# EL PASO COUNTY IMPACT IDENTIFICATION REPORT

JAYNE'S PARCEL PROJECT EL PASO COUNTY, COLORADO PROJECT NO. 22-008

#### **Prepared for:**

El Paso County Planning and Community Development Department 2880 International Circle, Suite 110 Colorado Springs, CO 80910

and

Classic Communities 6385 Corporate Dr., Suite 200 Colorado Springs, CO 80919

Prepared by:



CORE Consultants, Inc. 3473 South Broadway Englewood, CO 80113

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## **Table of Contents**

1	INTRODUCTION
2	DESKTOP REVIEW
2.1	Vegetation and Significant Topographic Features2
2.2	Potential Waters of the U.S2
2.3	FEMA Flood Hazards
2.3	Federal Threatened and Endangered Species2
2.4	USFWS Migratory Birds of Conservation Concern4
2.5	CPW Species Activity Mapping and High Priority Habitats
2.6	Geologic Hazards Review
2.7	Wildfire Hazard Risk Review7
3	SITE RECONNAISSANCE
3.1	Vegetation and Significant Topographic Features7
3.2	Potential Waters of the U.S9
3.3	Federal Threatened & Endangered Species10
3.4	USFWS Migratory Birds of Conservation Concern11
3.5	CPW Species Activity Mapping and High Priority Habitats
4	CONCLUSIONS
REF	FERENCES

## **Appendices**

Appendix A	Project Location Map
Appendix B	Potential Waters of the U.S. Delineation Report
Appendix C	Habitat Assessment Memo
Appendix D	Noxious Weed Management Plan
Appendix E	Agency Correspondence



# 1 INTRODUCTION

On behalf of Classic Communities, CORE Consultants, Inc. (CORE) presents this report identifying and summarizing potential impacts related to wildlife, wetlands, geology, and other environmental factors for the proposed Jayne's Parcel Project (Project) in El Paso County, Colorado. The report tiers to the requirements set forth in the Impact Identification Report Checklist created by El Paso County (County). The report is required as part of a County submittal application for a Planned Unit Development. The Project spans 141 acres (Project Area) in northern El Paso County, southwest of the intersection of Vollmer Road and Poco Road. The Project Area is situated on the U.S. Geological Survey (USGS) Falcon NW 7.5-minute quadrangle (USGS 2019), on portions of Sections 28 and 33, Township 12 South, Range 65 West (Appendix A). The Project would include the development of approximately 440 residential lots, small park spaces, commercial space, and a stormwater detention basin.

CORE completed a desktop review and subsequent site reconnaissance of the Project for the following natural resources and potential biological constraints:

- Significant topographic features
- Potentially jurisdictional water features and floodplains;
- Potential for occurrence of federally-listed threatened and endangered (T&E) species and their associated habitats;
- Federally-designated Critical Habitat for T&E species;
- Potential for occurrence of state threatened, state endangered, state species of special concern, and their associated habitats;
- Big game migratory routes and species-specific concentration areas;
- Potential geologic hazards; and
- Potential wildfire hazards

Publicly-available data sources reviewed included the U.S. Fish and Wildlife Service's (USFWS) Information Planning and Consultation (IPaC) System; USFWS Critical Habitat Portal; USFWS National Wetland Inventory (NWI); Colorado Parks and Wildlife (CPW) species profiles and spatial data; Environmental Protection Agency's Ecoregions of the Continental United States; USGS National Hydrography Dataset (NHD); USGS topographic maps; USGS faults and karst topography data; Federal Emergency Management Agency (FEMA) National Flood Hazard Layer maps; U.S. Department of Agriculture National Aerial Imagery Program imagery; Colorado State Forest Service Wildfire Risk Public Viewer; Natural Resources Conservation Service (NRCS) county soil survey data; and the Colorado Geologic Survey Landslide Inventory. Site reconnaissance was conducted on January 26 and 27, 2022 to field-verify results of the initial desktop review and conduct an aquatic resources delineation. Additional site visits occurred February 1, February 9, and March 14, 2022.

# 2 DESKTOP REVIEW

#### 2.1 Vegetation and Significant Topographic Features

The Project encompasses 141 acres in the Level IV Foothill Grasslands Ecoregion within the Level III Southwestern Tablelands Ecoregion. Elevations of the Project range between approximately 7,090 and 7,230 feet above mean sea level. Typical plant species within the Foothill Grasslands include ponderosa pine (Pinus ponderosa), mountain mahogany (Cercocarpus montanus), Gambel oak (Quercus gambelii), chokecherry (Prunus virginiana), western serviceberry (Amelanchier alnifolia), little bluestem (Schizachyrium scoparium), big bluestem (Andropogon gerardii), needle-and-thread (Hesperostipa comata), slender wheatgrass (Elymus trachycaulus), and galleta grass (Pleuraphis jamesii), among others (Chapman et al. 2006).

Two unnamed tributaries of Sand Creek drain through the Project in a southerly direction. Existing and under-construction residential development surround the Project. The Project Area has a short, east-west ridgeline with two highpoints. Aerial imagery indicated that this area is supports ponderosa pines, providing a contrast in habitat to the grassland across much of the remainder of the Project Area. The man-made ponds also provide conditions to support a vegetation community that is unique within the Project Area.

#### 2.2 Potential Waters of the U.S.

The USGS National Hydrography Dataset, USDA National Aerial Imagery Program imagery, and USFWS National Wetlands Inventory were reviewed to determine the presence of potential Waters of the U.S. (WOTUS). Review of the NHD indicated the presence of one mapped watercourse along the western edge of the Project Area (USGS 2021; Figure 4.1 in Appendix B). Aerial imagery and NWI data show another potential watercourse in the northeastern portion of the Project Area, draining into a bermed pond (USDA 2021; USFWS 2021), both of which are mapped within the NWI (USFWS 2021). A second, smaller pond is mapped to the south of the first, along the eastern edge of the Project Area (USFWS 2021; Figure 4.1 in Appendix B). Data within the NWI showed the presence of three wetland types, which included R4SBC (Riverine, Intermittent, Streambed, Seasonally Flooded), PUBF (Palustrine, Unconsolidated Bottom, Semipermanently Flooded), and R5UBH (Riverine, Unknown Perennial, Unconsolidated Bottom, Permanently Flooded; USFWS 2021). Further review of aerial imagery shows signatures for other potential wetland areas, including a large area near the southern end of the Project Area, numerous small areas near the center of the Project Area, and small areas north of the large pond (USDA 2021).

#### 2.3 FEMA Flood Hazards

A review of FEMA National Flood Hazard Layer data was conducted to determine the presence, location, and extent of floodplains within the Project Area. The NFHL maps show floodplain areas along rivers and tributaries, including 100-year (1% annual chance of flooding) and 500-year floodplains (0.2% annual chance of flooding). The entire Project Area is within Flood Zone X, meaning it is an area of minimal flood hazard risk (Figure 4.2 in Appendix B).

#### 2.3 Federal Threatened and Endangered Species

The USFWS IPaC database was used to determine the potential for occurrence of federally-listed T&E species and candidate species for listing within the Project Area (USFWS 2022a). The IPaC query identified five listed species, including one bird, one fish, one plant, and one mammal, as well as one candidate insect species, as having the potential to occur within the Project. Four additional species were listed for consideration under a conditional effects analysis (Table 1). No designated Critical Habitat is mapped for any species within the Project Area (USFWS 2022b).

Table 1. T&E Species Likelihood of Occurrence with	in the Project Area

Common Name Scientific Name	Status <sup>1</sup>	Likelihood of Occurrence	
Complete Effects Analysis			
Eastern black rail Laterallus jamaicensis jamaicensis	FT	<b>None.</b> This species occupies tidal marshes and freshwater wetlands. It annually breeds along the Arkansas River in southeastern Colorado, but rarely occurs as far north as southern El Paso County. No suitable habitat is present and the Project Area is outside of this species' range.	
Greenback cutthroat trout Oncorhynchus clarkii stomias	FT	<b>None.</b> No perennial water on site. Historically occupied steep, cold, high mountain streams and rivers in the South Platte and Arkansas River watersheds (Young 2009). A single, genetically pure population remains in Bear Creek in southwestern El Paso County (Martin et al. 2015).	
Monarch butterfly Danaus plexippus	FC	<b>Moderate.</b> This species breeds across much of Colorado, laying eggs on milkweeds (Asclepias spp.). This species also migrates through eastern Colorado, especially in the fall (USFWS 2021c).	
Preble's meadow jumping mouse Zapus hudsonius preblei	FT	<b>None.</b> Potential existing habitat is low quality. Project Area is within the Colorado Springs Block Clearance Area for this species, meaning it does not occur (USFWS 2012).	
Ute ladies'-tresses Spiranthes diluvialis	FT	Low. See discussion below.	
Conditional Effects Analysis			
Pallid sturgeon Scaphirhynchus albus	FE	Project is located outside of species' range; Project would not affect water within the S. Platte River watershed. Therefore, no impacts to this species is anticipated.	
Piping plover Charadrius melodus	FT	Project is located outside of species' range; Project would not affect water within the S. Platte River watershed. Therefore, no impacts to this species is anticipated.	
Western prairie fringed orchid Platanthera praeclara	FT	Project is located outside of species' range; Project would not affect water within the S. Platte River watershed. Therefore, no impacts to this species is anticipated.	
Whooping crane Grus americana	FE	Project is located outside of species' range; Project would not affect water within the S. Platte River watershed. Therefore, no impacts to this species is anticipated.	

<sup>1</sup>FE = Federally Endangered; FT = Federally Threatened; FC = Federal Candidate for Listing Source: USFWS 2022a



#### 2.3.1 Ute Ladies'-tresses Orchid

Ute ladies'-tresses orchid (*Spiranthes diluvialis*; ULTO) is a perennial orchid listed as federally threatened. This forb has ivory flower clusters arranged in a spike growing approximately 8 to 20 inches tall. ULTO is known to occur in parts of Colorado, Wyoming, Idaho, Montana, Nebraska, Utah, and Washington. The plant typically occurs within features associated with major river floodplains, including riparian edges, gravel bars, old oxbows, high flow channels, and moist to wet meadows associated with perennial streams; it is found under 6,500 feet AMSL in Colorado (USFWS 2021d). Surveys have indicated that this species may also inhabit groundwater-fed springs or sub-irrigated meadows, seeps, and human-influenced riparian habitats that receive reliable and stable spring inundation (Fertig et al. 2005; USDA 2009). Soils in areas of suitable habitat have a high micronutrient and organic matter content and display gley features when sampled (USDA 2009).

A review of spatial data and topographic maps indicates that the Project is situated at elevations between 7,090 and 7,230 feet above mean sea level, above the suitable elevations to sustain ULTO within Colorado.

#### 2.3.2 Monarch Butterfly

Monarch butterfly (Danaus plexippus) is a candidate species for federal listing (USFWS 2022a). There are no Endangered Species Act requirements for candidate species, though the U.S. Fish and Wildlife Service recommends that agencies and other parties take any opportunity to conserve a candidate species and limit further impacts. Monarchs are present in the Project region during the summer breeding season and during fall migration, using various milkweeds (Asclepias spp.) as host plants for egg-laying (USFWS 2021c). Voluntarily limiting impacts to areas where milkweeds have potential to grow within the Project Area would limit the likelihood of impacts to monarchs from Project development.

#### 2.4 USFWS Migratory Birds of Conservation Concern

The USFWS IPaC database was used to determine the potential for occurrence of USFWS Birds of Conservation Concern (USFWS 2022a). The IPaC query results identified two sensitive, migratory bird species: bald eagle (*Haliaeetus leucocephalus*) and ferruginous hawk (*Buteo regalis*). Bald eagles are not designated as a USFWS Bird of Conservation Concern, but were included in the IPaC results due to their protection under the Bald and Golden Eagle Protection Act (16 USC §§ 668-668d). Breeding migratory birds, and the parts, nests, or eggs of such a bird receive statutory protection under the MBTA, and disturbing such species (defined at 16 U.S.C. §§ 703–712), including incidentally, is prohibited.

Additionally, the CPW database of known and historic raptor nests was referenced to determine whether any known raptor nests were present within the Project Area or the surrounding half-mile buffer. The nearest known raptor nest was a Swainson's Hawk nest, two miles to the southeast and inactive at the most recent survey of the nest in 2016.

#### 2.5 CPW Species Activity Mapping and High Priority Habitats

The CPW Species Activity Mapping and High Priority Habitats spatial data were reviewed to determine the potential for the occurrence of sensitive wildlife, including big game species. CPW species profiles were also reviewed to determine the potential for the occurrence of state threatened or endangered species. The review indicated that there is potential for the occurrence of 15 mammals, 13 reptiles, and 14 birds that have CPW-mapped High Priority Habitats (Table 2).

General, sensitive wildlife species and Colorado Species of Special Concern (SC) do not receive statutory protection. The Project area does not intersect with big game migratory routes, though it does intersect with mountain lion (*Puma concolor*) peripheral range, mule deer (*Odocoileus hemionus*) concentration area, and is part of a black bear (*Ursus americanus*)-human conflict area (CPW 2021). Development of residential property has the potential to attract black bear and mountain lion if trash is readily available for forage or to attract prey animals. The Project Area is within the overall range of black-tailed prairie dog (*Cynomys ludovicianus*; Table 2), which is a Colorado SC and provides nesting and roosting habitat for the state threatened burrowing owl (*Athene cunicularia*). The Project Area is also within the breeding range of burrowing owl (Table 2; CPW 2021). Breeding ranges for many sensitive bird species, as well as overall range for sensitive bats, lizards, snakes, turtles, and other wildlife, overlap the Project Area (Table 2).

COMMON NAME	SCIENTIFIC NAME	TYPE OF OCCURRENCE	<b>STATUS</b> <sup>1</sup>
Mammals	•	•	
Big brown bat	Eptesicus fuscus	Overall range	N/A
Black bear	Ursus americanus	Overall range, human conflict area	N/A
Black-tailed prairie dog	Cynomys Iudovicianus	Overall range	SC
Dwarf shrew	Sorex nanus	Overall range	N/A
Eastern red bat	Lasiurus borealis	Overall range	N/A
Fringed myotis	Myotis thysanodes	Overall range	N/A
Hoary bat	Aeorestes cinereus	Overall range	N/A
Little brown myotis	Myotis lucifugus	Overall range	N/A
Mountain lion	Puma concolor	Overall range, peripheral 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
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
Reptiles			
Bullsnake	Pituophis catenifer sayi	Overall range	N/A
Common lesser earless lizard	Holbrookia maculata	Overall range	N/A
Hernandez's short- horned lizard	Phrynosoma hernandesi	Overall range	N/A
Many-lined skink	Plestiodon multivirgatus	Overall range	N/A

Table 2. Sensitive Wildlife Species Potential for Occurrence



COMMON NAME	SCIENTIFIC NAME	TYPE OF OCCURRENCE	STATUS
Milk snake	Lampropeltis triangulum	Overall range	N/A
Ornate box turtle	Terrapene ornata	Overall range	N/A
Painted turtle	Chrysemys picta	Overall range	N/A
Plains garter snake	Thamnophis radix	Overall range	N/A
Prairie lizard	Scleroporus undulatus	Overall range	N/A
Prairie rattlesnake	Crotalus viridis	Overall range	N/A
Six-lined racerunner	Aspidoscelis sexlineata	Overall range	N/A
Smooth green snake	Opheodrys vernalis	Overall range	N/A
Terrestrial garter snake	Thamnophis elegans	Overall range	N/A
Birds			
Band-tailed pigeon	Patagioenas fasciata	Breeding range	N/A
Brewer's sparrow	Spizella breweri	Breeding range	N/A
Burrowing owl	Athene cunicularia	Breeding range	ST
Cassin's sparrow	Peucaea cassinii	Breeding range	N/A
Golden eagle	Aquila chrysaetos	Breeding range	N/A
Grasshopper sparrow	Ammodramus savannarum	Breeding range	N/A
Lark bunting	Calamospiza melanocorys	Breeding range	N/A
Lazuli bunting	Calamospiza melanocorys	Breeding range	N/A
Lewis's woodpecker	Melanerpes lewis	Breeding range	N/A
Northern harrier	Circus hudsonius	Breeding range	N/A
Prairie falcon	Falco mexicanus	Breeding range	N/A
Rufous hummingbird	Selasphorus rufus	Migration range	N/A
Swainson's hawk	Buteo swainsoni	Breeding range	N/A
Virginia's warbler	Leiothlypis virginiae	Breeding range	N/A

<sup>1</sup> ST = State Threatened; SC = State Species of Special Concern; N/A = No special status Source: CPW 2021

#### 2.6 Geologic Hazards Review

El Paso County soil survey data, the Colorado Geological Survey Landslide Inventory, USGS faults data, and USGS karst topography data were reviewed to determine the potential for geologic hazards within the Project Area. The NRCS provides information on soil properties that would influence the developability of building sites, including the selection of the site, the design of the structure, construction, performance of the structures after construction, and maintenance. Quantitative soil ratings are assigned to each major soil group; these ratings include "Not Limited," "Somewhat Limited," and "Very Limited." Not Limited indicates that the soil type has properties which are very favorable for the specified type of construction. Somewhat Limited indicates the soil type has moderately favorable properties for a specific construction. Limitations within this class can typically be overcome through planning and design considerations. A Very

Limited rating indicates a soil type with properties which cannot typically be overcome through design and planning considerations (USDA 2022a).

Review of the soils data indicated the entire 141 acres of the Project Area is composed of Pring coarse sandy loam, 3 to 8 percent slopes; no other soil series or complexes are present (USDA 2021; Appendix B). Pring series soils typically occur on alluvial fans, hills, ridges, and the side slopes of valleys (USDA 2022b). The Pring series for 3 to 8 percent slopes is rated as Not Limited for the construction of dwellings, with or without basements, and "Somewhat Limited" for construction of small commercial buildings, based on the soil series slopes (USDA 2022a). Although Pring is the dominant series occupying the entire Project Area, minor inclusions of other series are present that could contribute to the soil composition. The soil survey data identify Pring as the dominant series, comprising 85% as the dominant component. Minor inclusions, including the Pleasant series, comprise 15% of the Project Area (USDA 2022a).

No historic landslides (CGS 2022), faults (USGS and CGS 2022), or karst topography (Weary and Doctor 2014) exist in the Project Area.

#### 2.7 Wildfire Hazard Risk Review

The Colorado State Forest Service Wildfire Public Risk Viewer was reviewed for wildfire risk and burn probability within the Project Area (CSFS 2022). The vast majority of the Project Area is considered to be Moderate Risk for wildfires, with a small portion along the eastern edge rated as Low Risk (CSFS 2022). Similarly, the Project Area is categorized as Moderate for both burn probability and potential fire intensity. The burn probability of the Project Area is categorized as the same or relatively lower than much of the surrounding area, portions of which are categorized as Moderate-High or High burn probability (CSFS 2022).

# **3** SITE RECONNAISSANCE

A site reconnaissance for wildlife habitat was conducted within the Project Area on January 26, 2022. A half-mile buffer around the Project Area was also searched and assessed for inactive raptor nests and potential raptor nesting habitat (Study Area, inclusive of the Project Area). A wetland delineation of the Project Area was conducted on January 31 and February 1, 2022. The on-site assessments were intended to support and expand upon the results of the desktop review. The results of site reconnaissance are presented in the following sections.

#### 3.1 Vegetation and Significant Topographic Features

A diverse array of native and non-native plants were observed during the habitat assessment. Common species associated with the east-west ridge included ponderosa pine, mountain mahogany (Cercocarpus montanus), blue grama (Bouteloua gracilis), buffalo grass (Bouteloua dactyloides), fringed sage (Artemisia frigida), plains pricklypear (Opuntia polyacantha), soapweed yucca (Yucca glauca), and spotted gayfeather (Liatris punctata). Among the common upland plant species in the meadows were Indian ricegrass (Achnatherum hymenoides), purple threeawn (Aristida purpurea), yellow indiangrass (Sorghastrum nutans), Canada wildrye (Elymus canadensis), little bluestem, big bluestem, smooth brome (Bromus inermis), and cheatgrass (Bromus tectorum), while cattails (Typha sp.), prairie sunflowers (Helianthus petiolaris), curly dock (Rumex crispus), and Arctic rush (Juncus arcticus) were common along portions of the streams. A complete list of the species observed is included in Table 3. The narrow, east-west ridge in the central portion of the Project Area provides a microclimate that supports different vegetation than the remainder of the Project Area. Ponderosa pines are present in two distinct groves at the east and west ends of the ridge. Similarly, a small community of riparian vegetation is present within and around the man-made ponds in the Project Area. Among the plant species observed in close proximity to the ponds were plains cottonwood (*Populus angustifolia*), peachleaf willow (*Salix amygdaloides*), red-osier dogwood (*Cornus sericea*), and cattails.

SCIENTIFIC NAME	COMMON NAME	
	Graminoids/Rushes	
Achnatherum hymenoides	Indian ricegrass	
Andropogon gerardii	Big bluestem	
Aristida purpurea	Purple threeawn	
Bouteloua gracilis	Blue grama	
Bouteloua dactyloides	Buffalo grass	
Bromus inermis	Smooth brome	
Bromus tectorum <sup>1</sup>	Cheatgrass	
Elymus canadensis	Canada wildrye	
Elymus elymoides	Squirrel tail	
Juncus arcticus	Arctic rush	
Muhlenbergia montana	Mountain muhly	
Pascopyrum smithii	Western wheatgrass	
Poa pratensis	Kentucky bluegrass	
Schizachyrium scoparium	Little bluestem	
Sorghastrum nutans	Yellow Indiangrass	
Sporobolus heterolepis	Prairie dropseed	
	Forbs/Vines/Cacti	
Achillea millefolium	Common yarrow	
Artemisia frigida	Fringed sage	
Asclepias speciosa	Showy milkweed	
Bassia scoparia	Kochia	
Centaurea diffusa <sup>1</sup>	Diffuse knapweed	
Cirsium vulgare <sup>1</sup>	Bull thistle	
Helianthus annuus	Common sunflower	
Helianthus petiolaris	Prairie sunflower	
Heterotheca villosa	Hairy false goldenaster	
Liatris spicata	Dotted gayfeather	
Oenothera sp.	Evening-primrose	
Opuntia polyacantha	Plains pricklypear	
Pediocactus simpsonii	Mountain ball cactus	
Rumex crispus	Curly dock	
Sisymbrium altissimum	Tall tumblemustard	
Symphoricarpos sp.	Snowberry	
Tragopogon dubius	Western salsify	
Typha sp.	Cattail	
Verbascum thapsus <sup>1</sup>	Common mullein	

#### Table 3. Plant Species Observed During the Habitat Assessment



SCIENTIFIC NAME	COMMON NAME	
Su	ıb-Shrubs/Shrubs/Trees	
Cercocarpus montanus	Mountain mahogany	
Cornus sericea	Red-osier dogwood	
Juniperus scopulorum	Rocky Mountain juniper	
Pinus ponderosa	Ponderosa pine	
Populus angustifolia	Narrowleaf cottonwood	
Populus deltoides	Plains cottonwood	
Rosa acicularis	Prickly wild rose	
Salix amygdaloides	Peachleaf willow	
Yucca glauca	Soapweed yucca	

<sup>1</sup>Listed as a noxious weed in Colorado (Colorado Department of Agriculture 2022)

#### 3.2 Potential Waters of the U.S.

CORE complete a delineation of potential WOTUS on January 31 and February 1, 2022. The delineation was conducted according to methods described in the 1987 U.S. Army Corps of Engineers (USACE) Wetland Delineation Manual (USACE 1987) and the Regional Supplement to the USACE Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region, Version 2.0 (USACE 2010), examining sample plots for indicators of hydrophytic vegetation, hydric soil, and hydrology in order to document potentially jurisdictional WOTUS. Due to the time of year, plant species identification was based on remnant foliage and position within the landscape.

The wetland scientist delineated boundaries between upland and wetland portions of the Study Area, resulting in a total of 40 palustrine emergent wetlands, one pond, and one upland inclusion area (Appendix B). The wetland areas delineated within the Study Area totaled 9.48 acres. The delineated pond met the criteria of a shallow, open-water wetland, and was therefore included in the total delineated wetland area. The delineated upland inclusion area did not meet the criteria of a wetland and was therefore excluded from the total delineated wetland area.

The lone hydric soil indicator in the delineated wetlands was Redox Dark Surface. The primary wetland hydrology indicator, Oxidized Rhizospheres on Living Roots, was present in half of the wetland sample plots, and the secondary wetland hydrology indicators, Geomorphic Position and FAC-Neutral Test, were present in all wetland sample plots. Plant species in the wetland sample plots included Arctic rush, Canada thistle (*Cirsium arvense*), cattails, common yarrow (*Achillea millefolium*), foxtail barley (*Hordeum jubatum*), path rush (*Juncus dudleyi*), sedges (*Carex sp.*), and common mullein (*Verbascum thapsus*). Uplands around the delineated wetlands lacked requisite indicators of wetland hydrology, hydric soil, and hydrophytic vegetation. The delineated features may be considered jurisdictional by the USACE.

Based on the locations of delineated, potential WOTUS features and preliminary site designs, it is anticipated that permanents impacts to potential WOTUS would results from Project development. For a complete assessment of the WOTUS delineation, refer to the *Potential Waters* of the U.S. Delineation Report for the Project (Appendix B).

After a March 2022 site reconnaissance of adjacent parcels, it appears that several, if not all, of the wetlands identified on site are non-federally jurisdictional because it appears that they are isolated from downstream WOTUS based on CORE's available data. CORE submitted a request to the USACE Albuquerque District on March 25, 2022 for an approved jurisdictional

determination to confirm whether some or all of the wetlands on site are subject to CWA Section 404 regulations (Appendix E).

#### 3.3 Federal Threatened & Endangered Species

The potential for occurrence and impacts to the complete-effects analysis T&E species and their habitats as well as candidate species were assessed during the site reconnaissance. The results of those assessments are presented in the following sections.

#### 3.3.1 Eastern Black Rail

The habitat assessment confirmed that suitable marsh or other wetland habitat to support eastern black rail does not exist in the Project Area. Therefore, impacts to this species are not anticipated.

#### 3.3.2 Greenback Cutthroat Trout

The habitat assessment confirmed that no perennial water sources are present in the Project Area, eliminating the possibility of greenback cutthroat trout occurrence. Furthermore, no areas downstream from the Project Area are known to support this species, and thus, no indirect impacts to greenback cutthroat trout would occur from Project development.

#### 3.3.3 Monarch Butterfly

Showy milkweed (Asclepias speciosa) stalks and seed pods were observed in a small area (less than 20 square feet) along the western side of the Project Area, indicating that at least some egglaying habitat and forage for monarch caterpillars exists in the Project Area (Appendix C). Based on the Project Area's location within the monarch breeding range and along the fall migratory route for more northerly-breeding monarchs, individuals may be present in the Project Area occasionally. A targeted search for milkweed plants was not conducted during the habitat assessment, and because the survey was completed outside of the growing season a general assessment of species abundance was not appropriate.

#### 3.3.4 Preble's Meadow Jumping Mouse

Although the Project Area is within the northeastern boundary of the USFWS PMJM Block Clearance for Colorado Springs and vicinity (USFWS 2012), CORE nonetheless assessed whether the habitat on-site could support PMJM. Plant species identified in the Project Area that are commonly-associated with PMJM included mountain mahogany, narrowleaf cottonwood, peachleaf willow, plains cottonwood, red-osier dogwood, and snowberry. However, the stream channels lack preferred, multilayered vegetative structure and few shrubs are present along the channels or elsewhere in the Project Area. Areas of diverse, native grasses are present in the uplands, but shrubs that could provide habitat for PMJM hibernation are lacking. Based on low quality to lack of suitable habitat and the Project Area position within the mapped block clearance, it is unlikely that PMJM would occur on site; therefore, PMJM and its habitats would not be impacted by Project development.

#### 3.3.5 Ute Ladies'-tresses Orchid

A rare plant survey for ULTO and a formal assessment of soil types was not conducted as part of the habitat assessment. No perennial water sources are present in the Project Area. Small wetland areas associated with the two stream channels and ponds have the highest probability of retaining water to support ULTO. However, suitable habitat features, such as river floodplains, gravel bars, oxbows, and high flow channels, which could support ULTO, were not observed. Further, the elevation of the Project Area is 500 to 700 feet higher than the maximum elevation at which ULTO is known to occur in Colorado. Project development is not anticipated to impact ULTO or its associated habitat.

#### 3.4 USFWS Migratory Birds of Conservation Concern

The desktop review identified ferruginous hawk as the only USFWS Bird of Conservation Concern with potential to use the Project Area. Site reconnaissance revealed that suitable substrates for nesting raptors were present. Four inactive nests were observed in ponderosa pines within the Project Area during the assessment (Appendix C). Each of the inactive nests was sufficiently large to potentially support nesting raptors, however, the nests cannot be reliably attributed to certain species while inactive. Based on the nest sizes and their relative positions within the trees, none of the nests would support eagles. Another large nest was found on the ground near the north side of the eastern grove of pines (Appendix C). No raptor nests were found in the half-mile buffer. A nesting raptor survey during the breeding season (February 1 through July 15) would confirm the presence or absence of active raptor nests within the Project Area. If raptor nests are found, appropriate raptor nest buffers would be coordinated with CPW and should be adhered to during construction activities (CPW 2020).

#### 3.5 CPW Species Activity Mapping and High Priority Habitats

Two of the sensitive species for which CPW has mapped ranges and High Priority Habitats were observed within the Study Area. Pronghorn (*Antilocapra americana*) were observed throughout the habitat assessment at various locations in the Project Area and half-mile buffer; as many as 75 were seen simultaneously. A group of seven mule deer were observed in the ponderosa pine forest at the northwestern edge of the Study Area, which is mapped as part of a Mule Deer Concentration Area. Wild turkeys (*Meleagris gallopavo*) were also observed in the Project Area, though their CPW-mapped overall range only extends to the southern edge of Black Forest, immediately outside of the Study Area.

No prairie dog (*Cynomys* spp.) colonies are present within the Project Area, and no other burrows or dens were observed that would suggest nesting or roosting habitat for burrowing owls exists. The Project Area is within the burrowing owl breeding range, and thus, burrowing owls could migrate through the area. However, the lack of nesting and roosting resources suggest burrowing owls would use the Project Area only temporarily, if at all.

The Project Area hosts various potential resources for the sensitive bat species which could occur, including tree stands and abandoned, man-made structures for roosting and streams and ponds over which bats may forage for insects when water is present (Appendix C). The sensitive bat species which could be present in the Project Area, especially from May to October, include big brown bat (Eptesicus fuscus), eastern red bat (Lasiurus borealis), fringed myotis (Myotis thysanodes), hoary bat (Lasiurus cinereus), little brown myotis (Myotis lucifugus), and silver-haired bat (Lasionycteris noctivagans; CPW 2021).

Project development has the potential to attract black bears, mountain lions, and prey animals, if trash from the development is not kept in wildlife-proof storage containers. Mule deer (Odocoileus hemionus) are expected to occur regularly, even after Project development. A few small areas of rodent burrowing activity were documented, but no rodents were observed (Appendix C). The Project Area provides potentially suitable habitat for sensitive reptiles with overlapping overall ranges, including along the streams and around the ponds, near rodent burrows, and among the abandoned, man-made structures. CPW Species Activity Mapping data do not include non-status amphibians (CPW 2021). Most of sensitive bird species with CPW-mapped breeding ranges within the Study Area are likely to occur to varying extents, though band-tailed pigeons (Patagioenas fasciata) and Lewis's woodpeckers (Melanerpes lewis) are



rarely documented in the Project vicinity (Table 2; eBird 2022). A copy of the habitat assessment memo was submitted to the CPW on March 28, 2022 for review of CORE's preliminary effects analysis (Appendix E) and to determine if additional wildlife surveys are necessary prior to and/or during Project construction.



# 4 CONCLUSIONS

The site reconnaissance identified some environmental constraints within the Project Area. Potential Waters of the U.S. were mapped in the Project Area. To confirm whether the wetlands and pond identified within the project area are subject to regulations under Section 404 of the Clean Water Act, CORE submitted an approved jurisdictional determination request to the USACE Albuquerque District. If the aquatic features are determined to be WOTUS and the proposed project impacts are minimal, it is likely that the project could be permitted for temporary and permanent impacts incurred as a result of construction activities under a USACE Nationwide Permit. If permanent impacts to WOTUS equal 0.5 acres or greater, a Section 404 Individual Permit and an Section 401 Water Quality Certification from the Colorado Department of Public Health and Environment would be required before discharges of fill material could occur. Within wetlands, mitigation may be required for losses greater than 0.10 acre.

Four inactive raptor nests were documented within the proposed project boundary. A nesting raptor survey prior to construction would confirm the presence or absence of active raptor nests within the Study Area. Should the existing nests or new nests become active during the breeding season and when construction is anticipated to occur, Classic Communities should coordinate with CORE and CPW to employ appropriate restriction buffers to minimize potential impacts to nesting raptors (CPW 2020).

The Project is not anticipated to result in any impacts to federally- or state-listed threatened and endangered species or their habitats. However, Classic Communities could preemptively minimize potential impacts through habitat loss for monarch butterfly, a candidate species for federal listing, by avoiding removal of milkweed plants where possible.

The occurrence of various sensitive bat, bird, reptiles, and large game is expected to varying degrees. Potential for conflicts between humans and black bears and mountain lions are also possible. Garbage should be properly disposed of and secured during and after construction to minimize potential for these encounters. Coordination with the Colorado Parks and Wildlife would determine whether any additional wildlife surveys or permits are required.

A noxious weed management plan has been developed for the Project to prevent and control the spread of noxious weeds within the Project Area and vicinity (Appendix D). The plan adheres to the Colorado State Noxious Weed Act and the El Paso County Noxious Weed Management Plan. As identified in Table 3, several noxious weed species are known to be present in the Project Area. These plants should be managed as defined within the noxious weed management plan for the Project in order to prevent further spread.

Review of soils and other geologic data indicate low risk for potential geologic hazards. The Project Area is rated as Not Limited in its building developability for dwellings with or without basements, and rated as Somewhat Limited, based on slopes, for developability of small commercial buildings. No historic landslides, geologic faults, or karst topography exist in the Project Area.

The Project Area is primarily rated as Moderate Risk for wildfires by the Colorado State Forest Service, with a narrow band of Low Risk area along the eastern edge of the Project Area. Similarly, the Colorado State Forest Service has categorized the Project Area as having Moderate burn probability and potential fire intensity, which are comparable or lower than the ratings of the immediate surroundings of the Project Area.



CORE and the Project have initiated correspondence with the USFWS, CPW, and USACE regarding potential environmental constraints addressed in this report (Appendix E).



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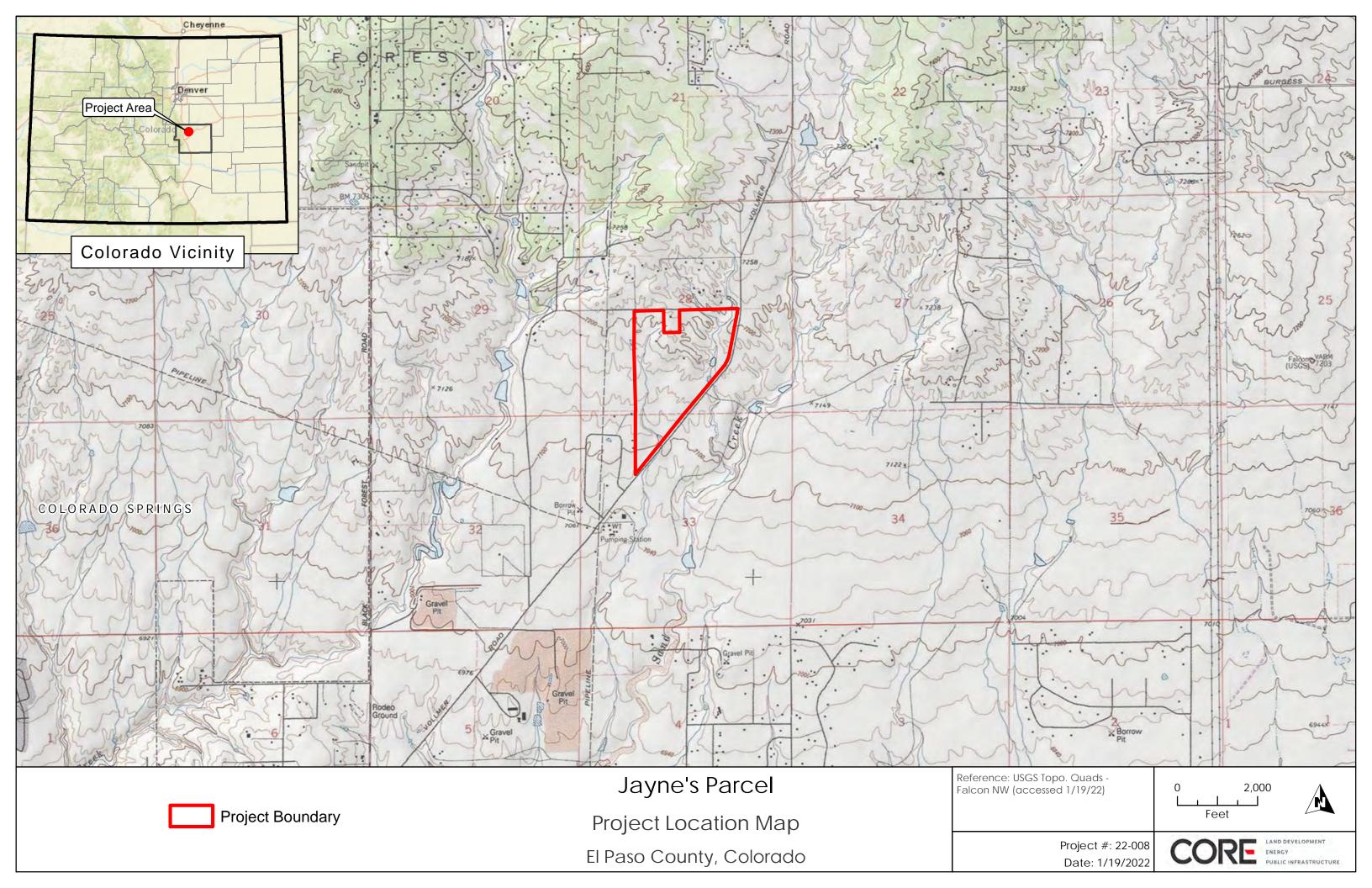


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### APPENDIX A

**PROJECT LOCATION MAP** 





## APPENDIX B

POTENTIAL WATERS OF THE U.S. DELINEATION REPORT

# POTENTIAL WATERS OF THE U.S. DELINEATION REPORT

## FOR

JAYNE'S PARCEL PROJECT EL PASO COUNTY, COLORADO PROJECT NO. 22-008

#### Prepared for:

Classic Communities 6385 Corporate Dr., Suite 200 Colorado Springs, CO 80919

#### Prepared by:



CORE Consultants, Inc. 3473 South Broadway Englewood, CO 80113

February 2022



## **Table of Contents**

1	I		I
2	F	REGULATORY SETTING	I
3	I	METHODS	2
	3.1	1 Desktop Review	2
	3.2	2 Field Survey	2
4	F	RESULTS	5
	4.1	1 Desktop Review	5
	4.2	2 Field Survey	?
5	C	CONCLUSIONS	4
6	F	REFERENCES	5

#### FIGURES

Figure 3.1	Project Location Map	4
Figure 4.1	Surface Waters Map	6
Figure 4.2	FEMA Flood Hazard Map	7
Figure 4.3	Soils Map	8
Figure 4.4	Potential WOTUS Location Map	.12

#### <u>TABLES</u>

Table 3.1	Wetland Indicator Status	3
Table 4.1	Plant Species Observed in the Study Area 1	0

#### **APPENDICES**

Appendix A	Wetland Determination Forms
Appendix B	Representative Photographs

# 1 INTRODUCTION

CORE Consultants, Inc. (CORE) was contracted by Classic Communities to perform a potential Waters of the U.S. (WOTUS) delineation for the proposed mixed-use development Jayne's Parcel Project in El Paso County, Colorado. The proposed Project would include the construction of single-family residential lots, open spaces, a detention pond, and commercial facilities. CORE completed the delineation to aid in avoidance and minimization of impacts to Waters of the U.S. (WOTUS). This report contains the methods, results, and conclusions of the delineation.

The Study Area encompasses 141 acres, southwest of the intersection of Vollmer Road and Poco Road in El Paso County. The Study Area ranges in elevation from 7,090 to 7,230 feet above mean sea level, and is situated on the U.S. Geological Survey (USGS) Falcon NW, Colorado 7.5-minute quadrangle (USGS 2019) within Sections 28 and 33 of Township 12 South, Range 65 West, 6th Principal Meridian.

# 2 **REGULATORY SETTING**

The U.S. Army Corps of Engineers (USACE) and U.S. Environmental Protection Agency (EPA) regulate the discharge of dredged and fill material into jurisdictional WOTUS pursuant to Section 404 of the Clean Water Act (CWA).

The USACE typically has jurisdiction over navigable or traditionally navigable waters, relatively permanent waters, and wetlands that abut such waters, and determines jurisdiction over other waters based predominantly on their significant nexus to navigable or traditionally navigable waters (i.e., WOTUS). The Navigable Waters Protection Rule, which became effective on June 22, 2020, changed the definition of a jurisdictional Water of the U.S (EPA 2020). However, on August 30, 2021, the Navigable Waters Protection Rule was vacated by order of the U.S. District Court for the District of Arizona, and on December 7, 2021, a proposed rule to reinstate the pre-2015 WOTUS definition more broadly applies federal Register (EPA 2021a; EPA 2021b). The pre-2015 WOTUS definition more broadly applies federal jurisdiction to streams and wetlands than the recently vacated Navigable Waters Protection Rule. A public comment period for the proposed rule closed on February 7, 2022 (EPA 2021b). The features delineated in the Study Area may be considered jurisdictional by the USACE. Only the USACE can render an approved jurisdictional determination.

Section 40 of the Code of Federal Regulations Part 232.2 describes activities that do not require a permit under CWA Section 404. Residential and commercial development construction activities regulated under the CWA which typically require a CWA Section 404 permit include temporary construction disturbance, grading, access using heavy equipment, and placement of material or foundations within WOTUS.

The 2021 Nationwide Permit (NWP) 29-Residential Developments may authorize construction of residential developments including building foundations, building pads, and attendant features that do not cause the loss of greater than 0.5 acres of WOTUS and qualify for other thresholds in the 2021 Regional Conditions to Nationwide Permits in the State of Colorado. The NWP 29 can be considered if all proposed impacts to jurisdictional waters are directly related to residential developments and associated infrastructure. Alternatively, impacts to WOTUS due to construction of commercial facilities within a mixed-use development can be covered under the NWP 39 –

Commercial and Institutional Developments. NWP 39 retains the limitation of no loss greater than 0.5 acres of WOTUS and other thresholds in the 2021 Regional Conditions. An understanding of proposed impacts to WOTUS is necessary to determine the permits needed to authorize the activities in WOTUS.

In Colorado, joint Section 404 and 401 permitting is available through the NWP program (CDPHE 2017). NWPs are certified by the Colorado Department of Public Health and Environment (CDPHE) at each reissuance of NWPs. Certain NWPs certified by the CDPHE are conditionally certified, and applicants for those certain NWPs must comply with the general conditions issued by the CDPHE.

# 3 METHODS

CORE conducted a desktop review and field delineation for wetlands and other potential WOTUS within the Study Area (Figure 3.1). The delineation was conducted according to methods described in the 1987 USACE Wetland Delineation Manual (USACE 1987) and the Regional Supplement to the USACE Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0, USACE 2010).

The field delineation was completed on February 1 and 9, 2022. The wetland scientist delineated and mapped boundaries of features within the Study Area during the field delineation.

#### 3.1 Desktop Review

A review of desktop data sources was performed to determine the presence and location of potential wetlands and other WOTUS within the Study Area.

- U.S. Department of Agriculture (USDA) National Aerial Imagery Program imagery (USDA 2021a)
- USDA Natural Resources Conservation Service County soil survey maps (USDA 2021b)
- U.S. Fish and Wildlife Service (USFWS) National Wetland Inventory (NWI) Maps (USFWS 2021)
- USGS Topographic Maps (USGS 2019)
- USGS National Hydrography Dataset (NHD; USGS 2021)
- Federal Emergency Management Agency (FEMA) National Flood Hazard Layer (FEMA 2022)
- EPA Ecoregions of the Continental United States (Chapman et al. 2006)

#### 3.2 Field Survey

CORE staff collected data for wetland and upland sample plots in the Study Area and reviewed the plots for indicators of hydrophytic vegetation, hydric soil, and hydrology in order to document jurisdictional wetlands. Potential WOTUS were evaluated for ordinary high water mark (OHWM) characteristics following methods in the Guide to Ordinary High Water Mark (OHWM) Delineation for Non-Perennial Streams in the Western Mountains, Valleys, and Coast Region of the United States (USACE 2014). Plants were identified using the Flora of Colorado (Ackerfield 2015). Wetland indicator status for vegetation was determined following the 2020 National Wetland Plant List (USACE 2021). The 2020 National Wetland Plant List attributes species with five ratings based on their occurrence within wetlands (Table 3.1; USACE 2021). Data for each sample plot were collected on the Wetland Determination Data Sheet: Western Mountains, Valleys, and Coast Region (Appendix A) and site photos and sample plots were captured as well (Appendix B).

#### TABLE 3.1 WETLAND INDICATOR STATUS

Indicator Status (abbreviation)	Occurrence in Wetlands	
Obligate (OBL)	almost always occur in wetlands	
Facultative Wetland (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	
Upland (UPL)	almost always occur in non-wetlands	

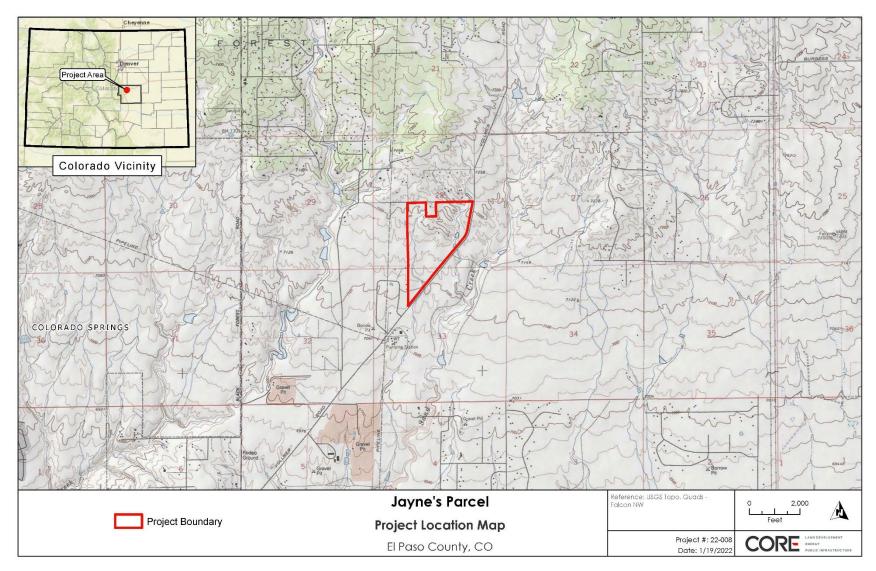


Figure 3.1 Project Location Map

# 4 **RESULTS**

#### 4.1 Desktop Review

NWI and NHD indicated the presence of potential WOTUS, including two unnamed, intermittent streams and three freshwater ponds, which intersect the Study Area at multiple locations (Figure 4.1). NHD states that the stream on the western side of the Study Area has an annual mean flow of less than one cubic foot per second (USGS 2021). Similar parameters were not available for the stream on the eastern side of the Study Area.

The Study Area is within a FEMA-mapped Area of Minimal Flood Hazard, Zone X (FEMA 2022). Other flood hazard types in the vicinity of the Study Area are located 0.23 miles east and 0.60 miles west of the Study Area and are both FEMA-mapped Floodplain, Zone AE (Regulatory Floodway; Figure 4.2).

The Study Area consists of Pring coarse sandy loam soils, with 3 to 8 percent slopes (Figure 4.3; USDA 2021b). Pring soils exhibit rapid permeability, good drainage, and slow runoff. They can have slope gradients ranging from 0 to 30 or more percent. Pring soils are typically found on hills, ridges, alluvial fans, and valley side slopes (Soil Survey Staff et al. 1999)

The Study Area is in the Foothill Grasslands Level IV Ecoregion of the Southwestern Tablelands Level III Ecoregion (Chapman et al. 2006). The Foothill Grasslands region includes a mix of grassland types with isolated pockets of tallgrass prairie species and is dominated by loamy, gravelly, deep and mesic substrate. Pine woodlands are scattered throughout the region. Common plant species in the region include big bluestem (Andropogon gerardii), little bluestem (Schizachyrium scoparium), yellow indiangrass (Sorghastrum nutans), and switchgrass (Panicum virgatum L.; Chapman et al. 2006).



