NATURAL RESOURCES REPORT

Overlook at Homestead

El Paso County, Colorado

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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; Web-based 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[1]	Soil Name	Occurrence	Characteristics	Drainage Class	Groundwater Depth	Hydric, Hydric Inclusions, or Non-hydric[2]
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 Brackett Creek 13 miles southeast of the project site. Brackett Creek merges 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**.

Table 2 – Potentially Impacted Vegetation Communities within the Project Site

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 *Bouteloua hirsuta, Carex spp., Schizachyrium scoparium*, and *Ratibida columnifera*.	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 *Carex nebrascensis*, *Carex praegracilis, Calamagrostis stricta, Deschampsia cespitosa, Eleocharis palustris, Glyceria striata, Juncus arcticus ssp. littoralis, Schoenoplectus pungens*, or *Triglochin maritima*.	Not likely. Wetland impacts will be minimal.

Legend:
1G=Global; S=State
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 out-compete 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 – CPW SAM Wildlife Potential for Occurrence (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
Black-tailed prairie dog	*Cynomys ludovicianus*	Overall range Colony potential occurrence	SC, S3
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
Mule deer	*Odocoileus hemionus*	Overall range Concentration area	n/a
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
Reptilian and Amphibian			
Bullsnake	*Pituophis catenifer sayi*	Overall range	n/a
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 ⅓ mile radius of active red-tailed hawk nest and human encroachment activities are restricted within ⅓ mile radius from February 15 through July 15. Two inactive stick nests were documented within a ½ 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 was observed during field reconnaissance.

Table 5 – Protected Species with the Potential to Occur within 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 ludovicianus*	SC	No	Yes	Low
Plant					
Ute ladies'-tresses orchid	*Spiranthes diluvialis*	FT	No	Yes	Low
Insect					
Monarch butterfly	*Danaus plexippus*	C	No	No	None

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
BGEPA – Bald and Golden Eagle Protection Act; NL - Not Listed, but have other regulatory protections.
Note: Coordination is not required with FWC for federally listed species
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

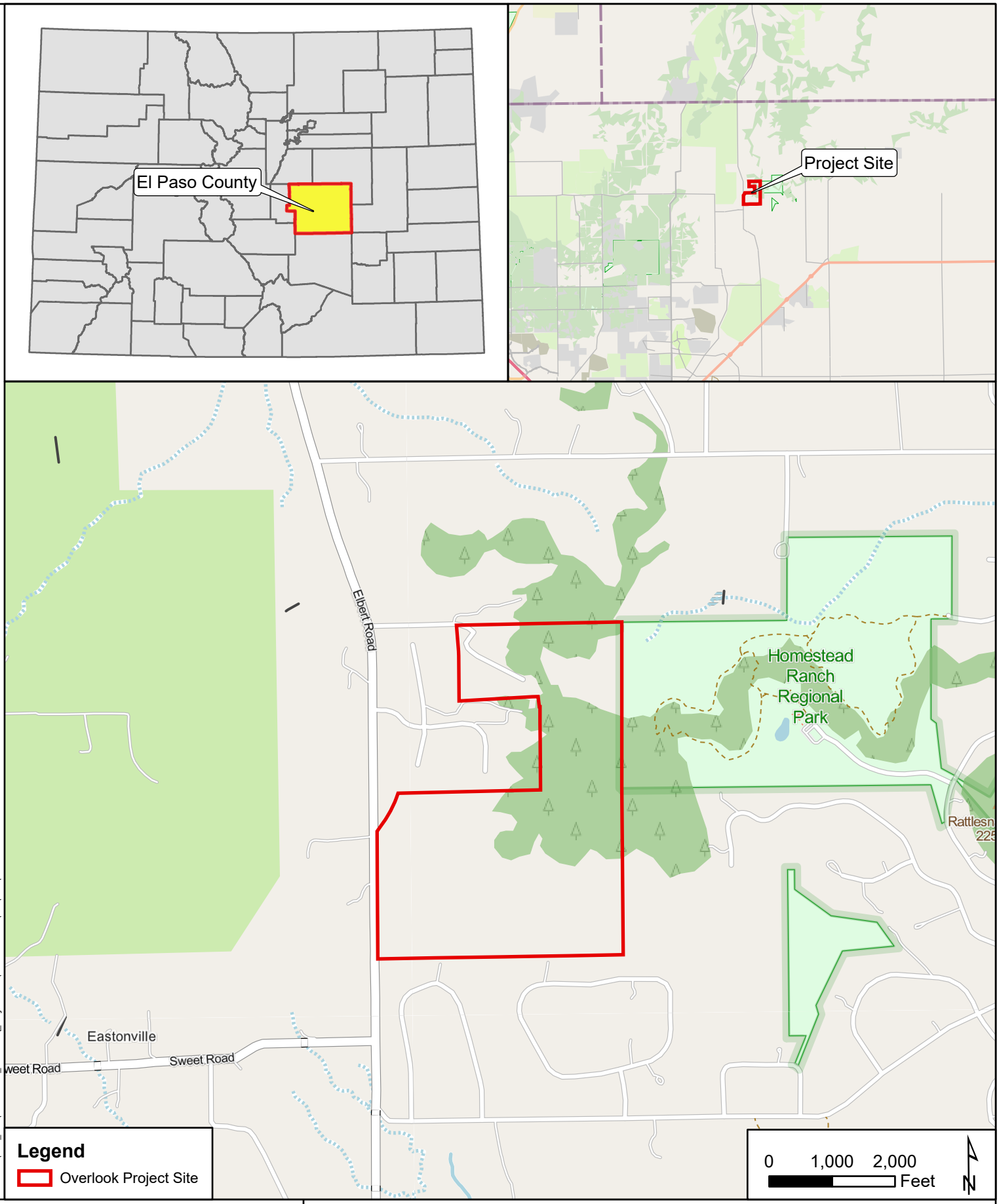
The MBTA was implemented in 1918 to provide protection to birds, including raptors, known to be endemic to the United States, Canada, Mexico, Japan, and Russia during migration. The MBTA prohibits the taking, killing, capturing, selling, trading, and transporting of protected species. The bald eagle (*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.



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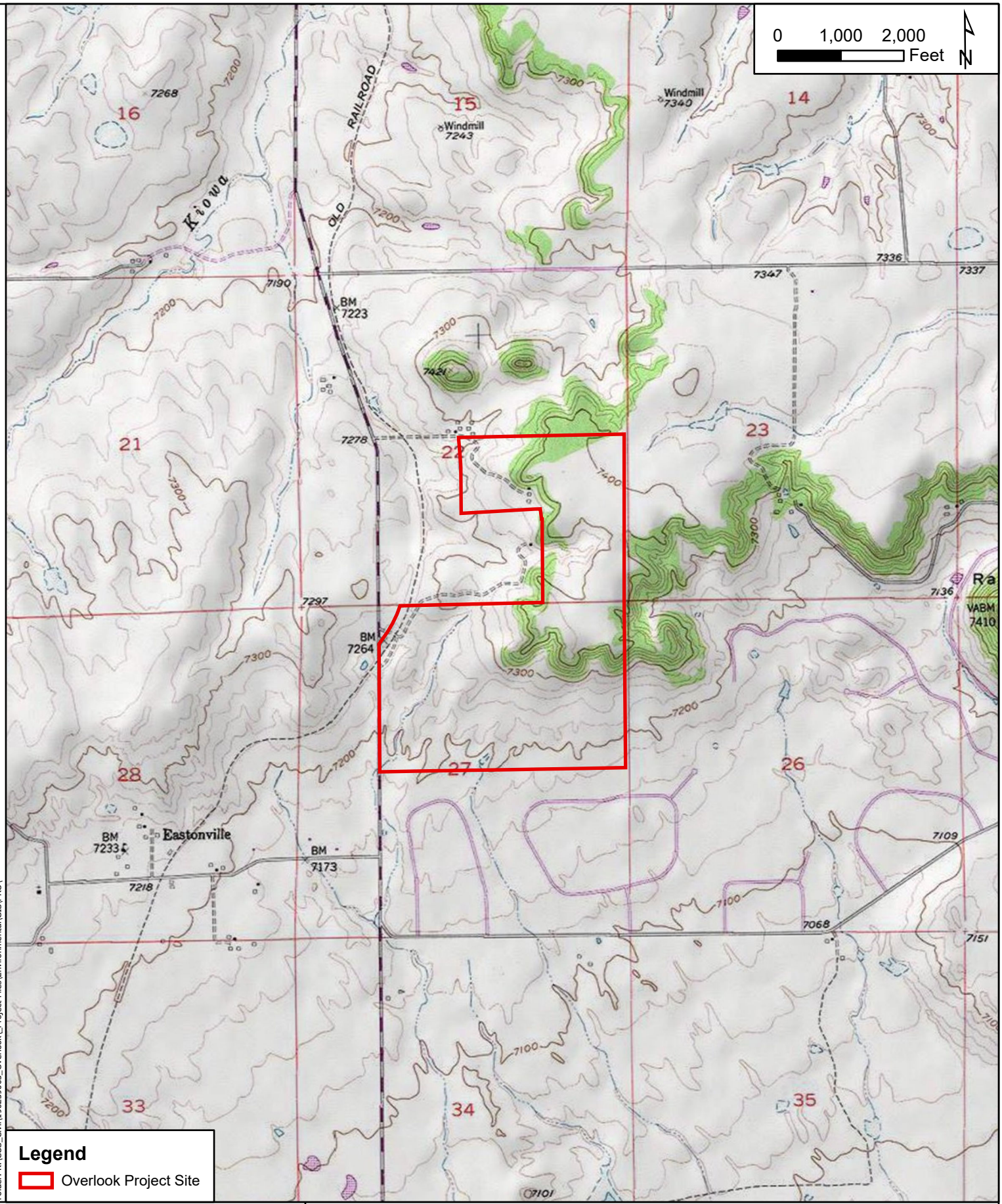
Project Location Map

Overlook at Homestead
El Paso County, Colorado

1 IN = 2,000 FT	PROJECT NUMBER: 196239003	JUNE 2023	FIGURE 1



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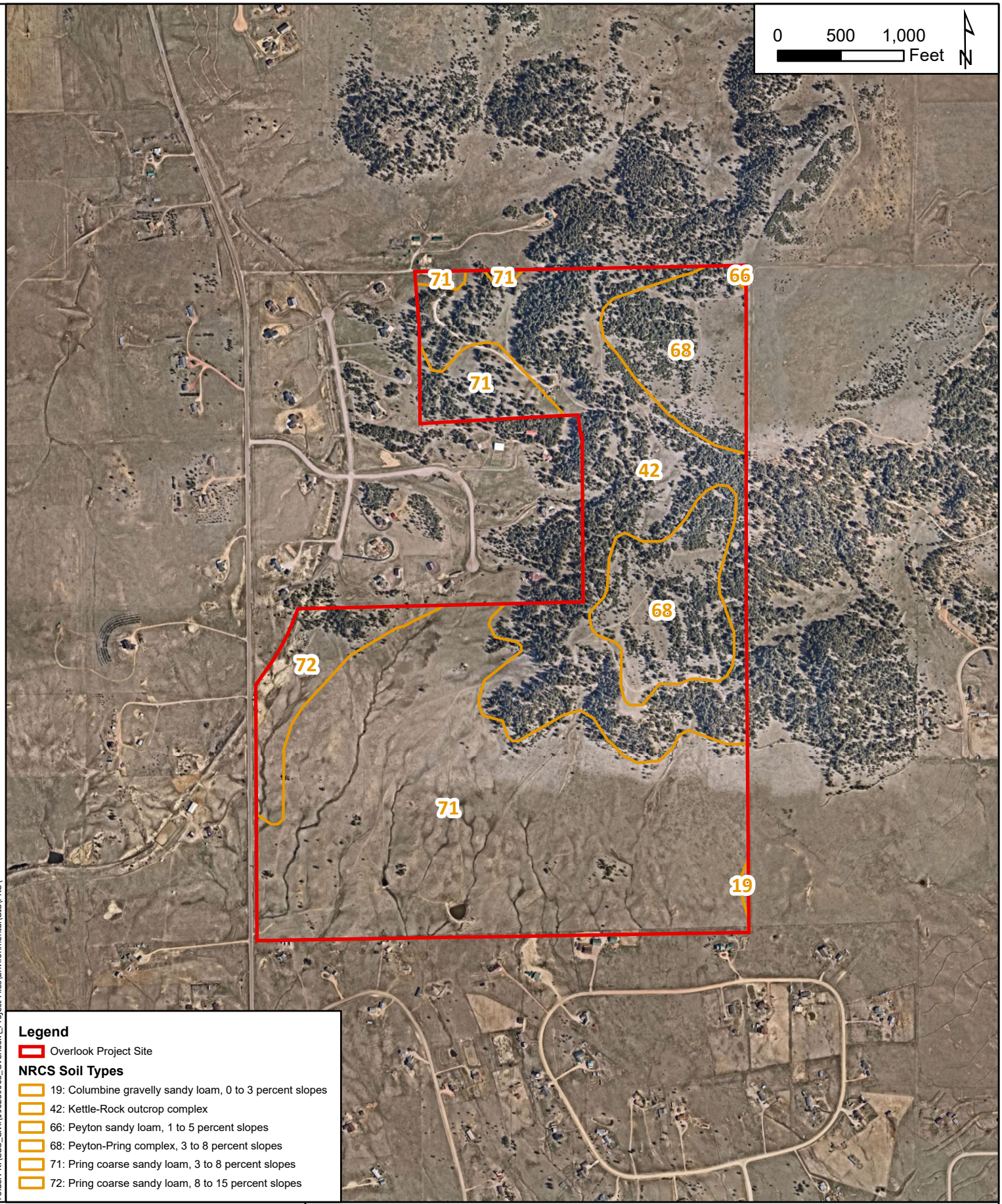
USGS Quad Map

Overlook at Homestead
El Paso County, Colorado

1 IN = 2,000 FT	PROJECT NUMBER: 196239003	JUNE 2023	FIGURE 2



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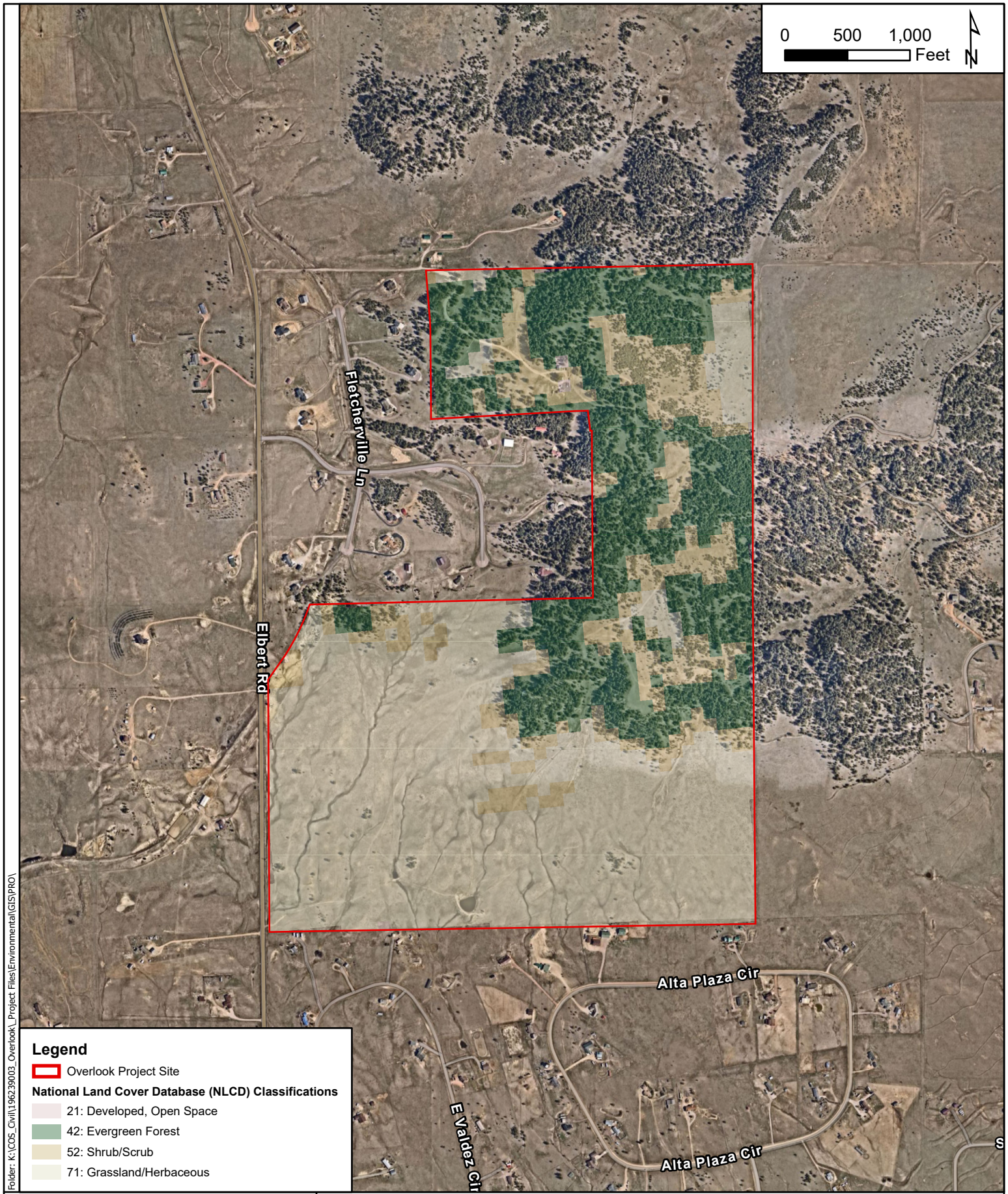
NRCS Soils Map

Overlook at Homestead
El Paso County, Colorado

1 IN = 1,000 FT	PROJECT NUMBER: 196239003	JUNE 2023	FIGURE 3



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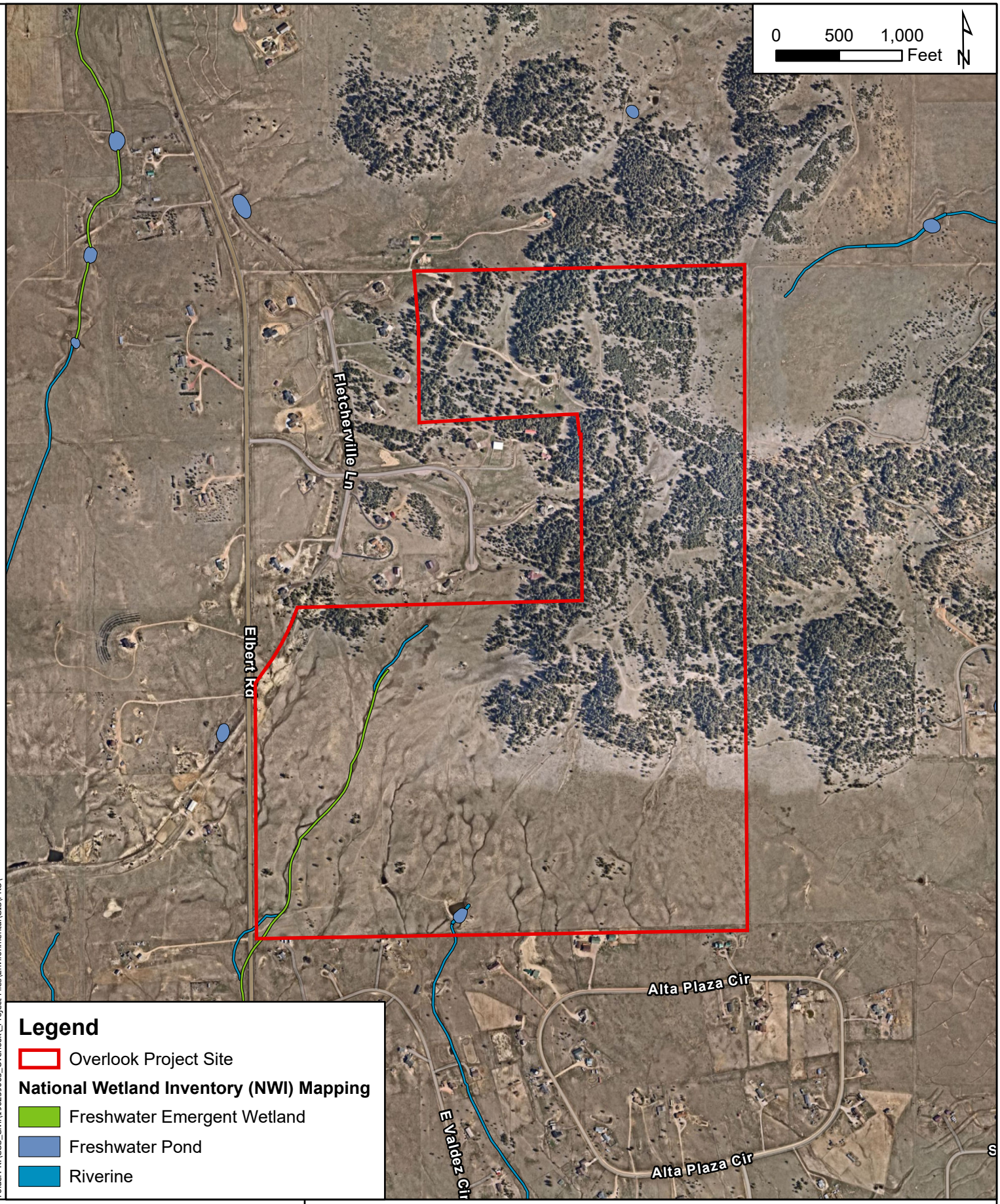
NLCD Map

Overlook at Homestead
El Paso County, Colorado

1 IN = 1,000 FT	PROJECT NUMBER: 196239003	JUNE 2023	FIGURE 4



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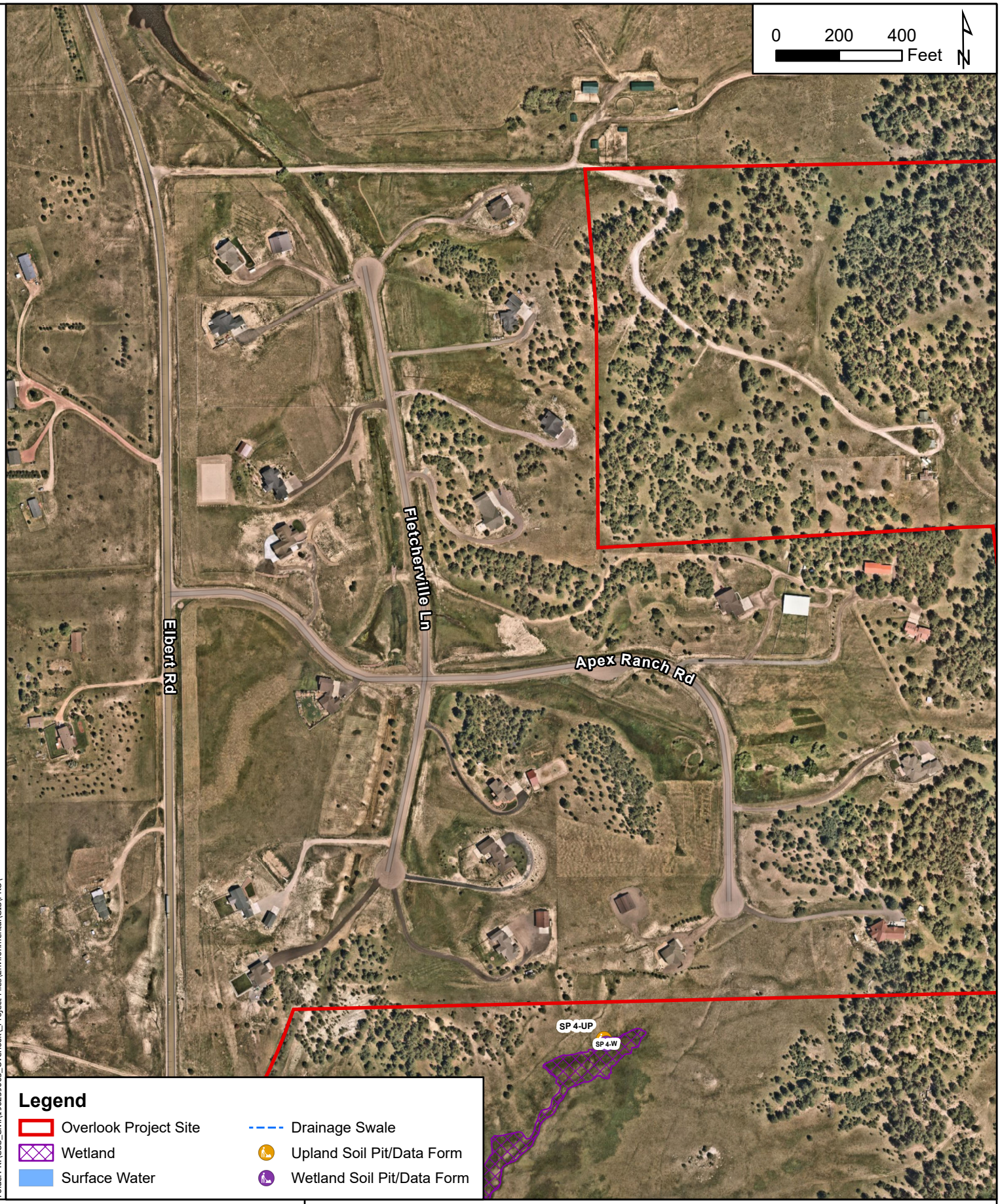
Database Review Map

