sent? Yes_ <u>√</u> No
Depth (ir emarks:	-						Hydric Soil Pres	ent? Yes <u>/</u> No
Depth (ir emarks:	-							
Depth (ir emarks: (DROLC	)GY /drology indicators		ed; check all that app	oly)			<u>Secondary In</u>	dicators (minimum of two require
Depth (ir emarks: /DROLC /etland Hy rimary Ind	)GY /drology indicators		Salt Crus	it (B11)			<u>Secondary In</u> Surface S	<u>dicators (minimum of two require</u> Soil Cracks (B6)
Depth (ir emarks: DROLC retland Hy rimary Ind	DGY /drology Indicators icators (minimum of		Salt Crus Aquatic I	it (B11) nvertebrate			<u>Secondary In</u> Surface \$ Sparsely	<u>dicators (minimum of two require</u> Soil Cracks (B6) Vegetated Concave Surface (B8
Depth (ir emarks: /DROLC /etland Hy rimary Ind Surface High W Saturat	DGY /drology indicators icators (minimum of Water (A1) /ater Table (A2) ion (A3)		Salt Crus Aquatic I Hydroget	it (B11) nvertebrate n Sulfide O	dor (C1)		<u>Secondary In</u> Surface S Sparsely Drainage	<u>dicators (minimum of two require</u> Soil Cracks (B6) Vegetated Concave Surface (B8 • Patterns (B10)
Depth (ir emarks: /DROLC /etland Hy rimary Ind Surface High W Saturat Water I	OGY /drology Indicators icators (minimum of e Water (A1) /ater Table (A2) ion (A3) Marks (B1)		Salt Crus Aquatic I Hydroger Dry-Seas	it (B11) nvertebrate n Sulfide O son Water T	dor (C1) Fable (C2		<u>Secondary In</u> Surface S Sparsely Drainage Oxidized	dicators (minimum of two require Soil Cracks (B6) Vegetated Concave Surface (B8 Patterns (B10) Rhizospheres on Living Roots (6
Depth (ir emarks: DROLC /etland Hy rimary Ind Surface High W Saturat Water I Sedime	DGY /drology Indicators icators (minimum of e Water (A1) /ater Table (A2) ion (A3) Marks (B1) ent Deposits (B2)		Salt Crus Aquatic I Hydrogei Dry-Seas Oxidized	it (B11) nvertebrate n Sulfide O son Water 1 Rhizosphe	dor (C1) Fable (C2 res on Li		<u>Secondary In</u> <u>Surface Surface S</u> <u>Sparsely</u> <u>Drainage</u> <u>C</u> Oxidized s (C3) (where	<u>dicators (minimum of two require</u> Soil Cracks (B6) Vegetated Concave Surface (B8 Patterns (B10) Rhizospheres on Living Roots (6 • <b>tilled</b> )
Depth (ir emarks: /DROLC /etland Hy rimary Ind Surface High W Saturat Usaturat Usaturat Saturat Drift De	DGY /drology Indicators icators (minimum of e Water (A1) /ater Table (A2) ion (A3) Marks (B1) ent Deposits (B2) eposits (B3)		Salt Crus Aquatic I Hydroger Dry-Seas Oxidized (where	it (B11) nvertebrate n Sulfide O son Water 1 Rhizosphe e not tilled)	dor (C1) Fable (C2 res on Li	ving Root	<u>Secondary In</u> <u>Surface S</u> <u>Sparsely</u> <u>Drainage</u> <u>Oxidized</u> s (C3) (where <u>Crayfish</u>	dicators (minimum of two require Soil Cracks (B6) Vegetated Concave Surface (B8 Patterns (B10) Rhizospheres on Living Roots ( • tilled) Burrows (C8)
Depth (ir emarks: /DROLC /etland Hy rimary Ind Surface High W Saturat Usaturat Sedime Drift De Algal M	DGY /drology Indicators icators (minimum of Water (A1) /ater Table (A2) ion (A3) Marks (B1) ent Deposits (B2) eposits (B3) lat or Crust (B4)		Salt Crus Aquatic I Hydrogen Dry-Seas Oxidized Oxidized Presence	it (B11) nvertebrate n Sulfide O son Water T Rhizosphe e not tilled) e of Reduce	dor (C1) Fable (C2 res on Li ed Iron (C	ving Root	_ <u>Secondary In</u> Surface S Sparsely Drainage Oxidized s (C3) (where Crayfish Saturatio	dicators (minimum of two require Soil Cracks (B6) Vegetated Concave Surface (B8 Patterns (B10) Rhizospheres on Living Roots ( tilled) Burrows (C8) in Visible on Aerial Imagery (C9)
Depth (ir emarks: /DROLC /etland Hy rimary Ind Surface High W Saturat Water I Sedime Drift De Algal M Iron De	DGY /drology Indicators icators (minimum of Water (A1) /ater Table (A2) ion (A3) Marks (B1) ent Deposits (B2) eposits (B3) lat or Crust (B4) eposits (B5)	<u>one requir</u>	Salt Crus Aquatic I Hydroger Dry-Seas Oxidized (where Presence Thin Muc	tt (B11) nvertebrate n Sulfide O son Water 1 Rhizosphe e not tilled) e of Reduce ck Surface (	dor (C1) Fable (C2 ires on Li ed Iron (C (C7)	ving Root	Secondary In Surface S Sparsely Drainage Oxidized s (C3) (where Saturatio Saturatio Geomore	dicators (minimum of two require Soil Cracks (B6) Vegetated Concave Surface (B8 Patterns (B10) Rhizospheres on Living Roots ( tilled) Burrows (C8) in Visible on Aerial Imagery (C9) phic Position (D2)
Depth (ir emarks: /DROLC /etland Hy rimary Ind Surface High W Saturat Water I Sedime Drift De Algal M Iron De Inunda	DGY /drology Indicators icators (minimum of Water (A1) /ater Table (A2) ion (A3) Marks (B1) ent Deposits (B2) eposits (B3) lat or Crust (B4) eposits (B5) tion Visible on Aerial	<u>one requin</u> I Imagery (	Salt Crus Aquatic I Hydroger Dry-Seas Oxidized (where Presence Thin Muc	it (B11) nvertebrate n Sulfide O son Water T Rhizosphe e not tilled) e of Reduce	dor (C1) Fable (C2 ires on Li ed Iron (C (C7)	ving Root	s (C3) <u>Secondary In</u> <u>Surface S</u> <u>Sparsely</u> <u>Drainage</u> <u>Crayfish</u> <u>Saturatio</u> <u>Y</u> Geomory <u>FAC-Net</u>	dicators (minimum of two require Soil Cracks (B6) Vegetated Concave Surface (B8 Patterns (B10) Rhizospheres on Living Roots (f e tilled) Burrows (C8) in Visible on Aerial Imagery (C9) phic Position (D2) utral Test (D5)
Depth (ir emarks: /DROLC /etland Hy rimary Ind Surface High W Saturat Water I Sedime Drift De Algal M Iron De Inunda Water-I	OGY /drology Indicators icators (minimum of e Water (A1) /ater Table (A2) ion (A3) Marks (B1) ent Deposits (B2) eposits (B3) lat or Crust (B4) eposits (B5) tion Visible on Aerial Stained Leaves (B9)	<u>one requin</u> I Imagery (	Salt Crus Aquatic I Hydroger Dry-Seas Oxidized (where Presence Thin Muc	tt (B11) nvertebrate n Sulfide O son Water 1 Rhizosphe e not tilled) e of Reduce ck Surface (	dor (C1) Fable (C2 ires on Li ed Iron (C (C7)	ving Root	s (C3) <u>Secondary In</u> <u>Surface S</u> <u>Sparsely</u> <u>Drainage</u> <u>Crayfish</u> <u>Saturatio</u> <u>Y</u> Geomory <u>FAC-Net</u>	dicators (minimum of two require Soil Cracks (B6) Vegetated Concave Surface (B8 Patterns (B10) Rhizospheres on Living Roots ( tilled) Burrows (C8) in Visible on Aerial Imagery (C9) phic Position (D2)
Depth (ir emarks: /DROLC /etland Hy rimary Ind Surface High W Saturat Vater I Sedime Sedime Algal M Iron De Inunda Water-S ield Obse	DGY /drology Indicators icators (minimum of Water (A1) /ater Table (A2) ion (A3) Marks (B1) ent Deposits (B2) eposits (B3) lat or Crust (B4) eposits (B5) tion Visible on Aerial Stained Leaves (B9) rvations:	one requin	Salt Crus Aquatic I Hydrogen Dry-Seas Oxidized (where Presence Thin Muc B7) Other (E:	it (B11) nvertebrate n Sulfide O son Water T Rhizosphe e not tilled) e of Reduce ck Surface o xplain in Re	dor (C1) Fable (C2 res on Li ed Iron (C (C7) emarks)	ving Root	s (C3) <u>Secondary In</u> <u>Surface S</u> <u>Sparsely</u> <u>Drainage</u> <u>Crayfish</u> <u>Saturatio</u> <u>Y</u> Geomory <u>FAC-Net</u>	dicators (minimum of two require Soil Cracks (B6) Vegetated Concave Surface (B8 Patterns (B10) Rhizospheres on Living Roots (f e tilled) Burrows (C8) in Visible on Aerial Imagery (C9) phic Position (D2) utral Test (D5)
Depth (ir emarks: (DROLC Vetland Hy Surface High W Saturat Water I Sedime Drift De Algal M Iron De Inundat Water-I Sield Obse Surface Wa	DGY /drology Indicators icators (minimum of Water (A1) /ater Table (A2) ion (A3) Marks (B1) ent Deposits (B2) eposits (B3) lat or Crust (B4) eposits (B5) tion Visible on Aerial Stained Leaves (B9) rvations: tter Present?	I Imagery (	Salt Crus Aquatic I Hydroger Dry-Seas Oxidized (where Presence Thin Muc B7) Other (E: 	it (B11) nvertebrate n Sulfide O son Water T Rhizosphe e not tilled) e of Reduce k Surface o xplain in Re nches):(	dor (C1) Fable (C2 ed Iron (C (C7) emarks)	24) 	s (C3) <u>Secondary In</u> <u>Surface S</u> <u>Sparsely</u> <u>Drainage</u> <u>Crayfish</u> <u>Saturatio</u> <u>Y</u> Geomory <u>FAC-Net</u>	dicators (minimum of two require Soil Cracks (B6) Vegetated Concave Surface (B8 Patterns (B10) Rhizospheres on Living Roots (f e tilled) Burrows (C8) in Visible on Aerial Imagery (C9) phic Position (D2) utral Test (D5)
Depth (ir emarks: <b>/DROLC</b> <b>/vetland Hy</b> <b>/vimary Ind</b> Surface High W Saturat Water I Sedime Drift De Algal M Iron De Inunda Urinon De Surface Wa Vater Table	DGY /drology Indicators icators (minimum of Water (A1) /ater Table (A2) ion (A3) Marks (B1) ent Deposits (B2) eposits (B3) lat or Crust (B4) eposits (B5) tion Visible on Aerial Stained Leaves (B9) rvations: ter Present? e Present?	one requin	Salt Crus Aquatic I Hydroger Dry-Seas Oxidized (where Presence Thin Muc B7) Other (E:  No Depth (i Depth (i	it (B11) nvertebrate n Sulfide O son Water T Rhizosphe e not tilled) e of Reduce ck Surface ( xplain in Re nches): inches):	dor (C1) Fable (C2 ed Iron (C (C7) emarks)	24)	Secondary In Surface S Sparsely Drainage Oxidized s (C3) (where Crayfish Saturatio Geomory FAC-Net Frost-He	dicators (minimum of two require Soil Cracks (B6) Vegetated Concave Surface (B8 Patterns (B10) Rhizospheres on Living Roots (f tilled) Burrows (C8) in Visible on Aerial Imagery (C9) ohic Position (D2) utral Test (D5) ave Hummocks (D7) (LRR F)
Depth (ir emarks: (DROLC (etland Hy rimary Ind Surface High W Saturat Water I Sedime Algal M Iron De Inundal Iron De Inundal Water-I ield Obse urface Wa Vater Table aturation I ncludes ca	DGY /drology Indicators icators (minimum of a Water (A1) /ater Table (A2) ion (A3) Marks (B1) ant Deposits (B2) aposits (B3) lat or Crust (B4) aposits (B5) tion Visible on Aerial Stained Leaves (B9) rvations: ter Present? a Present? Present? a poilary fringe)	one requin	Salt Crus Aquatic I Hydroger Dry-Seas Oxidized (where Presence Thin Muc B7) Other (E:  No Depth (i No Depth (i	it (B11) nvertebrate n Sulfide O son Water 1 Rhizosphe e not tilled) e of Reduce ck Surface ( xplain in Re nches): nches): nches):	dor (C1) Fable (C2 res on Li ed Iron (C (C7) emarks)	24)	Secondary In Surface S Sparsely Drainage Oxidized s (C3) (where Crayfish Saturatio FAC-Net Frost-He	dicators (minimum of two require Soil Cracks (B6) Vegetated Concave Surface (B8 Patterns (B10) Rhizospheres on Living Roots (f tilled) Burrows (C8) in Visible on Aerial Imagery (C9) ohic Position (D2) utral Test (D5) ave Hummocks (D7) (LRR F)
Depth (ir emarks: (DROLC (etland Hy rimary Ind Surface High W Saturat Water I Sedime Algal M Iron De Inundal Iron De Inundal Water-I ield Obse urface Wa Vater Table aturation I ncludes ca	DGY /drology Indicators icators (minimum of a Water (A1) /ater Table (A2) ion (A3) Marks (B1) ant Deposits (B2) aposits (B3) lat or Crust (B4) aposits (B5) tion Visible on Aerial Stained Leaves (B9) rvations: ter Present? a Present? Present? a poilary fringe)	one requin	Salt Crus Aquatic I Hydroger Dry-Seas Oxidized (where Presence Thin Muc B7) Other (E:  No Depth (i Depth (i	it (B11) nvertebrate n Sulfide O son Water 1 Rhizosphe e not tilled) e of Reduce ck Surface ( xplain in Re nches): nches): nches):	dor (C1) Fable (C2 res on Li ed Iron (C (C7) emarks)	24)	Secondary In Surface S Sparsely Drainage Oxidized s (C3) (where Crayfish Saturatio FAC-Net Frost-He	dicators (minimum of two require Soil Cracks (B6) Vegetated Concave Surface (B8 Patterns (B10) Rhizospheres on Living Roots (f tilled) Burrows (C8) in Visible on Aerial Imagery (C9) ohic Position (D2) utral Test (D5) ave Hummocks (D7) (LRR F)
Depth (ir marks: DROLC etland Hy imary Ind Surface High W Saturat Water I Sedime Algal M Iron De Inunda Iron De Inunda Vater-J ield Obse urface Wa vater Table	DGY /drology Indicators icators (minimum of a Water (A1) /ater Table (A2) ion (A3) Marks (B1) ant Deposits (B2) aposits (B3) lat or Crust (B4) aposits (B5) tion Visible on Aerial Stained Leaves (B9) rvations: ter Present? a Present? Present? a poilary fringe)	one requin	Salt Crus Aquatic I Hydroger Dry-Seas Oxidized (where Presence Thin Muc B7) Other (E:  No Depth (i No Depth (i	it (B11) nvertebrate n Sulfide O son Water 1 Rhizosphe e not tilled) e of Reduce ck Surface ( xplain in Re nches): nches): nches):	dor (C1) Fable (C2 res on Li ed Iron (C (C7) emarks)	24)	Secondary In Surface S Sparsely Drainage Oxidized s (C3) (where Crayfish Saturatio FAC-Net Frost-He	dicators (minimum of two require Soil Cracks (B6) Vegetated Concave Surface (B8 Patterns (B10) Rhizospheres on Living Roots (f tilled) Burrows (C8) in Visible on Aerial Imagery (C9) ohic Position (D2) utral Test (D5) ave Hummocks (D7) (LRR F)

Project/Site: Ownock		City/County:	) eutor	VEL Paso Sampling Date: 7/26/2
Applicant/Owner:			3	State: Sampling Point: 50 19-06
Investigator(s): <u>SMA ANN TL</u>		Section, Townsl	hip, Ran	
Landform (hillslope, terrace, etc.): <u>hillslope</u>				
Subregion (LRR): Rocky Mtn Region	Lat: 3	9,064994	152	Long: -164,53942229 Datum: NADA
Soil Map Unit Name: 71: Pring masse sar	Value los	2-2, MA	te	NWI classification:
Are climatic / hydrologic conditions on the site typical for thi	is time of ve	ar? Yes 🗸	No	(If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology	-			
Are Vegetation, Soil, or Hydrology				eded, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map	showing	sampling p	oint lo	cations, transects, important features, etc.
Hydrophytic Vegetation Present?       Yes N         Hydric Soil Present?       Yes N         Wetland Hydrology Present?       Yes N         Remarks:       N	10 <u>V</u>	Is the Sa within a		Area 1? Yes No <u>\</u>
VEGETATION Use scientific names of plan           Tree Stratum         (Plot size:)           1.        )	Absolute % Cover	Species? Sta	atus_	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC
2				(excluding FAC-):(A)
3				Total Number of Dominant
4	-	,		Species Across All Strata: (B)
Sapling/Shrub Stratum (Plot size:) 1		= Total Cover		Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
2			F	Prevalence Index worksheet:
3				Total % Cover of:Multiply by:
4				OBL species $\underline{14}$ x 1 = $\underline{14}$
5		····		FACW species $10$ x 2 = $30$
Herb Stratum (Plot size:)		= Total Cover		FAC species x 3 = FACU species3 x 4 =522
1. Bouteleva gracitia	50		PL	UPL species $\underline{-63}$ x5= 315
2. Elymos trachycautus	10		ACU	Column Totals: $100$ (A) $461$ (B)
3. Heterotheca villosa	10		PL	
4. Sunces Grachycephalus	14		<u>BL</u>	Prevalence Index = $B/A = -\frac{U,C}{2}$
5. Potentilla recta			<u> 92</u>	Hydrophytic Vegetation Indicators:
6. Alium geyen	3	<u>F</u>	<u>ACU</u>	1 - Rapid Test for Hydrophytic Vegetation
7. Artemail frigida	2	<u> </u>	<u>PL</u>	2 - Dominance Test is >50%
8. Poa arctica			ACW	<ul> <li>3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>4 - Morphological Adaptations<sup>1</sup> (Provide supporting)</li> </ul>
9				data in Remarks or on a separate sheet)
10				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Woody Vine Stratum         (Plot size:)           1		= Total Cover		<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2				Hydrophytic
% Born Cround in Hort Strature		= Total Cover		Vegetation Present? Yes No 1
% Bare Ground in Herb Stratum Remarks:				

		to the depth	needed to document the indicator or o	confirm the abs	ence of Indicators.)
Depth (inches)	Color (moist)		<u> </u>	.oc <sup>2</sup> Textu	re Remarks
6-5.5	104R 4/3	· · · · · · · · · · · · · · · · · · ·	······································	1000	
5.5-7.5	10KK 5/4	70		Icar	30% Gravel
7.5-12+	NO48 5/3				70 /n Errand
	104R 4/2	- <u></u> -	<u></u>	<u> </u>	30% Aravel
<del></del>	1010 18	<u> </u>		<u> </u>	
<u></u>				·	
<u> </u>	<u> </u>	<u> </u>			
				··	
		. <u></u>			
			Reduced Matrix, CS=Covered or Coated S		<sup>2</sup> Location: PL=Pore Lining, M=Matrix.
-		able to all L	RRs, unless otherwise noted.)		ators for Problematic Hydric Soils <sup>3</sup> :
Histosol			Sandy Gleyed Matrix (S4)	•••••••	cm Muck (A9) (LRR I, J) coast Prairie Redox (A16) (LRR F, G, H)
Histic Ep	ipedon (A2) stic (A3)		Sandy Redox (S5) Stripped Matrix (S6)		hark Surface (S7) (LRR G)
	n Sulfide (A4)		Loamy Mucky Mineral (F1)		ligh Plains Depressions (F16)
	Layers (A5) (LRR I	=)	Loamy Gleyed Matrix (F2)		(LRR H outside of MLRA 72 & 73)
	ck (A9) (LRR F, G, I		Depleted Matrix (F3)		educed Vertic (F18)
	Below Dark Surfac	e (A11)	Redox Dark Surface (F6)		ed Parent Material (TF2) ery Shallow Dark Surface (TF12)
	rk Surface (A12) ucky Mineral (S1)		Depleted Dark Surface (F7) Redox Depressions (F8)		ther (Explain in Remarks)
	lucky Peat or Peat (	S2) (LRR G,			ators of hydrophytic vegetation and
5 cm Mu	cky Peat or Peat (S	3) (LRR F)	(MLRA 72 & 73 of LRR H)	w	etland hydrology must be present,
				u	nless disturbed or problematic.
	ayer (if present):				
Туре:	<u> </u>		_	11.3.4	
	:hes):			Hydric	: Soil Present? Yes No
Remarks:					
HYDROLO	GY				
Wetland Hyd	Irology Indicators:				
Primary Indic	ators (minimum of c	ine required;	check all that apply)	See	condary Indicators (minimum of two required)
	Water (A1)		Salt Crust (B11)		Surface Soil Cracks (B6)
-	ter Table (A2)		Aquatic Invertebrates (B13)		Sparsely Vegetated Concave Surface (B8)
Saturatio	. ,		Hydrogen Sulfide Odor (C1)		Drainage Patterns (B10)
	arks (B1) t Donosita (B2)		Dry-Season Water Table (C2)	Basta (C3)	Oxidized Rhizospheres on Living Roots (C3)
	t Deposits (B2) osits (B3)		Oxidized Rhizospheres on Living (where not tilled)		(where tilled) Crayfish Burrows (C8)
	t or Crust (B4)		Presence of Reduced Iron (C4)		Saturation Visible on Aerial Imagery (C9)
	osits (B5)		Thin Muck Surface (C7)		Geomorphic Position (D2)
	on Visible on Aerial	Imagery (B7)			FAC-Neutral Test (D5)
Water-SI	ained Leaves (B9)				Frost-Heave Hummocks (D7) (LRR F)
Field Observ	vations:		1	<u> </u>	
Surface Wate	er Present? Y	′es N	o Depth (inches):		
Water Table	Present? Y	′es N	o <u>\/</u> Depth (inches):		
Saturation Pr (includes cap		'es N	o/ Depth (inches):	Wetland Hydr	rology Present? Yes No _V
		gauge, mon	itoring well, aerial photos, previous inspec	tions), if availab	le:
Remarks:				********	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