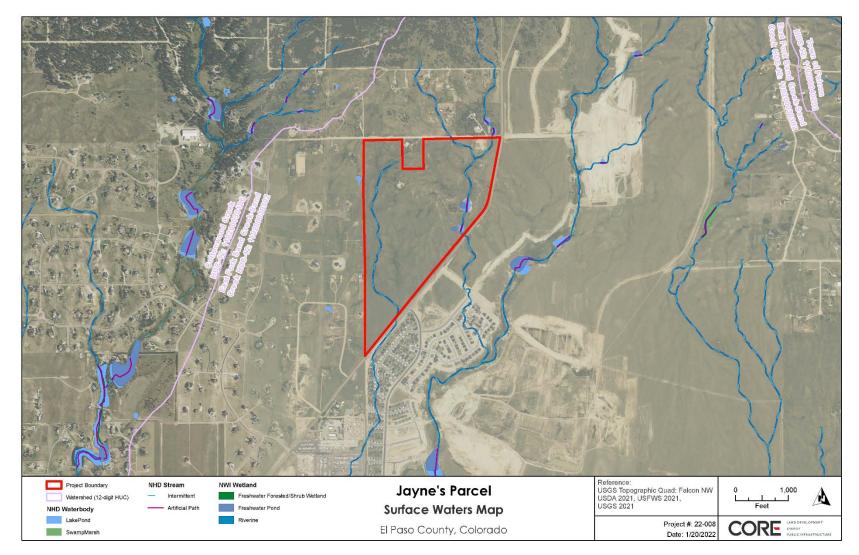


Figure 4.1 Surface Waters Map



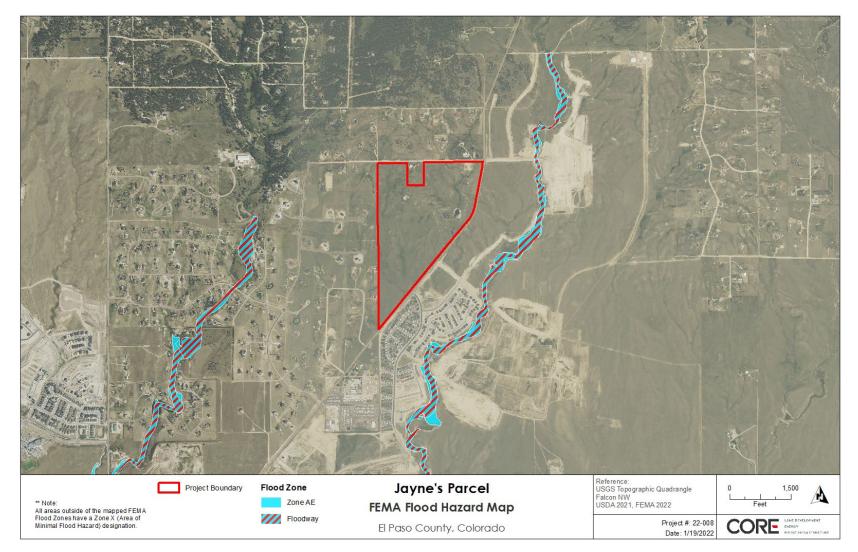


Figure 4.2 FEMA Flood Hazard Map



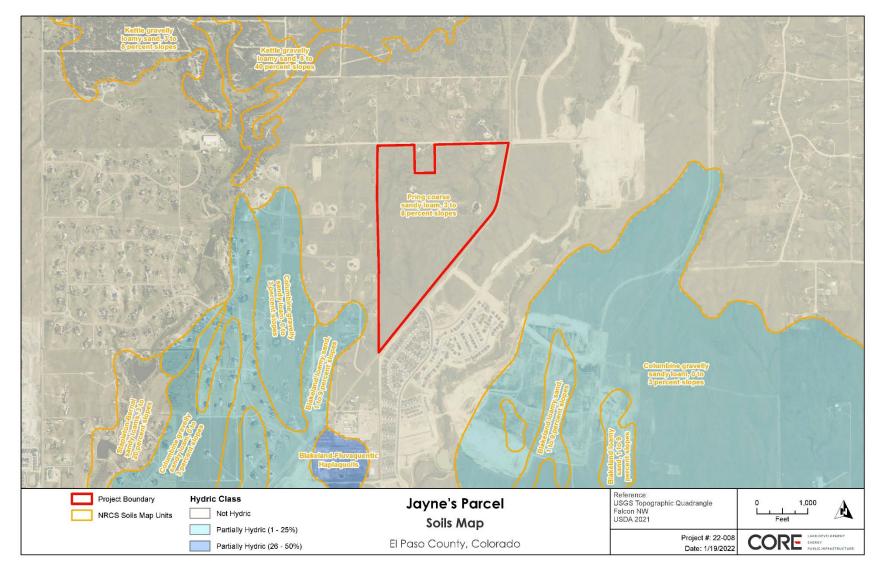


Figure 4.3 Soils Map



#### 4.2 Field Survey

A wetland scientist conducted field surveys of the Study Area on February 1 and 9, 2022. It is generally desirable to conduct delineations during the growing season, as winter conditions can make field work challenging and reduce the accuracy of mapping. Vegetation was remnant from 2021 and may not be fully representative of the species that may be present in both wetlands and uplands. In addition, one of the dominant wetland species identified, Arctic rush (*Juncus arcticus*), may regularly occur in areas that do not meet soil hydric soil criteria. Soils were frozen in some locations, and as a result, limited soil excavation and confirmation of wetland/non-wetland soil types could occur. In addition, up to 10% of upland inclusions (with what appeared to be predominantly upland vegetation) may be mapped within wetland areas. As a result, we recommend that an additional field visit occur during the growing season to confirm that mapped wetland areas meet the three wetland criteria. The information provided in this report is our professional opinion based on field conditions at the time of the field visit.

Thirty-eight palustrine emergent (PEM) wetland pockets and one pond were delineated within the Study Area. The PEM wetland pockets totaled 9.48 acres (Figure 4.4). As shown on Figure 4.4, most of the PEM wetland pockets occurred where streams were mapped on the USGS topographic map. A human made dam was observed just south of WT-A39 in the eastern portion of the Study Area. Behind this dam (to the north), a former pond filled with wetland vegetation was observed (WT-A39). A pond with an OHWM was also observed within WT-A39. Down gradient (south) of the dam, wetlands were not observed until wetland WT-A-33. A portion of WT-A-33 appears to be a former pond that is vegetated primarily with cattails (*Typha* sp.). Additional wetland pockets occurred in depressions throughout the Study Area where groundwater may be seeping out of side slopes. Data for upland and wetland sample plots collected throughout the Study Area are included in Appendix A.

Where possible to observe, the hydric soil indicator within the PEM wetlands was Redox Dark Surface. As mentioned above, additional soil pits will need to be excavated during the growing season to confirm that hydric soils are present throughout the currently mapped wetlands. The primary wetland hydrology indicator, Oxidized Rhizospheres on Living Roots, was present in the wetland sample plots that met the Redox Dark Surface hydric soil indicator. Secondary wetland hydrology indicators, including Geomorphic Position and the FAC-Neutral Test, were also observed in the mapped wetlands. Dominant plant species within wetland sample plots included Arctic rush (Juncus arcticus) and cattails (Typha sp.). Hydrophytic vegetation indicators included the Rapid Test for Hydrophytic Vegetation, Dominance Test is >50%, and Prevalence Index is  $\leq$  3.0.

Uplands around the delineated wetlands and pond lacked requisite indicators of wetland hydrology, hydric soil, and hydrophytic vegetation. The upland plant community was diverse; some of the species observed included blue grama (Bouteloua gracilis), diffuse knapweed (Centaurea diffusa), little bluestem (Schizachyrium scoparium), prairie dropseed (Sporobolus heterolepis), fringed sage (Artemisia frigida), western wheatgrass (Pascopyrum smithii), and wormwood/sagebrush (Artemisia sp.). A list of the plant species observed in the Study Area is provided in Table 4.1.

#### TABLE 4.1 PLANT SPECIES OBSERVED IN THE STUDY AREA

SCIENTIFIC NAME	COMMON NAME	WETLAND INDICATOR STATUS		
	aminoids/rushes/sedges			
Agrostis cf. gigantea	Redtop bent	FAC		
Andropogon gerardii	Big bluestem	FACU		
Aristida purpurea	Purple three-awn	UPL		
Bouteloua gracilis	Blue grama	UPL		
Bromus inermis	Smooth brome	UPL		
Bromus tectorum <sup>1</sup>	Cheatgrass	UPL		
Carex sp.	Sedge	Various		
Dactylis glomerata	Orchard grass	FACU		
Eleocharis sp.	Spikerush	FACW or OBL		
Elymus canadensis	Canada wildrye	FAC		
Elymus elymoides	Squirreltail	FACU		
Elymus trachycaulus	Slender wheatgrass	FAC		
Eragrostis sp.	Lovegrass	Various		
Festuca sp.	Fescue	Various		
Hordeum jubatum	Foxtail barley	FAC		
Juncus arcticus	Arctic rush	FACW		
Juncus dudleyi	Path rush	FAC		
Koeleria macrantha	Junegrass	UPL		
Muhlenbergia montana	Mountain muhly	UPL		
Pascopyrum smithii	Western wheatgrass	FACU		
Poa pratensis	Kentucky bluegrass	FAC		
Schizachyrium scoparium	Little bluestem	FACU		
Schoenoplectus tabernaemontani	Softstem bulrush	OBL		
Setaria sp.	Foxtail	Various		
Sporobolus cryptandrus	Sand dropseed	FACU		
Sporobolus heterolepis	Prairie dropseed	FACU		
FORBS/VINES/CACTI				
Achillea millefolium	Common yarrow	FACU		
Alisma sp.	Water-plantain	OBL		
Alyssum cf. desertorum	Desert madwort	UPL		
Antennaria sp.	Pussytoes	Variable		
Artemisia ludoviciana	Louisiana sagewort	FACU		
Artemisia sp.	Wormwood	Variable		
Asclepias speciosa	Showy milkweed	FAC		
Bassia scoparia	Kochia	FAC		
Carduus nutans <sup>1</sup>	Musk thistle	UPL		
Centaurea diffusa <sup>1</sup>	Diffuse knapweed	UPL		

SCIENTIFIC NAME	COMMON NAME	WETLAND INDICATOR STATUS
Cirsium arvense <sup>1</sup>	Canada thistle	FAC
Cirsium sp.	Thistle	Variable
Conyza canadensis	Horseweed	UPL
Descurainia sophia	Flixweed	UPL
Epilobium cf. ciliatum	American willow-herb	FACW
Eriogonum sp.	Buckwheat	Variable
Geum macrophyllum	Large-leaved avens	FAC
Geranium sp.	Geranium	FAC or FACU
Helianthus sp.	Sunflower	Variable
Heterotheca villosa	Hairy false goldenaster	UPL
Lactuca serriola	Prickly lettuce	FACU
Mentha arvensis	Wild mint	FACW
Oenothera sp.	Evening primrose	Variable
Opuntia cf. polyacantha	Plains pricklypear	UPL
Penstemon sp.	Beardtongue	FAC, FACU, UPL
Plantago lanceolata	Narrowleaf plantain	FACU
Plantago patagonica	Woolly plantain	UPL
Potentilla sp.	Cinquefoil	Variable
Rumex crispus	Curly dock	FAC
Salsola tragus	Russian thistle	FACU
Sisymbrium altissimum	Tall tumblemustard	FACU
Solidago cf. canadensis	Canada goldenrod	FACU
Solidago cf. rigida var. humilis	Stiff goldenrod	FACU
Solidago sp.	Goldenrod	FACW, FAC, FACU
Symphyotrichum cf. falcatum	White prairie aster	FACU
Tragopogon dubius	Western salsify	UPL
Typha sp.	Cattails	OBL
Verbascum thapsus <sup>1</sup>	Common mullein	FACU
Yucca glauca	Soapweed yucca	UPL
	SUB-SHRUBS/SHRUBS/TREES	
Artemisia frigida	Fringed sage	UPL
Cercocarpus montanus	Mountain mahogany	UPL
Juniperus sp.	Juniper	UPL
Pinus ponderosa	Ponderosa pine	FACU
Populus deltoides	Plains cottonwood	FAC
Rosa sp.	Rose	FAC, FACU, UPL
Salix exigua	Coyote willow	FACW
Symphoricarpos sp.	Snowberry	FAC, FACU, UPL

<sup>1</sup>Colorado-listed Noxious Weed (Colorado Department of Agriculture 2022).

CORE

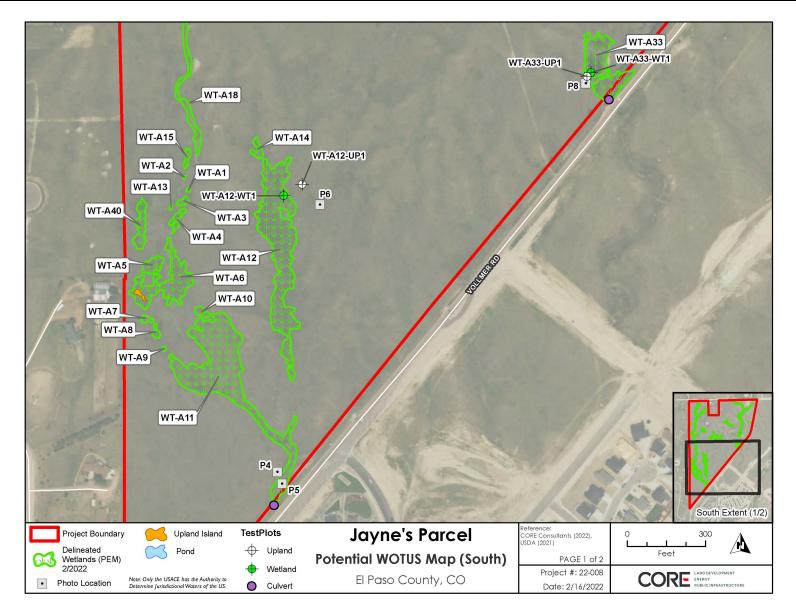


Figure 4.4 Potential WOTUS Location Map (South)

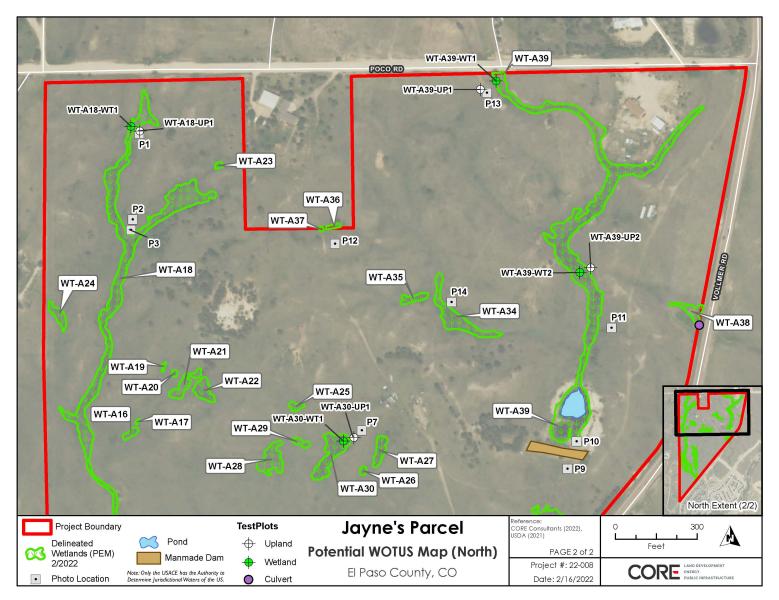


Figure 4.4 Potential WOTUS Location Map (North)



## 5 CONCLUSIONS

CORE delineated the boundary of 38 PEM wetlands and one pond within the Study Area. The 141acre Study Area contains a total of 9.48 acres of wetland area.

Impacts to WOTUS should be avoided to the extent practicable. If WOTUS impacts are minimal, it is likely that the project could be permitted for temporary and permanent impacts incurred as a result of construction activities under a USACE Nationwide Permit. Mitigation may be required for losses of greater than 0.1 acre of wetlands. Should impacts to WOTUS exceed the thresholds for the appropriate NWP, the project would be permitted under an Individual Permit (IP). If NWP impact limits are exceeded, IPs require a 30-day public notice period, alternatives evaluation, and a separate 401 Water Quality Certification from the CDPHE.

The results and conclusions of the delineation are limited to the Study Area. If additional area will be disturbed as part of construction, additional analysis and delineation may be required.



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# APPENDIX A

## Wetland Determination Data Forms

Project/Site: Jayne's Parcel	City/County: El Paso		Sampling Da	<sub>ite:</sub> 2/1/22
Applicant/Owner:				int: <u>WT-A12-UP</u> 1
Investigator(s): S. Clark	Section, Township, Range:	S28 and 33, T12S	, R65W	
Landform (hillslope, terrace, etc.): terrace	_ Local relief (concave, conv			Slope (%): 0
Subregion (LRR): E	°58'35.40"N Lo	<sub>ng:</sub> - 104°40'18.06"	W [	Datum: WGS84
Soil Map Unit Name: Pring coarse sandy loam, 3-8% slopes	_	NWI classific	ation: None	
Are climatic / hydrologic conditions on the site typical for this time of ye	ear? Yes X No	(If no, explain in R	emarks.)	
Are Vegetation, Soil, or Hydrology significantly	/ disturbed? Are "Norr	mal Circumstances" p	resent? Yes	_x No
Are Vegetation, Soil, or Hydrology naturally pr	oblematic? (If neede	d, explain any answei	rs in Remarks	.)

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

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

#### **VEGETATION – Use scientific names of plants.**

NA	Absolute	Dominant		Dominance Test worksheet:
Tree Stratum (Plot size: NA )	% Cover	Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC: 0 (A)
2				
				Total Number of Dominant Species Across All Strata: 2 (B)
3				Species Across All Strata: 2 (B)
4				Percent of Dominant Species
NA		= Total Co	over	That Are OBL, FACW, or FAC: 0 (A/B)
Sapling/Shrub Stratum (Plot size: NA )				Prevalence Index worksheet:
1				
2				Total % Cover of: Multiply by:
3				OBL species $\frac{0}{2}$ x 1 = $\frac{0}{2}$
				FACW species $\frac{0}{x 2} = \frac{0}{x}$
4				FAC species $0   x 3 = 0$
5				FACU species $30$ x 4 = $120$
<b>5</b> '		= Total Co	ver	$\frac{1100 \text{ species}}{50} \times 5 = 250$
Herb Stratum (Plot size: 5')				
<sub>1.</sub> Artemisia ludoviciana	10		FACU	Column Totals: 80 (A) 370 (B)
2. Schizachyrium scoparium	20	x	UPL	Prevalence Index = $B/A = 4.63$
3. Bouteloua gracilis	20	x	UPL	Hydrophytic Vegetation Indicators:
4. Aristida purpurea	10		UPL	1 - Rapid Test for Hydrophytic Vegetation
5 Sporobolus heterolepis	10		FACU	2 - Dominance Test is >50%
6 Symphyotrichum cf. falcatum	10		FACU	
				3 - Prevalence Index is $\leq 3.0^1$
7				4 - Morphological Adaptations <sup>1</sup> (Provide supporting
8				data in Remarks or on a separate sheet)
9				5 - Wetland Non-Vascular Plants <sup>1</sup>
10				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
11				<sup>1</sup> Indicators of hydric soil and wetland hydrology must
	60			be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size: NA		= Total Co	ver	
1				Hydrophytic
2				Vegetation Present? Yes No _X
10		= Total Co	ver	
% Bare Ground in Herb Stratum 40				
Remarks:				

Depth			h needed to docu						,	
	Matrix	0/		ox Feature:	<u>S</u>	12	<b>T</b> = - 4		Da	<i>(</i> 2)
(inches) Color 0-3 10YF	r (moist) 2 2/1	<u> </u>	Color (moist)	%	Type <sup>1</sup>	_Loc <sup>2</sup>	Texture Sandy loc		Remark	5
	1 2/1						Sandy loa	m		
		· ·								
		· ·								
<u> </u>								2	<b>D</b> 1.1.1	
<sup>1</sup> Type: C=Concentrat Hydric Soil Indicator						ed Sand Gr			_=Pore Lining oblematic Hy	
•	s. (Applica				eu.)				-	une sons .
Histosol (A1)	A ()	•	Sandy Redox	. ,				2 cm Muck (A	(10) Aterial (TF2)	
Histic Epipedon ( Black Histic (A3)	AZ)		Stripped Matrix Loamy Mucky						Dark Surface	
Hydrogen Sulfide	$(\Delta 4)$	•	Loamy Gleyed	•	<i>,</i>			-	n in Remarks	
Depleted Below D	( )	e (A11)	Depleted Matr		)					)
Thick Dark Surfac			Redox Dark S	. ,			<sup>3</sup> Indi	cators of hyd	rophytic vege	tation and
Sandy Mucky Mir			Depleted Dark	( )	7)			-	ogy must be	
Sandy Gleyed Ma			Redox Depres						ed or problem	
Restrictive Layer (if	present):									
<sub>Type:</sub> <u>Frozen</u>										
Depth (inches): 7							Hvdric	Soil Present	? Yes	NoX
-			int communit	y and la	andsca	ape pos	sition.			
IYDROLOGY				y and la	andsca	ape pos	sition.			
IYDROLOGY Wetland Hydrology I	Indicators:				andsca	ape pos		econdary Indi	cators (2 or n	nore required)
IYDROLOGY Wetland Hydrology I	Indicators:		; check all that app	ly)						
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Wetland Hydrology I         Primary Indicators (minimary	Indicators: inimum of o 1) (A2)		<u>; check all that app</u> Water-Sta MLRA Salt Crus	l <u>y)</u> ained Leav <b>1, 2, 4A,</b> a t (B11)	es (B9) (e and 4B)		<u>S</u>	_ Water-Stai <b>4A, and</b> _ Drainage F	ned Leaves ( <b>1 4B)</b> Patterns (B10)	B9) ( <b>MLRA 1, 2</b> ,
YDROLOGY Wetland Hydrology I Primary Indicators (mi Surface Water (A High Water Table Saturation (A3) Water Marks (B1)	Indicators: inimum of o 1) e (A2)		<u>; check all that app</u> Water-Sta <b>MLRA</b> Salt Crus Aquatic In	l <u>y)</u> ained Leave <b>1, 2, 4A, a</b> t (B11) ivertebrate	es (B9) ( <b>e</b> and <b>4B)</b> s (B13)		<u>S</u>	Water-Stai <b>4A, and</b> Drainage F Dry-Seaso	ned Leaves ( <b>J 4B)</b> Patterns (B10) n Water Table	B9) ( <b>MLRA 1, 2,</b> ) e (C2)
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IYDROLOGY         Wetland Hydrology I         Primary Indicators (miner)         Surface Water (A         High Water Table         Saturation (A3)         Water Marks (B1)         Sediment Depositi         Drift Deposits (B3)	Indicators: inimum of o .1) e (A2) ) ts (B2) 3)		<u>; check all that app</u> Water-Sta Salt Crus Aquatic In Hydroger Oxidized	ly) ained Leave <b>1, 2, 4A, a</b> t (B11) nvertebrate a Sulfide Oo Rhizosphe	es (B9) ( <b>e</b> <b>ind 4B)</b> s (B13) dor (C1) res along	•xcept	<u>S</u>   	Water-Stai 4A, and Drainage F Dry-Seaso Saturation Geomorph	ned Leaves ( <b>i 4B)</b> Patterns (B10) n Water Table Visible on Ae ic Position (D	B9) ( <b>MLRA 1, 2,</b> ) e (C2) :rial Imagery (C9
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IYDROLOGY Wetland Hydrology I Primary Indicators (mi	Indicators: inimum of o 1) (A2) (A2) (B2) (B4) (B4) (B4) (B4) (B4) (B4) (B4) (B4) (Concave	ne required magery (B7 e Surface (E es N es N	<u>: check all that app</u> Water-Sta MLRA Salt Crus Aquatic In Aquatic In Oxidized Presence Recent In Stunted co ) Other (Ex) 88) No X Depth (in No _ X Depth (in	ly) ained Leavo a <b>1, 2, 4A, a</b> t (B11) nvertebrate a Sulfide Oo Rhizosphe of Reduce on Reduction r Stressed splain in Re aches): nches):	es (B9) ( <b>e</b> and <b>4B</b> ) s (B13) dor (C1) res along d Iron (C4 on in Tille Plants (D marks)	Living Roc 4) d Soils (Ce 1) (LRR A	<u>S</u>  ots (C3) 6) (X) N) N)	Water-Stai 4A, and Drainage F Dry-Seaso Saturation Geomorph Shallow Ad FAC-Neutr Raised An Frost-Heav	ned Leaves ( <b>1 4B)</b> Patterns (B10) n Water Table Visible on Ae ic Position (D quitard (D3) al Test (D5) t Mounds (D6	B9) ( <b>MLRA 1, 2,</b> ) e (C2) rial Imagery (C9 2) ) ( <b>LRR A</b> ) s (D7)
HYDROLOGY         Wetland Hydrology I         Primary Indicators (mi	Indicators: inimum of o 1) (A2) (A2) (B2) (B4) (B4) (B4) (B4) (B4) (B4) (B4) (B4) (Concave	ne required magery (B7 e Surface (E es N es N	<u>: check all that app</u> Water-Sta MLRA Salt Crus Aquatic In Aquatic In Oxidized Presence Recent In Stunted co ) Other (Ex) 88) No X Depth (in No _ X Depth (in	ly) ained Leavo a <b>1, 2, 4A, a</b> t (B11) nvertebrate a Sulfide Oo Rhizosphe of Reduce on Reduction r Stressed splain in Re aches): nches):	es (B9) ( <b>e</b> and <b>4B</b> ) s (B13) dor (C1) res along d Iron (C4 on in Tille Plants (D marks)	Living Roc 4) d Soils (Ce 1) (LRR A	<u>S</u>  ots (C3) 6) (X) N) N)	Water-Stai 4A, and Drainage F Dry-Seaso Saturation Geomorph Shallow Ad FAC-Neutr Raised An Frost-Heav	ned Leaves ( <b>J 4B)</b> Patterns (B10) n Water Table Visible on Ae ic Position (D quitard (D3) al Test (D5) t Mounds (D6 ve Hummocks	B9) ( <b>MLRA 1, 2,</b> ) e (C2) rial Imagery (C9 2) ) ( <b>LRR A</b> ) 5 (D7)
HYDROLOGY         Wetland Hydrology I         Primary Indicators (miner)         Surface Water (A         High Water Table         Saturation (A3)         Water Marks (B1)         Sediment Deposits         Drift Deposits (B3)         Algal Mat or Crus         Iron Deposits (B5)         Surface Soil Crace         Inundation Visible         Sparsely Vegetate         Field Observations:         Surface Water Present         Water Table Present?	Indicators: inimum of o 1) (A2) (A2) (B2) (B4) (B4) (B4) (B4) (B4) (B4) (B4) (B4) (Concave	ne required magery (B7 e Surface (E es N es N	<u>: check all that app</u> Water-Sta MLRA Salt Crus Aquatic In Aquatic In Oxidized Presence Recent In Stunted co ) Other (Ex) 88) No X Depth (in No _ X Depth (in	ly) ained Leavo a <b>1, 2, 4A, a</b> t (B11) nvertebrate a Sulfide Oo Rhizosphe of Reduce on Reduction r Stressed splain in Re aches): nches):	es (B9) ( <b>e</b> and <b>4B</b> ) s (B13) dor (C1) res along d Iron (C4 on in Tille Plants (D marks)	Living Roc 4) d Soils (Ce 1) (LRR A	<u>S</u>  ots (C3) 6) (X) N) N)	Water-Stai 4A, and Drainage F Dry-Seaso Saturation Geomorph Shallow Ad FAC-Neutr Raised An Frost-Heav	ned Leaves ( <b>J 4B)</b> Patterns (B10) n Water Table Visible on Ae ic Position (D quitard (D3) al Test (D5) t Mounds (D6 ve Hummocks	B9) ( <b>MLRA 1, 2,</b> ) e (C2) rial Imagery (C9 2) ) ( <b>LRR A</b> ) s (D7)
Primary Indicators (mi 	Indicators: inimum of o 1) (A2) (A2) (B2) (B4) (B4) (B4) (B4) (B4) (B4) (B4) (B4) (Concave	ne required magery (B7 e Surface (E es N es N	<u>: check all that app</u> Water-Sta MLRA Salt Crus Aquatic In Aquatic In Oxidized Presence Recent In Stunted co ) Other (Ex) 88) No X Depth (in No _ X Depth (in	ly) ained Leavo a <b>1, 2, 4A, a</b> t (B11) nvertebrate a Sulfide Oo Rhizosphe of Reduce on Reduction r Stressed splain in Re aches): nches):	es (B9) ( <b>e</b> and <b>4B</b> ) s (B13) dor (C1) res along d Iron (C4 on in Tille Plants (D marks)	Living Roc 4) d Soils (Ce 1) (LRR A	<u>S</u>  ots (C3) 6) (X) N) N)	Water-Stai 4A, and Drainage F Dry-Seaso Saturation Geomorph Shallow Ad FAC-Neutr Raised An Frost-Heav	ned Leaves ( <b>J 4B)</b> Patterns (B10) n Water Table Visible on Ae ic Position (D quitard (D3) al Test (D5) t Mounds (D6 ve Hummocks	B9) ( <b>MLRA 1, 2,</b> ) e (C2) rial Imagery (C9 2) ) ( <b>LRR A</b> ) s (D7)
HYDROLOGY         Wetland Hydrology I         Primary Indicators (minimatric)         Surface Water (A         High Water Table         Saturation (A3)         Water Marks (B1)         Sediment Deposits (B3         Algal Mat or Crus         Iron Deposits (B5         Surface Soil Cract         Inundation Visible         Sparsely Vegetate         Field Observations:         Surface Water Present?         Saturation Present?         Saturation Present?         Saturation Present?	Indicators: inimum of o (1) (A2) (A2) (b) (B2) (B4) (B4) (C) (C) (C) (C) (C) (C) (C) (C	ne required	<pre>; check all that app  Water-St: MLRA  Salt Crus  Aquatic In  Hydroger  Oxidized  Presence  Recent In  Stunted co ) Other (Ex 88) No Depth (in No Depth (in No Depth (in nitoring well, aerial</pre>	ly) ained Leave a <b>1</b> , <b>2</b> , <b>4A</b> , <i>a</i> t (B11) nvertebrate o Sulfide Oo Rhizosphe of Reduce on Reduction r Stressed plain in Re nches): nches): photos, pre	es (B9) ( <b>e</b> <b>ind 4B)</b> s (B13) dor (C1) res along d Iron (C4 on in Tille Plants (D marks) evious ins	Living Roc 4) d Soils (C6 11) (LRR A	<u>S</u>  ots (C3) 6) (X) N) N)	Water-Stai 4A, and Drainage F Dry-Seaso Saturation Geomorph Shallow Ad FAC-Neutr Raised An Frost-Heav	ned Leaves ( <b>J 4B)</b> Patterns (B10) n Water Table Visible on Ae ic Position (D quitard (D3) al Test (D5) t Mounds (D6 ve Hummocks	B9) ( <b>MLRA 1, 2,</b> ) e (C2) rial Imagery (C9 2) ) ( <b>LRR A</b> ) 5 (D7)

Project/Site: Jayne's Parcel	City/County: El Pa	aso	Sampling Date: 2/1/22
Applicant/Owner:		State: CO	Sampling Point: WT-A12-WT1
Investigator(s): S. Clark	Section, Township	o, Range: <u>S28</u> and 33, T125	, R65W
Landform (hillslope, terrace, etc.): swale			Slope (%): 0
Subregion (LRR): E	<sub>.at:</sub> 38°58'35.67"N	Long: - 104°40'17.43	W Datum: WGS84
Soil Map Unit Name: Pring coarse sandy loam, 3-8% slope	es	NWI classifie	cation: R4SBC
Are climatic / hydrologic conditions on the site typical for this tin	ne of year? Yes X	No (If no, explain in F	emarks.)
Are Vegetation, Soil, or Hydrology sign	ficantly disturbed?	Are "Normal Circumstances"	present? Yes X No
Are Vegetation, Soil, or Hydrology natu	rally problematic?	(If needed, explain any answe	rs in Remarks.)
CUMMARY OF FINDINGS Attack site man ak	owing compling noi	nt locational transacto	important factures ato

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

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

#### **VEGETATION – Use scientific names of plants.**

NIA	Absolute	Dominant		Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: <u>NA</u> )	% Cover	Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC: (A)
2				
				Total Number of Dominant
3				Species Across All Strata: 1 (B)
4				Percent of Dominant Species
NIA		= Total Co	over	That Are OBL, FACW, or FAC: 100 (A/B)
Sapling/Shrub Stratum (Plot size: NA )				Prevalence Index worksheet:
1				
2				Total % Cover of: Multiply by:
				OBL species $\frac{10}{10}$ x 1 = $\frac{10}{10}$
3				FACW species $\frac{82}{x 2} = \frac{164}{x}$
4				FAC species $\frac{15}{x 3} = \frac{45}{x 3}$
5				FACU species $9$ $x 4 = 36$
		= Total Co	over	
Herb Stratum (Plot size: 5')		-		UPL species x 5 =
<sub>1.</sub> Epilobium cf. ciliatum	2		FAC₩	Column Totals: <u>116</u> (A) <u>255</u> (B)
2. Juncus arcticus	80	x	FACW	Prevalence Index = $B/A = 2.20$
3. Cirsium arvense	15		FAC	Hydrophytic Vegetation Indicators:
4 Lactuca serriola	2		FACU	<u>×</u> 1 - Rapid Test for Hydrophytic Vegetation
5. Typha sp.	10		OBL	× 2 - Dominance Test is >50%
6. Achillea millefolium	2		FACU	
7 Pascopyrum smithii	5		FACU	$\underline{\mathbf{x}}$ 3 - Prevalence Index is $\leq 3.0^1$
				4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
8				5 - Wetland Non-Vascular Plants <sup>1</sup>
9				
10				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
11				<sup>1</sup> Indicators of hydric soil and wetland hydrology must
	116	= Total Co	ver	be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size: NA )				
1				Hydrophytic
				Vegetation
2				Present? Yes X No
% Bare Ground in Herb Stratum <sup>0</sup>		= Total Co	ver	
Remarks:				

# Sampling Point: WT-A12-WT1

Depth	Matrix	0/	Color /m	Redox	0/		Loc <sup>2</sup>	Tauto	-	Domos	ko
<u>inches)</u> 0-2	Color (moist) 10YR 2/1	<u>%</u> 100	Color (m	OIST)	%	Type <sup>1</sup>	Loc	Texture	<u> </u>	Remar	KS
J-Z								Sandy loa	<u>m</u>		
	ncentration, D=Dep						d Sand G			PL=Pore Linin	
ydric Soil li	ndicators: (Applic	able to all	LRRs, unle	ss other	wise note	ed.)		Indi	cators for l	Problematic H	ydric Soils <sup>3</sup> :
Histosol (	(A1)		Sandy	Redox (S	5)				2 cm Muck	(A10)	
Histic Ep	ipedon (A2)		Strippe	d Matrix (	(S6)				Red Parent	t Material (TF2	)
Black His	stic (A3)		Loamy	Mucky M	lineral (F	1) (except	MLRA 1)		Very Shallo	ow Dark Surfac	e (TF12)
_ Hydroger	n Sulfide (A4)		Loamy	Gleyed N	/latrix (F2	2)			Other (Exp	lain in Remarks	6)
_ Depleted	Below Dark Surface	æ (A11)	Deplete	ed Matrix	(F3)						
	rk Surface (A12)		x Redox	Dark Sur	face (F6)					ydrophytic vege	
_ Sandy M	ucky Mineral (S1)			ed Dark S		7)		W	etland hyd	rology must be	present,
	leyed Matrix (S4)		Redox	Depressi	ons (F8)			u	nless distu	rbed or problen	natic.
	ayer (if present):										
Type: Fro:	zen										
Depth (inc	hes): 2							Hvdric	Soil Prese	nt? Yes X	No
emarks:	nay be simila	ır to DP	-1 and m	neet th	ie F6 ł	nydric s	soil ind	icator.			
emarks: nis soil r	nay be simila	ır to DP	-1 and m	neet th	ie F6 ł	nydric s	soil ind	icator.			
emarks: his soil r <b>DROLO</b>	nay be simila		-1 and m	neet th	ie F6 ł	nydric s	soil ind	icator.			
emarks: nis soil r <b>'DROLO(</b> letland Hyd	nay be simila GY					nydric s	soil ind		econdary Ir	ndicators (2 or 1	nore required)
emarks: nis soil r <b>DROLO(</b> letland Hyd imary Indica	nay be simila GY Irology Indicators: ators (minimum of c		d; check all t	hat apply	)						
emarks: nis soil r /DROLO( /etland Hyd rimary Indic: Surface \	nay be simila GY Irology Indicators: ators (minimum of c Water (A1)		d; check all t	hat apply ater-Stair	) ned Leave	es (B9) (e			_ Water-S	tained Leaves	
emarks: <b>DROLOG</b> etland Hyd imary Indica _ Surface N _ High Wat	The similar The second state of the second st		d; check all t W	<u>hat apply</u> ater-Stair <b>MLRA 1</b>	) ned Leave	es (B9) (e			_ Water-S <sup>-</sup> 4 <b>A</b> , a	tained Leaves I <b>nd 4B)</b>	(B9) ( <b>MLRA 1, 2</b>
emarks: <b>DROLOG</b> <b>etland Hyd</b> <u>imary Indica</u> Surface N <u>High Wat</u> Saturatio	The second secon		<u>d; check all t</u> W Sa	<u>hat apply</u> ater-Stair <b>MLRA 1</b> alt Crust (	.) ned Leavi I, <b>2, 4A, a</b> B11)	es (B9) (e: and 4B)		<u>S</u>	_ Water-S <b>4A, a</b> _ Drainage	tained Leaves I <b>nd 4B)</b> e Patterns (B10	(B9) ( <b>MLRA 1, 2</b> )
emarks: <b>DROLOO</b> TOROLOO Tetland Hyd Timary Indic: Surface N High Wat Saturatio Water Ma	The second secon		<u>d; check all t</u> W Sa Ao	hat apply ater-Stair <b>MLRA 1</b> alt Crust ( quatic Inv	) ned Leave I, <b>2, 4A, a</b> B11) ertebrate	es (B9) (e: and 4B) s (B13)		<u>S</u>	_ Water-S <b>4A, a</b> _ Drainage _ Dry-Sea	tained Leaves I <b>nd 4B)</b> e Patterns (B10 son Water Tab	(B9) ( <b>MLRA 1, 2</b> ) e (C2)
emarks: <b>nis soil r</b> <b>'DROLOO</b> <b>/etland Hyd</b> <u>/imary Indica</u> _ Surface N _ High Wat _ Saturatio _ Water Ma _ Sedimen	<b>GY</b> <b>Irology Indicators:</b> <u>ators (minimum of c</u> <i>N</i> ater (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2)		<u>d; check all t</u> W Sa Ac Hy	hat apply ater-Stair <b>MLRA 1</b> alt Crust ( quatic Inv ydrogen S	) ned Leave , <b>2, 4A, a</b> B11) ertebrate Sulfide Oo	es (B9) (e: and 4B) s (B13) dor (C1)	xcept	<u>s</u> 	Water-S 4A, a Drainage Dry-Sea Saturatio	tained Leaves I <b>nd 4B)</b> e Patterns (B10 son Water Tab on Visible on Ad	(B9) ( <b>MLRA 1, 2</b> )) e (C2) erial Imagery (CS
emarks: <b>DROLOC</b> <b>'DROLOC</b> <b>'etland Hyd</b> <u>'imary Indica</u> Surface N High Wat Saturatio Water Ma Sedimen Drift Dep	<b>GY</b> <b>Irology Indicators:</b> <u>ators (minimum of c</u> Water (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3)		<u>d; check all t</u> W Sa Ac Hy O:	hat apply ater-Stair <b>MLRA 1</b> alt Crust ( quatic Inv ydrogen S xidized R	) ned Leave , <b>2, 4A, a</b> (B11) ertebrate Sulfide Oo hizosphe	es (B9) (e: and 4B) s (B13) dor (C1) res along	xcept	<u>S</u>  	Water-S 4A, a Drainage Dry-Sea Saturatio	tained Leaves <b>nd 4B)</b> e Patterns (B10 son Water Tab on Visible on Ac phic Position (I	(B9) ( <b>MLRA 1, 2</b> )) e (C2) erial Imagery (CS
emarks: <b>DROLOO</b> <b>etland Hyd</b> <b>imary Indica</b> Surface N High Wat Saturatio Water Ma Sedimen Drift Dep Algal Mat	The second state of the se		d; check all t W Sa Ao Hy O: Pr	hat apply ater-Stair <b>MLRA 1</b> alt Crust ( quatic Inv ydrogen S xidized R esence o	) ned Leave , <b>2, 4A, a</b> B11) ertebrate Sulfide Oo hizosphe of Reduce	es (B9) (e: and 4B) s (B13) dor (C1) res along ed Iron (C4	xcept Living Roc	<u>S</u>  	Water-S 4A, a Drainage Dry-Sea Saturatio Geomor Shallow	tained Leaves <b>nd 4B)</b> e Patterns (B10 son Water Tab on Visible on Ar phic Position (I Aquitard (D3)	(B9) ( <b>MLRA 1, 2</b> )) e (C2) erial Imagery (CS
emarks: <b>DROLOO</b> <b>TOROLOO</b> <b>Tetland Hyd</b> imary Indica Surface N High Wat Saturatio Water Ma Sedimen Drift Dep Algal Mat Iron Depo	<b>GY</b> <b>Irology Indicators:</b> <u>ators (minimum of c</u> <i>Nater</i> (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5)		<u>d; check all t</u> W Sa Ac Ac O; Pr Re	hat apply ater-Stair <b>MLRA 1</b> alt Crust ( quatic Inv ydrogen S xidized R resence o ecent Iror	ned Leave J, <b>2, 4A, a</b> B11) ertebrate Sulfide Oc hizosphe of Reduce n Reductio	es (B9) (e: and 4B) s (B13) dor (C1) res along ed Iron (C4 on in Tilleo	xcept Living Roo	<u>S</u>  	Water-S 4A, a Drainage Dry-Sea Saturatio Geomor Shallow FAC-Net	tained Leaves <b>nd 4B)</b> e Patterns (B10 son Water Tab on Visible on Ar phic Position (E Aquitard (D3) utral Test (D5)	(B9) ( <b>MLRA 1, 2</b> )) le (C2) erial Imagery (C9 )2)
emarks: <b>is soil r</b> <b>'DROLOO</b> <b>'etland Hyd</b> <b>'mary Indica</b> _ Surface V _ High Wat _ Saturatio _ Water Ma _ Sedimen _ Drift Dep _ Algal Mat _ Iron Depo _ Surface S	The second state of the se	: one require	d; check all t W Sa Ac Ac N Pr Re St	hat apply ater-Stair MLRA 1 alt Crust ( quatic Inv ydrogen S xidized R esence o ecent Iror unted or	) ned Leave B11) ertebrate Sulfide Oo hizosphe of Reduce n Reduction Stressed	es (B9) (e: and 4B) s (B13) dor (C1) res along ed Iron (C4 on in Tilleo Plants (D	xcept Living Roo	<u>S</u>  ots (C3) <u></u>   	Water-S 4A, a Drainage Dry-Sea Saturatio Geomor Shallow FAC-Nei Raised A	tained Leaves <b>nd 4B)</b> P Patterns (B10 son Water Tab on Visible on Ad phic Position (I Aquitard (D3) utral Test (D5) Ant Mounds (D6)	(B9) ( <b>MLRA 1, 2</b> )) e (C2) erial Imagery (C9 )2) 6) ( <b>LRR A</b> )
emarks: <b>is soil r</b> <b>DROLOO</b> <b>Vetland Hyd</b> <b>imary Indic:</b> Surface V High Wat Saturatio Saturatio Water Ma Sedimen Drift Dep Algal Mat Iron Depo Surface S Inundatio	The second state of the se	one require	d; check all t W Sa Ac Ac St St O	hat apply ater-Stair <b>MLRA 1</b> alt Crust ( quatic Inv ydrogen S xidized R resence o ecent Iror	) ned Leave B11) ertebrate Sulfide Oo hizosphe of Reduce n Reduction Stressed	es (B9) (e: and 4B) s (B13) dor (C1) res along ed Iron (C4 on in Tilleo Plants (D	xcept Living Roo	<u>S</u>  ots (C3) <u></u>   	Water-S 4A, a Drainage Dry-Sea Saturatio Geomor Shallow FAC-Nei Raised A	tained Leaves <b>nd 4B)</b> e Patterns (B10 son Water Tab on Visible on Ar phic Position (E Aquitard (D3) utral Test (D5)	(B9) ( <b>MLRA 1, 2</b> )) e (C2) erial Imagery (C9 )2) 6) ( <b>LRR A</b> )
The second	nay be simila GY Irology Indicators: ators (minimum of o Nater (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aerial Vegetated Concav	one require	d; check all t W Sa Ac Ac St St O	hat apply ater-Stair MLRA 1 alt Crust ( quatic Inv ydrogen S xidized R esence o ecent Iror unted or	) ned Leave B11) ertebrate Sulfide Oo hizosphe of Reduce n Reduction Stressed	es (B9) (e: and 4B) s (B13) dor (C1) res along ed Iron (C4 on in Tilleo Plants (D	xcept Living Roo	<u>S</u>  ots (C3) <u></u>   	Water-S 4A, a Drainage Dry-Sea Saturatio Geomor Shallow FAC-Nei Raised A	tained Leaves <b>nd 4B)</b> P Patterns (B10 son Water Tab on Visible on Ad phic Position (I Aquitard (D3) utral Test (D5) Ant Mounds (D6)	(B9) ( <b>MLRA 1, 2</b> )) e (C2) erial Imagery (C9 )2) 6) ( <b>LRR A</b> )
emarks: <b>DROLOO</b> <b>etland Hyd</b> <b>imary Indica</b> Surface N High Wat Saturatio Water Ma Sedimen Drift Dep Algal Mat Iron Depo Surface S Inundatio Sparsely <b>eld Observ</b>	The second state of the se	one require Imagery (B e Surface (	d; check all t W Sa Ad Hy O: Pr Ra St 7) Ot B8)	hat apply ater-Stair <b>MLRA 1</b> alt Crust ( quatic Inv ydrogen S xidized R resence o ecent Iror unted or ther (Expl	ned Leave (, <b>2, 4A, a</b> (B11) ertebrate Sulfide Oo hizosphe of Reduce n Reduction Stressed lain in Re	es (B9) (e: and 4B) s (B13) dor (C1) res along ed Iron (C4 on in Tilleo Plants (D emarks)	xcept Living Roc ) d Soils (Cé 1) (LRR A	<u>S</u>  ots (C3) <u></u>   	Water-S 4A, a Drainage Dry-Sea Saturatio Geomor Shallow FAC-Nei Raised A	tained Leaves <b>nd 4B)</b> P Patterns (B10 son Water Tab on Visible on Ad phic Position (I Aquitard (D3) utral Test (D5) Ant Mounds (D6)	(B9) ( <b>MLRA 1, 2</b> )) e (C2) erial Imagery (C9 )2) 6) ( <b>LRR A</b> )
emarks: <b>DROLOO</b> <b>TOROLOO</b> <b>Tetland Hyd</b> <b>imary Indica</b> Surface V High Wate Saturatio Water Ma Sedimen Drift Dep Algal Mat Iron Depo Surface S Inundatio Sparsely <b>ield Observ</b>	The second state of the se	ine require Imagery (B e Surface ( 'es	<u>d; check all t</u> W Sa Ac Hy O; Pr Ra St 7) Ot B8) NoX D	hat apply ater-Stair <b>MLRA 1</b> alt Crust ( quatic Inv ydrogen S xidized R ydrogen S xidized R vesence o ecent Iror unted or ther (Expl	ned Leave (, <b>2, 4A, a</b> (B11) ertebrate Sulfide Oc hizosphe of Reduce n Reduction Stressed lain in Re lain in Re	es (B9) (e: and 4B) s (B13) dor (C1) res along b d Iron (C4 on in Tilleo Plants (D emarks)	xcept	<u>S</u>  ots (C3) <u></u>   	Water-S 4A, a Drainage Dry-Sea Saturatio Geomor Shallow FAC-Nei Raised A	tained Leaves <b>nd 4B)</b> P Patterns (B10 son Water Tab on Visible on Ad phic Position (I Aquitard (D3) utral Test (D5) Ant Mounds (D6)	(B9) ( <b>MLRA 1, 2</b> )) e (C2) erial Imagery (C9 )2) 6) ( <b>LRR A</b> )
emarks: TS SOIL r PROLOC Petland Hyd rimary Indica Surface V High Wat Saturatio Water Ma Sedimen Drift Dep Algal Mat Iron Depe Surface S Inundatio Sparsely ield Observ urface Wate	The second state of the se	ine require Imagery (B e Surface ( 'es	d; check all t W Sa Ad Hy O: Pr Ra St 7) Ot B8)	hat apply ater-Stair <b>MLRA 1</b> alt Crust ( quatic Inv ydrogen S xidized R ydrogen S xidized R vesence o ecent Iror unted or ther (Expl	ned Leave (, <b>2, 4A, a</b> (B11) ertebrate Sulfide Oc hizosphe of Reduce n Reduction Stressed lain in Re lain in Re	es (B9) (e: and 4B) s (B13) dor (C1) res along b d Iron (C4 on in Tilleo Plants (D emarks)	xcept	<u>S</u>  ots (C3) <u></u>   	Water-S 4A, a Drainage Dry-Sea Saturatio Geomor Shallow FAC-Nei Raised A	tained Leaves <b>nd 4B)</b> P Patterns (B10 son Water Tab on Visible on Ad phic Position (I Aquitard (D3) utral Test (D5) Ant Mounds (D6)	(B9) ( <b>MLRA 1, 2</b> )) e (C2) erial Imagery (C9 )2) 6) ( <b>LRR A</b> )
emarks: <b>Dis Soil r</b> <b>(DROLOO)</b> <b>(etland Hyd</b> <b>(rimary Indic:</b> Surface N High Wat Saturatio Saturatio Vater Ma Sedimen Drift Dep Algal Mal Iron Depa Surface S Inundatio Sparsely <b>ield Observ</b> urface Wate //ater Table F	The second state of the se	Imagery (B e Surface ( 'es	<u>d; check all t</u> W Sa Ac Hy O; Pr Ra St 7) Ot B8) NoX D	hat apply ater-Stair <b>MLRA 1</b> alt Crust ( quatic Inv ydrogen S xidized R resence o ecent Iror unted or ther (Expl Depth (inc	) ned Leave (a, <b>2, 4A, a</b> (B11) ertebrate Sulfide Oo hizosphe of Reduction Stressed lain in Re lain in Re hes):	es (B9) (e: and 4B) s (B13) dor (C1) res along dor (C4) on in Tilleo Plants (D marks)	xcept	S 	Water-S 4A, a Drainage Dry-Sea Saturatio Geomor Shallow FAC-Nei Raised A Frost-He	tained Leaves <b>nd 4B)</b> P Patterns (B10 son Water Tab on Visible on Ad phic Position (I Aquitard (D3) utral Test (D5) Ant Mounds (D6)	(B9) ( <b>MLRA 1, 2</b> )) e (C2) erial Imagery (C9 02) 6) ( <b>LRR A</b> ) s (D7)
emarks: <b>DiS Soil r</b> <b>/DROLOO</b> <b>/etland Hyd</b> <b>/imary Indic:</b> Surface N High Wat Saturatio Water Ma Sedimen Drift Dep Algal Mat Iron Dept Algal Mat Iron Dept Algal Mat Iron Dept Algal Mat Iron Dept Algal Mat Iron Dept Algal Mat Iron Dept Algal Mat Iron Dept Surface S Inundatio Sparsely ield Observ urface Wate /ater Table F aturation Pri- ncludes cap	The second state of the se	Imagery (B e Surface ( 'es 'es	<u>d; check all t</u> W Sa Ac Ac O; Pr Re St 7) Of B8) No C No C	hat apply ater-Stair <b>MLRA 1</b> alt Crust ( quatic Inv ydrogen S xidized R ydrogen S xidized R resence o ecent Iror unted or ther (Expl Depth (inc Depth (inc	ned Leave (, <b>2, 4A, a</b> (B11) ertebrate Sulfide Oo hizosphe of Reduce f Reduce (Stressed lain in Re lain in Re hes): hes):	es (B9) (e: and 4B) s (B13) dor (C1) res along d Iron (C4 on in Tilleo Plants (D marks)	xcept	<u>S</u>  ots (C3) <u>*</u>       	Water-S 4A, a Drainage Dry-Sea Saturatio Geomor Shallow FAC-Nei Raised A Frost-He	tained Leaves <b>ind 4B)</b> e Patterns (B10 son Water Tab on Visible on Ar phic Position (I Aquitard (D3) utral Test (D5) Ant Mounds (D6 eave Hummock	(B9) ( <b>MLRA 1, 2</b> )) e (C2) erial Imagery (C9 02) 6) ( <b>LRR A</b> ) s (D7)
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Algal Mar Algal Mar Algal Mar Algal Mar Algal Mar Algal Mar Algal Mar Control Dep Algal Mar Control Dep Algal Mar Control Dep Algal Mar Control Dep Algal Mar Control Dep Control Dep C	The second state of the se	Imagery (B e Surface ( 'es 'es	<u>d; check all t</u> W Sa Ac Ac O; Pr Re St 7) Of B8) No C No C	hat apply ater-Stair <b>MLRA 1</b> alt Crust ( quatic Inv ydrogen S xidized R ydrogen S xidized R resence o ecent Iror unted or ther (Expl Depth (inc Depth (inc	ned Leave (, <b>2, 4A, a</b> (B11) ertebrate Sulfide Oo hizosphe of Reduce f Reduce (Stressed lain in Re lain in Re hes): hes):	es (B9) (e: and 4B) s (B13) dor (C1) res along d Iron (C4 on in Tilleo Plants (D marks)	xcept	<u>S</u>  ots (C3) <u>*</u>       	Water-S 4A, a Drainage Dry-Sea Saturatio Geomor Shallow FAC-Nei Raised A Frost-He	tained Leaves <b>ind 4B)</b> e Patterns (B10 son Water Tab on Visible on Ar phic Position (I Aquitard (D3) utral Test (D5) Ant Mounds (D6 eave Hummock	(B9) ( <b>MLRA 1, 2</b> , )) e (C2) erial Imagery (C9 )2) 6) ( <b>LRR A</b> ) s (D7)
emarks: <b>DiS SOII r</b> <b>/DROLOO</b> <b>/etland Hyd</b> <b>rimary Indica</b> Surface N High Water Saturatio Sedimen Drift Dep Algal Mate Surface S Iron Depo Surface S Inundatio Sparsely <b>ield Observ</b> urface Water /ater Table F aturation Pro- ncludes cap escribe Rec	The second state of the se	Imagery (B e Surface ( 'es 'es	<u>d; check all t</u> W Sa Ac Ac O; Pr Re St 7) Of B8) No C No C	hat apply ater-Stair <b>MLRA 1</b> alt Crust ( quatic Inv ydrogen S xidized R ydrogen S xidized R resence o ecent Iror unted or ther (Expl Depth (inc Depth (inc	ned Leave (, <b>2, 4A, a</b> (B11) ertebrate Sulfide Oo hizosphe of Reduce f Reduce (Stressed lain in Re lain in Re hes): hes):	es (B9) (e: and 4B) s (B13) dor (C1) res along d Iron (C4 on in Tilleo Plants (D marks)	xcept	<u>S</u>  ots (C3) <u>*</u>       	Water-S 4A, a Drainage Dry-Sea Saturatio Geomor Shallow FAC-Nei Raised A Frost-He	tained Leaves <b>ind 4B)</b> e Patterns (B10 son Water Tab on Visible on Ar phic Position (I Aquitard (D3) utral Test (D5) Ant Mounds (D6 eave Hummock	(B9) ( <b>MLRA 1, 2</b> , )) e (C2) erial Imagery (C9 )2) 6) ( <b>LRR A</b> ) s (D7)

Project/Site: Jayne's Parcel	City/County: El Paso		Sampling Date: 2/1/22
Applicant/Owner:		State: CO	Sampling Point: WT-A18-UP1
Investigator(s): S. Clark	Section, Township, Range	2 S28 and 33, T12S	, R65W
Landform (hillslope, terrace, etc.): hillslope	_ Local relief (concave, con		
Subregion (LRR): E	°58'34.00"N Lo	ong: <u>- 104°40'33.94</u> "	W Datum: WGS84
Soil Map Unit Name: Pring coarse sandy loam, 3-8% slopes		NWI classific	ation: None
Are climatic / hydrologic conditions on the site typical for this time of y	ear? Yes X No	(If no, explain in R	emarks.)
Are Vegetation, Soil, or Hydrology significantly	y disturbed? Are "Nor	mal Circumstances" p	resent? Yes X No
Are Vegetation, Soil, or Hydrology naturally pr	oblematic? (If neede	ed, explain any answe	rs in Remarks.)
			• • • • • •

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

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

#### **VEGETATION – Use scientific names of plants.**

NA	Absolute		Indicator	Dominance Test worksheet:	
<u>Tree Stratum</u> (Plot size: <u>NA</u> ) 1	<u>% Cover</u>	Species?	Status	Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)	
2 3				Total Number of Dominant       Species Across All Strata:   (B)	
4		= Total Co		Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/E	3)
				Prevalence Index worksheet:	
1				Total % Cover of: Multiply by:	
2				OBL species $0$ $x = 0$	
3				FACW species $0$ x 2 = $0$	
4				FAC species $0 \times 3 = 0$	
5				FACU species $27$ $x = 108$	
<u>Herb Stratum</u> (Plot size: <sup>5'</sup> )		= Total Co	over	UPL species 69 x 5 = 345	
1 Schizachyrium scoparium	20	х	UPL	Column Totals: <u>96</u> (A) <u>453</u> (B)	)
2. Bouteloua gracilis	40	x	UPL	Prevalence Index = $B/A = 4.72$	
3. Artemisia ludoviciana	2		FACU	Hydrophytic Vegetation Indicators:	
4. Sporobolus cf. heterolepis	20	x	FACU	1 - Rapid Test for Hydrophytic Vegetation	
5. Heterotheca villosa	2		UPL	2 - Dominance Test is >50%	
6. Pascopyrum smithii	2		FACU	$\frac{1}{3} - \text{Prevalence Index is } \le 3.0^{1}$	
7. Aristida purpurea	5		UPL	4 - Morphological Adaptations <sup>1</sup> (Provide supportir	20
8. Sporobolus cryptandrus	5		FACU	data in Remarks or on a separate sheet)	iy
9				5 - Wetland Non-Vascular Plants <sup>1</sup>	
10				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
11				<sup>1</sup> Indicators of hydric soil and wetland hydrology must	
	96	= Total Co	ver	be present, unless disturbed or problematic.	
Woody Vine Stratum (Plot size: NA )					
1				Hydrophytic	
2				Vegetation	
% Bare Ground in Herb Stratum _4		= Total Co	ver	Present? Yes <u>No X</u>	
Remarks:					
Nemana.					