Overlook at Homestead
El Paso County, Colorado

1 IN = 1,000 FT	PROJECT NUMBER: 196239003	JUNE 2023	FIGURE 5



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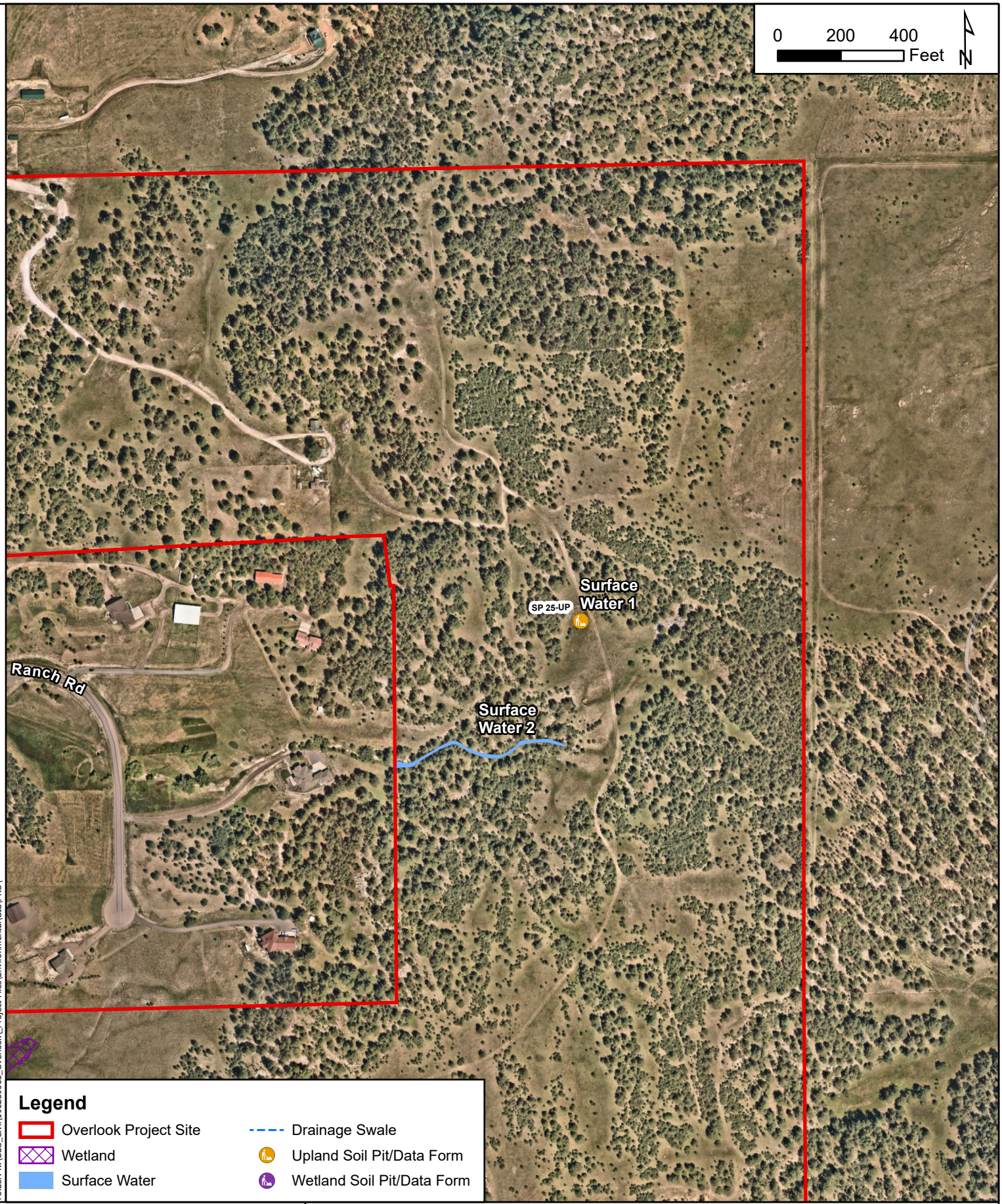
Aquatic Resource Delineation Map

Overlook at Homestead
El Paso County, Colorado

1 IN = 400 FT	*PROJECT NUMBER: 196239003*	*SEPTEMBER 2023*	*PAGE 1 OF 4*	*FIGURE 6*



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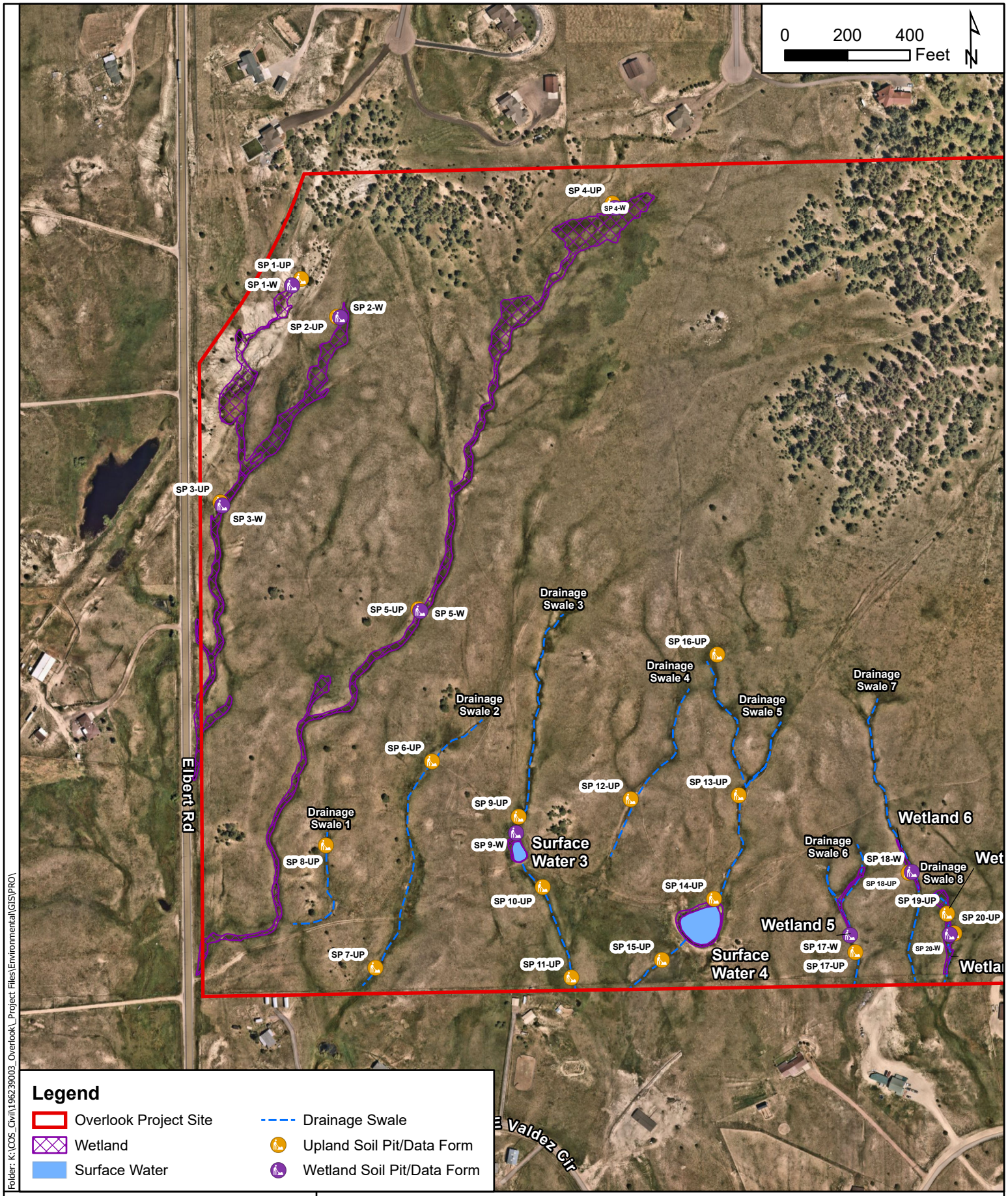
Aquatic Resource Delineation Map

Overlook at Homestead
El Paso County, Colorado

1 IN = 400 FT	PROJECT NUMBER: 196239003	SEPTEMBER 2023	PAGE 2 OF 4	FIGURE 6



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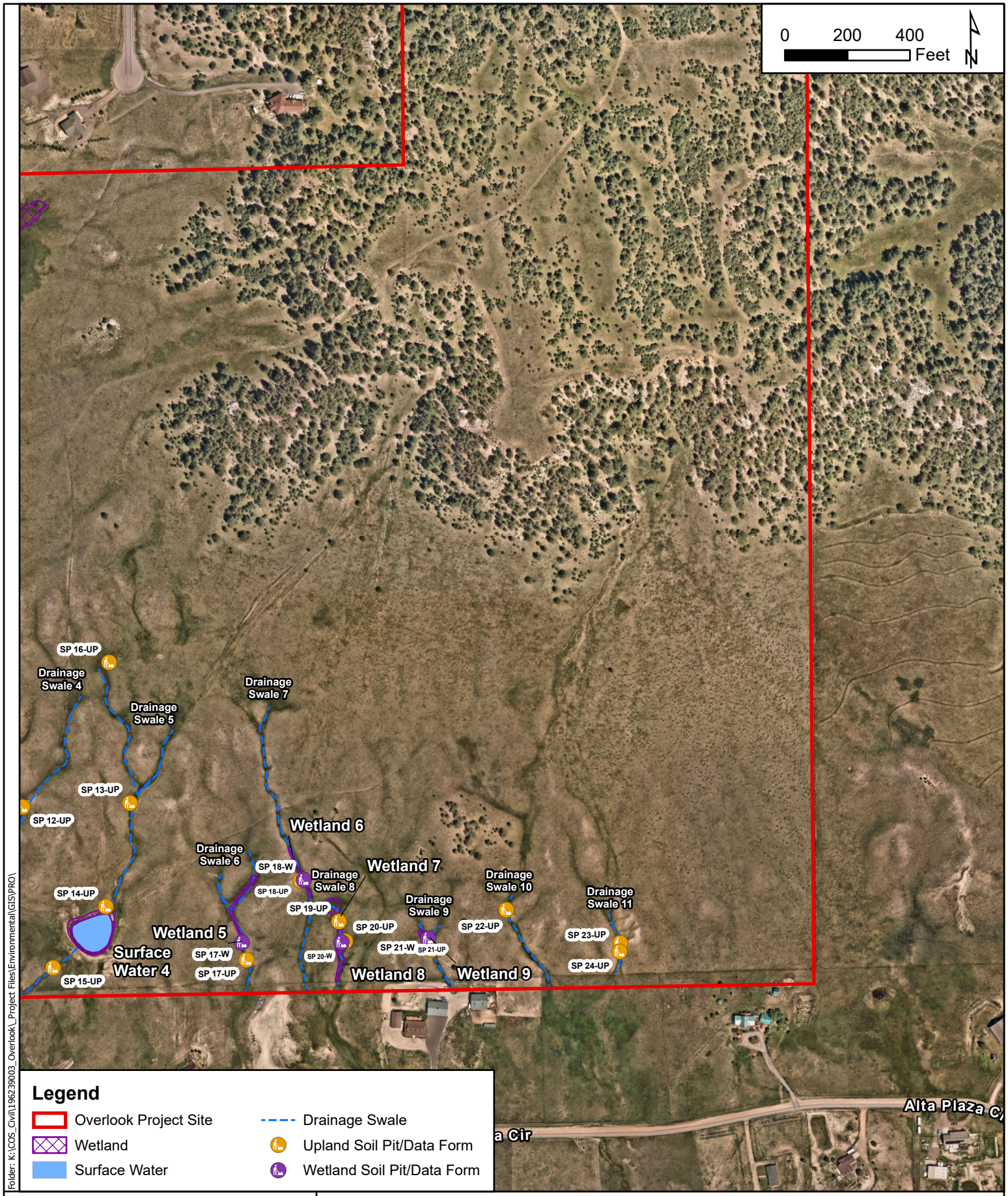
Aquatic Resource Delineation Map

Overlook at Homestead
El Paso County, Colorado

1 IN = 400 FT	PROJECT NUMBER: 196239003	SEPTEMBER 2023	PAGE 3 OF 4	FIGURE 6



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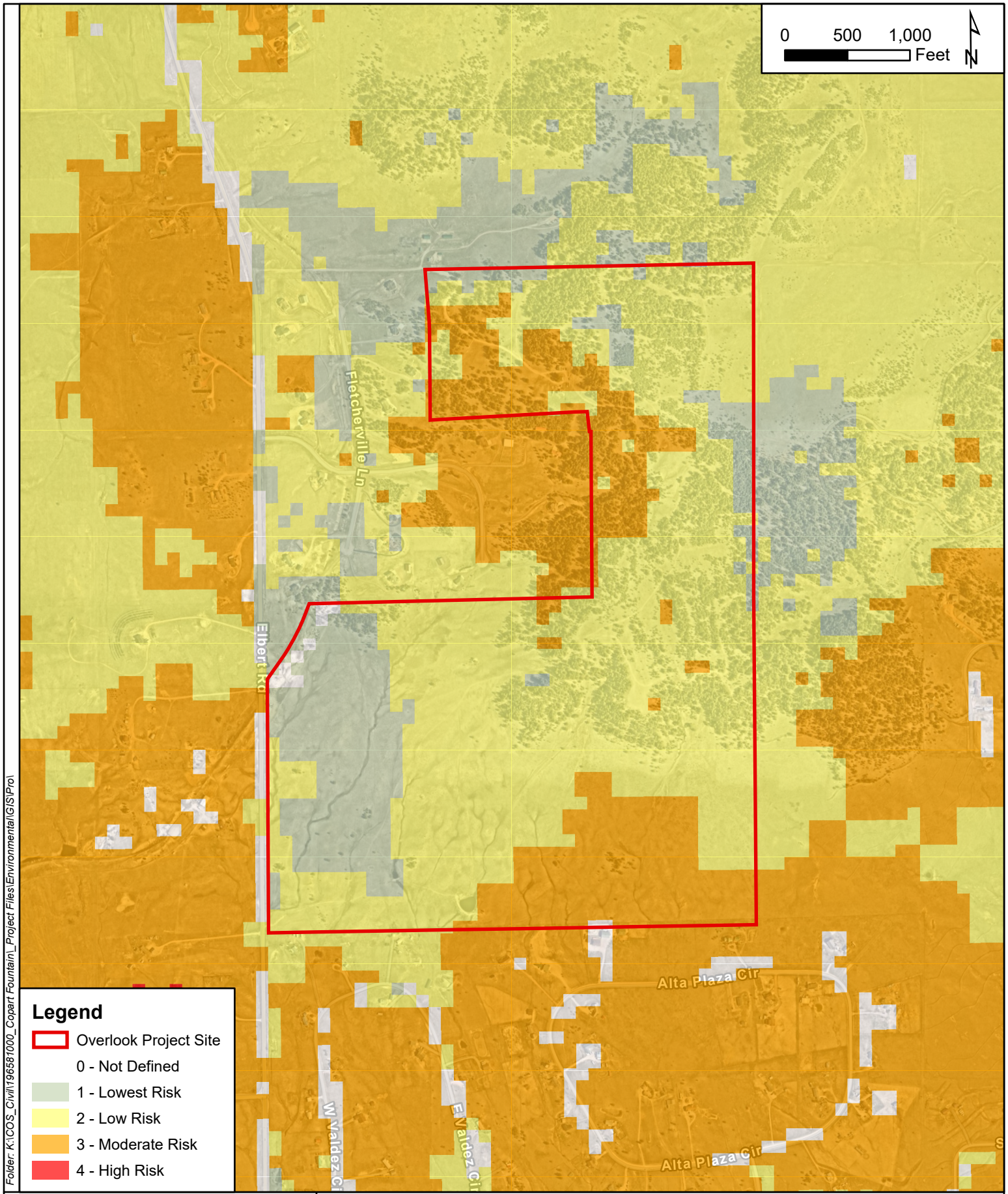
Aquatic Resource Delineation Map

Overlook at Homestead
El Paso County, Colorado

1 IN = 400 FT	*PROJECT NUMBER: 196239003*	*SEPTEMBER 2023*	*PAGE 4 OF 4*	*FIGURE 6*



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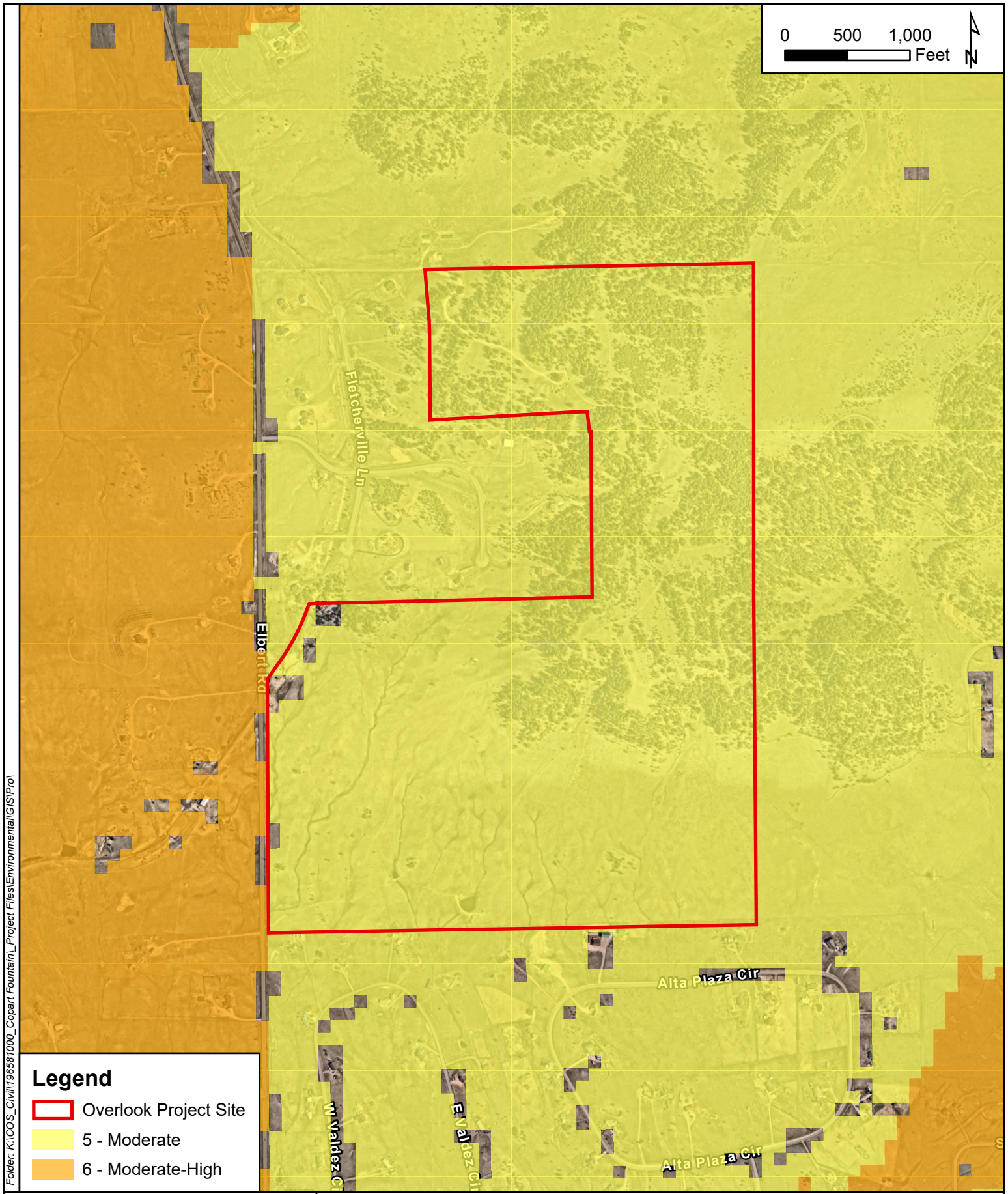
Wildfire Risk Map

Overlook at Homestead
El Paso County, Colorado

1 IN = 1,000 FT	*PROJECT NUMBER: 196239003*	*JUNE 2023*	*FIGURE 7*



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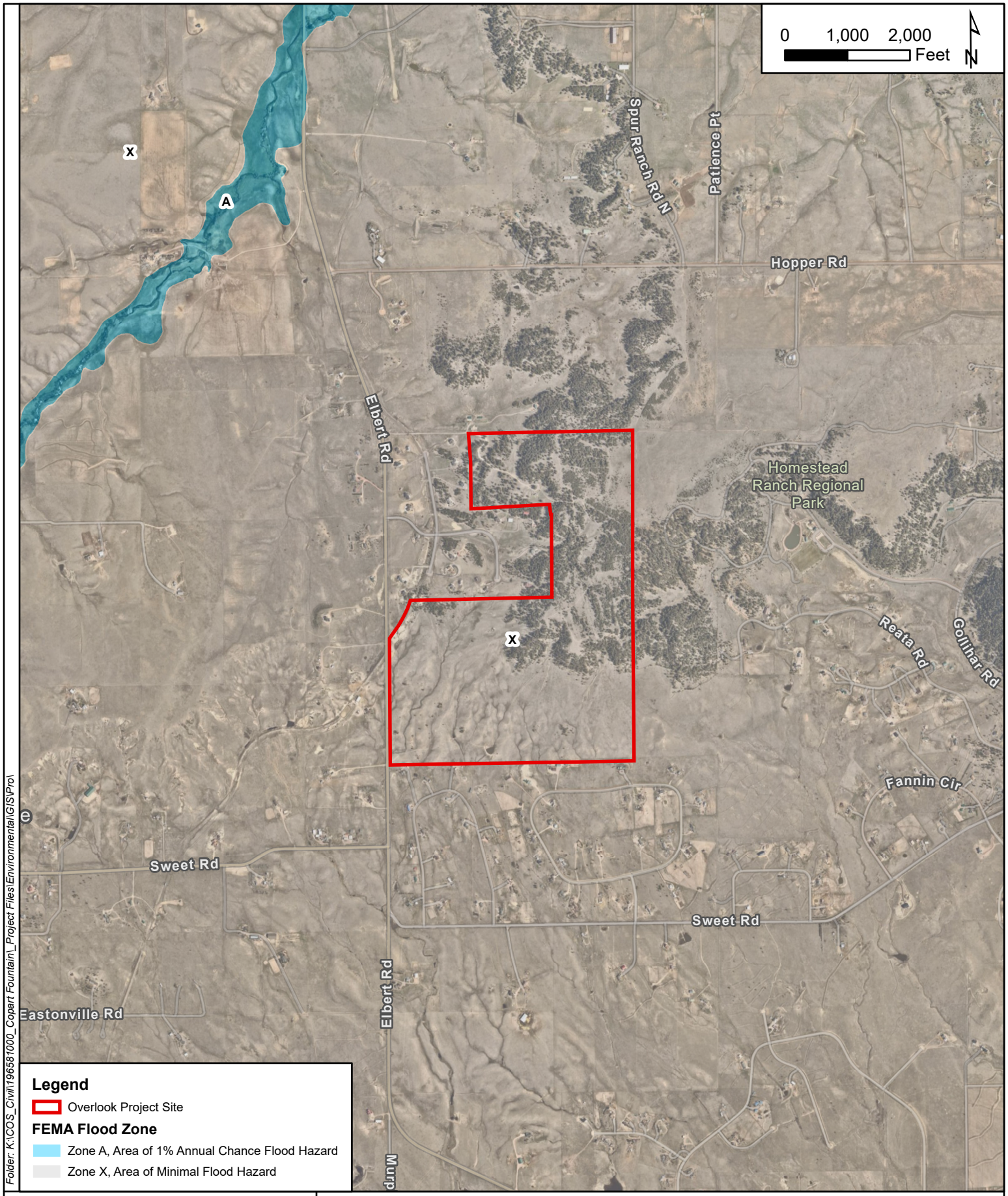
Wildfire Burn Probability Map

Overlook at Homestead
El Paso County, Colorado

1 IN = 1,000 FT	PROJECT NUMBER: 196239003	JUNE 2023	FIGURE 8



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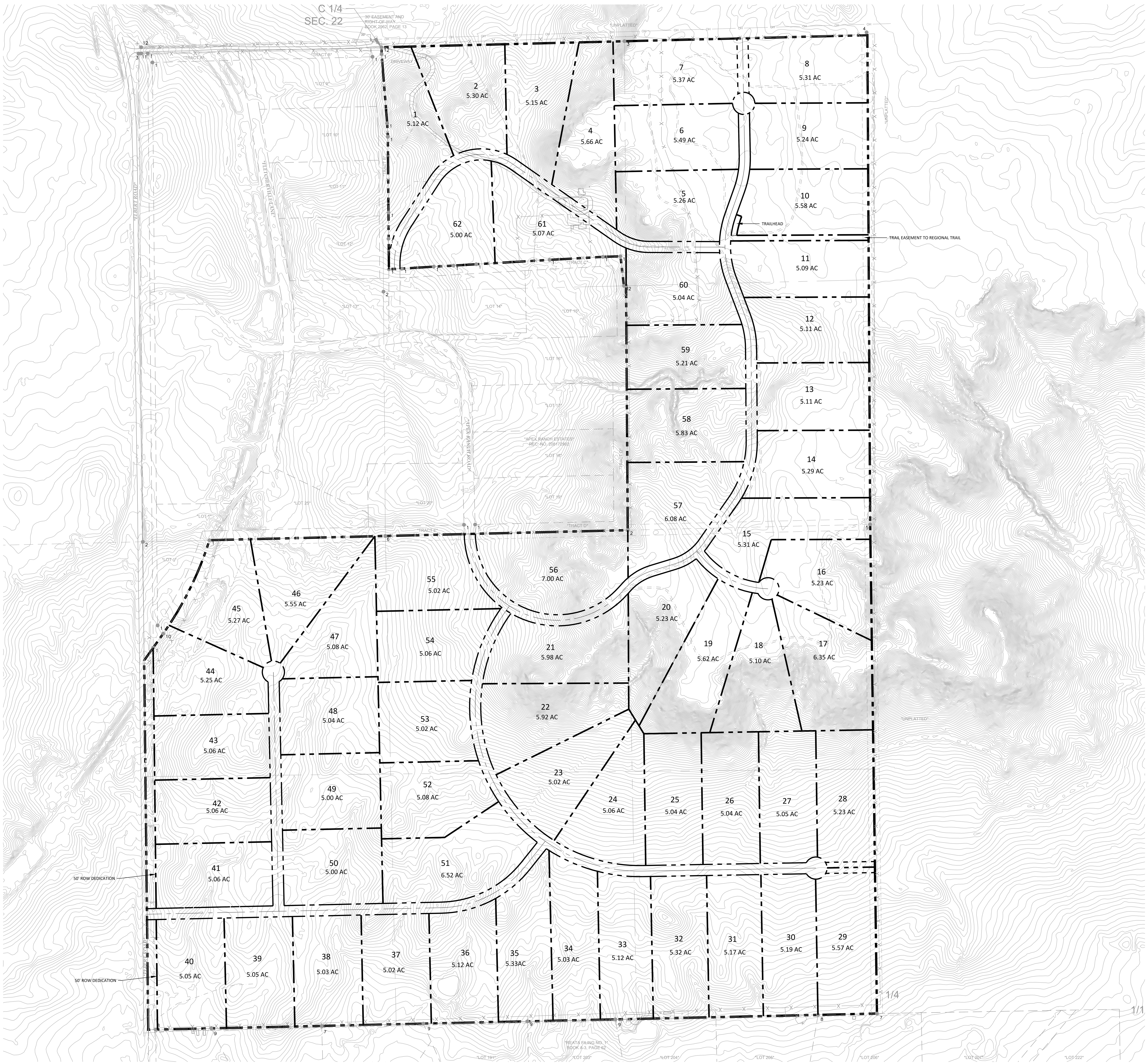
FEMA Flood Hazard Map