Project/Site: Owerlack	City/County: Deuton/El Pass Sampling Date: 7/04/23
Applicant/Owner:	State: Sampling Point:
Investigator(s): <u>SMAM TL</u>	Section, Township, Range: <u>27, TUS, R6443</u>
Landform (hillslope, terrace, etc.):	Local relief (concave, convex, none): Slope (%):
Subregion (LRR): Rocky Min Range Lat: 3	09,06482889 Long: -104,53934489 Datum: NAD83
Soil Map Unit Name: 11: Ane conside Functy loc	wh. 3-8% NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of ye	
Are Vegetation, Soil, or Hydrology significantly	disturbed? Are "Normal Circumstances" present? Yes No
Are Vegetation, Soil, or Hydrology naturally pro	
SUMMARY OF FINDINGS - Attach site map showing	sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present?     Yes No       Hydric Soil Present?     Yes No       Wetland Hydrology Present?     Yes No	Is the Sampled Area within a Wetland? Yes No

# VEGETATION - Use scientific names of plants.

Yes \_\_\_\_\_ No \_\_\_\_

Wetland Hydrology Present?

Remarks:

	Alsonbute	D	4 1. 11 4	
Tree Stratum (Plot size:)	Absolute % Cover		t Indicator	Dominance Test worksheet:
· · · · · · · · · · · · · · · · · · ·				Number of Dominant Species
1				That Are OBL, FACW, or FAC (excluding FAC-):(A)
2				$(cxcluding (Ac)), \qquad \underline{  } (A)$
3				Total Number of Dominant
4		<b>N</b>		Species Across All Strata: (B)
		= Total Co	ver	Percent of Dominant Species
Sapling/Shrub Stratum (Plot size:)				That Are OBL, FACW, or FAC: (A/B)
1				(12)
2				Prevalence Index worksheet:
3				Total % Cover of:Multiply by:
4				OBL species x 1 =
5				FACW species x 2 =
		= Total Co	Wor	FAC species x 3 =
Herb Stratum (Plot size:)				FACU species 15 x4 = 60
1. Kocleria macrantha	Ð		UPL	UPL species <u>65</u> x 5 = <u>326</u>
2. Elymus trachycaulus	10		FACU	Column Totals: <u>50</u> (A) <u>385</u> (B)
3. Actillea millefolium			FACU	
4. Jolidago nemoralis	E,		UPL	Prevalence index = $B/A = 4.6$
5. Bouteloca exactlis	30	$\overline{\mathbf{A}}$	DPL	Hydrophytic Vegetation Indicators:
6. Arteminica Frigida	15		DR	1 - Rapid Test for Hydrophytic Vegetation
7. Dalea ourourea	- <u> </u>		JAU	2 - Dominance Test is >50%
8. Potentilla recta			UPL	3 - Prevalence Index is ≤3.0 <sup>1</sup>
				4 - Morphological Adaptations <sup>1</sup> (Provide supporting
9			·	data in Remarks or on a separate sheet)
10		<u> </u>	-	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Woody Vine Stratum (Plot size:)	_30_	= Total Co	ver	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
				be present, unless disturbed or problematic.
1				
2			·	Hydrophytic
% Bare Ground in Herb Stratum2O		= Total Co	ver	Vegetation Present? Yes No
Remarks:				
noniara.				

	cription: (Describe	to the de	pth needed to docur			or confirn	1 the absence	of indicators.)
epth nches)	Matrix Color (moist)	%	Redo Color (moist)	<u>x Feature</u> %	s Tγpe <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
S-G	1042 4/3	 					LOAM	50 % gravel
19*	1042 11	<u> </u>	104R7/6		OL.	<u> </u>	ream	
			A=Reduced Matrix, Cl			d Sand G		cation: PL=Pore Lining, M=Matrix.
Histosol					atrix (S4)			Muck (A9) (LRR I, J)
	pipedon (A2)			Redox (S			Coast	Prairie Redox (A16) (LRR F, G, H)
_	istic (A3)			d Matrix (				Surface (S7) (LRR G)
	en Sulfide (A4) d Layers (A5) (LRR	E)		-	ineral (F1) latrix (F2)			Plains Depressions (F16) RR H outside of MLRA 72 & 73)
	uck (A9) (LRR F, G,			d Matrix			•	ced Vertic (F18)
	d Below Dark Surfac		Redox I	Dark Surf	ace (F6)			Parent Material (TF2)
-	ark Surface (A12)				urface (F7)	)		Shallow Dark Surface (TF12)
	Mucky Mineral (S1) Mucky Peat or Peat (	(52) (1 88		Depressio ains Depr	ons (F8) ressions (F	16)		(Explain in Remarks) of hydrophytic vegetation and
	ucky Peat or Peat (S		· · — –		73 of LRF		wetlan	ad hydrology must be present, s disturbed or problematic.
strictive	Layer (if present):						1	
Туре:	N/A							
Type: Depth (in	1)/A http://doc.org/action/actio						Hydric Soi	I Present? Yes No
Type: Depth (in/ emarks: DROLO etland Hy imary Indi	)GY Idrology Indicators		ed: check all that app Salt Crust				Second	I Present? Yes No ary Indicators (minimum of two required) fface Soil Cracks (B6)
Type: Depth (in emarks: DROLO etland Hy imary India Surface High Wa	DGY Indicators Indicat		Salt Crust Aquatic In	: (B11) ivertebrat			Second	ary Indicators (minimum of two required) rface Soil Cracks (B6) arsely Vegetated Concave Surface (B8)
Type: Depth (in emarks: DROLO etland Hy imary Indi- Surface High Wa Saturati	DGY Indrology Indicators cators (minimum of of Water (A1) ater Table (A2) ion (A3)		Salt Crust Aquatic In H <b>y</b> drogen	: (B11) overtebrat Sulfide C	odor (C1)		Second Su Spa Dra	ary Indicators (minimum of two required) face Soil Cracks (B6) arsely Vegetated Concave Surface (B8) ainage Patterns (B10)
Type: Depth (in- emarks: DROLO etland Hy imary India Surface High Wa Saturati Water M	DGY edrology Indicators cators (minimum of a Water (A1) ater Table (A2) ion (A3) Marks (B1)		Salt Crust Aquatic In Hydrogen Dry-Sease	: (B11) overtebrat Sulfide C on Water	)dor (C1) Table (C2)		Second Su Dra Oxi	ary Indicators (minimum of two required) face Soil Cracks (B6) arsely Vegetated Concave Surface (B8) ainage Patterns (B10) idized Rhizospheres on Living Roots (C3
Type: Depth (in- emarks: DROLO etland Hy imary Indi- imary Indi- gurface High Wa Saturati Water M Sedime	DGY rdrology Indicators cators (minimum of o Water (A1) ater Table (A2) ion (A3) Marks (B1) int Deposits (B2)		Salt Crust Aquatic In Hydrogen Dry-Sease Oxidized I	: (B11) overtebrat Sulfide C on Water	)dor (C1) Table (C2) eres on Liv		Second Sur Dra Oxi (C3) (1)	ary Indicators (minimum of two required) face Soil Cracks (B6) arsely Vegetated Concave Surface (B8) ainage Patterns (B10) idized Rhizospheres on Living Roots (C3 where tilled)
Type: Depth (in- emarks: DROLO etland Hy imary Indi- gurface High Wa Saturati Saturati Water M Sedime Drift De	DGY edrology Indicators cators (minimum of a Water (A1) ater Table (A2) ion (A3) Marks (B1)		Salt Crust Aquatic In Hydrogen Dry-Seaso Oxidized I (where	(B11) overtebrat Sulfide C on Water Rhizosph not tilled	)dor (C1) Table (C2) eres on Liv	ing Roots	Second Sur Dra Oxi (C3) Cra	ary Indicators (minimum of two required) face Soil Cracks (B6) arsely Vegetated Concave Surface (B8) ainage Patterns (B10) idized Rhizospheres on Living Roots (C3
Type: Depth (in- emarks: DROLO etland Hy imary India Surface High Wa Saturati Saturati Sedimea Drift De Algal Ma	DGY rdrology Indicators cators (minimum of e Water (A1) ater Table (A2) ion (A3) Marks (B1) mt Deposits (B2) sposits (B3)		Salt Crust Aquatic In Hydrogen Dry-Seaso Oxidized I (where	(B11) vvertebrat Sulfide C on Water Rhizosph not tilled of Reduc	Odor (C1) Table (C2) eres on Liv ) ed Iron (C	ing Roots	Second Sur Dra Oxi (C3) Cra Sat	ary Indicators (minimum of two required) rface Soil Cracks (B6) arsely Vegetated Concave Surface (B8) ainage Patterns (B10) idized Rhizospheres on Living Roots (C3 where tilled) ayfish Burrows (C8)
Type: Depth (in/ marks: DROLO etland Hy imary India Saturati Saturati Water M Sedime Drift Dej Algal Ma Iron Dej Inundati Water-S	DGY drology Indicators cators (minimum of o Water (A1) ater Table (A2) ion (A3) Marks (B1) ant Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial Stained Leaves (B9)	<u>one requir</u>	Salt Crust Aquatic In Hydrogen Dry-Sease Oxidized I Presence Thin Mucl	(B11) svertebrat Sulfide C on Water Rhizosph not tilled of Reduc & Surface	Odor (C1) Table (C2) eres on Liv ) ed Iron (C (C7)	ing Roots	Second Sur Dra Oxi (C3) (1) Cra Sat Ge FA	ary Indicators (minimum of two required) frace Soil Cracks (B6) arsely Vegetated Concave Surface (B8) ainage Patterns (B10) idized Rhizospheres on Living Roots (C3 where tilled) ayfish Burrows (C8) turation Visible on Aerial Imagery (C9)
Type: Depth (in emarks: /DROLO /etland Hy rimary Indi Saturati Vater M Saturati Vater M Saturati Vater M Saturati Nater M Iron Dep Iron Dep Inundati Water -S ield Obser	DGY rdrology Indicators cators (minimum of of Water (A1) ater Table (A2) ion (A3) Marks (B1) mt Deposits (B2) rposits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial Stained Leaves (B9) rvations:	one requir Imagery (	Salt Crust Aquatic In Hydrogen Dry-Sease Oxidized I Oxidized I Presence Thin Mucl B7) Other (Ex	(B11) Sulfide C on Water Rhizosph not tilled of Reduct Surface plain in R	Odor (C1) Table (C2) eres on Liv )) æd Iron (C (C7) emarks)	ring Roots 4)	Second Sur Dra Oxi (C3) (1) Cra Sat Ge FA	ary Indicators (minimum of two required) face Soil Cracks (B6) arsely Vegetated Concave Surface (B8) ainage Patterns (B10) idized Rhizospheres on Living Roots (C3 where tilled) ayfish Burrows (C8) turation Visible on Aerial Imagery (C9) omorphic Position (D2) C-Neutral Test (D5)
Type: Depth (in emarks: <b>DROLO</b> <b>Vetland Hy</b> <b>rimary India</b> Surface High Wa Saturati Vater M Sedimea Nater M Drift Dej Algal Ma Drift Dej Iron Dej Iron Dej Inundati Water-S ield Obser urface Wat	DGY Idrology Indicators cators (minimum of a Water (A1) ater Table (A2) ion (A3) Marks (B1) mt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial Stained Leaves (B9) rvations: ter Present?	<u>one requir</u> Imagery ( Yes	Salt Crust Aquatic In Hydrogen Dry-Sease Oxidized I Presence Presence Thin Mucl B7) Other (Ex	(B11) svertebrat Sulfide C on Water Rhizosph not tilled of Reduc & Surface plain in R	Odor (C1) Table (C2) eres on Liv )) æd Iron (C (C7) emarks)	4)	Second Sur Dra Oxi (C3) (1) Cra Sat Ge FA	ary Indicators (minimum of two required) face Soil Cracks (B6) arsely Vegetated Concave Surface (B8) ainage Patterns (B10) idized Rhizospheres on Living Roots (C3 where tilled) ayfish Burrows (C8) turation Visible on Aerial Imagery (C9) omorphic Position (D2) C-Neutral Test (D5)
Type: Depth (in emarks: /DROLO /etland Hy rimary Indi- Surface High Wa Saturati Saturati Vater M Sedime Naturati Naturati Iron Del Iron Del 	DGY drology Indicators cators (minimum of of Water (A1) ater Table (A2) ion (A3) Marks (B1) Int Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial Stained Leaves (B9) rvations: ter Present?	Imagery ( Yes Yes	Salt Crust Aquatic In Hydrogen Dry-Sease Oxidized I (where Presence Thin Mucl B7) Other (Ex	(B11) svertebrat Sulfide C on Water Rhizosph not tilled of Reduc & Surface plain in R nches): nches):	Odor (C1) Table (C2) eres on Liv ) eed Iron (C (C7) emarks)	4)	Second Sur Dra Oxi (C3) (1) Cra Sar Ge FA Fro	ary Indicators (minimum of two required) face Soil Cracks (B6) arsely Vegetated Concave Surface (B8) ainage Patterns (B10) idized Rhizospheres on Living Roots (C3 where tilled) ayfish Burrows (C8) turation Visible on Aerial Imagery (C9) omorphic Position (D2) C-Neutral Test (D5) ast-Heave Hummocks (D7) (LRR F)
Type: Depth (in emarks: DROLO retland Hy imary India Surface High Wa Saturati Saturati Vater M Sedimea Noter M Sedimea Nater Sedimea Nater Sedim	DGY rdrology Indicators cators (minimum of of Water (A1) ater Table (A2) ion (A3) Marks (B1) mt Deposits (B2) rposits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial Stained Leaves (B9) rvations: ter Present? Present? publications (Crust	Imagery ( Yes Yes Yes	Salt Crust Aquatic In Hydrogen Dry-Sease Oxidized I (where Presence Thin Mucl B7) Other (Ex	(B11) vertebrat Sulfide C on Water Rhizosph <b>not tilled</b> of Reduce k Surface plain in R nches): nches):	Odor (C1) Table (C2) eres on Liv ) ed Iron (C (C7) emarks)	+ing Roots 4) 	Second Sur Sur Dra Dra Cra (C3) (C3) Cra Sat Cra Sat Cra Fro Sat Cra Cra Cra Cra Cra Cra Cra Cra	ary Indicators (minimum of two required) face Soil Cracks (B6) arsely Vegetated Concave Surface (B8) ainage Patterns (B10) idized Rhizospheres on Living Roots (C3 where tilled) ayfish Burrows (C8) turation Visible on Aerial Imagery (C9) omorphic Position (D2) C-Neutral Test (D5)
Type: Depth (in emarks: DROLO retland Hy imary India Surface High Wa Saturati Saturati Vater M Sedimea Noter M Sedimea Nater Sedimea Nater Sedim	DGY rdrology Indicators cators (minimum of of Water (A1) ater Table (A2) ion (A3) Marks (B1) mt Deposits (B2) rposits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial Stained Leaves (B9) rvations: ter Present? Present? publications	Imagery ( Yes Yes Yes	Salt Crust Aquatic In Hydrogen Dry-Sease Oxidized I Presence Thin Mucl B7) Other (Ex Depth (ir No Depth (ir No Depth (ir	(B11) vertebrat Sulfide C on Water Rhizosph <b>not tilled</b> of Reduce k Surface plain in R nches): nches):	Odor (C1) Table (C2) eres on Liv ) ed Iron (C (C7) emarks)	+ing Roots 4) 	Second Sur Sur Dra Dra Cra (C3) (C3) Cra Sat Cra Sat Cra Fro Sat Cra Cra Sat Cra Sat Cra Sat Cra Sat Cra Sat Cra Sat Cra Sat Cra Cra Sat Cra Sat Cra Cra Sat Cra Cra Cra Cra Cra Cra Cra Cra	ary Indicators (minimum of two required) face Soil Cracks (B6) arsely Vegetated Concave Surface (B8) ainage Patterns (B10) idized Rhizospheres on Living Roots (C3 where tilled) ayfish Burrows (C8) turation Visible on Aerial Imagery (C9) omorphic Position (D2) C-Neutral Test (D5) ast-Heave Hummocks (D7) (LRR F)