# Sampling Point: WT-A18-UP1

Profile Desc	cription: (Describe	to the dept	h needed to docun	nent the ir	dicator o	or confirm the	e absence of indicators.)
Depth	Matrix			x Features		. 2	
(inches) 0-4	Color (moist) 10YR 2/1	<u>%</u> 100	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture Remarks
0-4	101R 2/1					Coar	se sandy Loam
·							
				. <u> </u>			
			Roduced Matrix CS	-Covered	or Coato		s. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.
	oncentration, D=Dep Indicators: (Applic					u Sanu Grains	Indicators for Problematic Hydric Soils <sup>3</sup> :
Histosol			Sandy Redox (S		u.)		2 cm Muck (A10)
	pipedon (A2)	-	Stripped Matrix	,			Red Parent Material (TF2)
	istic (A3)	-	Loamy Mucky M		) (except	MLRA 1)	Very Shallow Dark Surface (TF12)
	en Sulfide (A4)	-	Loamy Gleyed I				Other (Explain in Remarks)
	d Below Dark Surfac	e (A11)	Depleted Matrix				
Thick Da	ark Surface (A12)	-	Redox Dark Su	face (F6)			<sup>3</sup> Indicators of hydrophytic vegetation and
	lucky Mineral (S1)	-	Depleted Dark S		7)		wetland hydrology must be present,
-	Bleyed Matrix (S4)	-	Redox Depress	ions (F8)		1	unless disturbed or problematic.
	Layer (if present):						
Type: Fro							v
Depth (in	ches): <u>4</u>					н	lydric Soil Present? Yes No X
HYDROLO							
-	drology Indicators:						
Primary India	cators (minimum of o	one required					Secondary Indicators (2 or more required)
Surface	Water (A1)		Water-Stai	ned Leave	s (B9) ( <b>e</b>	ccept	Water-Stained Leaves (B9) (MLRA 1, 2,
	ater Table (A2)			1, 2, 4A, a	nd 4B)		4A, and 4B)
Saturatio	. ,		Salt Crust	. ,			Drainage Patterns (B10)
Water M			Aquatic Inv				Dry-Season Water Table (C2)
	nt Deposits (B2)		Hydrogen				Saturation Visible on Aerial Imagery (C9)
	posits (B3)				-	_iving Roots (	· · · · · ·
-	at or Crust (B4)		Presence of				Shallow Aquitard (D3)
	posits (B5)					I Soils (C6)	FAC-Neutral Test (D5)
	Soil Cracks (B6)		Stunted or			1) ( <b>LRR A</b> )	Raised Ant Mounds (D6) (LRR A)
	on Visible on Aerial			nam in Rer	narks)		Frost-Heave Hummocks (D7)
Field Obser	y Vegetated Concav	e Suriace (B	0)				
		/oc •	lo X Donth (:	aboe):			
Surface Wat			lo <u>×</u> Depth (ind				
Water Table			lo <u>x</u> Depth (ind	,			
Saturation P (includes cap		esN	lo <u>x</u> Depth (ind	ches):		_ Wetland	Hydrology Present? Yes No X
	corded Data (stream	n gauge, moi	nitoring well, aerial p	hotos, pre	vious ins	pections), if av	/ailable:
Remarks:							
	o have wetlar	nd hydro	logy due to la	Indscar	be pos	ition.	
,		,			•		

Project/Site: Jayne's Parcel	City/County: El Pas	50	Sampling Date: 2/1/22
Applicant/Owner:		State: CO	Sampling Point: WT-A18-WT1
Investigator(s): S. Clark	Section, Township,	Range: S28 and 33, T128	S, R65W
Landform (hillslope, terrace, etc.): swale		ve, convex, none): <u>concave</u>	_
Subregion (LRR): E	Lat: <u>38°58'34.17"N</u>	Long: -104°40'34.34'	W Datum: WGS84
Soil Map Unit Name: Pring coarse sandy loam, 3-8% slop	Des	NWI classifi	<sub>cation:</sub> None
Are climatic / hydrologic conditions on the site typical for this t	time of year? Yes X N	o (If no, explain in F	Remarks.)
Are Vegetation, Soil, or Hydrology sig	nificantly disturbed? A	re "Normal Circumstances"	present? Yes X No
Are Vegetation, Soil, or Hydrology nat	turally problematic? (I	f needed, explain any answe	ers in Remarks.)
SUMMARY OF FINDINGS Attach site man al	howing compling poin	t locations transact	important features ate

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

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

#### **VEGETATION – Use scientific names of plants.**

NA	Absolute	Dominant Inc		Dominance Test worksheet:
Tree Stratum (Plot size: NA) 1)		<u>Species?</u> S		Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)
2 3				Total Number of Dominant Species Across All Strata: <u>1</u> (B)
4		_ = Total Cover		Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)
				Prevalence Index worksheet:
1				Total % Cover of: Multiply by:
2				OBL species x 1 =
3				FACW species <u>110</u> x 2 = <u>220</u>
4		·		FAC species x 3 =
5				FACU species x 4 =
Ε'		= Total Cover		· <u> </u>
Herb Stratum (Plot size: 5')	00			UPL species $x = 220$
1. Juncus arcticus	_ 90		ACW	Column Totals: 110 (A) 220 (B)
2. Carex sp.	20	<u></u> ⊢/	AC₩	Prevalence Index = $B/A = 2$
3				Hydrophytic Vegetation Indicators:
4				<ul> <li>X 1 - Rapid Test for Hydrophytic Vegetation</li> </ul>
5				× 2 - Dominance Test is >50%
6				x 3 - Prevalence Index is ≤3.0 <sup>1</sup>
7				<ul> <li>4 - Morphological Adaptations<sup>1</sup> (Provide supporting</li> </ul>
8				data in Remarks or on a separate sheet)
9				5 - Wetland Non-Vascular Plants <sup>1</sup>
10				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
				<sup>1</sup> Indicators of hydric soil and wetland hydrology must
11	110			be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size: NA )		= Total Cover		
1				Hydrophytic
2			_	Vegetation
% Bare Ground in Herb Stratum 0		= Total Cover		Present? Yes X No
Remarks:				

### SOIL

# Sampling Point: WT-A18-WT1

Profile Desc	cription: (Describe	to the dep	oth needed to docur	nent the	indicator	or confirm	n the absence	of indicators.)
Depth	Matrix			x Feature				
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-6	10YR 2/1	100					Sandy Loam	Lots of roots and organics
6-18	10 YR 2/1	98	7.5 YR 4/6	2	<u> </u>	M/PL	Sandy Clay Lo	am
		·					·	
		·						
		·					· - <u></u>	
<sup>1</sup> Type: $C=C$	oncentration, D=Dep	letion RM	=Reduced Matrix CS	- S=Covere	d or Coate	ed Sand G	irains <sup>2</sup> l o	cation: PL=Pore Lining, M=Matrix.
	Indicators: (Applic						Indicato	brs for Problematic Hydric Soils <sup>3</sup> :
Histosol			Sandy Redox (		,			n Muck (A10)
	pipedon (A2)		Stripped Matrix					Parent Material (TF2)
	istic (A3)		Loamy Mucky M	· · ·	1) ( <b>excep</b>	t MLRA 1		y Shallow Dark Surface (TF12)
	en Sulfide (A4)		Loamy Gleyed					er (Explain in Remarks)
Deplete	d Below Dark Surfac	e (A11)	Depleted Matrix					
	ark Surface (A12)		× Redox Dark Su					ors of hydrophytic vegetation and
-	/lucky Mineral (S1)		Depleted Dark					ind hydrology must be present,
	Gleyed Matrix (S4)		Redox Depress	ions (F8)			unles	ss disturbed or problematic.
	Layer (if present):							
Type: fro								×
Depth (in	ches): <u>18</u>						Hydric Soil	Present? Yes <u>X</u> No
HYDROLO								
-	drology Indicators:			)			C	
	cators (minimum of o	ne require			(20) (			ndary Indicators (2 or more required)
	Water (A1)		Water-Sta		. , .	except	V	Vater-Stained Leaves (B9) ( <b>MLRA 1, 2</b> ,
	ater Table (A2)			1, 2, 4A,	and 4B)		_	4A, and 4B)
Saturati	( )		Salt Crust	. ,				Drainage Patterns (B10)
	larks (B1)		Aquatic In					Ory-Season Water Table (C2)
	nt Deposits (B2)		Hydrogen					aturation Visible on Aerial Imagery (C9)
	posits (B3)		<u>×</u> Oxidized F		-	-		Seomorphic Position (D2)
	at or Crust (B4)		Presence			,		Shallow Aquitard (D3)
	posits (B5)		Recent Irc					AC-Neutral Test (D5)
	Soil Cracks (B6)		Stunted or			01) (LRR A		Raised Ant Mounds (D6) (LRR A)
	on Visible on Aerial I	•••		plain in Re	emarks)		F	rost-Heave Hummocks (D7)
	y Vegetated Concave	e Surface (	88)					
Field Obser								
Surface Wat			No × Depth (in					
Water Table			No x Depth (in					Y Y
Saturation P		'es	No x Depth (in	ches):		Wet	land Hydrolog	y Present? Yes X No
(includes ca Describe Re	corded Data (stream	gauge, m	onitoring well, aerial	photos, p	revious ins	spections).	, if available:	
		J J-,	<b>J</b>	, ,				
Remarks:								

Project/Site: <u>Jayne's Parcel</u>	City/County: El	Paso	_ Sampling Date: 2/1/22
Applicant/Owner:		State: CO	_ Sampling Point: WT-A30-UP1
Investigator(s): S. Clark	Section, Towns	hip, Range: <u>S28</u> and 33, T12	S, R65W
Landform (hillslope, terrace, etc.): hillslope		ncave, convex, none): <u>concave</u>	
Subregion (LRR): E	Lat: <u>38°58'14.57"N</u>	Long: - 104°40'29.6	"W Datum: WGS84
Soil Map Unit Name: Pring coarse sandy loam, 3-8% slop	es	NWI classif	ication: None
Are climatic / hydrologic conditions on the site typical for this ti	me of year? Yes X	_ No (If no, explain in	Remarks.)
Are Vegetation, Soil, or Hydrology sigr	nificantly disturbed?	Are "Normal Circumstances"	present? Yes X No
Are Vegetation, Soil, or Hydrology natu	urally problematic?	(If needed, explain any answ	ers in Remarks.)
		• • • • • •	

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

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

#### **VEGETATION – Use scientific names of plants.**

NA	Absolute		Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: NA)	% Cover	Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC: 0 (A)
2				
				Total Number of Dominant Species Across All Strata: 2 (B)
3				Species Across All Strata: 2 (B)
4				Percent of Dominant Species
		= Total Co	over	That Are OBL, FACW, or FAC: 0 (A/B)
Sapling/Shrub Stratum (Plot size: NA )				Prevalence Index worksheet:
1				
2				Total % Cover of: Multiply by:
				OBL species $0$ $x_1 = 0$
3				FACW species $0   x 2 = 0$
4				FAC species $\frac{2}{x 3} = \frac{6}{x}$
5				00 000
		= Total Co	over	
Herb Stratum (Plot size: 5')				UPL species $\frac{20}{x 5} = \frac{100}{x 5}$
1 Schizachyrium scoparium	20		UPL	Column Totals: <u>102</u> (A) <u>426</u> (B)
2. Sporobolus heterolepis	40	x	FACU	Developed Index D/A 4 18
3 Andropogon gerardii	40	x	FACU	Prevalence Index = B/A = 4.18
<sup>d</sup> Cirsium arvense	2		FAC	Hydrophytic Vegetation Indicators:
- T				1 - Rapid Test for Hydrophytic Vegetation
5				2 - Dominance Test is >50%
6				$\_$ 3 - Prevalence Index is $\leq 3.0^1$
7				4 - Morphological Adaptations <sup>1</sup> (Provide supporting
8				data in Remarks or on a separate sheet)
9				5 - Wetland Non-Vascular Plants <sup>1</sup>
10				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
11				<sup>1</sup> Indicators of hydric soil and wetland hydrology must
· · · · _	102			be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size: NA )	102	= Total Co	ver	
1				Hydrophytic
2				Vegetation
		= Total Co	ver	Present? Yes <u>No X</u>
% Bare Ground in Herb Stratum 0				
Remarks:				1

epth	Matrix		Redox Features	. ?	-		-	
<u>nches)</u>	Color (moist)	<u>%</u>	Color (moist) % Type		Texture		Remarks	3
-1	10YR 2/1	100			Sandy loam			
				·				
						<u> </u>		
						_		
·						·		
·					. 2.	·		
			Reduced Matrix, CS=Covered or Coa	ted Sand Gra		ocation: PL=		
		able to all	LRRs, unless otherwise noted.)			ors for Prob	-	aric Solis :
Histosol (	,		Sandy Redox (S5)			m Muck (A10		
	pedon (A2)		Stripped Matrix (S6)			d Parent Mat		(TE40)
Black His			Loamy Mucky Mineral (F1) (exce Loamy Gleyed Matrix (F2)	pt NILRA 1)		ry Shallow Da		. ,
	I Sulfide (A4) Below Dark Surfac	ο (Δ11)	Depleted Matrix (F3)		0	her (Explain i	n Remarks)	
•	k Surface (A12)		Redox Dark Surface (F6)		<sup>3</sup> Indicat	tors of hydrop	hytic veget:	ation and
-	ucky Mineral (S1)		Depleted Dark Surface (F7)			and hydrolog		
•	eyed Matrix (S4)		Redox Depressions (F8)			ess disturbed		
-	ayer (if present):							
Type: Froz								
						il Present?	Yes	NoX
<sup>marks:</sup> likely to	be hydric di	ue to pla	ant community and landso	ape posi	-			
marks: likely to DROLOG	be hydric di		ant community and landso	ape posi	-			
marks: likely to DROLOG	) be hydric di GY rology Indicators:		ant community and landso	ape posi	tion.		tors (2 or m	ore required)
marks: likely to DROLOG stland Hyde mary Indica	) be hydric di GY rology Indicators:				tion.	ondary Indica		ore required)
marks: likely to DROLOG stland Hyde mary Indica Surface V	b be hydric di GY rology Indicators: ators (minimum of c Vater (A1)		t; check all that apply)		tion.	ondary Indica	d Leaves (B	ore required)
marks: likely to DROLOG tland Hyde mary Indica Surface V	b be hydric du BY rology Indicators: ators (minimum of c Vater (A1) er Table (A2)		i; check all that apply) Water-Stained Leaves (B9) MLRA 1, 2, 4A, and 4B)		tion.	ondary Indica Water-Staine <b>4A, and 4</b>	d Leaves (E <b>B)</b>	ore required)
marks: likely to DROLOG tland Hyde mary Indica Surface V High Wate Saturation	b be hydric du GY rology Indicators: ators (minimum of c Vater (A1) er Table (A2) n (A3)		t; check all that apply) Water-Stained Leaves (B9) MLRA 1, 2, 4A, and 4B) Salt Crust (B11)		<u>Secc</u>	ondary Indica Water-Staine <b>4A, and 4</b> Drainage Pat	d Leaves (B <b>B)</b> terns (B10)	ore required) 39) ( <b>MLRA 1, 2</b>
marks: likely to DROLOG tland Hyde mary Indica Surface V High Wate Saturation Water Ma	b be hydric du SY rology Indicators: ators (minimum of c Vater (A1) er Table (A2) n (A3) irks (B1)		t: check all that apply) Water-Stained Leaves (B9) MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13)	(except	tion.	ondary Indica Water-Staine <b>4A, and 4</b> Drainage Pat Dry-Season V	d Leaves (B <b>B)</b> terns (B10) Nater Table	<u>ore required)</u> 39) ( <b>MLRA 1, 2</b> (C2)
marks: likely to DROLOG tland Hydr mary Indica Surface V High Wate Saturation Water Ma Sediment	b be hydric du by rology Indicators: ators (minimum of c Vater (A1) er Table (A2) n (A3) urks (B1) Deposits (B2)		I: check all that apply) — Water-Stained Leaves (B9) MLRA 1, 2, 4A, and 4B) — Salt Crust (B11) — Aquatic Invertebrates (B13) — Hydrogen Sulfide Odor (C1)	(except	tion.	ondary Indica Water-Staine <b>4A, and 4</b> Drainage Pat Dry-Season V Saturation Vis	d Leaves (B <b>B)</b> terns (B10) Vater Table sible on Aer	ore required) 39) ( <b>MLRA 1, 2</b> (C2) ial Imagery (C
marks: likely to DROLOG tland Hydr mary Indica Surface V High Wate Saturation Water Ma Sediment Drift Depo	b be hydric du b b be hydric du b b be hydric du b b be hydric du b b b be hydric du b b b b b b b b b b b b b b b b b b b		I: check all that apply) Water-Stained Leaves (B9) MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres alon	( <b>except</b> g Living Root:	tion. <u>Secc</u>	ondary Indica Water-Staine <b>4A, and 4</b> Drainage Pat Dry-Season V Saturation Vis Geomorphic I	d Leaves (B <b>B)</b> terns (B10) Water Table sible on Aer Position (D2	ore required) 39) ( <b>MLRA 1, 2</b> (C2) ial Imagery (C
marks: likely to DROLOG tiland Hyde mary Indica Surface V High Wate Saturation Water Ma Sediment Drift Depo Algal Mat	b be hydric du FY rology Indicators: ators (minimum of c Vater (A1) er Table (A2) n (A3) urks (B1) Deposits (B2) osits (B3) or Crust (B4)		I: check all that apply) Water-Stained Leaves (B9) MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres alon Presence of Reduced Iron (	( <b>except</b> g Living Root: C4)	tion. <u>Secc</u>   s (C3)	ondary Indica Water-Staine <b>4A, and 4</b> Drainage Pat Dry-Season V Saturation Vis Geomorphic I Shallow Aquit	d Leaves (B B) terns (B10) Vater Table sible on Aer Position (D2 tard (D3)	ore required) 39) ( <b>MLRA 1, 2</b> (C2) ial Imagery (C
marks: likely to DROLOG tland Hyde mary Indica Surface V High Wate Saturatior Water Ma Sediment Drift Depo Algal Mat Iron Depo	b be hydric du Frology Indicators: ators (minimum of co Vater (A1) er Table (A2) n (A3) urks (B1) Deposits (B2) posits (B3) or Crust (B4) posits (B5)		I: check all that apply) — Water-Stained Leaves (B9) <b>MLRA 1, 2, 4A, and 4B)</b> — Salt Crust (B11) — Aquatic Invertebrates (B13) — Hydrogen Sulfide Odor (C1) — Oxidized Rhizospheres alon — Presence of Reduced Iron ( — Recent Iron Reduction in Til	( <b>except</b> g Living Root: C4) led Soils (C6)	tion. <u>Secc</u>	ondary Indica Water-Staine <b>4A, and 4</b> Drainage Pat Dry-Season V Saturation Vis Geomorphic I Shallow Aquit FAC-Neutral	d Leaves (E B) terns (B10) Water Table sible on Aer Position (D2 tard (D3) Test (D5)	ore required) 39) ( <b>MLRA 1, 2</b> (C2) ial Imagery (C 2)
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marks: likely to DROLOG etland Hydi mary Indica Surface V High Wate Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo Surface S Inundation Sparsely Hid Observa rface Water	b be hydric du b be h	one required Imagery (B7 e Surface (E 'es 1	d: check all that apply)	(except g Living Root: C4) led Soils (C6) D1) (LRR A)	tion. <u>Secc</u>	ondary Indica Water-Staine <b>4A, and 4</b> Drainage Pat Dry-Season V Saturation Vis Geomorphic I Shallow Aquit FAC-Neutral Raised Ant M	d Leaves (E B) terns (B10) Water Table sible on Aer Position (D2 tard (D3) Test (D5) lounds (D6)	ore required) 39) ( <b>MLRA 1, 2</b> (C2) ial Imagery (C3 2) ( <b>LRR A</b> )
DROLOG Tand Hydr mary Indica Surface V High Wate Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo Surface S Inundation Sparsely Dd Observa rface Water	b be hydric du b be h	Imagery (B7 e Surface (E res f	A: check all that apply)	(except g Living Root: C4) led Soils (C6) D1) (LRR A)	tion. 	ondary Indica Water-Staine <b>4A, and 4</b> Drainage Pat Dry-Season V Saturation Vis Geomorphic I Shallow Aquit FAC-Neutral Raised Ant M Frost-Heave	d Leaves (E B) terns (B10) Water Table sible on Aer Position (D2 tard (D3) Test (D5) lounds (D6) Hummocks	ore required) 39) ( <b>MLRA 1, 2</b> (C2) ial Imagery (C3 2) ( <b>LRR A</b> ) (D7)
marks: IIKely to DROLOG etiand Hydr mary Indica Surface V High Watr Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo Surface S Inundation	b be hydric du b be h	Imagery (B7 e Surface (E res f	d: check all that apply)	(except g Living Root: C4) led Soils (C6) D1) (LRR A)	tion. 	ondary Indica Water-Staine <b>4A, and 4</b> Drainage Pat Dry-Season V Saturation Vis Geomorphic I Shallow Aquit FAC-Neutral Raised Ant M	d Leaves (E B) terns (B10) Water Table sible on Aer Position (D2 tard (D3) Test (D5) lounds (D6) Hummocks	ore required) 39) ( <b>MLRA 1, 2</b> (C2) ial Imagery (C3 2) ( <b>LRR A</b> ) (D7)
marks: <b>DROLOG</b> etland Hydi mary Indica Surface V High Wate Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo Surface S Inundation Sparsely eld Observa rface Water ater Table F turation Pre- cludes capi	be hydric du be hydric du sy rology Indicators: ators (minimum of c Vater (A1) er Table (A2) n (A3) rrks (B1) Deposits (B2) osits (B3) or Crust (B4) osits (B5) soil Cracks (B6) n Visible on Aerial Vegetated Concave ations: r Present? Present? Y esent? Y	Imagery (B7 e Surface (B és 1 és 1	A: check all that apply)	(except g Living Root: C4) led Soils (C6) D1) (LRR A)	tion. 	ondary Indica Water-Staine <b>4A, and 4</b> Drainage Pat Dry-Season V Saturation Vis Geomorphic I Shallow Aquit FAC-Neutral Raised Ant M Frost-Heave	d Leaves (E B) terns (B10) Water Table sible on Aer Position (D2 tard (D3) Test (D5) lounds (D6) Hummocks	ore required) 39) ( <b>MLRA 1, 2</b> (C2) ial Imagery (C 2) ( <b>LRR A</b> ) (D7)
marks: <b>DROLOG</b> <b>etland Hyd</b> mary Indica Surface V High Wate Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo Surface S Inundation Sparsely <b>eld Observa</b> rface Watel ater Table F turation Pre- cludes capi	be hydric du be hydric du sy rology Indicators: ators (minimum of c Vater (A1) er Table (A2) n (A3) rrks (B1) Deposits (B2) osits (B3) or Crust (B4) osits (B5) soil Cracks (B6) n Visible on Aerial Vegetated Concave ations: r Present? Present? Y esent? Y	Imagery (B7 e Surface (B és 1 és 1	d: check all that apply)	(except g Living Root: C4) led Soils (C6) D1) (LRR A)	tion. 	ondary Indica Water-Staine <b>4A, and 4</b> Drainage Pat Dry-Season V Saturation Vis Geomorphic I Shallow Aquit FAC-Neutral Raised Ant M Frost-Heave	d Leaves (E B) terns (B10) Water Table sible on Aer Position (D2 tard (D3) Test (D5) lounds (D6) Hummocks	ore required) 39) ( <b>MLRA 1, 2</b> (C2) ial Imagery (C3 2) ( <b>LRR A</b> ) (D7)
marks: <b>DROLOG</b> etland Hydi mary Indica Surface V High Wate Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo Surface S Inundation Sparsely eld Observa rface Water ater Table F turation Pre- cludes capi	be hydric du be hydric du sy rology Indicators: ators (minimum of c Vater (A1) er Table (A2) n (A3) rrks (B1) Deposits (B2) osits (B3) or Crust (B4) osits (B5) soil Cracks (B6) n Visible on Aerial Vegetated Concave ations: r Present? Present? Y esent? Y	Imagery (B7 e Surface (B és 1 és 1	d: check all that apply)	(except g Living Root: C4) led Soils (C6) D1) (LRR A)	tion. 	ondary Indica Water-Staine <b>4A, and 4</b> Drainage Pat Dry-Season V Saturation Vis Geomorphic I Shallow Aquit FAC-Neutral Raised Ant M Frost-Heave	d Leaves (E B) terns (B10) Water Table sible on Aer Position (D2 tard (D3) Test (D5) lounds (D6) Hummocks	ore required) 39) ( <b>MLRA 1, 2</b> (C2) ial Imagery (C3 2) ( <b>LRR A</b> ) (D7)

Project/Site: Jayne's Parcel	City/County: El	Paso	Sampling Date: 2/1/22
Applicant/Owner:		State: CO	_ Sampling Point: WT-A30-WT1
Investigator(s): S. Clark	Section, Townsh	hip, Range: <u>S28 and 33, T12</u>	S, R65W
Landform (hillslope, terrace, etc.): swale			Slope (%): 7
Subregion (LRR): E		Long: - 104°40'30.34	"W Datum: WGS84
Soil Map Unit Name: Pring coarse sandy loam, 3-8% slo	opes	NWI classifi	<sub>cation:</sub> None
Are climatic / hydrologic conditions on the site typical for this	s time of year? Yes X	No (If no, explain in I	Remarks.)
Are Vegetation, Soil, or Hydrologys	ignificantly disturbed?	Are "Normal Circumstances"	present? Yes X No
Are Vegetation, Soil, or Hydrology n	aturally problematic?	(If needed, explain any answe	ers in Remarks.)
CUMMARY OF FINDINGS Attach site man	abowing compling p	aint locational transact	important factures ato

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

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

#### **VEGETATION – Use scientific names of plants.**

NA	Absolute	Dominant		Dominance Test worksheet:	
Tree Stratum (Plot size: NA )		Species?		Number of Dominant Species	
1				That Are OBL, FACW, or FAC: (A)	
2				Total Number of Dominant	
3				Species Across All Strata:(B)	
4				Percent of Dominant Species	
Sapling/Shrub Stratum (Plot size: NA )		= Total Co	over	That Are OBL, FACW, or FAC: 100 (A/	B)
				Prevalence Index worksheet:	
1				Total % Cover of: Multiply by:	
2				OBL species $0$ $x = 0$	
3				FACW species $60   x 2 = 120$	
4				EAC species $\frac{27}{2}$ $x_2 = \frac{3}{81}$	
5				1 AC species X 3 =	
		= Total Co	ver	FACU species $\frac{20}{2}$ x 4 = $\frac{80}{2}$	
Herb Stratum (Plot size: 5')				UPL species $0   x 5 = 0$	
Juncus arcticus	60	х	FACW	Column Totals: 107 (A) 281 (B	3)
2. Rumex crispus	2		FAC		
3. Achillea millefolium	10		FACU	Prevalence Index = B/A = 2.63	
4 Pascopyrum smithii	10		FACU	Hydrophytic Vegetation Indicators:	
	- 10			<u>×</u> 1 - Rapid Test for Hydrophytic Vegetation	
5. Elymus trachycaulus			FAC	<u>x</u> 2 - Dominance Test is >50%	
6. Agrostis cf. gigantea	20		FAC	<b>x</b> 3 - Prevalence Index is $\leq 3.0^{1}$	
7				4 - Morphological Adaptations <sup>1</sup> (Provide supporti	na
8				data in Remarks or on a separate sheet)	
9				5 - Wetland Non-Vascular Plants <sup>1</sup>	
				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
10			·	<sup>1</sup> Indicators of hydric soil and wetland hydrology must	
11				be present, unless disturbed or problematic.	
	107	= Total Co	ver		
Woody Vine Stratum (Plot size: NA )					
1				Hydrophytic	
2				Vegetation	
		= Total Co		Present? Yes X No	
% Bare Ground in Herb Stratum 0		=			
Remarks:					

# Sampling Point: WT-A30-WT1

(inches) 0-1  	Color (moist) 10YR 2/1	<u> </u>	Color (moist) % Type <sup>1</sup>	Loc <sup>2</sup> Tex	xture Remarks
				0	1
					loam with a sand seam
				· ·	
				· ·	
				· ·	
					21 Aliana DL. Dana Liaina AA Mathia
			Reduced Matrix, CS=Covered or Coate RRs, unless otherwise noted.)		<sup>2</sup> Location: PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Soils <sup>3</sup> :
_ Histosol (A			Sandy Redox (S5)		2 cm Muck (A10)
	bedon (A2)	-	Stripped Matrix (S6)	-	Red Parent Material (TF2)
Black Hist	. ,	-	Loamy Mucky Mineral (F1) (excep	t MLRA 1)	Very Shallow Dark Surface (TF12)
	Sulfide (A4)		Loamy Gleyed Matrix (F2)		Other (Explain in Remarks)
	Below Dark Surfac	ce (A11)	Depleted Matrix (F3)	_	
	k Surface (A12)		x Redox Dark Surface (F6)	3	<sup>3</sup> Indicators of hydrophytic vegetation and
-	cky Mineral (S1)	-	Depleted Dark Surface (F7)		wetland hydrology must be present,
	eyed Matrix (S4)	-	Redox Depressions (F8)		unless disturbed or problematic.
estrictive La <sub>Type:</sub> Froz	yer (if present):				
					X
Depth (inch emarks:	es): <u>~</u>			Hyd	Iric Soil Present? Yes X No
DROLOG					
-	ology Indicators		check all that apply)		Secondary Indicators (2 or more required)
Surface W		one required,	Water-Stained Leaves (B9) (	avcent	Water-Stained Leaves (B9) (MLRA 1, 2,
	er Table (A2)		MLRA 1, 2, 4A, and 4B)	, cept	4A, and 4B)
Saturation			Salt Crust (B11)		Drainage Patterns (B10)
_ Water Mar	( )		Aquatic Invertebrates (B13)		Dry-Season Water Table (C2)
	Deposits (B2)		Hydrogen Sulfide Odor (C1)		Saturation Visible on Aerial Imagery (C9)
Drift Depo				Living Roots (C3)	) <u>x</u> Geomorphic Position (D2)
	or Crust (B4)		Presence of Reduced Iron (C		Shallow Aquitard (D3)
Iron Depos			Recent Iron Reduction in Tille		× FAC-Neutral Test (D5)
Surface S	oil Cracks (B6)		Stunted or Stressed Plants (D	01) ( <b>LRR A</b> )	Raised Ant Mounds (D6) (LRR A)
Inundation	visible on Aerial	Imagery (B7)	Other (Explain in Remarks)		Frost-Heave Hummocks (D7)
_ Sparsely \	/egetated Concav	ve Surface (B	8)		
ield Observa	ations:				
urfage Mater	Present?	Yes N	o <u>×</u> Depth (inches):		
unace water	resent?	Yes N	o x Depth (inches):		
		Yes N	o <u>x</u> Depth (inches):	Wetland Hy	ydrology Present? Yes X No
/ater Table Platuration Pres				poctions) if avail	abla
/ater Table P aturation Pre ncludes capill	lary fringe)	n gauge, mor	itoring well, aerial photos, previous ins	spections), il avail	able.
Vater Table P Saturation Pre- Includes capill Describe Reco	lary fringe)	n gauge, mor	litoring well, aerial photos, previous ins	spections), il avail	able.
Vater Table Platuration Pres	lary fringe)	n gauge, mor	litoring well, aerial photos, previous ins		able.

Project/Site: Jayne's Parcel	City/County: E	l Paso	Samplin	g Date: 2/1/22
Applicant/Owner:		State: CO		g Point: WT-A33-UP1
Investigator(s): S. Clark	Section, Towns	ship, Range: S28 and 33,	T12S, R65W	
Landform (hillslope, terrace, etc.): hillslope		oncave, convex, none): <u>con</u>		Slope (%): <u>5</u>
	38°58'22.79"N	Long: - 104°40'2	4.10"W	Datum: WGS84
Soil Map Unit Name: Pring coarse sandy loam, 3-8% slopes		NWI cla	assification: No	one
Are climatic / hydrologic conditions on the site typical for this time o	f year? Yes <u>X</u>	No (If no, explai	n in Remarks.)	
Are Vegetation, Soil, or Hydrology significat	ntly disturbed?	Are "Normal Circumstan	ces" present?	Yes X No
Are Vegetation, Soil, or Hydrology naturally	problematic?	(If needed, explain any a	nswers in Rem	narks.)

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

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

#### **VEGETATION – Use scientific names of plants.**

NA	Absolute	Dominant		Dominance Test worksheet:
Tree Stratum (Plot size: NA ) 1)	% Cover	Species?	Status	Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
2				Total Number of Dominant
3				Species Across All Strata: <u>3</u> (B)
4				Percent of Dominant Species
		= Total Co	over	That Are OBL, FACW, or FAC: 0 (A/B)
Sapling/Shrub Stratum (Plot size: NA )				Prevalence Index worksheet:
1				Total % Cover of: Multiply by:
2				$\overline{\text{OBL species}}  \underline{0} \qquad x \ 1 = \underline{0}$
3				FACW species $0 \times 2 = 0$
4				
5				FAC species $\frac{1}{2}$ $x_3 = \frac{1}{2}$
		= Total Co	ver	
Herb Stratum (Plot size: <u>5</u> ')				UPL species $\frac{32}{100}$ x 5 = $\frac{160}{100}$
<sub>1.</sub> <u>C</u> entaurea diffusa	20	х	UPL	Column Totals: <u>102</u> (A) <u>430</u> (B)
2. Pascopyrum smithii	20	x	FACU	Prevalence Index = $B/A = 4.22$
3. Sporobolus heterolepis	20	x	FACU	Hydrophytic Vegetation Indicators:
Achillea millefolium	10		FACU	
5. Cirsium arvense	10		FAC	1 - Rapid Test for Hydrophytic Vegetation
6. Schizachyrium scoparium	5		UPL	2 - Dominance Test is >50%
7 Bouteloua gracilis	- 5		UPL	3 - Prevalence Index is ≤3.0 <sup>1</sup>
8. Artemisia frigida	- 2			4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
g. Elymus elymoides			FACU	5 - Wetland Non-Vascular Plants <sup>1</sup>
10				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
11				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
NIA	102	= Total Co	ver	be present, unless disturbed of problematic.
Woody Vine Stratum (Plot size: NA )				
1				Hydrophytic
2				Vegetation
_		= Total Co		Present? Yes No X
% Bare Ground in Herb Stratum _0				
Remarks:				

	cription: (Describe	to the depth				or confirm t	the absence of indicators.)
Depth (inchor)	Matrix	%		x Features	Type <sup>1</sup>	Loc <sup>2</sup>	Tautura
(inches) 0-9	Color (moist) 10YR 2/1	100	Color (moist)	%	Туре		Texture Remarks
					<u> </u>	F	Fine sandy loam
		·					
		·			<u> </u>		<u> </u>
		·			<u> </u>		
1						<u> </u>	
	oncentration, D=Dep Indicators: (Applic					d Sand Grai	ains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Soils <sup>3</sup> :
-							-
Histosol			Sandy Redox (				2 cm Muck (A10)
	pipedon (A2)		Stripped Matrix Loamy Mucky N	• •	) (avaant		Red Parent Material (TF2) Very Shallow Dark Surface (TF12)
	istic (A3) en Sulfide (A4)	_	Loamy Mucky F Loamy Gleyed			WILKA 1)	Other (Explain in Remarks)
· ·	d Below Dark Surface	o (A11)	_ Depleted Matrix	• •	)		
<u> </u>	ark Surface (A12)		_ Redox Dark Su				<sup>3</sup> Indicators of hydrophytic vegetation and
	Aucky Mineral (S1)		_ Depleted Dark		7)		wetland hydrology must be present,
-	Gleyed Matrix (S4)		Redox Depress		.,		unless disturbed or problematic.
	Layer (if present):						
Type: Fro							
Depth (in							Hydric Soil Present? Yes No _X
Remarks:							·· <b>·</b> ,
YDROLO	GY drology Indicators:						
	cators (minimum of o		check all that appl	V)			Secondary Indicators (2 or more required)
	Water (A1)		Water-Sta		es (B9) ( <b>ex</b>	cept	Water-Stained Leaves (B9) (MLRA 1,
	ater Table (A2)			1, 2, 4A, a	. , .		4A, and 4B)
Saturati			Salt Crust				Drainage Patterns (B10)
	larks (B1)		Aquatic In		s (B13)		Dry-Season Water Table (C2)
	nt Deposits (B2)		Hydrogen				Saturation Visible on Aerial Imagery (C
	posits (B3)					_iving Roots	
	at or Crust (B4)		Presence		-	-	Shallow Aquitard (D3)
	posits (B5)					/ I Soils (C6)	
	. ,					. ,	
	Soil Cracks (B6)	mageny (D7)				l) ( <b>LRR A</b> )	
	on Visible on Aerial I y Vegetated Concave	••••	Other (Exp		11/01/15)		Frost-Heave Hummocks (D7)
Field Obser			/				
Surface Wat			. × Depth (in	chee).			
						_	
Water Table			x Depth (in				nd Ukudan Jamu Bangarat (A. Marana K. X
		es No	<b>x</b> Depth (in	cnes):		_ vvetiar	nd Hydrology Present? Yes No X
			toring well aerial	photos, pre	evious insp	pections), if	f available:
(includes ca		gauge, moni	tornig wen, aeriar				
(includes ca	corded Data (stream	gauge, moni	toring well, achar			,.	
Describe Re		gauge, moni				,	
(includes ca Describe Re Remarks:	corded Data (stream				ne nosi		
(includes ca Describe Re Remarks:					pe posi		
(includes ca Describe Re Remarks:	corded Data (stream				pe posi		

Project/Site: Jayne's Parcel	City/County: El Paso		_ Sampling Date: 2/1/22
Applicant/Owner:		State: CO	_ Sampling Point: <u>WT-A33-W</u> T1
Investigator(s): S. Clark	Section, Township, Rang	<sub>ge:</sub> <u>S28 and 33, T12</u>	S, R65W
Landform (hillslope, terrace, etc.): swale	Local relief (concave, co		2
Subregion (LRR): E	Lat: <u>38°58'22.66"N</u>	Long: - 104°40'24.5	9"W Datum: WGS84
Soil Map Unit Name: Pring coarse sandy loam, 3-8% slo	pes	NWI classi	fication: None
Are climatic / hydrologic conditions on the site typical for this	time of year? Yes X No	(If no, explain in	Remarks.)
Are Vegetation, Soil, or Hydrology sig	nificantly disturbed? Are "N	lormal Circumstances'	' present? Yes X No
Are Vegetation, Soil, or Hydrology na	turally problematic? (If nee	ded, explain any answ	vers in Remarks.)
SUMMARY OF FINDINGS Attach site man a	howing compling point lo	actions transport	a important factures ato

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

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

#### **VEGETATION – Use scientific names of plants.**

NA NA	Absolute		Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: NA) 1		Species?		Number of Dominant Species That Are OBL, FACW, or FAC: (A)
2 3				Total Number of Dominant Species Across All Strata: <u>1</u> (B)
4		_= Total Co		Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)
1,				Prevalence Index worksheet:
				Total % Cover of: Multiply by:
2				OBL species $0$ $x_1 = 0$
3				FACW species $\frac{90}{x 2} = \frac{180}{x}$
4			·	FAC species $10$ x 3 = $30$
5				FACU species $\frac{2}{2}$ x 4 = $\frac{8}{2}$
<b>F</b> '		= Total Co	over	UPL species          x 5 =
Herb Stratum (Plot size: 5')	00			100 010
1. Juncus arcticus	_ 90	X	FAC\	Column Totals: 102 (A) 218 (B)
2. Verbascum thapsus	2		FACU	Prevalence Index = $B/A = 2.14$
3. Cirsium arvense	10		FAC	Hydrophytic Vegetation Indicators:
4				<u>×</u> 1 - Rapid Test for Hydrophytic Vegetation
5				× 2 - Dominance Test is >50%
6				<b>x</b> 3 - Prevalence Index is $\leq 3.0^{1}$
7				4 - Morphological Adaptations <sup>1</sup> (Provide supporting
8				data in Remarks or on a separate sheet)
9				5 - Wetland Non-Vascular Plants <sup>1</sup>
				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
10			·	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
11	102		·	be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size: NA )	102	= Total Co	ver	
1				Hydrophytic
2				Vegetation Present? Yes X No
% Bare Ground in Herb Stratum 0		= Total Co	ver	
Remarks:				

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

Profile Des	cription: (Describ	e to the dep	th needed to docu	iment the in	dicator o	r confirn	n the absence of ir	ndicators.)
Depth (inches)	Matrix	0/		ox Features	Tur -1	1 0 2	Touture	Domestic
(inches) 0-4	Color (moist) 10YR 2/1		Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-4							Sandy Loam	
							<u> </u>	
	Concentration, D=De					Sand C		n: PL=Pore Lining, M=Matrix.
	Indicators: (Appl					Sanu Gi		or Problematic Hydric Soils <sup>3</sup> :
Histoso			Sandy Redox		,		2 cm Mu	•
	pipedon (A2)		Stripped Matri	. ,				ent Material (TF2)
	listic (A3)		Loamy Mucky	( )	(excent			allow Dark Surface (TF12)
	en Sulfide (A4)		Loamy Gleyed		excepti			xplain in Remarks)
	d Below Dark Surfa	ICE (A11)	Depleted Matr					
	ark Surface (A12)		Redox Dark S				<sup>3</sup> Indicators of	hydrophytic vegetation and
	Mucky Mineral (S1)		Depleted Dark		)			ydrology must be present,
	Gleyed Matrix (S4)		Redox Depres		/			sturbed or problematic.
	Layer (if present):							
Type: Fr	ozen							
Depth (ir							Hydric Soil Pres	sent? Yes X No
Remarks:								
	)GY /drology Indicators							
-	cators (minimum of		d: check all that an	alv)			Secondary	/ Indicators (2 or more required)
		one require			(R0) ( <b>ox</b>	cont		
	Water (A1)			ained Leaves		cept		-Stained Leaves (B9) (MLRA 1, 2,
-	ater Table (A2)			A 1, 2, 4A, an	a 4B)			, and 4B)
Saturat	( )		Salt Crus	· ,				age Patterns (B10)
	/larks (B1)		<u> </u>	nvertebrates	` '		-	eason Water Table (C2)
	nt Deposits (B2)			n Sulfide Odd				ation Visible on Aerial Imagery (C9)
	posits (B3)			Rhizosphere	-	ving Roo	. ,	orphic Position (D2)
-	at or Crust (B4)			e of Reduced	• • •			w Aquitard (D3)
Iron De	posits (B5)		Recent li	on Reduction	n in Tilled	Soils (C6	6) <u>×</u> FAC-N	Neutral Test (D5)
	Soil Cracks (B6)			or Stressed P		) (LRR A		d Ant Mounds (D6) ( <b>LRR A</b> )
	ion Visible on Aeria			kplain in Rem	arks)		Frost-	Heave Hummocks (D7)
Sparsel	y Vegetated Conca	ve Surface (	B8)					
Field Obse								
Surface Wa	ter Present?	Yes	No x Depth (i	nches):		-		
	Present?	Yes	No <u>x</u> Depth (i	nches):				
Water Table		Voo	No <u>x</u> Depth (i	nches):		Wetl	and Hydrology Pre	esent? Yes X No
Saturation F		res						
Saturation F (includes ca	pillary fringe)		nitoring well '	nhotos	daug la -	notion - \	if available:	
Saturation F (includes ca			onitoring well, aeria	l photos, prev	vious insp	ections),	if available:	
Saturation F (includes ca Describe Re	pillary fringe)		onitoring well, aeria	l photos, prev	vious insp	ections),	if available:	
Saturation F (includes ca	pillary fringe)		onitoring well, aeria	l photos, prev	vious insp	ections),	if available:	
Saturation F (includes ca Describe Re	pillary fringe)		onitoring well, aeria	l photos, prev	rious insp	ections),	if available:	
Saturation F (includes ca Describe Re	pillary fringe)		onitoring well, aeria	l photos, prev	∕ious insp	ections),	if available:	

Project/Site: <u>Jayne's Parcel</u>	City/County: El	Paso	_ Sampling Date: 2/1/22
Applicant/Owner:		State: CO	_ Sampling Point: WT-A39-UP1
Investigator(s): S. Clark	Section, Towns	hip, Range: <u>S28</u> and 33, T12	S, R65W
Landform (hillslope, terrace, etc.): hillslope		ncave, convex, none): <u>concav</u>	
Subregion (LRR): E	Lat: <u>38°58'28.88"N</u>	Long: - 104°40'13.0	1"W Datum: WGS84
Soil Map Unit Name: Pring coarse sandy loam, 3-8% slop	es	NWI classi	ication: None
Are climatic / hydrologic conditions on the site typical for this ti	me of year? Yes X	_ No (If no, explain in	Remarks.)
Are Vegetation, Soil, or Hydrology sign	nificantly disturbed?	Are "Normal Circumstances"	present? Yes X No
Are Vegetation, Soil, or Hydrology nate	urally problematic?	(If needed, explain any answ	ers in Remarks.)
		• • • • • • •	

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

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

#### **VEGETATION – Use scientific names of plants.**

NA	Absolute		Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: NA) 1		Species?		Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
2 3				Total Number of Dominant       Species Across All Strata:   (B)
4		= Total Co		Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)
				Prevalence Index worksheet:
1				Total % Cover of: Multiply by:
2				OBL species $\frac{5}{x + 1} = \frac{5}{x + 1}$
3				FACW species $0   x 2 = 0$
4				FAC species $0 \times 3 = 0$
5				FACU species $\frac{15}{15}$ x 4 = $\frac{60}{15}$
ς,		= Total Co	over	
Herb Stratum (Plot size: 5')	_			UPL species $x_0 =$
<sub>1.</sub> Typha sp.	5		OBL	Column Totals: <u>60</u> (A) <u>265</u> (B)
2. Verbascum thapsus	15	x	FACU	Prevalence Index = $B/A = 4.42$
3. Centaurea diffusa	40	х	UPL	Hydrophytic Vegetation Indicators:
4				1 - Rapid Test for Hydrophytic Vegetation
5				2 - Dominance Test is >50%
6				$3 - Prevalence Index is \leq 3.0^1$
7				
8				4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
9				5 - Wetland Non-Vascular Plants <sup>1</sup>
10				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
				<sup>1</sup> Indicators of hydric soil and wetland hydrology must
11	~~			be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size: NA )		= Total Co	ver	
				Hadron bada
1				Hydrophytic Vegetation
2 % Bare Ground in Herb Stratum 20		= Total Co		Present? Yes <u>No X</u>
Pemarke:				