Overlook at Homestead
El Paso County, Colorado

1 IN = 2,000 FT	PROJECT NUMBER: 196239003	JUNE 2023	FIGURE 9

APPENDIX A

SITE PLAN



NORTH

0 100 200 400

SCALE: 1" = 200'

NES

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Tel. 719.471.0073
Fax 719.471.0267

www.nescolorado.com

PLANNER / LANDSCAPE ARCHITECT

IN ASSOCIATION WITH

OVERLOOK AT HOMESTEAD

LOT LAYOUT

PROJECT INFO

DATE: 5/30/2023
PROJECT MGR: A. BARLOW
PREPARED BY: B. SWENSON

SEAL

ISSUE INFO

DATE:	BY:	DESCRIPTION:

ISSUE / REVISION

SHEET TITLE

SHEET NUMBER

1

1 OF 1

PLAN FILE #

APPENDIX B

AQUATIC RESOURCE DELINEATION REPORT

Aquatic Resource Delineation Report

Overlook at Homestead,

El Paso County, Colorado

September 22, 2023

Kimley»Horn

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Colorado Springs, Co 80903

Prepared for:

PROTERRA PROPERTIES

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

Table of Contents

Figures

Appendices

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

Table 2. Vegetative Characteristics of Wetland Systems Within the Project Site

Feature ID	Dominant Vegetation	Boundary Characteristics	Other Notes
Wetland 1	Arctic rush (*Juncus arcticus* – FACW), slender wheatgrass (*Elymus trachycaulus* – FACU), and fowl bluegrass (*Poa palustris* – FACW).	Characterized by a transition in vegetation from fringed sage (*Artemisia frigida* – UPL) and prairie junegrass (*Koeleria macrantha* – 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 (*Juncus brachycephalus* – OBL), and fowl bluegrass.	Characterized by a transition in vegetation from Rocky Mountain penstemon (*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 arctic rush and small-headed rush. Topographical breaks are gradual but distinct.	ponding at the base of head cuts. Hydric soil indicators included depleted matrix.
Wetland 3	Common three-square bulrush (*Schoenoplectus pungens* – 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 (*Carex nebrascensis* – 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 (*Poa compressa* – FACU), Reed canary grass (*Phalaris arundinacea* – FACW), and redtop (*Agrostis gigantea* – FACW).	Characterized by a transition in vegetation from annual ragweed (*Ambrosia artemisiifolia* – FACU) and common yarrow (*Achillea millefolium* – 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 (*Poa arctica* – FACW), shortawn foxtail (*Alopecurus aequalis* – OBL), and foxtail barley (*Hordeum jubatum* – FACW).	Characterized by a transition in vegetation from fringed sage, blue grama (*Bouteloua gracilis* – UPL), and tall goldenrod (*Solidago altissima* – 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 (*Heterotheca villosa* – 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 (*Poa pratensis* – FACU), and wild mint (*Mentha arvensis* – FACW).	Characterized by a transition in vegetation from blue grama, fringed sage, and Sulphur cinquefoil (*Potentilla recta* – 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.

Wetland 9	Small-headed rush, slender wheatgrass, Kentucky bluegrass, and arctic bluegrass.	Characterized by a transition in vegetation from blue grama, fringed sage, and Sulphur cinquefoil to small-headed rush and arctic bluegrass. Topographical breaks are gradual but distinct.	Wetland 9 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.

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 of Surface Water Systems Within the Project 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 (*Pinus ponderosa* – 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.	Characterized by gentle break in slope, Changes from clay loam to mud sediment composition; Highly influenced by precipitation and run off.	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 Resource 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

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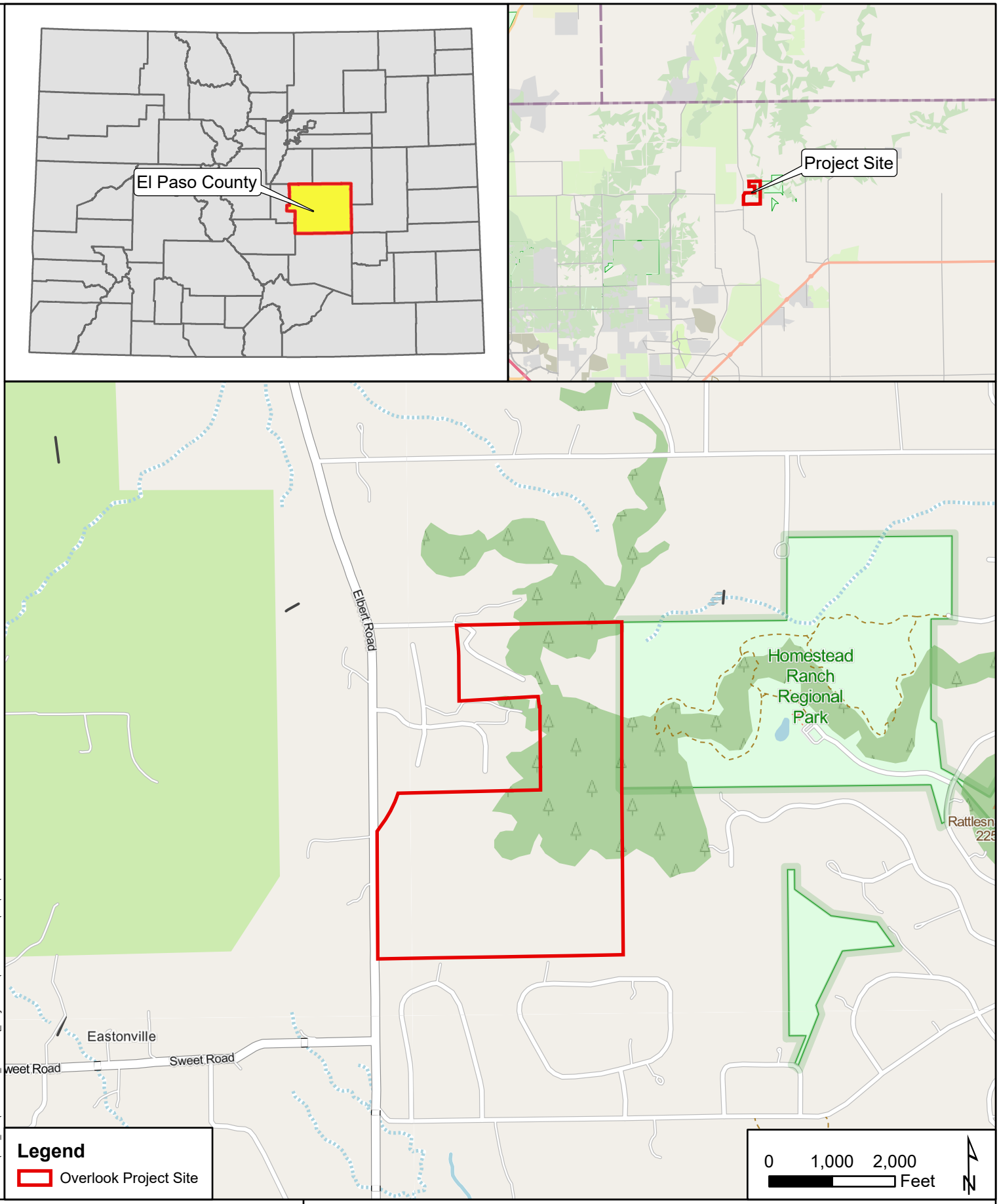
Figures



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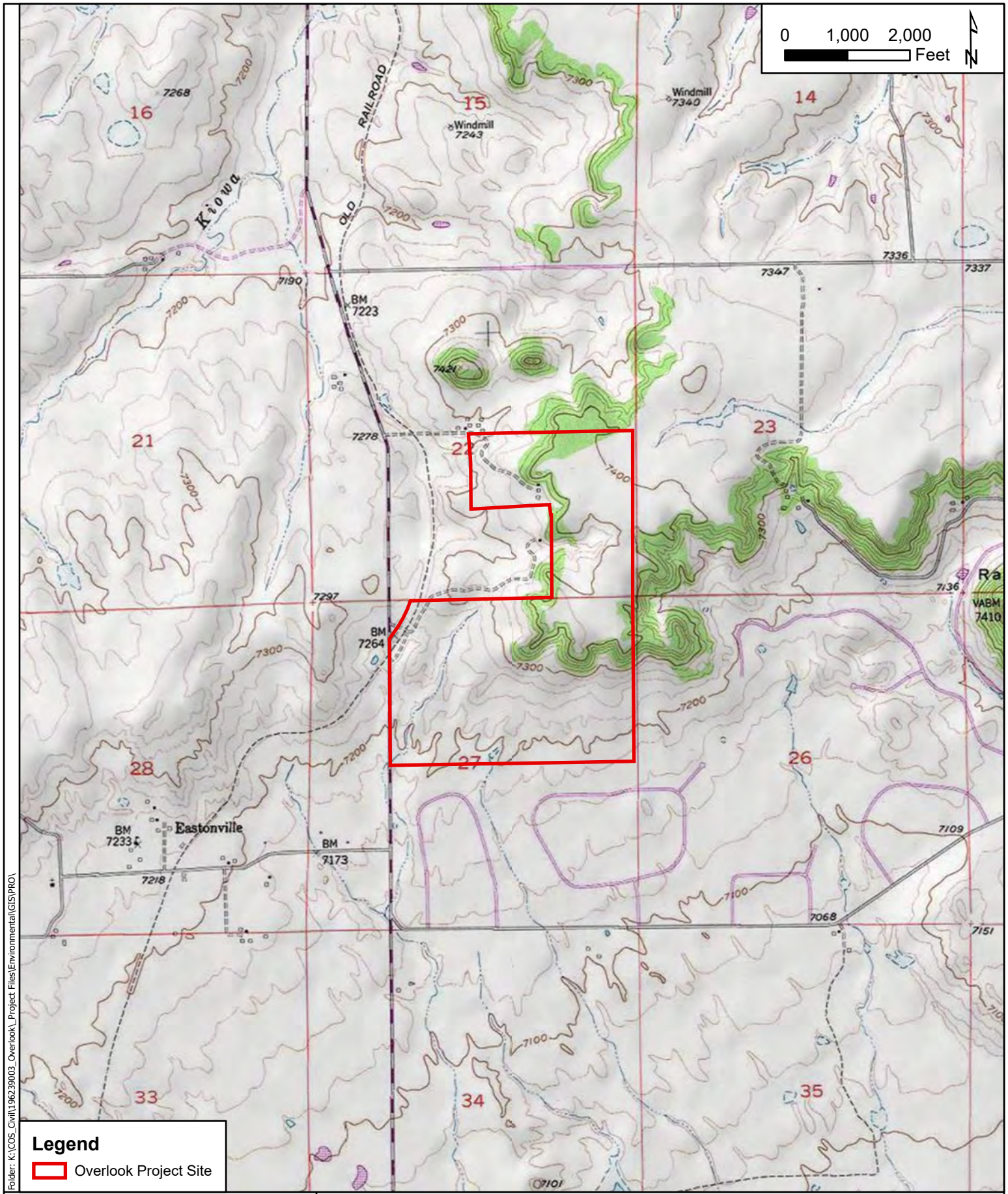
Project Location Map

Overlook at Homestead
El Paso County, Colorado

1 IN = 2,000 FT	PROJECT NUMBER: 196239003	SEPTEMBER 2023	FIGURE 1



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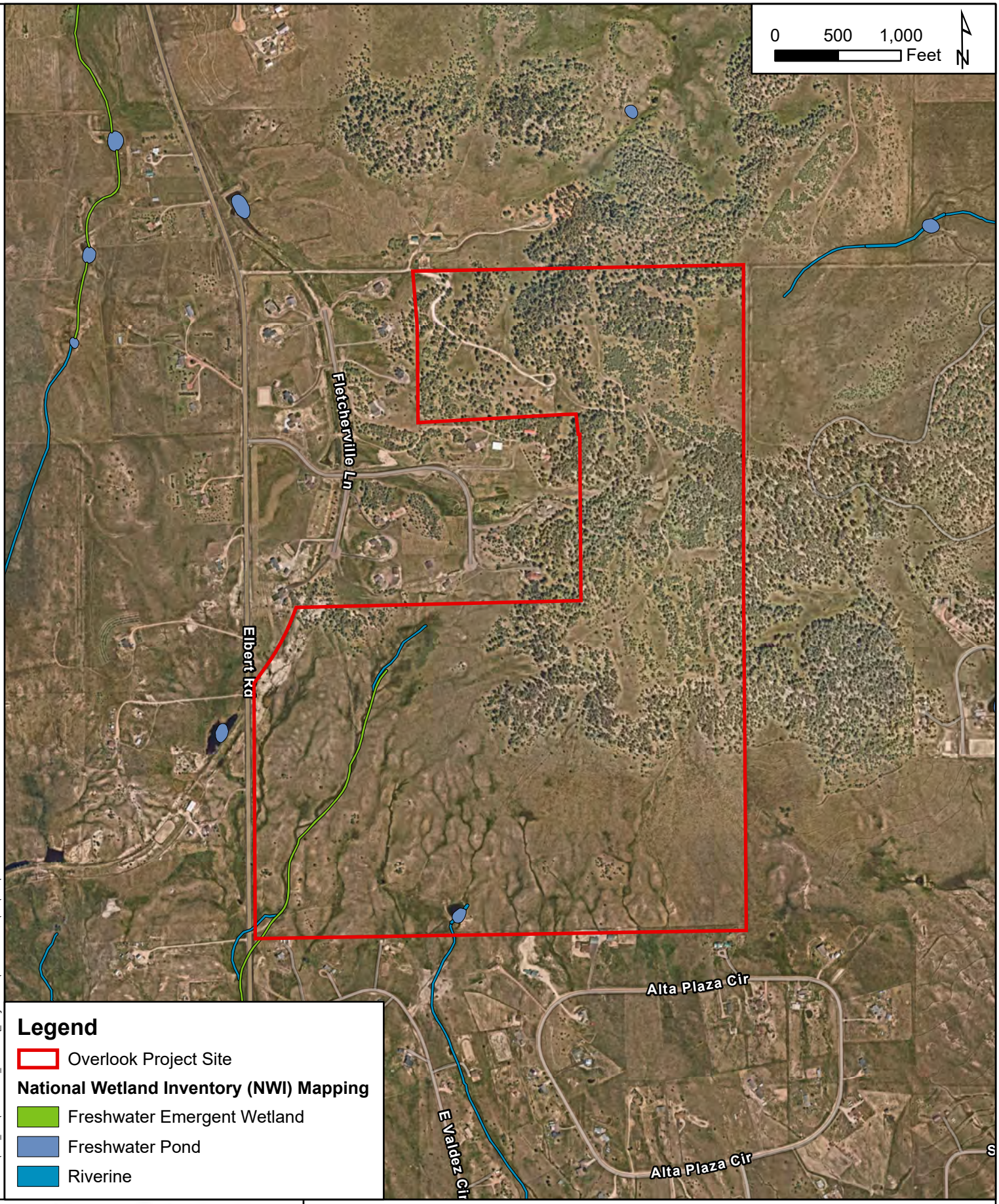
USGS Quad Map

Overlook at Homestead
El Paso County, Colorado

1 IN = 2,000 FT	PROJECT NUMBER: 196239003	SEPTEMBER 2023	FIGURE 2



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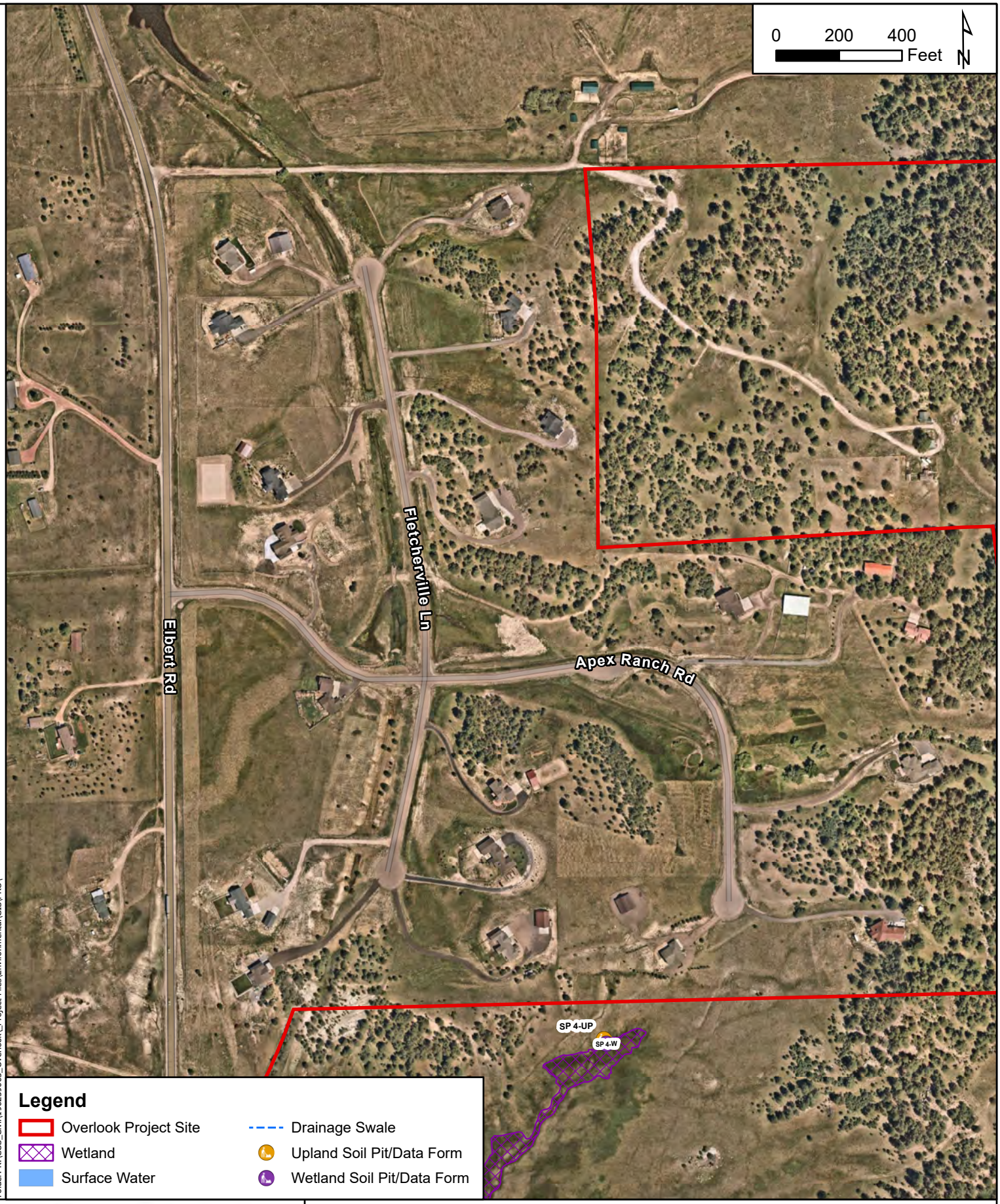
Database Review Map

Overlook at Homestead
El Paso County, Colorado

1 IN = 1,000 FT	*PROJECT NUMBER: 196239003*	*SEPTEMBER 2023*	*FIGURE 3*



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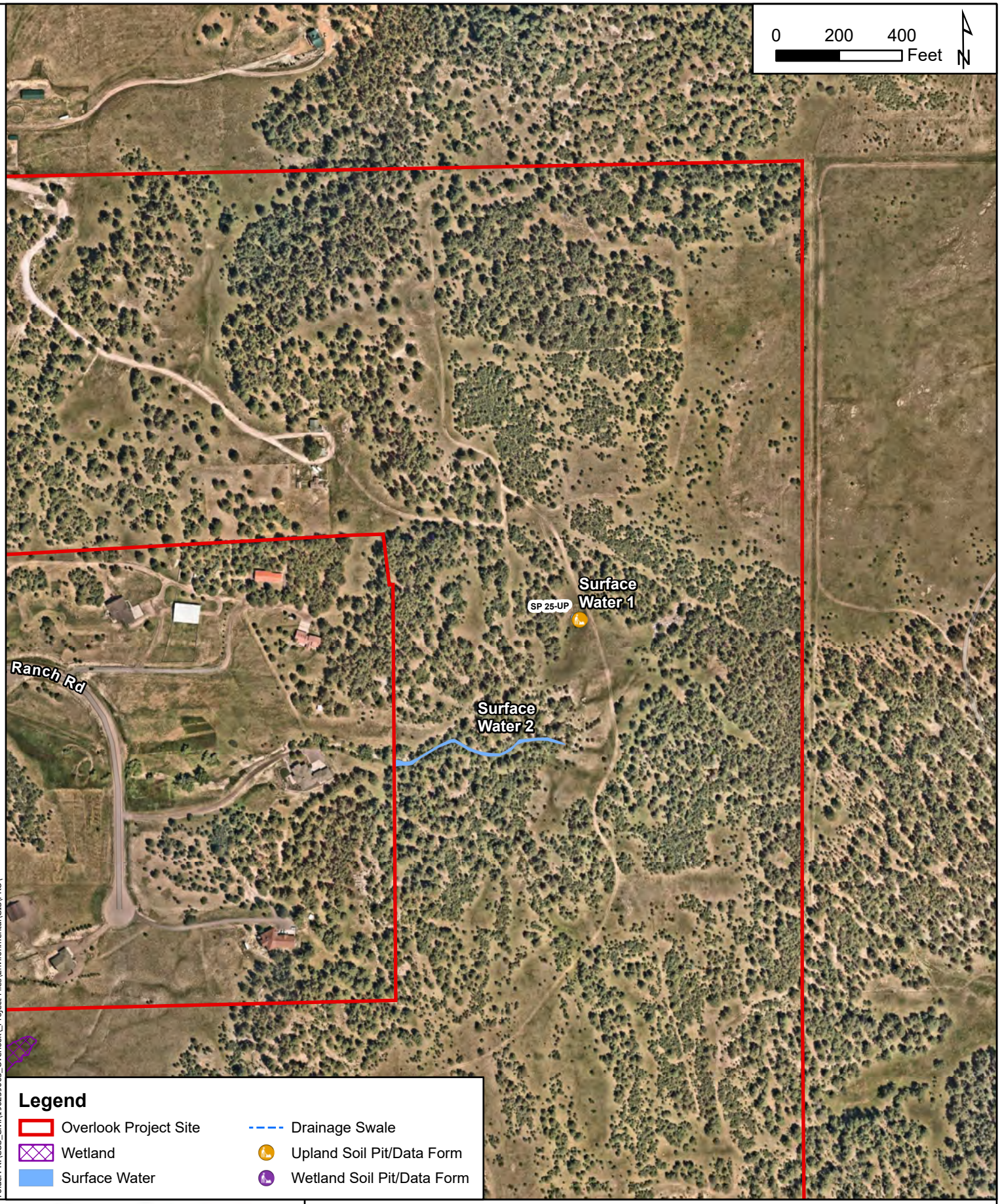
Kimley»Horn