Project/Site: Overlook		City/County: Reyto	<u>AFI Pase</u> Sampling Date: <u>7/26/23</u>
Applicant/Owner: <u><u></u><u></u><u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u></u></u>		5	State: CO Sampling Point: SP 20 W
Investigator(s): <u>SWA AM TL</u>		Section, Township, Ra	
			convex, none): <u>CONCAVE</u> Slope (%): <u>(</u>
			Long: 104.53939028 Datum: NADS3
			NWI classification: NWI classification:
ل Are climatic / hydrologic conditions on the site typical for t			
Are Vegetation <u>N</u> , Soil <u>N</u> , or Hydrology <u>N</u>	significantly	disturbed? Are "	Normal Circumstances" present? Yes 1/2 No
Are Vegetation $N$ , Soil $N$ , or Hydrology $N$	_ naturally pro	blematic? (If ne	eded, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map	o showing	sampling point l	ocations, transects, important features, etc.
Hydric Soil Present? Yes	No No No	is the Sampled within a Wetlar	
Remarks:			
VEGETATION – Use scientific names of pla	nts.	A	
Tree Stratum (Plot size:)	Absolute % Cover	Dominant Indicator Species? Status	Dominance Test worksheet:
1			Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): (A)
3		······	Total Number of Dominant Species Across All Strata: (B)
Sapling/Shrub Stratum (Plot size:)		= Total Cover	Percent of Dominant Species That Are OBL, FACW, or FAC:(A/B)
1.       2.			Prevalence Index worksheet:
3			Total % Cover of: Multiply by:
4		······	OBL species x 1 =
5			FACW species         3         x 2 =         60           FAC species         x 3 =
Herb Stratum (Plot size:)		= Total Cover	FACU species $25$ $x4 = 100$
1. Potentilla recta	5	UPL	UPL species x 5 =
2. Poa pratensis	5	✓ FACU	Column Totals: <u>60</u> (A) <u>185</u> (B)
3. Mentha arvensis		FACW	Prevalence index = $B/A = 3$ , $O$
4. Pon aschica		V <u>FIACW</u>	Hydrophytic Vegetation Indicators:
5			1 - Rapid Test for Hydrophytic Vegetation
6 7			⊥ 2 - Dominance Test is >50%
8			$\underline{\checkmark}$ 3 - Prevalence Index is $\leq 3.0^1$
9			4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
10			Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Woody Vine Stratum (Plot size:)		= Total Cover	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2		<u></u>	Hydrophytic
% Bare Ground in Herb Stratum		= Total Cover	Vegetation Present? Yes <u>No</u>
Remarks:			

Profile Description: (Describe to the depth need		rm the absence	of indicators.)
Depth <u>Matrix</u>	Redox Features	Terduno	Demesice
	or (moist) <u>%</u> Type <sup>1</sup> Loc <sup>2</sup>		Remarks
0-12 104R 5.5/ 90	······································	1(><>>>?	10% gravel
· · · · · · · · · · · · · · · · · · ·			
·			
<sup>1</sup> Type: C=Concentration, D=Depletion, RM=Reduce	ed Matrix, CS=Covered or Coated Sand (	 Graips <sup>2</sup> Loc	ation: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators: (Applicable to all LRRs,			for Problematic Hydric Soils <sup>3</sup> :
Histosol (A1)	Sandy Gleyed Matrix (S4)		luck (A9) (LRR I, J)
Histic Epipedon (A2)	Sandy Redox (S5)		Prairie Redox (A16) (LRR F, G, H)
Black Histic (A3)	Stripped Matrix (S6)		urface (S7) (LRR G)
Hydrogen Sulfide (A4)	Loamy Mucky Mineral (F1)		ains Depressions (F16)
Stratified Layers (A5) (LRR F)	Loamy Gleyed Matrix (F2)	(LR	R H outside of MLRA 72 & 73)
1 cm Muck (A9) (LRR F, G, H)	X Depleted Matrix (F3)		ed Vertic (F18)
Depleted Below Dark Surface (A11)	Redox Dark Surface (F6)		arent Material (TF2)
Thick Dark Surface (A12)	Depleted Dark Surface (F7)	-	hallow Dark Surface (TF12)
Sandy Mucky Mineral (S1)	Redox Depressions (F8)		Explain in Remarks)
2.5 cm Mucky Peat or Peat (S2) (LRR G, H) 5 cm Mucky Peat or Peat (S3) (LRR F)	High Plains Depressions (F16) (MLRA 72 & 73 of LRR H)		of hydrophytic vegetation and I hydrology must be present,
			disturbed or problematic.
Restrictive Layer (if present):			
Туре: <u>N/A</u>			. <del>7</del>
Depth (inches):		Hydric Soil	Present? Yes 🖌 No
Remarks:			
Nondras.			
HYDROLOGY			
· · · · · · · · · · · · · · · · · · ·			
Wetland Hydrology Indicators:	· -11 44 - 4 4 - 2	C d.	
Primary Indicators (minimum of one required; check			ry Indicators (minimum of two required)
V Surface Water (A1)	_ Salt Crust (B11)		ace Soil Cracks (B6)
High Water Table (A2)	_ Aquatic Invertebrates (B13)	1	sely Vegetated Concave Surface (B8)
Saturation (A3)	_ Hydrogen Sulfide Odor (C1)		nage Patterns (B10)
Water Marks (B1)	_ Dry-Season Water Table (C2)		lized Rhizospheres on Living Roots (C3)
Sediment Deposits (B2)	Oxidized Rhizospheres on Living Roots (where pet filled)		here tilled)
Drift Deposits (B3)	(where not tilled)		rfish Burrows (C8)
Algal Mat or Crust (B4)	_ Presence of Reduced Iron (C4)	6	ration Visible on Aerial Imagery (C9)
Iron Deposits (B5)	_ Thin Muck Surface (C7)		morphic Position (D2)
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)		-Neutral Test (D5)
Water-Stained Leaves (B9)		Fros	t-Heave Hummocks (D7) (LRR F)
Field Observations:			
Surface Water Present? Yes V No	Depth (inches): <u></u>		
Water Table Present? Yes No 👬			
Saturation Present? Yes No 🕺	Depth (inches): We	tland Hydrology	/ Present? Yes ¥ No
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring	well, aerial photos, previous inspections	), if available	
and the second sugar manufants		//	
Remarks:	· · · ·		
NGHIGINS.			
ICHIGRS,			

i

Project/Site:	City/County: <u>Peyton/El Pesso</u> Sampling Date: <u>7/26/23</u> State: <u>CC</u> Sampling Point: <u>3021-0</u> P
Applicant/Owner: PT	State: <u></u> Sampling Point: <u></u> シャューン
Investigator(s): <u>SM AM TL</u>	Section, Township, Range: <u>27, TUS, RGUU</u>
	Local relief (concave, convex, none): <u>CGACAVE</u> Slope (%): <u>O</u>
Subregion (LRR): Kocky Min Dange Lat: 3	9.06474337 Long: <u>-104.53837503</u> Datum: <u>NAD&amp;</u>
Soil Map Unit Name: 71: Pring coare sandy	looun, 3-8% NWI classification: N/A
Are climatic / hydrologic conditions on the site typical for this time of ye	ear? Yes No (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly	disturbed? Are "Normal Circumstances" present? Yes 🔨 No
Are Vegetation $\underline{N}$ , Soil $\underline{N}$ , or Hydrology $\underline{N}$ naturally provide the second	oblematic? (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 No	Is the Sampled Area

Hydric Soil Present? Wetland Hydrology Present?	Yes No Yes No	Is the Sampled Area within a Wetland?	Yes	No
Remarks:				·····

# VEGETATION - Use scientific names of plants.

**************************************	AL 1 /	<b>D</b> · · ·		
Tree Stratum (Plot size: )	Absolute	Dominant Species?	t Indicator	Dominance Test worksheet:
				Number of Dominant Species
1				That Are OBL, FACW, or FAC (excluding FAC-):
2	•			(excluding FAC-): (A)
3				Total Number of Dominant
4				Species Across All Strata: (B)
		= Total Co		
Sapling/Shrub Stratum (Plot size:)	<b>B</b>		*01	Percent of Dominant Species That Are OBL, FACW, or FAC:
1				
2				Prevalence Index worksheet:
				Total % Cover of:Multiply by:
3			•	OBL species x 1 =
4		•,		FACW species x 2 =
5				FAC species x 3 =
Herb Stratum (Plot size:)		= Total Co	ver	FACU species
1. Koeleria macrantha	2		UPL	UPL species <u>60</u> x 5 = <u>300</u>
2. Elymus trachyrawlus	10	-	FACU	Column Totals: <u>S()</u> (A) <u>380</u> (B)
3. Achillea milletalion	e.		FACU	
4. Jolidage altissima			FACU	Prevalence Index = $B/A = 4.75$
5. Bouterou aracilis		· · · · · · · · · · · · · · · · · · ·	UR	Hydrophytic Vegetation Indicators:
6. Actemisia fridida		- <u> </u>	DR	1 - Rapid Test for Hydrophytic Vegetation
7. Dalea ourourea	3	·		2 - Dominance Test is >50%
8. Potentilla recta			UPL	3 - Prevalence Index is ≤3.0 <sup>1</sup>
			<u> </u>	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
9		·		data in Remarks or on a separate sheet)
10		-		Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Woody Vine Stratum (Plot size: )	<u>80</u>	= Total Co	ver	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
				be present, unless disturbed or problematic.
1	• ••••			
2	-	·		Hydrophytic
% Bare Ground in Herb Stratum		= Total Cov	ver	Vegetation Present? Yes No
Remarks:		******		Annone

# Sampling Point: <u>20 21 U</u>P

Profile Desc	cription: (Describe	to the depth n	eeded to docur	nent the ir	dicator	or confirm	n the absence of indicators.)	
Depth	Matrix			x Features				
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type <sup>1</sup>		Texture Remarks	_
0-12	1042 4/3	100					<u>silly</u> loam	-
							<u> </u>	_
								-
·····								-
		<u> </u>					······	-
	TT TT					<u> </u>		_
								-
1	oncentration, D=Der	Jation DM-Do	duced Matrix C		ar Coato	d Sand Gr	rains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.	-
	Indicators: (Applic						Indicators for Problematic Hydric Soils <sup>3</sup> :	
Histosol			Sandy (				1 cm Muck (A9) (LRR I, J)	
	pipedon (A2)			Redox (S5)			Coast Prairie Redox (A16) (LRR F, G, H)	
	istic (A3)			d Matrix (Se			Dark Surface (S7) (LRR G)	
	en Sulfide (A4)			Mucky Min	-		High Plains Depressions (F16)	
	d Layers (A5) (LRR	F)		Gleyed Ma	• •		(LRR H outside of MLRA 72 & 73)	
	uck (A9) (LRR F, G,		Deplete	d Matrix (F	3)		Reduced Vertic (F18)	
Deplete	d Below Dark Surfac	e (A11)	Redox I	Dark Surfac	ce (F6)		Red Parent Material (TF2)	
	ark Surface (A12)			d Dark Sur			Very Shallow Dark Surface (TF12)	
	lucky Mineral (S1)			Depression	• •	(0)	Other (Explain in Remarks)	
	Mucky Peat or Peat (			ains Depre			<sup>3</sup> Indicators of hydrophytic vegetation and	
	ucky Peat or Peat (S	3) (LKK F)	( INIC	.RA 72 & 7	3 UI LKK	П	wetland hydrology must be present, unless disturbed or problematic.	
Restrictive	Layer (if present):	·						
Type:	N/A							
Depth (in	chee).		-				Hydric Soil Present? Yes No	
Remarks:	Ciles)							
Remarks:								
HYDROLO	GY							
Wetland Hy	drology Indicators:							
Primary Indi	cators (minimum of a	one required; cl	eck all that app	y)			Secondary Indicators (minimum of two required	ן נ
Surface	Water (A1)		Salt Crust	(B11)			Surface Soil Cracks (B6)	
	ater Table (A2)		Aguatic In		(B13)		Sparsely Vegetated Concave Surface (B8)	
Saturati			Hydrogen				Drainage Patterns (B10)	
	/arks (B1)		Dry-Seaso				Oxidized Rhizospheres on Living Roots (C	3)
	nt Deposits (B2)		Oxidized I	Rhizospher	es on Liv	ing Roots (	(C3) (where tilled)	
Drift De	posits (B3)		(where	not tilled)			Crayfish Burrows (C8)	
Algal M	at or Crust (B4)		Presence	of Reduced	d Iron (C4	4)	Saturation Visible on Aerial Imagery (C9)	
Iron De	posits (B5)		Thin Muck	CSurface (C	C7)		V Geomorphic Position (D2)	
Inundat	ion Visible on Aerial	Imagery (B7)	Other (Ex	plain in Rer	narks)		FAC-Neutral Test (D5)	
Water-8	Stained Leaves (B9)						Frost-Heave Hummocks (D7) (LRR F)	
Field Obser	vations:		s					
Surface Wat	ter Present?	/es No	Depth (in	ches):		_		
Water Table	Present?	es No	/_ Depth (in	ches):		_	(	
Saturation F	resent?	esNo	Depth (in	ches):		Wetla	land Hydrology Present? Yes No	_
	pillary fringe)			-				
Describe Re	corded Data (stream	n gauge, monito	oring well, aerial	pnotos, pre	vious ins	pections),	II AVAIIADIE:	
_								
Remarks:								

Project/Site:	City/County: Peyton/El Pass Sampling Date: 7/26/23
Applicant/Owner:	State: CO Sampling Point: <u>SP&amp;1-W</u>
Investigator(s): <u>SM AM TT</u>	Section, Township, Range: <u>27, TNS, RGUW</u>
Landform (hillslope, terrace, etc.): <u>Spanne</u>	Local relief (concave, convex, none): <u>CONCAVE</u> Slope (%): <u>C</u>
Subregion (LRR): Rocky Men Range Lat: 3	9.064 828 Long: -164, 538409 Datum: NAD83
Soil Map Unit Name: 71 Pring coarse sandy log	MWI classification: N/A
Are climatic / hydrologic conditions on the site typical for this time of ye	ear? Yes No (If no, explain in Remarks.)
Are Vegetation <u>N</u> , Soil <u>N</u> , or Hydrology <u>N</u> significantly	y disturbed? Are "Normal Circumstances" present? Yes No
Are Vegetation <u>)</u> , Soil <u>,</u> , or Hydrology <u></u> naturally pr	oblematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing	g sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No	
Hydric Soil Present? Yes V. No	Is the Sampled Area
Wetland Hydrology Present? Yes V No	within a Wetland? Yes <u>V</u> No
Remarks:	

# VEGETATION -- Use scientific names of plants.

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)		Species?		
1				Number of Dominant Species That Are OBL, FACW, or FAC
				(excluding FAC-):
2				· · · · · · · · · · · · · · · · · · ·
3				Total Number of Dominant Species Across All Strata
4			·····	Species Across All Strata: (B)
		= Total Co	ver	Percent of Dominant Species
Sapling/Shrub Stratum (Plot size:)				That Are OBL, FACW, or FAC:O (A/B)
1				Prevalence index worksheet:
2				
3	<u> </u>			Total % Cover of: Multiply by:
4				OBL species x 1 =
5				FACW species x 2 =
		= Total Co	ver	FAC species x 3 =
Herb Stratum (Plot size:)		.0101 00		FACU species <u>45</u> x 4 = <u>186</u>
1. Pra pratensis	20	<u> </u>	FACU	UPL species x 5 =
2. Elymus trachycapius	20		FACU	Column Totals: $\underline{90}$ (A) $\underline{23.5}$ (B)
3. Juncus brachukepholus	25		OPL	
4. Achillea millefalium	****	¥	FACU	Prevalence Index = B/A = <u>25</u>
5. Poa arctica			FACU	Hydrophytic Vegetation Indicators:
				1 - Rapid Test for Hydrophytic Vegetation
6				2 - Dominance Test is >50%
7				Y 3 - Prevalence Index is ≤3.0 <sup>1</sup>
8				4 - Morphological Adaptations <sup>1</sup> (Provide supporting
9		<u></u>		data in Remarks or on a separate sheet)
10			. <u> </u>	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
	<u>80</u>	= Total Cov	ver	
Woody Vine Stratum (Plot size:)				<sup>1</sup> Indicators of hydric soil and wetland hydrology must
1				be present, unless disturbed or problematic.
2				Hydrophytic
~-		= Total Cov	ver	Vegetation
% Bare Ground in Herb Stratum $20$				Present? Yes V No
Remarks:				

Profile Desc	ription: (Describe	to the depth ne	eded to docur	nent the i	ndicator	or confirm	the absence of	indicators.)
Depth	Matrix			x Features		<del>,</del>	<b>-</b> .	
(inches)	Color (moist)		olor (moist)		<u>Type<sup>1</sup></u>	<u>Loc<sup>2</sup></u>	Texture	Remarks
0-12	104R2/1	100					<u>_5L</u>	
		a						
		. <u></u>					·····	
						·····		
	oncentration, D=Dep					d Sand Gr		ion: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applic	able to all LRR						r Problematic Hydric Soils <sup>3</sup> :
Histosol	• •		Sandy (	-	• •			ck (A9) (LRR I, J)
	pipedon (A2)			Redox (S5	-			airie Redox (A16) (LRR F, G, H)
	stic (A3)			d Matrix (S	-			face (S7) (LRR G)
	n Sulfide (A4)	-		Mucky Mir				ns Depressions (F16)
	d Layers (A5) (LRR			Gleyed Ma			•	H outside of MLRA 72 & 73)
	ick (A9) ( <b>LRR F, G,</b> d Below Dark Surfac			d Matrix (I Dark Surfa	,			Vertic (F18) ent Material (TF2)
·	ark Surface (A12)	e (A11)		d Dark Suna				Illow Dark Surface (TF12)
	lucky Mineral (S1)		· · ·	Depressio	, .			(plain in Remarks)
	Aucky Peat or Peat (	S2) (LRR G. H)		ains Depre	• •	16)		hydrophytic vegetation and
	icky Peat or Peat (S			RA 72 & 1				ydrology must be present,
								sturbed or problematic.
Restrictive	Layer (if present):							
Type:	N/A							and the second se
Depth (in	ches):						Hydric Soil Pr	resent? Yes V No
Remarks:	· · · ·						I	
HYDROLO								· · · · · · · · · · · · · · · · · · ·
-	drology Indicators:							
Primary India	cators (minimum of c	one required; che	eck all that appl	V)				Indicators (minimum of two required)
Surface	Water (A1)		Salt Crust	(B11)			Surfac	e Soil Cracks (B6)
High Wa	ater Table (A2)		Aquatic In					ely Vegetated Concave Surface (B8)
Saturatio	on (A3)		Hydrogen	Sulfide O	dor (C1)		<u> </u>	ge Patterns (B10)
Water N	larks (B1)		Dry-Seaso	on Water T	able (C2)		Oxidiz	ed Rhizospheres on Living Roots (C3)
Sedimer	nt Deposits (B2)		Oxidized I	Rhizosphe	res on Liv	ing Roots (	(C3) ( <b>wh</b> e	ere tilled)
Drift Dep	posits (B3)		(where	not tilled)			Crayfis	sh Burrows (C8)
Algal Ma	at or Crust (B4)		Presence	of Reduce	d Iron (C4	4)	_Ų∕ Satura	tion Visible on Aerial Imagery (C9)
Iron Dep	posits (B5)		Thin Muck	c Surface (	C7)		<u>√</u> Geom	orphic Position (D2)
Inundati	on Visible on Aerial	lmagery (B7)	Other (Ex	plain in Re	marks)		FAC-N	leutral Test (D5)
Water-S	itained Leaves (B9)						Frost-I	Heave Hummocks (D7) (LRR F)
Field Obser	vations:		1					
Surface Wat	er Present?	/es No	<u>V∕_</u> Depth (in	ches):				
Water Table	Present?	/es No	🟒 Depth (in	ches):		_		1
Saturation P	resent?	es No	Depth (in	ches):		Wetla	and Hydrology F	Present? Yes V No
(includes ca	pillary fringe)	,						
Describe Re	corded Data (stream	n gauge, monitor	ing well, aerial	photos, pr	evious ins	pections),	if available:	
Remarks:								