Profile Desc	cription: (Describe	e to the dept	Theeded to docum				the abser	ice of indicators.)
Depth	Matrix			Features		. 2	<b>-</b> .	<b>-</b> .
<u>(inches)</u> 0-3	Color (moist) 10YR 3/1	_ <u>%</u> - 100 -	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	
							Sandy loa	m
3-7	10 YR 4/2	100					Sand	
						·		
<sup>1</sup> Type: C=C	oncentration D=De	nletion RM=I	Reduced Matrix, CS	=Covered	or Coate		ins <sup>2</sup>	<sup>2</sup> Location: PL=Pore Lining, M=Matrix.
			RRs, unless other					cators for Problematic Hydric Soils <sup>3</sup> :
Histosol			Sandy Redox (S		,			2 cm Muck (A10)
	oipedon (A2)	-	Stripped Matrix (					Red Parent Material (TF2)
	stic (A3)	-	Loamy Mucky M		) (except	MLRA 1)		Very Shallow Dark Surface (TF12)
	en Sulfide (A4)	-	Loamy Gleyed N	•	••••	,		Other (Explain in Remarks)
Depleted	d Below Dark Surfa	ce (A11)	Depleted Matrix					
Thick Da	ark Surface (A12)	_	Redox Dark Sur	face (F6)			<sup>3</sup> India	cators of hydrophytic vegetation and
Sandy M	lucky Mineral (S1)	-	Depleted Dark S		7)			etland hydrology must be present,
	Bleyed Matrix (S4)		Redox Depressi	ons (F8)			u	nless disturbed or problematic.
	Layer (if present):							
Type: Fro								Y
Depth (in	ches): /						Hydric S	Soil Present? Yes <u>No X</u>
HYDROLO Wetland Hyd	GY drology Indicators	:						
Primary Indic	cators (minimum of	one required;	check all that apply	()			<u>Se</u>	econdary Indicators (2 or more required)
Surface	Water (A1)		Water-Stair	ned Leave	es (B9) ( <b>e</b> z	ccept		Water-Stained Leaves (B9) (MLRA 1, 2,
High Wa	ater Table (A2)		MLRA 1	, 2, 4A, a	nd 4B)			4A, and 4B)
Saturatio	on (A3)		Salt Crust (	B11)				Drainage Patterns (B10)
Water M	larks (B1)		Aquatic Inv	ertebrates	s (B13)			Dry-Season Water Table (C2)
Sedimer	nt Deposits (B2)		Hydrogen S	Sulfide Od	or (C1)			_ Saturation Visible on Aerial Imagery (C9)
Drift Dep	posits (B3)		Oxidized R	hizospher	es along l	_iving Roots	s (C3)	_ Geomorphic Position (D2)
Algal Ma	at or Crust (B4)		Presence of	of Reduced	d Iron (C4	、 、		Shallow Aquitard (D3)
	acita (DE)					)		
Iron Dep	DOSILS (DD)		Recent Iror	n Reductio	n in Tilleo			_ FAC-Neutral Test (D5)
	Soil Cracks (B6)					Soils (C6)		
Surface	Soil Cracks (B6) on Visible on Aerial	0,0,0	Recent Iror     Stunted or     Other (Exp	Stressed	Plants (D	Soils (C6)		FAC-Neutral Test (D5)
Surface	Soil Cracks (B6)	0,0,0	Recent Iror     Stunted or     Other (Exp	Stressed	Plants (D	Soils (C6)		_ FAC-Neutral Test (D5) _ Raised Ant Mounds (D6) ( <b>LRR A</b> )
Surface	Soil Cracks (B6) on Visible on Aerial y Vegetated Concav	0,0,0	Recent Iror     Stunted or     Other (Exp	Stressed	Plants (D	Soils (C6)		_ FAC-Neutral Test (D5) _ Raised Ant Mounds (D6) ( <b>LRR A</b> )
Surface Inundation Sparsely	Soil Cracks (B6) on Visible on Aerial y Vegetated Concav vations: er Present?	ve Surface (B Yes N	Recent Iror     Stunted or     Other (Exp 8)	Stressed lain in Rer	Plants (D <sup>.</sup> marks)	I Soils (C6) 1) ( <b>LRR A</b> )		_ FAC-Neutral Test (D5) _ Raised Ant Mounds (D6) ( <b>LRR A</b> )
Surface Inundati Sparsely Field Obser Surface Wate Water Table	Soil Cracks (B6) on Visible on Aerial y Vegetated Concav vations: er Present? Present?	ve Surface (B Yes N	Recent Iror     Stunted or     Other (Exp 8)	Stressed lain in Rer	Plants (D <sup>.</sup> marks)	I Soils (C6) 1) ( <b>LRR A</b> )		_ FAC-Neutral Test (D5) _ Raised Ant Mounds (D6) ( <b>LRR A</b> ) _ Frost-Heave Hummocks (D7)
Surface Grant Sparsely Field Obser Surface Wate Water Table Saturation P	Soil Cracks (B6) on Visible on Aerial y Vegetated Concav vations: er Present? Present? resent?	ve Surface (B Yes N Yes N	Recent Iror     Stunted or     Other (Exp 8)	Stressed   lain in Rer hes): hes):	Plants (D <sup>.</sup> narks)	I Soils (C6) I) ( <b>LRR A</b> )		_ FAC-Neutral Test (D5) _ Raised Ant Mounds (D6) ( <b>LRR A</b> )
Surface Inundati Sparsely Field Obser Surface Wate Water Table Saturation P (includes cap	Soil Cracks (B6) on Visible on Aerial y Vegetated Concav vations: er Present? Present? resent? pillary fringe)	ve Surface (B Yes N Yes N Yes N	Recent Iror Stunted or 0 Other (Exp 8) 0 Depth (inc 0 Depth (inc 10 Depth (inc	Stressed    ain in Rer  hes):  hes):  hes):	Plants (D <sup>.</sup> narks)	I Soils (C6) I) ( <b>LRR A</b> )   Wetlan		_ FAC-Neutral Test (D5) _ Raised Ant Mounds (D6) ( <b>LRR A</b> ) _ Frost-Heave Hummocks (D7) logy Present? Yes No <u>X</u>
Surface Inundati Sparsely Field Obser Surface Wate Water Table Saturation P (includes cap	Soil Cracks (B6) on Visible on Aerial y Vegetated Concav vations: er Present? Present? resent? pillary fringe)	ve Surface (B Yes N Yes N Yes N	Recent Iror Stunted or ) Other (Exp 8) o Depth (inc o Depth (inc	Stressed    ain in Rer  hes):  hes):  hes):	Plants (D <sup>.</sup> narks)	I Soils (C6) I) ( <b>LRR A</b> )   Wetlan		_ FAC-Neutral Test (D5) _ Raised Ant Mounds (D6) ( <b>LRR A</b> ) _ Frost-Heave Hummocks (D7) logy Present? Yes No <u>X</u>
Surface Inundati Sparsely Field Obser Surface Wate Water Table Saturation P (includes cap Describe Re	Soil Cracks (B6) on Visible on Aerial y Vegetated Concav vations: er Present? Present? resent? pillary fringe)	ve Surface (B Yes N Yes N Yes N	Recent Iror Stunted or 0 Other (Exp 8) 0 Depth (inc 0 Depth (inc 10 Depth (inc	Stressed    ain in Rer  hes):  hes):  hes):	Plants (D <sup>.</sup> narks)	I Soils (C6) I) ( <b>LRR A</b> )   Wetlan		_ FAC-Neutral Test (D5) _ Raised Ant Mounds (D6) ( <b>LRR A</b> ) _ Frost-Heave Hummocks (D7) logy Present? Yes No <u>X</u>
Surface Inundatii Sparsely Field Obser Surface Wate Water Table Saturation P (includes cap Describe Re Remarks:	Soil Cracks (B6) on Visible on Aerial y Vegetated Concav vations: er Present? Present? Present? pillary fringe) corded Data (strear	ve Surface (B Yes N Yes N Yes N m gauge, mor	Recent Iror Stunted or ) Other (Exp 8) lo Depth (inc o Depth (inc o Depth (inc itoring well, aerial p	Stressed   lain in Rer hes): hes): hotos, pre	Plants (D marks)	I Soils (C6) I) (LRR A) U Wetlan Dections), if		_ FAC-Neutral Test (D5) _ Raised Ant Mounds (D6) ( <b>LRR A</b> ) _ Frost-Heave Hummocks (D7) logy Present? Yes No <u>X</u>
Surface Inundatii Sparsely Field Obser Surface Wate Water Table Saturation P (includes cap Describe Re Remarks:	Soil Cracks (B6) on Visible on Aerial y Vegetated Concav vations: er Present? Present? Present? pillary fringe) corded Data (strear	ve Surface (B Yes N Yes N Yes N m gauge, mor	Recent Iror Stunted or 0 Other (Exp 8) 0 Depth (inc 0 Depth (inc 10 Depth (inc	Stressed   lain in Rer hes): hes): hotos, pre	Plants (D marks)	I Soils (C6) I) (LRR A) U Wetlan Dections), if		_ FAC-Neutral Test (D5) _ Raised Ant Mounds (D6) ( <b>LRR A</b> ) _ Frost-Heave Hummocks (D7) logy Present? Yes No <u>X</u>
Surface Inundatii Sparsely Field Obser Surface Wate Water Table Saturation P (includes cap Describe Re Remarks:	Soil Cracks (B6) on Visible on Aerial y Vegetated Concav vations: er Present? Present? Present? pillary fringe) corded Data (strear	ve Surface (B Yes N Yes N Yes N m gauge, mor	Recent Iror Stunted or ) Other (Exp 8) lo Depth (inc o Depth (inc o Depth (inc itoring well, aerial p	Stressed   lain in Rer hes): hes): hotos, pre	Plants (D marks)	I Soils (C6) I) (LRR A) U Wetlan Dections), if		_ FAC-Neutral Test (D5) _ Raised Ant Mounds (D6) ( <b>LRR A</b> ) _ Frost-Heave Hummocks (D7) logy Present? Yes No <u>X</u>

Project/Site: Jayne's Parcel	City/County: E	Paso	Sampling Date: 2/1/22
Applicant/Owner:		State: CO	Sampling Point: WT-A39-UP2
Investigator(s): S. Clark	Section, Towns	ship, Range: <u>S28</u> and 33, T128	S, R65W
Landform (hillslope, terrace, etc.): hillslope		oncave, convex, none): <u>concave</u>	_
Subregion (LRR): E	Lat: <u>38°58'18.58"N</u>	Long: - 104°40'15.65	"W Datum: WGS84
Soil Map Unit Name: Pring coarse sandy loam, 3-8% slop	es	NWI classifi	<sub>cation:</sub> None
Are climatic / hydrologic conditions on the site typical for this til	me of year? Yes <u>×</u>	No (If no, explain in I	Remarks.)
Are Vegetation, Soil, or Hydrology sigr	ificantly disturbed?	Are "Normal Circumstances"	present? Yes X No
Are Vegetation, Soil, or Hydrology natu	rally problematic?	(If needed, explain any answe	ers in Remarks.)
		• • • • • •	• • • • • •

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

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

#### **VEGETATION – Use scientific names of plants.**

NA	Absolute	Dominant		Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: <u>NA</u> ) 1)		Species?		Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
2 3				Total Number of Dominant       Species Across All Strata:   (B)
4		_= Total Co		Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)
				Prevalence Index worksheet:
1				Total % Cover of: Multiply by:
2				OBL species $0   x_1 = 0$
3				FACW species $\frac{0}{x 2} = \frac{0}{x}$
4			<u> </u>	FAC species $0 \times 3 = 0$
5				FACU species $\frac{20}{x 4} = \frac{80}{x}$
<b>F</b> '		= Total Co	ver	$\begin{array}{c} \text{VPL species} \\ 88 \\ \text{x 5} \\ \text{z 5} \\ \end{array} $
Herb Stratum (Plot size: 5')	8		UPL	100 500
1. Opuntia sp.				Column Totals: $108$ (A) $520$ (B)
2. Pascopyrum smithii	20		FACU	Prevalence Index = $B/A = 4.81$
3. Bouteloua gracilis	80	x	UPL	Hydrophytic Vegetation Indicators:
4				1 - Rapid Test for Hydrophytic Vegetation
5				2 - Dominance Test is >50%
6				3 - Prevalence Index is ≤3.01
7				4 - Morphological Adaptations <sup>1</sup> (Provide supporting
8				data in Remarks or on a separate sheet)
				5 - Wetland Non-Vascular Plants <sup>1</sup>
9				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
10				<sup>1</sup> Indicators of hydric soil and wetland hydrology must
11	100			be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size: NA )	100	= Total Co	ver	
1				Hydrophytic
2				Vegetation Present? Yes No _X
% Bare Ground in Herb Stratum 0		= Total Co	ver	
Remarks <sup>.</sup>				

Profile Desc	cription: (Describe	e to the dept	h needed to docun	nent the ind	icator o	r confirm	n the absence of indicators.)
Depth	Matrix	<u> </u>		Features	_ 1	<u> </u>	
(inches)	Color (moist)		Color (moist)	<u>%</u>	Type <sup>1</sup>	Loc <sup>2</sup>	Texture Remarks
0-6	10YR 2/1	100					Fine sandy loam
<sup>1</sup> Type: C=C	oncentration, D=De	pletion, RM=	Reduced Matrix, CS	=Covered o	r Coated	Sand Gr	
Hydric Soil	Indicators: (Appli	cable to all I	RRs, unless other	wise noted.	.)		Indicators for Problematic Hydric Soils <sup>3</sup> :
Histosol	( )	-	Sandy Redox (S	,			2 cm Muck (A10)
	pipedon (A2)	-	Stripped Matrix	· /			Red Parent Material (TF2)
	istic (A3)	-	Loamy Mucky M		except l	MLRA 1)	
	en Sulfide (A4) d Bolow Dark Surfa		Loamy Gleyed I Doploted Matrix				Other (Explain in Remarks)
·	d Below Dark Surfa ark Surface (A12)		Depleted Matrix Redox Dark Sur				<sup>3</sup> Indicators of hydrophytic vegetation and
	Mucky Mineral (S1)	-	Depleted Dark S	. ,			wetland hydrology must be present,
	Gleyed Matrix (S4)	-	Redox Depress				unless disturbed or problematic.
	Layer (if present):	-		( )			
Type: Fro	ozen						
Depth (in	ches): 6						Hydric Soil Present? Yes No X
Remarks:	, <u> </u>						
HYDROLO	OGY						
Wetland Hy	drology Indicators	:					
Primary Indi	cators (minimum of	one required	; check all that apply	()			Secondary Indicators (2 or more required)
Surface	Water (A1)		Water-Stai	ned Leaves	(B9) ( <b>ex</b>	cept	Water-Stained Leaves (B9) (MLRA 1, 2,
High Wa	ater Table (A2)		MLRA <sup>·</sup>	I, 2, 4A, and	1 4B)		4A, and 4B)
Saturati	on (A3)		Salt Crust	(B11)			Drainage Patterns (B10)
Water M	/arks (B1)		Aquatic Inv	ertebrates (	B13)		Dry-Season Water Table (C2)
Sedimer	nt Deposits (B2)		Hydrogen	Sulfide Odor	· (C1)		Saturation Visible on Aerial Imagery (C9)
	posits (B3)			hizospheres	-	-	ots (C3) Geomorphic Position (D2)
	at or Crust (B4)			of Reduced I			Shallow Aquitard (D3)
	posits (B5)			n Reduction			
	Soil Cracks (B6)			Stressed Pla		) ( <b>LRR A</b>	
	ion Visible on Aerial			lain in Rema	arks)		Frost-Heave Hummocks (D7)
	y Vegetated Conca	ve Surface (E	8)				
Field Obser							
Surface Wat			lo × Depth (inc				
Water Table			lo <u>x</u> Depth (inc				v
Saturation P		Yes N	lo <u>x</u> Depth (inc	:hes):		Wetla	and Hydrology Present? Yes No _X
	pillary fringe) ecorded Data (strear	m dauge mo	nitoring well, aerial p	hotos previ	ous insp	ections)	if available <sup>.</sup>
						,,	
Remarke:							
Remarks: Unlikelv t	to have wetla	nd hvdro	loav due to la	ndscane	e posi	tion.	
	to have wetla	nd hydro	logy due to la	Indscape	e posi	tion.	

Project/Site: <u>Jayne's Parcel</u>	City/County: El Pa	so	_ Sampling Date: 2/1/22
Applicant/Owner:		State: CO	_ Sampling Point: WT-A39-WT1
Investigator(s): S. Clark	Section, Township	, Range: <u>S28 and 33, T12</u>	S, R65W
Landform (hillslope, terrace, etc.): depression			Slope (%): 0
Subregion (LRR): E	_ <sub>Lat:</sub>	Long: -104°40'13.52	"W Datum: WGS84
Soil Map Unit Name: Pring coarse sandy loam, 3-8% slo	opes	NWI classif	cation: R4SBC
Are climatic / hydrologic conditions on the site typical for this	s time of year? Yes X	lo (If no, explain in	Remarks.)
Are Vegetation, Soil, or Hydrologys	ignificantly disturbed?	Are "Normal Circumstances"	present? Yes X No
Are Vegetation, Soil, or Hydrology n	aturally problematic?	If needed, explain any answ	ers in Remarks.)
SUMMARY OF FINDINGS Attach aita man	bowing compling poi	at locations transact	important factures ato

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

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

#### **VEGETATION – Use scientific names of plants.**

NA	Absolute		Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: <u>NA</u> ) 1)		Species?		Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
2 3				Total Number of Dominant Species Across All Strata: <u>1</u> (B)
4		_= Total Co		Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)
				Prevalence Index worksheet:
1				Total % Cover of: Multiply by:
2				OBL species $\frac{100}{x  1} = \frac{100}{x  1}$
3				FACW species x 2 =
4				FAC species x 3 =
5				FACU species x 4 =
5'		= Total Co	over	UPL species         x 5 =
Herb Stratum (Plot size: 5')	100	v	OBL	Column Totals: $100$ (A) $100$ (B)
1. Typha sp.		<u>×</u>		$(A) \xrightarrow{(A)} (B)$
2				Prevalence Index = $B/A = 1.00$
3				Hydrophytic Vegetation Indicators:
4				<u>×</u> 1 - Rapid Test for Hydrophytic Vegetation
5				× 2 - Dominance Test is >50%
6				<b>x</b> 3 - Prevalence Index is $\leq 3.0^1$
7				4 - Morphological Adaptations <sup>1</sup> (Provide supporting
8				data in Remarks or on a separate sheet)
9				5 - Wetland Non-Vascular Plants <sup>1</sup>
10				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
11				<sup>1</sup> Indicators of hydric soil and wetland hydrology must
	100	= Total Co	ver	be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size: NA )				
1				Hydrophytic
2				Vegetation
% Bare Ground in Herb Stratum 0		= Total Co		Present? Yes X No
Remarks <sup>.</sup>				1

#### SOIL

# Sampling Point: WT-A39-WT1

Depth	Matri			edox Featur						_		
inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Text	ure	<u></u>	Remark	KS	
0-1	10YR 2/1	100					Duff la	yer	Organi	CS		
-8	10 YR 3/1	60	7.5 YR 4/6	5	С	PL	Fine sandy	clay lo	am			
			10 YR 4/1	35	RM	Μ						
						·						
	<u> </u>					·						
	_											
	_					·						
						. <u> </u>		2.				
			M=Reduced Matrix			ed Sand				=Pore Lining blematic Hy		
					iteu.)					-	yune soi	15.
_ Histoso	( )		Sandy Redo Stripped Ma	. ,					Muck (A1	iu) aterial (TF2)		
	Epipedon (A2) Histic (A3)		Loamy Muc	• •			1) —			Dark Surface		
-	en Sulfide (A4)		Loamy Gley				•)	-		in Remarks		
	ed Below Dark Sur	face (A11)	Depleted Ma		2)		_	_ 0110		In Remarks	·)	
	Dark Surface (A12)	• •	x Redox Dark	· · ·	3)		<sup>3</sup> Ir	idicator	s of hydro	phytic vege	tation an	d
_	Mucky Mineral (S1		Depleted Da							gy must be		-
-	Gleyed Matrix (S4		Redox Depr						•	d or problem	•	
	Layer (if present		·		,							
Type: Fr	rozen											
	nches): <u>8</u>						Hydri	c Soil	Present?	Yes X	No	
emarks:												
emarks: <b>/DROLC</b>		rs:										
emarks: /DROLC /etland Hy	DGY ydrology Indicato		red; check all that a	ipply)				Secon	dary Indic	ators (2 or n	nore requ	<u>uired)</u>
emarks: DROLC etland Hy	DGY ydrology Indicato			ipply) Stained Lea	ves (B9) (0	except				ators (2 or n ed Leaves (		
emarks: <b>DROLC</b> <b>fetland Hy</b> <u>imary Indi</u> _ Surface	DGY ydrology Indicato		Water-		. , .	əxcept				ed Leaves (		
<b>DROLC</b> <b>etland Hy</b> imary Indi _ Surface _ High W	DGY ydrology Indicato icators (minimum e Water (A1)			Stained Lea	. , .	except		W	ater-Stain 4A, and	ed Leaves (	B9) ( <b>MLF</b>	
<b>DROLC</b> etland Hy imary Indi _ Surface _ High W _ Saturat	DGY ydrology Indicato icators (minimum e Water (A1) Vater Table (A2)		Water- ML Salt Cr	Stained Lea <b>RA 1, 2, 4A,</b> ust (B11)	and 4B)	except		W	ater-Stain <b>4A, and</b> ainage Pa	ed Leaves ( <b>4B)</b> atterns (B10	B9) ( <b>MLF</b> )	
<b>DROLC</b> etland Hy imary Indi _ Surface _ High W _ Saturat _ Water N	DGY ydrology Indicato icators (minimum e Water (A1) /ater Table (A2) ion (A3) Marks (B1)		Water- MLI Salt Cr Aquatio	Stained Lea RA 1, 2, 4A, ust (B11) c Invertebrat	and 4B) tes (B13)	except		W Dr Dr	ater-Stain <b>4A, and</b> ainage Pa y-Season	ed Leaves ( <b>4B)</b>	B9) ( <b>MLF</b> ) e (C2)	RA 1, 2
<b>DROLC</b> <b>etland Hy</b> <u>imary Indi</u> Surface High W Saturat Water M Sedime	DGY ydrology Indicato icators (minimum e Water (A1) Vater Table (A2) ion (A3) Warks (B1) ent Deposits (B2)		Water- MLI Salt Cr Aquatio Hydrog	Stained Lea RA 1, 2, 4A, ust (B11) c Invertebrat gen Sulfide (	<b>and 4B)</b> tes (B13) Odor (C1)	·		W Dr Sa	ater-Stain <b>4A, and</b> ainage Pa y-Season	ed Leaves ( <b>4B)</b> atterns (B10 Water Tabl ⁄isible on Ae	B9) ( <b>MLF</b> ) e (C2) erial Imag	RA 1, 2
<b>DROLC</b> <b>etland Hy</b> <b>imary Indi</b> Surface High W Saturat Water M Sedime Drift De	<b>DGY</b> ydrology Indicator icators (minimum Water (A1) ydrer Table (A2) ion (A3) Marks (B1) ent Deposits (B2) eposits (B3)		Water- MLI Salt Cr Aquatio Hydrog Oxidize	Stained Lea RA 1, 2, 4A, ust (B11) c Invertebrat gen Sulfide C ed Rhizosph	and 4B) tes (B13) Odor (C1) eres along	Living R	oots (C3)	W Dr Sa Sa Ge	ater-Stain <b>4A, and</b> ainage Pa y-Season ituration V comorphic	ed Leaves ( <b>4B)</b> atterns (B10 Water Tabl /isible on Ae Position (D	B9) ( <b>MLF</b> ) e (C2) erial Imag	RA 1, 2
<b>DROLC</b> <b>etland Hy</b> <b>imary Indi</b> Surface High W Saturat Water N Sedime Drift De Algal M	DGY ydrology Indicato icators (minimum e Water (A1) /ater Table (A2) ion (A3) Marks (B1) ent Deposits (B2) eposits (B3) lat or Crust (B4)		Water- MLI Salt Cr Aquation Hydroog Oxidize Preser	Stained Lea RA 1, 2, 4A, ust (B11) c Invertebrat gen Sulfide ( ed Rhizosph ice of Reduc	and 4B) tes (B13) Odor (C1) eres along ced Iron (C	ı Living R 4)	oots (C3)	W Dr Sa St	ater-Stain 4A, and ainage Pa y-Season turation V comorphic allow Aqu	ed Leaves ( 4 <b>B)</b> atterns (B10 Water Tabl /isible on Ae Position (D uitard (D3)	B9) ( <b>MLF</b> ) e (C2) erial Imag	RA 1, 2
<b>DROLC</b> <b>TOROLC</b> <b>etland Hy</b> <u>imary Indi</u> Surface High W Saturat Saturat Saturat Sedime Drift De Algal M Iron De	DGY ydrology Indicato icators (minimum e Water (A1) /ater Table (A2) ion (A3) Marks (B1) ent Deposits (B2) eposits (B3) lat or Crust (B4) eposits (B5)		Water- MLI Salt Cr Aquatio Hydrog X Oxidize Preser Recent	Stained Lea RA 1, 2, 4A, ust (B11) c Invertebrat gen Sulfide ( ed Rhizosph ice of Reduc t Iron Reduc	and 4B) des (B13) Ddor (C1) eres along ced Iron (C tion in Tille	Living R 4) ed Soils ((	oots (C3) C6)	W Dr Sa St St F/	ater-Stain <b>4A, and</b> ainage Pa y-Season turation V comorphic allow Aqu AC-Neutra	ed Leaves ( 4 <b>B)</b> atterns (B10 Water Tabl /isible on Ae Position (D iitard (D3) I Test (D5)	B9) ( <b>MLF</b> ) e (C2) erial Imag 92)	RA 1, 2
DROLC     Etland Hy     imary Ind     Surface     High W     Saturat     Water N     Sedime     Drift De     Algal M     Iron De     Surface	DGY ydrology Indicato icators (minimum e Water (A1) /ater Table (A2) icion (A3) Marks (B1) ent Deposits (B2) eposits (B3) lat or Crust (B4) eposits (B5) e Soil Cracks (B6)	of one requi	Water- MLI Salt Cr Aquation Hydroop Oxidized Preser Recent Stunted	Stained Lea RA 1, 2, 4A, ust (B11) c Invertebrat gen Sulfide ( ed Rhizosph ace of Reduc t Iron Reduc d or Stresse	and 4B) des (B13) Ddor (C1) eres along ced Iron (C tion in Tille d Plants (E	Living R 4) ed Soils ((	oots (C3) C6)	W Dr Sa Sr Sr Ra	ater-Stain <b>4A, and</b> ainage Pa y-Season ituration V comorphic allow Aqu AC-Neutra aised Ant	ed Leaves ( 4B) atterns (B10 Water Tabl /isible on Ae Position (D iitard (D3) I Test (D5) Mounds (D6	B9) ( <b>MLF</b> ) e (C2) erial Imag )2) 6) ( <b>LRR A</b>	RA 1, 2
DROLC     DEVENTION     DEVENTION     Seturat     Sedime     Drift De     Algal M     Iron De     Surface     Inundat	DGY ydrology Indicato icators (minimum e Water (A1) dater Table (A2) ion (A3) Marks (B1) ent Deposits (B2) eposits (B3) lat or Crust (B4) eposits (B5) e Soil Cracks (B6) tion Visible on Aer	of one requi	— Water- MLI — Salt Cr — Aquatio — Hydrog <u>×</u> Oxidize — Preser — Recent — Stunter (B7) — Other (	Stained Lea RA 1, 2, 4A, ust (B11) c Invertebrat gen Sulfide ( ed Rhizosph ice of Reduc t Iron Reduc	and 4B) des (B13) Ddor (C1) eres along ced Iron (C tion in Tille d Plants (E	Living R 4) ed Soils ((	oots (C3) C6)	W Dr Sa Sr Sr Ra	ater-Stain <b>4A, and</b> ainage Pa y-Season ituration V comorphic allow Aqu AC-Neutra aised Ant	ed Leaves ( 4 <b>B)</b> atterns (B10 Water Tabl /isible on Ae Position (D iitard (D3) I Test (D5)	B9) ( <b>MLF</b> ) e (C2) erial Imag )2) 6) ( <b>LRR A</b>	RA 1, 2
DROLC     Etland Hy     imary Indi     Surface     High W     Saturat     Water N     Sedime     Drift De     Algal M     Iron De     Surface     Inundat     Sparsel	DGY ydrology Indicato icators (minimum e Water (A1) yater Table (A2) ion (A3) Marks (B1) ent Deposits (B2) eposits (B3) lat or Crust (B4) eposits (B5) e Soil Cracks (B6) tion Visible on Aer ly Vegetated Conc	of one requi	— Water- MLI — Salt Cr — Aquatio — Hydrog <u>×</u> Oxidize — Preser — Recent — Stunter (B7) — Other (	Stained Lea RA 1, 2, 4A, ust (B11) c Invertebrat gen Sulfide ( ed Rhizosph ace of Reduc t Iron Reduc d or Stresse	and 4B) des (B13) Ddor (C1) eres along ced Iron (C tion in Tille d Plants (E	Living R 4) ed Soils ((	oots (C3) C6)	W Dr Sa Sr Sr Ra	ater-Stain <b>4A, and</b> ainage Pa y-Season ituration V comorphic allow Aqu AC-Neutra aised Ant	ed Leaves ( 4B) atterns (B10 Water Tabl /isible on Ae Position (D iitard (D3) I Test (D5) Mounds (D6	B9) ( <b>MLF</b> ) e (C2) erial Imag )2) 6) ( <b>LRR A</b>	RA 1, 2
DROLC etland Hy imary Indi _ Surface _ High W _ Saturat _ Water N _ Sedime _ Drift De _ Drift De _ Algal M _ Iron De _ Surface _ Inundat _ Sparsel eld Obse	DGY ydrology Indicato icators (minimum e Water (A1) /ater Table (A2) ion (A3) Marks (B1) ent Deposits (B2) eposits (B3) lat or Crust (B4) eposits (B5) e Soil Cracks (B6) tion Visible on Aer ly Vegetated Conc rvations:	of one requi al Imagery ave Surface	Water- MLI Salt Cr Aquatie Hydrog X Oxidize Preser Recent Stunte (B7) Other ( B8)	Stained Lea RA 1, 2, 4A, ust (B11) c Invertebrat gen Sulfide C ed Rhizosph ice of Reduc t Iron Reduc d or Stresse Explain in R	and 4B) Detes (B13) Deters along ced Iron (C tion in Tille d Plants (E Remarks)	Living R 4) ed Soils (( D1) ( <b>LRR</b>	oots (C3) C6)	W Dr Sa Sr Sr Ra	ater-Stain <b>4A, and</b> ainage Pa y-Season ituration V comorphic allow Aqu AC-Neutra aised Ant	ed Leaves ( 4B) atterns (B10 Water Tabl /isible on Ae Position (D iitard (D3) I Test (D5) Mounds (D6	B9) ( <b>MLF</b> ) e (C2) erial Imag )2) 6) ( <b>LRR A</b>	RA 1, 2
DROLC etland Hy imary Indi     Surface     High W     Saturat     Water N     Sedime     Drift De     Algal M     Iron De     Surface     Inundat     Sparsei eld Obse	DGY ydrology Indicato icators (minimum e Water (A1) fater Table (A2) icion (A3) Marks (B1) ent Deposits (B2) eposits (B3) lat or Crust (B4) eposits (B5) e Soil Cracks (B6) tion Visible on Aer ly Vegetated Conc rvations: atter Present?	of one requi al Imagery ave Surface Yes	Water MLI Salt Cr Aquation Hydroog Preser Recent Stunter (B7) Other ( e (B8)	Stained Lea RA 1, 2, 4A, ust (B11) c Invertebrat gen Sulfide ( ed Rhizosph ice of Reduc t Iron Reduc d or Stresse Explain in R (inches):	and 4B) des (B13) Ddor (C1) eres along ced Iron (C tion in Tille d Plants (E cemarks)	Living R 4) ed Soils (( D1) ( <b>LRR</b>	oots (C3) C6)	W Dr Sa Sr Sr Ra	ater-Stain <b>4A, and</b> ainage Pa y-Season ituration V comorphic allow Aqu AC-Neutra aised Ant	ed Leaves ( 4B) atterns (B10 Water Tabl /isible on Ae Position (D iitard (D3) I Test (D5) Mounds (D6	B9) ( <b>MLF</b> ) e (C2) erial Imag )2) 6) ( <b>LRR A</b>	RA 1, 2
Comparison of the second	DGY ydrology Indicator icators (minimum) e Water (A1) ydater Table (A2) ion (A3) Warks (B1) ent Deposits (B2) eposits (B3) lat or Crust (B4) eposits (B5) e Soil Cracks (B6) tion Visible on Aer ly Vegetated Conc rvations: ter Present? e Present?	of one requi	Water MLI Salt Cr Aquation Hydrog Oxidized Preser Recent Stunted (B7) Other ( e (B8)	Stained Lea Stained Lea <b>RA 1, 2, 4A,</b> ust (B11) c Invertebrat jen Sulfide C ed Rhizosph ice of Reduc d ron Reduc d or Stresse Explain in R (inches): (inches):	and 4B) des (B13) Ddor (C1) eres along ced Iron (C tion in Tille d Plants (E Remarks)	Living R 4) 2d Soils (( 01) ( <b>LRR</b>	oots (C3) C6) <b>A</b> )	W Dr Sa St St Fr Fr	ater-Stain <b>4A, and</b> ainage Pa y-Season aturation V comorphic hallow Aqu AC-Neutra hised Ant ost-Heave	ed Leaves ( <b>4B)</b> atterns (B10 Water Tabl Visible on Ae Position (D iitard (D3) I Test (D5) Mounds (D6 Hummocks	B9) ( <b>MLF</b> ) e (C2) erial Imag 02) 6) ( <b>LRR A</b> s (D7)	<b>RA 1, 2</b> Jery (CS
Comparison of the second	DGY ydrology Indicato icators (minimum) e Water (A1) dater Table (A2) ion (A3) Marks (B1) ent Deposits (B2) eposits (B3) lat or Crust (B4) eposits (B5) e Soil Cracks (B6) tion Visible on Aer ly Vegetated Conc rvations: tter Present? e Present? Present?	of one requi	Water MLI Salt Cr Aquation Hydroog Preser Recent Stunter (B7) Other ( e (B8)	Stained Lea Stained Lea <b>RA 1, 2, 4A,</b> ust (B11) c Invertebrat jen Sulfide C ed Rhizosph ice of Reduc d ron Reduc d or Stresse Explain in R (inches): (inches):	and 4B) des (B13) Ddor (C1) eres along ced Iron (C tion in Tille d Plants (E Remarks)	Living R 4) 2d Soils (( 01) ( <b>LRR</b>	oots (C3) C6) <b>A</b> )	W Dr Sa St St Fr Fr	ater-Stain <b>4A, and</b> ainage Pa y-Season aturation V comorphic hallow Aqu AC-Neutra hised Ant ost-Heave	ed Leaves ( 4B) atterns (B10 Water Tabl /isible on Ae Position (D iitard (D3) I Test (D5) Mounds (D6	B9) ( <b>MLF</b> ) e (C2) erial Imag 02) 6) ( <b>LRR A</b> s (D7)	RA 1, 2
emarks: (DROLC /etland Hy rimary Indi Surface High W Saturat Saturat Sedime Nater N Iron De Iron De  Iron De   	DGY ydrology Indicato icators (minimum e Water (A1) dater Table (A2) ition (A3) Marks (B1) ent Deposits (B2) eposits (B3) dat or Crust (B4) eposits (B5) e Soil Cracks (B6) tion Visible on Aer ly Vegetated Conc rvations: tter Present? e Present? Present? apillary fringe)	of one requi	Water MLI Salt Cr Aquation Hydrog Oxidized Preser Recent Stunted (B7) Other ( e (B8)	Stained Lea RA 1, 2, 4A, ust (B11) c Invertebrat gen Sulfide ( ed Rhizosph ice of Reduc d ron Reduc d or Stresse Explain in R (inches):	and 4B) des (B13) Ddor (C1) eres along ced Iron (C tion in Tille d Plants (E temarks)	Living R 4) ed Soils (( 01) (LRR	oots (C3) C6) A) etland Hyd	W Dr Sa St St Ra Fr Fr Ra Fr	ater-Stain <b>4A, and</b> ainage Pa y-Season aturation V comorphic hallow Aqu AC-Neutra hised Ant ost-Heave	ed Leaves ( <b>4B)</b> atterns (B10 Water Tabl Visible on Ae Position (D iitard (D3) I Test (D5) Mounds (D6 Hummocks	B9) ( <b>MLF</b> ) e (C2) erial Imag 02) 6) ( <b>LRR A</b> s (D7)	RA 1, 2
emarks: (DROLC /etland Hy rimary Indi Surface High W Saturat Saturat Sedime Nater N Iron De Iron De  Iron De   	DGY ydrology Indicato icators (minimum e Water (A1) dater Table (A2) ition (A3) Marks (B1) ent Deposits (B2) eposits (B3) dat or Crust (B4) eposits (B5) e Soil Cracks (B6) tion Visible on Aer ly Vegetated Conc rvations: tter Present? e Present? Present? apillary fringe)	of one requi	WaterMLI Salt Cr Aquatio Hydrog Preser Recent Stunter (B7) Other ( e (B8) No Depth No Depth No Depth	Stained Lea RA 1, 2, 4A, ust (B11) c Invertebrat gen Sulfide ( ed Rhizosph ice of Reduc d ron Reduc d or Stresse Explain in R (inches):	and 4B) des (B13) Ddor (C1) eres along ced Iron (C tion in Tille d Plants (E temarks)	Living R 4) ed Soils (( 01) (LRR	oots (C3) C6) A) etland Hyd	W Dr Sa St St Ra Fr Fr Ra Fr	ater-Stain <b>4A, and</b> ainage Pa y-Season aturation V comorphic hallow Aqu AC-Neutra hised Ant ost-Heave	ed Leaves ( <b>4B)</b> atterns (B10 Water Tabl Visible on Ae Position (D iitard (D3) I Test (D5) Mounds (D6 Hummocks	B9) ( <b>MLF</b> ) e (C2) erial Imag 02) 6) ( <b>LRR A</b> s (D7)	RA 1, 2
emarks: (DROLC /etland Hy rimary Indi Surface High W Saturat Saturat Sedime Nater N Iron De Iron De 	DGY ydrology Indicato icators (minimum e Water (A1) dater Table (A2) ition (A3) Marks (B1) ent Deposits (B2) eposits (B3) dat or Crust (B4) eposits (B5) e Soil Cracks (B6) tion Visible on Aer ly Vegetated Conc rvations: tter Present? e Present? Present? apillary fringe)	of one requi	WaterMLI Salt Cr Aquatio Hydrog Preser Recent Stunter (B7) Other ( e (B8) No Depth No Depth No Depth	Stained Lea RA 1, 2, 4A, ust (B11) c Invertebrat gen Sulfide ( ed Rhizosph ice of Reduc d ron Reduc d or Stresse Explain in R (inches):	and 4B) des (B13) Ddor (C1) eres along ced Iron (C tion in Tille d Plants (E temarks)	Living R 4) ed Soils (( 01) (LRR	oots (C3) C6) A) etland Hyd	W Dr Sa St St Ra Fr Fr Ra Fr	ater-Stain <b>4A, and</b> ainage Pa y-Season aturation V comorphic hallow Aqu AC-Neutra hised Ant ost-Heave	ed Leaves ( <b>4B)</b> atterns (B10 Water Tabl Visible on Ae Position (D iitard (D3) I Test (D5) Mounds (D6 Hummocks	B9) ( <b>MLF</b> ) e (C2) erial Imag 02) 6) ( <b>LRR A</b> s (D7)	<b>RA 1, 2</b> Jery (CS
emarks: (DROLC) /etland Hy rimary Indi Surface High W Saturat Nater N Sedime Nater N Nater N Iron De Iron De Surface Inundat Sparse ield Obse urface Wa /ater Table aturation F ncludes ca escribe Re	DGY ydrology Indicato icators (minimum e Water (A1) dater Table (A2) ition (A3) Marks (B1) ent Deposits (B2) eposits (B3) dat or Crust (B4) eposits (B5) e Soil Cracks (B6) tion Visible on Aer ly Vegetated Conc rvations: tter Present? e Present? Present? apillary fringe)	of one requi	WaterMLI Salt Cr Aquatio Hydrog Preser Recent Stunter (B7) Other ( e (B8) No Depth No Depth No Depth	Stained Lea RA 1, 2, 4A, ust (B11) c Invertebrat gen Sulfide ( ed Rhizosph ice of Reduc d ron Reduc d or Stresse Explain in R (inches):	and 4B) des (B13) Ddor (C1) eres along ced Iron (C tion in Tille d Plants (E temarks)	Living R 4) ed Soils (( 01) (LRR	oots (C3) C6) A) etland Hyd	W Dr Sa St St Ra Fr Fr Ra Fr	ater-Stain <b>4A, and</b> ainage Pa y-Season aturation V comorphic hallow Aqu AC-Neutra hised Ant ost-Heave	ed Leaves ( <b>4B)</b> atterns (B10 Water Tabl Visible on Ae Position (D iitard (D3) I Test (D5) Mounds (D6 Hummocks	B9) ( <b>MLF</b> ) e (C2) erial Imag 02) 6) ( <b>LRR A</b> s (D7)	<b>RA 1, 2</b> Jery (CS
Comparison of the second	DGY ydrology Indicato icators (minimum e Water (A1) dater Table (A2) ition (A3) Marks (B1) ent Deposits (B2) eposits (B3) dat or Crust (B4) eposits (B5) e Soil Cracks (B6) tion Visible on Aer ly Vegetated Conc rvations: tter Present? e Present? Present? apillary fringe)	of one requi	WaterMLI Salt Cr Aquatio Hydrog Preser Recent Stunter (B7) Other ( e (B8) No Depth No Depth No Depth	Stained Lea RA 1, 2, 4A, ust (B11) c Invertebrat gen Sulfide ( ed Rhizosph ice of Reduc d ron Reduc d or Stresse Explain in R (inches):	and 4B) des (B13) Ddor (C1) eres along ced Iron (C tion in Tille d Plants (E temarks)	Living R 4) ed Soils (( 01) (LRR	oots (C3) C6) A) etland Hyd	W Dr Sa St St Ra Fr Fr Ra Fr	ater-Stain <b>4A, and</b> ainage Pa y-Season aturation V comorphic hallow Aqu AC-Neutra hised Ant ost-Heave	ed Leaves ( <b>4B)</b> atterns (B10 Water Tabl Visible on Ae Position (D iitard (D3) I Test (D5) Mounds (D6 Hummocks	B9) ( <b>MLF</b> ) e (C2) erial Imag 02) 6) ( <b>LRR A</b> s (D7)	RA 1, 2

Project/Site: Jayne's Parcel	City/County: El Pa	aso	Sampling Date: 2/1/22
Applicant/Owner:		State: CO	Sampling Point: WT-A39-WT2
Investigator(s): S. Clark	Section, Township	o, Range: <u>S28 and 33, T12S</u> ,	R65W
Landform (hillslope, terrace, etc.): hillslope		ave, convex, none): <u>concave</u>	_
Subregion (LRR): E La	<sub>t:</sub> <u>38°58'18.72"N</u>	Long: - 104°40'15.51"	W Datum: WGS84
Soil Map Unit Name: Pring coarse sandy loam, 3-8% slopes		NWI classific	ation: R5UBH
Are climatic / hydrologic conditions on the site typical for this time	of year? Yes X	No (If no, explain in Re	emarks.)
Are Vegetation, Soil, or Hydrology signific	cantly disturbed?	Are "Normal Circumstances" p	resent? Yes X No
Are Vegetation, Soil, or Hydrology natura	Ily problematic?	(If needed, explain any answer	s in Remarks.)
			incurrent for a truncation

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

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

#### **VEGETATION – Use scientific names of plants.**

ΝΔ	Absolute	Dominant		Dominance Test worksheet:
Tree Stratum (Plot size: NA )	<u>% Cover</u>	Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC: 1 (A)
2				
				Total Number of Dominant
3				Species Across All Strata: 1 (B)
4				Percent of Dominant Species
NA		= Total Co	ver	That Are OBL, FACW, or FAC: 100 (A/B)
Sapling/Shrub Stratum (Plot size: NA )				Prevalence Index worksheet:
1				
2				Total % Cover of: Multiply by:
				OBL species $0   x  ext{ 1} = 0$
3				FACW species 90 $x_2 = 180$
4				FAC species $2   x 3 = 6$
5				
		= Total Co	ver	FACU species $18$ x 4 = $72$
Herb Stratum (Plot size: 5' )				UPL species x 5 =
Juncus arcticus	90	х	FACW	Column Totals: 110 (A) 258 (B)
2. Bromus inermis			FACU	0.05
3. Cirsium arvense	2		FAC	Prevalence Index = B/A = 2.35
				Hydrophytic Vegetation Indicators:
4. Pascopyrum smithii	10		FACU	<u>x</u> 1 - Rapid Test for Hydrophytic Vegetation
5				× 2 - Dominance Test is >50%
6				<b>x</b> 3 - Prevalence Index is $\leq 3.0^{1}$
7				4 - Morphological Adaptations <sup>1</sup> (Provide supporting
8				data in Remarks or on a separate sheet)
				5 - Wetland Non-Vascular Plants <sup>1</sup>
9				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
10				
11				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
	110	= Total Co	ver	be present, unless disturbed of problematic.
Woody Vine Stratum (Plot size: NA )		_		
1				Hydrophytic
2				Vegetation
<u> </u>				Present? Yes X No
% Bare Ground in Herb Stratum 0		= Total Co	ver	
Remarks:				

### SOIL

# Sampling Point: WT-A39-WT2

Depth (inchos)	Matrix	%	Red			Loc <sup>2</sup>	- Taul	uro		Domester	
<u>(inches)</u> 0-3	Color (moist) 10YR 2/1	<u>%</u>	Color (moist)	%	Type <sup>1</sup>					Remarks	
							Fine sand	·			
3-8	10 YR 2/1	_ 98	7.5 YR 4/6	2	<u>C</u>	PL F	Fine sandy	v clay loam	1		
			·								
							_				
vpe: C=Co	oncentration. D=De	pletion. RN	/=Reduced Matrix, C	 CS=Covere	ed or Coate	ed Sand (	Grains.	<sup>2</sup> Locatio	on: PL=P	ore Lining, N	I=Matrix.
			II LRRs, unless othe							ematic Hydr	
Histosol	(A1)		Sandy Redox	(S5)				_ 2 cm M	uck (A10)	)	
	pipedon (A2)		Stripped Matri					 Red Pa			
Black Hi	stic (A3)		Loamy Mucky	Mineral (F	F1) ( <b>excep</b>	t MLRA 1	1)	_ Very Sh	nallow Da	rk Surface (T	F12)
	n Sulfide (A4)		Loamy Gleyed	•	-2)			_ Other (I	Explain in	Remarks)	
	d Below Dark Surfa	ice (A11)	Depleted Matr				2				
_	ark Surface (A12)		× Redox Dark S				°lı		• •	nytic vegetati	
	lucky Mineral (S1)		Depleted Dark							must be pre	
	Bleyed Matrix (S4) Layer (if present):		Redox Depres	SIONS (F8	)		-	uniess di	sturbed o	or problemation	).
Type: Fro											
Depth (inc							المراجع المراجع			Yes X	Na
emarks:	(nes). <u>-</u>						nyur	c Soil Pre	sent?	res	No
DROLO											
/DROLO	drology Indicators										
DROLO Vetland Hyo	drology Indicators cators (minimum of		ed; check all that app					Seconda		ors (2 or mor	
DROLO Tetland Hyd mary Indic	drology Indicators cators (minimum of Water (A1)		Water-St	ained Lea	aves (B9) (¢	except		Secondar	r-Stained	Leaves (B9)	
<b>DROLO</b> <b>etland Hyd</b> <u>imary Indic</u> _ Surface _ High Wa	drology Indicators cators (minimum of Water (A1) tter Table (A2)		Water-Sta MLRA	ained Lea A 1, 2, 4A,	. , .	except		Secondar Wate	er-Stained <b>A, and 4E</b>	l Leaves (B9) <b>3)</b>	
<b>DROLO</b> etland Hyd imary Indic Surface High Wa Saturatic	drology Indicators cators (minimum of Water (A1) tter Table (A2) on (A3)		Water-St. MLRA Salt Crus	ained Lea <b>A 1, 2, 4A,</b> st (B11)	, and 4B)	except		Secondar Wate Drair	er-Stained <b>A, and 4E</b> nage Patte	l Leaves (B9) <b>3)</b> erns (B10)	(MLRA 1, 2,
<b>DROLO</b> <b>etland Hyd</b> <u>imary Indic</u> Surface High Wa Saturatic Water M	drology Indicators cators (minimum of Water (A1) iter Table (A2) on (A3) arks (B1)		Water-St MLRA Salt Crus Aquatic I	ained Lea <b>A 1, 2, 4A,</b> st (B11) nvertebrat	, <b>and 4B)</b> tes (B13)	except		Secondar Wate 4/ Drair Dry-s	er-Stained <b>A, and 4E</b> hage Patte Season W	l Leaves (B9) <b>3)</b> erns (B10) /ater Table (0	( <b>MLRA 1, 2</b> ,
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## **APPENDIX B**

## **Representative Photographs**





Photo 1. Looking north at Palustrine Emergent (PEM) wetland.





Photo 2. Looking northeast at PEM wetland.





Photo 3. Looking south at PEM wetland.





Photo 4. Looking northeast at PEM wetland.





Photo 5. Looking southeast at a culvert under Vollmer Road.





Photo 6. Looking west at PEM wetland.





Photo 7. Looking southwest at PEM wetland.





Photo 8. Looking north at a pond vegetated with cattails.





Photo 9. Looking northwest at a human-made berm.





Photo 10. Looking northwest at a wetland pond just upgradient of the human-made berm.





Photo 11. Looking northwest at a PEM wetland.





Photo 12. Looking west at a PEM wetland pocket.





Photo 13. Looking northeast at a PEM wetland pocket.





Photo 14. Looking south at a PEM wetland pocket.



## APPENDIX C

HABITAT ASSESSMENT MEMO



February 17, 2022

Classic Communities 6385 Corporate Dr., Suite 200 Colorado Springs, CO 80919

#### Re: Habitat Assessment Memo Jayne's Parcel Project El Paso County, Colorado

CORE Consultants, Inc. (CORE) presents this memo summarizing a desktop review and field habitat assessment for the proposed Jayne's Parcel Project (Project) in El Paso County, Colorado. The Project spans 141 acres (Project Area) in northern El Paso County, southwest of the intersection of Vollmer Road and Poco Road. The Project Area is situated on the U.S. Geological Survey (USGS) Falcon NW 7.5-minute quadrangle (USGS 2019), on portions of Sections 28 and 33, Township 12 South, Range 65 West (Attachment I). The Project would include the development of approximately 440 residential lots, small park spaces, commercial space, and a stormwater detention basin.

CORE completed a desktop review and subsequent site reconnaissance of the Project for the following natural resources and potential biological constraints:

- Significant topographic features;
- Potential for occurrence of federally-listed threatened and endangered (T&E) species and their associated habitats;
- Federally-designated Critical Habitat for T&E species;
- Potential for occurrence of state threatened, state endangered, state species of special concern, and their associated habitats;
- Big game migratory routes and species-specific concentration areas.