2 N Nevada Ave, Ste 900, Colorado Springs, CO
Phone (719) 453-0180
www.kimley-horn.com

Aquatic Resource Delineation Map

Overlook at Homestead
El Paso County, Colorado

1 IN = 400 FT	PROJECT NUMBER: 196239003	SEPTEMBER 2023	PAGE 1 OF 4	FIGURE 4



Folder: K:\COS_Civil\196239003_Overlook_Project Files\Environmental\GIS\PRO\

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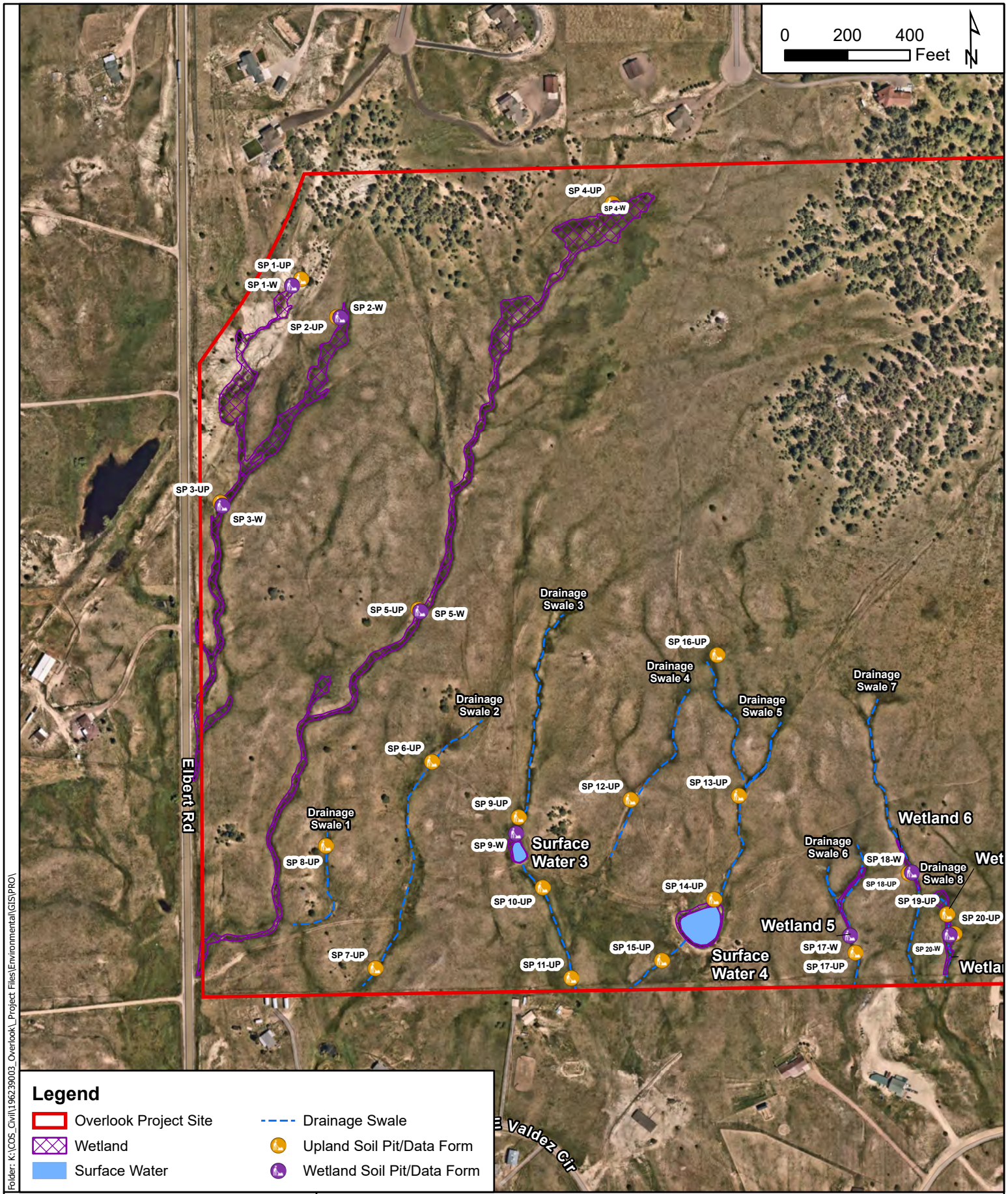
Aquatic Resource Delineation Map

Overlook at Homestead
El Paso County, Colorado

1 IN = 400 FT	PROJECT NUMBER: 196239003	SEPTEMBER 2023	PAGE 2 OF 4	FIGURE 4



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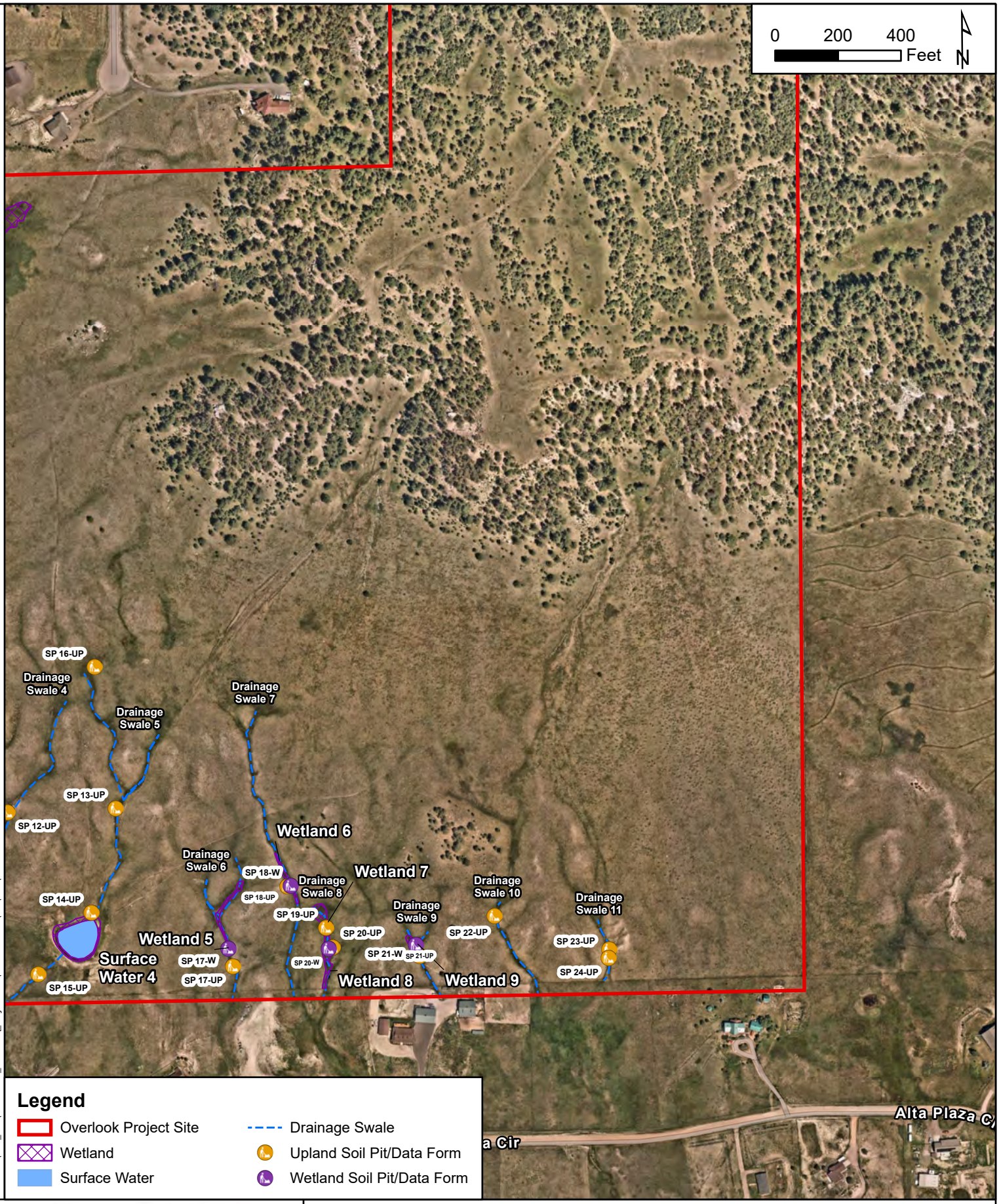
Aquatic Resource Delineation Map

Overlook at Homestead
El Paso County, Colorado

1 IN = 400 FT	*PROJECT NUMBER: 196239003*	*SEPTEMBER 2023*	*PAGE 3 OF 4*	*FIGURE 4*



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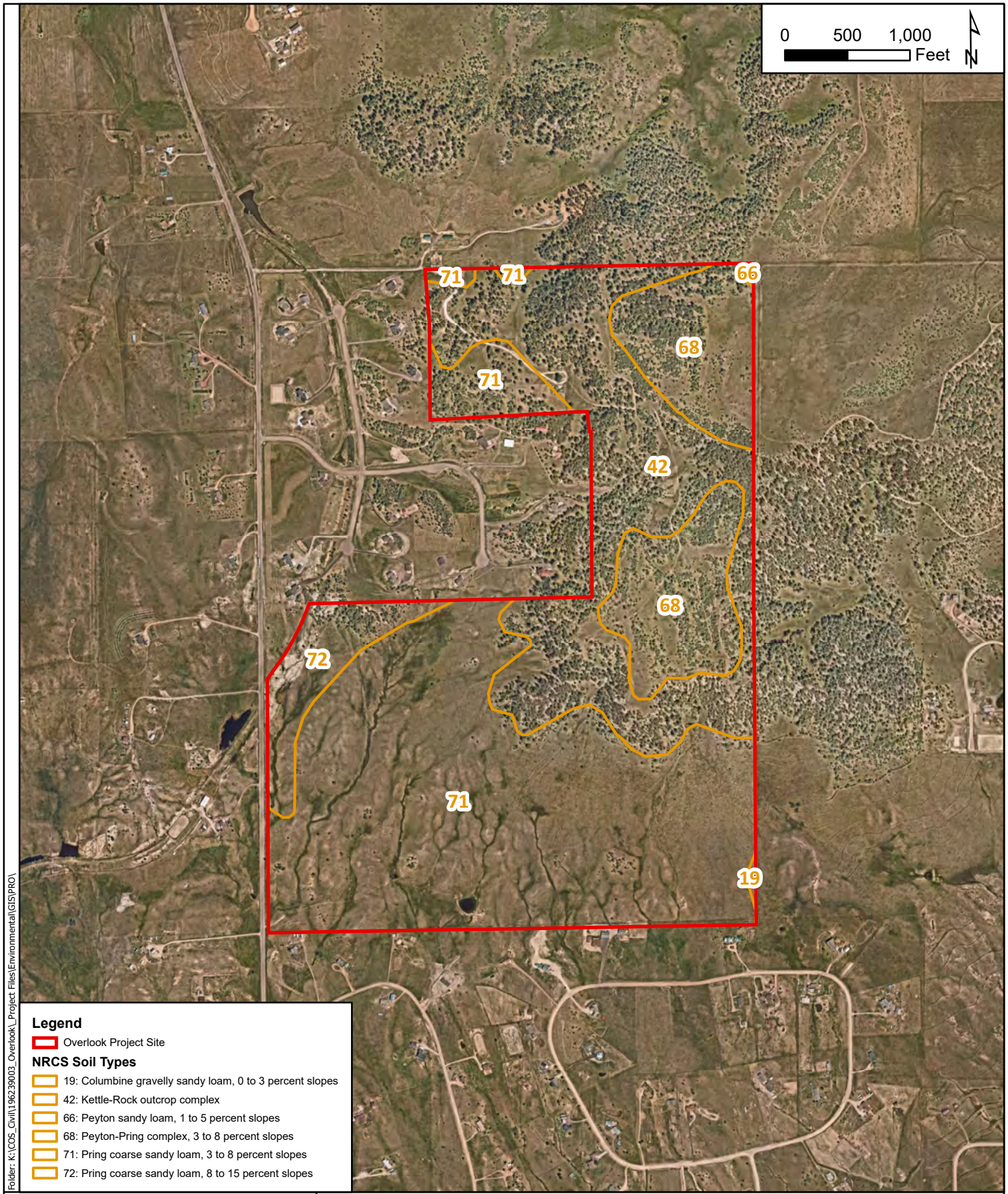
Aquatic Resource Delineation Map

Overlook at Homestead
El Paso County, Colorado

1 IN = 400 FT	*PROJECT NUMBER: 196239003*	*SEPTEMBER 2023*	*PAGE 4 OF 4*	*FIGURE 4*



Folder: K:\COS_Civil\196239003_Overlook_Project Files\Environmental\GIS\PRO\

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NRCS Soils Map

Overlook at Homestead
El Paso County, Colorado

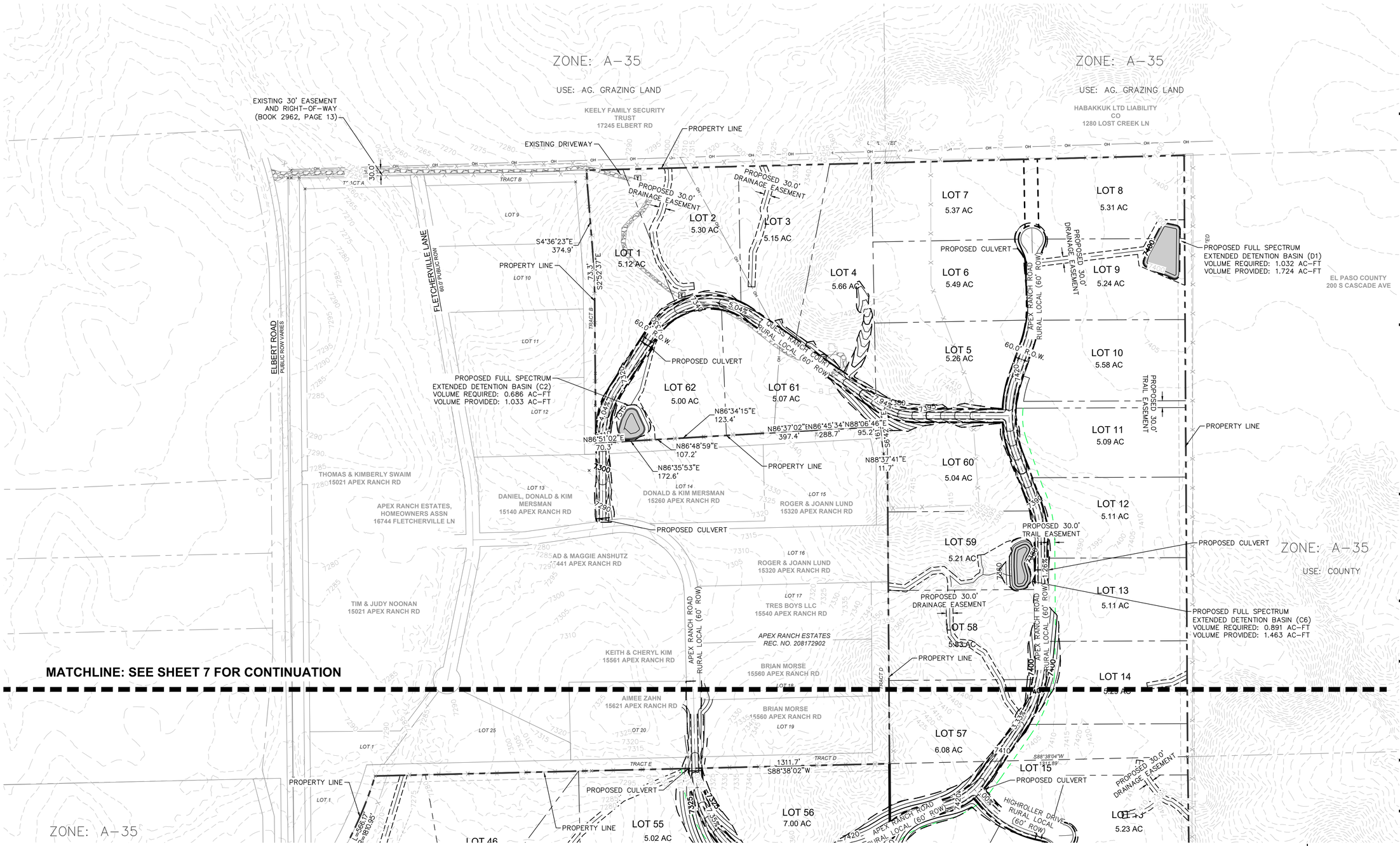
1 IN = 1,000 FT	PROJECT NUMBER: 196239003	SEPTEMBER 2023	FIGURE 5

Appendix A
Site Plan

OVERLOOK AT HOMESTEAD

THE NORTHEAST QUARTER OF THE NORTHEAST QUARTER; THE SOUTH HALF OF THE NORTHEAST QUARTER; AND THE SOUTHEAST QUARTER OF THE NORTHWEST QUARTER, ALL IN SECTION 27, TOWNSHIP 11 SOUTH, RANGE 64 WEST OF THE 6TH P.M., COUNTY OF EL PASO, STATE OF COLORADO

PRELIMINARY PLAN



LEGEND

- PROPERTY LINE
- PROPOSED LOT LINE
- EXISTING LOT LINE
- 6000 PROPOSED MAJOR CONTOUR
- 6001 PROPOSED MINOR CONTOUR
- LIMITS OF DISTURBANCE
- 6000 EXISTING MAJOR CONTOUR
- 6001 EXISTING MINOR CONTOUR

LIMITS OF DISTURBANCE

IMPROVEMENTS = ±34.03 ACRES (1,482,538 SF)

GRAPHIC SCALE IN FEET
0 100 200 400

NORTH

N.E.S. Inc.
619 N. Cascade Avenue, Suite 200
Colorado Springs, CO 80903

Tel. 719.471.0073
Fax 719.471.0267

www.nescolorado.com

PLANNER / LANDSCAPE ARCHITECT

IN ASSOCIATION WITH

OVERLOOK AT HOMESTEAD

PRELIMINARY PLAN

ELBERT ROAD
EL PASO COUNTY,
COLORADO

PROJECT INFO

DATE: DATE
PROJECT MGR: A. BARLOW
PREPARED BY: B. SWENSON / J. SMITH

STAMP

ENTITLEMENT

ISSUE INFO

DATE:	BY:	DESCRIPTION:
ISSUE.1	BY	DESCRIPTION

ISSUE / REVISION

SHEET TITLE

PERLIMINARY GRADING PLAN NORTH

SHEET NUMBER

5 OF 7

PLAN FILE #

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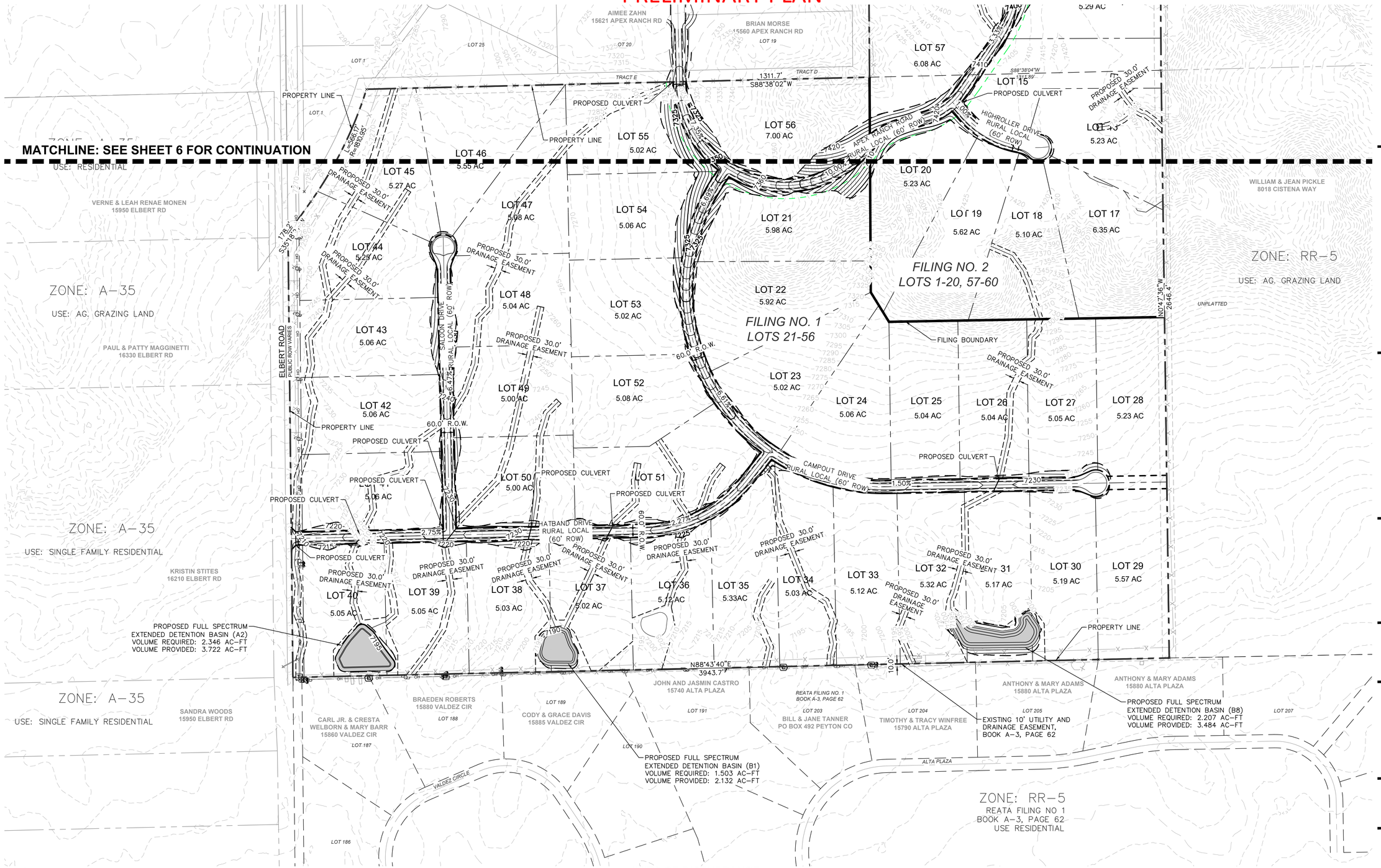
OVERLOOK AT HOMESTEAD

THE NORTHEAST QUARTER OF THE NORTHEAST QUARTER; THE SOUTH HALF OF THE NORTHEAST QUARTER; AND THE SOUTHEAST QUARTER OF THE NORTHWEST QUARTER, ALL IN SECTION 27, TOWNSHIP 11 SOUTH, RANGE 64 WEST OF THE 6TH P.M., COUNTY OF EL PASO, STATE OF COLORADO

PRELIMINARY PLAN



LEGEND

- PROPERTY LINE
- PROPOSED LOT LINE
- EXISTING LOT LINE
- 6000 PROPOSED MAJOR CONTOUR
- 6001 PROPOSED MINOR CONTOUR
- LIMITS OF DISTURBANCE
- 6000 EXISTING MAJOR CONTOUR
- 6001 EXISTING MINOR CONTOUR

LIMITS OF DISTURBANCE

IMPROVEMENTS = ±34.03 ACRES (1,482,538 SF)

GRAPHIC SCALE IN FEET
0 100 200 400

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PLANNER / LANDSCAPE ARCHITECT

IN ASSOCIATION WITH

OVERLOOK AT HOMESTEAD

PRELIMINARY PLAN

ELBERT ROAD
EL PASO COUNTY,
COLORADO

PROJECT INFO

DATE: DATE
PROJECT MGR: A. BARLOW
PREPARED BY: B. SWENSON / J. SMITH

STAMP

ENTITLEMENT

ISSUE INFO

DATE:	BY:	DESCRIPTION:
ISSUE.1	BY	DESCRIPTION

ISSUE / REVISION

SHEET TITLE

PRELIMINARY GRADING PLAN SOUTH

SHEET NUMBER

6 OF 7

PLAN FILE #

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Appendix B
Wetland Determination / Ordinary High Water Mark Data Forms

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Overlook City/County: Peyton/El Paso Sampling Date: 6/26/23
Applicant/Owner: PT State: CO Sampling Point: SP 1-UP
Investigator(s): SM AM Section, Township, Range: 27, T11S, R64W
Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): 0
Subregion (LRR): Rocky Mtn Range Lat: 39.07063411 Long: -104.5466824174 Datum: NAD83
Soil Map Unit Name: 72: Pring Coarse sandy loam, 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 N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ____ No ✓	**Is the Sampled Area within a Wetland?** Yes ____ No ✓
Hydric Soil Present?	Yes ____ No ✓	
Wetland Hydrology Present?	Yes ____ No ✓	

Remarks:
significantly above average rainfall in 6/2023

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	____ = Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	____ = Total Cover		
Herb Stratum (Plot size: ____)			
1. Poa palustris	50		FACW
2. Potentilla recta	10		UPL
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	60 = Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____ = Total Cover		

% Bare Ground in Herb Stratum 40

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC–): 0 (A)
Total Number of Dominant Species Across All Strata: 0 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species ____	x 1 = ____
FACW species 50	x 2 = 100
FAC species ____	x 3 = ____
FACU species ____	x 4 = ____
UPL species 10	x 5 = 50
Column Totals: 60 (A)	150 (B)

Prevalence Index = B/A = 2.5

Hydrophytic Vegetation Indicators:
___ 1 - Rapid Test for Hydrophytic Vegetation
✓ 2 - Dominance Test is >50%
✓ 3 - Prevalence Index is ≤3.0[1]
___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes ____ No ✓

Remarks:

SOIL

Sampling Point: SP 1-UP

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-3	10YR 5/2	100					clay sand	
3-6	10YR 5/3	100					clay sand, 20% gravel	
6-10	10YR 3/2	20%					clay sand	
	10YR 4/2	50%					clay sand	
	10YR 4/4	30%					clay sand	

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR F)**
- ___ 1 cm Muck (A9) **(LRR F, G, H)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) **(LRR G, H)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR F)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) **(MLRA 72 & 73 of LRR H)**

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR I, J)**
- ___ Coast Prairie Redox (A16) **(LRR F, G, H)**
- ___ Dark Surface (S7) **(LRR G)**
- ___ High Plains Depressions (F16) **(LRR H outside of MLRA 72 & 73)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: N/A

Depth (inches): ___

Hydric Soil Present? Yes ___ No ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Oxidized Rhizospheres on Living Roots (C3) **(where not tilled)**
- ___ Presence of Reduced Iron (C4)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ✓ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) **(where tilled)**
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) **(LRR F)**

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): ___

Water Table Present? Yes ___ No ✓ Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): ___

Wetland Hydrology Present? Yes ___ No ✓

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

Remarks:

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Overlook City/County: Peyton/El Paso Sampling Date: 6/26/23
Applicant/Owner: PT State: CO Sampling Point: SP1-W
Investigator(s): JM AM Section, Township, Range: 27, T11S, R64W
Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): 0
Subregion (LRR): Rocky Mtn Range Lat: 39.07058175 Long: -104.54672642 Datum: NAD83
Soil Map Unit Name: 72: Ring coarse sandy loam, 6-15 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 N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ✓	No ____	**Is the Sampled Area within a Wetland?** Yes ✓ No ____
Hydric Soil Present?	Yes ✓	No ____	
Wetland Hydrology Present?	Yes ✓	No ____	

Remarks:
above average rainfall 6/2023

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	____ = Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	____ = Total Cover		
Herb Stratum (Plot size: ____)			
1. Juncus arcticus	50	✓	FACW
2. Potentilla effusa	10		FAC
3. Taraxacum officinale	10		FACU
4. Carex sp.	30		OBL
5.			
6.			
7.			
8.			
9.			
10.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____ = Total Cover		