Project/Site: Overlook	City/C	ounty: <u>Peytan/</u>	El Paso	Sampling Date:	7/26/23		
Applicant/Owner:		J *	State: <u>CO</u>	Sampling Point	: <u>- 90 22 0</u> 0		
Investigator(s): <u>SM AM TL</u>	Sectio	on, Township, Range: _	24, TI13,	RGUW			
Landform (hillslope, terrace, etc.): <u>ついなに</u>	47						
Subregion (LRR): Racky Mtn Range	Lat: <u>39.0</u>	<u> 6508ඊයි</u> Long	-104.53	<u>/53415</u> Dat	tum: NAOS		
Soil Map Unit Name: MIL Pring coarse san							
Are climatic / hydrologic conditions on the site typical for this ti	Ę.			•			
Are Vegetation <u>N</u> , Soil <u>N</u> , or Hydrology <u>N</u> sigr	nificantly disturb	bed? Are "Norma	l Circumstances" p	oresent? Yes	No		
Are Vegetation <u>N</u> , Soil <u>N</u> , or Hydrology <u>N</u> nate	urally problema		explain any answe				
SUMMARY OF FINDINGS Attach site map sh	lowing sam	pling point location	ons, transects	, important f	eatures, etc.		
Hydrophytic Vegetation Present? Yes No	16						
Hydric Soil Present? Yes No		Is the Sampled Area within a Wetland?	¥	V			
Wetland Hydrology Present? Yes No _		within a wetland r	Yes	No	- 1		
Remarks:							

# VEGETATION -- Use scientific names of plants.

<b>.</b>	Abaalista Dansiaant Indianta	
Tree Stratum (Plot size:)	Absolute Dominant Indicator <u>% Cover Species? Status</u>	Dominance Test worksheet:
		Number of Dominant Species
1		(That Are OBL, FACW, or FAC (excluding FAC-):
2		(excluding FAC-): (A)
3		Total Number of Dominant
4		Species Across All Strata: (B)
	= Total Cover	
Sapling/Shrub Stratum (Plot size:)		Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
1		That Are OBL, FACW, or FAC: (A/B)
		Prevalence Index worksheet:
2		Total % Cover of: Multiply by:
3		$\begin{array}{c c} \hline \hline \hline \\ \hline $
4		
5		FACW species x 2 =
	= Total Cover	FAC species x 3 =
Herb Stratum (Plot size:)		FACU species $\underline{50}$ x4 = $\underline{200}$
1. Elymus transcaulus	<u>16</u> <u>FACU</u>	UPL species $100 \times 5 = 50$
2. Artemizica frizida		Column Totals: $100$ (A) $200$ (B)
3. Pea prestensis	40 V FACU	
4. Junus brachuceokalus	40 V MACO	Prevalence Index = B/A =, Q
		Hydrophytic Vegetation Indicators:
5. Koeleria mactantha		1 - Rapid Test for Hydrophytic Vegetation
6		2 - Dominance Test is >50%
7		$\boxed{\cancel{3}}$ - Prevalence Index is $\leq 3.0^{1}$
8		4 - Morphological Adaptations <sup>1</sup> (Provide supporting
9		data in Remarks or on a separate sheet)
10		Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
	<u> </u>	
Woody Vine Stratum (Plot size:)		<sup>1</sup> Indicators of hydric soil and wetland hydrology must
1	· ·····	be present, unless disturbed or problematic.
2		Hydrophytic
	= Total Cover	Vegetation /
% Bare Ground in Herb Stratum		Present? Yes No V
Remarks:		and the second sec

# Sampling Point: <u>SP 22 UP</u>

Profile Desc	ription: (Describe	to the depth				or confirm	n the absence	e of indicators.)
Depth (inches)	<u>Matrix</u> Color (moist)	%	Redo Color (moist)	ox Features %	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
() - C.	104R3/3	• • • • •					loamy	
6-12	104R 4/2	40					clay	60th arrivel
<u> </u>	WYK /							$-\frac{86 \times 66}{(1-1)}$
					<u> </u>		<u> </u>	· • • • • • • • • • • • • • • • • • • •
<u></u>					<b>.</b>			
<sup>1</sup> Type: C=Cr	oncentration, D=Dep	letion. RM=Re	educed Matrix. C	– – S=Coverec	or Coate	d Sand G	rains. <sup>2</sup> Lo	cation: PL=Pore Lining, M=Matrix.
	Indicators: (Applic							o for Problematic Hydric Soils <sup>3</sup> :
Histosol	( <b>A</b> 1)		Sandy	Gleyed Ma	trix (S4)		1 cm I	Muck (A9) (LRR I, J)
Histic Ep	oipedon (A2)		Sandy	Redox (S5	)			Prairie Redox (A16) (LRR F, G, H)
Black Hi	• •			d Matrix (S				Surface (S7) (LRR G)
	n Sulfide (A4)	=\	-	Mucky Mir Gleyed Ma				Plains Depressions (F16) RR H outside of MLRA 72 & 73)
	l Layers (A5) ( <b>LRR</b> l ick (A9) ( <b>LRR F, G</b> ,			ed Matrix (F			-	ced Vertic (F18)
	Below Dark Surfac			Dark Surfa				Parent Material (TF2)
	ark Surface (A12)	. ,	Deplete	ed Dark Su	rface (F7)			Shallow Dark Surface (TF12)
	lucky Mineral (S1)			Depression				(Explain in Remarks)
	Aucky Peat or Peat (							of hydrophytic vegetation and hydrology must be present,
	icky Peat or Peat (S	3)(LRR F)	(1411	LRA 72 & 7	3 01 LKK	пј		s disturbed or problematic.
Restrictive I	Layer (if present):			•				
Туре:	N/A							(
Depth (in	ches):						Hydric Soi	I Present? Yes No _ ∕
Remarks:								
HYDROLO	GY							
	drology Indicators							
-	cators (minimum of o		check all that app	ity)			Second	ary Indicators (minimum of two required)
	Water (A1)		Salt Crus				Sur	face Soll Cracks (B6)
	ater Table (A2)			vertebrate	s (B13)			arsely Vegetated Concave Surface (B8)
Saturatio	on (A3)		Hydroger	n Sulfide Od	dor (C1)		Dra	ainage Patterns (B10)
Water N	larks (B1)		Dry-Seas	on Water T	able (C2)		Oxi	idized Rhizospheres on Living Roots (C3)
Sedimer	nt Deposits (B2)		Oxidized	Rhizosphe	res on Livi	ing Roots	. , .	where tilled)
1	posits (B3)			not tilled)				ayfish Burrows (C8)
1	at or Crust (B4)			of Reduce		ł)		turation Visible on Aerial Imagery (C9)
	posits (B5)			k Surface ( misin in Bo	•			omorphic Position (D2)
1 —	on Visible on Aerial itained Leaves (B9)	imagery (B7)		oplain in Re	marksj			C-Neutral Test (D5) st-Heave Hummocks (D7) (LRR F)
Field Obser							110	
Surface Wat		/es No	Depth (ii	nches)				
Water Table			Depth (ii					1
Saturation P			Depth (ii			1	land Hydroloc	ay Present? Yes No
(includes car	pillary fringe)						-	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Describe Re	corded Data (stream	n gauge, moni	toring well, aerial	photos, pr	evious ins	pections)	, if available:	
Remarks:								

Project/Site: <u>Overlook</u>	City/County: <u>Peyton / El Pasa</u> Sampling Date: <u>7/</u> State: <u>CO</u> Sampling Point: <u>SP</u>	26103
Applicant/Owner:	State: <u>CO</u> Sampling Point: <u>SP</u>	23UP
Investigator(s): <u>SM AM TL</u>	Section, Township, Range: <u>27, THS, RUW</u>	
Landform (hillslope, terrace, etc.):	Local relief (concave, convex, none): <u>Coriccure</u> Slope (%	6): <u>6</u>
	Lat: 39.06478148 Long: 104.53625493 Datum: 1	SOAL
Soil Map Unit Name: 11 Pring Coarse 5	andy loam NWI classification:	
Are climatic / hydrologic conditions on the site typical for this	time of year? Yes No (If no, explain in Remarks.)	
Are Vegetation $\underline{N}$ , Soil $\underline{N}$ , or Hydrology $\underline{N}$ sig	nificantly disturbed? Are "Normal Circumstances" present? Yes	No
Are Vegetation $\underline{N}$ , Soil $\underline{M}$ , or Hydrology $\underline{N}$ na	turally problematic? (If needed, explain any answers in Remarks.)	
SUMMARY OF FINDINGS – Attach site map s	howing sampling point locations, transects, important featur	res, etc.
Hydrophytic Vegetation Present? Yes No		
Hydric Soil Present? Yes No	Is the Sampled Area     within a Wetland? Yes No V	
Wetland Hydrology Present? Yes No		
Remarks:		

# VEGETATION – Use scientific names of plants.

	Alexaluta	Dominan	. 1	Denter Testandates
Tree Stratum (Plot size:)		Species?		Dominance Test worksheet:
				Number of Dominant Species
1				That Are OBL, FACW, or FAC (excluding FAC-): (A)
2				(excluding FAC-): (A)
3				Total Number of Dominant
4				Species Across All Strata: (B)
		= Total Co		
Sapling/Shrub Stratum (Plot size:)		1010100	•0;	Percent of Dominant Species That Are OBL, FACW, or FAC:
1				(A/B)
1				Prevalence Index worksheet:
2				Total % Cover of:Multiply by:
3			· · · · · · · · · · · · · · · · · · ·	OBL species x 1 =
4			·	
5			·	FACW species $\underline{-2}$ x 2 = $\underline{-60}$
		= Total Co	ver	FAC species x 3 =
Herb Stratum (Plot size:)				FACU species <u>62</u> x 4 = <u>248</u>
1. Juncus arcticus	30		FACW	UPL species $\underline{\%}$ x 5 = $\underline{40}$
2. Koeleria macrantha				Column Totals: (A) (B)
3. Achillea millefolium				
4. Ambrosia psilostachya			·	Prevalence lndex = B/A = $3.5$
5. Pag pratensis				Hydrophytic Vegetation Indicators:
				1 - Rapid Test for Hydrophytic Vegetation
6				2 - Dominance Test is >50%
7				3 - Prevalence Index is ≤3.0 <sup>1</sup>
8				4 - Morphological Adaptations <sup>1</sup> (Provide supporting
9				data in Remarks or on a separate sheet)
10				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
	100	= Total Co	ver	
Woody Vine Stratum (Plot size:)				<sup>1</sup> Indicators of hydric soil and wetland hydrology must
1				be present, unless disturbed or problematic.
2				Hydrophytic
_		= Total Co	ver	Vegetation
% Bare Ground in Herb StratumO		10(0) 00		Present? Yes <u>No V</u>
Remarks:				

# Sampling Point: <u>SP220</u>P

Profile Desc	ription: (Describe	to the depth ne	eded to docun	nent the inc	licator o	r confirm	the absence of in	dicators.)
Depth	Matrix		Redo	Features				
(inches)	Color (moist)	<u> </u>	olor (moist)		Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-12+	10425/2				<u> </u>		<u></u>	
	*							
					~			
	•••••							······································
<u></u>				<u> </u>				
		·					<u></u>	
				<u> </u>				
·				·····			<del></del>	
	oncentration, D=Dep					Sand Gra		: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applic	able to all LRRs	, unless other	wise noted	.)			Problematic Hydric Soils <sup>3</sup> :
Histosol	(A1)		Sandy G	leyed Matri	x (S4)			(A9) (LRR I, J)
	oipedon (A2)		Sandy F					e Redox (A16) (LRR F, G, H)
	istic (A3)			Matrix (S6)				xe (S7) (LRR G)
	en Sulfide (A4)	_		Aucky Miner	• •			Depressions (F16)
	d Layers (A5) (LRR I			Sleyed Matri			•	outside of MLRA 72 & 73)
	uck (A9) (LRR F, G, I	•		d Matrix (F3	,		Reduced Ve	
·	d Below Dark Surfac ark Surface (A12)	e (ATT)		)ark Surface I Dark Surfa	. ,			Material (TF2) w Dark Surface (TF12)
	Aucky Mineral (S1)		I	epressions	``'			ain in Remarks)
	Mucky Peat or Peat (	S2) (L <b>RR G. H</b> )		ins Depress		6)		drophytic vegetation and
	ucky Peat or Peat (S			RA 72 & 73	-		-	rology must be present,
		-, (,	<b>V</b>			,	-	rbed or problematic.
Restrictive	Layer (if present):							
Type:	N/A							<i>*</i>
Depth (in	ches):						Hydric Soil Pres	ent? Yes No 🗸
Remarks:	,,						1 -	
								:
HYDROLO	GY							
Wetland Hy	drology Indicators:							
Primary Indi	cators (minimum of c	ne required; che	ck all that appl	/}			Secondary In	dicators (minimum of two required)
Surface	Water (A1)		Salt Crust	(B11)			Surface \$	Soil Cracks (B6)
	ater Table (A2)			, ertebrates (	(B13)			Vegetated Concave Surface (B8)
Saturati	• •			Sulfide Odo				Patterns (B10)
	larks (B1)			n Water Tal				Rhizospheres on Living Roots (C3)
	nt Deposits (B2)		-	hizosphere		na Roots ((		
	posits (B3)			not tilled)		J (		Burrows (C8)
	at or Crust (B4)		•	of Reduced	Iron (C4)			n Visible on Aerial Imagery (C9)
	posits (B5)			Surface (C)	• •			whic Position (D2)
	ion Visible on Aerial	Imagery (B7)		lain in Rem	•			itral Test (D5)
_	Stained Leaves (B9)							ave Hummocks (D7) (LRR F)
Field Obser								
Surface Wat		'es No	N. Depth (in	ches):				
			3	ches):		-		
Water Table								and Yan No V
Saturation P (includes ca	resent? Y pillary fringe)	′es No	Depth (ind	ches):			ind Hydrology Pre	sent/ 1es No <u>*</u>
	corded Data (stream	gauge, monitori	ng well, aerial i	photos, prev	ious insp	ections), i	f available:	··· ··
	,·				•			
Remarks:								

Project/Site: <u>Overtook</u>	City/County: <u>Reyton/El Paso</u> Sampling Date: <u>7/26/23</u> State: <u>CO</u> Sampling Point: <u>SP34 UP</u>
Applicant/Owner: PT	State: <u>(</u> ) Sampling Point: <u>SP24</u> UP
	Section, Township, Range: <u>27, TIS, 2640</u>
	Local relief (concave, convex, none): Slope (%):
Subregion (LRR): Raky Min Range Lat: 30	9.06470772 Long: 104.53625698 Datum: NADS3
Soil Map Unit Name: MI: Anna course sondy le	Cum. 3-8% NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of ye	
Are Vegetation N_, Soil N_, or Hydrology N significantly	disturbed? Are "Normal Circumstances" present? Yes No
Are Vegetation <u>N</u> , Soil <u>N</u> , or Hydrology <u>N</u> naturally pro	blematic? (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 No       Hydric Soil Present?     Yes No       Wethand Hydroleny Present?     Yes No	Is the Sampled Area within a Wetland? Yes No

### VEGETATION - Use scientific names of plants.

Yes \_\_\_\_\_ No \_

Wetland Hydrology Present?

Remarks:

<u> </u>	Absolute	Dominan	t Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)		Species?		Number of Dominant Species
1				That Are OBL, FACW, or FAC
2				(excluding FAC-): (A)
3				Total Number of Dominant
4				Species Across All Strata: (B)
		= Total Co	ver	Percent of Dominant Species
Sapling/Shrub Stratum (Plot size:)				That Are OBL, FACW, or FAC: (A/B)
1				Prevalence Index worksheet:
2				Total % Cover of;Multiply by:
3				OBL species         x 1 =
4				FACW species $\underline{70}$ x 2 = $\underline{140}$
5				FAC species $\underline{-9}$ $x_3 = \underline{24}$
Herb Stratum (Plot size:	P	= Total Co	ver	FACU species $11$ $x4 = 421$
1. Rumer crispus	a		FAC	UPL species
2. JUNCUS Arcticus	.5		FACW	Column Totals: $\underline{AC}$ (A) $\underline{Al}$ (B)
3. Poa pratensis				
4. Pra arctice.	. <u> </u>		FACE	Prevalence Index = B/A =3
5. Achillea millefolium			FACU	Hydrophytic Vegetation Indicators:
6. Deschampsica cespitosa				1 - Rapid Test for Hydrophytic Vegetation
7				2 - Dominance Test is >50%
8				Y 3 - Prevalence Index is ≤3.0 <sup>1</sup>
9				4 - Morphological Adaptations <sup>1</sup> (Provide supporting
10		*******		data in Remarks or on a separate sheet)
		= Total Co		Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Woody Vine Stratum (Plot size:)		10101-00		<sup>1</sup> Indicators of hydric soil and wetland hydrology must
1		. <u></u>		be present, unless disturbed or problematic.
2	- <u></u> ,			Hydrophytic
% Bare Ground in Herb Stratum		= Total Co	/er	Vegetation Present? Yes No
Remarks:				

# Sampling Point: <u>SP 24/</u>)P

Depth (inches) Co	Matrix Nor (moist)		Redox Features Color (moist) % Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
	NOR 1101310				CI	
					<u>()</u>	I and a smith
0.512	<u>4K 72</u>	<u> </u>			<u>C</u> L	60% gravel
				•••		
			·····			
<i></i>						
					<u> </u>	
	ration D=Den	etion RM=Re	educed Matrix, CS=Covered or Coated	Sand Grai	ins. <sup>2</sup> Loc	ation: PL=Pore Lining, M=Matrix.
			Rs, unless otherwise noted.)		****	for Problematic Hydric Soils <sup>3</sup> :
Histosol (A1)			Sandy Gleyed Matrix (S4)		1 cm M	luck (A9) ( <b>LRR I, J</b> )
Histic Epipedo	n (A2)		Sandy Redox (S5)			Prairie Redox (A16) (LRR F, G, H)
Black Histic (A	3)		Stripped Matrix (S6)			urface (S7) (LRR G)
Hydrogen Sulfi		_	Loamy Mucky Mineral (F1)			lains Depressions (F16)
Stratified Laye			Loamy Gleyed Matrix (F2)			R H outside of MLRA 72 & 73) ed Vertic (F18)
1 cm Muck (A9 Depleted Below		-	Depleted Matrix (F3) Redox Dark Surface (F6)			arent Material (TF2)
Thick Dark Su		. ((11)	Depleted Dark Surface (F7)			hallow Dark Surface (TF12)
Sandy Mucky I			Redox Depressions (F8)		Other (	Explain in Remarks)
2.5 cm Mucky						of hydrophytic vegetation and
5 cm Mucky Pe	eat or Peat (S3	8) (LRR F)	(MLRA 72 & 73 of LRR H	)		hydrology must be present,
Destriction I areas	(16 mm = = mf) -				uniess	disturbed or problematic.
Restrictive Layer	4					
Туре:/					11	Present? Yes No V
Depth (inches):					Hydric Soil	Present? Yes No _/
Remarks:						
IYDROLOGY						
Wetland Hydrolog	y Indicators:					
		ne required; (	check all that apply}		Seconda	ry Indicators (minimum of two required)
Surface Water			Salt Crust (B11)		Surfa	ace Soil Cracks (B6)
High Water Ta			Aquatic Invertebrates (B13)			rsely Vegetated Concave Surface (B8)
Saturation (A3			Hydrogen Sulfide Odor (C1)		Drai	nage Patterns (B10)
Water Marks (	B1)		Dry-Season Water Table (C2)		Oxid	lized Rhizospheres on Living Roots (C3)
Sediment Dep	osits (B2)		Oxidized Rhizospheres on Living	g Roots (C	C3) (w	here tilled)
Drift Deposits	(B3)		(where not tilled)		Cray	/fish Burrows (C8)
Algal Mat or C	rust (B4)		Presence of Reduced Iron (C4)		1	ration Visible on Aerial Imagery (C9)
Iron Deposits	(B5)		Thin Muck Surface (C7)			morphic Position (D2)
Inundation Vis	ible on Aerial I	magery (B7)	Other (Explain in Remarks)			-Neutral Test (D5)
Water-Stained	Leaves (B9)				Fros	t-Heave Hummocks (D7) (LRR F)
Field Observatior	IS:		.1			
Surface Water Pre	sent? Y	ies No				
Water Table Prese	int? Y		Depth (inches):	i		./
Saturation Present		es No	Depth (inches):	Wetla	nd Hydrology	y Present? Yes No _V
(includes capillary Describe Recorder		dauge moni	toring well, aerial photos, previous inspe		available	
		guugo, mum	terme mente dentre protoco, providuo indpe			
Remarks:						
nomano.						