Publicly-available data sources reviewed included the U.S. Fish and Wildlife Service's (USFWS) Information Planning and Consultation (IPaC) System; USFWS Critical Habitat Portal; USFWS National Wetland Inventory; Colorado Parks and Wildlife (CPW) species profiles and spatial data; USGS National Hydrography Dataset; USGS topographic maps; and U.S. Department of Agriculture National Aerial Imagery Program imagery. The on-site, wildlife habitat assessment was conducted on January 26 and 27, 2022 to field-verify results of the initial desktop review and conduct an aquatic resources delineation.

### **DESKTOP REVIEW**

#### Vegetation and Significant Topographic Features

The Project encompasses 141 acres in the Level IV Foothill Grasslands Ecoregion within the Level III Southwestern Tablelands Ecoregion. Elevations of the Project range between approximately 7,090 and 7,230 feet above mean sea level. Typical plant species within the Foothill Grasslands include ponderosa pine (*Pinus ponderosa*), mountain mahogany (*Cercocarpus montanus*),



Gambel oak (Quercus gambelii), chokecherry (Prunus virginiana), western serviceberry (Amelanchier alnifolia), little bluestem (Schizachyrium scoparium), big bluestem (Andropogon gerardii), bluebunch wheatgrass (Pseudoroegneria spicata), needle-and-thread (Hesperostipa comata), slender wheatgrass (Elymus trachycaulus), and galleta grass (Pleuraphis jamesii), among others (Chapman et al. 2006).

Two unnamed tributaries of Sand Creek drain through the Project in a southerly direction. Existing and under-construction residential development surround the Project. The Project Area has a short, east-west ridgeline with two highpoints. Aerial imagery indicated that this area supports ponderosa pines, providing a contrast in habitat to the grassland across much of the remainder of the Project Area. The man-made ponds also provide conditions to support a vegetation community that is unique within the Project Area.

#### Federal Threatened and Endangered Species

The USFWS IPaC database was used to determine the potential for occurrence of federally-listed T&E species within the Project (USFWS 2022a). The IPaC query identified five species, including one bird, one fish, one flowering plant, one insect, and one mammal, as having the potential to occur within the Project. An additional four species were listed to be considered under a conditional effects analysis (Table 1). No designated Critical Habitat is mapped for any species within the Project Area (USFWS 2022b).

#### Ute Ladies'-tresses Orchid

Ute ladies'-tresses orchid (*Spiranthes diluvialis*; ULTO) is a perennial orchid listed as federally threatened. This forb has ivory flower clusters arranged in a spike growing approximately 8 to 20 inches tall. ULTO is known to occur in parts of Colorado, Wyoming, Idaho, Montana, Nebraska, Utah, and Washington. The plant typically occurs within features associated with major river floodplains, including riparian edges, gravel bars, old oxbows, high flow channels, and moist to wet meadows associated with perennial streams; it is found under 6,500 feet AMSL in Colorado (USFWS 2021d). Surveys have indicated that this species may also inhabit groundwater-fed springs or sub-irrigated meadows, seeps, and human-influenced riparian habitats that receive reliable and stable spring inundation (Fertig et al. 2005; USDA 2009). Soils in areas of suitable habitat have a high micronutrient and organic matter content and display gley features when sampled (USDA 2009).

A review of spatial data and topographic maps indicates that the Project is situated at elevations between 7,090 and 7,230 feet above mean sea level, above the suitable elevations to sustain ULTO within Colorado.

#### Monarch Butterfly

Monarch butterfly (*Danaus plexippus*) is a candidate species for federal listing (USFWS 2022a). There are no Endangered Species Act Section 7 requirements for candidate species, though the U.S. Fish and Wildlife Service recommends that agencies and other parties take any opportunity to conserve a candidate species and limit further impacts. Monarchs are present in the Project region during the summer breeding season and during fall migration, using various milkweeds (*Asclepias spp.*) as host plants for egg-laying (USFWS 2021c). Limiting impacts to areas where milkweeds have potential to grow within the Project Area would limit the likelihood of impacts to monarchs from Project development.

Common Name Scientific Name	Status <sup>1</sup>	Likelihood of Occurrence
Complete Effects Analysis		
Eastern black rail Laterallus jamaicensis jamaicensis	FT	<b>None.</b> This species occupies tidal marshes and freshwater wetlands. It annually breeds along the Arkansas River in southeastern Colorado, but rarely occurs as far north as southern El Paso County. No suitable habitat is present and the Project Area is outside of this species' typical range.
Greenback cutthroat trout Oncorhynchus clarkii stomias	FT	<b>None.</b> No perennial water on site. Historically occupied steep, cold, high mountain streams and rivers in the South Platte and Arkansas River watersheds (Young 2009). A single, genetically pure population remains in Bear Creek in southwestern El Paso County (Martin et al. 2015).
Monarch butterfly Danaus plexippus	FC	Moderate. This species breeds across much of Colorado, laying eggs on milkweeds (Asclepias spp.). This species also migrates through eastern Colorado, especially in the fall (USFWS 2021c). See discussion above.
Preble's meadow jumping mouse Zapus hudsonius preblei	FT	<b>None.</b> Potential existing habitat is low quality. Project Area is within the Colorado Springs Block Clearance Area for this species, meaning it does not occur (USFWS 2012).
Ute ladies'-tresses Spiranthes diluvialis	FT	Low. See discussion above.
Conditional Effects Analysis		
Pallid sturgeon Scaphirhynchus albus	FE	Project is located outside of species' range; Project would not affect water within the S. Platte River watershed. Therefore, impacts to this species would not occur.
Piping plover Charadrius melodus	FT	Project is located outside of species' range; Project would not affect water within the S. Platte River watershed. Therefore, impacts to this species would not occur.
Western prairie fringed orchid Platanthera praeclara	FT	Project is located outside of species' range; Project would not affect water within the S. Platte River watershed. Therefore, impacts to this species would not occur.
Whooping crane Grus americana	FE	Project is located outside of species' range; Project would not affect water within the S. Platte River watershed. Therefore, impacts to this species would not occur.

<sup>1</sup>FE = Federally Endangered; FT = Federally Threatened; FC = Federal Candidate for Listing Source: USFWS 2022a

### USFWS Migratory Birds of Conservation Concern

The USFWS IPaC database was used to determine the potential for occurrence of USFWS Birds of Conservation Concern (USFWS 2022a). The IPaC query results identified two sensitive, migratory bird species: bald eagle (*Haliaeetus leucocephalus*) and ferruginous hawk (*Buteo regalis*). Bald eagles are not designated as a USFWS Bird of Conservation Concern but were included in the IPaC results due to their protection under the Bald and Golden Eagle Protection Act (16 USC §§ 668-668d). Breeding migratory birds, and the parts, nests, or eggs of such a bird receive statutory protection under the MBTA, and disturbing such species (defined at 16 U.S.C. §§ 703–712), including incidentally, is prohibited.

#### CPW Species Activity Mapping and High Priority Habitats

The CPW Species Activity Mapping and High Priority Habitats spatial data were reviewed to determine the potential for the occurrence of sensitive wildlife, including big game species. CPW species profiles were also reviewed to determine the potential for the occurrence of state threatened or endangered species. The review indicated that there is potential for the occurrence of 15 mammals, 13 reptiles, and 14 birds that have CPW-mapped High Priority Habitats (Table 2).

Generally, sensitive wildlife species and Colorado Species of Special Concern (SC) do not receive statutory protection. The Project Area does not intersect with big game migratory routes, though it does intersect with mountain lion (*Puma concolor*) peripheral range, mule deer (*Odocoileus hemionus*) concentration area, and is part of a black bear (*Ursus americanus*)-human conflict area (CPW 2021). Development of residential property has the potential to attract black bear and mountain lion if trash is readily available for forage or to attract prey animals. The Project Area is within the overall range of black-tailed prairie dog (*Cynomys ludovicianus*; Table 2), which is a Colorado SC and provides nesting and roosting habitat for the state threatened burrowing owl (*Athene cunicularia*). The Project Area is also within the breeding range of burrowing owl (Table 2; CPW 2021). Breeding ranges for many sensitive bird species, as well as overall range for sensitive bats, lizards, snakes, turtles, and other wildlife, overlap the Project Area (Table 2).

COMMON NAME	SCIENTIFIC NAME	TYPE OF OCCURRENCE	STATUS <sup>1</sup>	
Mammals				
Big brown bat	Eptesicus fuscus	Overall range	N/A	
		Overall range, human conflict		
Black bear	Ursus americanus	area	N/A	
Black-tailed prairie dog	Cynomys Iudovicianus	Overall range	SC	
Dwarf shrew	Sorex nanus	Overall range	N/A	
Eastern red bat	Lasiurus borealis	Overall range	N/A	
Fringed myotis	Myotis thysanodes	Overall range	N/A	
Hoary bat	Aeorestes cinereus	Overall range	N/A	
Little brown myotis	Myotis lucifugus	Overall range	N/A	
Mountain lion	Puma concolor	Overall range, peripheral 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	
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	
Reptiles			1	
Bullsnake	Pituophis catenifer sayi	Overall range	N/A	
Common lesser earless lizard	Holbrookia maculata	Overall range	N/A	
Hernandez's short- horned lizard	Phrynosoma hernandesi	Overall range	N/A	
Many-lined skink	Plestiodon multivirgatus	Overall range	N/A	
Milk snake	Lampropeltis triangulum	Overall range	N/A	
Ornate box turtle	Terrapene ornata	Overall range	N/A	
Painted turtle	Chrysemys picta	Overall range	N/A	
Plains garter snake	Thamnophis radix	Overall range	N/A	
Prairie lizard	Scleroporus undulatus	Overall range	N/A	
Prairie rattlesnake	Crotalus viridis	Overall range	N/A	
Six-lined racerunner	Aspidoscelis sexlineata	Overall range	N/A	
Smooth green snake	Opheodrys vernalis	Overall range	N/A	

### Table 2. Sensitive Wildlife Species Potential for Occurrence

	SCIENTIFIC NAME	TYPE OF OCCURRENCE	STATUS <sup>1</sup>
Terrestrial garter snake	Thamnophis elegans	Overall range	N/A
Birds			
Band-tailed pigeon	Patagioenas fasciata	Breeding range	N/A
Brewer's sparrow	Spizella breweri	Breeding range	N/A
Burrowing owl	Athene cunicularia	Breeding range	ST
Cassin's sparrow	Peucaea cassinii	Breeding range	N/A
Golden eagle	Aquila chrysaetos	Breeding range	N/A
Grasshopper sparrow	Ammodramus savannarum	Breeding range	N/A
Lark bunting	Calamospiza melanocorys	Breeding range	N/A
Lazuli bunting	Calamospiza melanocorys	Breeding range	N/A
Lewis's woodpecker	Melanerpes lewis	Breeding range	N/A
Northern harrier	Circus hudsonius	Breeding range	N/A
Prairie falcon	Falco mexicanus	Breeding range	N/A
Rufous hummingbird	Selasphorus rufus	Migration range	N/A
Swainson's hawk	Buteo swainsoni	Breeding range	N/A
Virginia's warbler	Leiothlypis virginiae	Breeding range	N/A

<sup>1</sup>ST = State Threatened; SC = State Species of Special Concern; N/A = No special status Source: CPW 2021

### SITE RECONNAISSANCE

A site reconnaissance was conducted within the Project Area on January 26, 2022. A half-mile buffer around the Project Area was also searched and assessed for raptor nests and potential raptor nesting habitat (Study Area, inclusive of the Project Area). The on-site assessment was intended to support and expand upon the results of the desktop review. The results of the site reconnaissance are presented in the following sections.

#### Vegetation and Significant Topographic Features

A diverse array of native and non-native plants was observed during the habitat assessment. Common species associated with the east-west ridge included ponderosa pine, mountain mahogany), blue grama (Bouteloua gracilis), buffalo grass (Bouteloua dactyloides), fringed sage (Artemisia frigida), plains pricklypear (Opuntia polyacantha), soapweed yucca (Yucca glauca), and spotted gayfeather (Liatris punctata). Among the common upland plant species in the meadows were Indian ricegrass (Achnatherum hymenoides), purple threeawn (Aristida purpurea), yellow indiangrass (Sorghastrum nutans), Canada wildrye (Elymus canadensis), little bluestem (Schizachyrium scoparium), big bluestem (Andropogon gerardii), smooth brome (Bromus inermis), and cheatgrass (Bromus tectorum), while cattails (Typha sp.), prairie sunflowers (Helianthus petiolaris), curly dock (Rumex crispus), and Arctic rush (Juncus arcticus) were common along portions of the streams. A complete list of the species observed is included in Table 3.

### Table 3. Plant Species Observed During the Habitat Assessment

SCIENTIFIC NAME					
Graminoids/Rushes					
Achnatherum hymenoides	Indian ricegrass				
Andropogon gerardii	Big bluestem				
Aristida purpurea	Purple threeawn				
Bouteloua gracilis	Blue grama				
Bouteloua dactyloides	Buffalo grass				
Bromus inermis	Smooth brome				
Bromus tectorum	Cheatgrass				
Elymus canadensis	Canada wildrye				
Elymus elymoides	Squirrel tail				
Juncus arcticus	Arctic rush				
Muhlenbergia montana	Mountain muhly				
Pascopyrum smithii	Western wheatgrass				
Poa pratensis	Kentucky bluegrass				
Schizachyrium scoparium	Little bluestem				
Sorghastrum nutans	Yellow Indiangrass				
Sporobolus heterolepis	Prairie dropseed				
	s/Vines/Cacti				
Achillea millefolium	Yarrow				
Artemisia frigida	Fringed sage				
Asclepias speciosa	Showy milkweed				
Bassia scoparia	Kochia				
Centaurea diffusa	Diffuse knapweed				
Cirsium vulgare	Bull thistle				
Helianthus annuus	Common sunflower				
Helianthus petiolaris	Prairie sunflower				
Heterotheca villosa	Hairy false goldenaster				
Liatris spicata	Dotted gayfeather				
Oenothera biennis	Evening primrose				
Opuntia polyacantha	Plains pricklypear				
Pediocactus simpsonii	Mountain ball cactus				
Rumex crispus	Curly dock				
Sisymbrium altissimum	Tall tumblemustard				
Symphoricarpos sp.	Snowberry				

SCIENTIFIC NAME	COMMON NAME
Tragopogon dubius	Western salsify
Typha sp.	Cattail
Verbascum thapsus	Common mullein
	Shrubs/Trees
Cercocarpus montanus	Mountain mahogany
Cornus sericea	Red-osier dogwood
Juniperus scopulorum	Rocky Mountain juniper
Pinus ponderosa	Ponderosa pine
Populus angustifolia	Narrowleaf cottonwood
Populus deltoides	Plains cottonwood
Rosa acicularis	Prickly wild rose
Salix amygdaloides	Peachleaf willow
Yucca glauca	Soapweed yucca

The narrow, east-west ridge in the central portion of the Project Area provides a microclimate that supports different vegetation than the remainder of the Project Area. Ponderosa pines are present in two distinct groves at the east and west ends of the ridge. Similarly, a small community of riparian vegetation is present within and around the man-made ponds in the Project Area. Among the plant species observed near the ponds were plains cottonwood (*Populus deltoides*), narrowleaf cottonwood (*Populus angustifolia*), peachleaf willow (*Salix amygdaloides*), red-osier dogwood (*Cornus sericea*), and cattails.

#### Eastern Black Rail

The habitat assessment confirmed that suitable marsh or other wetland habitat to support eastern black rail does not exist in the Project Area.

#### Greenback Cutthroat Trout

The habitat assessment confirmed that no perennial water sources are present in the Project Area, eliminating the possibility of greenback cutthroat trout occurrence. Furthermore, no areas downstream from the Project Area are known to support this species, and thus, no indirect impacts to greenback cutthroat trout would occur from Project development.

#### Monarch Butterfly

Showy milkweed (Asclepias speciosa) stalks and seed pods were observed in a small area (less than 20 square feet) along the western side of the Project Area, indicating that at least some egglaying habitat and forage for monarch caterpillars exists in the Project Area (Attachments II and III). Based on the Project Area's location within the monarch breeding range and along the fall migratory route for more northerly-breeding monarchs, individuals may be present in the Project Area occasionally. A targeted search for milkweed plants was not conducted during the habitat assessment; however, the low number of milkweed individuals encountered while surveying the Project Area suggests that monarch egg-laying habitat is limited.

### Preble's Meadow Jumping Mouse

Although the Project Area is within the northeastern boundary of the USFWS PMJM Block Clearance for Colorado Springs and vicinity (USFWS 2012), CORE nonetheless assessed whether the habitat on-site could support PMJM. Plant species identified in the Project Area that are commonly-associated with PMJM included mountain mahogany, narrowleaf cottonwood, peachleaf willow, plains cottonwood, red-osier dogwood, and snowberry. However, the stream channels lack the preferred, multilayered vegetative structure and few shrubs are present along the channels or elsewhere within the Project Area. Areas of diverse, native grasses are present in the uplands, but shrubs that could provide habitat for PMJM hibernation are lacking. Based on low quality to lack of suitable habitat and the overlap of the mapped block clearance with the Project Area, it is unlikely that PMJM would occur on site, and PMJM and its habitats would not be impacted by Project development.

#### Ute Ladies'-tresses Orchid

No perennial water sources are present in the Project Area. Small wetland areas associated with the two stream channels and ponds have the highest probability of retaining water to support ULTO. However, suitable habitat features, such as river floodplains, gravel bars, oxbows, and high flow channels, which could support ULTO, were not observed. Further, the elevation of the Project Area is 500 to 700 feet higher than the maximum elevation at which ULTO is known to occur in Colorado. A rare plant survey for ULTO and a formal assessment of soil types on site was not conducted as part of the habitat assessment. Project development is not anticipated to impact ULTO or its associated habitat.

#### USFWS Migratory Birds of Conservation Concern

The desktop review identified ferruginous hawk as the only USFWS Bird of Conservation Concern with potential to use the Project Area. Site reconnaissance revealed that suitable substrates for nesting raptors were present. Four inactive nests were observed in ponderosa pines within the Project Area during the assessment (Attachment IV). Each of the inactive nests was sufficiently large to potentially support nesting raptors, however, the nests cannot be reliably attributed to certain species while inactive. Another large nest was found on the ground near the north side of the eastern grove of pines (Attachments II and III). No raptor nests were found in the half-mile buffer. A nesting raptor survey during the breeding season (February 1 through July 15) would confirm the presence or absence of active raptor nests within the Project Area. If raptor nests are found, appropriate raptor nest buffers would be coordinated with CPW and should be adhered to during construction activities (CPW 2020).

#### CPW Species Activity Mapping and High Priority Habitats

Two of the sensitive species for which CPW has mapped ranges and High Priority Habitats were observed within the Study Area. Pronghorn (*Antilocapra americana*) were observed throughout the habitat assessment at various locations in the Project Area and half-mile buffer; as many as 75 were seen simultaneously. A group of seven mule deer were observed in the ponderosa pine forest at the northwestern edge of the Study Area, which is mapped as part of a Mule Deer Concentration Area. Wild turkeys (*Meleagris gallopavo*) were also observed in the Project Area, though their CPW-mapped overall range only extends to the southern edge of Black Forest, immediately outside of the Study Area.

No prairie dog (*Cynomys* spp.) colonies were present within the Project Area, and no other burrows or dens were observed that would suggest nesting or roosting habitat for burrowing owls exists. The Project Area is within the burrowing owl breeding range, and thus, burrowing owls could

migrate through the area. However, the lack of nesting and roosting resources suggest burrowing owls would use the Project Area only temporarily, if at all. Additionally, areas throughout the site comprised of tall, dense grasslands would have low suitability for burrowing owls, since the species tends to prefer low, sparse vegetation (Poulin et al. 2020)

The Project Area hosts various potential resources for the sensitive bat species which could occur, including tree stands and abandoned, man-made structures for roosting and streams and ponds over which bats may forage for insects when water is present (Attachments II and III). The sensitive bat species which could be present in the Project Area, especially from May to October, include big brown bat (Eptesicus fuscus), eastern red bat (Lasiurus borealis), fringed myotis (Myotis thysanodes), hoary bat (Lasiurus cinereus), little brown myotis (Myotis lucifugus), and silver-haired bat (Lasionycteris noctivagans; CPW 2021).

Development of the Project has the potential to attract black bears, mountain lions, and prey animals, if trash from the development is not maintained in wildlife-proof storage containers. Mule deer (Odocoileus hemionus) are expected to occur regularly, even after Project development. A few small areas of rodent burrowing activity were documented, but no rodents were observed (Attachments II and III). The Project Area provides potentially suitable habitat for the sensitive reptiles with overlapping overall ranges, including along the streams and around the ponds, near rodent burrows, and among the abandoned, man-made structures. CPW Species Activity Mapping data do not include non-status amphibians (CPW 2021). Most sensitive bird species with CPW-mapped breeding ranges within the Study Area are likely to occur to varying extents, though band-tailed pigeons (*Patagioenas fasciata*) and Lewis's woodpeckers (*Melanerpes lewis*) are rarely documented in the Project vicinity (Table 2; eBird 2022). Coordination with CPW would determine if additional wildlife surveys are necessary prior to and/or during Project construction.

### CONCLUSIONS

The site reconnaissance identified a few biological constraints within the Project Area. Four inactive raptor nests were documented. A nesting raptor survey prior to construction would confirm the presence or absence of active raptor nests within the Study Area. Should the existing nests or new nests become active during the breeding season and when construction is anticipated to occur, Classic Communities should coordinate with CORE and CPW to employ appropriate restriction buffers to minimize potential impacts to nesting raptors (CPW 2020). The Project is not anticipated to result in any impacts to federally- or state-listed threatened and endangered species or their habitats. However, Classic Communities could preemptively minimize potential impacts through habitat loss for monarch butterfly, a candidate species for federal listing, by avoiding removal of milkweed plants where possible.

The occurrence of various bat, bird, reptiles, and large game species is expected to varying degrees. Potential for conflicts between humans and black bears and mountain lions are also possible. Garbage should be properly disposed of and secured during and after construction to minimize potential for these encounters. Coordination with the Colorado Parks and Wildlife would determine whether any additional wildlife surveys or permits are required.

If you have any questions, concerns or require additional information, please feel free to contact us at (303) 703-4444, or by email at tstuart@liveyourcore.com or ngraves@liveyourcore.com.



Sincerely, **CORE Consultants, Inc.** 

that

**Tyler Stuart** Biologist

Matalie Drawes

**Natalie Graves** Project Manager

## LIST OF ATTACHMENTS

ATTACHMENT I:	
ATTACHMENT II:	
ATTACHMENT III:	
ATTACHMENT IV:	

Project Location Map Photo Location Map Photographic Log Raptor Nests Map



## REFERENCES

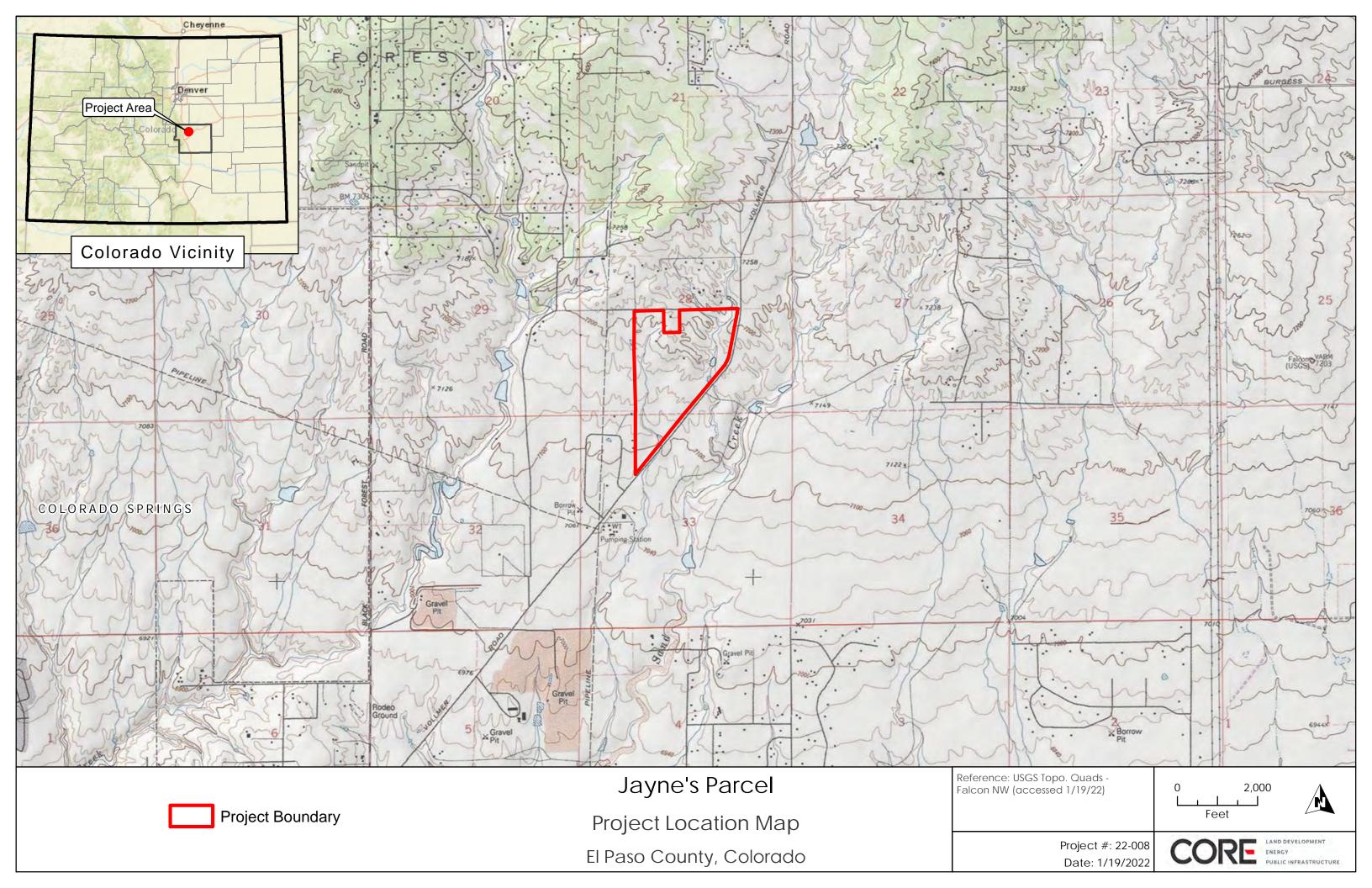
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## ATTACHMENT I

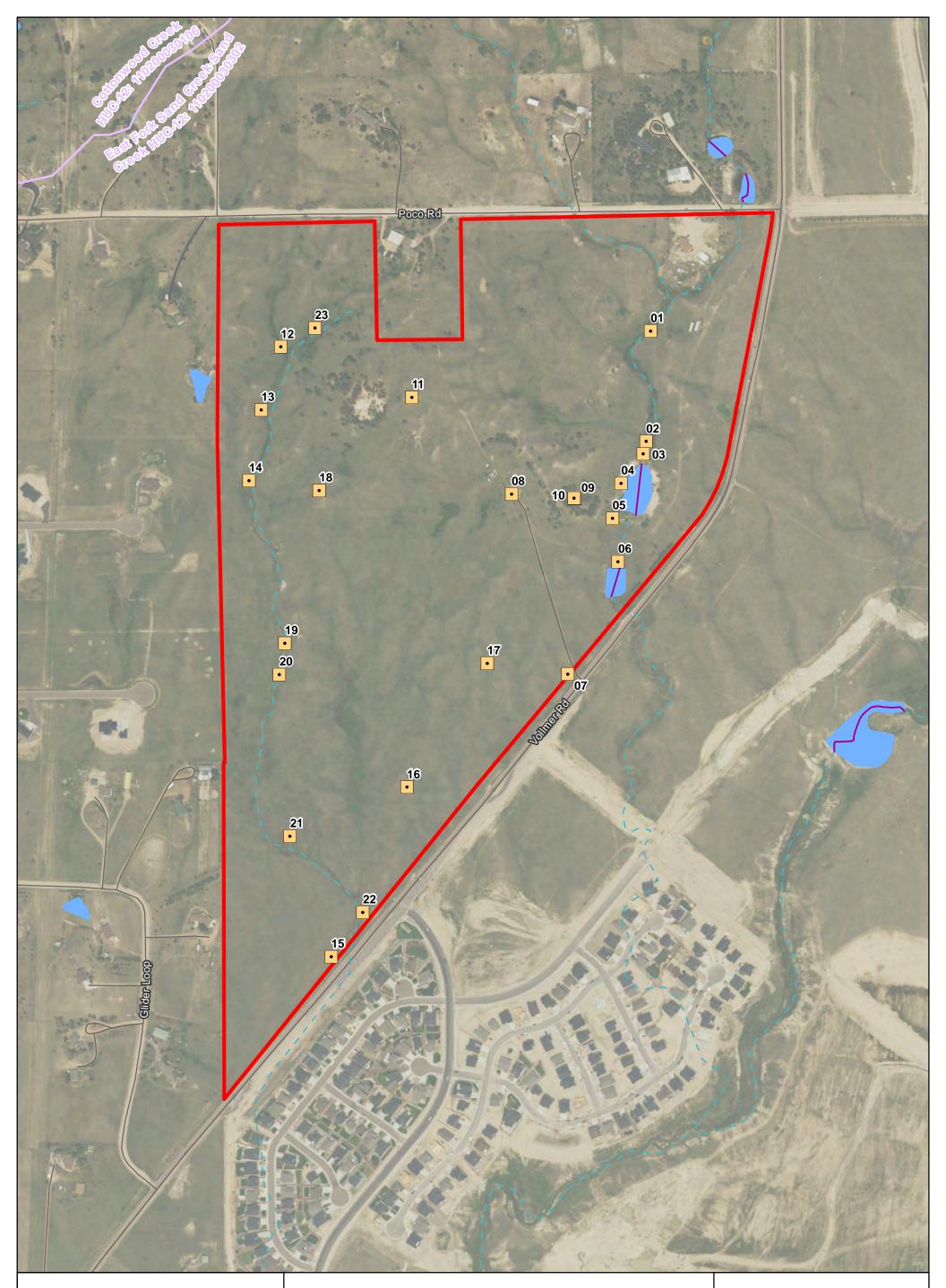
**PROJECT LOCATION MAP** 





## ATTACHMENT II

PHOTO LOCATION MAP



Jayne's Parcel

Photo Location Map

El Paso County, CO

Project Boundary	NHD Stream	NHD Waterbody	0 500 L L L L L
Photo Location	Artificial Path		reet
Street		Watershed (12- digit HUC)	Project #: 22-00 Date: 2/2/202
Reference: USGS Topograp CORE Consultants 2022, US			



## ATTACHMENT III

Photographic Log

Photo ID	Date	Latitude	Longitude	Subject	Direction Taken
JP_001	1/26/2022	38.975207	-104.670271	Eastern Stream	North
Description: N northeastern	lorthern end of corner of the Pr	the eastern stree oject Area.	ambed, downstre	eam of the house in <sup>.</sup>	the



Photo ID	Date	Latitude	Longitude	Subject	Direction Taken	
JP_002	1/26/2022	38.973793	-104.670362	Eastern Streambed and Willow	North	
Description: Peachleaf willow growing along the eastern streambed, a short distance upstream from the larger pond.						



Photo ID	Date	Latitude	Longitude	Subject	Direction Taken
JP_003	1/26/2022	38.973635	-104.670413	Large Pond	South
vegetation in	cluding peachl	eaf willows, narr	rowleaf cottonwo	oject Area, with surro ood, plains cottonwo end of the pond.	•



Photo ID	Date	Latitude	Longitude	Subject	Direction Taken
JP_004	1/26/2022	38.973261	-104.670775	Large Pond	South
	cluding peachl	• •	•	of cattails and surrour bod, plains cottonwo	U U



visible with willows at center-left in the photo.

Photo ID	Date	Latitude	Longitude	Subject	Direction Taken
JP_006	1/26/2022	38.972267	-104.670839	Ponderosa Pines	East
Description: A row of ponderosa pines along the west side of Vollmer Road.					

Photo ID	Date	Latitude	Longitude	Subject	Direction
JP_007	1/26/2022	38.970828	-104.671681	Southern Meadow	Taken Southwest

Description: Broad view of the large meadow at the southern end of the Project Area.

Photo ID	Date	Latitude		Subject	Direction Taken
JP_008	1/26/2022	38.973138	-104.672567	Abandoned Structure	West

Description: Abandoned structure next to the main abandoned house (not pictured). The western end of the main ridge is visible in the background.





Photo ID	Date	Latitude	Longitude	Subject	Direction Taken	
JP_009	1/26/2022	38.973076	-104.671533	Abandoned Structure	West	
Description: Abandoned structure in the eastern ponderosa pine grove. This structure and the pines have potential to support roosting bats.						



Photo ID	Date	Latitude	Longitude	Subject	Direction Taken					
JP_010	1/26/2022	38.973078	-104.671547	Nest on Ground	N/A					
Description: F	Description: Fallen nest on the ground in the eastern ponderosa pine grove. This nest									
appeared lar	rge enough to h	nost large raptor	S.							



Photo ID	Date	Latitude	Longitude	Subject	Direction Taken					
JP_011	1/26/2022	38.974386	-104.674182	Western Pine Grove	West					
Description: Looking toward the western grove of ponderosa pines from the top of the ridge.										
The mountain mahogany shrubs in the foreground have been browsed by mule deer or										
pronghorn.										

	A star	Carlin M			
Photo ID	Date	Latitude	Longitude	Subject	Direction Taken
JP_012	1/26/2022	38.975044	-104.67632	Small Tributary	Northwest

Description: A short tributary near the headwaters of the western stream in the Project Area.

Photo ID JP_013	Date 1/26/2022	Latitude 38.974236	Longitude -104.676651	Subject Western Stream	Direction Taken Southeast

Description: Looking downstream below the headwaters of the western stream.



					Taken
JP_014	1/26/2022	38.973335	-104.676866	Western Stream	North
Description: Lo	ooking upstrea	m along the we	stern stream from	near the western ec	lge of the
Project Area.					



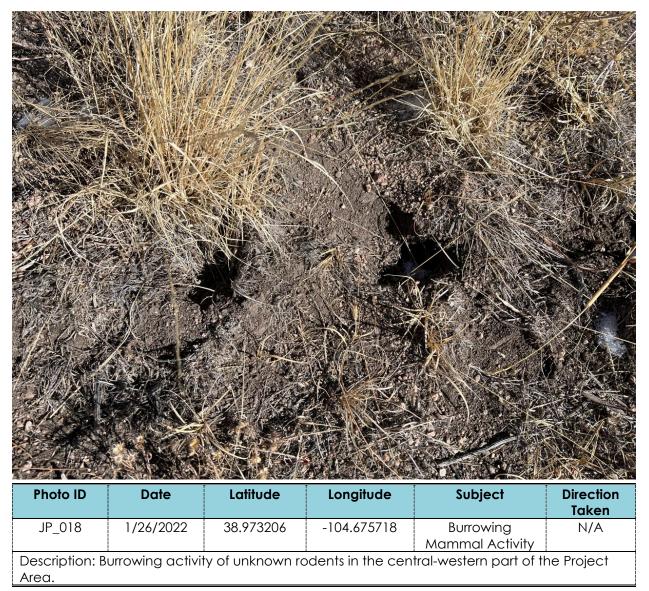


Photo ID JP_016	<b>Date</b> 1/26/2022	Latitude 38.969403	Longitude -104.67432	Subject Southern Meadow	Direction Taken West

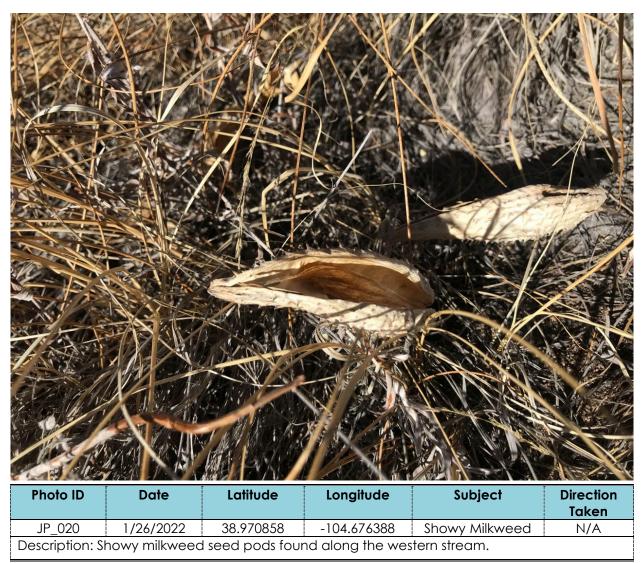
Description: Broad view across the meadow near the southern end of the Project Area.



Photo ID	Date	Latitude	Longitude	Subject	Direction Taken				
JP_017	1/26/2022	38.970975	-104.672995	Meadow with House	North				
	Description: View of the northern portion of the southern meadow. The main abandoned homestead is visible on the left side of the skyline, among the eastern grove of ponderosa								



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Photo ID	Date	Latitude	Longitude	Subject	Direction
					Taken
JP019	1/26/2022	38.971254	-104.676308	Western Stream	South
		eam along the v	western stream n	ear the central-west	ern part of
the Project Ar	<u>A</u>				





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Photo ID	Date	Latitude	Longitude	Subject	Direction Taken
JP_022	1/26/2022	38.967813	-104.675066	Western Stream	Northwest
Description: Lo the Project Are		n along the wes	stern stream from	near its southern ter	minus within



	Date	Laiiiuae	Longitude	SUDJECT	Taken
JP_023	1/26/2022	38.97528	-104.675763	Western Tributary	North
Description: L	ooking upstrea	m near the head	dwaters of the we	estern stream.	



Photo ID	Date	Latitude	Longitude	Subject	Direction Taken		
Raptor Nest 1	1/26/2022	38.975089	-104.675872	Inactive Raptor Nest	Northwest		
Description: Inactive raptor nest in a small ponderosa pine. This is potentially an inactive, black-billed magpie nest, but has been documented in the event that a small raptor would choose to use it.							

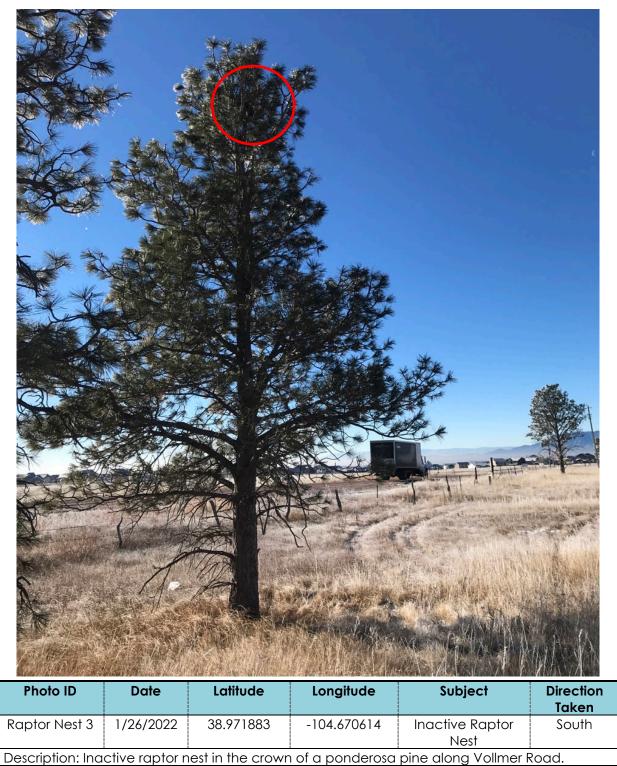
3473 South Broadway Englewood, Colorado 80113 303.703.4444 LIVEYOURCORE.COM

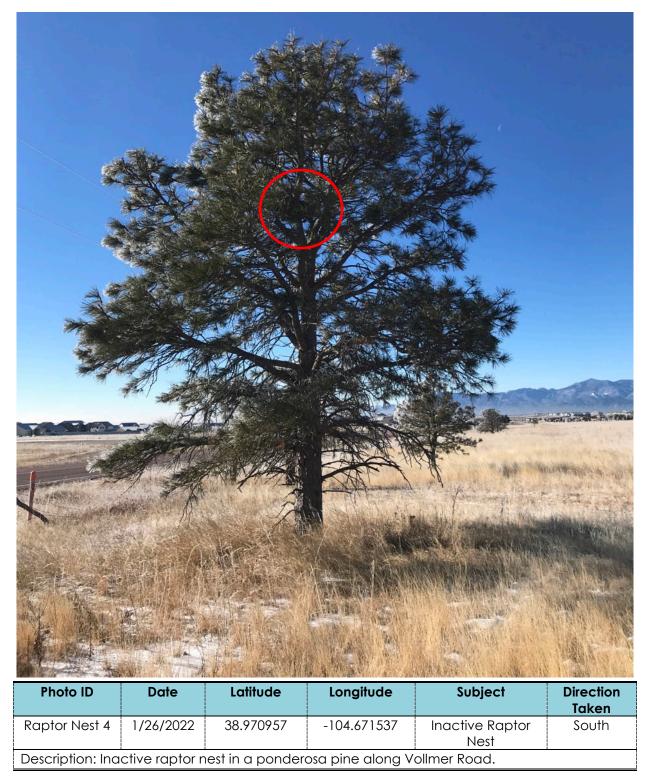




Photo ID	Date	Latitude	Longitude	Subject	Direction Taken
Raptor Nest 2	1/26/2022	38.973163	-104.671617	Inactive Raptor Nest	North
Description: Inactive raptor nest in the crown of a ponderosa pine on the ridge. This is potentially an inactive, black-billed magpie nest, but has been documented in the event that a small raptor would choose to use it.					





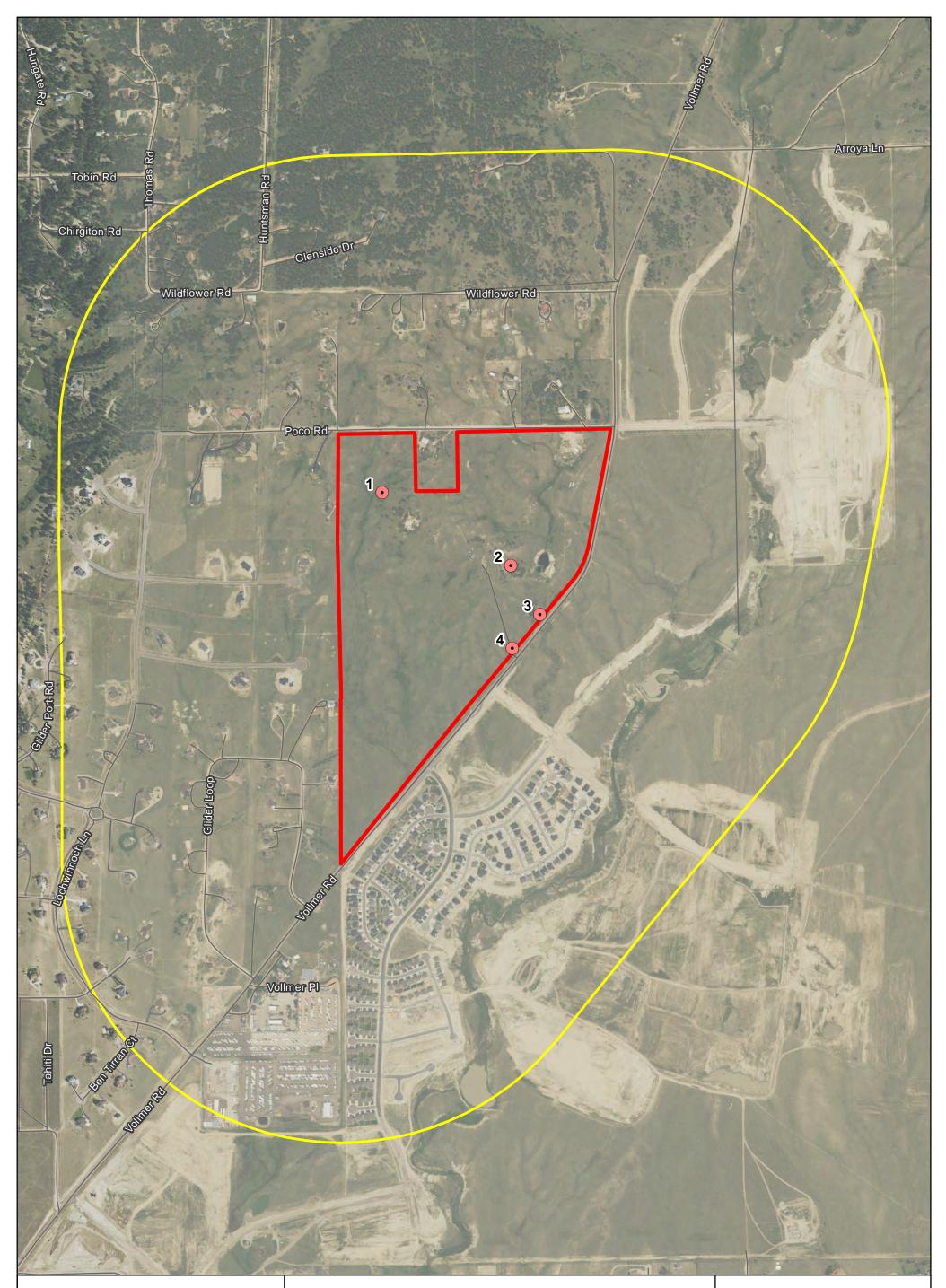




ATTACHMENT IV

RAPTOR NESTS MAP

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Jayne's	Parcel
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Raptor Nests Map

El Paso County, CO

Project Boundary Raptor Nest	0 1,000	
Study Area Inactive Unidentified	Feet	
——— Street Species	Project #: 22-008 Date: 2/2/2022	
Reference: USGS Topographic Quad: Falcon NW CORE Consultants 2022, USDA 2021		



#### APPENDIX D

Noxious Weed Management Plan

### NOXIOUS WEED MANAGEMENT PLAN

JAYNE'S PARCEL PROJECT EL PASO COUNTY, COLORADO PROJECT NO. 22-008

#### **Prepared for:**

Classic Communities 6385 Corporate Dr., Suite 200 Colorado Springs, CO 80919

#### Prepared by:



CORE Consultants, Inc. 3473 South Broadway Englewood, CO 80113

February 2022



#### EXECUTIVE SUMMARY

Classic Communities contracted CORE Consultants, Inc. to prepare a Noxious Weed Management Plan (Plan) for the proposed Jayne's Parcel Project (Project) in El Paso County, Colorado. The Project would be developed on 141 acres (Project Area), southwest of the intersection of Vollmer Road and Poco Road.

This Plan is a Project-specific document that has been designed to set forth Project-level regulations to prevent and control the spread of noxious weeds within the Project Area and vicinity. Noxious weeds are defined as non-native plants that aggressively invade and are detrimental to native vegetation communities and ecosystems. The Colorado State Noxious Weed Act (Colorado Revised Statute 35-5.5-103) lists plant species considered noxious in the state of Colorado that should be targeted for control by various methods, dependent on list categories A, B, and C. The El Paso County Environmental Division requested submittal of a Project-specific Noxious Weed Management Plan. This Plan complies with the requirements set forth by the El Paso County Noxious Weed Management Plan (EPC 2003, updated in 2017), which contains guidelines for control and treatment of noxious weeds found in El Paso County. El Paso County requires that projects that include any ground disturbing activities submit a project-specific noxious weed management plan. This Plan provides methods to prevent and control the spread of noxious weeds during pre-construction, construction, and post-construction phases of the Project.



#### **Table of Contents**

I
1
1
2
2
2
3
3
3
4
5

#### Appendices

Appendix A Pro	ject Location Map
••	aso County Noxious Weeds and Control Methods Iorado State Noxious Weed List

### 1 INTRODUCTION

Classic Communities (Classic) contracted CORE Consultants, Inc. (CORE) to prepare a Noxious Weed Management Plan for the proposed Jayne's Parcel Project (Project) in El Paso County, Colorado. The Project Area includes 141 acres and is situated on the U.S. Geological Survey Falcon NW 7.5-minute quadrangle (USGS 2019), on portions of Sections 28 and 33, Township 12 South, Range 65 West (Appendix A). The Project would consist of the construction of single-family residential homes, permanent access roads, open space, commercial space, and associated facilities.

The Project is located in the Level IV Foothill Grasslands of the Level III Southwestern Tablelands Ecoregion (Chapman et al. 2006). Elevation of the Project ranges between approximately 7,100 feet in the southwestern portion to 7,200 feet above mean sea level in the northeastern portion of the Project Area. Typical plant species within the Foothill Grasslands ecoregion includes species associated with mesic and arid prairies, such as yellow Indiangrass (Sorghastrum nutans), big bluestem (Andropogon gerardii), little bluestem (Schizachyrium scoparium), switchgrass (Panicum virgatum), sideoats grama (Bouteloua curtipendula), slender wheatgrass (Elymus trachycaulus), needle-and-thread (Hesperostipa comata), and galleta grass (Pleuraphis jamesii).

### 2 NOXIOUS WEED MANAGEMENT

The spread of invasive species coincides with the rise in human travel and commerce (Sheley et al. 1996; Mack et al. 2000). Invasive species exhibit characteristics that have allowed them to colonize a range of habitats, support a variety of mechanisms for rapid reproduction, and often out-compete native species. The Federal Noxious Weed Act (7 U.S.C. 2801 et seq.; 88 Stat. 2148) was enacted in 1975 in an effort to halt the spread of noxious weeds across the country. Following guidelines set forth by the Federal Noxious Weed Act, Colorado passed the Colorado Noxious Weed Act (Act; C.R.S. 35-5.5-103) in 1990. The Act identified noxious weeds particular to the landscapes of Colorado. The Act defines noxious weeds as any non-native plant which:

- Aggressively invades or is detrimental to economic crops or native plant communities;
- Is poisonous to livestock;
- Is a carrier of detrimental insects, diseases, or parasites; or
- Is detrimental, either by direct or indirect effects, to the environmentally sound management of natural or agricultural ecosystems.

The Act was amended in 2002 to require counties to establish individual management plans relevant to local municipalities. El Paso County developed the El Paso County Noxious Weed Management Plan in 2003 (updated in 2017) to identify county-level noxious weed management practices that would preserve the economic and environmental value of El Paso County lands (EPC 2017).

Disturbed areas are vulnerable to infestation from noxious weeds due to the aggressive nature by which noxious weeds can spread. Construction activities including clearing, grading, and excavation promote the establishment of noxious weed species before native vegetation can reestablish within the cleared area. As such, the El Paso County Noxious Weed Management Plan requires integrated management plans for any activities requiring dirt moving within El Paso County (EPC 2017). Project-specific integrated management plans should include methods to



prevent, control, and monitor the spread of noxious weeds and should take into account the multiple methods by which noxious weeds germinate. Annuals typically reproduce through seeds, which can easily attach to equipment during construction activities. Perennials often propagate through an extensive root system. Ground disturbing activities have the potential to redistribute root sections that could quickly propagate in other areas. Because of the multiple methods by which noxious weeds spread and propagate, integrated management plans should outline education and native revegetation methods in addition to chemical control methods (EPC 2017).

### 3 NOXIOUS WEED MANAGEMENT PLAN

#### 3.1 Purpose and Goals

Construction of the Project would occur over several months. Upon completion of construction, the development as proposed would be utilized as a mixed-use space with residential and commercial purposes. It is anticipated that ground disturbance would occur throughout much of the site for development of access roads and residential lots. As such, this integrated management plan includes pre-construction, construction, and maintenance methods to prevent, control, and monitor the spread of identified noxious weed populations within the Project. It would become the responsibility of the homeowner's association (HOA) to manage and treat persistent noxious weed populations within the Project Area, if any are present. However, it is assumed that regular landscaping of public areas on the site would include noxious weed control. Integrated management methods should include the following:

- Surveys to inventory and map established noxious weed populations;
- Sharing of data with El Paso County to aid in county-level inventory;
- Chemical treatment of all identified noxious weed populations; and
- Periodic post-construction treatment as needed and as determined by the property management entity.