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 1 (A)
Total Number of Dominant Species Across All Strata: 1 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	30	x 1 =	30
FACW species	50	x 2 =	100
FAC species	10	x 3 =	30
FACU species	10	x 4 =	40
UPL species		x 5 =	
Column Totals:	100 (A)		200 (B)

Prevalence Index = B/A = 2

Hydrophytic Vegetation Indicators:
✓ 1 - Rapid Test for Hydrophytic Vegetation
✓ 2 - Dominance Test is >50%
✓ 3 - Prevalence Index is ≤3.0[1]
___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes ✓ No ____

Remarks:

SOIL

Sampling Point: _____

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-5	10YR 5/2						silty clay	
5-10	10YR 5/2	90					gravel	C
	10YR 5/3	90					gravel	

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR F**)
- ___ 1 cm Muck (A9) (**LRR F, G, H**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR I, J**)
- ___ Coast Prairie Redox (A16) (**LRR F, G, H**)
- ___ Dark Surface (S7) (**LRR G**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: water table

Depth (inches): 10

Hydric Soil Present? Yes √ No _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- X High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- X Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)
- ___ Presence of Reduced Iron (C4)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- X Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes ___ No √ Depth (inches): _____

Water Table Present? Yes √ No ___ Depth (inches): 10.5

Saturation Present? (includes capillary fringe) Yes ___ No √ Depth (inches): _____

Wetland Hydrology Present? Yes √ No _____

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

Remarks:

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Overlook City/County: Peyton/El Paso Sampling Date: 6/26/23
Applicant/Owner: PT State: CO Sampling Point: SP2-UP
Investigator(s): DM AM Section, Township, Range: 27, T13S, R64W
Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): convex Slope (%): 0
Subregion (LRR): Rocky Mtn Range Lat: 39.07029936 Long: -104.5462241 Datum: NAD83
Soil Map Unit Name: 71: Pring coarse sandy loam, 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 N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ____ No ✓	**Is the Sampled Area within a Wetland?** Yes ____ No ✓
Hydric Soil Present?	Yes ____ No ✓	
Wetland Hydrology Present?	Yes ____ No ✓	

Remarks:
above average rainfall 6/2023

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	____ = Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	____ = Total Cover		
Herb Stratum (Plot size: ____)			
1. Artemisia frigida	30	✓	UPL
2. Koeleria macrantha	20		UPL
3. Aliciella pinnatifida	10		FAC
4. Castilleja minicata	5		FAC
5. Penstemon strictus	5		UPL
6. Artemisia ludoviciana	10		UPL
7.			
8.			
9.			
10.			
	80 = Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____ = Total Cover		

% Bare Ground in Herb Stratum 20

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC–): 0 (A)
Total Number of Dominant Species Across All Strata: 1 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	____	x 1 =	____
FACW species	____	x 2 =	____
FAC species	15	x 3 =	45
FACU species	____	x 4 =	____
UPL species	65	x 5 =	325
Column Totals:	80 (A)		370 (B)

Prevalence Index = B/A = 4.6

Hydrophytic Vegetation Indicators:
___ 1 - Rapid Test for Hydrophytic Vegetation
___ 2 - Dominance Test is >50%
___ 3 - Prevalence Index is ≤3.0[1]
___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes ____ No ✓

Remarks:

SOIL

Sampling Point: _____

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 4/2	100					sand	20% gravel
6-12	10YR 3/2	100					sand	30% gravel

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR F**)
- ___ 1 cm Muck (A9) (**LRR F, G, H**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR I, J**)
- ___ Coast Prairie Redox (A16) (**LRR F, G, H**)
- ___ Dark Surface (S7) (**LRR G**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: N/A

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)
- ___ Presence of Reduced Iron (C4)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No ✓

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

Remarks:

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Overlook City/County: Peyton/El Paso Sampling Date: 6/26/23

Applicant/Owner: PT State: CO Sampling Point: SP-W

Investigator(s): SM AM Section, Township, Range: 2M, T11S, R64W

Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): Concave Slope (%): _____

Subregion (LRR): Rocky Mtn Range Lat: 39.07029527 Long: -104.54618695 Datum: NAD83

Soil Map Unit Name: 71: Prine coarse sandy loam, 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 _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks:

above average rainfall 6/2023

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: _____)			
1. Poa palustris	20		FACW
2. Juncus arcticus	10		FACW
3. Elymus trachycaulus	70		FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species 30	x 2 = 60
FAC species _____	x 3 = _____
FACU species 70	x 4 = 280
UPL species _____	x 5 = _____
Column Totals: 100 (A)	340 (B)

Prevalence Index = B/A = 3.4

Hydrophytic Vegetation Indicators:

✓ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks:

SOIL

Sampling Point: SGP-W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-10+	10YR 3/1	97	10YR 3/6	3	C	M	CL	10% gravel

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR F)**
- ___ 1 cm Muck (A9) **(LRR F, G, H)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) **(LRR G, H)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR F)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) **(MLRA 72 & 73 of LRR H)**

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR I, J)**
- ___ Coast Prairie Redox (A16) **(LRR F, G, H)**
- ___ Dark Surface (S7) **(LRR G)**
- ___ High Plains Depressions (F16) **(LRR H outside of MLRA 72 & 73)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: N/A

Depth (inches): ___

Hydric Soil Present? Yes √ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- X High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- X Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Oxidized Rhizospheres on Living Roots (C3) **(where not tilled)**
- ___ Presence of Reduced Iron (C4)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- X Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) **(where tilled)**
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) **(LRR F)**

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___

Water Table Present? Yes X No ___ Depth (inches): 5

Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): ___

Wetland Hydrology Present? Yes √ No ___

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

Remarks:

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Overlook City/County: Peyton / El Paso Sampling Date: 6/26/23
Applicant/Owner: PT State: CO Sampling Point: SP3-UP
Investigator(s): SM AM Section, Township, Range: 27, T11S, R64W
Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): convex Slope (%): 0
Subregion (LRR): Rocky Mtn Range Lat: 39.068678867 Long: -104.91756318 Datum: NAD83
Soil Map Unit Name: 72: Pring coarse sandy loam, 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 N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes √ No ____
Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ____	No √	**Is the Sampled Area within a Wetland?** Yes ____ No √
Hydric Soil Present?	Yes ____	No √	
Wetland Hydrology Present?	Yes ____	No √	

Remarks:
above average rainfall 6/2023

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	____ = Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	____ = Total Cover		
Herb Stratum (Plot size: ____)			
1. Artemisia frigida	20		UPL
2. Koeleria macrantha	20		UPL
3. Artemisia ludoviciana	15		UPL
4. Juncus arcticus	5		FACW
5. Allicella pinnatifida	10		FAC
6. Penstemon strictus	10		UPL
7. Tetraneuris acaulis	10		UPL
8.			
9.			
10.			
	90 = Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____ = Total Cover		

% Bare Ground in Herb Stratum 10

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC−): 0 (A)
Total Number of Dominant Species Across All Strata: 0 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	____	x 1 =	____
FACW species	5	x 2 =	10
FAC species	10	x 3 =	30
FACU species	____	x 4 =	____
UPL species	75	x 5 =	375
Column Totals:	90 (A)		415 (B)

Prevalence Index = B/A = 4.6

Hydrophytic Vegetation Indicators:
___ 1 - Rapid Test for Hydrophytic Vegetation
___ 2 - Dominance Test is >50%
___ 3 - Prevalence Index is ≤3.0[1]
___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes ____ No √

Remarks:

SOIL

Sampling Point: _____

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
1-3.5	10YR4/3	100					loam	
3.5-12	10YR5/4	100					silty sand 20% gravel	

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR F)**
- ___ 1 cm Muck (A9) **(LRR F, G, H)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) **(LRR G, H)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR F)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) **(MLRA 72 & 73 of LRR H)**

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR I, J)**
- ___ Coast Prairie Redox (A16) **(LRR F, G, H)**
- ___ Dark Surface (S7) **(LRR G)**
- ___ High Plains Depressions (F16) **(LRR H outside of MLRA 72 & 73)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: N/A

Depth (inches): _____

Hydric Soil Present? Yes _____ No ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Oxidized Rhizospheres on Living Roots (C3) **(where not tilled)**
- ___ Presence of Reduced Iron (C4)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) **(where tilled)**
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) **(LRR F)**

Field Observations:

Surface Water Present? Yes _____ No ✓ Depth (inches): _____

Water Table Present? Yes _____ No ✓ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No ✓ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No ✓

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

Remarks:

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Overlook City/County: Peyton/El Paso Sampling Date: 6/26/23
Applicant/Owner: PT State: CO Sampling Point: SP3-W
Investigator(s): SM AM Section, Township, Range: 27, T13, R64W
Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): 0
Subregion (LRR): Rocky Mtn Range Lat: 39.06865255 Long: -104.54753692 Datum: NAD83
Soil Map Unit Name: 72 Pring coarse sandy loam, 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 N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ✓	No ____	**Is the Sampled Area within a Wetland?** Yes ✓ No ____
Hydric Soil Present?	Yes ✓	No ____	
Wetland Hydrology Present?	Yes ✓	No ____	

Remarks:
above average rainfall 6/2023

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	____ = Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	____ = Total Cover		
Herb Stratum (Plot size: ____)			
1. Poa palustris	10		FACW
2. Juncus arcticus	50	✓	FACW
3. Phalaris arundinacea	10		FACW
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____ = Total Cover		
% Bare Ground in Herb Stratum 0			

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC–): 1 (A)
Total Number of Dominant Species Across All Strata: 1 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species ____	x 1 = ____
FACW species 100	x 2 = 200
FAC species ____	x 3 = ____
FACU species ____	x 4 = ____
UPL species ____	x 5 = ____
Column Totals: 100 (A)	200 (B)

Prevalence Index = B/A = 2

Hydrophytic Vegetation Indicators:
✓ 1 - Rapid Test for Hydrophytic Vegetation
✓ 2 - Dominance Test is >50%
✓ 3 - Prevalence Index is ≤3.0[1]
___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes ✓ No ____

Remarks:

SOIL

Sampling Point: _____

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-3.5	10YR 4/2						CL	
3.5-12+	10YR 6/2	90	10YR 6/8	10	C	PL, M	silty loam	10% gravel

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR F**)
- ___ 1 cm Muck (A9) (**LRR F, G, H**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR I, J**)
- ___ Coast Prairie Redox (A16) (**LRR F, G, H**)
- ___ Dark Surface (S7) (**LRR G**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: N/A

Depth (inches): _____

Hydric Soil Present? Yes √ No _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- X High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- X Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)
- ___ Presence of Reduced Iron (C4)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- X Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- X Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes √ No ___ Depth (inches): 1

Water Table Present? Yes √ No ___ Depth (inches): 6

Saturation Present? (includes capillary fringe) Yes ___ No √ Depth (inches): ___

Wetland Hydrology Present? Yes √ No ___

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

Remarks:

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Overlook City/County: Peyton/El Paso Sampling Date: 6/26/23
Applicant/Owner: PT State: CO Sampling Point: SPU-UP
Investigator(s): SM AM Section, Township, Range: 27, T11S, R64W
Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): convex Slope (%): 0
Subregion (LRR): Rocky Mtn Range Lat: 39.07126783 Long: -104.54310636 Datum: NAD83
Soil Map Unit Name: 71: Ring coarse sandy loam, 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 N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ____	No ✓	**Is the Sampled Area within a Wetland?** Yes ____ No ✓
Hydric Soil Present?	Yes ____	No ✓	
Wetland Hydrology Present?	Yes ____	No ✓	

Remarks:
above average rainfall 6/2023

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	____ = Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	____ = Total Cover		
Herb Stratum (Plot size: ____)			
1. Aliciella pinnatifida	20		FAC
2. Penstemon strictus	25		UPL
3. Artemisia ludoviciana	10		UPL
4. Artemisia frigida	10		UPL
5. Koeleria macrantha	10		UPL
6. Thermopsis rhombifolia	15		UPL
7.			
8.			
9.			
10.			
	90 = Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____ = Total Cover		

% Bare Ground in Herb Stratum 10

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC−): 0 (A)
Total Number of Dominant Species Across All Strata: 0 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species ____	x 1 = ____
FACW species ____	x 2 = ____
FAC species 20	x 3 = 60
FACU species ____	x 4 = ____
UPL species 70	x 5 = 350
Column Totals: 90 (A)	410 (B)

Prevalence Index = B/A = 4.5

Hydrophytic Vegetation Indicators:
___ 1 - Rapid Test for Hydrophytic Vegetation
___ 2 - Dominance Test is >50%
___ 3 - Prevalence Index is ≤3.0[1]
___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes ____ No ✓

Remarks:

SOIL

Sampling Point: SP 4-UP

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-5	10YR 5/2	100					silty loam	10% gravel
5-9	10YR 5/3	100					silty sand	20% gravel
9+	10YR 3/2	100					CL	0

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR F)**
- ___ 1 cm Muck (A9) **(LRR F, G, H)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) **(LRR G, H)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR F)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) **(MLRA 72 & 73 of LRR H)**

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR I, J)**
- ___ Coast Prairie Redox (A16) **(LRR F, G, H)**
- ___ Dark Surface (S7) **(LRR G)**
- ___ High Plains Depressions (F16) **(LRR H outside of MLRA 72 & 73)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: N/A

Depth (inches): ___

Hydric Soil Present? Yes ___ No ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Oxidized Rhizospheres on Living Roots (C3) **(where not tilled)**
- ___ Presence of Reduced Iron (C4)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) **(where tilled)**
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) **(LRR F)**

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): ___

Water Table Present? Yes ✓ No ___ Depth (inches): 9.5

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): ___

Wetland Hydrology Present? Yes ___ No ✓

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

Remarks:

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Overlook City/County: Peyton/El Paso Sampling Date: 6/26/23
Applicant/Owner: PT State: CO Sampling Point: SPU-W
Investigator(s): SM AM Section, Township, Range: 27, T11S R64W
Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): Concave Slope (%): 0
Subregion (LRR): Rocky Mtn Range Lat: 39.07122876 Long: -104.543078 Datum: NAD83
Soil Map Unit Name: 71: Pring coarse sandy loam, 3-8 NWI classification: R4SBC
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✓ (If no, explain in Remarks.)
Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ✓	No ____	**Is the Sampled Area within a Wetland?** Yes ✓ No ____
Hydric Soil Present?	Yes ✓	No ____	
Wetland Hydrology Present?	Yes ✓	No ____	

Remarks:
above average rainfall 6/2023

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	____ = Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	____ = Total Cover		
Herb Stratum (Plot size: ____)			
1. Taraxacum officinale	5		FACU
2. Poa palustris	20		FACW
3. Juncus arcticus	30	✓	FACW
4. Juncus brachycephalus	30		OBL
5. Elymus trachycaulus	10		FACU
6. Allium geyeri	5		FACU
7.			
8.			
9.			
10.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____ = Total Cover		

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC–): 1 (A)
Total Number of Dominant Species Across All Strata: 1 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	30	x 1 =	30
FACW species	50	x 2 =	100
FAC species		x 3 =	
FACU species	20	x 4 =	80
UPL species		x 5 =	
Column Totals:	100 (A)		210 (B)

Prevalence Index = B/A = 2.1

Hydrophytic Vegetation Indicators:
✓ 1 - Rapid Test for Hydrophytic Vegetation
✓ 2 - Dominance Test is >50%
✓ 3 - Prevalence Index is ≤3.0[1]
___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes ✓ No ____

Remarks:

SOIL

Sampling Point: SPU-W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-5.5	10YR 3/1	95	10YR 6/8	5	C	PL	CL	
5.5-12+	10YR 4/2	98	10YR 5/8	2	C	PL	CL	

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR F**)
- ___ 1 cm Muck (A9) (**LRR F, G, H**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR I, J**)
- ___ Coast Prairie Redox (A16) (**LRR F, G, H**)
- ___ Dark Surface (S7) (**LRR G**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: N/A

Depth (inches): ___

Hydric Soil Present? Yes √ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- X High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- X Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)
- ___ Presence of Reduced Iron (C4)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- X Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes ___ No √ Depth (inches): ___

Water Table Present? Yes √ No ___ Depth (inches): 6

Saturation Present? (includes capillary fringe) Yes ___ No √ Depth (inches): ___

Wetland Hydrology Present? Yes √ No ___

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

Remarks:

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Overlook City/County: Peyton/El Paso Sampling Date: 6/26/23
Applicant/Owner: PT State: CO Sampling Point: SP5-UP
Investigator(s): SM AM Section, Township, Range: 27, T11S, R64W
Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): convex Slope (%): 0
Subregion (LRR): Rocky Mtn Range Lat: 39.06772461 Long: -104.54533932 Datum: NAD83
Soil Map Unit Name: 71: Ring coarse sandy loam, 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 N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ____	No ✓	**Is the Sampled Area within a Wetland?** Yes ____ No ✓
Hydric Soil Present?	Yes ____	No ✓	
Wetland Hydrology Present?	Yes ____	No ✓	

Remarks:
above average rainfall 6/2023

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	____ = Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	____ = Total Cover		
Herb Stratum (Plot size: ____)			
1. Penstemon stricta	5		UPL
2. Alicriella pinnatifida	15		FAC
3. Eriogonum ovalifolium	20		UPL
4. Artemisia frigida	10		UPL
5. Koeleria macrantha	25	✓	UPL
6. Potentilla effusa	15		FAC
7.			
8.			
9.			
10.			
	90 = Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____ = Total Cover		

% Bare Ground in Herb Stratum 10

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC−): 0 (A)
Total Number of Dominant Species Across All Strata: 1 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species ____	x 1 = ____
FACW species ____	x 2 = ____
FAC species 30	x 3 = 90
FACU species ____	x 4 = ____
UPL species 60	x 5 = 300
Column Totals: 90 (A)	390 (B)

Prevalence Index = B/A = 4.3

Hydrophytic Vegetation Indicators:
___ 1 - Rapid Test for Hydrophytic Vegetation
___ 2 - Dominance Test is >50%
___ 3 - Prevalence Index is ≤3.0[1]
___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes ____ No ✓

Remarks:

SOIL

Sampling Point: SP5-UP

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR 3/3	100					CL	30% gravel
8-12+	10YR 4/3	100					CL	30% gravel

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR F)**
- ___ 1 cm Muck (A9) **(LRR F, G, H)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) **(LRR G, H)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR F)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) **(MLRA 72 & 73 of LRR H)**

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR I, J)**
- ___ Coast Prairie Redox (A16) **(LRR F, G, H)**
- ___ Dark Surface (S7) **(LRR G)**
- ___ High Plains Depressions (F16) **(LRR H outside of MLRA 72 & 73)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: N/A

Depth (inches): ___

Hydric Soil Present? Yes ___ No ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Oxidized Rhizospheres on Living Roots (C3) **(where not tilled)**
- ___ Presence of Reduced Iron (C4)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) **(where tilled)**
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) **(LRR F)**

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): ___

Water Table Present? Yes ___ No ✓ Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): ___

Wetland Hydrology Present? Yes ___ No ✓

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

Remarks:

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Overlook City/County: Peyton/El Paso Sampling Date: 6/26/23

Applicant/Owner: PT State: CO Sampling Point: SP 5-W

Investigator(s): AM SM Section, Township, Range: 27, T11S, R64W

Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): 0

Subregion (LRR): Rocky Mtn Range Lat: 39.06770059 Long: -104.54531984 Datum: NAD83

Soil Map Unit Name: 71: Ping coarse sandy loam, 3-8 NWI classification: PEMC

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✓ (If no, explain in Remarks.)

Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ✓	No ____	**Is the Sampled Area within a Wetland?** Yes ✓ No ____
Hydric Soil Present?	Yes ✓	No ____	
Wetland Hydrology Present?	Yes ✓	No ____	

Remarks:

above average rainfall 6/2023

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	____ = Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	____ = Total Cover		
Herb Stratum (Plot size: ____)			
1. Poa palustris	50	✓	FACW
2. Eriogonum ovalifolium	20		UPL
3. Elymus trachycaulus	30		FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____ = Total Cover		

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species 50	x 1 = 50
FACW species ____	x 2 = ____
FAC species ____	x 3 = ____
FACU species 30	x 4 = 120
UPL species 20	x 5 = 100
Column Totals: 100 (A)	270 (B)

Prevalence Index = B/A = 2.7

Hydrophytic Vegetation Indicators:

✓ 1 - Rapid Test for Hydrophytic Vegetation

✓ 2 - Dominance Test is >50%

✓ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes ✓ No ____

Remarks:

SOIL

Sampling Point: SPS-W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-7	10YR 4/2	94	10YR 5/6	6	C	PL	CL	
7-12+	10YR 4/1	97	10YR 5/8	3	C	PL	CL	

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR F**)
- ___ 1 cm Muck (A9) (**LRR F, G, H**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR I, J**)
- ___ Coast Prairie Redox (A16) (**LRR F, G, H**)
- ___ Dark Surface (S7) (**LRR G**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: N/A

Depth (inches): ___

Hydric Soil Present? Yes ✓ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ✓ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ✓ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)
- ___ Presence of Reduced Iron (C4)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ✓ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): ___

Water Table Present? Yes ✓ No ___ Depth (inches): 10

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): ___

Wetland Hydrology Present? Yes ✓ No ___

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

Remarks:

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Overlook City/County: Peyton/El Paso Sampling Date: 6/26/23
Applicant/Owner: PT State: CO Sampling Point: SPG-UP
Investigator(s): SM AM Section, Township, Range: 27, T11S, R64W
Landform (hillslope, terrace, etc.): swale Local relief (concave, convex, none): none Slope (%): 0
Subregion (LRR): Rocky Mtn Range Lat: 39.066338736 Long: -104.5450832 Datum: NAD83
Soil Map Unit Name: 71: Ring coarse sandy loam, 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 N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ____	No ✓	**Is the Sampled Area within a Wetland?** Yes ____ No ✓
Hydric Soil Present?	Yes ____	No ✓	
Wetland Hydrology Present?	Yes ✓	No ____	

Remarks:
significantly large amount of precipitation 06/2023

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	____ = Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	____ = Total Cover		
Herb Stratum (Plot size: ____)			
1. Koeleria macrantha	25		UPL
2. Artemisia frigida	10		UPL
3. Potentilla effusa	30	✓	FAC
4. Poa palustris	30		FAC
5. Grindelia squarrosa	5		UPL
6.			
7.			
8.			
9.			
10.			
	85 = Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____ = Total Cover		

% Bare Ground in Herb Stratum 15

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 0 (A)
Total Number of Dominant Species Across All Strata: 1 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species ____	x 1 = ____
FACW species ____	x 2 = ____
FAC species 50	x 3 = 150
FACU species ____	x 4 = ____
UPL species 35	x 5 = 175
Column Totals: 85 (A)	325 (B)

Prevalence Index = B/A = 3.8

Hydrophytic Vegetation Indicators:
___ 1 - Rapid Test for Hydrophytic Vegetation
___ 2 - Dominance Test is >50%
___ 3 - Prevalence Index is ≤3.0[1]
___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes ____ No ✓

Remarks:

SOIL

Sampling Point: SP6-UP

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-7	10YR 4/2	100					silty sand	30% gravel
7-9.5	10YR 3/1	100					loamy clay	10% gravel
9.5-12	10YR 5/3	100					loamy clay	5% gravel

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR F**)
- ___ 1 cm Muck (A9) (**LRR F, G, H**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR I, J**)
- ___ Coast Prairie Redox (A16) (**LRR F, G, H**)
- ___ Dark Surface (S7) (**LRR G**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: N/A

Depth (inches): ___

Hydric Soil Present? Yes ___ No ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ✗ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ✗ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)
- ___ Presence of Reduced Iron (C4)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes ✓ No ___ Depth (inches): 0.5

Water Table Present? Yes ___ No ✓ Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): ___

Wetland Hydrology Present? Yes ✓ No ___

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

Remarks:

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Overlook City/County: Peyton/El Paso Sampling Date: 6/26/23
Applicant/Owner: PT State: CO Sampling Point: SP 7-UP
Investigator(s): SM AM Section, Township, Range: 24, T13S, R64W
Landform (hillslope, terrace, etc.): swale Local relief (concave, convex, none): none Slope (%): 0
Subregion (LRR): Rocky Mtn Region Lat: 39.06457675 Long: -104.54586716 Datum: NAD83
Soil Map Unit Name: 71 Pring coarse sandy loam 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 ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ____	No ✓	**Is the Sampled Area within a Wetland?** Yes ____ No ✓
Hydric Soil Present?	Yes ____	No ✓	
Wetland Hydrology Present?	Yes ✓	No ____	

Remarks:
significant large amount of precipitation 06/2023

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	____ = Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	____ = Total Cover		
Herb Stratum (Plot size: ____)			
1. Juncus arcticus	20		FACW
2. Poa palustris	40	✓	FAC
3. Bassia scoparia	20	✓	FACU
4. Taraxacum officinale	5		FACU
5. Koeleria macrantha	15		UPL
6.			
7.			
8.			
9.			
10.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____ = Total Cover		

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC–): 1 (A)
Total Number of Dominant Species Across All Strata: 2 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species ____	x 1 = ____
FACW species 20	x 2 = 40
FAC species 40	x 3 = 120
FACU species 25	x 4 = 100
UPL species 15	x 5 = 75
Column Totals: 100 (A)	335 (B)

Prevalence Index = B/A = 3.4

Hydrophytic Vegetation Indicators:
___ 1 - Rapid Test for Hydrophytic Vegetation
___ 2 - Dominance Test is >50%
___ 3 - Prevalence Index is ≤3.0[1]
___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes ____ No ✓

Remarks:

SOIL

Sampling Point: _____

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12"	10YR 3/3	100					loam	

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR F**)
- ___ 1 cm Muck (A9) (**LRR F, G, H**)
- ___ Depleted Below Dark Surface (**A11**)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR I, J**)
- ___ Coast Prairie Redox (A16) (**LRR F, G, H**)
- ___ Dark Surface (S7) (**LRR G**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: N/A

Depth (inches): _____

Hydric Soil Present? Yes _____ No ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ✗ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)
- ___ Presence of Reduced Iron (C4)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes ✓ No _____ Depth (inches): 0.25