Project/Site: Overlook	City/County: Perton/EI Pass Sampling Date: 7/26/23
Applicant/Owner:	City/County: <u>Perston/E1 Pass</u> Sampling Date: <u>7/26/23</u> State: <u>CO</u> Sampling Point: <u>5P25 UP</u>
Investigator(s): <u>DM AM TL</u>	Section, Township, Range: 22, 115, 64W
Landform (hillslope, terrace, etc.):	Local relief (concave, convex, none): <u>CONCAVE</u> Slope (%):
Subregion (LRR): Rocky Min Region Lat: 3	9.074925 Long: -104.536517 Datum: NAD 83
Soil Map Unit Name: 42: Kettle-Rock outcrop a	DMDIEX NWI classification:
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 "Normal Circumstances" present? Yes V No
Are Vegetation, Soil, or Hydrology naturally pro	
SUMMARY OF FINDINGS – Attach site map showing	sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No Hydric Soil Present? Yes No Wetland Hydrology Present? Yos No	Is the Sampled Area within a Wetland? Yes No

# VEGETATION -- Use scientific names of plants.

Yes <u>V</u> No \_\_\_\_

Wetland Hydrology Present?

Remarks:

	Absolute	Dominan	t Indicator	Dominance Test worksheet:	
Tree Stratum (Plot size:)	% Cover	Species?		Number of Dominant Species	
1				That Are OBL, FACW, or FAC	
2				(excluding FAC-):	(A)
3				Total Number of Dominant	
4				Species Across All Strata:	(B)
		= Total Co			,
Sapling/Shrub Stratum (Plot size:)	<u></u>	1010100		Percent of Dominant Species That Are OBL, FACW, or FAC:	(A/B)
1					_ (~0)
2				Prevalence Index worksheet:	
3				Total % Cover of:Multiply by:	
4				OBL species x 1 =	
5				FACW species $10$ x 2 = $20$	
		= Total Co		FAC species x 3 =	
Herb Stratum (Plot size:)	· · · · · · · · · · · · · · · · · · ·		VEI	FACU species x 4 =	<u></u>
1. Koeleria macrantha	10		UPL	UPL species $10 \times 5 = 60$	
2. Poa palustris					
3					
4				Prevalence Index = B/A = <u>3,5</u>	
5				Hydrophytic Vegetation Indicators:	
6				1 - Rapid Test for Hydrophytic Vegetation	
7				2 - Dominance Test is >50%	
				3 - Prevalence Index is ≤3.0 <sup>1</sup>	
8			· ·····	4 - Morphological Adaptations <sup>1</sup> (Provide s	upporting
9				data in Remarks or on a separate shee	et)
10				Problematic Hydrophytic Vegetation <sup>1</sup> (Exp	lain)
Woody Vine Stratum (Plot size:)		= Total Co	ver	<sup>1</sup> Indicators of hydric soil and wetland hydrology	
1				be present, unless disturbed or problematic.	ymusi
				· · · · · · · · · · · · · · · · · · ·	,
2				Hydrophytic Vegetation	
% Bare Ground in Herb Stratum		= Total Co	ver	Present? Yes No	
Remarks:			·····		
80% open water					

US Army Corps of Engineers

# Sampling Point: <u>SP.25</u> UP

Depth	Matrix			x Feature		. 2	-	
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	<u>Type<sup>1</sup></u>	Loc <sup>2</sup>	<u> </u>	Remarks
0-4	104R 5/2	100			- <u> </u>	<u></u>		
4-5*	104R5/1	<u>95</u>	104R 5/8	#	<u> </u>	<u> </u> %A	<u> </u>	
			•					
	••••••••							
	······				- <u></u>			
·····				<del></del>				
							<u> </u>	
				<u> </u>			·	
<sup>1</sup> Type: C=C	ncentration. D=Den	letion. RM	=Reduced Matrix, CS	S=Covere	d or Coate	d Sand G	Brains. <sup>2</sup> Locat	ion: PL=Pore Lining, M=Matrix.
			LRRs, unless othe					r Problematic Hydric Soils <sup>3</sup> :
Histosol				Gleyed M			1 cm Mud	ck (A9) (LRR I, J)
	pipedon (A2)			Redox (S			Coast Pra	airie Redox (A16) (LRR F, G, H)
Black H	stic (A3)			d Matrix (				face (S7) (LRR G)
Hydroge	en Sulfide (A4)				neral (F1)			ns Depressions (F16)
	d Layers (A5) (LRR			Gleyed M			•	H outside of MLRA 72 & 73)
	ick (A9) (LRR F, G,		X Deplete					Vertic (F18)
-	d Below Dark Surfac	æ (A11)		Dark Surf				ent Material (TF2) Ilow Dark Surface (TF12)
	ark Surface (A12) /lucky Minerał (S1)		·	Depressio	urface (F7) ons (F8)	r		plain in Remarks)
	Mucky Peat or Peat (	(S2) (LRR		-	ressions (F	16)		hydrophytic vegetation and
	icky Peat or Peat (S			-	73 of LRF			ydrology must be present,
		,, ,					unless di	sturbed or problematic.
Restrictive	Layer (if present):							
Type: 🔣	white table		<u>,</u>					li anti anti anti anti anti anti anti ant
Depth (in	ches):						Hydric Soil P	resent? Yes 📝 🛛 No
Remarks:								
				A.			<u> </u>	
IYDROLO	GY							
-	drology Indicators							
Primary Indi	cators (minimum of (	one require	d; check all that app	ly)			Secondary	Indicators (minimum of two required)
<u>√</u> Surface	Water (A1)		Sait Crust	(B11)				æ Soil Cracks (B6)
High W	ater Table (A2)		Aquatic In	vertebrat	es (B13)			ely Vegetated Concave Surface (B8)
Saturati	on ( <b>A</b> 3)		Hydrogen	Sulfide C	dor (C1)			ige Patterns (B10)
Water N	/arks (B1)		Dry-Sease	on Water	Table (C2)	I	Oxidiz	ed Rhizospheres on Living Roots (C3)
Sedime	nt Deposits (B2)		Oxidized	Rhizosph	eres on Liv	ing Roots	s (C3) ( <b>wh</b>	ere tilled)
Drift De	posits (B3)		(where	not tilled	)			sh Burrows (C8)
Algal M	at or Crust (B4)		Presence	of Reduc	ed Iron (C	4)	8	tion Visible on Aerial Imagery (C9)
🖌 Iron De	posits (B5)		Thin Mud	k Surface	(C7)			orphic Position (D2)
🔨 Inundat	ion Visible on Aerial	Imagery (E	37) Other (Ex	plain in R	emarks)		FAC-N	leutral Test (D5)
Water-S	Stained Leaves (B9)						Frost-	Heave Hummocks (D7) (LRR F)
Field Obse	vations:				e 81			
Surface Wa	ter Present?	Yes 🔬	No Depth (in	nches):		[		
Water Table	Present?	Yes 🔟	No Depth (ir	nches):	<u>8"</u>			1
Saturation F	Present?	Yes	No V Depth (ir	iches):		We	tland Hydrology I	Present? Yes <u> </u>
(includes ca	pillary fringe)						. 12 12 _ 1. I	
Describe Re	corded Data (stream	n gauge, m	onitoring well, aerial	photos, p	revious in	spections	), if available:	
Remarks:						_		

		Print Form	Save As	E-mail
	s of Engineers (USA			Form Approved -
INTERIM DRAFT RAPID ORDINA	RY HIGH WATER I	MARK (OHWM) FIEL	D	OMB No. 0710-0025
IDENTIFICA The proponent agency is h	TION DATA SHEE	l CW-CO-R		Expires: 01-31-2025
	AGENCY DISCLOS			
The public reporting burden for this collection of inform reviewing instructions, searching existing data sources information. Send comments regarding the burden est Services, at <u>whs.mc-alex.esd.mbx.dd-dod-information</u> law, no person shall be subject to any penalty for failin number.	nation, 0710-OHWM, is e s, gathering and maintain imate or burden reduction -collections@mail.mil. Re	stimated to average 30 mil ing the data needed, and o suggestions to the Depar spondents should be awar	ompleting and i tment of Defensive that notwithst	reviewing the collection of se, Washington Headquarters anding any other provision of
Project ID #: 196239003 Site Nam	ne: Overlook	······································		e: 7/26/23 1200
Location (lat/long): 39,073819,-104,532	3164 Inv	vestigator(s): 5M Av	ų	
Step 1 Site overview from remote and online resource Check boxes for online resources used to e		Describe land use a	nd flow conditi	ions from online resources.
				ts (floods or drought)?
satellite imagery	eologic maps and use maps Other:	significantl 6/2023	y high	rainfall in
Step 2 Site conditions during field assessment. First lo vegetation and sediment type, size, density, ar channel form, such as bridges, riprap, landslid	nd distribution. Make note es, rockfalls etc.	e of natural or man-made d	isturbances tha	es, and changes in It would affect flow and
riprap at top of channel	l, no stream	r-wetland com	nplex	
Step 3 Check the boxes next to the indicators used         OHWM is at a transition point, therefore some         the drop-down menu next to each indicative         just above `a' the OHWM.         Go to page 2 to describe overall rationale for lot         Geomorphic indicators         X         Break in slope:         X         on the bank:         Ω	e indicators that are used ator, select the appropria	t to determine location may te location of the indicator l any additional observations	by selecting eith , and to attach ; erosional	ner just below `b', at `x', or a photo log. I bedload indicators stacle marks, scour,
			Secondary	. ,
undercut bank: 6	unvegetated;	_ <u></u> Se	diment indicat	
valley bottom;	go to veg. indicate			· · · · · · · · · · · · · · · · · · ·
Other:	sediment transition	ní L	Soil develo	pment:
	(go to sed, indicate upper limit of depo		Changes in	character of soil:
Shelving:	on bar:	Г	Mudcracks	:
shelf at top of bank:	Instream bedforms an bedload transport evid		_ ∕  Changes in	particle-sized
natural levee;	deposition bedload	d indicators		-
	gravel sheets, etc.			n from CObble to sand
man-made berms or levees:	bedforms (e.g., po	ols,	upper lin	mit of sand-sized particles
berms:	I riffles, steps, etc.):		silt depo	osits:
Vegetation Indicators				
Change in vegetation type and/or density;	forbs to:		Exposed r	oots below laver:
Check the appropriate boxes and select	graminoids to: L	wordy shipts An		
the general vegetation change (e.g., graminoids to woody shrubs). <b>Describe</b>		woody shrubs And	- Wracking/p	resence of
the vegetation transition looking from	X shrubs to: CON	ferous trees	organic litte	er:
the middle of the channel, up the		X	Presence o	f large wood:   へ
banks, and into the floodplain.	coniferous	Г	Leaf litter d	
x egetation araminGids	X trees to:		_i washed awa ີ່	
absent to: Yaminolas	Vegetation matted do and/or bent:	wn	Water stain	ing:
moss to:		X	Weathered	clasts or bedrock: ക്ര
Other observed indicators? Describe:		·····		
		•		

٦

	Print Form Save As E-mail
Project ID #: 10	96239003 /
	nal information needed to support this determination? Yes No If yes, describe and attach information to datasheet:
Step 5 Describe	rationale for location of OHWM
	S - 30' - N OHWM J OHWM J
Additional obse	ervations or notes
Attach a photo k	og of the site. Use the table below, or attach separately.
	log attached? Yes No If no, explain why not:
	hs and include descriptions in the table below.
· · · · · · · · · · · · · · · · · · ·	graphs in the order that they are taken. Attach photographs and include annotations of features.
Photo Number	Photograph description
20	northern extent
21	southern extent

į

			Print Form	Save As	E-mail
		OHWM Field Identification Datash	eet Instructions and Field P	rocedure	
Step 1	Online Resources: Idea assess this site. a. gage data b. aerial photos c. satellite imagery d. LiDAR Landscape context: Us a. Note on the datashee i. Overall land use and ii. Recent extreme even b. Consider the following i. What physical chara ii. Was there a recent iii. How will land use a	I change if known ents if known (e.g., flood, drought, landsl to inform weighting of evidence observ cteristics are likely to be observed in sp flood or drought? Are you expecting to s ffect specific stream characteristics? Ho	temperature) in the context of the surrou ides, debris flows, wildfires) ed during field visit. ecific environments? see recently formed or obscure	unding landscape. ed indicators?	ources used to
Step 2	<ul> <li>a. Identify the assessme</li> <li>b. Walk up and down the the potential OHWM in</li> <li>c. Note broad trends in c and sediment characteries in the sediment characteries is this a single thread the sediment of the</li></ul>	the field assessment (assemble evide nt area, assessment area noting all ndicators, hannel shape, vegetation, eristics, ead or multi-thread system?	<ul> <li>d. Look for signs of recurring <ul> <li>i. Where does the flow co</li> <li>ii. Are there signs of fluvia</li> <li>bedforms, etc.) at the co</li> </ul> </li> <li>e. Look for indicators on bot accessible, then look acro</li> <li>f. In Step 2 of the datashed flow conditions that may in evidence.</li> <li>i. What land use and flow to observe indicators and ii. What recent extreme and ii. What recent extreme and iii. What recent extreme and iii.</li> </ul>	onverge on the landscape al action (sediment sortin- convergence zone? th banks. If the opposite to oss the channel at the ba set describe any adjacent influence interpretation of w conditions may be affect to the site?	g, bank is not ank. t land use or f each line of cting your ability changes to the

#### Assemble evidence by checking the boxes next to each line of evidence:

- a. If needed, use a separate scratch datasheet to check boxes next to possible indicators, or check boxes of possible indicators in pencil and use pen for final decision.
- b. If using fillable form, then follow the instructions for filling in the fillable form,

Context is important when assembling evidence. For instance, pool development may be an indicator of interest on the bed of a dry stream, but may not be a useful indicator to take note of in a flowing stream. On the other hand, if the pool is found in a secondary channel adjacent to the main channel, it could provide a line of evidence for a minimum elevation of high flows. Therefore, consider the site context when deciding which indicators provide evidence for identifying the OHWM. Explain reasoning in Step 5.

### Questions to consider while making observations and listing evidence at a site:

Geomorphic indicators Where are the breaks in slope? Are there identifiable banks? Is there an easily identifiable top of bank? Are the banks actively eroding? Are the banks undercut? Are the banks armored? Is the channel confined by the surrounding hillslopes? Are there natural or man-made berms and levees? Are there fluvial terraces? Are there channel bars?	Sediment and soil indicators Where does evidence of soil formation appear? Are there mudcracks present? Is there evidence of sediment sorting by grain size?	Vegetation Indicators Where are the significant transitions in vegetation species, density, and age? Is there vegetation growing on the channel bed? If no, how long does it take for the non-tolerant vegetation to establish relative to how often flows occur in the channel? Where are the significant transitions in vegetation? Is the vegetation tolerant of flowing water? Has any vegetation been flattened by flowing water?	Ancillary indicators Is there organic litter present? Is there any leaf litter disturbed or washed away? Is there large wood deposition? Is there evidence of water staining?
Are the following features of fluvial tra Evidence of erosion: obstacle mari Bedforms; riffles, pools, steps, knic Evidence of deposition: imbricated	ks, scour, armoring kpoints/headcuts	In some cases, it may be helpful to explain why a the OHWM elevation, but found above or below. I note if specific indicators (e.g., vegetation) are No note if the site has no clear vegetation zonation.	t can also be useful to

#### OHWM Field Identification Datasheet Instructions and Field Procedure

Print Form

#### Step 3b Weight each line of evidence and weigh body of evidence

Weight each indicator by considering its importance based upon:

#### a. Relevance:

i. Is this indicator left by low, high, or extreme flows?

Tips on how to assess the indicator relative to type of flow: Consider the elevation of the indicator relative to the channel bed. What is the current flow level based on season or nearby gages? Consider the elevation of the indicator relative to the current flow. If the stream is currently at baseflow and indicator is adjacent to that, then it is likely a low flow indicator. The difference between high and extreme flow indicators can sometimes be difficult to determine.

ii, Did recent extreme events and/or land use affect this indicator?

 Recent floods may have left many extreme flow indicators, or temporarily altered channel form.
 Other resources will likely be needed to support any OHWM identification at this site. Field evidence of the OHWM may have to wait for the site to recover from the recent flood.

- 2. Droughts may cause field evidence of OHWM to be obscured, because there has been an extended time since the last high flow event. There can be overgrowth of vegetation or deposition of material from surrounding landscape that can obscure indicators.
- 3. Both man-made (e.g., dams, construction, mining activities, urbanization, agriculture, grazing) and natural (e.g., fires, floods, debris flows, beaver dams) disturbances can all alter how indicators are expected to appear at a site. Chapter 6 and Chapter 7 of the OHWM field manual provides specific case-studies that can help in interpreting evidence at these sites.

#### b. Strength:

- i. Is this indicator persistent across the landscape?
  - 1. Look up and downstream and across the channel to see if you see the same indicator at multiple locations.
- 2. Does the indicator occur at the same elevation as other indicators?

#### c. Reliability:

- i. Is this indicator persistent on the landscape over time? Will this indicator still persist across seasons?
  - 1. This can be difficult to determine for some indicators and may be specific to climatic region (in terms of persistence of vegetation) and history of land use or other natural disturbances.
  - 2. Chapter 2, Chapter 6, and Chapter 7 of the OHWM field manual describes each indicator in detail and provides examples of areas where indicators are difficult to interpret.

#### d. Weigh body of evidence:

- i. Combine weights: integrate the weighted line of evidence (relevance, strength, reliability) of each indicator.
- ii. For each of the observed indicators, which are more heavily weighted? Where do high value indicators co-occur along the stream reach? Do they co-occur at a similar elevation along the banks relative to water surface (or channel bed if there is no water).
- iii. On datasheet, select the indicators used to identify the OHWM. Information in Chapter 2 of the OHWM field manual provides descriptions of specific indicators which can assist in putting these in context and determining relevance, strength, and reliability.
- e. Take photographs of indicators and attach a log using either page 2 of datasheet or another method of logging photos. i. Annotate photos with descriptions of indicators.

#### Step 4 Is additional information needed? Are other resources needed to support the lines of evidence observed in the field?

- a. If additional resources are needed, then repeat steps 3a and 3b for the resources selected in Step 1 of assembling, weighting, and weighing evidence collected from online resources. Chapter 5 of the OHWM field manual provides information on using online resources.
- b. Any data collected from online tools have strengths and weaknesses. Make sure these are clear when determining relevance, strength, and reliability of the remotely collected data. Clearly describe why other resources were needed to support the lines of evidence observed in the field, as well as the relevance, strength, and reliability of the supporting data and/or resources.
- c. Attach any remote data and data analysis to the datasheet.

#### Step 5 Describe rationale for location of OHWM:

- a. Why do the combination of indicators represent the OHWM?
- b. If there are multiple possibilities for the OHWM, explain why there are two (or more) possibilities. Include any relevant discussion on why specific indicators were not included in the final decision.
- c. If needed, add additional site notes on page 2 of the datasheet under Step 5.