Management methods identified within the Plan would comply with Chapter 6: General Development Standards of the El Paso County Land Development Code (EPC 2018; Appendix B), the El Paso County Noxious Weed Management Plan (EPC 2017), and the Act (Colorado Revised Statute 35-5.5-103). Biological control methods are not included due to the prohibition of their use on plants targeted for eradication (CWMA 2020; Appendix C). Noxious weed species targeted would be those identified in the Act, with special consideration for those species listed within *El Paso County Noxious Weed and Control Methods* (EPC 2018; Appendix B).

#### 3.2 Regulated Species

The Act identifies three levels of priority for control of noxious weeds throughout Colorado. The Colorado Weed Management Association (CWMA) maintains an updated list of noxious weeds known to occur in Colorado. CWMA also maintains a Watch List of noxious weeds that occur in proximity to Colorado's borders and/or those species with a distribution that is not yet understood (CWMA 2020; Appendix C). List A noxious weeds are those species targeted for eradication. List A noxious weed populations are typically isolated in nature or rare throughout much of Colorado (Colorado Revised Statute 35-5.5-103). Eradication and reporting of List A populations is required by law (CDA 2006). List B species are discretely distributed throughout Colorado and must be eradicated, contained, or suppressed (Colorado Revised Statute 35-5.5-103). El Paso County requires control of all List B noxious weed populations located within the Project Area (EPC 2017).

List C noxious weed populations are widespread and well established. El Paso County requires control of List C species through education of the public and/or chemical control (Appendix C).

#### 3.3 Pre-Construction

Pre-construction noxious weed management protocols include prevention and treatment. Prevention and treatment would be accomplished through surveys of construction easements, followed by primary chemical treatment.

Noxious weed surveys would be conducted within all construction easements prior to any ground disturbing activities related to construction. Surveyors would use GPS to collect population data. Data collected for List C populations would include species and coordinates of populations. Data collected for List A and B populations would include species, coordinates for the approximate center of each identified population, approximate radius of infestation, and an estimate of the density or percent coverage within the extent of the population. El Paso County would receive a map of identified noxious weed populations within the Project Area. Should surveyors locate List A species, the specific data collected would be sent to El Paso County. Treatment type would be selected depending on the priority rank of noxious weed species (List A, B, C) and the location and density of the infestation. Chemical treatment would include herbicide application. The suggested chemical treatment protocol is described below.

List A species must be eradicated by law (CDA 2006). Should surveyors identify List A species, a plant sample would be collected for positive identification through the El Paso County Environmental Division. Upon positive confirmation of a List A species, hand pulling of the population would be performed to remove the mechanism for creation of a seed bank. Chemical treatment would be applied to the area and would be selected in compliance with the *El Paso County Noxious Weeds and Control Methods* (EPC 2018; Appendix B). List B and List C species would be chemically treated with an herbicide selected in compliance with the *El Paso County Noxious Weeds and Control Methods*. Herbicide selection may vary depending upon time of year and life cycle of the plant. All herbicide application would occur within a minimum of two weeks prior to scheduled ground disturbing activities. The herbicide applicator would treat noxious weed populations with El Paso County recommended herbicides (Appendix B).

#### 3.4 Construction

Construction phase noxious weed management protocols would include prevention and maintenance. Contractors would prevent the spread of noxious weeds through the use of clean equipment and treatment of all noxious weed populations prior to ground disturbing activities. Heavy equipment used on the site would be washed and sprayed before mobilization from the Project, preventing soils and seeds from being transported to other sites.

It is anticipated that topsoil could be salvaged from the site. Salvaged topsoil piles would be maintained and protected from erosion and noxious weed establishment during construction through best management practices identified in the Project's Grading, Erosion, and Sediment Control Plan.

#### 3.5 Post-Construction

Post-construction noxious weed management protocols would be limited to maintenance treatment as needed. Native site topsoil would be used during post-construction establishment of



native seed mixes. It is anticipated that the HOA would monitor and treat noxious weed populations on a seasonal basis. Typically, an HOA would contract a licensed and certified herbicide applicator to conduct yearly treatments for noxious weeds throughout the development.

#### 4 CONCLUSIONS AND RECOMMENDATIONS

This Noxious Weed Management Plan was written to comply with guidelines set forth in the Colorado Noxious Weed Act (Colorado Revised Statute 35-5.5-103) and the El Paso County Noxious Weed Management Plan. CORE recommends that Classic or a qualified contractor survey and subsequently treat any noxious weed populations located in the Project Area during pre-construction and construction phases. The property management entity would be responsible for maintaining a weed-free property following construction of the Project. Typically, chemical treatment would be applied between late spring and early fall, depending on the recommended treatment protocols for each noxious weed species (Appendix B).

Should you have any questions regarding this Plan or any other matter, please contact our office at (303)703-4444.

Sincerely, **CORE Consultants, Inc.** 

Istalie Draves

**Natalie Graves** Project Manager



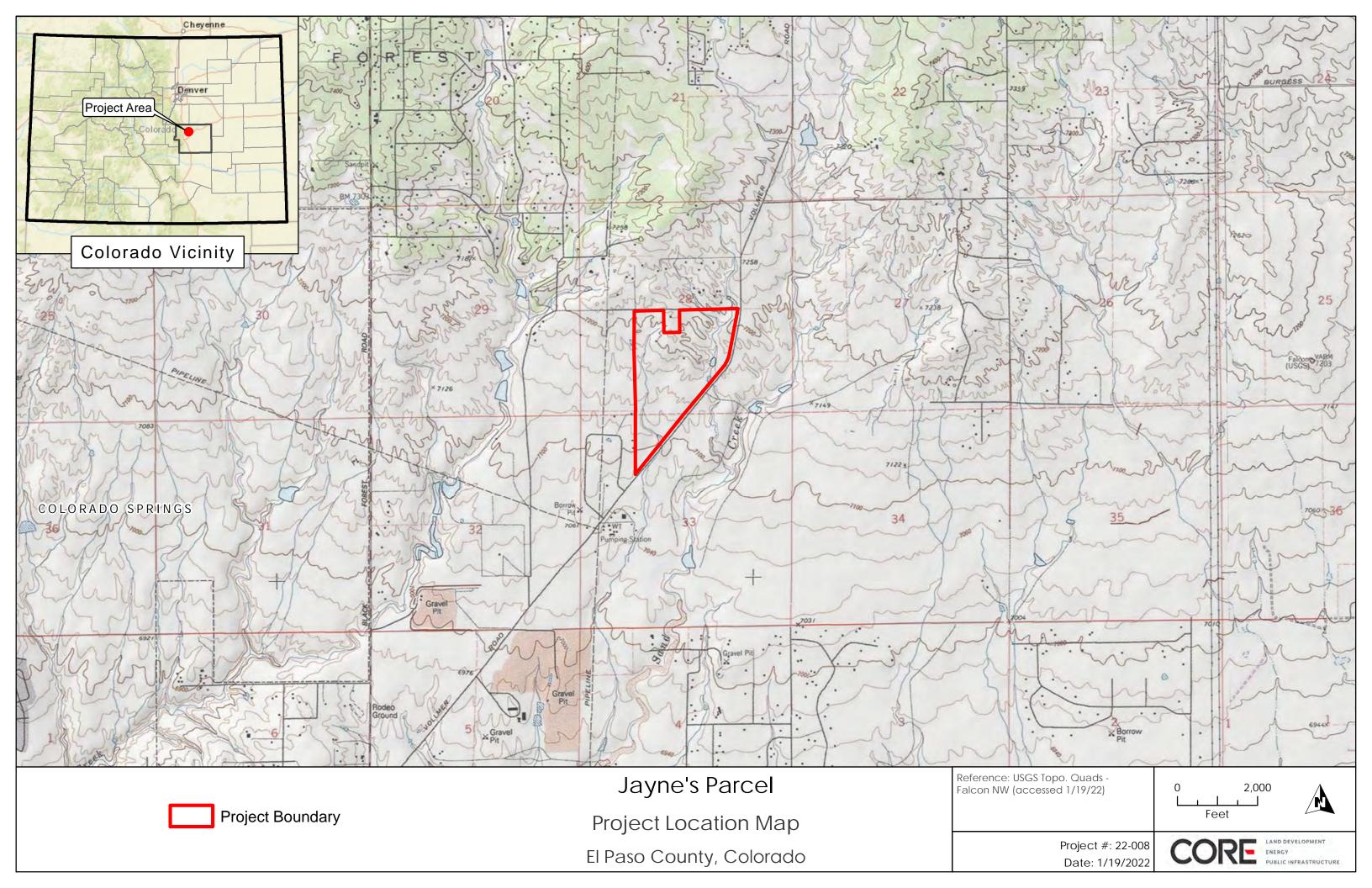
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### APPENDIX A

**Project Location Map** 





### **APPENDIX B**

El Paso County Noxious Weeds and Control Methods



### **COLORADO**

Community Services Department Environmental Division

# Noxíous Weeds and Control Methods



Orange hawkweed (EPC Environmental Division)

### **For More Information Contact:**

El Paso County Community Services Department Environmental Division 3255 Akers Drive Colorado Springs, CO 80922-1503

(719) 520-7839 or (719) 520-7846

www.elpasoco.com

Updated 2018

### CONTENTS

What is a Noxious Weed?	1
Why are Noxious Weeds a Threat?	1
How can Noxious Weeds be Managed?	2

#### List A:

Cypress spurge	
Dyer's woad	
Knotweeds: Giant, Japanese & Bohemian	
Myrtle spurge	
Orange hawkweed	11-12
Purple loosestrife	

#### List B:

Absinth wormwood	15-16
Bouncingbet	17-18
Bull thistle	19-20
Canada thistle	21-22
Chinese clematis	
Common teasel	
Dalmatian toadflax	
Diffuse knapweed	
Hoary cress (whitetop)	
Houndstongue	
Leafy spurge	35-35
Musk thistle	
Perennial pepperweed	
Russian knapweed	41-42
Russian olive	
Scentless chamomile	45-46
Scotch thistle	47-48
Spotted knapweed	49-50
Tamarisk (Salt cedar)	
Yellow toadflax	

### List C:

Common mullein	55-	-56
Downy brome / Cheatgrass	57-	-58
Field bindweed	59-	-60
Poison hemlock	61-	-62

Glossary	63
Resources	64
Contacts	65

### What is a Noxious Weed?

In 1996 the Colorado Noxious Weed Act (Title 35, Article 5.5) was passed to control noxious weeds in the state. "Noxious weed" means an alien plant or parts of an alien plant that have been designated by rule as being noxious or has been declared a noxious weed by a local advisory board, and meets one or more of the following criteria:

- (a) Aggressively invades or is detrimental to economic crops or native plant communities;
- (b) Is poisonous to livestock;
- (c) Is a carrier of detrimental insects, diseases, or parasites;
- (d) The direct or indirect effect of the presence of this plant is detrimental to the environmentally sound management of natural or agricultural ecosystems.

Plants are prioritized as List A, B, or C species by the Colorado Department of Agriculture (CDA).

- List A: Rare noxious weeds that must be eradicated statewide.
- List B: Discretely distributed noxious weeds that must be eradicated, contained, or suppressed, depending on their location, to stop their continued spread.
- List C: Widespread and well-established noxious weeds in Colorado; control is recommended by the state and may be required by local government.
- Watch List: Intended to serve advisory and educational purposes only. Identification and reporting of these species to determine future potential status of species as noxious weeds.

For more information on noxious weeds: http://www.colorado.gov/ag/weeds

### Why are Noxious Weeds a Threat?

Noxious weeds impose a wide variety of negative impacts on people, wildlife, and the environment. Livestock production and crop yields can be greatly reduced as well as adding the significant costs of weed management. Noxious weeds can also reduce the value of land when infestations are severe.

Wildlife habitat and forage are severely degraded by noxious weeds, often rendering the land totally unusable to native animals. Noxious weeds are capable of displacing native plant communities and forming monocultures in their stead, as well as threatening rare and endangered plants.

Many noxious weeds alter or damage environmental processes like hydrology, nutrient cycling, and fire cycles, or degrade the environment by increasing soil salinity or erosion. Many recreational activities such as hiking, biking, fishing, hunting, bird watching, and boating are also negatively impacted by noxious weeds.

A few noxious weed facts (http://www.invasive.org/library/):

- Estimated damage from invasive species worldwide totals more than \$1.4 trillion.
- Russian thistle stands have been known to survive more than 100 years.
- The 2003 Guinness Book of World Species listed giant hogweed as the world's largest weed.
- Before the introduction of embalming, tansy ragwort was used to line coffins before burying the dead because of its ability to repel vermin.

## How can Noxious Weeds be Managed?

The most effective way to control noxious weeds is through Integrated Pest Management (IPM). IPM incorporates weed biology, environmental Information, and available management techniques to create a management plan that prevents unacceptable damage from pests, such as weeds, and poses the least risk to people and the environment. IPM is a combination of treatment options that, when used together, provide optimum control for noxious weeds; however, IPM does not necessarily imply that multiple control techniques have to be used or that chemical control options should be avoided.

- **Prevention:** The most effective, economical, and ecologically sound management technique. The spread of noxious weeds can be prevented by cleaning equipment, vehicles, clothing, and shoes before moving to weed-free areas; using weed-free sand, soil, and gravel; and using certified weed-free seed and feed.
- **Cultural:** Establishing healthy native or other desirable vegetation. Methods include proper grazing management (prevention of overgrazing), re-vegetating or re-seeding, fertilizing, and irrigation.
- **Biological:** The use of an organism such as insects, diseases, and grazing animals to control noxious weeds; useful for large, heavily infested areas. Not an effective method when eradication is the objective, but can be used to reduce the impact and dominance of noxious weeds.
- **Mechanical:** Manual or mechanical means to remove, kill, injure, or alter growing conditions of unwanted plants. Methods include mowing, hand-pulling, tilling, mulching, cutting, and clipping seedheads.
- **Chemical:** The use of herbicides to suppress or kill noxious weeds by disrupting biochemical processes unique to plants.

Whether eradication or suppression is the objective of noxious weed management, priority should always be given to restoring desirable vegetation and a healthy ecosystem to prevent further noxious weed infestations.

This booklet lists chemical controls for noxious weeds as recommended by the Colorado Department of Agriculture (CDA). **Always read and follow the product label** to ensure proper use and application. For more information regarding agents listed for biological control, contact the CDA Palisade Insectary at 970-464-7916 or 1-866-324-2963.

# Cypress spurge



## **Cypress spurge** - Euphorbia cyparissias

A low-growing perennial containing a milky latex that is toxic to horses and cattle, and can cause severe skin irritation to people. An escaped ornamental, popular in xeriscape and rock gardens. Has an extensive root system and can reproduce from root fragments.

### Identification:

- Leaves: Linear and needle-like.
- Flowers: Yellow-green bracts, blooms early spring to late fall.
- Seeds: Projected up to 15' feet, and viable for up to 8 years.

### **Control methods:**

Biological:

Not approved for Cypress spurge, which is a List A species, since eradication is the management objective.

### Mechanical:

Hand-pull or dig while infestation is still small, removing all roots; tillage will encourage spreading. Wear rubber gloves and eye protection. Follow-up and perseverance is important.

### Chemical:

Recommendations only! Always read, understand and follow the label.

### The label is the law!

- *Quinclorac:* Apply during flowering stage.
- *2,4-D* + *Dicamba:* Apply during flowering stage.

# Dyer's woad



### Dyer's woad - Isatis tinctoria

A winter annual, biennial, or short-lived perennial. Thrives in light sandy and gravelly soils with minimum water. Ranges from 1 to 4 feet tall with a deep taproot. Causes loss of livestock forage by displacing native species. Dyer's woad is an abundant re-seeder and impacts native plant communities by outcompeting native plants.

### Identification:

- Leaves: White mid-rib on upper surface.
- Flowers: Numerous, yellow, and very small.
- Seeds: Pods turn dark purple to black.

### **Control methods:**

Early detection and control when infestations are small, as well as long -term management and monitoring, are essential to ensure eradication.

### Biological:

Not approved for Dyer's woad, which is a List A species, since eradication is the management objective.

### Mechanical:

Hand-pulling or digging when soil is moist are effective control methods. Bag plants carefully to contain seeds if the plant is flowering.

Chemical:

Recommendations only! Always read, understand and follow the label.

### The label is the law!

Metsulfuron: Apply during rosette to bloom stages.

*Chlorsulfuron*: Apply at the rosette to early bolt growth stage.

## **Knotweeds**



dnr.wi.gov



**Giant knotweed** 





## LIST A

## Giant knotweed - Polygonum sachalinense Japanese knotweed - Polygonum cuspidatum Bohemian knotweed - Polygonum x bohemicum

Bright green, bamboo-like perennial plants that grow 5 to 16 feet tall and spread through roots and root fragments. Introduced from Asia as an ornamental, for erosion control and landscape screening. They can tolerate many environmental conditions, including high temperatures and drought. Infestations can clog small waterways, displace native vegetation and degrade wildlife habitat. Bohemian knotweed is a hybrid of giant and Japanese knotweed.

### Identification:

- Leaves: Heart-shaped and bright green.
- Flowers: Small, showy, greenish-white, in clusters.
- Stems: Hollow between nodes and swollen at nodes.

### Control methods:

Biological:

Not approved for giant knotweed, which is a List A species, since eradication is the management objective.

Mechanical: Not recommended due to extensive root system.

<u>Chemical</u>:

Recommendations only! Always read, understand and follow the label.

### The label is the law!

*Glyphosate* (Aquatic): Apply evenly over leaf surface to wet, not dripping. Treat when plants are actively growing.

*Glyphosate* (Aquatic): Use calibrated injection gun to inject just below the third node from July to September.

# Myrtle spurge



## Myrtle spurge - Euphorbia myrsinites

A tap-rooted low-growing perennial with trailing fleshy stems. Also known as donkey-tail spurge. Leaves and stems have a toxic, milky sap that can cause severe skin irritations. All plant parts considered poisonous. Escaped ornamental, popular in xeriscape and rock gardens.

### Identification:

- Leaves: Fleshy, blue-green.
- Flowers: Yellow-green bracts, blooms in early spring.
- Seeds: Projected up to 15 feet, viable for up to 8 years.

### **Control methods:**

**Biological**:

Not approved for Myrtle spurge, which is a List A species, since eradication is the management objective.

### Mechanical:

Hand-pull prior to seed set, wear rubber gloves and eye protection. Follow-up is important.

Chemical:

Recommendations only! Always read, understand and follow the label.

### The label is the law!

- *2,4-D ester:* Apply in spring or during fall re-growth.
- *Dicamba* + 2,4-D: Apply in spring or during fall re-growth.
- *Picloram* + 2,4-D: Apply when flowering or during fall re-growth.

# Orange hawkweed



### **Orange hawkweed -** *Hieracium aurantiacum*

A perennial plant that has 5 to 30 bright red-orange, dandelion-like flower heads per stem. The stems and leaves are hairy and bristly and contain a milky juice. Plant reproduces from seeds and underground rhizomes.

### Identification:

- Leaves: Basal with 1 or 2 small leaves and rosette leaves.
- Flowers: Red-orange flowers, petals have notched tips.
- Stems: Hairy, contain a milky sap.

### Control methods:

Biological:

Not approved for orange hawkweed, which is a List A species, since eradication is the management objective.

#### Mechanical:

Not recommended because of ability to reproduce by stolons, rhizomes, and root fragments.

Chemical:

Recommendations only! Always read, understand and follow the label.

### The label is the law!

*Aminopyralid*: Apply when plants are in rosette to bolting stage.

*Clopyralid*: Apply when plants are in the rosette growth stage.

*Clopyralid* + 2,4-D: Apply when plants are in the rosette growth stage.

# **Purple loosestrife**



## LIST A

## Purple loosestrife - Lythrum salicaria

Escaped ornamental that often grows on riverbanks and in wet areas. Pieces of roots and stems can produce new plants, and a mature plant can produce up to 3 million seeds per year that can remain viable in the soil for 5 to 20 years.

#### Identification:

- Leaves: Whorled, smooth edges, 2 to 5 inches long, lance-shaped.
- Flowers: Purple, crushed look, 5 to 7 petals, long flower stalk.
- Stems: Four-sided (square).

#### **Control methods:**

Early detection and control when infestations are small, as well as long-term management and monitoring, are essential to ensure eradication.

**Biological**:

Not approved for purple loosestrife, which is a List A species, eradication is the management objective.

Mechanical:

Remove by hand prior to seed set. If flowering, clip all flowers and buds, bag them, then apply herbicide to plant.

Chemical:

Recommendations only! Always read, understand and follow the label.

### The label is the law!

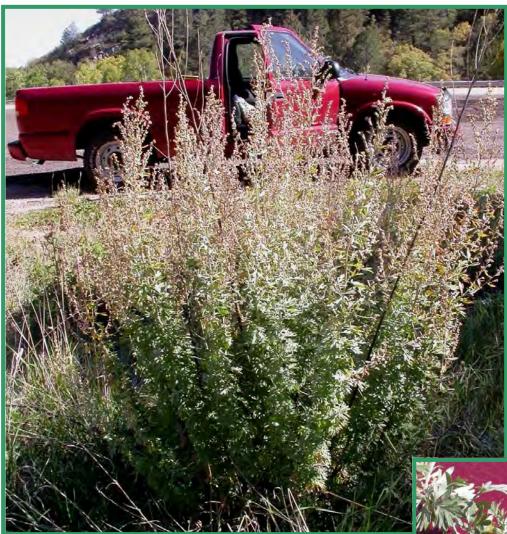
Check for aquatic-approved herbicides if growing on or near the water.

*Triclopyr:* Apply in the summer. If plants are flowering, clip, bag, and dispose of flower heads before spraying.

*Glyphosate* (aquatic): Apply in summer during flowering stage. Clip, bag, and dispose of flower heads before applying.

2,4-D Amine (aquatic): Apply in early spring. Will prevent seed formation only. Re-treatment will be necessary. DO NOT apply when outside temperatures exceed 85 degrees.

# Absinth wormwood







## Absinth wormwood - Artemisia absinthium

A long-lived perennial with a strong odor of sage. Plant can grow 2 to 4 feet in height, with a lateral root system extending 6 feet in all directions. Grows well in disturbed sites, moist soil, and is shade tolerant. Introduced for medicinal purposes.

### Identification:

- Leaves: Blue-olive green, alternate and highly divided.
- Flowers: Small, yellowish, arranged in large, spike-like panicles.
- Stems: Numerous, and covered with fine gray hairs.

### **Control methods:**

<u>Biological</u>: No biological control available.

Mechanical:

Hand-pull or dig when soil is moist. Make certain to pull all roots. Multiple mowings prior to seed production may provide a control option.

Chemical:

Recommendations only! Always read, understand and follow the label.

### The label is the law!

Aminopyralid: Apply late spring into summer flowering growth.

Aminopyralid + Metsulfuron: Apply late spring into summer flowering growth.

*Aminopyralid* + 2,4-D: Apply late spring into summer flowering growth.

Clopyralid: Apply late spring into summer flowering growth.

*Picloram* + 2,4-D: Apply late spring into summer flowering growth. Do not use near trees, shrubs or water.

# Bouncingbet



## Bouncingbet - Saponaria officinalis

An escaped ornamental forb that reproduces by seed and rhizomes. This perennial plant can be poisonous to livestock and humans. Prefers moist, well-drained soils in full sun. Is often found in municipal areas and surrounding natural areas.

### Identification:

- Leaves: Opposite, smooth, narrow, 2 to 4 inches long, 3 distinct veins from the leaf base.
- Flowers: White to light pink, 5 petals, clustered at branch ends, slightly notched apex.
- Stems: Three feet tall, erect, sparingly branched, smooth and forming.

### **Control methods:**

**Biological**:

No biological control available.

Mechanical:

Not recommended due to extensive root system. Hand-pull or dig individual plants, removing all roots when the soil is moist. Prevent seed production by clipping and disposing of flower heads.

Chemical:

Recommendations only! Always read, understand and follow the label.

### The label is the law!

*Chlorsulfuron*: Apply at bolting to bud stage, in late spring to mid-summer.

Sulfometuron-methyl: Apply at bolting to bud stage, late spring to midsummer.

# **Bull thistle**



## LIST B

## Bull thistle - Cirsium vulgare (Savi) Tenore

A biennial forb introduced as a seed contaminant. Mature plants produce up to 4,000 seeds. Presence of bull thistle in hay decreases forage and lowers market value. Will grow on gravel and clay-textured soils. Can be distinguished from musk thistle by the presence of winged spines extending to the flower heads.

### Identification:

- Leaves: Prickly-hairy on top and cottony underneath.
- Flowers: Gum-drop shaped, pinkish to dark purple.
- Seeds: Capped with circle of plume-like white hairs.

### **Control methods:**

**Biological**:

No biological control available in Colorado.

Mechanical:

Sever the root below the soil surface prior to before plant flowers.

Chemical:

Recommendations only! Always read, understand and follow the label.

#### The label is the law!

*Aminopyralid:* Apply to rosettes through plants bolting stage in spring or to fall rosettes.

Chlorsulfuron: Apply in spring from bolting to bud stages.

*Clopyralid:* Apply to rosettes through flower bud stage in spring or to fall rosettes.

Aminocyclopyrachlor + chlorsulfuron: Apply from seedling to bolting stage.

## Canada thistle



## LIST B

### Canada thistle - Cirsium arvense

A deep-rooted perennial that spreads mainly through an aggressive rhizomatous root system, but also through seed production. Often grows in wet areas, but can grow in a variety of habitats. Small pieces of root ( $\frac{1}{2}$  inch) can form new plants. Tilling and hand-pulling stimulate the growth of plants and are not an effective means of control.

### Identification:

- Leaves: Spine-tipped, dark green, oblong, and crinkled.
- Flowers: Small purple (sometimes white) clusters on ends of branches.
- Stems: Hollow and spineless.

### **Control methods:**

- <u>Biological</u>: Grazing by cattle, goats, and sheep when plants are young. Insects available; have not shown effective control.
   Rust fungus (*Puccinia punctiformis*) collection and distribution methods are being refined.
- <u>Mechanical</u>: Neither hand-pulling or tilling is an option. Mowing can be effective if done every 10 to 21 days during the growing season. Especially effective combined with fall herbicide treatment.

Chemical:

Recommendations only! Always read, understand and follow the label.

### The label is the law!

*Aminopyralid*: Apply in spring until flowering and/or to fall re-growth. Especially effective in fall after the first light frost.

*Clopyralid* + *triclopyr* : Apply in spring until flowering or fall regrowth.

Aminoclopyrachlor + chlorsulfuron: Effective from rosette to bud stage, also to fall regrowth.

## **Chinese clematis**



## Chinese clematis - Clematis orientalis

A perennial, herbaceous-to-woody climbing vine that is capable of completely covering trees and bushes, causing death to young trees and shrubs. An escaped ornamental that prefers well-drained soils and sunny locations, and is often found along roadsides, riparian areas, and rocky slopes.

### Identification:

- Flowers: Solitary, four yellow sepals (petal-like), often nodding.
- Fruits: Feathery, long-tailed, conspicuous all winter.
- Roots: Five to ten feet long.

### **Control methods:**

Biological:	No biological control agents available.
<u>Mechanical</u> :	Pull or dig up the plant prior to flowering when soil is moist; remove all roots.
<u>Chemical</u> :	
Recommendations only! Always read, understand and follow the label.	
The label is the law!	
2,4-D amine:	Apply whenever plant is actively growing. (will damage neighboring brush species if present).
Imazapic:	Apply at flowering growth stage.
Aminopyralid:	Apply at flowering growth stage.

## Common teasel



### **Common teasel -** *Dipsacus fullonum*

A biennial or sometimes monocarpic perennial forb that can grow up to 6 feet tall. Generally found along irrigation ditches, rivers, abandoned fields, pastures, waste areas, and forests. Can produce more than 2,000 seeds per plant, and seeds can stay viable for up to 14 years. Plants die after seed production.

#### Identification:

- Flowers: Purple or white and egg-shaped with spiny bracts.
- Leaves: Clasp the stem and appear wrinkled.
- Fruits: Four-angled achene, each containing a single seed.

### **Control methods:**

Biological: No biological control agents available.

<u>Mechanical</u>: Digging while at the rosette stage and cutting plants near flowering stage can be effective. Re-visit the site frequently to ensure re-growth does not occur.

Chemical:

Recommendations only! Always read, understand and follow the label.

### The label is the law!

*Metsulfuron:* Apply when in rosette or bolting growth stage.

- *Aminopyralid:* Apply when in rosette or bolting stage. Best choice of herbicide in riparian areas.
- *Imazapic:* Apply when in rosette or bolting stage.

# Dalmatian toadflax



## Dalmatian toadflax - Linaria dalmatica

A perennial forb introduced from the Mediterranean as a folk remedy, fabric dye, and ornamental. Grows up to 3 feet high in disturbed open sites, fields, pastures, rangelands, and wildlife habitats. Reproduces by seed (up to 500,000 per plant) and extensive, creeping rhizomes.

### Identification:

- Flowers: Showy yellow snapdragon-like with an orange throat.
- Leaves: Thick, waxy, bluish, heart-shaped, and wraps the stem.
- Roots: Can regenerate from vegetative buds.

### **Control methods:**

Controlling toadflax is expensive and difficult. Control when infestations are small, but prevention is the best option.

**Biological**:

Calophasia lunula - a predatory noctuid moth, feeds on flowers and leaves.

Eteobalea intermediella - root boring moth.

Mecinus janthinus - a stem boring weevil

Mechanical:

Pulling by hand can be effective for small infestations. Pull every year (5 to 6 years) to deplete root system reserves.

Chemical:

Recommendations only! Always read, understand and follow the label.

### The label is the law!

*Aminocyclopyrachlor* + *chlorsulfuron*: Apply when flowering, in spring or to fall regrowth.

## Diffuse knapweed



## LIST B

## Diffuse knapweed - Centaurea diffusa

A tap-rooted plant that is a biennial forb. It reproduces by seeds only, and is capable of producing 18,000 seeds per plant. Following seed production, the plant dries out and takes the form of a tumbleweed, spreading seeds great distances.

### Identification:

- Flowers: Usually white, sometimes lavender; spiny bracts with a distinct central spine and fringed comb-like edges.
- Leaves: Finely divided, become reduced as plant matures.

#### Control methods: Prevent seed production.

**Biological**:

Insects listed below provide good control when used together, but may take 3 to 5 years to establish and achieve optimum results.

Seedhead weevil - *Larinus minutus* Root weevil - *Cyphocleonus achates* 

#### Mechanical:

Sever the taproot below ground prior to flowering. Mowing is effective at full-bloom; plant parts must be disposed of properly as seed can still develop on cut plants.

Chemical:

Recommendations only! Always read, understand and follow the label.

### The label is the law!

*Aminocyclopyrachlor* + *chlorsulfuron:* Use as a pre-emergent or apply from seedling to mid-rosette stage.

Aminopyralid: Rosette to early bolt stage (spring) and/or in the fall to the rosettes.

Clopyralid: Apply in spring or fall to rosettes.

## Hoary cress



## Hoary cress - Cardaria draba

A.K.A. whitetop, this perennial member of the mustard family (*Brassicaceae*) reproduces by seeds and creeping rhizomes. One of the first noxious weeds to emerge in the spring, it flowers in early spring and sets seed by mid-summer. Single plants are capable of producing as many as 4,800 seeds that can remain viable in the soil for about 3 years. Hoary cress prefers moderate precipitation, alkaline soils, lots of sun, and disturbed sites, and can grow in a variety of habitats.

### Identification:

- Flowers: White with four petals, flat-topped flower clusters.
- Leaves: Blue-green, lance-shaped, serrated edges, blunt ends.
- Seeds: Heart-shaped capsules hold two flat reddish-brown seeds.

### **Control methods:**

**Biological**:

No biological control available.

### Mechanical:

Mow frequently in early spring before the bolting stage to stress the plant. Mow several times during the summer, and apply herbicide during the fall for optimum control.

### Chemical:

Recommendations only! Always read, understand and follow the label.

### The label is the law!

Chlorsulfuron: Apply while flowering.

*Metsulfuron:* Apply while flowering (Early spring to early summer).

## Houndstongue



## Houndstongue - Cynoglossum officinale

A short-lived perennial or biennial forb. Produces rosettes in the first year, and bolts a stout, erect stem that is 1 to 4 feet tall by mid-summer of the second year. Seeds have barbs like Velcro and will cling to animals, clothing, and machinery. Houndstongue is poisonous and can be lethal to wildlife and livestock.

### **Identification:**

- Flowers: Reddish-purple with 5 petals and 5 soft, hairy sepals. Slightly drooping from densely clustered panicles.
- Leaves: Lance shaped, with a smooth edge and no teeth or lobes. Leaf tip is sharply pointed, like a hound's tongue.
- Seeds: Prickly teardrop-shaped nutlets in a pyramid-shaped receptacle.

### Control methods:

**Biological**:

No biological control available.

### Mechanical:

Cut or pull plants, remove entire root crown when plants are in rosette stage.

### Chemical:

Recommendations only! Always read, understand and follow the label.

### The label is the law!

*Metsulfuron* + 2,4-D: Rosette to early flower growth stages.

*Chlorsulfuron* + 2,4-D: Rosette to early flower growth stages.

*Metsulfuron* + *chlorsulfuron*: Rosette to early flower growth stages.

# Leafy spurge



## LIST B Leafy spurge - Euphorbia esula

A long-lived perennial that emerges early in spring with an extensive creeping root system. Roots can extend to a depth of 30 feet. Plants contain a milky latex that can damage sensitive skin and eyes. A single plant can produce up to 130,000 seeds that can be projected up to 15 feet from the plant, these seeds are capable of remaining viable in the soil for at least 8 years. The plant also reproduces from the large numbers of vegetative buds on its roots.

### Identification:

- Flowers: Small, enclosed by yellowish-green heart-shaped bracts.
- Leaves: Alternate, narrow, and linear.
- Stems: Erect, 1 to 3 feet tall, unbranched except at flower clusters.

### **Control methods:**

Biological:

Both sheep and goats can be effective grazers of leafy spurge.

Three flea beetles (below) are available for control.

Flea beetle - *Ahpthona nigriscutis* Flea beetle - *Aphthona czwalinae / lacertosa* Flea beetle - *Ahpthona cyparissiae* 

Mechanical:

Hand-pulling is not an option due to the vast root system. Frequent mowing can reduce seed production but will not provide long-term control.

Chemical:

Recommendations only! Always read, understand and follow the label.

### The label is the law!

- Aminocyclopyrachlor + chlorsulfuron mixed with Diflufenzopyr + dicamba: While flowering (spring) or fall application.
- *Quinclorac* mixed with *Diflufenzopyr* + *dicamba:* While flowering (spring) or fall application.
- *Aminocyclopyrachlor* + *chlorsulfuron:* Post-emergence (spring) until flowering, or to rosettes (fall).

# Musk thistle



### LIST B

### Musk thistle - Carduus nutans

A biennial thistle with very showy flowers producing up to 20,000 seeds per plant. Flower heads often bend over or nod, giving rise to the common name "nodding thistle." Flowers emerge mid to late summer, seeds develop shortly after. Reproduces only by seeds. Often found in disturbed / overgrazed areas, but can invade various habitats.

#### Identification:

- Flowers: Purple, rarely white,1.5 to 3 inches wide, nodding, solitary on stems; large triangular-shaped, spine-tipped bracts.
- Leaves: Spiny, dark green, white margins, prominent white midrib.
- Stems: Leaves usually absent or very reduced below flower.
   Stem smooth below flower head.

Stem has winged spines throughout remainder of plant with spiny margined leaves.

#### **Control methods:**

**Biological**:

The crown weevil, Trichosirocalus horridus, is available for control.

Mechanical:

Sever the root below the soil surface prior to plant flowering. Mowing is effective at full bloom, but flowering plant parts must be disposed of properly because seeds may still develop on cut plants.

Chemical:

Recommendations only! Always read, understand and follow the label.

#### The label is the law!

*Aminopyralid:* Apply in spring during rosette to early bolting stages, or to rosettes in fall.

*Chlorsulfuron:* Apply in spring from rosette through very early flowering stages.

Clopyralid: Apply to rosette through flower bud stage or to fall rosettes.

## Perennial pepperweed



## **Perennial pepperweed** - *Lepidium latifolium*

A very invasive perennial forb. Plants act as a "salt pump" by absorbing salt from deep in the soil and then excreting salt and depositing it on the soil surface. Many plants cannot tolerate high concentrations of saline. Reproduces by seed, root fragments.

#### Identification:

- Flowers: Tiny, white in clusters on branch tips.
- Roots: Up to 10 feet deep into soil
- Leaves: Alternate, lance shaped, serrated edges.

#### **Control methods:**

**Biological**:

No biological control available.

Mechanical:

Most mechanical methods are not recommended and can increase the density of pepperweed.

Spring mowing, combined with chemical treatments can be effective.

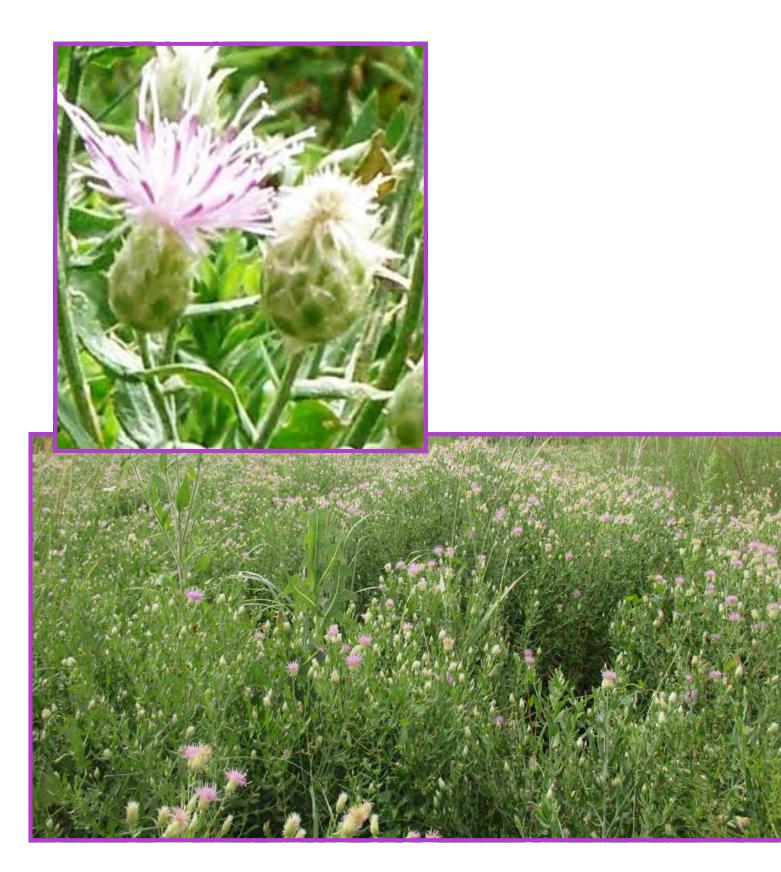
Chemical:

Recommendations only! Always read, understand and follow the label.

#### The label is the law!

*Chlorsulfuron:* Apply from early flower to flowering growth stage. *Metsulfuron:* Apply from early flower to flowering growth stage. *Imazapic:* Apply from early flower to flowering growth stage.

## **Russian knapweed**



## Russian knapweed - Acroptilon repens

A deep-rooted, creeping perennial that reproduces primarily from adventitious buds on the roots, but it also reproduces from seed. The plant is allelopathic, meaning it exudes a toxic substance that inhibits the growth of surrounding plants. It is also toxic to horses, and prolonged consumption results in "chewing disease."

#### Identification:

- Flowers: Pink to purple, urn-shaped, and solitary at the ends of upper branches, pointed papery tips on rounded bracts.
- Stems: Upright, branched, covered in short stiff hairs.
- Roots: Horizontal, vigorous, and black with a scaly appearance.

#### Control methods:

**Biological**:

The gall midge, *Jaapiella ivannikovi*, is currently being established by the Colorado Department of Agriculture, but is not yet available to the public.

#### Mechanical:

Mow several times before plants bolt. Most effective when mowing is combined with fall herbicide treatment.

Chemical:

Recommendations only! Always read, understand and follow the label.

#### The label is the law!

*Aminopyralid:* Apply in fall when stems die back or spring in the bud to flowering stage.

Aminocyclopyrachlor + clorsulfuron: Apply in fall when stems die back

## **Russian olive**



### LIST B

## Russian olive - Elaeagnus angustifolia

A fast-growing perennial shrub or small tree (up to 30 feet) that reproduces through adventitious roots and seed production. It possesses an extensive root system, and can grow on bare, mineral substrates within the soil. It tolerates many soil, light, and moisture conditions, but prefers open, moist riparian areas and often out-competes native riparian vegetation. Prior to being listed as a noxious weed by the CDA, it was commonly used for erosion control and can be found in home landscaping.

#### Identification:

- Leaves: Narrow, linear, upper surface is light green, lower surface is silvery white.
- Branches: Young twigs, reddish and flexible with 1" to 2" thorns.
- Fruit: Olive-shaped, become yellow-red when mature.

#### **Control methods:**

**Biological**:

Tubercularia canker is an unapproved bio-control; however, it can girdle entire stems and kill stressed plants over time.

Mechanical:

Cut trees, then immediately treat stumps with a herbicide to prevent re-sprouting.

Chemical:

Recommendations only! Always read, understand and follow the label.

#### The label is the law!

*Triclopyr:* Apply to the cambial layer of the tree immediately after the stump is cut or to the roots above soil surface.

Glyphosate: Apply to the cambial layer of the tree immediately

## Scentless chamomile



## LIST B

## Scentless chamomile - Matricaria perforata

An annual, biennial, or short-lived perennial forb that is native to Europe. Produces a dense mat that out-competes other plants. A single plant can produce 300,000 seeds. Seeds and flowers are continuously formed, producing many generations during the growing season.

#### Identification:

- Flowers: Yellow-centered disk surrounded by white petals, daisy-like.
- Leaves: Alternate, finely divided, fern-like.
- Stems: 6 inches to 3 feet tall with numerous branches.

#### **Control methods:**

Prevent seed production and crowd out infestations through crop competition.

**Biological**:

There is no biological control available at this time.

Mechanical:

Frequent shallow tilling can help exhaust seed bank. Hand pulling effective if repeated as new plants appear, prior to blooming.

Chemical:

Recommendations only! Always read, understand and follow the label.

#### The label is the law!

*Metsulfuron:* Apply when plant is in rosette to bolting stage.

*Chlorsulfuron*: Apply when plant is in rosette to bolting stage.

## Scotch thistle



## LIST B

### Scotch thistle - Onopordum acanthium Scotch thistle - Onopordum tauricum

A non-native biennial forb that reproduces solely by seed. Can produce up to 14,000 seeds per plant. Due to spiny nature, Scotch thistle can act as a living barbed wire fence to livestock and can grow up to 12 feet tall. Invades overgrazed pastureland, roadsides, and irrigation ditches.

#### Identification:

- Flowers: 2 to 5 clusters, purple to dark red in color.
- Leaves: Alternate, stalk-less, and spiny edged.
- Stems: Numerous, branched, with broad, spiny wings.

#### **Control methods:**

#### **Biological**:

No known biological control agents effective against Scotch thistle.

#### Mechanical:

Any physical method that severs the root below the soil surface prior to seed production will kill the plant. Properly dispose of flowering cut plants, as seeds can mature and become viable.

#### Chemical:

Recommendations only! Always read, understand and follow the label.

#### The label is the law!

Aminopyralid: Apply in spring or fall during the rosette stage.

Chlorsulfuron: From bolting to flower bud stages.

*Metsulfuron* + *Chlorsulfuron:* Appy rosette to flower bud stages.

Clopyralid: Apply to rosettes in spring or fall.

Aminocyclopyrachlor + chlorsulfuron: Apply from seedling to bolting stage. 48

# Spotted knapweed







## LIST B Spotted knapweed - Centaurea stoebe

A short-lived perennial that reproduces mostly by seed. Each plant is capable of producing an average of 900 seeds annually. Plants tend to invade disturbed / overgrazed areas and can tolerate both dry conditions and high moisture areas.

#### Identification:

- Flower: Urn-shaped, pink to purple, solitary at the end of branches with black-tipped ("spotted") spiny bracts.
- Leaves: Small, oblong, pinnately divided.
- Root: Stout taproot.

#### **Control methods:**

**Biological**:

The insects listed below are available for control:

Root weevil - Cyphocleonus achates

Seedhead weevil - Larinus minutus

This is a great option for large infestations, optimum results take 3-5 years.

Mechanical:

Dig when the soil is moist, removing all roots. Mow when plant has flower buds or early flowers to stress the plant; all parts must be disposed of properly, as seed may still develop on cut plants.

Chemical:

Recommendations only! Always read, understand and follow the label.

#### The label is the law!

Aminocyclopyrachlor + chlorsulfuron: Apply as a pre-emergent, or from seedling to rosette stage.

Aminopyralid: Apply in spring at the rosette to early bolt stage and / or in fall to the rosettes.

*Clopyralid:* Apply to spring or fall rosettes. When plants bolt, mix with 2,4-D to treat.

## Tamarisk



## LIST B

## Tamarisk (Salt cedar) - Tamarix spp.

A small shrub or tree that reproduces vegetatively and by seed. Mature plants can produce up to 600,000 seeds that are viable for up to 45 days. It increases the salinity of the soil surface, which favors its growth while hindering native plant growth. It is often found in floodplains, along river banks, stream banks, irrigation ditches, and marshes.

#### Identification:

- Flowers: Tiny, pink to white, 5 petals, slender flower stalks.
- Leaves: Small, scale-like (like juniper), bluish-green in color.
- Stems: Reddish-brown color.

#### **Control Methods:**

**Biological**:

Diorhabda elongata-Leaf beetle, is available for limited distribution.

#### Mechanical:

Bulldozing can be used to open up large stands of salt cedar; follow up with herbicide treatment of re-growth when 1 to 2 meters tall.

The cut-stump method can be applied with a chainsaw, or loppers for smaller plants.

#### Chemical:

Recommendations only! Always read, understand and follow the label.

#### The label is the law!

Cut-stump method refers to mechanically cutting down the tree, then immediately applying herbicide to the stump.

*Triclopyr:* Cut-stump & basal bark - Summer to fall.

*Glyphosate* (Aquatic): Cut-stump - Summer to fall. Treat the cambium immediately after cutting and to roots above the ground.

*Triclopyr* + *Aminopyralid:* Broadcast foliar treatment: Apply when plants are growing rapidly—May to September.

## Yellow toadflax



### LIST B

### Yellow toadflax - Linaria vulgaris

A perennial with an extensive creeping root system that reproduces vegetatively, and also through prolific seed production. It is well-adapted to moist or dry sites and is found in all soil types. Very competitive due to early spring emergence from vegetative buds on root stock. Herbicide control results can be highly variable. Known to be mildly poisonous to cattle, but little effect to sheep or goats.

#### Identification:

- Flowers: Snapdragon-like, bright yellow with orange centers, long spur.
- Leaves: Narrow, linear, 1 to 2 inches long.
- Stems: Woody at the base and smooth toward top, 1 to 3 feet tall.

#### **Control Methods:**

Controlling toadflax is expensive and difficult. Control when infestations are small. Prevention is the best option.

**Biological**:

The following insects are available for control: Noctuid moth - *Calophasia lunula* Root boring moth - *Eteobalea intermediella* Stem-boring weevil - *Mecinus janthinus* 

Mechanical:

Hand-pulling and tillage are not recommend due to its extensive creeping root system. A single new plant might be an exception.

Chemical:

Recommendations only! Always read, understand and follow the label.

#### The label is the law!

Aminocyclopyrachlor + Chlorsulfuron: Apply at flowering through fall post-flower into senescence.

*Picloram* + *Chlorsulfuron:* Fall application, late August through September has best results.

# Common mullein



### **Common mullein** - Verbascum thapsus

Common mullein, often mistaken as a native plant, is a biennial plant that originated in Eurasia. It can be found in disturbed areas, preferring dry, stony soil. It reproduces by seed, up to 250,000 per plant, which can remain viable in the soil for over 80 years.

#### Identification:

- Flowers: Yellow, saucer-shaped, attached to stem.
- Leaves: Oblong, wooly, with a rounded tip.
- Stems: Erect, rigid up to 6 feet tall covered with wooly hairs.

#### **Control Methods:**

Biological:

No insect biological control available.

Mechanical:

Easy to pull before flowering due to shallow taproot. If flowers are present, bag and dispose of plants to prevent spread of seeds.

Chemical:

Recommendations only! Always read, understand and follow the label.

#### The label is the law!

*Chlorsulfuron*: Apply in spring at rosette stage before bolting or in fall to rosettes.

2,4-D + Picloram: Apply in spring at rosette stage before bolting or in fall to rosettes.

*Picloram*: Apply in spring at rosette stage to early growth or in fall to rosettes.

Metsulfuron: Apply in spring or fall to rosettes.

## **Downy brome / Cheatgrass**





## Downy brome / Cheatgrass - Bromus tectorum

This annual or winter annual, native to the Mediterranean region, ranges in height from 2" to 36". Each plant contains multiple erect stems with multibranched inflorescences at their tips, which are slender, dense and usually drooping; at maturity they appear greenish-purple. Cheatgrass reproduces solely by seed, which is viable for 2 to 5 years. The root system is fibrous and fleshy. When mature Cheatgrass dries it becomes a major fire hazard, which has increased rangeland fire frequency from once every 60-110 years to once every 3-5 years. Habitats include roadsides, waste areas, misused pastures, rangelands, cultivated fields, and eroded sites. Grazing animals will forage on the green plants, but the sharp seeds on the dried plants can injure grazing animals, getting caught in the mouth, nose and eyes.

#### Identification:

- Inflorescences: Slender, dense, 3/8" to 3/4" long, usually drooping. Greenish-purple at maturity.
- Leaves: Flat blades, densely covered with soft hairs.
- Stems: Multiple erect stems, 2" to 36" tall.

#### **Control Methods:**

Biological:	No biological control currently available.
<u>Mechanical</u> :	Tillage, mowing and grazing help reduce established plant populations. The key to effective control is to prevent
	seed production and/or spread.

Chemical:

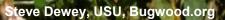
Recommendations only! Always read, understand and follow the label.

#### The label is the law!

*Imazapic:* Apply in fall prior to a hard freeze and/or early spring growth. *Glyphosate:* Apply in fall or early spring.

## Field bindweed







## LIST C

### Field bindweed - Convolvulus arvensis

A deeply rooted perennial that reproduces through seeds and rhizomes. Taproots can extend up to 20 feet deep into the soil and seeds can remain viable for up to 40 years. Commonly found throughout Colorado in, pastures, roadsides, waste areas, lawns, and gardens from 4,000 to 8,000 feet in elevation.

#### **Identification:**

- Flowers: White to light pink, trumpet or bell-shaped.
- Leaves: Arrowhead shape.
- Stems: Prostrate, twining, up to 6 feet long.

#### **Control Methods:**

**Biological**:

The Bindweed Gall Mite, *Aceria mahlerbae,* is available for control and has been successful.

#### Mechanical:

Cutting, mowing, and pulling have negligible effects unless plants are cut below the soil surface in the early seedling stage.