Water Table Present? Yes _____ No ✓ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No ✓ Depth (inches): _____

Wetland Hydrology Present? Yes ✓ No _____

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

Remarks:

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Overlook City/County: Peyton/El Paso Sampling Date: 6/26/23
Applicant/Owner: PT State: CO Sampling Point: SP-8-UP
Investigator(s): SM AM Section, Township, Range: 27, T11S, R64W
Landform (hillslope, terrace, etc.): swale Local relief (concave, convex, none): none Slope (%): 0
Subregion (LRR): Rocky Mtn Region Lat: 39.06565957 Long: -104.54640993 Datum: NAD83
Soil Map Unit Name: 71? Pring coarse sandy loam, 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 N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ____	No ✓	**Is the Sampled Area within a Wetland?** Yes ____ No ✓
Hydric Soil Present?	Yes ____	No ____	
Wetland Hydrology Present?	Yes ____	No ____	

Remarks:
above average rainfall 6/2023

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	____ = Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	____ = Total Cover		
Herb Stratum (Plot size: ____)			
1. Koeleria macrantha	35	✓	UPL
2. Erigeron glabellus	5		FACW
3. Rosa woodsii	15		FACU
4. Poa palustris	10		FACW
5. Potentilla effusa	15		FAC
6. Artemisia frigida	10		UPL
7.			
8.			
9.			
10.			
	90 = Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____ = Total Cover		

% Bare Ground in Herb Stratum 10

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 0 (A)
Total Number of Dominant Species Across All Strata: 1 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species ____	x 1 = ____
FACW species 15	x 2 = 30
FAC species 15	x 3 = 45
FACU species 15	x 4 = 60
UPL species 45	x 5 = 225
Column Totals: 90 (A)	360 (B)

Prevalence Index = B/A = 4

Hydrophytic Vegetation Indicators:
___ 1 - Rapid Test for Hydrophytic Vegetation
___ 2 - Dominance Test is >50%
___ 3 - Prevalence Index is ≤3.0[1]
___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes ____ No ✓

Remarks:

SOIL

Sampling Point: SP 8-UP

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-8.5	10YR 3/3	100					silty CL	sand 60% gravel
8.5-12	10YR 5/3	100						20% gravel

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR F**)
- ___ 1 cm Muck (A9) (**LRR F, G, H**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR I, J**)
- ___ Coast Prairie Redox (A16) (**LRR F, G, H**)
- ___ Dark Surface (S7) (**LRR G**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: N/A

Depth (inches): _____

Hydric Soil Present? Yes _____ No ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)
- ___ Presence of Reduced Iron (C4)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes _____ No ✓ Depth (inches): _____

Water Table Present? Yes _____ No ✓ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No ✓ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No ✓

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

Remarks:

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Overlook City/County: Peyton/El Paso Sampling Date: 6/26/23
Applicant/Owner: PT State: CO Sampling Point: SP 9-WP
Investigator(s): SM AM Section, Township, Range: 27, T11S, R64W
Landform (hillslope, terrace, etc.): swale Local relief (concave, convex, none): concave Slope (%): 0
Subregion (LRR): Rocky Mtn Region Lat: 39.0658935 Long: -104.54423586 Datum: NAD83
Soil Map Unit Name: 71: Pring coarse sandy loam, 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 N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ✓	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No ✓
Hydric Soil Present?	Yes ____	No ✓	
Wetland Hydrology Present?	Yes ____	No ✓	

Remarks:
above average rainfall 6/2023

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	____ = Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	____ = Total Cover		
Herb Stratum (Plot size: ____)			
1. Juncus arcticus	10		FACW
2. Poa palustris	35		FACW
3. Eriaeron glaberrimus	5		FACW
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	50 = Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____ = Total Cover		
% Bare Ground in Herb Stratum 50			

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC–): 0 (A)
Total Number of Dominant Species Across All Strata: 0 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species ____	x 1 = ____
FACW species 50	x 2 = 100
FAC species ____	x 3 = ____
FACU species ____	x 4 = ____
UPL species ____	x 5 = ____
Column Totals: 50 (A)	100 (B)

Prevalence Index = B/A = 2

Hydrophytic Vegetation Indicators:
✓ 1 - Rapid Test for Hydrophytic Vegetation
___ 2 - Dominance Test is >50%
✓ 3 - Prevalence Index is ≤3.0[1]
___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes ✓ No ____

Remarks:

SOIL

Sampling Point: 3P 9 UP

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 4/2	100					CL	80% gravel
6-9	10YR 5/3						silty sand	80% "
9-12+	10YR 5/3	98				2	silty sand	95% "

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

Hydric Soil Indicators: (Applicable to all LRRs, unless noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR F)**
- ___ 1 cm Muck (A9) **(LRR F, G, H)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) **(LRR G, H)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR F)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) **(MLRA 72 & 73 of LRR H)**

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR I, J)**
- ___ Coast Prairie Redox (A16) **(LRR F, G, H)**
- ___ Dark Surface (S7) **(LRR G)**
- ___ High Plains Depressions (F16) **(LRR H outside of MLRA 72 & 73)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: N/A

Depth (inches): ___

Hydric Soil Present? Yes ___ No ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Oxidized Rhizospheres on Living Roots (C3) **(where not tilled)**
- ___ Presence of Reduced Iron (C4)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ✓ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) **(where tilled)**
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) **(LRR F)**

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): ___

Water Table Present? Yes ✓ No ___ Depth (inches): 8

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): ___

Wetland Hydrology Present? Yes ___ No ✓

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

Remarks:

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Overlook City/County: Peyton/El Paso Sampling Date: 6/26/23
Applicant/Owner: PT State: CO Sampling Point: SP 9-W
Investigator(s): AM JM Section, Township, Range: 27, T13S, R64W
Landform (hillslope, terrace, etc.): marsh Local relief (concave, convex, none): concave Slope (%): 0
Subregion (LRR): Rocky Mtn Region Lat: 39.065741623 Long: -104.5241263?? Datum: NAD83
Soil Map Unit Name: 71: Pring coarse sandy loam, 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 N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ✓	No ____	**Is the Sampled Area within a Wetland?** Yes ✓ No ____
Hydric Soil Present?	Yes ✓	No ____	
Wetland Hydrology Present?	Yes ✓	No ____	

Remarks:
above average rainfall 6/2023

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	____ = Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	____ = Total Cover		
Herb Stratum (Plot size: ____)			
1. Poa palustris	15		FACW
2. Juncus arcticus	10		FACW
3. Schoenoplectus pungens	70	✓	OBL
4. Trifolium fragiferum	1		UPL
5.			
6.			
7.			
8.			
9.			
10.			
	96 = Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____ = Total Cover		
% Bare Ground in Herb Stratum 4			

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC–): 1 (A)
Total Number of Dominant Species Across All Strata: 1 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	70	x 1 =	70
FACW species	25	x 2 =	50
FAC species		x 3 =	
FACU species		x 4 =	
UPL species	1	x 5 =	5
Column Totals:	96 (A)		125 (B)

Prevalence Index = B/A = 1.3

Hydrophytic Vegetation Indicators:
✓ 1 - Rapid Test for Hydrophytic Vegetation
✓ 2 - Dominance Test is >50%
✓ 3 - Prevalence Index is ≤3.0[1]
___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes ✓ No ____

Remarks:

SOIL

Sampling Point: SP 9-W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 4/2	98		2			CL	20% gravel

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR F**)
- ___ 1 cm Muck (A9) (**LRR F, G, H**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR I, J**)
- ___ Coast Prairie Redox (A16) (**LRR F, G, H**)
- ___ Dark Surface (S7) (**LRR G**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: N/A

Depth (inches): ___

Hydric Soil Present? Yes ✓ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- X Surface Water (A1)
- X High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- X Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)
- ___ Presence of Reduced Iron (C4)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- X Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes ✓ No ___ Depth (inches): 0.5

Water Table Present? Yes ✓ No ___ Depth (inches): 1

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): ___

Wetland Hydrology Present? Yes ✓ No ___

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

Remarks:

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Overlook City/County: Peyton/El Paso Sampling Date: 6/26/23
Applicant/Owner: PT State: CO Sampling Point: SP 10-UP
Investigator(s): AM SM Section, Township, Range: 24, T11S, R64W
Landform (hillslope, terrace, etc.): swale Local relief (concave, convex, none): concave Slope (%): 0
Subregion (LRR): Rocky Mtn Region Lat: 39.06526963 Long: -104.54397546 Datum: NAD83
Soil Map Unit Name: 71: Ring coarse sandy loam, 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 N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes √ No ____
Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ____ No √	**Is the Sampled Area within a Wetland?** Yes ____ No √
Hydric Soil Present?	Yes ____ No √	
Wetland Hydrology Present?	Yes √ No ____	

Remarks:
above average rainfall 6/2023

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	____ = Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	____ = Total Cover		
Herb Stratum (Plot size: ____)			
1. Poa palustris	25		FACW
2. Erigeron alabellis	5		FACU
3. Taxavacum officinale	10		FACU
4. Allium acueri	5		FACU
5. Achillea millefolium	10		FACU
6. Poa pratensis	10		FACU
7. Juncus brachycephalus	20		OBL
8.			
9.			
10.			
	85 = Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____ = Total Cover		

% Bare Ground in Herb Stratum 15

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC–): 0 (A)
Total Number of Dominant Species Across All Strata: 0 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species 25	x 1 = 20
FACW species 30	x 2 = 60
FAC species ____	x 3 = ____
FACU species 35	x 4 = 140
UPL species ____	x 5 = ____
Column Totals: 85 (A)	220 (B)

Prevalence Index = B/A = 2.6

Hydrophytic Vegetation Indicators:
___ 1 - Rapid Test for Hydrophytic Vegetation
___ 2 - Dominance Test is >50%
√ 3 - Prevalence Index is ≤3.0[1]
___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes ____ No √

Remarks:

SOIL

Sampling Point: _____

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 3/3						loam	
6-12+	10YR 5/2						silty loam 50% gravel	

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR F**)
- ___ 1 cm Muck (A9) (**LRR F, G, H**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR I, J**)
- ___ Coast Prairie Redox (A16) (**LRR F, G, H**)
- ___ Dark Surface (S7) (**LRR G**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: N/A

Depth (inches): _____

Hydric Soil Present? Yes _____ No ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- X Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)
- ___ Presence of Reduced Iron (C4)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- X Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): _____

Water Table Present? Yes ✓ No ___ Depth (inches): 10

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): _____

Wetland Hydrology Present? Yes ✓ No _____

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

Remarks:

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Overlook City/County: Peyton/El Paso Sampling Date: 6/26/23
Applicant/Owner: PT State: CO Sampling Point: SP 11-UP
Investigator(s): SM AM Section, Township, Range: 27, T11S, R64W
Landform (hillslope, terrace, etc.): swale Local relief (concave, convex, none): none Slope (%): 0
Subregion (LRR): Rocky Mtn Region Lat: 39.06447427 Long: -104.54366027 Datum: NAD83
Soil Map Unit Name: 71 Ring coarse sandy loam, 3-8 NWI classification: N/A
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No Y (If no, explain in Remarks.)
Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes Y No ____
Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ____	No Y	**Is the Sampled Area within a Wetland?** Yes ____ No Y
Hydric Soil Present?	Yes ____	No Y	
Wetland Hydrology Present?	Yes ____	No Y	

Remarks:
above average rainfall 6/2023

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	____ = Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	____ = Total Cover		
Herb Stratum (Plot size: ____)			
1. Koeleria macrantha	25		UPL
2. Achillea millefolium	10		FACU
3. Artemisia frigida	15		UPL
4. Poa palustris	25		FACW
5. Taraxacum officinale	5		FACU
6.			
7.			
8.			
9.			
10.			
	80 = Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____ = Total Cover		
% Bare Ground in Herb Stratum 20			

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC−): 0 (A)
Total Number of Dominant Species Across All Strata: 0 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	____	x 1 =	____
FACW species	25	x 2 =	50
FAC species	____	x 3 =	____
FACU species	15	x 4 =	60
UPL species	40	x 5 =	200
Column Totals:	80 (A)		310 (B)

Prevalence Index = B/A = 3.9

Hydrophytic Vegetation Indicators:
___ 1 - Rapid Test for Hydrophytic Vegetation
___ 2 - Dominance Test is >50%
___ 3 - Prevalence Index is ≤3.0[1]
___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes ____ No Y

Remarks:

SOIL

Sampling Point: SP 11-UP

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 3/2						CL	

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR F)**
- ___ 1 cm Muck (A9) **(LRR F, G, H)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) **(LRR G, H)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR F)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) **(MLRA 72 & 73 of LRR H)**

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR I, J)**
- ___ Coast Prairie Redox (A16) **(LRR F, G, H)**
- ___ Dark Surface (S7) **(LRR G)**
- ___ High Plains Depressions (F16) **(LRR H outside of MLRA 72 & 73)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: N/A

Depth (inches): ___

Hydric Soil Present? Yes ___ No ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Oxidized Rhizospheres on Living Roots (C3) **(where not tilled)**
- ___ Presence of Reduced Iron (C4)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) **(where tilled)**
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) **(LRR F)**

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): ___

Water Table Present? Yes ✓ No ___ Depth (inches): 11

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): ___

Wetland Hydrology Present? Yes ___ No ✓

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

Remarks:

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Overlook City/County: Peyton/El Paso Sampling Date: 6/26/23
Applicant/Owner: DT State: CO Sampling Point: SP 12-UP
Investigator(s): JM AM Section, Township, Range: 27, T11S, R64W
Landform (hillslope, terrace, etc.): swale Local relief (concave, convex, none): none Slope (%): 0
Subregion (LRR): Rocky Mtn Region Lat: 39.06603313 Long: -104.54297164 Datum: NAD83
Soil Map Unit Name: 71: Pring coarse sandy loam, 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 N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes √ No ____
Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ____ No √	**Is the Sampled Area within a Wetland?** Yes ____ No √
Hydric Soil Present?	Yes ____ No √	
Wetland Hydrology Present?	Yes √ No ____	

Remarks:
above average rainfall 6/2023

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	____ = Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	____ = Total Cover		
Herb Stratum (Plot size: ____)			
1. Poa palustris	10		FACW
2. Juncus brachycephalus	10		OBL
3. Artemisia ludoviciana	5		UPL
4. Poa pratensis	10		FACU
5. Artemisia frigida	10		UPL
6. Bromus tectorum	5		UPL
7. Koeleria macrantha	5		UPL
8.			
9.			
10.			
	55 = Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____ = Total Cover		

% Bare Ground in Herb Stratum 45

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 0 (A)
Total Number of Dominant Species Across All Strata: 0 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	10	x 1 =	10
FACW species	10	x 2 =	20
FAC species		x 3 =	
FACU species	10	x 4 =	40
UPL species	25	x 5 =	125
Column Totals:	55 (A)		195 (B)

Prevalence Index = B/A = 3.5

Hydrophytic Vegetation Indicators:
___ 1 - Rapid Test for Hydrophytic Vegetation
___ 2 - Dominance Test is >50%
___ 3 - Prevalence Index is ≤3.0[1]
___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes ____ No √

Remarks:

SOIL

Sampling Point: _____

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR 4/2						silty sand	60% gravel
8-12+	10YR 4/2						CL	10% Ox

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR F)**
- ___ 1 cm Muck (A9) **(LRR F, G, H)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) **(LRR G, H)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR F)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) **(MLRA 72 & 73 of LRR H)**

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR I, J)**
- ___ Coast Prairie Redox (A16) **(LRR F, G, H)**
- ___ Dark Surface (S7) **(LRR G)**
- ___ High Plains Depressions (F16) **(LRR H outside of MLRA 72 & 73)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: N/A

Depth (inches): _____

Hydric Soil Present? Yes _____ No ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ✓ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- X Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Oxidized Rhizospheres on Living Roots (C3) **(where not tilled)**
- ___ Presence of Reduced Iron (C4)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) **(where tilled)**
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- X Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) **(LRR F)**

Field Observations:

Surface Water Present? Yes ✓ No ___ Depth (inches): 0.25

Water Table Present? Yes ___ No ✓ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): _____

Wetland Hydrology Present? Yes ✓ No _____

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

Remarks:

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Overlook City/County: Peyton/El Paso Sampling Date: 6/26/23
Applicant/Owner: PT State: CO Sampling Point: SP13U
Investigator(s): SM AM Section, Township, Range: 27, T11S, R64W
Landform (hillslope, terrace, etc.): swale Local relief (concave, convex, none): Concave Slope (%): 2-3
Subregion (LRR): Rocky Mtn Region Lat: 39.066078 Long: -104.541759 Datum: NAD83
Soil Map Unit Name: 71: Pring coarse sandy loam, 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 N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ____	No ✓	**Is the Sampled Area within a Wetland?** Yes ____ No ✓
Hydric Soil Present?	Yes ____	No ✓	
Wetland Hydrology Present?	Yes ✓	No ____	

Remarks:
above average rainfall 6/2023

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	____ = Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	____ = Total Cover		
Herb Stratum (Plot size: 10 x 10)			
1. Potentilla effusa	10		FAC
2. Poa palustris	5		FACW
3. Koeleria macrantha	15	✓	UPL
4. Artemisia frigida	5		UPL
5. Juncus arcticus	25	✓	FACW
6. Achillea millefolium	15		FACU
7. Penstemon strictus	5		UPL
8. Taraxacum officinale	10		FACU
9. Erigon glabrellus	10		FACW
10.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____ = Total Cover		
% Bare Ground in Herb Stratum 0			

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC–): 1 (A)
Total Number of Dominant Species Across All Strata: 2 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	____	x 1 =	____
FACW species	40	x 2 =	80
FAC species	10	x 3 =	30
FACU species	25	x 4 =	100
UPL species	25	x 5 =	125
Column Totals:	100 (A)		335 (B)

Prevalence Index = B/A = 3.3

Hydrophytic Vegetation Indicators:
___ 1 - Rapid Test for Hydrophytic Vegetation
___ 2 - Dominance Test is >50%
✓ 3 - Prevalence Index is ≤3.0[1]
___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes ____ No ✓

Remarks:

SOIL

Sampling Point: SP3U

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-11+	10YR 3/2	100					CL	60% gravel

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR F)**
- ___ 1 cm Muck (A9) **(LRR F, G, H)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) **(LRR G, H)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR F)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) **(MLRA 72 & 73 of LRR H)**

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR I, J)**
- ___ Coast Prairie Redox (A16) **(LRR F, G, H)**
- ___ Dark Surface (S7) **(LRR G)**
- ___ High Plains Depressions (F16) **(LRR H outside of MLRA 72 & 73)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- X Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Oxidized Rhizospheres on Living Roots (C3) **(where not tilled)**
- ___ Presence of Reduced Iron (C4)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) **(where tilled)**
- ___ Crayfish Burrows (C8)
- X Saturation Visible on Aerial Imagery (C9)
- X Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) **(LRR F)**

Field Observations:

Surface Water Present? Yes X No _____ Depth (inches): 1"

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

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

Remarks:

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Overlook City/County: Peyton/El Paso Sampling Date: 6/26/03
Applicant/Owner: PT State: CO Sampling Point: SP 14 U
Investigator(s): AM SM Section, Township, Range: 24, T11S, R64W
Landform (hillslope, terrace, etc.): shoreline Local relief (concave, convex, none): concave Slope (%): 1-2%
Subregion (LRR): Rocky Mtn Region Lat: 39.06515052 Long: -104.54204248 Datum: NAD83
Soil Map Unit Name: 71: Pring coarse sandy loam, 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 N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes ✓ No ____
Hydric Soil Present? Yes ✓ No ____
Wetland Hydrology Present? Yes ✓ No ____

Is the Sampled Area within a Wetland? Yes ____ No ✓ ?

Remarks:
above average rainfall 6/2003

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	____ = Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	____ = Total Cover		
Herb Stratum (Plot size: ____)			
1. Poa palustris	20		FACW
2. Schoenoplectus pungens	40	✓	OBL
3. Juncus arcticus	10		FACW
4. Carex nebrascensis	5		OBL
5.			
6.			
7.			
8.			
9.			
10.			
	76 = Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____ = Total Cover		

% Bare Ground in Herb Stratum ____

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC–): 1 (A)
Total Number of Dominant Species Across All Strata: 1 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	45	x 1 =	45
FACW species	30	x 2 =	60
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	75 (A)		105 (B)

Prevalence Index = B/A = 1.4

Hydrophytic Vegetation Indicators:
✓ 1 - Rapid Test for Hydrophytic Vegetation
✓ 2 - Dominance Test is >50%
✓ 3 - Prevalence Index is ≤3.0[1]
___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes ✓ No ____

Remarks:
25% open water

SOIL

Sampling Point: SP 14 UP

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-5	10YR 5/2	100					SL	20% gravel
5-10+	10YR 5/1	90	10YR 5/8	10	C	M	L	

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR F**)
- ___ 1 cm Muck (A9) (**LRR F, G, H**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR I, J**)
- ___ Coast Prairie Redox (A16) (**LRR F, G, H**)
- ___ Dark Surface (S7) (**LRR G**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: water table

Depth (inches): 10

Hydric Soil Present? Yes X No ___

Remarks:

Submerged sediment limited pit depth

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- X Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- X Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)
- ___ Presence of Reduced Iron (C4)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- X Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes X No ___ Depth (inches): 11"

Water Table Present? Yes X No ___ Depth (inches): 10"

Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): ___

Wetland Hydrology Present? Yes X No ___

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

Remarks:

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Overlook City/County: Peyton/El Paso Sampling Date: 6/26/23
Applicant/Owner: PT State: CO Sampling Point: SP 15-UP
Investigator(s): SM AM Section, Township, Range: 27, T11S, R64W
Landform (hillslope, terrace, etc.): Swale Local relief (concave, convex, none): concave Slope (%): 1-2%
Subregion (LRR): Rocky Mtn Region Lat: 39.06461732 Long: -104.5426443 Datum: NAD83
Soil Map Unit Name: 71: Ring coarse sandy loam, 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 ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ✓ No ____	**Is the Sampled Area within a Wetland?** Yes ____ No ✓
Hydric Soil Present?	Yes ✓ No ____	
Wetland Hydrology Present?	Yes ✓ No ____	

Remarks:
above average rainfall 6/2023

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	____ = Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	____ = Total Cover		
Herb Stratum (Plot size: 10 x 10)			
1. Poa palustris	50	✓	FACW
2. Erigon glabellus	10		FACW
3. Koeleria macrantha	5		UPL
4. Achillea millefolium	10		FACU
5. Juncus brachycephalus	20		OBL
6. Penstemon strictus	5		UPL
7.			
8.			
9.			
10.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____ = Total Cover		

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC–): 1 (A)
Total Number of Dominant Species Across All Strata: 1 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	20	x 1 =	20
FACW species	60	x 2 =	120
FAC species	____	x 3 =	____
FACU species	10	x 4 =	40
UPL species	10	x 5 =	50
Column Totals:	100 (A)		230 (B)

Prevalence Index = B/A = 2.3

Hydrophytic Vegetation Indicators:
✓ 1 - Rapid Test for Hydrophytic Vegetation
✓ 2 - Dominance Test is >50%
✓ 3 - Prevalence Index is ≤3.0[1]
___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes ✓ No ____

Remarks:

SOIL

Sampling Point: SP 15 UP

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-8	10 YR 4/2	100					CL	20% gravel
8-12	10 YR 4/2	100					SiL	30% gravel

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR F)**
- ___ 1 cm Muck (A9) **(LRR F, G, H)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) **(LRR G, H)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR F)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) **(MLRA 72 & 73 of LRR H)**

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR I, J)**
- ___ Coast Prairie Redox (A16) **(LRR F, G, H)**
- ___ Dark Surface (S7) **(LRR G)**
- ___ High Plains Depressions (F16) **(LRR H outside of MLRA 72 & 73)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- X Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Oxidized Rhizospheres on Living Roots (C3) **(where not tilled)**
- ___ Presence of Reduced Iron (C4)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) **(where tilled)**
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- X Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) **(LRR F)**

Field Observations:

Surface Water Present? Yes X No _____ Depth (inches): 1"

Water Table Present? Yes X No _____ Depth (inches): 10"

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

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

Remarks:

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Overlook City/County: Peyton/El Paso Sampling Date: 7/26/23
Applicant/Owner: PT State: CO Sampling Point: 16-UP
Investigator(s): SM Section, Township, Range: 27, T11S, R64W
Landform (hillslope, terrace, etc.): swale Local relief (concave, convex, none): none Slope (%): 0
Subregion (LRR): Rocky Mtn Region Lat: 39.06729532 Long: -104.54198026 Datum: NAD83
Soil Map Unit Name: 71: Pring coarse sandy loam, 3 to 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 N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ✓	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No ✓
Hydric Soil Present?	Yes ____	No ✓	
Wetland Hydrology Present?	Yes ____	No ✓	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	____ = Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	____ = Total Cover		
Herb Stratum (Plot size: ____)			
1. Juncus brachycephalus	40	✓	OBL
2. Koeleria macrantha	10		UPL
3. Elymus trachycaulus	9		FACU
4. Allium geyeri	1		FACU
5. Ambrosia artemisiifolia	15		FACU
6. Achillea millefolium	5		FACU
7. Poa palustris	10		FACW
8. Artemisia tridata	10		UPL
9.			
10.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____ = Total Cover		
% Bare Ground in Herb Stratum 0			

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC–): 1 (A)
Total Number of Dominant Species Across All Strata: 1 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	40	x 1 =	40
FACW species	10	x 2 =	20
FAC species	____	x 3 =	____
FACU species	30	x 4 =	120
UPL species	20	x 5 =	100
Column Totals:	100 (A)		280 (B)

Prevalence Index = B/A = 2.8

Hydrophytic Vegetation Indicators:
✓ 1 - Rapid Test for Hydrophytic Vegetation
✓ 2 - Dominance Test is >50%
✓ 3 - Prevalence Index is ≤3.0[1]
___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes ✓ No ____

Remarks:

SOIL

Sampling Point: SP 16-UP

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 3/2						CL	
6-12+	10YR 5/3						loam	