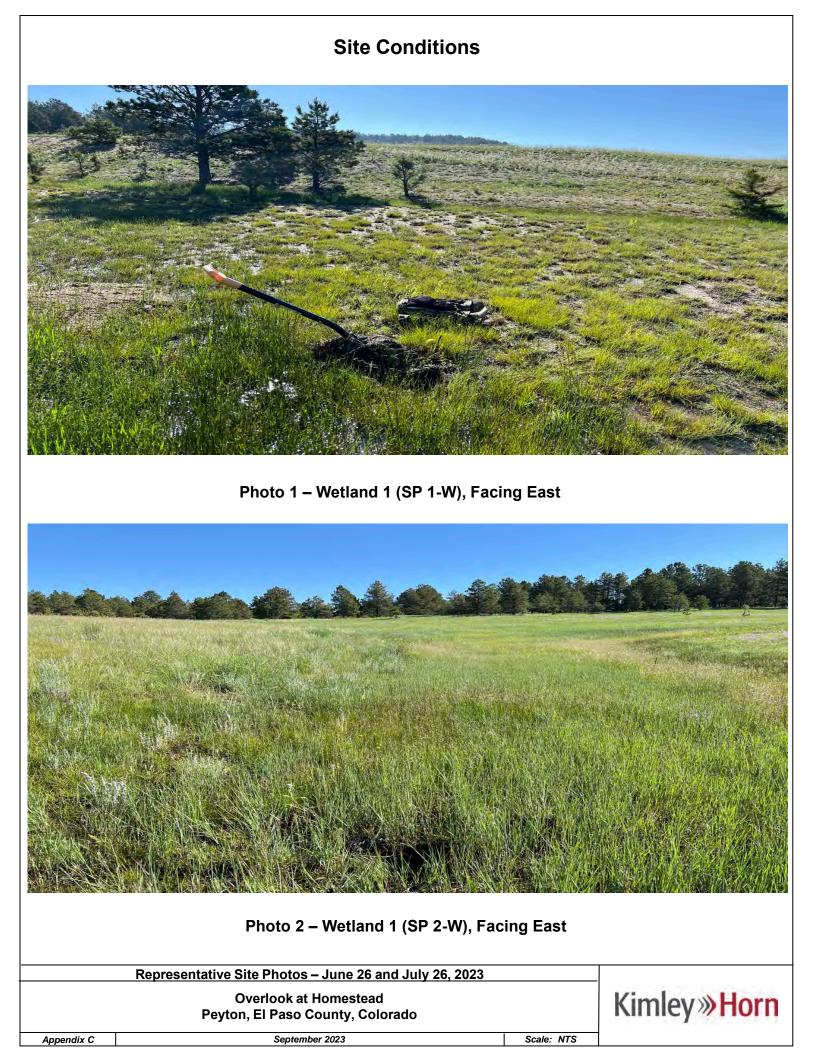
\*Landscape context from Step 1 can help determine the relevance, strength, and reliability of the indicators observed in the field.

Save As

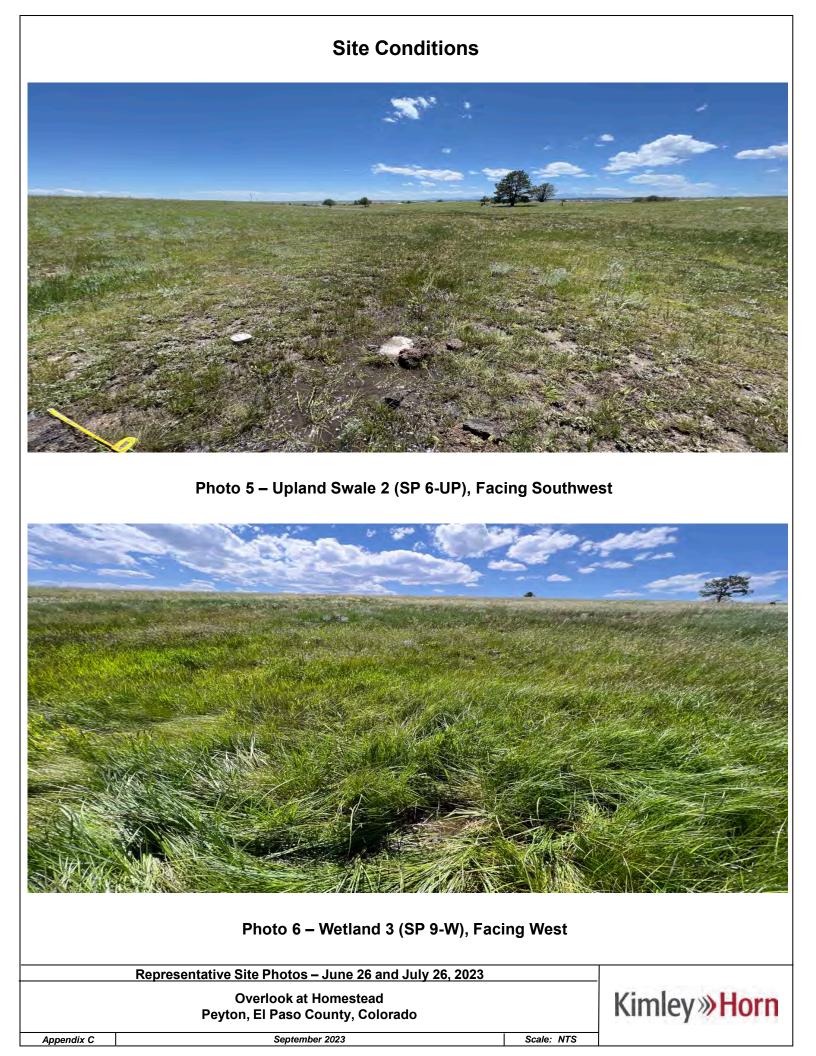
\*Information in Chapter 2 of the OHWM field manual provides information on specific indicators which can assist in putting these in context and determining relevance, strength, and reliability.

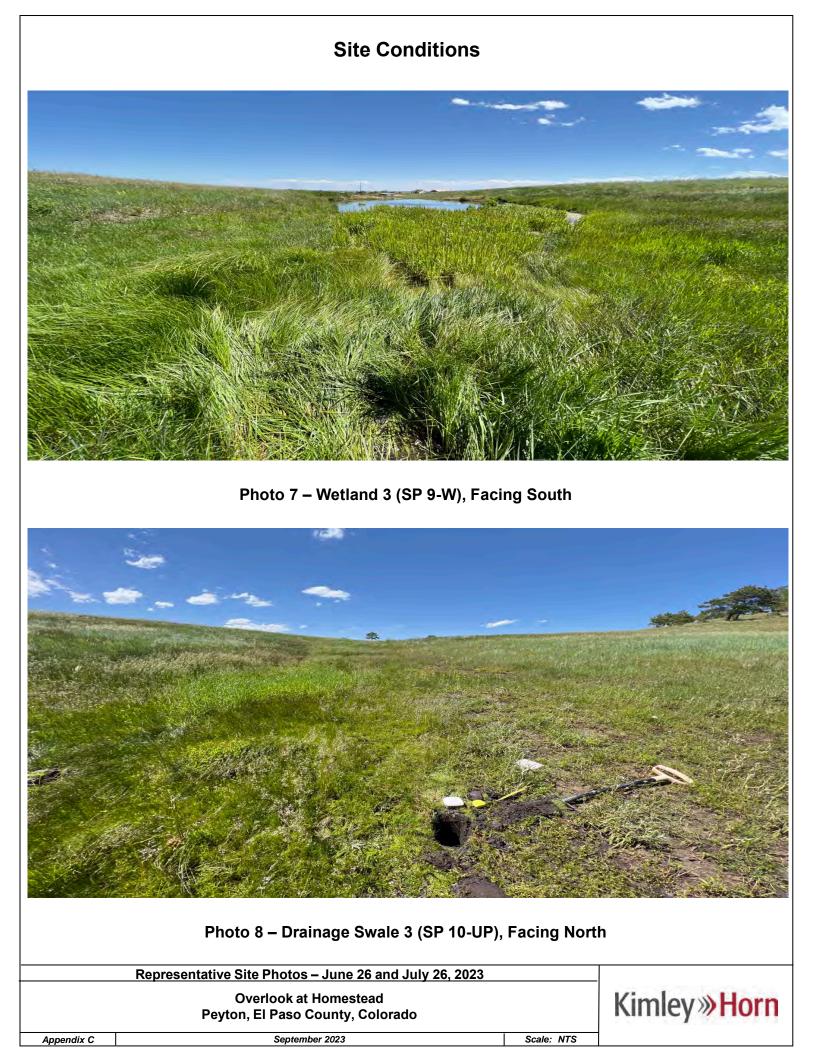
E-mail

Appendix C Site Photos













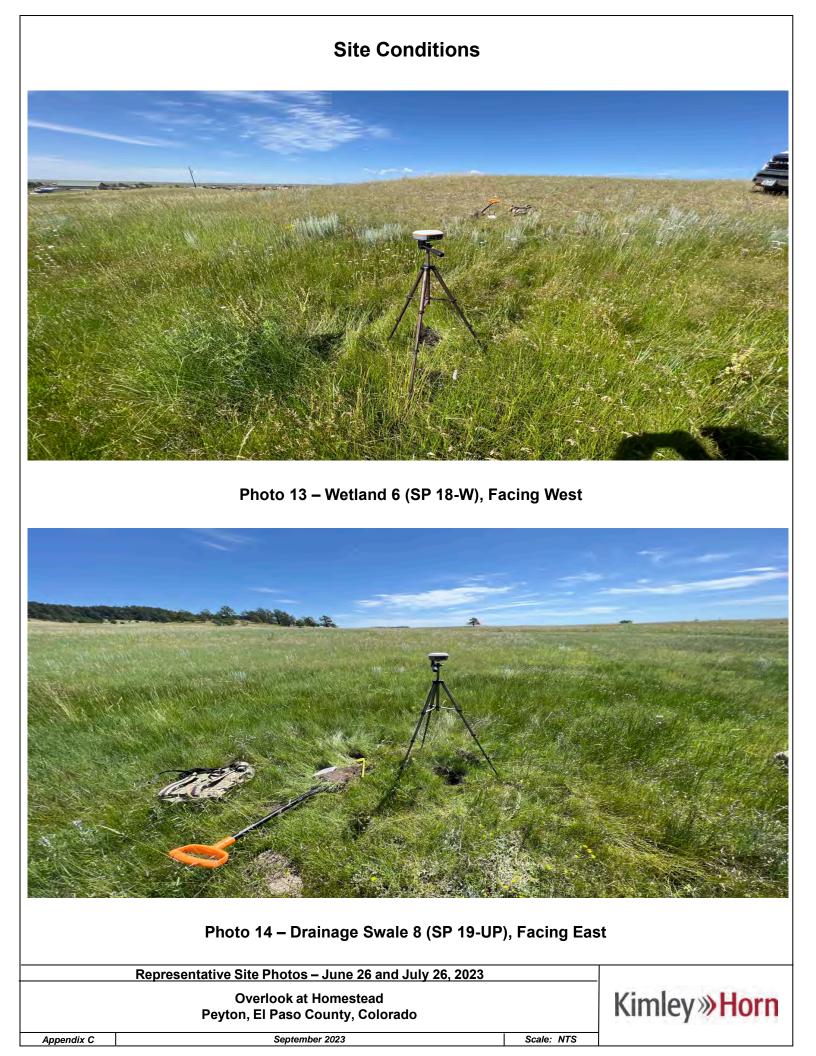








Photo 19 – Drainage Swale 11 (SP 24-UP), Facing South



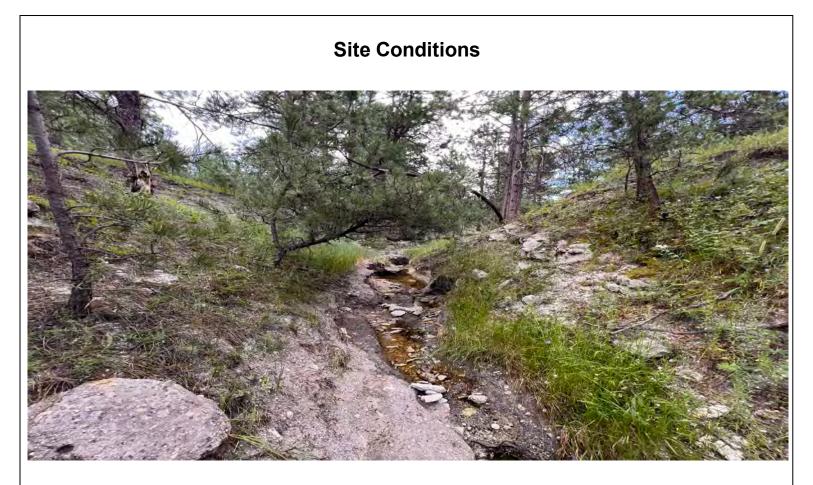


Photo 21 – Surface Water 2, Facing East

Representative Site Photos – June 26 and July 26, 2023

Overlook at Homestead Peyton, El Paso County, Colorado

Appendix C

Kimley »Horn

September 2023

Scale: NTS

**APPENDIX C** 

COLORADO STATE NOXIOUS WEED LIST

### Colorado Noxious Weeds (including Watch List), effective October, 2020

(Alphabetized by scientific name)

### List A Species (25)

Common	Scientific
Camelthorn	(Alhagi maurorum)
Giant reed	(Arundo donax)
Elongated mustard	(Brassica elongata)
Flowering rush	(Butomus umbellatus)
Yellow starthistle	(Centaurea solstitialis)
Squarrose knapweed	(Centaurea virgata)
Meadow knapweed	(Centaurea x moncktonii)
Rush skeletonweed	(Chondrilla juncea)
Common crupina	(Crupina vulgaris)
Hairy willow-herb	(Epilobium hirsutum)
Cypress spurge	(Euphorbia cyparissias)
Myrtle spurge	(Euphorbia myrsinites)
Japanese knotweed	(Fallopia japonica)
Giant knotweed	(Fallopia sachalinensis)*
Bohemian knotweed	(Fallopia x bohemicum)
Orange hawkweed	(Hieracium aurantiacum)
Hydrilla	(Hydrilla verticillata)
Dyer's woad	(Isatis tinctoria)
Purple loosestrife	(Lythrum salicaria)
Parrotfeather	(Myriophyllum aquaticum)
African rue	(Peganum harmala)
Mediterranean sage	(Salvia aethiopis)
Giant salvinia	(Salvinia molesta)
Tansy ragwort	(Senecio jacobaea)
Medusahead	(Taeniatherum caput-medusae)

\*Scientific name is correct here, and the Administrative Rule will be updated during the next cycle (2022).

### List B Species (38)

Common	Scientific
Absinth wormwood	(Artemisia absinthium)
Diffuse knapweed	(Centaurea diffusa)
Canada thistle	(Cirsium arvense)
Bull thistle	(Cirsium vulgare)
Chinese clematis	(Clematis orientalis)
Common teasel	(Dipsacus fullonum)
Cutleaf teasel	(Dipsacus laciniatus)
Dame's rocket	(Hesperis matronalis)

Black henbane	(Hyoscyamus niger)
Hoary cress	(Lepidium draba)
Dalmatian toadflax, broad-leaved	(Linaria dalmatica)
Dalmatian toadflax, narrow-leaved	(Linaria genistifolia)
Eurasian watermilfoil	(Myriophyllum spicatum)
Bouncingbet	(Saponaria officinalis)
Common tansy	(Tanacetum vulgare)

### List B Species Continued (38)

Common	Scientific
Jointed goatgrass	(Aegilops cylindrica)
Mayweed chamomile	(Anthemis cotula)
Plumeless thistle	(Carduus acanthoides)
Musk thistle	(Carduus nutans)
Wild caraway	(Carum carvi)
Spotted knapweed	(Centaurea stoebe ssp. micranthos)
Spotted x diffuse knapweed hybrid	(Centaurea x psammogena)
Houndstongue	(Cynoglossum officinale)
Yellow nutsedge	(Cyperus esculentus)
Russian-olive	(Elaeagnus angustifolia)
Leafy spurge	(Euphorbia esula)
Perennial pepperweed	(Lepidium latifolium)
Oxeye daisy	(Leucanthemum vulgare)
Yellow x Dalmatian toadflax hybrid	(Linaria vulgaris x L. dalmatica)
Yellow toadflax	(Linaria vulgaris)
Scotch thistle	(O. tauricum)
Scotch thistle	(Onopordum acanthium)
Sulfur cinquefoil	(Potentilla recta)
Russian knapweed	(Rhaponticum repens)
Salt cedar	(T. chinensis)
Salt cedar	(Tamarix. ramosissima)
Scentless chamomile	(Tripleurospermum inodorum)
Moth mullein	(Verbascum blattaria)

### List C Species (16)

Common	Scientific
Velvetleaf	(Abutilon theophrasti)
Common burdock	(Arctium minus)
Downy brome, cheatgrass	(Bromus tectorum)
Chicory	(Cichorium intybus)
Poison hemlock	(Conium maculatum)
Field bindweed	(Convolvulus arvensis)
Quackgrass	(Elymus repens)
Redstem filaree	(Erodium cicutarium)
Halogeton	(Halogeton glomeratus)
Common St. Johnswort	(Hypericum perforatum)

Wild proso millet	(Panicum miliaceum)
Bulbous bluegrass	(Poa bulbosa)
Perennial sowthistle	(Sonchus arvensis)
Johnsongrass	(Sorghum halepense)
Puncturevine	(Tribulus terrestris)
Common mullein	(Verbascum thapsus)

### Watch List Species (19)

These species are not regulated by the Noxious Weed Act/Rule.

Common	Scientific
Tree of Heaven	(Ailanthus altissima)
Garlic mustard	(Alliaria petiolata)
Common bugloss	(Anchusa officinalis)
Onionweed	(Asphodelus fistulosus)
Hoary alyssum	(Berteroa incana L.)
Caucasian bluestem	(Bothriochloa bladhii)
Yellow bluestem	(Bothriochloa ischaemum)
White bryony	(Bryonia alba)
Scotch broom	(Cytisus scoparius)
Baby's breath	(Gypsophila paniculata)
Meadow hawkweed	(Hieracium caespitosum)
Yellow flag iris	(Iris pseudacorus)
Garden loosestrife	(Lysimachia vulgaris)
Common reed	(Phragmites australis)
Himalayan blackberry	(Rubus armeniacus)
Swainsonpea	(Sphaerophysa salsula)
Siberian elm	(Ulmus pumila)
Ventenata grass	(Ventenata dubia)
Syrian beancaper	(Zygophyllum fabago)

APPENDIX D USFWS IPAC

# IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.



### Local office

Colorado Ecological Services Field Office

(303) 236-4773
(303) 236-4005

NOTFORCONSULTATIO

MAILING ADDRESS Denver Federal Center P.O. Box 25486 Denver, CO 80225-0486

PHYSICAL ADDRESS 134 Union Boulevard, Suite 670 Lakewood, CO 80228-1807

# Endangered species

# This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

- 1. Draw the project location and click CONTINUE.
- 2. Click DEFINE PROJECT.
- 3. Log in (if directed to do so).
- 4. Provide a name and description for your project.
- 5. Click REQUEST SPECIES LIST.

Listed species<sup>1</sup> and their critical habitats are managed by the <u>Ecological Services Program</u> of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries<sup>2</sup>).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact <u>NOAA Fisheries</u> for <u>species under their jurisdiction</u>.