Chemical:

Recommendations only! Always read, understand and follow the label.

#### The label is the law!

<i>Dicamba</i> + 2,4-D:	Apply just after full bloom and/or in fall.
Picloram:	Apply just after full bloom and/or in fall.
Glyphosate:	Apply when plants are in full bloom and/or in fall.

## **Poison hemlock**



### LIST C

## Poison hemlock - Conium maculatum

This plant is native to Europe. Habits include wetland areas and roadside ditches. ALL parts of this plant are poisonous! Consumption can be fatal.

#### Identification:

- Flowers: white, umbrella-like clusters.
- Leaves: Fern-like, lacy.
- Stems: Hollow, purple spots

#### **Control Methods:**

**Biological**:

Agonopterix alstroemericana, the hemlock moth larvae feed on plant and cause sever defoliation and death of the plant.

Mechanical:

Hand pull or dig. ALWAYS wear gloves! Bag plants to contain seeds if flowering.

#### Chemical:

Recommendations only! Always read, understand and follow the label.

#### The label is the law!

2,4-D: Apply during rosette to early bolting stage.
Chlorsulfuron: Apply during rosette to early bolting stage.
Metsulfuron: Apply during rosette to early bolting stage.
Picloram + 2;4-d: Apply during rosette to early bolting stage.

## Glossary

Adventitious: Tissue that is not growing at the typical location on the plant.

Annual: A plant completing its lifecycle within a single growing season.

Apex: The tip of a leaf, root, or stem.

**Biennial:** Herbaceous plant that completes its life cycle in two years: in the first year, plants germinate and typically exist as basal rosettes; in the second year, plants bolt, flower, and die.

**Bolting:** Producing erect, elongated flowering stems from a basal rosette of leaves. Usually associated with winter annuals or biennials.

**Bracts:** A very reduced leaf-like structure usually associated with the base of a flower or inflorescence.

**Inflorescence:** The flowering part of a plant.

Midrib: Central vein of a leaf.

**Perennial:** A plant that lives through several growing seasons (more than two years).

**Restricted-Use Pesticide:** Use of pesticide requires a certified applicator's license from the Colorado Department of Agriculture.

**Rhizome:** An underground, horizontal stem capable of producing shoots above ground and roots below ground. A plant with rhizomes is often referred to as **rhizomatous** or a **creeping perennial**.

**Rosette:** A circular cluster of leaves arising from a very short stem at the surface of the soil. Lacks an erect stem.

Sepal: A flower part that usually encloses and protects the flower bud.

**Spur:** A tubular projection from a flower.

**Taproot:** A prominent root with few branches, sometimes swollen to store nutrients.

Viable: Capable of germination.

Whorl: More than two leaves or flowers attached at a node.

Listings are informational only, not an endorsement by El Paso County. Application of restricted chemicals requires a certified professional.

#### Herbicide Vendors Big R

165 Fontaine Blvd. Colorado Springs, CO 80911 (719) 390-9134

5845 Constitution Ave Colorado Springs, CO 80915 (719) 591-1830

14155 E. Highway 24 Peyton, CO 80831 (719) 749-9136

840 Spanish Bit Drive Monument, CO 80921 (719) 488-0000

#### **Herbicide Applicators**

Ark Ecological Services, LLC (303) 985-4849

Colorado Noxious Weed Management, LLC (719) 352-1981

**Colorado Vegetation Management, Inc.** (719) 545-6163

Horizon Vegetation Management (303) 419-5332

**T-P Enterprises, Inc.** (719) 243-0558

#### **Biological Control**

**Colorado Department of Agriculture Insectary** 

750 37.8 Road Palisade, CO 81526 (866) 324-2963 www.colorado.gov/agmain

## Contacts

#### **El Paso County**

Community Services Department Environmental Division 3255 Akers Drive Colorado Springs, CO 80922-1503 Phone: (719) 520-7839, (719) 520-7846 http://adm.elpasoco.com/environmental%20division/pages/default.aspx

#### **Colorado Department of Agriculture**

Conservation Services Division Noxious Weed Program 305 Interlocken Parkway Broomfield, CO 80021 https://www.colorado.gov/pacific/agmain

#### **Colorado State Forest Service**

Woodland Park District 113 South Boundary Street Woodland Park, CO 80863 Phone: (719) 687-2951, (719) 687-2921 Email: CSFS\_WoodlandPark@mail.colostate.edu http://csfs.colostate.edu/districts/woodland-park-dist/

#### **Colorado State University Extension Office**

17 N. Spruce Street Colorado Springs, CO 80905 Phone: (719) 520-7690, Master Gardeners (719) 520-7684 <u>http://elpasoco.colostate.edu/</u>

#### **Colorado Weed Management Association**

PO Box 419 Hotchkiss, CO 81419 (970) 361-8262 www.cwma.org

#### **Natural Resources Conservation Service**

Colorado Springs Service Center 5610 Industrial Place, Suite 100 Colorado Springs, CO 80916 (719) 632-9598 www.nrcs.usda.gov Simla Service Center PO Box 188 504 Washington Street Simla, CO 80835 (719) 541-2358



#### APPENDIX C

Colorado State Noxious Weed List

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

(Alphabetized by common name)

#### List A Species (25)

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

\*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)
Black henbane	(Hyoscyamus niger)
Bouncingbet	(Saponaria officinalis)
Bull thistle	(Cirsium vulgare)
Canada thistle	(Cirsium arvense)
Chinese clematis	(Clematis orientalis)
Common tansy	(Tanacetum vulgare)
Common teasel	(Dipsacus fullonum)

Cutleaf teasel	(Dipsacus laciniatus)
Dalmatian toadflax, broad-leaved	(Linaria dalmatica)
Dalmatian toadflax, narrow-leaved	(Linaria genistifolia)
Dame's rocket	(Hesperis matronalis)
Diffuse knapweed	(Centaurea diffusa)
Eurasian watermilfoil	(Myriophyllum spicatum)
Hoary cress	(Lepidium draba)

### List B Species Continued (38)

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

#### List C Species (16)

Common	Scientific
Bulbous bluegrass	(Poa bulbosa)
Chicory	(Cichorium intybus)
Common burdock	(Arctium minus)
Common mullein	(Verbascum thapsus)
Common St. Johnswort	(Hypericum perforatum)
Downy brome, cheatgrass	(Bromus tectorum)
Field bindweed	(Convolvulus arvensis)
Halogeton	(Halogeton glomeratus)
Johnsongrass	(Sorghum halepense)
Perennial sowthistle	(Sonchus arvensis)

Poison hemlock	(Conium maculatum)
Puncturevine	(Tribulus terrestris)
Quackgrass	(Elymus repens)
Redstem filaree	(Erodium cicutarium)
Velvetleaf	(Abutilon theophrasti)
Wild proso millet	(Panicum miliaceum)

#### Watch List Species (19)

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

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



#### **A**PPENDIX **E**

AGENCY CORRESPONDENCE

From:	<u>Tyler Stuart</u>
To:	Sarah.Watson@state.co.us
Cc:	Natalie Graves
Subject:	Jayne"s Parcel Project Habitat Assessment Concurrence
Date:	Monday, March 28, 2022 9:37:32 AM
Attachments:	2022-03-28 Jaynes Parcel Habitat Assessment CPW Letter.pdf

Good morning, Ms. Watson,

On behalf of Classic Communities, CORE Consultants requests concurrence from Colorado Parks and Wildlife that the Jayne's Parcel Project in El Paso County is not likely to adversely affect state-listed threatened or endangered species, Colorado species of special concern, other sensitive wildlife species, or their habitats.

We appreciate your time to review the attached habitat assessment memo and look forward to hearing from you.

Thank you,



**TYLER STUART, MA** Environmental Specialist, Biologist

3473 S. Broadway, Englewood, CO 80113 Phone 719.661.9308 \ Mobile 719.661.9308 tstuart@liveyourcore.com \ <u>liveyourcore.com</u>



LAND DEVELOPMENT \ ENERGY \ PUBLIC INFRASTRUCTURE



March 28, 2022

Ms. Sarah Watson Colorado Parks and Wildlife 4255 Sinton Road Colorado Springs, CO 80907 Sarah.Watson@state.co.us

#### RE: Habitat Assessment Jayne's Parcel Project El Paso County, Colorado

Dear Ms. Watson,

On behalf of Classic Communities, CORE Consultants, Inc. (CORE) requests concurrence from Colorado Parks and Wildlife (CPW) that the Jayne's Parcel Project (Project) in El Paso County, Colorado, is not likely to adversely affect state-listed threatened and endangered (T&E) species, Colorado species of special concern (SC), other sensitive wildlife species, or their habitats. CORE conducted a desktop review and on-site habitat assessment of the Project to assess the potential for occurrence of federal and statelisted T&E species, other sensitive species, and associated habitats. A memo documenting the results of the habitat assessment is included herein as Appendix A.

The Project Area encompasses approximately 141 acres, southwest of the intersection of Vollmer Road and Poco Road in northern El Paso County. The Project would include the development of approximately 440 residential lots and associated access roads, three small park spaces, commercial space, and a stormwater detention basin in the southern corner.

Based on queries of state-listed T&E species, Colorado SC, high priority habitats, and CPW raptor nest data, CORE identified several species on which to focus during the on-site habitat assessment. Specifically, the breeding range of burrowing owl (Athene cunicularia), a state-listed threatened species, overlaps the Project Area. Other sensitive species, including black bear (Ursus americanus), eastern red bat (Lasiurus borealis), fringed myotis (Myotis thysanodes), hoary bat (Lasiurus cinereus), little brown myotis (Myotis lucifugus), mountain lion (Puma concolor), mule deer (Odocoileus hemionus), pronghorn (Antilocapra americana), white-tailed deer (Odocoileus virginianus), and other mammals, birds, and reptiles, were also considered for likelihood of site occupancy and potential for impacts (CPW 2021). Please reference the attached habitat assessment memo for additional details about state-listed T&E species and other sensitive species.

We appreciate your review of the information provided, and kindly request CPW concurrence that Project development would not adversely affect state T&E species or other sensitive species. Should you have any questions or require additional information,



please feel free to contact our office at 303-703-4444, or directly at <u>tstuart@liveyourcore.com</u> or <u>ngraves@liveyourcore.com</u>.

Sincerely, **CORE Consultants, Inc.** 

Alt

Tyler Stuart Project Biologist

Matalie Drawes

**Natalie Graves** Project Manager

#### **Appendices**

Appendix A. Habitat Assessment Memo for Jayne's Parcel Development Project



### References

CPW (Colorado Parks and Wildlife). 2021. CPW Species Activity Mapping Data. Updated January 6, 2022. <u>https://www.arcgis.com/home/item.html?id=190573c5aba643a0bc058e6f7f0510b7</u>. Accessed January 2022.



## APPENDIX A

HABITAT ASSESSMENT MEMO FOR JAYNE'S PARCEL DEVELOPMENT PROJECT



February 17, 2022

Classic Communities 6385 Corporate Dr., Suite 200 Colorado Springs, CO 80919

#### Re: Habitat Assessment Memo Jayne's Parcel Project El Paso County, Colorado

CORE Consultants, Inc. (CORE) presents this memo summarizing a desktop review and field habitat assessment for the proposed Jayne's Parcel Project (Project) in El Paso County, Colorado. The Project spans 141 acres (Project Area) in northern El Paso County, southwest of the intersection of Vollmer Road and Poco Road. The Project Area is situated on the U.S. Geological Survey (USGS) Falcon NW 7.5-minute quadrangle (USGS 2019), on portions of Sections 28 and 33, Township 12 South, Range 65 West (Attachment I). The Project would include the development of approximately 440 residential lots, small park spaces, commercial space, and a stormwater detention basin.

CORE completed a desktop review and subsequent site reconnaissance of the Project for the following natural resources and potential biological constraints:

- Significant topographic features;
- Potential for occurrence of federally-listed threatened and endangered (T&E) species and their associated habitats;
- Federally-designated Critical Habitat for T&E species;
- Potential for occurrence of state threatened, state endangered, state species of special concern, and their associated habitats;
- Big game migratory routes and species-specific concentration areas.

Publicly-available data sources reviewed included the U.S. Fish and Wildlife Service's (USFWS) Information Planning and Consultation (IPaC) System; USFWS Critical Habitat Portal; USFWS National Wetland Inventory; Colorado Parks and Wildlife (CPW) species profiles and spatial data; USGS National Hydrography Dataset; USGS topographic maps; and U.S. Department of Agriculture National Aerial Imagery Program imagery. The on-site, wildlife habitat assessment was conducted on January 26 and 27, 2022 to field-verify results of the initial desktop review and conduct an aquatic resources delineation.

### **DESKTOP REVIEW**

#### Vegetation and Significant Topographic Features

The Project encompasses 141 acres in the Level IV Foothill Grasslands Ecoregion within the Level III Southwestern Tablelands Ecoregion. Elevations of the Project range between approximately 7,090 and 7,230 feet above mean sea level. Typical plant species within the Foothill Grasslands include ponderosa pine (*Pinus ponderosa*), mountain mahogany (*Cercocarpus montanus*),



Gambel oak (Quercus gambelii), chokecherry (Prunus virginiana), western serviceberry (Amelanchier alnifolia), little bluestem (Schizachyrium scoparium), big bluestem (Andropogon gerardii), bluebunch wheatgrass (Pseudoroegneria spicata), needle-and-thread (Hesperostipa comata), slender wheatgrass (Elymus trachycaulus), and galleta grass (Pleuraphis jamesii), among others (Chapman et al. 2006).

Two unnamed tributaries of Sand Creek drain through the Project in a southerly direction. Existing and under-construction residential development surround the Project. The Project Area has a short, east-west ridgeline with two highpoints. Aerial imagery indicated that this area supports ponderosa pines, providing a contrast in habitat to the grassland across much of the remainder of the Project Area. The man-made ponds also provide conditions to support a vegetation community that is unique within the Project Area.

### Federal Threatened and Endangered Species

The USFWS IPaC database was used to determine the potential for occurrence of federally-listed T&E species within the Project (USFWS 2022a). The IPaC query identified five species, including one bird, one fish, one flowering plant, one insect, and one mammal, as having the potential to occur within the Project. An additional four species were listed to be considered under a conditional effects analysis (Table 1). No designated Critical Habitat is mapped for any species within the Project Area (USFWS 2022b).

### Ute Ladies'-tresses Orchid

Ute ladies'-tresses orchid (*Spiranthes diluvialis*; ULTO) is a perennial orchid listed as federally threatened. This forb has ivory flower clusters arranged in a spike growing approximately 8 to 20 inches tall. ULTO is known to occur in parts of Colorado, Wyoming, Idaho, Montana, Nebraska, Utah, and Washington. The plant typically occurs within features associated with major river floodplains, including riparian edges, gravel bars, old oxbows, high flow channels, and moist to wet meadows associated with perennial streams; it is found under 6,500 feet AMSL in Colorado (USFWS 2021d). Surveys have indicated that this species may also inhabit groundwater-fed springs or sub-irrigated meadows, seeps, and human-influenced riparian habitats that receive reliable and stable spring inundation (Fertig et al. 2005; USDA 2009). Soils in areas of suitable habitat have a high micronutrient and organic matter content and display gley features when sampled (USDA 2009).

A review of spatial data and topographic maps indicates that the Project is situated at elevations between 7,090 and 7,230 feet above mean sea level, above the suitable elevations to sustain ULTO within Colorado.

#### Monarch Butterfly

Monarch butterfly (*Danaus plexippus*) is a candidate species for federal listing (USFWS 2022a). There are no Endangered Species Act Section 7 requirements for candidate species, though the U.S. Fish and Wildlife Service recommends that agencies and other parties take any opportunity to conserve a candidate species and limit further impacts. Monarchs are present in the Project region during the summer breeding season and during fall migration, using various milkweeds (*Asclepias spp.*) as host plants for egg-laying (USFWS 2021c). Limiting impacts to areas where milkweeds have potential to grow within the Project Area would limit the likelihood of impacts to monarchs from Project development.

Common Name Scientific Name	Status <sup>1</sup>	Likelihood of Occurrence
Complete Effects Analysis		
Eastern black rail Laterallus jamaicensis jamaicensis	FT	<b>None.</b> This species occupies tidal marshes and freshwater wetlands. It annually breeds along the Arkansas River in southeastern Colorado, but rarely occurs as far north as southern El Paso County. No suitable habitat is present and the Project Area is outside of this species' typical range.
Greenback cutthroat trout Oncorhynchus clarkii stomias	FT	<b>None.</b> No perennial water on site. Historically occupied steep, cold, high mountain streams and rivers in the South Platte and Arkansas River watersheds (Young 2009). A single, genetically pure population remains in Bear Creek in southwestern El Paso County (Martin et al. 2015).
Monarch butterfly Danaus plexippus	FC	Moderate. This species breeds across much of Colorado, laying eggs on milkweeds (Asclepias spp.). This species also migrates through eastern Colorado, especially in the fall (USFWS 2021c). See discussion above.
Preble's meadow jumping mouse Zapus hudsonius preblei	FT	<b>None.</b> Potential existing habitat is low quality. Project Area is within the Colorado Springs Block Clearance Area for this species, meaning it does not occur (USFWS 2012).
Ute ladies'-tresses Spiranthes diluvialis	FT	Low. See discussion above.
Conditional Effects Analysis		
Pallid sturgeon Scaphirhynchus albus	FE	Project is located outside of species' range; Project would not affect water within the S. Platte River watershed. Therefore, impacts to this species would not occur.
Piping plover Charadrius melodus	FT	Project is located outside of species' range; Project would not affect water within the S. Platte River watershed. Therefore, impacts to this species would not occur.
Western prairie fringed orchid Platanthera praeclara	FT	Project is located outside of species' range; Project would not affect water within the S. Platte River watershed. Therefore, impacts to this species would not occur.
Whooping crane Grus americana	FE	Project is located outside of species' range; Project would not affect water within the S. Platte River watershed. Therefore, impacts to this species would not occur.

<sup>1</sup>FE = Federally Endangered; FT = Federally Threatened; FC = Federal Candidate for Listing Source: USFWS 2022a

### USFWS Migratory Birds of Conservation Concern

The USFWS IPaC database was used to determine the potential for occurrence of USFWS Birds of Conservation Concern (USFWS 2022a). The IPaC query results identified two sensitive, migratory bird species: bald eagle (*Haliaeetus leucocephalus*) and ferruginous hawk (*Buteo regalis*). Bald eagles are not designated as a USFWS Bird of Conservation Concern but were included in the IPaC results due to their protection under the Bald and Golden Eagle Protection Act (16 USC §§ 668-668d). Breeding migratory birds, and the parts, nests, or eggs of such a bird receive statutory protection under the MBTA, and disturbing such species (defined at 16 U.S.C. §§ 703–712), including incidentally, is prohibited.

### CPW Species Activity Mapping and High Priority Habitats

The CPW Species Activity Mapping and High Priority Habitats spatial data were reviewed to determine the potential for the occurrence of sensitive wildlife, including big game species. CPW species profiles were also reviewed to determine the potential for the occurrence of state threatened or endangered species. The review indicated that there is potential for the occurrence of 15 mammals, 13 reptiles, and 14 birds that have CPW-mapped High Priority Habitats (Table 2).

Generally, sensitive wildlife species and Colorado Species of Special Concern (SC) do not receive statutory protection. The Project Area does not intersect with big game migratory routes, though it does intersect with mountain lion (*Puma concolor*) peripheral range, mule deer (*Odocoileus hemionus*) concentration area, and is part of a black bear (*Ursus americanus*)-human conflict area (CPW 2021). Development of residential property has the potential to attract black bear and mountain lion if trash is readily available for forage or to attract prey animals. The Project Area is within the overall range of black-tailed prairie dog (*Cynomys ludovicianus*; Table 2), which is a Colorado SC and provides nesting and roosting habitat for the state threatened burrowing owl (*Athene cunicularia*). The Project Area is also within the breeding range of burrowing owl (Table 2; CPW 2021). Breeding ranges for many sensitive bird species, as well as overall range for sensitive bats, lizards, snakes, turtles, and other wildlife, overlap the Project Area (Table 2).

COMMON NAME	SCIENTIFIC NAME	E TYPE OF OCCURRENCE	
Mammals			
Big brown bat	Eptesicus fuscus	Overall range	N/A
		Overall range, human conflict	
Black bear	Ursus americanus	area	N/A
Black-tailed prairie dog	Cynomys Iudovicianus	Overall range	SC
Dwarf shrew	Sorex nanus	Overall range	N/A
Eastern red bat	Lasiurus borealis	Overall range	N/A
Fringed myotis	Myotis thysanodes	Overall range	N/A
Hoary bat	Aeorestes cinereus	Overall range	N/A
Little brown myotis	Myotis lucifugus	Overall range	N/A
Mountain lion	Puma concolor	Overall range, peripheral 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
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
Reptiles			1
Bullsnake	Pituophis catenifer sayi	Overall range	N/A
Common lesser earless lizard	Holbrookia maculata	Overall range	N/A
Hernandez's short- horned lizard	Phrynosoma hernandesi	Overall range	N/A
Many-lined skink	Plestiodon multivirgatus	Overall range	N/A
Milk snake	Lampropeltis triangulum	Overall range	N/A
Ornate box turtle	Terrapene ornata	Overall range	N/A
Painted turtle	Chrysemys picta	Overall range	N/A
Plains garter snake	Thamnophis radix	Overall range	N/A
Prairie lizard	Scleroporus undulatus	Overall range	N/A
Prairie rattlesnake	Crotalus viridis	Overall range	N/A
Six-lined racerunner	Aspidoscelis sexlineata	Overall range	N/A
Smooth green snake	Opheodrys vernalis	Overall range	N/A

### Table 2. Sensitive Wildlife Species Potential for Occurrence

	SCIENTIFIC NAME	TYPE OF OCCURRENCE	STATUS <sup>1</sup>
Terrestrial garter snake	Thamnophis elegans	Overall range	N/A
Birds			
Band-tailed pigeon	Patagioenas fasciata	Breeding range	N/A
Brewer's sparrow	Spizella breweri	Breeding range	N/A
Burrowing owl	Athene cunicularia	Breeding range	ST
Cassin's sparrow	Peucaea cassinii	Breeding range	N/A
Golden eagle	Aquila chrysaetos	Breeding range	N/A
Grasshopper sparrow	Ammodramus savannarum	Breeding range	N/A
Lark bunting	Calamospiza melanocorys	Breeding range	N/A
Lazuli bunting	Calamospiza melanocorys	Breeding range	N/A
Lewis's woodpecker	Melanerpes lewis	Breeding range	N/A
Northern harrier	Circus hudsonius	Breeding range	N/A
Prairie falcon	Falco mexicanus	Breeding range	N/A
Rufous hummingbird	Selasphorus rufus	Migration range	N/A
Swainson's hawk	Buteo swainsoni	Breeding range	N/A
Virginia's warbler	Leiothlypis virginiae	Breeding range	N/A

<sup>1</sup>ST = State Threatened; SC = State Species of Special Concern; N/A = No special status Source: CPW 2021

### SITE RECONNAISSANCE

A site reconnaissance was conducted within the Project Area on January 26, 2022. A half-mile buffer around the Project Area was also searched and assessed for raptor nests and potential raptor nesting habitat (Study Area, inclusive of the Project Area). The on-site assessment was intended to support and expand upon the results of the desktop review. The results of the site reconnaissance are presented in the following sections.

### Vegetation and Significant Topographic Features

A diverse array of native and non-native plants was observed during the habitat assessment. Common species associated with the east-west ridge included ponderosa pine, mountain mahogany), blue grama (Bouteloua gracilis), buffalo grass (Bouteloua dactyloides), fringed sage (Artemisia frigida), plains pricklypear (Opuntia polyacantha), soapweed yucca (Yucca glauca), and spotted gayfeather (Liatris punctata). Among the common upland plant species in the meadows were Indian ricegrass (Achnatherum hymenoides), purple threeawn (Aristida purpurea), yellow indiangrass (Sorghastrum nutans), Canada wildrye (Elymus canadensis), little bluestem (Schizachyrium scoparium), big bluestem (Andropogon gerardii), smooth brome (Bromus inermis), and cheatgrass (Bromus tectorum), while cattails (Typha sp.), prairie sunflowers (Helianthus petiolaris), curly dock (Rumex crispus), and Arctic rush (Juncus arcticus) were common along portions of the streams. A complete list of the species observed is included in Table 3.

## Table 3. Plant Species Observed During the Habitat Assessment

SCIENTIFIC NAME					
Graminoids/Rushes					
Achnatherum hymenoides	Indian ricegrass				
Andropogon gerardii	Big bluestem				
Aristida purpurea	Purple threeawn				
Bouteloua gracilis	Blue grama				
Bouteloua dactyloides	Buffalo grass				
Bromus inermis	Smooth brome				
Bromus tectorum	Cheatgrass				
Elymus canadensis	Canada wildrye				
Elymus elymoides	Squirrel tail				
Juncus arcticus	Arctic rush				
Muhlenbergia montana	Mountain muhly				
Pascopyrum smithii	Western wheatgrass				
Poa pratensis	Kentucky bluegrass				
Schizachyrium scoparium	Little bluestem				
Sorghastrum nutans	Yellow Indiangrass				
Sporobolus heterolepis	Prairie dropseed				
	s/Vines/Cacti				
Achillea millefolium	Yarrow				
Artemisia frigida	Fringed sage				
Asclepias speciosa	Showy milkweed				
Bassia scoparia	Kochia				
Centaurea diffusa	Diffuse knapweed				
Cirsium vulgare	Bull thistle				
Helianthus annuus	Common sunflower				
Helianthus petiolaris	Prairie sunflower				
Heterotheca villosa	Hairy false goldenaster				
Liatris spicata	Dotted gayfeather				
Oenothera biennis	Evening primrose				
Opuntia polyacantha	Plains pricklypear				
Pediocactus simpsonii	Mountain ball cactus				
Rumex crispus	Curly dock				
Sisymbrium altissimum	Tall tumblemustard				
Symphoricarpos sp.	Snowberry				

SCIENTIFIC NAME	COMMON NAME
Tragopogon dubius	Western salsify
Typha sp.	Cattail
Verbascum thapsus	Common mullein
	Shrubs/Trees
Cercocarpus montanus	Mountain mahogany
Cornus sericea	Red-osier dogwood
Juniperus scopulorum	Rocky Mountain juniper
Pinus ponderosa	Ponderosa pine
Populus angustifolia	Narrowleaf cottonwood
Populus deltoides	Plains cottonwood
Rosa acicularis	Prickly wild rose
Salix amygdaloides	Peachleaf willow
Yucca glauca	Soapweed yucca

The narrow, east-west ridge in the central portion of the Project Area provides a microclimate that supports different vegetation than the remainder of the Project Area. Ponderosa pines are present in two distinct groves at the east and west ends of the ridge. Similarly, a small community of riparian vegetation is present within and around the man-made ponds in the Project Area. Among the plant species observed near the ponds were plains cottonwood (*Populus deltoides*), narrowleaf cottonwood (*Populus angustifolia*), peachleaf willow (*Salix amygdaloides*), red-osier dogwood (*Cornus sericea*), and cattails.

#### Eastern Black Rail

The habitat assessment confirmed that suitable marsh or other wetland habitat to support eastern black rail does not exist in the Project Area.

#### Greenback Cutthroat Trout

The habitat assessment confirmed that no perennial water sources are present in the Project Area, eliminating the possibility of greenback cutthroat trout occurrence. Furthermore, no areas downstream from the Project Area are known to support this species, and thus, no indirect impacts to greenback cutthroat trout would occur from Project development.

#### Monarch Butterfly

Showy milkweed (Asclepias speciosa) stalks and seed pods were observed in a small area (less than 20 square feet) along the western side of the Project Area, indicating that at least some egglaying habitat and forage for monarch caterpillars exists in the Project Area (Attachments II and III). Based on the Project Area's location within the monarch breeding range and along the fall migratory route for more northerly-breeding monarchs, individuals may be present in the Project Area occasionally. A targeted search for milkweed plants was not conducted during the habitat assessment; however, the low number of milkweed individuals encountered while surveying the Project Area suggests that monarch egg-laying habitat is limited.

> 3473 South Broadway Englewood, Colorado 80113 303.703.4444

### Preble's Meadow Jumping Mouse

Although the Project Area is within the northeastern boundary of the USFWS PMJM Block Clearance for Colorado Springs and vicinity (USFWS 2012), CORE nonetheless assessed whether the habitat on-site could support PMJM. Plant species identified in the Project Area that are commonly-associated with PMJM included mountain mahogany, narrowleaf cottonwood, peachleaf willow, plains cottonwood, red-osier dogwood, and snowberry. However, the stream channels lack the preferred, multilayered vegetative structure and few shrubs are present along the channels or elsewhere within the Project Area. Areas of diverse, native grasses are present in the uplands, but shrubs that could provide habitat for PMJM hibernation are lacking. Based on low quality to lack of suitable habitat and the overlap of the mapped block clearance with the Project Area, it is unlikely that PMJM would occur on site, and PMJM and its habitats would not be impacted by Project development.

### Ute Ladies'-tresses Orchid

No perennial water sources are present in the Project Area. Small wetland areas associated with the two stream channels and ponds have the highest probability of retaining water to support ULTO. However, suitable habitat features, such as river floodplains, gravel bars, oxbows, and high flow channels, which could support ULTO, were not observed. Further, the elevation of the Project Area is 500 to 700 feet higher than the maximum elevation at which ULTO is known to occur in Colorado. A rare plant survey for ULTO and a formal assessment of soil types on site was not conducted as part of the habitat assessment. Project development is not anticipated to impact ULTO or its associated habitat.

### USFWS Migratory Birds of Conservation Concern

The desktop review identified ferruginous hawk as the only USFWS Bird of Conservation Concern with potential to use the Project Area. Site reconnaissance revealed that suitable substrates for nesting raptors were present. Four inactive nests were observed in ponderosa pines within the Project Area during the assessment (Attachment IV). Each of the inactive nests was sufficiently large to potentially support nesting raptors, however, the nests cannot be reliably attributed to certain species while inactive. Another large nest was found on the ground near the north side of the eastern grove of pines (Attachments II and III). No raptor nests were found in the half-mile buffer. A nesting raptor survey during the breeding season (February 1 through July 15) would confirm the presence or absence of active raptor nests within the Project Area. If raptor nests are found, appropriate raptor nest buffers would be coordinated with CPW and should be adhered to during construction activities (CPW 2020).

### CPW Species Activity Mapping and High Priority Habitats

Two of the sensitive species for which CPW has mapped ranges and High Priority Habitats were observed within the Study Area. Pronghorn (*Antilocapra americana*) were observed throughout the habitat assessment at various locations in the Project Area and half-mile buffer; as many as 75 were seen simultaneously. A group of seven mule deer were observed in the ponderosa pine forest at the northwestern edge of the Study Area, which is mapped as part of a Mule Deer Concentration Area. Wild turkeys (*Meleagris gallopavo*) were also observed in the Project Area, though their CPW-mapped overall range only extends to the southern edge of Black Forest, immediately outside of the Study Area.

No prairie dog (*Cynomys* spp.) colonies were present within the Project Area, and no other burrows or dens were observed that would suggest nesting or roosting habitat for burrowing owls exists. The Project Area is within the burrowing owl breeding range, and thus, burrowing owls could

migrate through the area. However, the lack of nesting and roosting resources suggest burrowing owls would use the Project Area only temporarily, if at all. Additionally, areas throughout the site comprised of tall, dense grasslands would have low suitability for burrowing owls, since the species tends to prefer low, sparse vegetation (Poulin et al. 2020)

The Project Area hosts various potential resources for the sensitive bat species which could occur, including tree stands and abandoned, man-made structures for roosting and streams and ponds over which bats may forage for insects when water is present (Attachments II and III). The sensitive bat species which could be present in the Project Area, especially from May to October, include big brown bat (Eptesicus fuscus), eastern red bat (Lasiurus borealis), fringed myotis (Myotis thysanodes), hoary bat (Lasiurus cinereus), little brown myotis (Myotis lucifugus), and silver-haired bat (Lasionycteris noctivagans; CPW 2021).

Development of the Project has the potential to attract black bears, mountain lions, and prey animals, if trash from the development is not maintained in wildlife-proof storage containers. Mule deer (Odocoileus hemionus) are expected to occur regularly, even after Project development. A few small areas of rodent burrowing activity were documented, but no rodents were observed (Attachments II and III). The Project Area provides potentially suitable habitat for the sensitive reptiles with overlapping overall ranges, including along the streams and around the ponds, near rodent burrows, and among the abandoned, man-made structures. CPW Species Activity Mapping data do not include non-status amphibians (CPW 2021). Most sensitive bird species with CPW-mapped breeding ranges within the Study Area are likely to occur to varying extents, though band-tailed pigeons (*Patagioenas fasciata*) and Lewis's woodpeckers (*Melanerpes lewis*) are rarely documented in the Project vicinity (Table 2; eBird 2022). Coordination with CPW would determine if additional wildlife surveys are necessary prior to and/or during Project construction.

### CONCLUSIONS

The site reconnaissance identified a few biological constraints within the Project Area. Four inactive raptor nests were documented. A nesting raptor survey prior to construction would confirm the presence or absence of active raptor nests within the Study Area. Should the existing nests or new nests become active during the breeding season and when construction is anticipated to occur, Classic Communities should coordinate with CORE and CPW to employ appropriate restriction buffers to minimize potential impacts to nesting raptors (CPW 2020). The Project is not anticipated to result in any impacts to federally- or state-listed threatened and endangered species or their habitats. However, Classic Communities could preemptively minimize potential impacts through habitat loss for monarch butterfly, a candidate species for federal listing, by avoiding removal of milkweed plants where possible.

The occurrence of various bat, bird, reptiles, and large game species is expected to varying degrees. Potential for conflicts between humans and black bears and mountain lions are also possible. Garbage should be properly disposed of and secured during and after construction to minimize potential for these encounters. Coordination with the Colorado Parks and Wildlife would determine whether any additional wildlife surveys or permits are required.

If you have any questions, concerns or require additional information, please feel free to contact us at (303) 703-4444, or by email at tstuart@liveyourcore.com or ngraves@liveyourcore.com.



Sincerely, **CORE Consultants, Inc.** 

that

**Tyler Stuart** Biologist

Matalie Drawes

**Natalie Graves** Project Manager

## LIST OF ATTACHMENTS

ATTACHMENT I:	
ATTACHMENT II:	
ATTACHMENT III:	
ATTACHMENT IV:	

Project Location Map Photo Location Map Photographic Log Raptor Nests Map



## REFERENCES

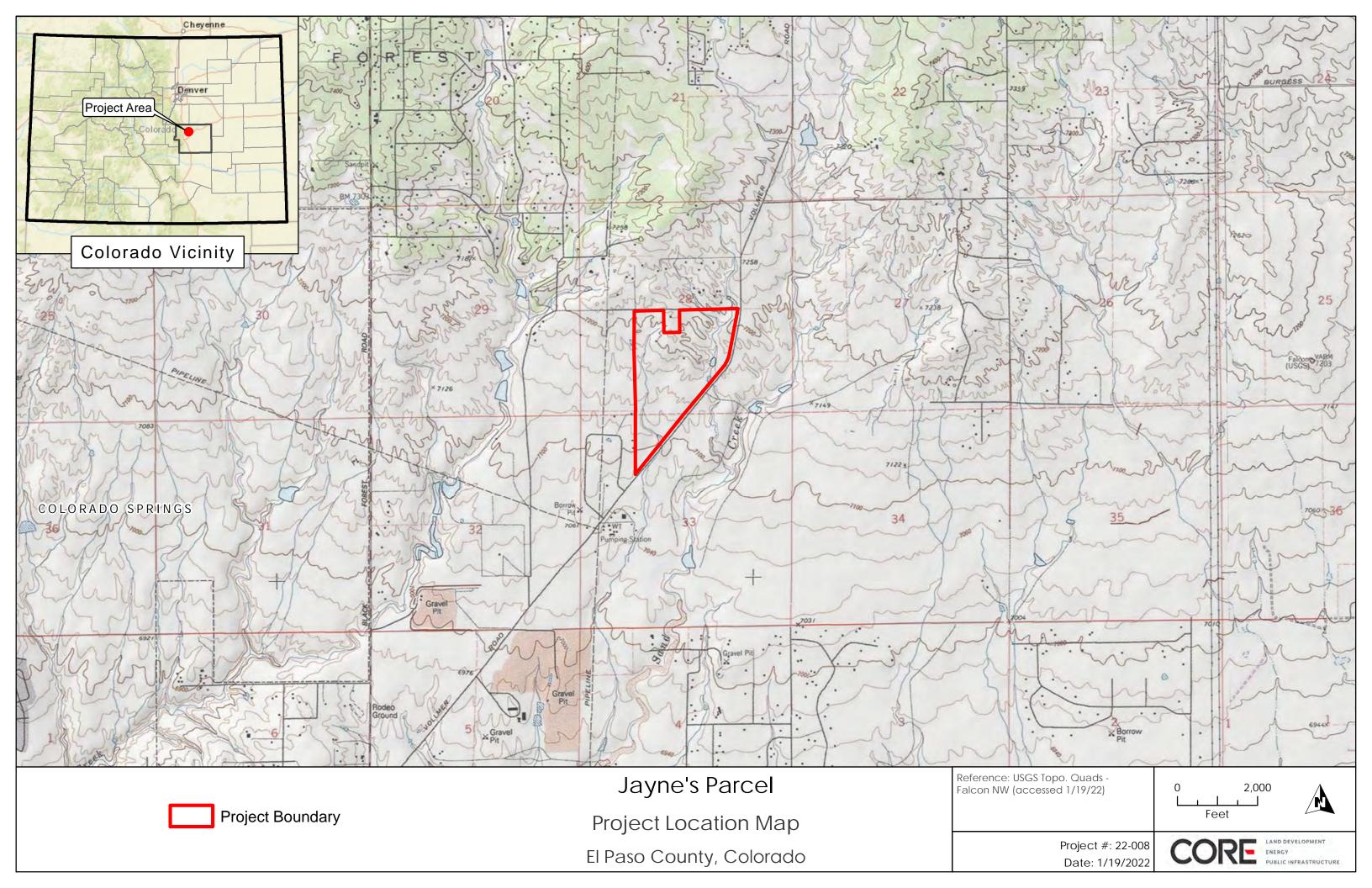
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## ATTACHMENT I

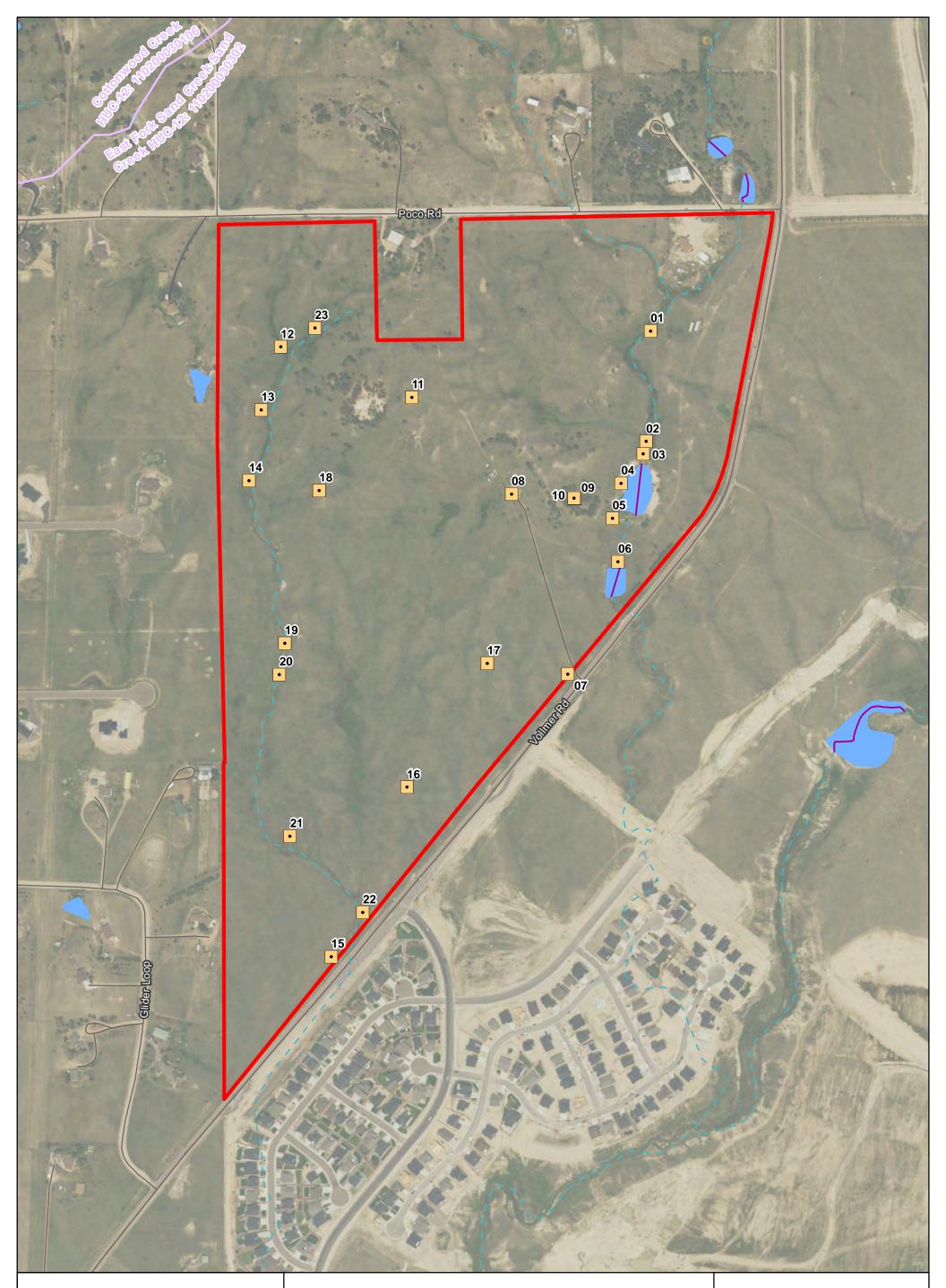
**PROJECT LOCATION MAP** 





## ATTACHMENT II

PHOTO LOCATION MAP



Jayne's Parcel

Photo Location Map

El Paso County, CO

Project Boundary	NHD Stream	NHD Waterbody	0 500 L L L L L
Photo Location	Artificial Path		reet
Street		Watershed (12- digit HUC)	Project #: 22-00 Date: 2/2/202
Reference: USGS Topograp CORE Consultants 2022, US			



## ATTACHMENT III

Photographic Log

Photo ID	Date	Latitude	Longitude	Subject	Direction Taken
JP_001	1/26/2022	38.975207	-104.670271	Eastern Stream	North
Description: N northeastern	lorthern end of corner of the Pr	the eastern stree oject Area.	ambed, downstre	eam of the house in <sup>.</sup>	the



Photo ID	Date	Latitude	Longitude	Subject	Direction Taken	
JP_002	1/26/2022	38.973793	-104.670362	Eastern Streambed and Willow	North	
Description: Peachleaf willow growing along the eastern streambed, a short distance upstream from the larger pond.						



Photo ID	Date	Latitude	Longitude	Subject	Direction Taken
JP_003	1/26/2022	38.973635	-104.670413	Large Pond	South
vegetation in	cluding peachl	eaf willows, narr	rowleaf cottonwo	oject Area, with surro ood, plains cottonwo end of the pond.	•



Photo ID	Date	Latitude	Longitude	Subject	Direction Taken
JP_004	1/26/2022	38.973261	-104.670775	Large Pond	South
	cluding peachl	• •	•	of cattails and surrour bod, plains cottonwo	U U



visible with willows at center-left in the photo.

Photo ID	Date	Latitude	Longitude	Subject	Direction Taken	
JP_006	1/26/2022	38.972267	-104.670839	Ponderosa Pines	East	
Description: A row of ponderosa pines along the west side of Vollmer Road.						

Photo ID	Date	Latitude	Longitude	Subject	Direction
JP_007	1/26/2022	38.970828	-104.671681	Southern Meadow	Taken Southwest

Description: Broad view of the large meadow at the southern end of the Project Area.

Photo ID JP_008	Date 1/26/2022	Latitude 38.973138	Longitude -104.672567	Subject Abandoned	Direction Taken West
JF_008	1/20/2022	30.7/3138	-104.6/236/	Abanaonea Structure	vvest

Description: Abandoned structure next to the main abandoned house (not pictured). The western end of the main ridge is visible in the background.





Photo ID	Date	Latitude	Longitude	Subject	Direction Taken	
JP_009	1/26/2022	38.973076	-104.671533	Abandoned Structure	West	
Description: Abandoned structure in the eastern ponderosa pine grove. This structure and the pines have potential to support roosting bats.						



Photo ID	Date	Latitude	Longitude	Subject	Direction Taken							
JP_010	1/26/2022	38.973078	-104.671547	Nest on Ground	N/A							
Description: Fallen nest on the ground in the eastern ponderosa pine grove. This nest												
appeared lar	rge enough to h	nost large raptor	S.		appeared large enough to host large raptors.							



Photo ID	Date	Latitude	Longitude	Subject	Direction Taken			
JP_011	1/26/2022	38.974386	-104.674182	Western Pine Grove	West			
Description: Looking toward the western grove of ponderosa pines from the top of the ridge.								
The mountain mahogany shrubs in the foreground have been browsed by mule deer or								
pronghorn.								

	A star	Carlins a			
Photo ID	Date	Latitude	Longitude	Subject	Direction Taken
JP_012	1/26/2022	38.975044	-104.67632	Small Tributary	Northwest

Description: A short tributary near the headwaters of the western stream in the Project Area.

Photo ID JP_013	Date 1/26/2022	Latitude 38.974236	Longitude -104.676651	Subject Western Stream	Direction Taken Southeast

Description: Looking downstream below the headwaters of the western stream.



					Taken
JP_014	1/26/2022	38.973335	-104.676866	Western Stream	North
Description: Lo	ooking upstrea	m along the we	stern stream from	near the western ec	lge of the
Project Area.					



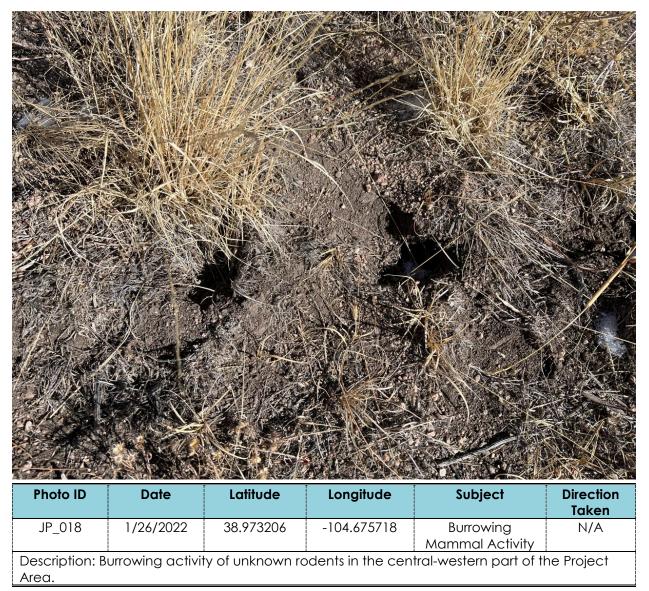


Photo ID JP_016	<b>Date</b> 1/26/2022	Latitude 38.969403	Longitude -104.67432	Subject Southern Meadow	Direction Taken West

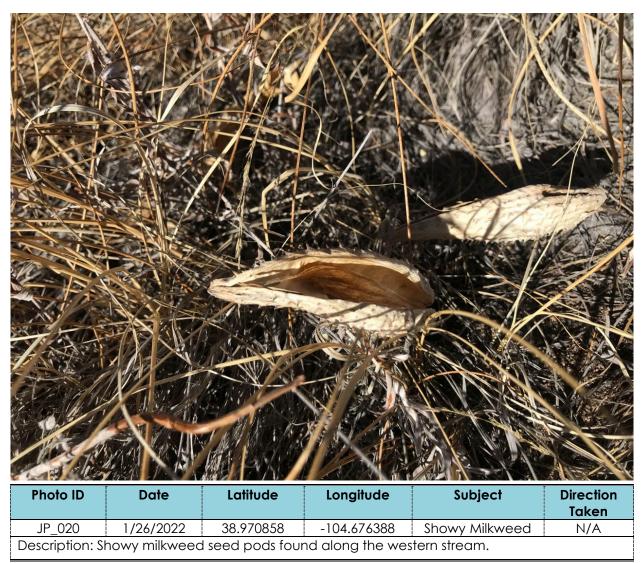
Description: Broad view across the meadow near the southern end of the Project Area.



Photo ID	Date	Latitude	Longitude	Subject	Direction Taken
JP_017	1/26/2022	38.970975	-104.672995	Meadow with House	North
Description: View of the northern portion of the southern meadow. The main abandoned homestead is visible on the left side of the skyline, among the eastern grove of ponderosa pines.					



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A Carton	A AREA A				
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Photo ID	Date	Latitude	Longitude	Subject	Direction
					Taken
JP019	1/26/2022	38.971254	-104.676308	Western Stream	South
		eam along the v	western stream n	ear the central-west	ern part of
the Project Ar	<u>A</u>				





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	and the second second	1		MAR MARANA	
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	And the second				
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				CAL INSTAN	
Photo ID	Date	Latitude	Longitude	Subject	Direction Taken
JP_022	1/26/2022	38.967813	-104.675066	Western Stream	Northwest
Description: Lo the Project Are		n along the wes	stern stream from	near its southern ter	minus within



	Date	Laiiiuae	Longitude	SUDJECT	Taken		
JP_023	1/26/2022	38.97528	-104.675763	Western Tributary	North		
Description: L	Description: Looking upstream near the headwaters of the western stream.						



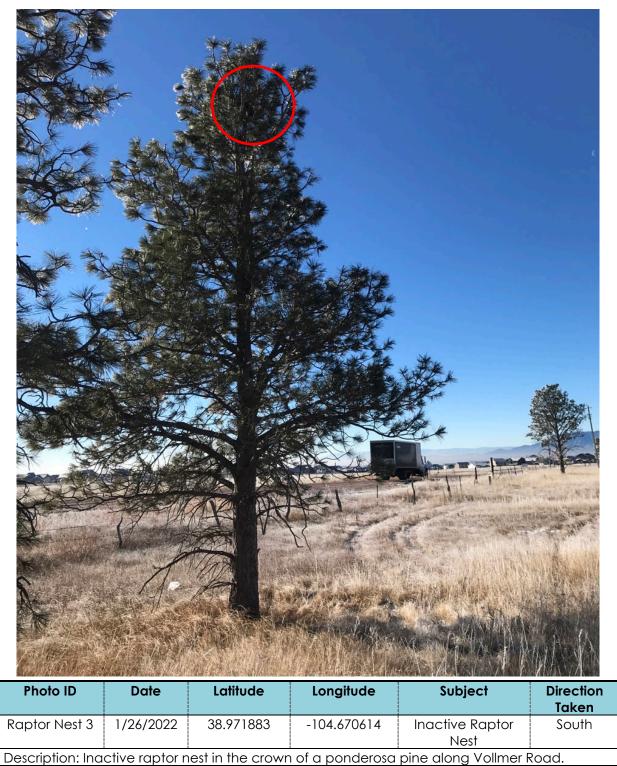
Photo ID	Date	Latitude	Longitude	Subject	Direction Taken
Raptor Nest 1	1/26/2022	38.975089	-104.675872	Inactive Raptor Nest	Northwest
Description: Inactive raptor nest in a small ponderosa pine. This is potentially an inactive, black-billed magpie nest, but has been documented in the event that a small raptor would choose to use it.					