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR F**)
- ___ 1 cm Muck (A9) (**LRR F, G, H**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR I, J**)
- ___ Coast Prairie Redox (A16) (**LRR F, G, H**)
- ___ Dark Surface (S7) (**LRR G**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: N/A

Depth (inches): _____

Hydric Soil Present? Yes ___ No ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)
- ___ Presence of Reduced Iron (C4)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ✓ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): _____

Water Table Present? Yes ___ No ✓ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): _____

Wetland Hydrology Present? Yes ___ No ✓

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

Remarks:

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Overlook City/County: Peyton/El Paso Sampling Date: 7/26/23
Applicant/Owner: PT State: CO Sampling Point: SP 17-UP
Investigator(s): SM Section, Township, Range: 27, T11S, R64W
Landform (hillslope, terrace, etc.): swale Local relief (concave, convex, none): concave Slope (%): 0
Subregion (LRR): Rocky Mtn Region Lat: 39.06467145 Long: -104.6404621 Datum: NAD83
Soil Map Unit Name: 71: Ring coarse sandy loam, 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 N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes √ No _____
Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes _____	No √	**Is the Sampled Area within a Wetland?** Yes _____ No √
Hydric Soil Present?	Yes _____	No √	
Wetland Hydrology Present?	Yes _____	No √	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: _____)			
1. Juncus brachycephalus	10		OBL
2. Poa compressa	10		FACU
3. Achillea millefolium	10		FACU
4. Ambrosia artemisiifolia	20	√	FACU
5. Agrostis gigantea	40	√	FACW
6. Elymus trachycaulus	10		FACU
7.			
8.			
9.			
10.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		
% Bare Ground in Herb Stratum 0			

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC−): 1 (A)
Total Number of Dominant Species Across All Strata: 2 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	10	x 1 =	10
FACW species	40	x 2 =	80
FAC species		x 3 =	
FACU species	50	x 4 =	200
UPL species		x 5 =	
Column Totals:	100 (A)		290 (B)

Prevalence Index = B/A = 2.9

Hydrophytic Vegetation Indicators:
___ 1 - Rapid Test for Hydrophytic Vegetation
___ 2 - Dominance Test is >50%
√ 3 - Prevalence Index is ≤3.0[1]
___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes _____ No √

Remarks:

SOIL

Sampling Point: SP W1 UP

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 4/4						loam	
6-12+	10YR 3/1						CL	

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR F**)
- ___ 1 cm Muck (A9) (**LRR F, G, H**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR I, J**)
- ___ Coast Prairie Redox (A16) (**LRR F, G, H**)
- ___ Dark Surface (S7) (**LRR G**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: N/A

Depth (inches): _____

Hydric Soil Present? Yes _____ No ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)
- ___ Presence of Reduced Iron (C4)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ✓ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes _____ No ✓ Depth (inches): _____

Water Table Present? Yes _____ No ✓ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No ✓ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No ✓

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

Remarks:

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Overlook City/County: Peyton/El Paso Sampling Date: 7/26/23

Applicant/Owner: PT State: CO Sampling Point: SP VI W

Investigator(s): SM Section, Township, Range: 27, T11S, R64W

Landform (hillslope, terrace, etc.): spring Local relief (concave, convex, none): concave Slope (%): 6

Subregion (LRR): Rocky Mtn Region Lat: 39.06482178 Long: -104.54051726 Datum: NAD83

Soil Map Unit Name: Ustic Haplargids, coarse sandy loam 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 N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ✓	No ____	**Is the Sampled Area within a Wetland?** Yes ✓ No ____
Hydric Soil Present?	Yes ✓	No ____	
Wetland Hydrology Present?	Yes ✓	No ____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	____ = Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	____ = Total Cover		
Herb Stratum (Plot size: ____)			
1. Juncus arcticus	20	✓	FACW
2. Poa compressa	15		FACU
3. Achillea millefolium	10		FACU
4. Ambrosia artemisiifolia	5		FACU
5. Poa pratensis	20	✓	FACU
6. Juncus brachycephalus	5		OBL
7. Agrostis gigantea	10		FACW
8. Phalaris arundinacea	15		FACW
9.			
10.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____ = Total Cover		

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	5	x 1 =	5
FACW species	45	x 2 =	90
FAC species	____	x 3 =	____
FACU species	50	x 4 =	200
UPL species	____	x 5 =	____
Column Totals:	100 (A)		295 (B)

Prevalence Index = B/A = 2.95

Hydrophytic Vegetation Indicators:

✓ 1 - Rapid Test for Hydrophytic Vegetation

✓ 2 - Dominance Test is >50%

✓ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes ✓ No ____

Remarks:

SOIL

Sampling Point: 30 M-W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-2	10YR 4/3	100					loam	
2-6	10YR 5/2	97	10YR 5/6	3			loam	70%
	10YR 4/2						loam	30%
6-12+	10YR 2/1						loam	

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (LRR F)
- ___ 1 cm Muck (A9) (LRR F, G, H)
- ___ Depleted Below Dark Surface (A11)
- ✓ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- ___ 5 cm Mucky Peat or Peat (S3) (LRR F)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) (MLRA 72 & 73 of LRR H)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (LRR I, J)
- ___ Coast Prairie Redox (A16) (LRR F, G, H)
- ___ Dark Surface (S7) (LRR G)
- ___ High Plains Depressions (F16) (LRR H outside of MLRA 72 & 73)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: N/A

Depth (inches): ___

Hydric Soil Present? Yes ✓ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Oxidized Rhizospheres on Living Roots (C3) (where not tilled)
- ___ Presence of Reduced Iron (C4)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ✓ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) (where tilled)
- ___ Crayfish Burrows (C8)
- ✓ Saturation Visible on Aerial Imagery (C9)
- ✓ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (LRR F)

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): ___

Water Table Present? Yes ___ No ✓ Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): ___

Wetland Hydrology Present? Yes ✓ No ___

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

Remarks:

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Overlook City/County: Peyton/El Paso Sampling Date: 7/26/23
Applicant/Owner: PT State: CO Sampling Point: SP 18-UP
Investigator(s): SM Section, Township, Range: 27, T11S, R64W
Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): convex Slope (%): 6
Subregion (LRR): Rocky Mtn Range Lat: 39.06536332 Long: -104.53984685 Datum: NAD83
Soil Map Unit Name: M1: Pring coarse sandy loam, 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 N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes √ No _____
Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes _____ No √	**Is the Sampled Area within a Wetland?** Yes _____ No √
Hydric Soil Present?	Yes _____ No √	
Wetland Hydrology Present?	Yes _____ No √	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: _____)			
1. Artemisia frigida	30	√	UPL
2. Koeleria macrantha	10		UPL
3. Bouteloua gracilis	10		UPL
4. Achillea millefolium	10		FACU
5. Juncus brachycephalus	10		OBL
6. Heterotheca villosa	5		UPL
7. Hordeum jubatum	10		FACW
8. Dalea purpurea	5		UPL
9. Solidago altissima	10		FACU
10.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		
% Bare Ground in Herb Stratum 0			

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 0 (A)
Total Number of Dominant Species Across All Strata: 1 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	10	x 1 =	10
FACW species	10	x 2 =	20
FAC species	_____	x 3 =	_____
FACU species	20	x 4 =	80
UPL species	60	x 5 =	300
Column Totals:	100 (A)		410 (B)

Prevalence Index = B/A = 4.1

Hydrophytic Vegetation Indicators:
___ 1 - Rapid Test for Hydrophytic Vegetation
___ 2 - Dominance Test is >50%
___ 3 - Prevalence Index is ≤3.0[1]
___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes _____ No √

Remarks:

SOIL

Sampling Point: SP 18 UP

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12+	10YR 4/3	100					loam	

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR F**)
- ___ 1 cm Muck (A9) (**LRR F, G, H**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR I, J**)
- ___ Coast Prairie Redox (A16) (**LRR F, G, H**)
- ___ Dark Surface (S7) (**LRR G**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: N/A

Depth (inches): _____

Hydric Soil Present? Yes _____ No ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)
- ___ Presence of Reduced Iron (C4)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes _____ No ✓ Depth (inches): _____

Water Table Present? Yes _____ No ✓ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No ✓ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No ✓

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

Remarks:

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Overlook City/County: Peyton/El Paso Sampling Date: 7/26/23
Applicant/Owner: PT State: CO Sampling Point: SP 18 - W
Investigator(s): SM Section, Township, Range: 27, T13S, R64W
Landform (hillslope, terrace, etc.): swale Local relief (concave, convex, none): concave Slope (%): 0
Subregion (LRR): Rocky Mtn Region Lat: 39.065367641 Long: -104.539813022 Datum: NAD83
Soil Map Unit Name: 71: Pring coarse sandy loam, 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 N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ✓ No ____	**Is the Sampled Area within a Wetland?** Yes ✓ No ____
Hydric Soil Present?	Yes ✓ No ____	
Wetland Hydrology Present?	Yes ✓ No ____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	____ = Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	____ = Total Cover		
Herb Stratum (Plot size: ____)			
1. Poa pratensis	5		FACU
2. Poa compressa	5		FACU
3. Hordeum jubatum	10		FACW
4. Alopecurus aequalis	10		OBL
5. Juncus brachycephalus	35	✓	OBL
6. Achillea millefolium	5		FACU
7. Elymus trachycaulus	5		FACU
8. Poa arctica	20	✓	FACW
9. Rumex crispus	5		FAC
10.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____ = Total Cover		

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 2 (A)
Total Number of Dominant Species Across All Strata: 2 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	45	x 1 =	45
FACW species	30	x 2 =	60
FAC species	5	x 3 =	15
FACU species	20	x 4 =	
UPL species		x 5 =	
Column Totals:	100 (A)		120 (B)

Prevalence Index = B/A = 1.2

Hydrophytic Vegetation Indicators:
✓ 1 - Rapid Test for Hydrophytic Vegetation
✓ 2 - Dominance Test is >50%
✓ 3 - Prevalence Index is ≤3.0[1]
___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes ✓ No ____

Remarks:

SOIL

Sampling Point: SP 18 (W)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 4/2	50	10YR 5/8	50	C	PL	loamy clay	
4-6	10YR 4/2	50					loamy clay 55% gravel	
6-12+	10YR 4/1	90	10YR 5/8	10	C	PL	loamy clay	

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR F**)
- ___ 1 cm Muck (A9) (**LRR F, G, H**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ✓ Loamy Gleyed Matrix (F2)
- ✓ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR I, J**)
- ___ Coast Prairie Redox (A16) (**LRR F, G, H**)
- ___ Dark Surface (**S7**) (**LRR G**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: N/A

Depth (inches): ___

Hydric Soil Present? Yes ✓ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ✓ Surface Water (A1)
- ✓ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)
- ___ Presence of Reduced Iron (C4)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ✓ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes ✓ No ___ Depth (inches): 0.5

Water Table Present? Yes ✓ No ___ Depth (inches): 10.0

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): ___

Wetland Hydrology Present? Yes ✓ No ___

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

Remarks:

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Overlook City/County: Peyton/El Paso Sampling Date: 7/26/23
Applicant/Owner: PT State: CO Sampling Point: SP 19-UP
Investigator(s): SM AM TL Section, Township, Range: 27, T11S, R64W
Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): convex Slope (%): 0
Subregion (LRR): Rocky Mtn Region Lat: 39.064994952 Long: -104.53942229 Datum: NAD83
Soil Map Unit Name: 71: Pring coarse sandy loam, 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 N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes √ No ____
Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ____ No √	**Is the Sampled Area within a Wetland?** Yes ____ No √
Hydric Soil Present?	Yes ____ No √	
Wetland Hydrology Present?	Yes ____ No √	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	____ = Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	____ = Total Cover		
Herb Stratum (Plot size: ____)			
1. Bouteloua gracilis	50	√	UPL
2. Elymus trachycaulus	10		FACU
3. Hedeotheca villosa	10		UPL
4. Juncus brachycephalus	14		OBL
5. Potentilla recta	1		UPL
6. Allium geyeri	3		FACU
7. Artemisia frigida	2		UPL
8. Poa arctica	10		FACW
9.			
10.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____ = Total Cover		

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC–): 0 (A)
Total Number of Dominant Species Across All Strata: 1 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	14	x 1 =	14
FACW species	10	x 2 =	20
FAC species		x 3 =	
FACU species	13	x 4 =	52
UPL species	63	x 5 =	315
Column Totals:	100 (A)		401 (B)

Prevalence Index = B/A = 4.0

Hydrophytic Vegetation Indicators:
___ 1 - Rapid Test for Hydrophytic Vegetation
___ 2 - Dominance Test is >50%
___ 3 - Prevalence Index is ≤3.0[1]
___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes ____ No √

Remarks:

SOIL

Sampling Point: SP 19-UP

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-5.5	10YR 4/3						loam	
5.5-7.5	10YR 5/4	70					loam	30% gravel
7.5-12+	10YR 5/3	30					CL	70% gravel
	10YR 4/2	70					CL	30% gravel

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR F**)
- ___ 1 cm Muck (A9) (**LRR F, G, H**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR I, J**)
- ___ Coast Prairie Redox (A16) (**LRR F, G, H**)
- ___ Dark Surface (S7) (**LRR G**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: N/A

Depth (inches): ___

Hydric Soil Present? Yes ___ No ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)
- ___ Presence of Reduced Iron (C4)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): ___

Water Table Present? Yes ___ No ✓ Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): ___

Wetland Hydrology Present? Yes ___ No ✓

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

Remarks:

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Overlook City/County: Deuel/El Paso Sampling Date: 7/24/23
Applicant/Owner: DT State: CO Sampling Point: SP20-UP
Investigator(s): SM AM TL Section, Township, Range: 27, T13S, R64W
Landform (hillslope, terrace, etc.): Swale Local relief (concave, convex, none): Concave Slope (%): 0
Subregion (LRR): Rocky Mtn Range Lat: 39.06482389 Long: -104.53934489 Datum: NAD83
Soil Map Unit Name: 71: Ascalon sandy loam, 3-5% 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 N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	____ = Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	____ = Total Cover		
Herb Stratum (Plot size: ____)			
1. Koeleria macrantha	2		UPL
2. Elymus trachycaulus	10		FACU
3. Achillea millefolium	5		FACU
4. Solidago nemoralis	5		UPL
5. Bouteloua gracilis	30	✓	UPL
6. Artemisia frigida	15		UPL
7. Dalea purpurea	3		UPL
8. Potentilla recta	10		UPL
9.			
10.			
	80 = Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____ = Total Cover		

% Bare Ground in Herb Stratum 20

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC–): 0 (A)
Total Number of Dominant Species Across All Strata: 1 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species ____	x 1 = ____	
FACW species ____	x 2 = ____	
FAC species ____	x 3 = ____	
FACU species 15	x 4 = 60	
UPL species 65	x 5 = 325	
Column Totals: 80	(A) 385	(B)

Prevalence Index = B/A = 4.8

Hydrophytic Vegetation Indicators:
___ 1 - Rapid Test for Hydrophytic Vegetation
___ 2 - Dominance Test is >50%
___ 3 - Prevalence Index is ≤3.0[1]
___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes ____ No ✓

Remarks:

SOIL

Sampling Point: SP20UP

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 4/3	50					loam	50% gravel
6-12+	10YR 5/1	95	10YR 7/6	5	PL	C	loam	

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR F)**
- ___ 1 cm Muck (A9) **(LRR F, G, H)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) **(LRR G, H)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR F)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) **(MLRA 72 & 73 of LRR H)**

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR I, J)**
- ___ Coast Prairie Redox (A16) **(LRR F, G, H)**
- ___ Dark Surface (S7) **(LRR G)**
- ___ High Plains Depressions (F16) **(LRR H outside of MLRA 72 & 73)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: N/A

Depth (inches): _____

Hydric Soil Present? Yes _____ No _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Oxidized Rhizospheres on Living Roots (C3) **(where not tilled)**
- ___ Presence of Reduced Iron (C4)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ✓ Sparsely Vegetated Concave Surface (B8)
- ✓ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) **(where tilled)**
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) **(LRR F)**

Field Observations:

Surface Water Present? Yes _____ No ✓ Depth (inches): _____

Water Table Present? Yes _____ No ✓ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No ✓ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No ✓

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

Remarks:

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Overlook City/County: Peyton / El Paso Sampling Date: 7/26/23

Applicant/Owner: PT State: CO Sampling Point: SP 20 W

Investigator(s): JM AM TL Section, Township, Range: 27, T11S, R64W

Landform (hillslope, terrace, etc.): swale Local relief (concave, convex, none): concave Slope (%): 6

Subregion (LRR): Rocky Mtn Region Lat: 39.06481548 Long: -104.53939028 Datum: NAD83

Soil Map Unit Name: 71: Pring coarse sandy loam, 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 N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ✓	No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓	No _____	
Wetland Hydrology Present?	Yes ✓	No _____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: _____)			
1. Potentilla recta	5		UPL
2. Poa pratensis	25	✓	FACU
3. Mentha arvensis	5		FACW
4. Poa arctica	25	✓	FACW
5.			
6.			
7.			
8.			
9.			
10.			
	60 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 40

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	_____	x 1 =	_____
FACW species	30	x 2 =	60
FAC species	_____	x 3 =	_____
FACU species	25	x 4 =	100
UPL species	5	x 5 =	25
Column Totals:	60 (A)		185 (B)

Prevalence Index = B/A = 3.0

Hydrophytic Vegetation Indicators:

✓ 1 - Rapid Test for Hydrophytic Vegetation

✓ 2 - Dominance Test is >50%

✓ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks:

SOIL

Sampling Point: SP 20 W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 5/3	90					loam	10% gravel

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR F**)
- ___ 1 cm Muck (A9) (**LRR F, G, H**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR I, J**)
- ___ Coast Prairie Redox (A16) (**LRR F, G, H**)
- ___ Dark Surface (S7) (**LRR G**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: N/A

Depth (inches): ___

Hydric Soil Present? Yes ✓ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ✓ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)
- ___ Presence of Reduced Iron (C4)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ✓ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
- ___ Crayfish Burrows (C8)
- ✓ Saturation Visible on Aerial Imagery (C9)
- ✓ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes ✓ No ___ Depth (inches): 0.25

Water Table Present? Yes ___ No ✓ Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): ___

Wetland Hydrology Present? Yes ✓ No ___

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

Remarks:

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Overlook City/County: Peyton/El Paso Sampling Date: 7/26/23
Applicant/Owner: PT State: CO Sampling Point: SP 21-UP
Investigator(s): JM AM TL Section, Township, Range: 27, T13, R64W
Landform (hillslope, terrace, etc.): swale Local relief (concave, convex, none): concave Slope (%): 0
Subregion (LRR): Rocky Mtn Range Lat: 39.06474337 Long: -104.53837503 Datum: NAD83
Soil Map Unit Name: 71: Pring coarse sandy loam, 3-8% NWI classification: N/A
Are climatic / hydrologic conditions on the site typical for this time of year? Yes Y No _____ (If no, explain in Remarks.)
Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes Y No _____
Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes _____ No Y	**Is the Sampled Area within a Wetland?** Yes _____ No Y
Hydric Soil Present?	Yes _____ No Y	
Wetland Hydrology Present?	Yes _____ No Y	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: _____)			
1. Koeleria macrantha	2		UPL
2. Elymus trachycaulus	10		FACU
3. Achillea millefolium	5		FACU
4. Solidago altissima	5		FACU
5. Bouteloua gracilis	30	Y	UPL
6. Artemisia frigida	15		UPL
7. Dalea purpurea	3		UPL
8. Potentilla recta	10		UPL
9.			
10.			
	80 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 20

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 0 (A)
Total Number of Dominant Species Across All Strata: 1 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	_____	x 1 =	_____
FACW species	_____	x 2 =	_____
FAC species	_____	x 3 =	_____
FACU species	20	x 4 =	80
UPL species	60	x 5 =	300
Column Totals:	80 (A)		380 (B)

Prevalence Index = B/A = 4.75

Hydrophytic Vegetation Indicators:
___ 1 - Rapid Test for Hydrophytic Vegetation
___ 2 - Dominance Test is >50%
___ 3 - Prevalence Index is ≤3.0[1]
___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes _____ No Y

Remarks:

SOIL

Sampling Point: SP 21 UP

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 4/3	100					silty loam	

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR F**)
- ___ 1 cm Muck (A9) (**LRR F, G, H**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR I, J**)
- ___ Coast Prairie Redox (A16) (**LRR F, G, H**)
- ___ Dark Surface (S7) (**LRR G**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: N/A

Depth (inches): ___

Hydric Soil Present? Yes ___ No ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)
- ___ Presence of Reduced Iron (C4)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ✓ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): ___

Water Table Present? Yes ___ No ✓ Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): ___

Wetland Hydrology Present? Yes ___ No ✓

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

Remarks:

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Overlook City/County: Peyton/El Paso Sampling Date: 7/26/23
Applicant/Owner: PT State: CO Sampling Point: SP 21-W
Investigator(s): SM AM TL Section, Township, Range: 27, T13, R64W
Landform (hillslope, terrace, etc.): spring Local relief (concave, convex, none): concave Slope (%): 0
Subregion (LRR): Rocky Mtn Range Lat: 39.064828 Long: -104.538409 Datum: NAD83
Soil Map Unit Name: 71: Pring coarse sandy loam, 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 N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ✓ No ____	**Is the Sampled Area within a Wetland?** Yes ✓ No ____
Hydric Soil Present?	Yes ✓ No ____	
Wetland Hydrology Present?	Yes ✓ No ____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	____ = Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	____ = Total Cover		
Herb Stratum (Plot size: ____)			
1. Poa pratensis	20		FACU
2. Elymus trachycaulus	20		FACU
3. Juncus brachycephalus	25	✓	OBL
4. Achillea millefolium	5		FACU
5. Poa arctica	10		FACW
6.			
7.			
8.			
9.			
10.			
	80 = Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____ = Total Cover		

% Bare Ground in Herb Stratum 20

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC−): 1 (A)
Total Number of Dominant Species Across All Strata: 1 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	25	x 1 =	25
FACW species	10	x 2 =	20
FAC species	____	x 3 =	____
FACU species	45	x 4 =	180
UPL species	____	x 5 =	____
Column Totals:	90 (A)		225 (B)

Prevalence Index = B/A = 2.5

Hydrophytic Vegetation Indicators:
✓ 1 - Rapid Test for Hydrophytic Vegetation
✓ 2 - Dominance Test is >50%
✓ 3 - Prevalence Index is ≤3.0[1]
____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes ✓ No ____

Remarks:

SOIL

Sampling Point: SP21W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 2/1	100					SL	

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR F**)
- ___ 1 cm Muck (A9) (**LRR F, G, H**)
- ___ Depleted Below Dark Surface (A11)
- ✓ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR I, J**)
- ___ Coast Prairie Redox (A16) (**LRR F, G, H**)
- ___ Dark Surface (S7) (**LRR G**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: N/A

Depth (inches): ___

Hydric Soil Present? Yes ✓ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)
- ___ Presence of Reduced Iron (C4)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ✓ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
- ___ Crayfish Burrows (C8)
- ✓ Saturation Visible on Aerial Imagery (C9)
- ✓ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): ___

Water Table Present? Yes ___ No ✓ Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): ___

Wetland Hydrology Present? Yes ✓ No ___

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

Remarks:

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Overlook City/County: Peyton / El Paso Sampling Date: 7/26/23

Applicant/Owner: PT State: CO Sampling Point: SP 22 UP

Investigator(s): SM AM TL Section, Township, Range: 27, T11S, R64W

Landform (hillslope, terrace, etc.): swale Local relief (concave, convex, none): concave Slope (%): 0

Subregion (LRR): Rocky Mtn Range Lat: 39.06508822 Long: -104.53753415 Datum: NAD83

Soil Map Unit Name: 71: Pring coarse sandy loam, 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 N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes √ No ____

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ____	No √	**Is the Sampled Area within a Wetland?** Yes ____ No √
Hydric Soil Present?	Yes ____	No √	
Wetland Hydrology Present?	Yes ____	No √	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	____ = Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	____ = Total Cover		
Herb Stratum (Plot size: ____)			
1. Elymus trachycaulus	16		FACU
2. Artemisia frigida	5		UPL
3. Poa pratensis	40	√	FACU
4. Juncus brachycephalus	40		OBL
5. Koeleria macrantha	5		UPL
6.			
7.			
8.			
9.			
10.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____ = Total Cover		

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC−): 6 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	40	x 1 =	40
FACW species	____	x 2 =	____
FAC species	____	x 3 =	____
FACU species	50	x 4 =	200
UPL species	10	x 5 =	50
Column Totals:	100 (A)		290 (B)

Prevalence Index = B/A = 2.9

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

√ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes ____ No √

Remarks:

SOIL

Sampling Point: SP 22 UP

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 3/3	100					loamy clay	
6-12	10YR 4/2	40					clay J	60% gravel J

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR F**)
- ___ 1 cm Muck (A9) (**LRR F, G, H**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR I, J**)
- ___ Coast Prairie Redox (A16) (**LRR F, G, H**)
- ___ Dark Surface (S7) (**LRR G**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: N/A

Depth (inches): ___

Hydric Soil Present? Yes ___ No ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)
- ___ Presence of Reduced Iron (C4)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ✓ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes ___ No ___ Depth (inches): ___

Water Table Present? Yes ___ No ___ Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No ___ Depth (inches): ___

Wetland Hydrology Present? Yes ___ No ✓

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

Remarks:

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Overlook City/County: Peyton/El Paso Sampling Date: 7/26/23
Applicant/Owner: PT State: CO Sampling Point: SP23UP
Investigator(s): SM AM TL Section, Township, Range: 27, T11S, R64W
Landform (hillslope, terrace, etc.): swale Local relief (concave, convex, none): concave Slope (%): 0
Subregion (LRR): Rocky Mtn Range Lat: 39.06478178 Long: -104.53625493 Datum: NAD83
Soil Map Unit Name: 71: Ring coarse sandy 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 N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ____	No ✓	**Is the Sampled Area within a Wetland?** Yes ____ No ✓
Hydric Soil Present?	Yes ____	No ____	
Wetland Hydrology Present?	Yes ____	No ____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	____ = Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	____ = Total Cover		
Herb Stratum (Plot size: ____)			
1. Juncus arcticus	30		FACW
2. Koeleria macrantha	8		UPL
3. Achillea millefolium	5		FACU
4. Ambrosia psilostachya	17		FACU
5. Poa pratensis	40	✓	FACU
6.			
7.			
8.			
9.			
10.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____ = Total Cover		