 Species listed under the <u>Endangered Species Act</u> are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the <u>listing status page</u> for more information. IPaC only shows species that are regulated by USFWS (see FAQ). 2. <u>NOAA Fisheries</u>, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

### Mammals

NAME	STATUS
<ul> <li>Gray Wolf Canis lupus</li> <li>This species only needs to be considered if the following condition applies:</li> <li>Lone, dispersing gray wolves may be present throughout the state of Colorado. If your activity includes a predator management program, please consider this species in your environmental review.</li> <li>There is final critical habitat for this species. https://ecos.fws.gov/ecp/species/4488</li> </ul>	Endangered
Preble's Meadow Jumping Mouse Zapus hudsonius preblei Wherever found There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/4090 Birds	Threatened
NAME	STATUS
Eastern Black Rail Laterallus jamaicensis ssp. jamaicensis Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/10477	Threatened
<ul> <li>Piping Plover Charadrius melodus</li> <li>This species only needs to be considered if the following condition applies:</li> <li>Project includes water-related activities and/or use in the N. Platte, S. Platte, and Laramie River Basins which may affect listed species in Nebraska.</li> </ul>	Threatened
There is <b>final</b> critical habitat for this species. Your location does not overlap the critical habitat. <u>https://ecos.fws.gov/ecp/species/6039</u>	

Endangered

Threatened

Whooping Crane Grus americana There is final critical habitat for this species. Your location does not overlap the critical habitat. <u>https://ecos.fws.gov/ecp/species/758</u>

### Fishes

NAME	STATUS
Greenback Cutthroat Trout Oncorhynchus clarkii stomias Wherever found No critical habitat has been designated for this species. <u>https://ecos.fws.gov/ecp/species/2775</u>	Threatened
<ul> <li>Pallid Sturgeon Scaphirhynchus albus</li> <li>Wherever found</li> <li>This species only needs to be considered if the following condition applies:</li> <li>Project includes water-related activities and/or use in the N. Platte, S. Platte, and Laramie River Basins which may affect listed species in Nebraska.</li> <li>No critical habitat has been designated for this species. <a href="https://ecos.fws.gov/ecp/species/7162">https://ecos.fws.gov/ecp/species/7162</a></li> </ul>	Endangered
NAME	STATUS
Monarch Butterfly Danaus plexippus Wherever found No critical habitat has been designated for this species. <u>https://ecos.fws.gov/ecp/species/9743</u>	Candidate
Flowering Plants	STATUS

Ute Ladies'-tresses Spiranthes diluvialis

Wherever found

No critical habitat has been designated for this species. <u>https://ecos.fws.gov/ecp/species/2159</u>

Threatened

Western Prairie Fringed Orchid Platanthera praeclara Wherever found No critical habitat has been designated for this species. <u>https://ecos.fws.gov/ecp/species/1669</u>

### Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

There are no critical habitats at this location.

You are still required to determine if your project(s) may have effects on all above listed species.

# Migratory birds

Certain birds are protected under the Migratory Bird Treaty  $Act^{1}$  and the Bald and Golden Eagle Protection  $Act^{2}$ .

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described <u>below</u>.

1. The <u>Migratory Birds Treaty Act</u> of 1918.

2. The Bald and Golden Eagle Protection Act of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern <u>https://www.fws.gov/program/migratory-birds/species</u>
- Measures for avoiding and minimizing impacts to birds <u>https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds</u>
- Nationwide conservation measures for birds <u>https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf</u>

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how

#### IPaC: Explore Location resources

this list is generated, see the FAQ <u>below</u>. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the <u>E-bird data mapping tool</u> (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found <u>below</u>.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle Haliaeetus leucocephalus This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds Oct 15 to Jul 31
Ferruginous Hawk Buteo regalis This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA <u>https://ecos.fws.gov/ecp/species/6038</u>	Breeds Mar 15 to Aug 15
Golden Eagle Aquila chrysaetos This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. <u>https://ecos.fws.gov/ecp/species/1680</u>	Breeds Dec 1 to Aug 31
Lewis's Woodpecker Melanerpes lewis This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <u>https://ecos.fws.gov/ecp/species/9408</u>	Breeds Apr 20 to Sep 30
<b>Pinyon Jay</b> Gymnorhinus cyanocephalus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <u>https://ecos.fws.gov/ecp/species/9420</u>	Breeds Feb 15 to Jul 15

Breeds May 10 to Sep 10

Red-headed Woodpecker Melanerpes erythrocephalus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

### **Probability of Presence Summary**

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

### Probability of Presence (

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

- 1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
- 2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
- 3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

### Breeding Season (=)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

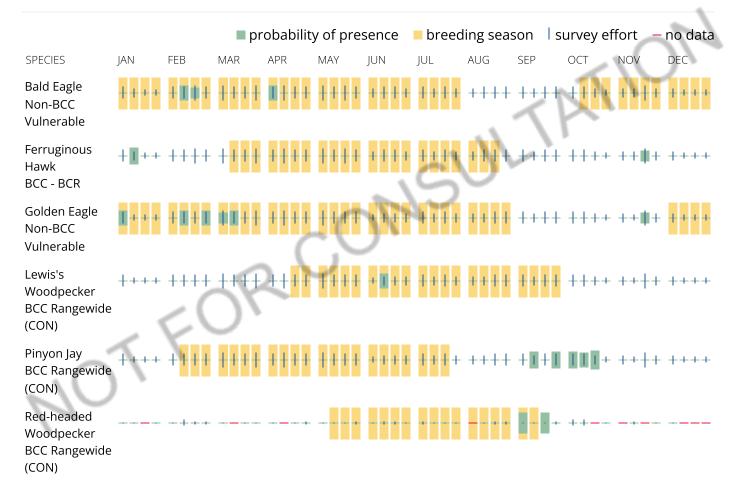
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

### No Data (–)

A week is marked as having no data if there were no survey events for that week.

### Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



## Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

<u>Nationwide Conservation Measures</u> describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. <u>Additional measures</u> or <u>permits</u> may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site. What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS <u>Birds of Conservation Concern (BCC)</u> and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the <u>Avian Knowledge</u> <u>Network (AKN)</u>. The AKN data is based on a growing collection of <u>survey</u>, <u>banding</u>, <u>and citizen science</u> <u>datasets</u> and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (<u>Eagle Act</u> requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the <u>Rapid Avian Information Locator (RAIL) Tool</u>.

# What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the <u>Avian Knowledge Network (AKN)</u>. This data is derived from a growing collection of <u>survey</u>, <u>banding</u>, <u>and</u> <u>citizen science datasets</u>.

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

### How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the <u>RAIL Tool</u> and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

### What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

- 1. "BCC Rangewide" birds are <u>Birds of Conservation Concern</u> (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
- 2. "BCC BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
- 3. "Non-BCC Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the <u>Eagle Act</u> requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

#### IPaC: Explore Location resources

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

### Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the <u>Northeast Ocean Data</u> <u>Portal</u>. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the <u>NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird</u> <u>Distributions and Abundance on the Atlantic Outer Continental Shelf</u> project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the <u>Diving Bird Study</u> and the <u>nanotag studies</u> or contact <u>Caleb Spiegel</u> or <u>Pam Loring</u>.

### What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to <u>obtain a permit</u> to avoid violating the Eagle Act should such impacts occur.

### Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

# Facilities

### National Wildlife Refuge lands

Any activity proposed on lands managed by the <u>National Wildlife Refuge</u> system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

There are no refuge lands at this location.

### Fish hatcheries

There are no fish hatcheries at this location.

# Wetlands in the National Wetlands Inventory (NWI)

Impacts to <u>NWI wetlands</u> and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local <u>U.S. Army Corps of</u> <u>Engineers District</u>.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

FRESHWATER EMERGENT WETLAND
PEM1C
FRESHWATER POND
PUSC
RIVERINE
R4SBC

**R5UBH** 

A full description for each wetland code can be found at the <u>National Wetlands Inventory</u> <u>website</u>

**NOTE:** This initial screening does **not** replace an on-site delineation to determine whether wetlands occur. Additional information on the NWI data is provided below.

### Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

### Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

### Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

### **APPENDIX E**

### RECOMMENDED BUFFER ZONES AND RESTRICTIONS FOR COLORADO RAPTORS

(2020)



### RECOMMENDED BUFFER ZONES AND SEASONAL RESTRICTIONS FOR COLORADO RAPTORS (2020)

#### **OVERVIEW**

Colorado Parks and Wildlife (CPW) is routinely asked for recommendations on ways to avoid and minimize disturbance to nesting, wintering, and resident raptors in Colorado. These guidelines were originally developed by Colorado Division of Wildlife in 2002 and updated in 2008. We recently (2020) undertook a periodic review of our guidelines to ensure that they are the most up to date based on the best available science and professional judgement. Further revisions of this document may become necessary as additional information is published or becomes available.

#### **Background on Disturbance**

The term "disturbance" is ambiguous and experts disagree on what actually constitutes a disturbance. Reactions may be as subtle as elevated pulse rate or as obvious as vigorous defense or abandonment of a nest site. Impacts of disturbance may not be immediately evident. A pair of raptors may respond to human intrusion by defending the nest, but well after the disturbance has passed, the male may remain in the vicinity for protection rather than forage to feed the nestlings. Golden eagles rarely defend their nests, but merely fly a half mile or more away and perch and watch. Chilling and overheating of eggs or chicks and starvation of nestlings can result from human activities that appeared not to have caused an immediate response.

Tolerance limits to disturbance vary among as well as within raptor species. As a general rule, Ferruginous Hawks and Golden Eagles respond to human activities at greater distances than do Ospreys and American Kestrels. Some individuals within a species also habituate and tolerate human activity at a proximity that would cause the majority of the group to abandon their nests. Other individuals can become sensitized to repeated encroachment and react at greater distances. The tolerance of a particular pair may change when a mate is replaced with a less tolerant individual and this may cause the pair to react to activities that were previously ignored. Responses will also vary depending upon the reproductive stage. Although the level of stress is the same, the pair may be more secretive during egg laying and incubation and more demonstrative when the chicks hatch. Recognizing that there is individual variability, the buffer areas and seasonal restrictions suggested here reflect an informed opinion that if implemented, should assure that the majority of individuals within a species will continue to occupy the area. Also, in order to allow for individual variability and renesting pairs, CPW recommends seasonal restrictions continue to be implemented until the chicks have fledged. Other factors such as intervening terrain, vegetation screens, and the existing cumulative impacts of activities should also be considered.

A 'holistic' approach is recommended when protecting raptor habitats. While it is important for land managers to focus on protecting nest sites, attention should also focus on defining important foraging areas that support the pair's nesting effort. Hunting habitats of many raptor species are extensive and may necessitate interagency cooperation to assure continued nest occupancy. Unfortunately, basic knowledge of habitat use for individual nesting pairs is often lacking.

### **RECOMMENDED BUFFER ZONES AND SEASONAL RESTRICTIONS**

CPW recommends consultation with local CPW staff early in the planning phase of project proposals in order to assess and develop site-specific recommendations based on pre-existing conditions (e.g. existing development, topography, vegetation, and line-of-sight to nest). CPW maintains a leadership role with respect to raptor management in Colorado; however it is important to keep in mind that the primary authority for the regulation of take and the ultimate jurisdiction for most of these species rests with the U. S. Fish and Wildlife Service (USFWS) under the Migratory Bird Treaty Act (16 U.S.C. 703-712) and the Bald and Golden Eagle Protection Act (16 U.S.C. 668-668c). Therefore, CPW also recommends early consultation with the U.S. Fish and Wildlife Service to comply with the Bald and Golden Eagle Protection Act, the Migratory Bird Treaty Act, and the 2016 U.S. Fish and Wildlife Service Eagle Permits Rules as applicable (USFWS 2016).

### **BALD EAGLE**

**Nest Site:** No Surface Occupancy (NSO) beyond that which historically occurred, within <sup>1</sup>/<sub>4</sub> mile (1320 feet, 400 meters) radius of active nests. No permitted, authorized, or human encroachment activities within <sup>1</sup>/<sub>2</sub> mile (2640 feet, 800 meters) radius of active nest sites from December 1 through July 31. The majority of bald eagle chicks in Colorado have fledged by July 31; however, for late-nesting or potential re-nesting bald eagles, CPW recommends seasonal restrictions beyond July 31 if chicks are still present in the nest. CPW's recommended buffer is more extensive than the National Bald Eagle Management Guidelines (USFWS 2007) due to the generally open habitat used by Colorado's nesting bald eagles.

If surface occupancy cannot be avoided within <sup>1</sup>/<sub>4</sub> mile of the nest AND the nest is located within a Highly Developed Area, then the recommended NSO extends <sup>1</sup>/<sub>8</sub> mile (660 feet, 200 meters) from the nest site. No permitted, authorized, or human encroachment activities within <sup>1</sup>/<sub>4</sub> mile radius of active nests from December 1 through July 31. This buffer recommendation matches the USFWS 2007 Guidelines in the instances where eagles have demonstrated the ability to tolerate previous levels of human encroachment and surface occupancy.

Winter Night Roost and/or Communal Roost: No permitted, authorized, or human encroachment activities within ¼ mile (1320 feet, 400 meters) radius of an active night and/or communal roost from November 15 through March 15 if there is no direct line of sight between the roost and the activity. No permitted, authorized, or human encroachment activities within ½ mile (2640 feet, 800 meters) radius of an active night or communal roost from November 15 through November 15 through March 15 if there is a direct line of sight between the roost and the activity.

If an active winter night roost is located within a Highly Developed Area, then no permitted, authorized, or human encroachment activities within <sup>1</sup>/<sub>8</sub> mile (660 feet, 200 meters) radius from November 15 through March 15 if there is no direct line of sight between the roost and the activity. No permitted, authorized, or human encroachment activities within <sup>1</sup>/<sub>4</sub> mile (1320 feet, 400 meters) radius from November 15 through March 15 if there is a direct line of sight between the roost and the activity. Note: Communal roosts are relatively rare in Colorado and have disproportionately high biological value. Therefore a reduced buffer within a Highly Developed Area does not apply to communal roosts.

If periodic visits (such as oil well maintenance work) to preexisting facilities are required within the buffer zones described above, activity should be restricted to the period between 1000 and 1400 hours from November 15 to March 15.

### **GOLDEN EAGLE**

**Nest Site:** No surface occupancy (beyond that which historically occurred in the area) within <sup>1</sup>/<sub>4</sub> mile (1320 feet, 400 meters) radius of active nests. No permitted, authorized, or human encroachment activities within <sup>1</sup>/<sub>2</sub> mile (2640 feet, 800 meters) radius of active nests from December 15 through July 15.

#### FERRUGINOUS HAWK

**Nest Site:** No surface occupancy (beyond that which historically occurred in the area) within ½ mile (2640 feet, 800 meters) radius of active nests. No permitted, authorized, or human encroachment activities within ½ mile (2640 feet, 800 meters) radius of active nests from February 1 through July 15. This species is especially prone to nest abandonment during incubation if disturbed.

#### **RED-TAILED HAWK**

**Nest Site:** No surface occupancy (beyond that which historically occurred in the area) within  $\frac{1}{3}$  mile radius of active nests. No permitted, authorized, or human encroachment activities within  $\frac{1}{3}$  mile radius of active nests from February 15 through July 15. Some individuals of this species have adapted to urbanization and may exhibit a high tolerance to human habitation and activities within 100 yards of their nest. Development that encroaches on rural nest sites is more likely to cause abandonment.

#### SWAINSON'S HAWK

**Nest Site:** No surface occupancy (beyond that which historically occurred in the area) within <sup>1</sup>/<sub>4</sub> mile (1320 feet, 400 meters) radius of active nests. No permitted, authorized, or human encroachment activities within <sup>1</sup>/<sub>4</sub> mile (1320 feet, 400 meters) radius of active nests from April 1 through July 31. Some members of this species have adapted to urbanization and may tolerate human habitation to within 100 yards of their nest.

#### **PEREGRINE FALCON**

**Nest Site:** No surface occupancy (beyond that which historically occurred in the area) within ½ mile (2640 feet, 800 meters) radius of active nests. No permitted, authorized, or human encroachment activities within ½ mile (2640 feet, 800 meters) mile of the nest cliff(s) from March 15 to July 31. Due to propensity to relocate nest sites, sometimes up to ½ mile (2640 feet, 800 meters) along cliff faces, it is more appropriate to designate 'Nesting Areas' that encompass the cliff system and a ½ mile (2640 feet, 800 meters) buffer around the cliff complex.

### PRAIRIE FALCON

**Nest Site:** No surface occupancy (beyond that which historically occurred in the area) within ½ mile (2640 feet, 800 meters) radius of active nests. No permitted, authorized, or human encroachment activities within ½ mile (2640 feet, 800 meters) radius of active nests from March 15 through July 15.

#### **NORTHERN GOSHAWK**

**Nest Site:** No surface occupancy (beyond that which historically occurred in the area) within ½ mile (2640 feet, 800 meters) radius of active nests. No permitted, authorized, or human encroachment activities within ½ mile (2640 feet, 800 meters) radius of active nests from March 1 through September 15.

#### **OSPREY**

**Nest Site:** No surface occupancy (beyond that which historically occurred in the area) within <sup>1</sup>/<sub>4</sub> mile (1320 feet, 400 meters) radius of active nests. No permitted, authorized, or human encroachment activities within <sup>1</sup>/<sub>4</sub> mile

(1320 feet, 400 meters) radius of active nests from March 15 through August 15. Some osprey populations have habituated and are tolerant to human activity in the immediate vicinity of their nests.

### MEXICAN SPOTTED OWL

No surface occupancy (beyond that which historically occurred in the area) within USFWS designated Critical Habitat and within Protected Activity Center (PAC). No permitted, authorized, or human encroachment activities within ½ mile (2640 feet, 800m) buffer of Protected Activity Center from March 1 through August 31.

### **BURROWING OWL**

**Nest Site:** No permitted, authorized, or human encroachment activities within ½ mile (660 feet, 200 meters) of the nest site during the nesting season March 15 through August 31. For large industrial disturbances (drilling rig, residential construction, etc.), no permitted, authorized, or human encroachment activities within ¼ mile (1320 feet, 400 meters) of the nest site during the nesting season March 15 through August 31. Although Burrowing Owls may not be actively nesting during this entire period, they may be present at burrows up to a month before egg laying and several months after young have fledged. Therefore, it is recommended that efforts to eradicate prairie dogs or destroy abandoned towns not occur between March 15 and October 31 when owls may be present. Because nesting Burrowing Owls may not be easily visible, it is recommended that targeted surveys be implemented to determine if burrows are occupied. More detailed recommendations are available in a document entitled "Recommended Survey Protocol and Actions to Protect Nesting Burrowing Owls," which is available from the CPW.

### DEFINITIONS

Active nest – Any nest that is frequented or occupied by a raptor during the breeding season, or which has been occupied in any of the five previous breeding seasons. Many raptors use alternate nests in various years. Thus, a nest site may be active even if a particular structure is not occupied in a given year.

Winter night roost and/or communal roost – Areas where bald eagles and sometimes golden eagles perch overnight or gather to perch or forage. Individuals, pairs, and groups of eagles demonstrate site fidelity to winter night roosts and communal roosts throughout the winter season and year after year. Communal roost sites have more than 15 eagles for the majority of the roosting season and are usually in large trees (live or dead) that are relatively sheltered from wind and are generally in close proximity to foraging areas. Winter night roost and communal roosts may also serve a social purpose for pair bond formation and communication among eagles.

**Permitted, authorized, or human encroachment activities**- Any activity that brings humans in the area. Examples include construction activities, oil and gas development and production, driving, facilities maintenance, boating, trail access (e.g., hiking, biking), etc.

**Surface Occupancy** – Any physical object that is intended to remain on the landscape permanently or for a significant amount of time. Examples include houses, oil and gas wells, tanks, wind turbines, solar developments, roads, tracks, trails, etc.

**Highly Developed Area** – An area where existing density from the cumulative development of oil and gas facilities, home sites, subdivisions, commercial buildings, malls, apartment complexes, gravel pit operations, etc. exceed 10 or more daily occupied facilities within a <sup>1</sup>/<sub>4</sub> mile (1320 feet, 400 meters) radius of the nest. Determination of whether or not a nest site is within a highly developed area will be done in consultation with CPW.

**Mexican Spotted Owl Critical Habitat** – Critical habitat is defined as areas of land and water with physical and biological features that are essential to the conservation of a threatened or endangered species, and that may require special management considerations or protection. Defined by U.S. FWS Final Rule 2004.

**Mexican Spotted Owl Protected Activity Center (PAC)** – An area established around an owl nest (or sometimes roost) site, for the purpose of protecting that area. Management of these areas is largely restricted to managing for forest-health objectives.

### CONTACT

For further information contact: Liza Rossi Bird Conservation Coordinator Colorado Parks and Wildlife 925 Weiss Drive Steamboat Springs, CO 80487 Phone: 970-871-2861 Email: liza.rossi@state.co.us

### REFERENCES

- Bechard, M.J., and J.K. Schmutz. 1995. Ferruginous Hawk (*Buteo regalis*), The Birds of North America Online (A. Poole, Ed.). Ithaca: Cornell Lab of Ornithology; Retrieved from the Birds of North America Online: <u>http://bna.birds.cornell.edu/bna/species/172</u>
- Buehler, D.A. 2000. Bald Eagle (*Haliaeetus leucocephalus*), The Birds of North America Online (A. Poole, Ed.). Ithaca: Cornell Lab of Ornithology; Retrieved from the Birds of North America Online: <u>http://bna.birds.cornell.edu/bna/species/506</u>
- Call, M. 1979. Habitat management guides for birds of prey. Technical Note No.338, U.S. Bureau of Land Management, Denver Service Center, Denver, CO. 69pp. Energy Research and Development Administration (ERDA). 1977. EIA for CUI Venture application for geothermal loan guarantee (Beryl and Lund, Utah). EIA/GE/77-8. Washington, D.C. 109pp.
- England, A.S., M.J. Bechard, and C.S. Houston. 1997. Swainson's Hawk (*Buteo swainsoni*), The Birds of North America Online (A. Poole, Ed.). Ithaca: Cornell Lab of Ornithology; Retrieved from the Birds of North America Online: <u>http://bna.birds.cornell.edu/bna/species/265</u>
- Greater Yellowstone Bald Eagle Working Group. 1996. Greater Yellowstone bald eagle management plan: 1995 update. Greater Yellowstone Bald Eagle Working Group, Wyoming Game & Fish Dept., Lander WY 82520. 47pp.
- Grier, J.W., F.J. Gramlich, J. Mattisson, J.E. Mathisen, J.V. Kussman, J.B. Elder, and N.F. Green. 1983. The bald eagle in the northern United States. Bird Cons. 144-66.

- Haug, E.A., B.A. Millsap, and M.S. Martell. 1993. Burrowing Owl (*Athene cunicularia*), The Birds of North America Online (A. Poole, Ed.). Ithaca: Cornell Lab of Ornithology; Retrieved from the Birds of North America Online: <u>http://bna.birds.cornell.edu/bna/species/061</u>
- Holmes, Tamara L. 1993. Behavioral responses of grassland raptors to human disturbance. MS Thesis. Colorado State University, Fort Collins. 62pp.
- Holthuijzen, A.M.A., W.G. Eastland, A.R. Ansell, M.N. Kochert, R.D. Williams, and L.S. Young. 1990. Effects of blasting on behavior and productivity of nesting prairie falcons. Wildl. Soc. Bull. 18:270-281.
- Kochert, M. N., K. Steenhof, C. L. Mcintyre, and E. H. Craig. 2002. Golden Eagle (*Aquila chrysaetos*), The Birds of North America Online (A. Poole, Ed.). Ithaca: Cornell Lab of Ornithology; Retrieved from the Birds of North America Online: <u>http://bna.birds.cornell.edu/bna/species/684</u>
- Martin, D.J. 1973. Selected aspects of burrowing owl ecology and behavior. Condor 75:446-456.
- Northern States Bald Eagle Recovery Team. 1983. Northern States Bald Eagle Recovery Plan. U.S. Fish and Wildlife Service. 75pp.
- Olendorff, R. R., and W.D. Zeedyk. 1978. Land management for the conservation of endangered birds. Pages 419-428 in S.A. Temple, ed. *Endangered birds*. University of Wisconsin Press, Madison, Wisconsin.
- Poole, A.F., R.O. Bierregaard, and M.S. Martell. 2002. Osprey (*Pandion haliaetus*), The Birds of North America Online (A. Poole, Ed.). Ithaca: Cornell Lab of Ornithology; Retrieved from the Birds of North America Online: <u>http://bna.birds.cornell.edu/bna/species/683</u>
- Preston, C.R., and R.D. Beane. 1993. Red-tailed Hawk (*Buteo jamaicensis*), The Birds of North America Online (A. Poole, Ed.). Ithaca: Cornell Lab of Ornithology; Retrieved from the Birds of North America Online: <u>http://bna.birds.cornell.edu/bna/species/052</u>
- Reynolds, R., R.T. Graham, H.M. Reiser. 1992. Management recommendations for the northern goshawk in the southwestern United States. Gen. Tech. Rep. RM-217. Fort Collins, CO. U.S. Dept. of Agri., Forest Service, Rocky Mountain Forest and Range Experiment Station. 90pp.
- Richardson, C.T. and C.K. Miller. 1997. Recommendations for protecting raptors from human disturbance: a review. Wildl. Soc. Bull. 25(3):634-638.
- Rocky Mountain/Southwest Peregrine Falcon Recovery Team. 1984. American peregrine falcon Rocky /Southwest population recovery plan. U.S. Fish and Wildlife Serv. 105pp.
- Squires, J.R., S.H. Anderson, and R. Oakleaf. 1993. Home range size and habitat-use patterns of nesting prairie falcons near oil developments in northeastern Wyoming. J. Field Ornithol. 64:1-10.

- Steenhof, Karen. 1998. Prairie Falcon (*Falco mexicanus*), The Birds of North America Online Poole, Ed.). Ithaca: Cornell Lab of Ornithology; Retrieved from the Birds of North America Online: <u>http://bna.birds.cornell.edu/bna/species/346</u>
- Squires, J.R., and R.T. Reynolds. 1997. Northern Goshawk (Accipiter gentilis), The Birds of North America Online (A. Poole, Ed.). Ithaca: Cornell Lab of Ornithology; Retrieved from the Birds of North America Online: <u>http://bna.birds.cornell.edu/bna/species/298</u>
- Suter, G.W. and J.L. Joness. 1981. Criteria for Golden Eagle, Ferruginous Hawk, and Prairie Falcon nest site protection. J. Raptor Res. 15(1):12-18.
- Swenson, J.E. 1979. Factors affecting status and reproduction of ospreys in Yellowstone National Park. J. Wildl. Manage. 43:595-601.
- Thomsen, L. 1971. Behavior and ecology of burrowing owls on the Oakland Municipal Airport. Condor 73:177-192.
- U.S. Fish and Wildlife Service. 2004. Endangered and Threatened Wildlife and Plants; Final Designation of Critical Habitat for the Mexican Spotted Owl. 50 CFR Part 17. Federal Register Vol. 69, No. 168 August 31, 2004.
- U.S. Fish and Wildlife Service. 2007. National Bald Eagle Management Guidelines. http://www.fws.gov/migratorybirds/issues/BaldEagle/NationalBaldEagleManagementGuidelines.pdf
- U.S. Fish and Wildlife Service. 2012. Final Recovery Plan for the Mexican Spotted Owl (*Strix occidentalis lucida*), First Revision. U.S. Fish and Wildlife Service, Albuquerque, New Mexico, USA. 413 pp.
- U.S. Fish and Wildlife Service. 2016. Eagle Permits; Revisions to Regulations for Eagle Incidental Take and Take of Eagle Nests. 50 CFR Parts 13 and 22. Federal Register Vol. 81 No. 242, December 16, 2016.
- White, C.M., N.J. Clum, T.J. Cade, and W.G. Hunt. 2002. Peregrine Falcon (*Falco peregrinus*), The Birds of North America Online (A. Poole, Ed.). Ithaca: Cornell Lab of Ornithology; Retrieved from the Birds of North America Online: <u>http://bna.birds.cornell.edu/bna/species/660</u>



### Recommended Buffer Zones and Seasonal Restrictions Around Raptor Use Sites

Species and Use	Buffer	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
Bald Eagle													
ACTIVE NEST - No Surface Occupancy	1⁄4 Mile												
ACTIVE NEST - No Human Encroachment	½ Mile												
ACTIVE NEST HIGHLY DEVELOPED AREA - No Surface Occupancy	⅓ Mile												
ACTIVE NEST HIGHLY DEVELOPED AREA - No Human Encroachment	¼ Mile												
ACTIVE WINTER NIGHT ROOST without a direct line of sight- No Human Encroachment	¼ Mile												
ACTIVE WINTER NIGHT ROOST with a direct line of sight - No Human Encroachment	½ Mile												

Species and Use	Buffer	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
Golden Eagle													
ACTIVE NEST - No Surface Occupancy	1⁄4 Mile												
ACTIVE NEST - No Human Encroachment	½ Mile												
Osprey													
ACTIVE NEST - No Surface Occupancy	1⁄4 Mile												
ACTIVE NEST - No Human Encroachment	¼ Mile												
Ferruginous Hawk													
ACTIVE NEST - No Surface Occupancy	½ Mile												
ACTIVE NEST - No Human Encroachment	½ Mile												
Red-tailed Hawk													
ACTIVE NEST - No Surface Occupancy	⅓ Mile												
ACTIVE NEST - No Human Encroachment	<sup>1</sup> / <sub>3</sub> Mile												
Swainson's Hawk													
ACTIVE NEST - No Surface Occupancy	¼ Mile												
ACTIVE NEST - No Human Encroachment	¼ Mile												

Species and Use	Buffer	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
Peregrine Falcon													
ACTIVE NEST - No Surface Occupancy	½ Mile												
ACTIVE NEST - No Human Encroachment	½ Mile												
Prairie Falcon													
ACTIVE NEST - No Surface Occupancy	½ Mile												
ACTIVE NEST - No Human Encroachment	½ Mile												
Northern Goshawk													
ACTIVE NEST - No Surface Occupancy	½ Mile												
ACTIVE NEST - No Human Encroachment	½ Mile												
Burrowing Owl													
ACTIVE NEST - No Human Encroachment	1/8 Mile												
ACTIVE NEST INDUSTRIAL ACTIVITIES -													
No Human Encroachment	1⁄4 Mile												
Recommend against prairie-dog eradication or conduct surveys													

Species and Use	Buffer	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
Mexican Spotted Owl													
Critical Habitat and Protected Activity Center (PAC) - No Surface Occupancy													
Critical Habitat and Protected Activity Center (PAC) - No Human Encroachment	½ Mile												
		= time period for which seasonal restrictions are in place.											

### APPENDIX F

### RECOMMENDED SURVEY PROTOCOL AND ACTIONS TO PROTECT NESTING BURROWING OWLS



### **RECOMMENDED SURVEY PROTOCOL AND ACTIONS TO PROTECT NESTING BURROWING OWLS**

Western Burrowing Owls (*Athene cunicularia hypugaea*) are commonly found in prairie dog towns throughout Colorado. Burrowing owls require prairie dog or other suitable burrows (e.g. badger, Wyoming ground squirrel) for nesting and roosting. Western burrowing owls breed throughout the western United States, southern Canada, and northern Mexico and winter in the southern United States and throughout Mexico. Colorado's burrowing owls are mostly migratory but overwintering owls have been documented.

Federal and state laws prohibit the harming or killing of burrowing owls and the destruction of active nests. It is quite possible to inadvertently kill burrowing owls during prairie dog poisoning projects, removal of prairie dogs, destruction of burrows and prairie dogs using a concussive device, or during earth moving for construction. Because burrowing owls often hide in burrows when alarmed, it is not practical to haze the birds away from prairie dog towns prior to prairie dog poisoning/removal, burrow destruction, or construction activity. Because of this, Colorado Parks and Wildlife (CPW) recommends surveying prairie dog towns for burrowing owl presence before potentially harmful activities are initiated.

The following guidelines are intended as advice on how to determine if burrowing owls are present in a prairie dog town, and what to do if burrowing owls are detected. These guidelines do not guarantee that burrowing owls will be detected if they are present. However, adherence to these guidelines will greatly increase the likelihood of detection.

### Seasonal Timing

Burrowing owls typically arrive on breeding grounds in Colorado in late March or early April, with nesting beginning a few weeks later. Active nesting has been recorded and may be expected from late March through early August. Adults and young may remain at prairie dog towns until migrating to wintering grounds in late summer or early autumn.

Surveys should be conducted during times when burrowing owls may be present on prairie dog towns. Although nesting most commonly occurs March 15<sup>th</sup> through August 31<sup>st</sup>, burrowing owls may be present at burrows several months after young have fledged. Therefore, CPW recommends that targeted surveys should be conducted for any activities resulting in ground disturbing destruction or poisoning of burrows between March 15<sup>th</sup> and October 31<sup>st</sup>. Note, there is a small chance to encounter burrowing owls in Colorado during the winter. Although CPW does not necessarily recommend surveys between November 1 and March 14, if burrowing owls are known to be present in an area in the winter, CPW's recommendations apply.

### **Daily Timing**

Burrowing owls may be active throughout the day and night; however, peaks in activity in the morning and evening make these the best times for conducting surveys (Conway and Simon 2003). Surveys should be

conducted in the early morning (1/2 hour before sunrise until 10:00 am or until the temperature reaches 80 degrees F, whichever is earlier) and early evening (2 hours before sunset until 1/2 hour after sunset).

### Number and locations of survey points

Burrowing owls are most frequently located visually; thus, obtaining a clear view of the entire prairie dog town is necessary. For small prairie dog towns that can be adequately viewed in their entirety from a single location, only one survey point is necessary. The survey point should be selected to provide unobstructed views (with binoculars if necessary) of the entire prairie dog town (burrow mounds and open areas between) and all nearby structures that may provide perches (e.g., fences, utility poles, etc.). For prairie dog towns that cannot be entirely viewed from a single location because of terrain or size, enough survey points should be established to provide unobstructed views of the entire prairie dog town and nearby structures that may provide perches. Survey locations should be separated by approximately 800 meters (1/2 mile), or as necessary to provide adequate visual coverage of the entire prairie dog town.

### Number of surveys to conduct

Detection of burrowing owls can be highly variable and multiple visits to each site should be conducted to maximize the likelihood of detecting owls if they are present. At least three surveys should be conducted at each survey point. Surveys should be separated by approximately one week.

### **Conducting the survey**

- <u>Avoid flushing owls prior to initiating survey</u>: Burrowing owls are very likely to either flush or hide in a burrow if approached at distances closer than 200 m, especially if observers are on foot or ATVs (versus within a vehicle). Therefore, the first survey point should be located outside the prairie dog colony, with observers surveying ahead of their route if it is necessary to enter the colony. If observers must exit their vehicle, they should keep a low profile and recognize that flush distance may increase for observers on foot.
- <u>Weather Considerations</u>: Because poor weather conditions may impact the ability to detect burrowing owls, surveys should only be conducted on days with little or no wind (less than 12 mph) and no precipitation or fog.
- <u>Passive surveys:</u> Most burrowing owls are detected visually. At each survey location, the observer should *visually* scan the area with binoculars and then spotting scope, if possible, to detect any owls that are present. Some burrowing owls may be detected by their call, so observers should also *listen* for burrowing owls while conducting the survey.

Burrowing owls are frequently detected soon after initiating a survey (Conway and Simon 2003). However, some burrowing owls may not be detected immediately because they are inconspicuous, are inside of burrows, or are not present on the site when the survey is initiated. We recommend that surveys be conducted for at least 10 minutes at each survey location.

• <u>Call-broadcast surveys</u>: To increase the likelihood of detecting burrowing owls, if present, we recommend incorporating call-broadcast methods into burrowing owl surveys. Conway and Simon (2003) detected 22% more burrowing owls at point-count locations by broadcasting the primary male (*coo-coo*) and alarm (*quick-quick-quick*) calls during surveys. Although call-broadcast may increase the probability of detecting burrowing owls, most owls will still be detected visually.

We recommend the following 10-minute timeline for incorporating call-broadcast methods (Conway and Simon 2003, C. Conway pers. comm.). The observer should scan the area for burrowing owls during the entire survey period. If the intent is to document which burrows are used for nesting, the initial silent period may need to be lengthened so that observers have the opportunity to note as many owl spatial locations as possible before playing calls (owls may move in response to calls).

- 3 minutes of silence
- o 30 seconds call-broadcast of primary call (coo-coo)
- o 30 seconds silence
- 30 seconds call-broadcast of primary call (*coo-coo*)
- o 30 seconds silence
- 0 30 seconds call-broadcast of alarm call (*quick-quick-quick*)
- 30 seconds silence
- 4 minutes of silence

Calls can be broadcast from cell phone or mp3 player attached to amplified speakers. Calls should be broadcast loudly, but without distortion. Recordings of this survey sequence (mp3) are available for download at: <u>https://cpw.state.co.us/conservation/Pages/CON-Energy-Land.aspx</u>

Note: The mp3 download includes a 6-minute survey sequence (3 passive (silent) minutes followed by 3 minutes of calls) and should then be followed by 4 additional minutes of passive survey.

• <u>Burrow Searches</u>: If owls are detected in the area, surveyors should search areas that the owls are using to document the nest burrows as well as other actively used burrows. Nest burrows generally have dung lining the entrance of the burrow, with prey remains and collected materials outside the entrance. Nest burrows may have whitewash and regurgitated pellets visible, or they may be visible at a more prominent perch location nearby. Also, note that if owls flush from the nest burrow, they may return to the general area, but often will not return to the specific nest burrow when an observer is present. Example photos of nest burrows are available at: <u>https://cpw.state.co.us/conservation/Pages/CON-Energy-Land.aspx</u>

### **Identification**

Adult burrowing owls are small, approximately 9-11 inches. They are brown with white spotting and white barring on the chest. They have long legs in comparison to other owls and are frequently seen perching on prairie dog mounds or other suitable perches (e.g., fence posts, utility poles) near prairie dog towns. Juvenile burrowing owls are similar to adults but have a white/buff colored chest that lacks barring. General information about burrowing owls is available from the Colorado Parks and Wildlife website:

https://cpw.state.co.us/learn/Pages/SpeciesProfiles.aspx

Additional identification tips and information are available from the Cornell Lab of Ornithology and the U.S. Geological Survey Patuxent Wildlife Research Center websites below:

https://www.allaboutbirds.org/guide/Burrowing\_Owl/overview

http://www.mbr-pwrc.usgs.gov/id/framlst/i3780id.html

### What To Do If Burrowing Owls Are Present

If burrowing owls are confirmed to be nesting in a prairie dog town (or other suitable burrow), there are two options before proceeding with planned activities:

- 1. Wait to initiate activities until after October 31<sup>st</sup> or until it can be confirmed that the owls have left the prairie dog town. Although burrowing owls may not be actively nesting during this entire period, they may be present at burrows several months after young have fledged.
- 2. If burrowing owls are nesting at the site and waiting to initiate activities is not possible, carefully monitor the activities of the owls, noting and marking which burrows they are using in order to document the nesting burrow. This is not easy to accomplish and will require considerable time, as the owls may use several burrows in a prairie dog town, and their activity footprint spreads as juvenile owls age and begin to use areas farther from the nest. When all active burrowing owl burrows have been located and marked, surface activity can proceed in areas greater than 660 feet (200 meters) from the nest burrow. Activity closer than 660 feet may endanger the owls. If possible, avoid the satellite use burrows as well. If the actual nest burrow cannot be determined, then buffer the entire group of burrows in use. NOTE: For large industrial disturbances (e.g. drilling rigs, residential construction, etc.), CPW recommends a larger buffer of ¼ mile (1320 feet, 400 meters) from the nest burrow. CPW recommends no surface disturbance within nesting buffers from March 15<sup>th</sup> through August 31<sup>st</sup>.
- 3. If the planned activity includes active poisoning or killing of prairie dogs (or ground squirrels) or ground-disturbing destruction of burrows, CPW recommends delaying activities until after it can be confirmed that the owls have left the prairie dog colony. CPW recommends surveys of prairie dog towns March 15<sup>th</sup> through October 31<sup>st</sup> to confirm absence of burrowing owls.

### **Reference**

Conway, C. J. and J. C. Simon. 2003. Comparison of detection probability associated with Burrowing Owl survey methods. Journal of Wildlife Management 67:501-511.

revised 04/06/2021