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC−): 0 (A)
Total Number of Dominant Species Across All Strata: 1 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species ____	x 1 =	____
FACW species 20	x 2 =	60
FAC species ____	x 3 =	____
FACU species 62	x 4 =	248
UPL species 8	x 5 =	40
Column Totals: 100 (A)		____ (B)

Prevalence Index = B/A = 3.5

Hydrophytic Vegetation Indicators:
___ 1 - Rapid Test for Hydrophytic Vegetation
___ 2 - Dominance Test is >50%
___ 3 - Prevalence Index is ≤3.0[1]
___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes ____ No ✓

Remarks:

SOIL

Sampling Point: SP22UP

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12+	10YR 5/2	100					loam	

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR F**)
- ___ 1 cm Muck (A9) (**LRR F, G, H**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR I, J**)
- ___ Coast Prairie Redox (A16) (**LRR F, G, H**)
- ___ Dark Surface (S7) (**LRR G**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: N/A

Depth (inches): _____

Hydric Soil Present? Yes _____ No ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)
- ___ Presence of Reduced Iron (C4)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ✓ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes _____ No ✓ Depth (inches): _____

Water Table Present? Yes _____ No ✓ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No ✓ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No ✓

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

Remarks:

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Overlook City/County: Peyton/El Paso Sampling Date: 7/26/23
Applicant/Owner: PT State: CO Sampling Point: SP24UP
Investigator(s): SM AM TL Section, Township, Range: 24, T11S, R64W
Landform (hillslope, terrace, etc.): swale Local relief (concave, convex, none): concave Slope (%): 0
Subregion (LRR): Rocky Mtn Range Lat: 39.06470772 Long: -104.53625698 Datum: NAD83
Soil Map Unit Name: 71: Pring coarse sandy loam, 3-8% NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ____ No ✓	**Is the Sampled Area within a Wetland?** Yes ____ No ✓
Hydric Soil Present?	Yes ____ No ____	
Wetland Hydrology Present?	Yes ____ No ____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	____ = Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	____ = Total Cover		
Herb Stratum (Plot size: ____)			
1. Rumex crispus	9		FAC
2. Juncus arcticus	5		FACW
3. Poa pratensis	10		FACU
4. Poa arctica	5		FACW
5. Achillea millefolium	1		FACU
6. Deschampsia cespitosa	60		FACW
7.			
8.			
9.			
10.			
	90 = Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____ = Total Cover		

% Bare Ground in Herb Stratum 10

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC−): 0 (A)
Total Number of Dominant Species Across All Strata: 0 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	____	x 1 =	____
FACW species	70	x 2 =	140
FAC species	9	x 3 =	27
FACU species	11	x 4 =	44
UPL species	____	x 5 =	____
Column Totals:	90 (A)		211 (B)

Prevalence Index = B/A = 2.3

Hydrophytic Vegetation Indicators:
___ 1 - Rapid Test for Hydrophytic Vegetation
___ 2 - Dominance Test is >50%
✓ 3 - Prevalence Index is ≤3.0[1]
___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes ____ No ✓

Remarks:

SOIL

Sampling Point: SP 24DP

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-10.5	10YR 3/1						CL	
10.5-15+	10YR 5/2	40					CL	60% gravel

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR F**)
- ___ 1 cm Muck (A9) (**LRR F, G, H**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR I, J**)
- ___ Coast Prairie Redox (A16) (**LRR F, G, H**)
- ___ Dark Surface (S7) (**LRR G**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: N/A

Depth (inches): ___

Hydric Soil Present? Yes ___ No ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)
- ___ Presence of Reduced Iron (C4)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ✓ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): ___

Water Table Present? Yes ___ No ✓ Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): ___

Wetland Hydrology Present? Yes ___ No ✓

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

Remarks:

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Overlook City/County: Peyton/El Paso Sampling Date: 7/26/23
Applicant/Owner: PT State: CO Sampling Point: SP25 UP
Investigator(s): DM AM TL Section, Township, Range: 22, 11S, 64W
Landform (hillslope, terrace, etc.): shoreline Local relief (concave, convex, none): concave Slope (%): 0
Subregion (LRR): Rocky Mtn Region Lat: 39.074925 Long: -104.536517 Datum: NAD83
Soil Map Unit Name: 42: Kettle-Rock outcrop complex 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 N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ____ No ✓	**Is the Sampled Area within a Wetland?** Yes ____ No ✓
Hydric Soil Present?	Yes ✓ No ____	
Wetland Hydrology Present?	Yes ✓ No ____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	____ = Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	____ = Total Cover		
Herb Stratum (Plot size: ____)			
1. Koeleria macrantha	10		UPL
2. Poa palustris	10		FACW
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	____ = Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____ = Total Cover		

% Bare Ground in Herb Stratum ____

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 0 (A)
Total Number of Dominant Species Across All Strata: 0 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species ____	x 1 = ____
FACW species 10	x 2 = 20
FAC species ____	x 3 = ____
FACU species ____	x 4 = ____
UPL species 10	x 5 = 50
Column Totals: 20 (A)	70 (B)

Prevalence Index = B/A = 3.5

Hydrophytic Vegetation Indicators:
___ 1 - Rapid Test for Hydrophytic Vegetation
___ 2 - Dominance Test is >50%
___ 3 - Prevalence Index is ≤3.0[1]
___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes ____ No ✓

Remarks:

80% open water

SOIL

Sampling Point: SP 25 UP

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 5/2	100					SL	
4-8+	10YR 5/1	95	10YR 5/8	5	C	M	L	

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR F)**
- ___ 1 cm Muck (A9) **(LRR F, G, H)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) **(LRR G, H)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR F)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) **(MLRA 72 & 73 of LRR H)**

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR I, J)**
- ___ Coast Prairie Redox (A16) **(LRR F, G, H)**
- ___ Dark Surface (S7) **(LRR G)**
- ___ High Plains Depressions (F16) **(LRR H outside of MLRA 72 & 73)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: water table

Depth (inches): 3

Hydric Soil Present? Yes √ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- √ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- √ Iron Deposits (B5)
- √ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Oxidized Rhizospheres on Living Roots (C3) **(where not tilled)**
- ___ Presence of Reduced Iron (C4)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) **(where tilled)**
- ___ Crayfish Burrows (C8)
- √ Saturation Visible on Aerial Imagery (C9)
- √ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) **(LRR F)**

Field Observations:

Surface Water Present? Yes √ No ___ Depth (inches): 1"

Water Table Present? Yes √ No ___ Depth (inches): 8"

Saturation Present? (includes capillary fringe) Yes ___ No √ Depth (inches): ___

Wetland Hydrology Present? Yes √ No ___

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

Remarks:

Print Form | Save As | E-mail

U.S. Army Corps of Engineers (USACE)

INTERIM DRAFT RAPID ORDINARY HIGH WATER MARK (OHWM) FIELD IDENTIFICATION DATA SHEET

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

Form Approved -
OMB No. 0710-0025
Expires: 01-31-2025

AGENCY DISCLOSURE NOTICE

The public reporting burden for this collection of information, 0710-OHWM, is estimated to average 30 **minutes** per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or burden reduction suggestions to the Department of Defense, Washington Headquarters Services, at whs.mc-alex.esd.mbx.dd-dod-information-collections@mail.mil. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.

Project ID #: 196239003 | Site Name: Overlook | Date and Time: 7/26/23 1200

Location (lat/long): 39.073819, -104.538164 | Investigator(s): SM AM

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

- [ ] gage data
- [ ] climatic data
- [x] aerial photos
- [ ] LiDAR
- [x] satellite imagery
- [x] topographic maps
- [ ] geologic maps
- [ ] land use maps
- [ ] Other: _____

Describe land use and flow conditions from online resources.
Were there any recent extreme events (floods or drought)?

significantly high rainfall in 6/2023

Step 2 Site conditions during field assessment. First look for changes in channel shape, depositional and erosional features, and changes in vegetation and sediment type, size, density, and distribution. Make note of natural or man-made disturbances that would affect flow and channel form, such as bridges, riprap, landslides, rockfalls etc.

riprap at top of channel, no stream-wetland complex

Step 3 Check the boxes next to the indicators used to identify the location of the OHWM.
OHWM is at a transition point, therefore some indicators that are used to determine location may be just below and above the OHWM. From the drop-down menu next to each indicator, select the appropriate location of the indicator by selecting either just below `b', at `x', or just above `a' the OHWM.
Go to page 2 to describe overall rationale for location of OHWM, write any additional observations, and to attach a photo log.

Geomorphic indicators

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

Sediment indicators

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

Vegetation Indicators

- [x] **Change in vegetation type and/or density:**

Check the appropriate boxes and select the general vegetation change *(e.g., graminoids to woody shrubs).* ***Describe the vegetation transition looking from the middle of the channel, up the banks, and into the floodplain.***

- [x] *vegetation absent to:* graminoids
- [ ] *moss to:*
- [ ] *forbs to:*
- [x] *graminoids to:* woody shrubs
- [x] *woody shrubs to:* coniferous trees
- [ ] *deciduous trees to:*
- [x] *coniferous trees to:*
- [ ] **Vegetation matted down and/or bent:**
- [ ] **Exposed roots below intact soil layer:**

Ancillary indicators

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

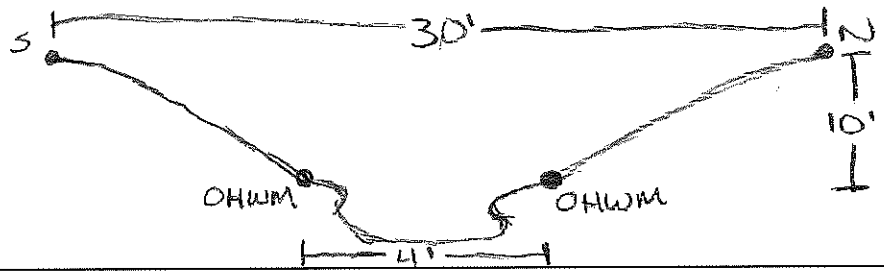
Other observed indicators? Describe:

Print Form | Save As | E-mail

Project ID #: 196239003

Step 4 Is additional information needed to support this determination? ☐ Yes ☑ No If yes, describe and attach information to datasheet:

Step 5 Describe rationale for location of OHWM



Additional observations or notes

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

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

List photographs and include descriptions in the table below.

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

Photo Number	Photograph description
20	northern extent
21	southern extent

Print Form | Save As | E-mail

OHWM Field Identification Datasheet Instructions and Field Procedure

Step 1 **Site overview from remote and online resources** **Complete Step 1 prior to site visit.**

Online Resources: Identify what information is available for the site. Check boxes on datasheet next to the resources used to assess this site.

a. gage data
b. aerial photos
c. satellite imagery
d. LiDAR
e. topographic maps
f. geologic maps
g. land use maps
h. climatic data (precipitation and temperature)

Landscape context: Use the online resources to put the site in the context of the surrounding landscape.

a. **Note on the datasheet under Step 1:**
   i. Overall land use and change if known
   ii. Recent extreme events if known (e.g., flood, drought, landslides, debris flows, wildfires)
b. Consider the following to inform weighting of evidence observed during field visit.
   i. What physical characteristics are likely to be observed in specific environments?
   ii. Was there a recent flood or drought? Are you expecting to see recently formed or obscured indicators?
   iii. How will land use affect specific stream characteristics? How natural is the hydrologic regime? How stable has the landscape been over the last year, decade, century?

Step 2 **Site conditions during the field assessment (assemble evidence)**

a. Identify the assessment area.
b. Walk up and down the assessment area noting all the potential OHWM indicators.
c. Note broad trends in channel shape, vegetation, and sediment characteristics.
   i. Is this a single thread or multi-thread system? Is this a stream-wetland complex?
   ii. Are there any secondary and/or floodplain channels?
   iii. Are there obvious man-made alterations to the system?
   iv. Are there man-made (e.g., bridges, dams, culverts) or natural structures (e.g., bedrock outcrops, Large Wood jams) that will influence or control flow?
d. Look for signs of recurring fluvial action.
   i. Where does the flow converge on the landscape?
   ii. Are there signs of fluvial action (sediment sorting, bedforms, etc.) at the convergence zone?
e. Look for indicators on both banks. If the opposite bank is not accessible, then look across the channel at the bank.
f. **In Step 2 of the datasheet** describe any adjacent land use or flow conditions that may influence interpretation of each line of evidence.
   i. What land use and flow conditions may be affecting your ability to observe indicators at the site?
   ii. What recent extreme events may have caused changes to the site and affected your ability to observe indicators?

Step 3a **List evidence**

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	**Sediment and soil indicators**	**Vegetation Indicators**	**Ancillary indicators**
Where are the breaks in slope?	Where does evidence of soil formation appear?	Where are the significant transitions in vegetation species, density, and age?	Is there organic litter present?
Are there identifiable banks?		Is there vegetation growing on the channel bed?	
Is there an easily identifiable top of bank?	Are there mudcracks present?	If no, how long does it take for the non-tolerant vegetation to establish relative to how often flows occur in the channel?	Is there any leaf litter disturbed or washed away?
Are the banks actively eroding?		Where are the significant transitions in vegetation?	Is there large wood deposition?
Are the banks undercut?	Is there evidence of sediment sorting by grain size?	Is the vegetation tolerant of flowing water?	Is there evidence of water staining?
Are the banks armored?		Has any vegetation been flattened by flowing water?	
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?			

Are the following features of fluvial transport present?
Evidence of erosion: obstacle marks, scour, armoring
Bedforms; riffles, pools, steps, knickpoints/headcuts
Evidence of deposition: imbricated clasts, gravel sheets, etc.

In some cases, it may be helpful to explain why an indicator was NOT at the OHWM elevation, but found above or below. It can also be useful to note if specific indicators (e.g., vegetation) are NOT present. For instance, note if the site has no clear vegetation zonation.

OHWM Field Identification Datasheet Instructions and Field Procedure

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

Weight each indicator by considering its importance based upon:

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

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.

***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.**

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

1. 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.

Appendix C
Site Photos

Site Conditions

Photo 1 – Wetland 1 (SP 1-W), Facing East

Photo 2 – Wetland 1 (SP 2-W), Facing East

Representative Site Photos – June 26 and July 26, 2023

Overlook at Homestead
Peyton, El Paso County, Colorado

Appendix C	*September 2023*	*Scale: NTS*

Kimley»Horn

Site Conditions

Photo 3 – Wetland 1 (SP 3-W), Facing North

Photo 4 – Wetland 2 (SP 4-W), Facing East

Representative Site Photos – June 26 and July 26, 2023

Overlook at Homestead
Peyton, El Paso County, Colorado

Appendix C	*September 2023*	*Scale: NTS*

Kimley»Horn

Site Conditions

Photo 5 – Upland Swale 2 (SP 6-UP), Facing Southwest

Photo 6 – Wetland 3 (SP 9-W), Facing West

Representative Site Photos – June 26 and July 26, 2023

Overlook at Homestead
Peyton, El Paso County, Colorado

Appendix C	*September 2023*	*Scale: NTS*

Kimley»Horn

Site Conditions

Photo 7 – Wetland 3 (SP 9-W), Facing South

Photo 8 – Drainage Swale 3 (SP 10-UP), Facing North

Representative Site Photos – June 26 and July 26, 2023

Overlook at Homestead
Peyton, El Paso County, Colorado

Appendix C	*September 2023*	*Scale: NTS*

Kimley»Horn

Site Conditions

Photo 9 – Drainage Swale 3 (SP 11-UP), Facing South

Photo 10 – Drainage Swale 5 (SP 16-UP), Facing South

Representative Site Photos – June 26 and July 26, 2023

Overlook at Homestead
Peyton, El Paso County, Colorado

Appendix C	*September 2023*	*Scale: NTS*

Kimley»Horn

Site Conditions

Photo 11 – Wetland 5 (SP 17-W), Facing South

Photo 12 – Drainage Swale 6 (SP 17-UP), Facing North

Representative Site Photos – June 26 and July 26, 2023

Overlook at Homestead
Peyton, El Paso County, Colorado

Kimley»Horn

Appendix C	*September 2023*	*Scale: NTS*

Site Conditions

Photo 13 – Wetland 6 (SP 18-W), Facing West

Photo 14 – Drainage Swale 8 (SP 19-UP), Facing East

Representative Site Photos – June 26 and July 26, 2023

Overlook at Homestead
Peyton, El Paso County, Colorado

Appendix C	*September 2023*	*Scale: NTS*

Kimley»Horn

Site Conditions

Photo 15 – Wetland 8 (SP 20-W), Facing West

Photo 16 – Wetland 9 (SP 21-W), Facing North

Site Conditions

Photo 17 – Drainage Swale 10 (SP 22-UP), Facing South

Photo 18 – Drainage Swale 11 (SP 23-UP), Facing South

Representative Site Photos – June 26 and July 26, 2023

Overlook at Homestead
Peyton, El Paso County, Colorado

Appendix C	*September 2023*	*Scale: NTS*

Kimley»Horn

Site Conditions

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

Photo 20 – Surface Water 1 (SP 25-UP), Facing South

Representative Site Photos – June 26 and July 26, 2023

Overlook at Homestead
Peyton, El Paso County, Colorado

Appendix C	*September 2023*	*Scale: NTS*

Kimley»Horn

Site Conditions

Photo 21 – Surface Water 2, Facing East

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 **U.S. Fish & Wildlife Service**

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.

Location

El Paso County, Colorado

Local office

Colorado Ecological Services Field Office

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

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[1] and their critical habitats are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries[2]).

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

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1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information. IPaC only shows species that are regulated by USFWS (see FAQ).

2. NOAA Fisheries, 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
Gray Wolf Canis lupus This species only needs to be considered if the following condition applies: • 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. There is **final** critical habitat for this species. https://ecos.fws.gov/ecp/species/4488	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	Threatened

Birds

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
Piping Plover Charadrius melodus This species only needs to be considered if the following condition applies: • 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. There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/6039	Threatened

Whooping Crane Grus americana — Endangered

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.
https://ecos.fws.gov/ecp/species/758

Fishes

NAME	STATUS

Greenback Cutthroat Trout Oncorhynchus clarkii stomias — Threatened

Wherever found

No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/2775

Pallid Sturgeon Scaphirhynchus albus — Endangered

Wherever found

This species only needs to be considered if the following condition applies:

- 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.

No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/7162

Insects

NAME	STATUS

Monarch Butterfly Danaus plexippus — Candidate

Wherever found

No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/9743

Flowering Plants

NAME	STATUS

Ute Ladies'-tresses Spiranthes diluvialis — Threatened

Wherever found

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

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

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 below.

1. The Migratory Birds Treaty Act 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 https://www.fws.gov/program/migratory-birds/species
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf

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

this list is generated, see the FAQ below. 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 E-bird data mapping tool (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 below.

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 https://ecos.fws.gov/ecp/species/6038	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. https://ecos.fws.gov/ecp/species/1680	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. https://ecos.fws.gov/ecp/species/9408	Breeds Apr 20 to Sep 30
Pinyon Jay Gymnorhinus cyanocephalus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9420	Breeds Feb 15 to Jul 15

Red-headed Woodpecker Melanerpes erythrocephalus — Breeds May 10 to Sep 10

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.

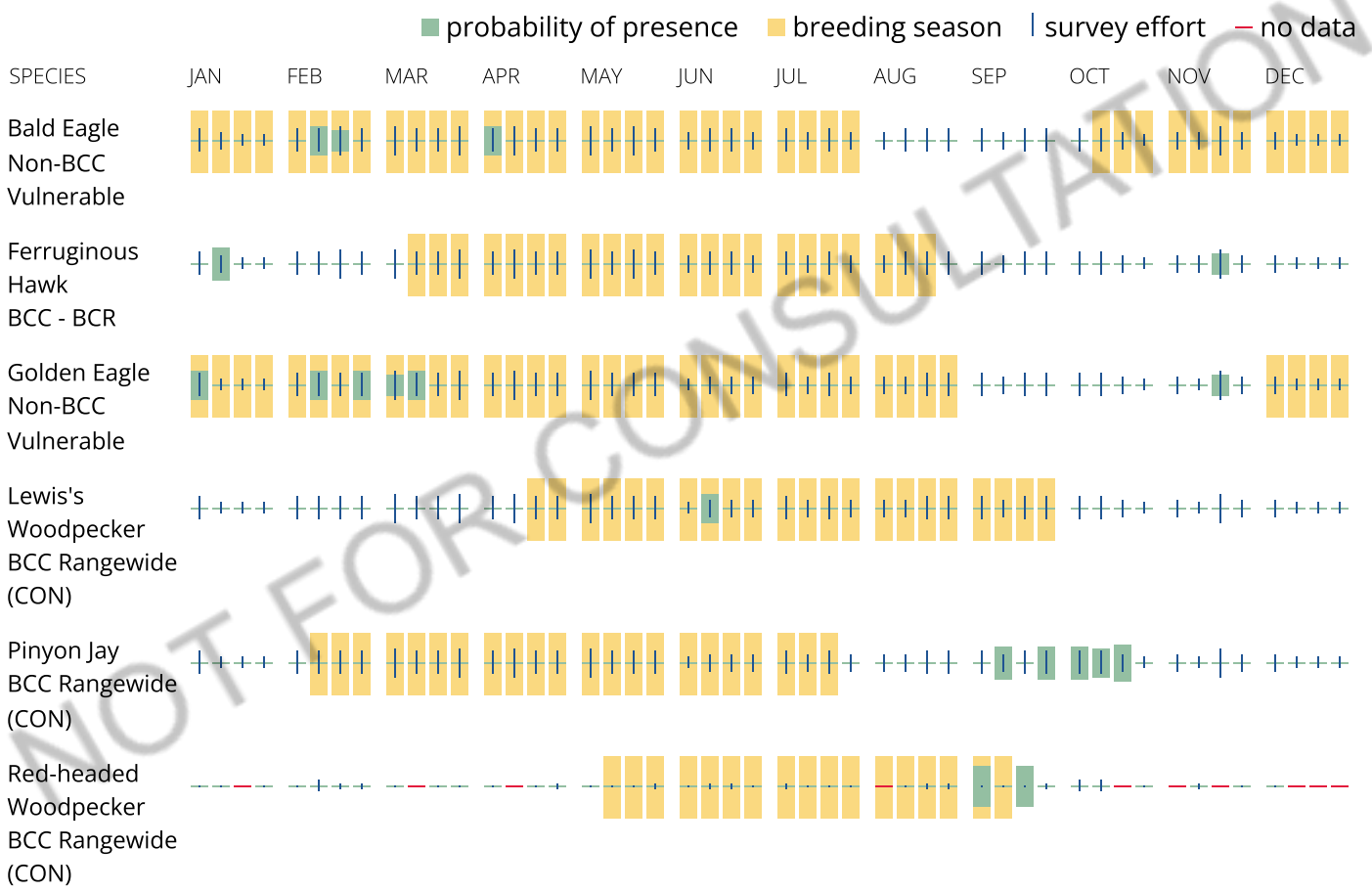
Survey Effort (|)

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.

Nationwide Conservation Measures 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. Additional measures or permits 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 Birds of Conservation Concern (BCC) 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 Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets 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 (Eagle Act 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 Rapid Avian Information Locator (RAIL) Tool.

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 Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets.

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 RAIL Tool 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 Birds of Conservation Concern (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 Eagle Act 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).

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 Northeast Ocean Data Portal. 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 NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf 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 Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit 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 National Wildlife Refuge 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 NWI wetlands 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.S. Army Corps of Engineers District.

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 National Wetlands Inventory website

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)

COLORADO
Parks and Wildlife
Department of Natural Resources

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 ¼ mile (1320 feet, 400 meters) radius of active nests. No permitted, authorized, or human encroachment activities within ½ 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 ¼ mile of the nest AND the nest is located within a Highly Developed Area, then the recommended NSO extends ⅛ mile (660 feet, 200 meters) from the nest site. No permitted, authorized, or human encroachment activities within ¼ 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 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 ⅛ 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 ¼ 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 ¼ mile (1320 feet, 400 meters) radius of active nests. No permitted, authorized, or human encroachment activities within ½ 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 ⅓ mile radius of active nests. No permitted, authorized, or human encroachment activities within ⅓ 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 ¼ mile (1320 feet, 400 meters) radius of active nests. No permitted, authorized, or human encroachment activities within ¼ 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 ¼ mile (1320 feet, 400 meters) radius of active nests. No permitted, authorized, or human encroachment activities within ¼ 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 ⅛ 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 ¼ 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:

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COLORADO
Parks and Wildlife
Department of Natural Resources

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	¼ Mile	■	■	■	■	■	■	■	■	■	■	■	■
ACTIVE NEST - No Human Encroachment	½ Mile	■	■	■	■	■	■	■					■
ACTIVE NEST HIGHLY DEVELOPED AREA – No Surface Occupancy	⅛ 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	¼ Mile	■	■	■	■	■	■	■	■	■	■	■	■
ACTIVE NEST - No Human Encroachment	½ Mile	■	■	■	■	■	■	■					■
Osprey													
ACTIVE NEST - No Surface Occupancy	¼ 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	⅓ 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	⅛ Mile												
ACTIVE NEST INDUSTRIAL ACTIVITIES – No Human Encroachment	¼ 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

COLORADO
Parks and Wildlife
Department of Natural Resources

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 15th through August 31st, 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 15th and October 31st. 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

- Avoid flushing owls prior to initiating survey: 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.

- Weather Considerations: 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.

- Passive surveys: 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.

- Call-broadcast surveys: 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
- 30 seconds call-broadcast of primary call (*coo-coo*)
- 30 seconds silence
- 30 seconds call-broadcast of primary call (*coo-coo*)
- 30 seconds silence
- 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: https://cpw.state.co.us/conservation/Pages/CON-Energy-Land.aspx

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.

- Burrow Searches: 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: https://cpw.state.co.us/conservation/Pages/CON-Energy-Land.aspx

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 31st 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 15th through August 31st.
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 15th through October 31st 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.

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