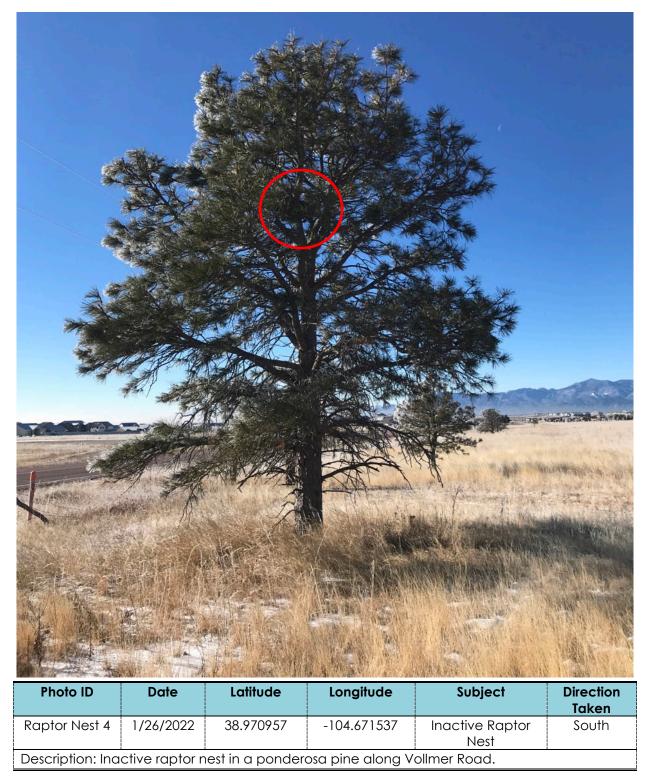




Photo ID	Date	Latitude	Longitude	Subject	Direction Taken
Raptor Nest 2	1/26/2022	38.973163	-104.671617	Inactive Raptor Nest	North
Description: Inactive raptor nest in the crown of a ponderosa pine on the ridge. This is potentially an inactive, black-billed magpie nest, but has been documented in the event that a small raptor would choose to use it.					



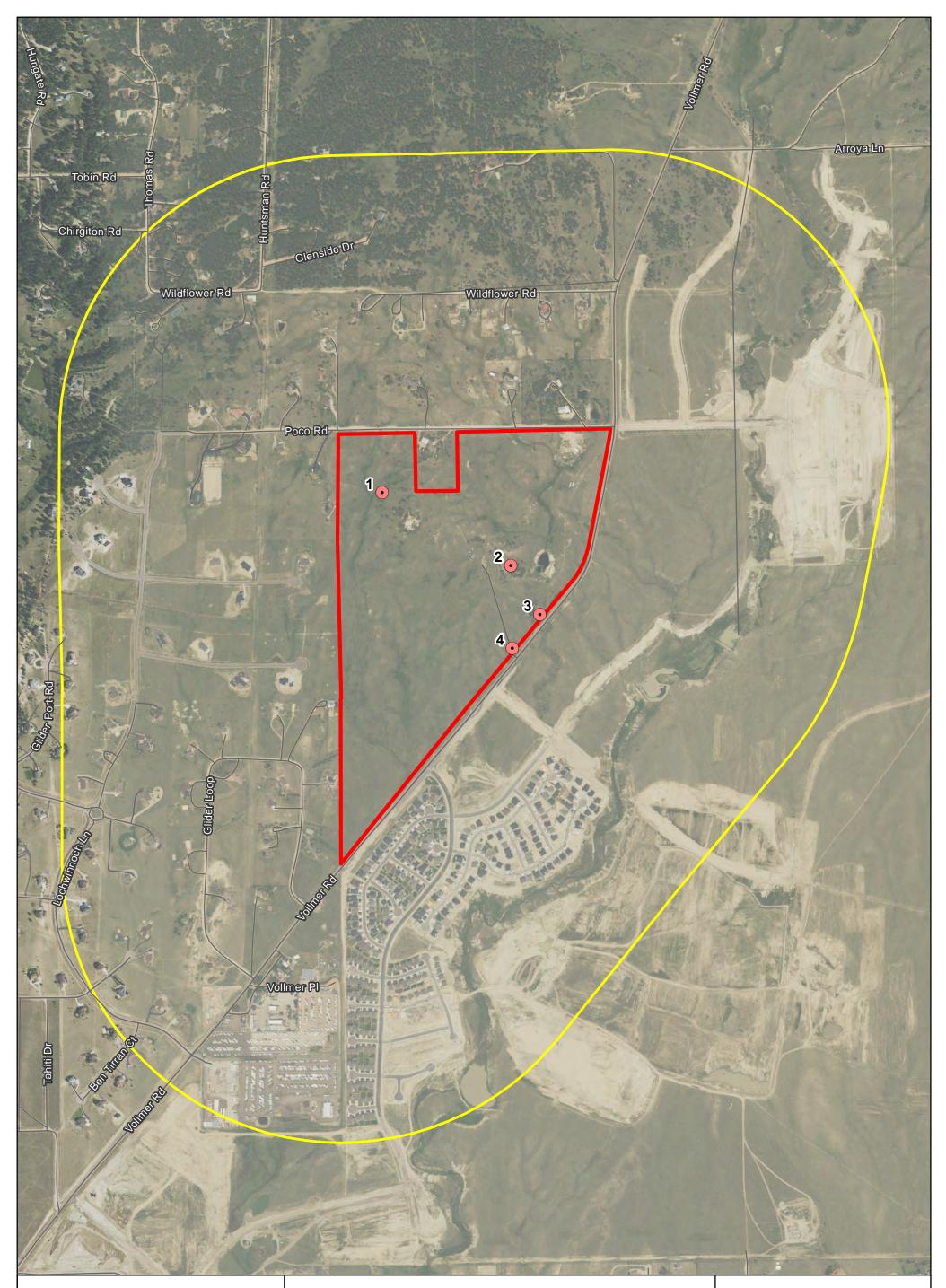






ATTACHMENT IV

RAPTOR NESTS MAP



Jayne's	Parcel
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Raptor Nests Map

El Paso County, CO

Project Boundary Raptor Nest	0 1,000
Study Area Inactive Unidentified	Feet
——— Street Species	Project #: 22-008 Date: 2/2/2022
Reference: USGS Topographic Quad: Falcon NW CORE Consultants 2022, USDA 2021	

From:	<u>Tyler Stuart</u>
То:	ColoradoES@fws.gov
Cc:	Natalie Graves
Subject:	Jayne"s Parcel Project Habitat Assessment Concurrence
Date:	Monday, March 28, 2022 9:52:26 AM
Attachments:	2022-03-28 Jaynes Parcel Habitat Assessment USFWS Letter.pdf

Good morning, Ms. Nelson,

On behalf of Classic Communities, CORE Consultants requests concurrence from U.S. Fish and Wildlife Service that the Jayne's Parcel Project in El Paso County is not likely to adversely affect federally-listed threatened or endangered species, other sensitive wildlife species, or their habitats.

We appreciate your time to review the attached habitat assessment memo and look forward to hearing from you.

Thank you,



**TYLER STUART, MA** Environmental Specialist, Biologist

3473 S. Broadway, Englewood, CO 80113 Phone 719.661.9308 \ Mobile 719.661.9308 tstuart@liveyourcore.com \ <u>liveyourcore.com</u>



LAND DEVELOPMENT \ ENERGY \ PUBLIC INFRASTRUCTURE



March 28, 2022

Ms. Marj Nelson U.S. Fish and Wildlife Service 134 Union Boulevard, Suite 650 Lakewood, Colorado 80228 ColoradoES@fws.gov

#### RE: Habitat Assessment Jayne's Parcel Development Project El Paso County, Colorado

Dear Ms. Nelson,

On behalf of Classic Communities, CORE Consultants, Inc. (CORE) requests concurrence from the U.S. Fish and Wildlife Service (USFWS) that the Jayne's Parcel Development Project (Project) in El Paso County, Colorado, is not likely to adversely affect federallylisted threatened and endangered (T&E) species or their habitats. CORE conducted a desktop review and on-site habitat assessment of the Project to assess the potential for occurrence of federal and state-listed T&E species, other sensitive species, and associated habitats. A memo documenting the results of the habitat assessment is included herein as Appendix A.

The Project Area encompasses approximately 141 acres, southwest of the intersection of Vollmer Road and Poco Road in northern El Paso County. The Project would include the development of approximately 440 residential lots and associated access roads, three small park spaces, commercial space, and a stormwater detention basin in the southern corner.

Based on a query of the USFWS Information for Planning and Consultation (IPaC) database, three federally-listed threatened species and one candidate species for listing were considered for a complete effects analysis (USFWS 2022a). These species included eastern black rail (Laterallus jamaicensis jamaicensis), greenback cutthroat trout (Oncorhynchus clarkii stomias), Ute ladies'-tresses (Spiranthes diluvialis), and monarch butterfly (Danaus plexippus). Notably, the Project Area is within, but near the edge of a block clearance area for Preble's meadow jumping mouse (Zapus hudsonius preblei); thus, CORE still considered the habitat suitability of the Project Area for this species.

The IPaC query also identified four species to consider within a conditional effects analysis, which included pallid sturgeon (*Scaphirhynchus albus*), piping plover (*Charadrius melodus*), western prairie fringed orchid (*Platanthera praeclara*), and whooping crane (*Grus americana*). CORE also considered USFWS designated critical habitat for these species, for which none was mapped within or near the Project Area (USFWS 2022b).



One USFWS Bird of Conservation Concern, ferruginous hawk (Buteo regalis), was identified by the IPaC query as having potential to occur in the Project Area (USFWS 2022a). CORE assessed the Project Area for resources that could attract and support ferruginous hawks. Please reference the attached habitat assessment memo for additional details about federally-listed T&E species and other sensitive species.

We appreciate your review of the information and kindly request USFWS concurrence that Project development would not adversely affect federal T&E species. Should you have any questions or require additional information, please feel free to contact our office at 303-703-4444, or directly at <u>tstuart@liveyourcore.com</u> or <u>ngraves@liveyourcore.com</u>.

Sincerely, **CORE Consultants, Inc.** 

Ath

Tyler Stuart Project Biologist

Matalie Draves

**Natalie Graves** Project Manager

### **Appendices**

Appendix A. Habitat Assessment Memo for Jayne's Parcel Development Project



### References

- USFWS (U.S. Fish and Wildlife Service). 2022a. Information for Planning and Consultation Online System. <u>https://ecos.fws.gov/ipac/</u>. Accessed January 2022.
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## APPENDIX A

HABITAT ASSESSMENT MEMO FOR JAYNE'S PARCEL DEVELOPMENT PROJECT



February 17, 2022

Classic Communities 6385 Corporate Dr., Suite 200 Colorado Springs, CO 80919

#### Re: Habitat Assessment Memo Jayne's Parcel Project El Paso County, Colorado

CORE Consultants, Inc. (CORE) presents this memo summarizing a desktop review and field habitat assessment for the proposed Jayne's Parcel Project (Project) in El Paso County, Colorado. The Project spans 141 acres (Project Area) in northern El Paso County, southwest of the intersection of Vollmer Road and Poco Road. The Project Area is situated on the U.S. Geological Survey (USGS) Falcon NW 7.5-minute quadrangle (USGS 2019), on portions of Sections 28 and 33, Township 12 South, Range 65 West (Attachment I). The Project would include the development of approximately 440 residential lots, small park spaces, commercial space, and a stormwater detention basin.

CORE completed a desktop review and subsequent site reconnaissance of the Project for the following natural resources and potential biological constraints:

- Significant topographic features;
- Potential for occurrence of federally-listed threatened and endangered (T&E) species and their associated habitats;
- Federally-designated Critical Habitat for T&E species;
- Potential for occurrence of state threatened, state endangered, state species of special concern, and their associated habitats;
- Big game migratory routes and species-specific concentration areas.

Publicly-available data sources reviewed included the U.S. Fish and Wildlife Service's (USFWS) Information Planning and Consultation (IPaC) System; USFWS Critical Habitat Portal; USFWS National Wetland Inventory; Colorado Parks and Wildlife (CPW) species profiles and spatial data; USGS National Hydrography Dataset; USGS topographic maps; and U.S. Department of Agriculture National Aerial Imagery Program imagery. The on-site, wildlife habitat assessment was conducted on January 26 and 27, 2022 to field-verify results of the initial desktop review and conduct an aquatic resources delineation.

### **DESKTOP REVIEW**

#### Vegetation and Significant Topographic Features

The Project encompasses 141 acres in the Level IV Foothill Grasslands Ecoregion within the Level III Southwestern Tablelands Ecoregion. Elevations of the Project range between approximately 7,090 and 7,230 feet above mean sea level. Typical plant species within the Foothill Grasslands include ponderosa pine (*Pinus ponderosa*), mountain mahogany (*Cercocarpus montanus*),



Gambel oak (Quercus gambelii), chokecherry (Prunus virginiana), western serviceberry (Amelanchier alnifolia), little bluestem (Schizachyrium scoparium), big bluestem (Andropogon gerardii), bluebunch wheatgrass (Pseudoroegneria spicata), needle-and-thread (Hesperostipa comata), slender wheatgrass (Elymus trachycaulus), and galleta grass (Pleuraphis jamesii), among others (Chapman et al. 2006).

Two unnamed tributaries of Sand Creek drain through the Project in a southerly direction. Existing and under-construction residential development surround the Project. The Project Area has a short, east-west ridgeline with two highpoints. Aerial imagery indicated that this area supports ponderosa pines, providing a contrast in habitat to the grassland across much of the remainder of the Project Area. The man-made ponds also provide conditions to support a vegetation community that is unique within the Project Area.

#### Federal Threatened and Endangered Species

The USFWS IPaC database was used to determine the potential for occurrence of federally-listed T&E species within the Project (USFWS 2022a). The IPaC query identified five species, including one bird, one fish, one flowering plant, one insect, and one mammal, as having the potential to occur within the Project. An additional four species were listed to be considered under a conditional effects analysis (Table 1). No designated Critical Habitat is mapped for any species within the Project Area (USFWS 2022b).

#### Ute Ladies'-tresses Orchid

Ute ladies'-tresses orchid (*Spiranthes diluvialis*; ULTO) is a perennial orchid listed as federally threatened. This forb has ivory flower clusters arranged in a spike growing approximately 8 to 20 inches tall. ULTO is known to occur in parts of Colorado, Wyoming, Idaho, Montana, Nebraska, Utah, and Washington. The plant typically occurs within features associated with major river floodplains, including riparian edges, gravel bars, old oxbows, high flow channels, and moist to wet meadows associated with perennial streams; it is found under 6,500 feet AMSL in Colorado (USFWS 2021d). Surveys have indicated that this species may also inhabit groundwater-fed springs or sub-irrigated meadows, seeps, and human-influenced riparian habitats that receive reliable and stable spring inundation (Fertig et al. 2005; USDA 2009). Soils in areas of suitable habitat have a high micronutrient and organic matter content and display gley features when sampled (USDA 2009).

A review of spatial data and topographic maps indicates that the Project is situated at elevations between 7,090 and 7,230 feet above mean sea level, above the suitable elevations to sustain ULTO within Colorado.

#### Monarch Butterfly

Monarch butterfly (*Danaus plexippus*) is a candidate species for federal listing (USFWS 2022a). There are no Endangered Species Act Section 7 requirements for candidate species, though the U.S. Fish and Wildlife Service recommends that agencies and other parties take any opportunity to conserve a candidate species and limit further impacts. Monarchs are present in the Project region during the summer breeding season and during fall migration, using various milkweeds (*Asclepias spp.*) as host plants for egg-laying (USFWS 2021c). Limiting impacts to areas where milkweeds have potential to grow within the Project Area would limit the likelihood of impacts to monarchs from Project development.

Common Name Scientific Name	Status <sup>1</sup>	Likelihood of Occurrence
Complete Effects Analysis		
Eastern black rail Laterallus jamaicensis jamaicensis	FT	<b>None.</b> This species occupies tidal marshes and freshwater wetlands. It annually breeds along the Arkansas River in southeastern Colorado, but rarely occurs as far north as southern El Paso County. No suitable habitat is present and the Project Area is outside of this species' typical range.
Greenback cutthroat trout Oncorhynchus clarkii stomias	FT	<b>None.</b> No perennial water on site. Historically occupied steep, cold, high mountain streams and rivers in the South Platte and Arkansas River watersheds (Young 2009). A single, genetically pure population remains in Bear Creek in southwestern El Paso County (Martin et al. 2015).
Monarch butterfly Danaus plexippus	FC	Moderate. This species breeds across much of Colorado, laying eggs on milkweeds (Asclepias spp.). This species also migrates through eastern Colorado, especially in the fall (USFWS 2021c). See discussion above.
Preble's meadow jumping mouse Zapus hudsonius preblei	FT	<b>None.</b> Potential existing habitat is low quality. Project Area is within the Colorado Springs Block Clearance Area for this species, meaning it does not occur (USFWS 2012).
Ute ladies'-tresses Spiranthes diluvialis	FT	Low. See discussion above.
Conditional Effects Analysis		
Pallid sturgeon Scaphirhynchus albus	FE	Project is located outside of species' range; Project would not affect water within the S. Platte River watershed. Therefore, impacts to this species would not occur.
Piping plover Charadrius melodus	FT	Project is located outside of species' range; Project would not affect water within the S. Platte River watershed. Therefore, impacts to this species would not occur.
Western prairie fringed orchid Platanthera praeclara	FT	Project is located outside of species' range; Project would not affect water within the S. Platte River watershed. Therefore, impacts to this species would not occur.
Whooping crane Grus americana	FE	Project is located outside of species' range; Project would not affect water within the S. Platte River watershed. Therefore, impacts to this species would not occur.

<sup>1</sup>FE = Federally Endangered; FT = Federally Threatened; FC = Federal Candidate for Listing Source: USFWS 2022a

### USFWS Migratory Birds of Conservation Concern

The USFWS IPaC database was used to determine the potential for occurrence of USFWS Birds of Conservation Concern (USFWS 2022a). The IPaC query results identified two sensitive, migratory bird species: bald eagle (*Haliaeetus leucocephalus*) and ferruginous hawk (*Buteo regalis*). Bald eagles are not designated as a USFWS Bird of Conservation Concern but were included in the IPaC results due to their protection under the Bald and Golden Eagle Protection Act (16 USC §§ 668-668d). Breeding migratory birds, and the parts, nests, or eggs of such a bird receive statutory protection under the MBTA, and disturbing such species (defined at 16 U.S.C. §§ 703–712), including incidentally, is prohibited.

#### CPW Species Activity Mapping and High Priority Habitats

The CPW Species Activity Mapping and High Priority Habitats spatial data were reviewed to determine the potential for the occurrence of sensitive wildlife, including big game species. CPW species profiles were also reviewed to determine the potential for the occurrence of state threatened or endangered species. The review indicated that there is potential for the occurrence of 15 mammals, 13 reptiles, and 14 birds that have CPW-mapped High Priority Habitats (Table 2).

Generally, sensitive wildlife species and Colorado Species of Special Concern (SC) do not receive statutory protection. The Project Area does not intersect with big game migratory routes, though it does intersect with mountain lion (*Puma concolor*) peripheral range, mule deer (*Odocoileus hemionus*) concentration area, and is part of a black bear (*Ursus americanus*)-human conflict area (CPW 2021). Development of residential property has the potential to attract black bear and mountain lion if trash is readily available for forage or to attract prey animals. The Project Area is within the overall range of black-tailed prairie dog (*Cynomys ludovicianus*; Table 2), which is a Colorado SC and provides nesting and roosting habitat for the state threatened burrowing owl (*Athene cunicularia*). The Project Area is also within the breeding range of burrowing owl (Table 2; CPW 2021). Breeding ranges for many sensitive bird species, as well as overall range for sensitive bats, lizards, snakes, turtles, and other wildlife, overlap the Project Area (Table 2).

COMMON NAME	SCIENTIFIC NAME	TYPE OF OCCURRENCE	STATUS <sup>1</sup>
Mammals			
Big brown bat	Eptesicus fuscus	Overall range	N/A
		Overall range, human conflict	
Black bear	Ursus americanus	area	N/A
Black-tailed prairie dog	Cynomys Iudovicianus	Overall range	SC
Dwarf shrew	Sorex nanus	Overall range	N/A
Eastern red bat	Lasiurus borealis	Overall range	N/A
Fringed myotis	Myotis thysanodes	Overall range	N/A
Hoary bat	Aeorestes cinereus	Overall range	N/A
Little brown myotis	Myotis lucifugus	Overall range	N/A
Mountain lion	Puma concolor	Overall range, peripheral 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
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
Reptiles			1
Bullsnake	Pituophis catenifer sayi	Overall range	N/A
Common lesser earless lizard	Holbrookia maculata	Overall range	N/A
Hernandez's short- horned lizard	Phrynosoma hernandesi	Overall range	N/A
Many-lined skink	Plestiodon multivirgatus	Overall range	N/A
Milk snake	Lampropeltis triangulum	Overall range	N/A
Ornate box turtle	Terrapene ornata	Overall range	N/A
Painted turtle	Chrysemys picta	Overall range	N/A
Plains garter snake	Thamnophis radix	Overall range	N/A
Prairie lizard	Scleroporus undulatus	Overall range	N/A
Prairie rattlesnake	Crotalus viridis	Overall range	N/A
Six-lined racerunner	Aspidoscelis sexlineata	Overall range	N/A
Smooth green snake	Opheodrys vernalis	Overall range	N/A

### Table 2. Sensitive Wildlife Species Potential for Occurrence

COMMON NAME	SCIENTIFIC NAME	TYPE OF OCCURRENCE	STATUS <sup>1</sup>
Terrestrial garter snake	Thamnophis elegans	Overall range	N/A
Birds			
Band-tailed pigeon	Patagioenas fasciata	Breeding range	N/A
Brewer's sparrow	Spizella breweri	Breeding range	N/A
Burrowing owl	Athene cunicularia	Breeding range	ST
Cassin's sparrow	Peucaea cassinii	Breeding range	N/A
Golden eagle	Aquila chrysaetos	Breeding range	N/A
Grasshopper sparrow	Ammodramus savannarum	Breeding range	N/A
Lark bunting	Calamospiza melanocorys	Breeding range	N/A
Lazuli bunting	Calamospiza melanocorys	Breeding range	N/A
Lewis's woodpecker	Melanerpes lewis	Breeding range	N/A
Northern harrier	Circus hudsonius	Breeding range	N/A
Prairie falcon	Falco mexicanus	Breeding range	N/A
Rufous hummingbird	Selasphorus rufus	Migration range	N/A
Swainson's hawk	Buteo swainsoni	Breeding range	N/A
Virginia's warbler	Leiothlypis virginiae	Breeding range	N/A

<sup>1</sup>ST = State Threatened; SC = State Species of Special Concern; N/A = No special status Source: CPW 2021

### SITE RECONNAISSANCE

A site reconnaissance was conducted within the Project Area on January 26, 2022. A half-mile buffer around the Project Area was also searched and assessed for raptor nests and potential raptor nesting habitat (Study Area, inclusive of the Project Area). The on-site assessment was intended to support and expand upon the results of the desktop review. The results of the site reconnaissance are presented in the following sections.

#### Vegetation and Significant Topographic Features

A diverse array of native and non-native plants was observed during the habitat assessment. Common species associated with the east-west ridge included ponderosa pine, mountain mahogany), blue grama (Bouteloua gracilis), buffalo grass (Bouteloua dactyloides), fringed sage (Artemisia frigida), plains pricklypear (Opuntia polyacantha), soapweed yucca (Yucca glauca), and spotted gayfeather (Liatris punctata). Among the common upland plant species in the meadows were Indian ricegrass (Achnatherum hymenoides), purple threeawn (Aristida purpurea), yellow indiangrass (Sorghastrum nutans), Canada wildrye (Elymus canadensis), little bluestem (Schizachyrium scoparium), big bluestem (Andropogon gerardii), smooth brome (Bromus inermis), and cheatgrass (Bromus tectorum), while cattails (Typha sp.), prairie sunflowers (Helianthus petiolaris), curly dock (Rumex crispus), and Arctic rush (Juncus arcticus) were common along portions of the streams. A complete list of the species observed is included in Table 3.

### Table 3. Plant Species Observed During the Habitat Assessment

SCIENTIFIC NAME	COMMON NAME					
Graminoids/Rushes						
Achnatherum hymenoides	Indian ricegrass					
Andropogon gerardii	Big bluestem					
Aristida purpurea	Purple threeawn					
Bouteloua gracilis	Blue grama					
Bouteloua dactyloides	Buffalo grass					
Bromus inermis	Smooth brome					
Bromus tectorum	Cheatgrass					
Elymus canadensis	Canada wildrye					
Elymus elymoides	Squirrel tail					
Juncus arcticus	Arctic rush					
Muhlenbergia montana	Mountain muhly					
Pascopyrum smithii	Western wheatgrass					
Poa pratensis	Kentucky bluegrass					
Schizachyrium scoparium	Little bluestem					
Sorghastrum nutans	Yellow Indiangrass					
Sporobolus heterolepis	Prairie dropseed					
	orbs/Vines/Cacti					
Achillea millefolium	Yarrow					
Artemisia frigida	Fringed sage					
Asclepias speciosa	Showy milkweed					
Bassia scoparia	Kochia					
Centaurea diffusa	Diffuse knapweed					
Cirsium vulgare	Bull thistle					
Helianthus annuus	Common sunflower					
Helianthus petiolaris	Prairie sunflower					
Heterotheca villosa	Hairy false goldenaster					
Liatris spicata	Dotted gayfeather					
Oenothera biennis	Evening primrose					
Opuntia polyacantha	Plains pricklypear					
Pediocactus simpsonii	Mountain ball cactus					
Rumex crispus	Curly dock					
Sisymbrium altissimum	Tall tumblemustard					
Symphoricarpos sp.	Snowberry					

SCIENTIFIC NAME	COMMON NAME			
Tragopogon dubius	Western salsify			
Typha sp.	Cattail			
Verbascum thapsus	Common mullein			
Shrubs/Trees				
Cercocarpus montanus	Mountain mahogany			
Cornus sericea	Red-osier dogwood			
Juniperus scopulorum	Rocky Mountain juniper			
Pinus ponderosa	Ponderosa pine			
Populus angustifolia	Narrowleaf cottonwood			
Populus deltoides	Plains cottonwood			
Rosa acicularis	Prickly wild rose			
Salix amygdaloides	Peachleaf willow			
Yucca glauca	Soapweed yucca			

The narrow, east-west ridge in the central portion of the Project Area provides a microclimate that supports different vegetation than the remainder of the Project Area. Ponderosa pines are present in two distinct groves at the east and west ends of the ridge. Similarly, a small community of riparian vegetation is present within and around the man-made ponds in the Project Area. Among the plant species observed near the ponds were plains cottonwood (*Populus deltoides*), narrowleaf cottonwood (*Populus angustifolia*), peachleaf willow (*Salix amygdaloides*), red-osier dogwood (*Cornus sericea*), and cattails.

#### Eastern Black Rail

The habitat assessment confirmed that suitable marsh or other wetland habitat to support eastern black rail does not exist in the Project Area.

#### Greenback Cutthroat Trout

The habitat assessment confirmed that no perennial water sources are present in the Project Area, eliminating the possibility of greenback cutthroat trout occurrence. Furthermore, no areas downstream from the Project Area are known to support this species, and thus, no indirect impacts to greenback cutthroat trout would occur from Project development.

#### Monarch Butterfly

Showy milkweed (Asclepias speciosa) stalks and seed pods were observed in a small area (less than 20 square feet) along the western side of the Project Area, indicating that at least some egglaying habitat and forage for monarch caterpillars exists in the Project Area (Attachments II and III). Based on the Project Area's location within the monarch breeding range and along the fall migratory route for more northerly-breeding monarchs, individuals may be present in the Project Area occasionally. A targeted search for milkweed plants was not conducted during the habitat assessment; however, the low number of milkweed individuals encountered while surveying the Project Area suggests that monarch egg-laying habitat is limited.

> 3473 South Broadway Englewood, Colorado 80113 303.703.4444

### Preble's Meadow Jumping Mouse

Although the Project Area is within the northeastern boundary of the USFWS PMJM Block Clearance for Colorado Springs and vicinity (USFWS 2012), CORE nonetheless assessed whether the habitat on-site could support PMJM. Plant species identified in the Project Area that are commonly-associated with PMJM included mountain mahogany, narrowleaf cottonwood, peachleaf willow, plains cottonwood, red-osier dogwood, and snowberry. However, the stream channels lack the preferred, multilayered vegetative structure and few shrubs are present along the channels or elsewhere within the Project Area. Areas of diverse, native grasses are present in the uplands, but shrubs that could provide habitat for PMJM hibernation are lacking. Based on low quality to lack of suitable habitat and the overlap of the mapped block clearance with the Project Area, it is unlikely that PMJM would occur on site, and PMJM and its habitats would not be impacted by Project development.

#### Ute Ladies'-tresses Orchid

No perennial water sources are present in the Project Area. Small wetland areas associated with the two stream channels and ponds have the highest probability of retaining water to support ULTO. However, suitable habitat features, such as river floodplains, gravel bars, oxbows, and high flow channels, which could support ULTO, were not observed. Further, the elevation of the Project Area is 500 to 700 feet higher than the maximum elevation at which ULTO is known to occur in Colorado. A rare plant survey for ULTO and a formal assessment of soil types on site was not conducted as part of the habitat assessment. Project development is not anticipated to impact ULTO or its associated habitat.

#### USFWS Migratory Birds of Conservation Concern

The desktop review identified ferruginous hawk as the only USFWS Bird of Conservation Concern with potential to use the Project Area. Site reconnaissance revealed that suitable substrates for nesting raptors were present. Four inactive nests were observed in ponderosa pines within the Project Area during the assessment (Attachment IV). Each of the inactive nests was sufficiently large to potentially support nesting raptors, however, the nests cannot be reliably attributed to certain species while inactive. Another large nest was found on the ground near the north side of the eastern grove of pines (Attachments II and III). No raptor nests were found in the half-mile buffer. A nesting raptor survey during the breeding season (February 1 through July 15) would confirm the presence or absence of active raptor nests within the Project Area. If raptor nests are found, appropriate raptor nest buffers would be coordinated with CPW and should be adhered to during construction activities (CPW 2020).

#### CPW Species Activity Mapping and High Priority Habitats

Two of the sensitive species for which CPW has mapped ranges and High Priority Habitats were observed within the Study Area. Pronghorn (*Antilocapra americana*) were observed throughout the habitat assessment at various locations in the Project Area and half-mile buffer; as many as 75 were seen simultaneously. A group of seven mule deer were observed in the ponderosa pine forest at the northwestern edge of the Study Area, which is mapped as part of a Mule Deer Concentration Area. Wild turkeys (*Meleagris gallopavo*) were also observed in the Project Area, though their CPW-mapped overall range only extends to the southern edge of Black Forest, immediately outside of the Study Area.

No prairie dog (*Cynomys* spp.) colonies were present within the Project Area, and no other burrows or dens were observed that would suggest nesting or roosting habitat for burrowing owls exists. The Project Area is within the burrowing owl breeding range, and thus, burrowing owls could

migrate through the area. However, the lack of nesting and roosting resources suggest burrowing owls would use the Project Area only temporarily, if at all. Additionally, areas throughout the site comprised of tall, dense grasslands would have low suitability for burrowing owls, since the species tends to prefer low, sparse vegetation (Poulin et al. 2020)

The Project Area hosts various potential resources for the sensitive bat species which could occur, including tree stands and abandoned, man-made structures for roosting and streams and ponds over which bats may forage for insects when water is present (Attachments II and III). The sensitive bat species which could be present in the Project Area, especially from May to October, include big brown bat (Eptesicus fuscus), eastern red bat (Lasiurus borealis), fringed myotis (Myotis thysanodes), hoary bat (Lasiurus cinereus), little brown myotis (Myotis lucifugus), and silver-haired bat (Lasionycteris noctivagans; CPW 2021).

Development of the Project has the potential to attract black bears, mountain lions, and prey animals, if trash from the development is not maintained in wildlife-proof storage containers. Mule deer (Odocoileus hemionus) are expected to occur regularly, even after Project development. A few small areas of rodent burrowing activity were documented, but no rodents were observed (Attachments II and III). The Project Area provides potentially suitable habitat for the sensitive reptiles with overlapping overall ranges, including along the streams and around the ponds, near rodent burrows, and among the abandoned, man-made structures. CPW Species Activity Mapping data do not include non-status amphibians (CPW 2021). Most sensitive bird species with CPW-mapped breeding ranges within the Study Area are likely to occur to varying extents, though band-tailed pigeons (*Patagioenas fasciata*) and Lewis's woodpeckers (*Melanerpes lewis*) are rarely documented in the Project vicinity (Table 2; eBird 2022). Coordination with CPW would determine if additional wildlife surveys are necessary prior to and/or during Project construction.

### CONCLUSIONS

The site reconnaissance identified a few biological constraints within the Project Area. Four inactive raptor nests were documented. A nesting raptor survey prior to construction would confirm the presence or absence of active raptor nests within the Study Area. Should the existing nests or new nests become active during the breeding season and when construction is anticipated to occur, Classic Communities should coordinate with CORE and CPW to employ appropriate restriction buffers to minimize potential impacts to nesting raptors (CPW 2020). The Project is not anticipated to result in any impacts to federally- or state-listed threatened and endangered species or their habitats. However, Classic Communities could preemptively minimize potential impacts through habitat loss for monarch butterfly, a candidate species for federal listing, by avoiding removal of milkweed plants where possible.

The occurrence of various bat, bird, reptiles, and large game species is expected to varying degrees. Potential for conflicts between humans and black bears and mountain lions are also possible. Garbage should be properly disposed of and secured during and after construction to minimize potential for these encounters. Coordination with the Colorado Parks and Wildlife would determine whether any additional wildlife surveys or permits are required.

If you have any questions, concerns or require additional information, please feel free to contact us at (303) 703-4444, or by email at tstuart@liveyourcore.com or ngraves@liveyourcore.com.



Sincerely, **CORE Consultants, Inc.** 

that

**Tyler Stuart** Biologist

Matalie Drawes

**Natalie Graves** Project Manager

## LIST OF ATTACHMENTS

ATTACHMENT I:	
ATTACHMENT II:	
ATTACHMENT III:	
ATTACHMENT IV:	

Project Location Map Photo Location Map Photographic Log Raptor Nests Map



## REFERENCES

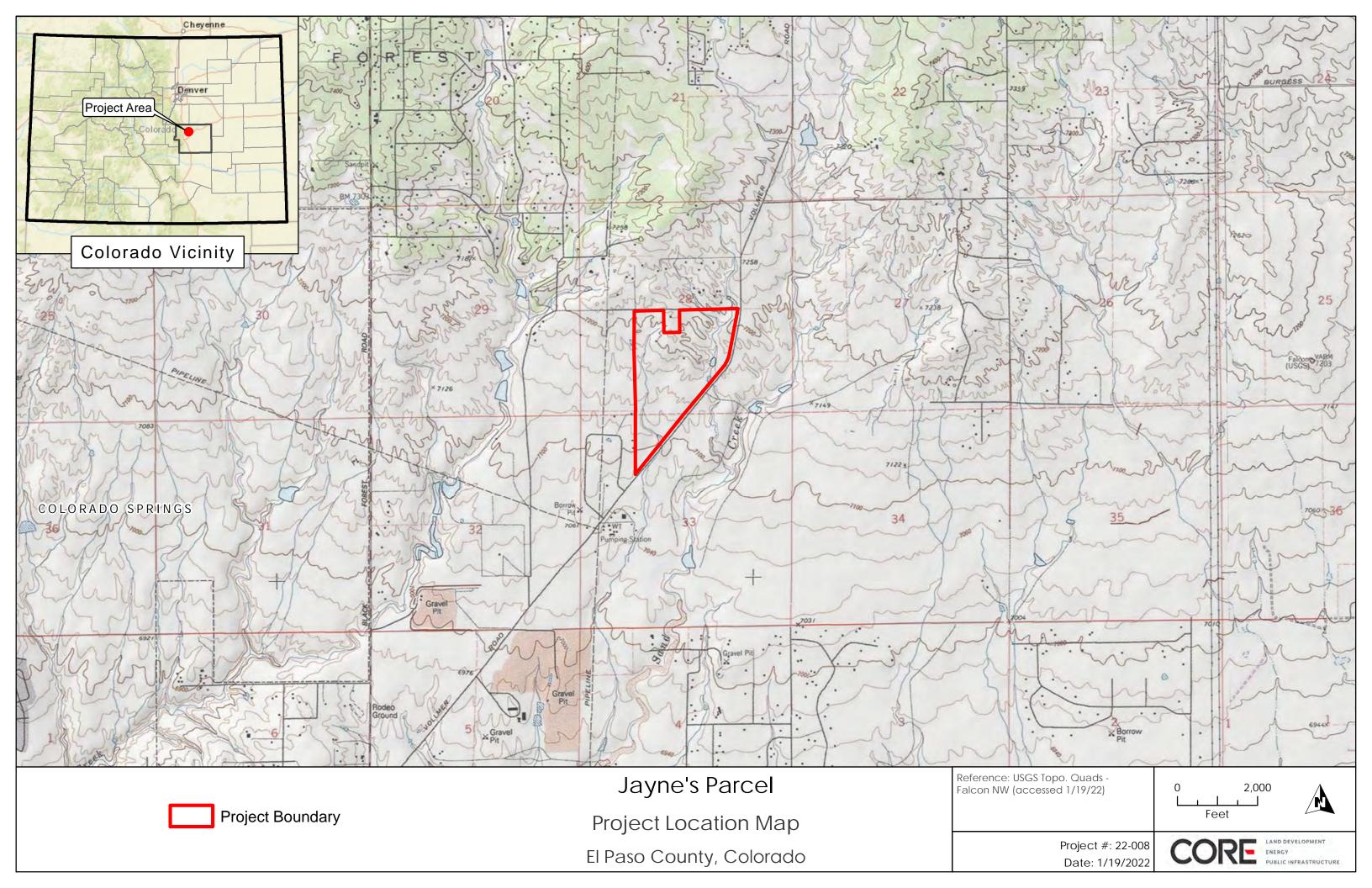
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## ATTACHMENT I

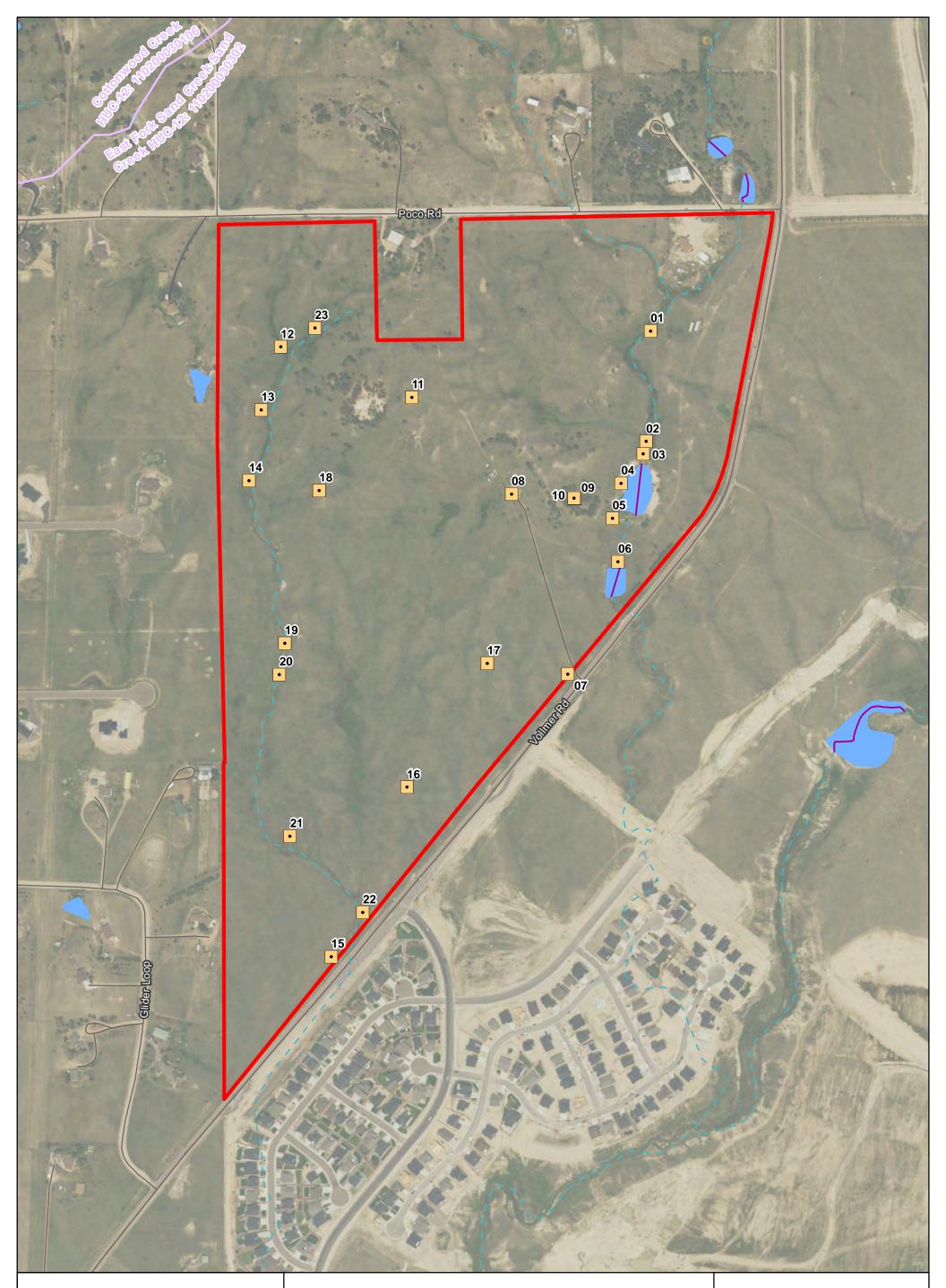
**PROJECT LOCATION MAP** 





## ATTACHMENT II

PHOTO LOCATION MAP



Jayne's Parcel

Photo Location Map

El Paso County, CO

Project Boundary	NHD Stream	NHD Waterbody	0 500 L L L L L
Photo Location	Artificial Path		reet
Street		Watershed (12- digit HUC)	Project #: 22-00 Date: 2/2/202
Reference: USGS Topograp CORE Consultants 2022, US			



## ATTACHMENT III

Photographic Log

Photo ID	Date	Latitude	Longitude	Subject	Direction Taken
JP_001	1/26/2022	38.975207	-104.670271	Eastern Stream	North
Description: N northeastern	lorthern end of corner of the Pr	the eastern stree oject Area.	ambed, downstre	eam of the house in <sup>.</sup>	the



Photo ID	Date	Latitude	Longitude	Subject	Direction Taken		
JP_002	1/26/2022	38.973793	-104.670362	Eastern Streambed and Willow	North		
Description: Peachleaf willow growing along the eastern streambed, a short distance upstream from the larger pond.							



Photo ID	Date	Latitude	Longitude	Subject	Direction Taken		
JP_003 1/26/2022 38.973635 -104.670413 Large Pond South							
vegetation in	cluding peachl	eaf willows, narr	rowleaf cottonwo	oject Area, with surro ood, plains cottonwo end of the pond.	•		



Photo ID	Date	Latitude	Longitude	Subject	Direction Taken			
JP_004 1/26/2022 38.973261 -104.670775 Large Pond South								
Description: South end of the large pond with a small patch of cattails and surrounding vegetation including peachleaf willows, narrowleaf cottonwood, plains cottonwood, and ponderosa pine.								



visible with willows at center-left in the photo.

Photo ID	Date	Latitude	Longitude	Subject	Direction Taken
JP_006	1/26/2022	38.972267	-104.670839	Ponderosa Pines	East
Description: A	row of ponder	osa pines along	the west side of	Vollmer Road.	

Photo ID	Date	Latitude	Longitude	Subject	Direction
JP_007	1/26/2022	38.970828	-104.671681	Southern Meadow	Taken Southwest

Description: Broad view of the large meadow at the southern end of the Project Area.

Photo IDDateLatitudeLongitudeSubjectDirJP_0081/26/202238.973138-104.672567AbandonedN	

Description: Abandoned structure next to the main abandoned house (not pictured). The western end of the main ridge is visible in the background.





Photo ID	Date	Latitude	Longitude	Subject	Direction Taken		
JP_009	1/26/2022	38.973076	-104.671533	Abandoned Structure	West		
Description: Abandoned structure in the eastern ponderosa pine grove. This structure and the pines have potential to support roosting bats.							



Photo ID	Date	Latitude	Longitude	Subject	Direction Taken		
JP_010 1/26/2022 38.973078 -104.671547 Nest on Ground N/A							
Description: Fallen nest on the ground in the eastern ponderosa pine grove. This nest							
appeared lar	rge enough to h	nost large raptor	S.				



Photo ID	Date	Latitude	Longitude	Subject	Direction Taken			
JP_011 1/26/2022 38.974386 -104.674182 Western Pine Grove West								
Description: Looking toward the western grove of ponderosa pines from the top of the ridge.								
The mountain mahogany shrubs in the foreground have been browsed by mule deer or								
pronghorn.								

	A star	Carlin M			
Photo ID	Date	Latitude	Longitude	Subject	Direction Taken
JP_012	1/26/2022	38.975044	-104.67632	Small Tributary	Northwest

Description: A short tributary near the headwaters of the western stream in the Project Area.

Photo ID JP_013	Date 1/26/2022	Latitude 38.974236	Longitude -104.676651	Subject Western Stream	Direction Taken Southeast

Description: Looking downstream below the headwaters of the western stream.



					Taken
JP_014	1/26/2022	38.973335	-104.676866	Western Stream	North
Description: Looking upstream along the western stream from near the western edge of the					
Project Area.					



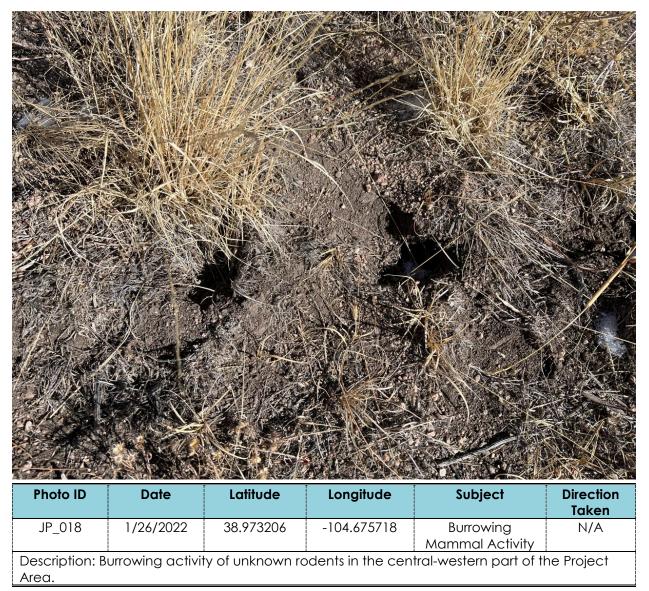


Photo ID JP_016	<b>Date</b> 1/26/2022	Latitude 38.969403	Longitude -104.67432	Subject Southern Meadow	Direction Taken West

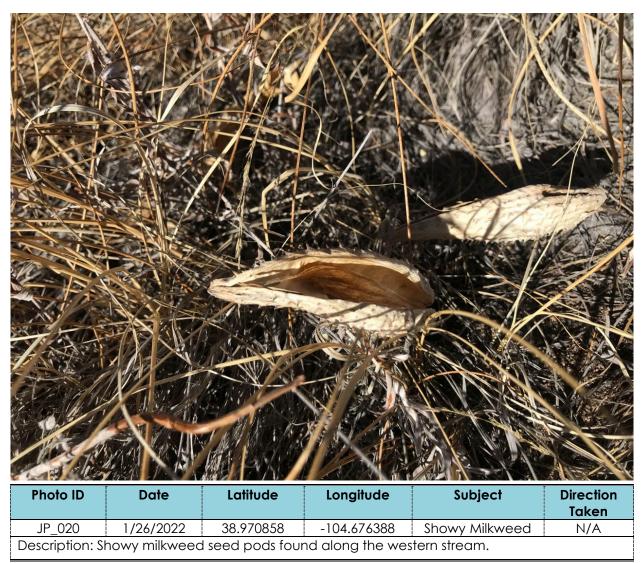
Description: Broad view across the meadow near the southern end of the Project Area.



Photo ID	Date	Latitude	Longitude	Subject	Direction Taken
JP_017	1/26/2022	38.970975	-104.672995	Meadow with House	North
Description: View of the northern portion of the southern meadow. The main abandoned homestead is visible on the left side of the skyline, among the eastern grove of ponderosa pines.					



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Section 1	a the	A PARA			
Photo ID	Date	Latitude	Longitude	Subject	Direction
					Taken
JP019	1/26/2022	38.971254	-104.676308	Western Stream	South
		eam along the v	western stream n	ear the central-west	ern part of
the Project Ar	<u>A</u>				





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	And the second				
Con Ton					
				CAL INSTAN	
Photo ID	Date	Latitude	Longitude	Subject	Direction Taken
JP_022	1/26/2022	38.967813	-104.675066	Western Stream	Northwest
Description: Lo the Project Are		n along the wes	stern stream from	near its southern ter	minus within



	Date	Laiiiuae	Longitude	SUDJECT	Taken
JP_023	1/26/2022	38.97528	-104.675763	Western Tributary	North
Description: Looking upstream near the headwaters of the western stream.					



Photo ID	Date	Latitude	Longitude	Subject	Direction Taken
Raptor Nest 1	1/26/2022	38.975089	-104.675872	Inactive Raptor Nest	Northwest
Description: Inactive raptor nest in a small ponderosa pine. This is potentially an inactive, black-billed magpie nest, but has been documented in the event that a small raptor would choose to use it.					

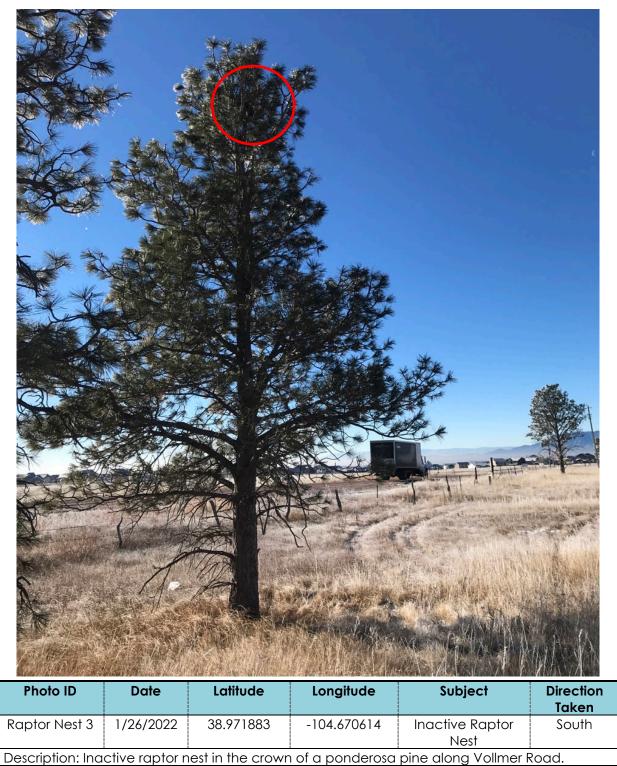
3473 South Broadway Englewood, Colorado 80113 303.703.4444 LIVEYOURCORE.COM

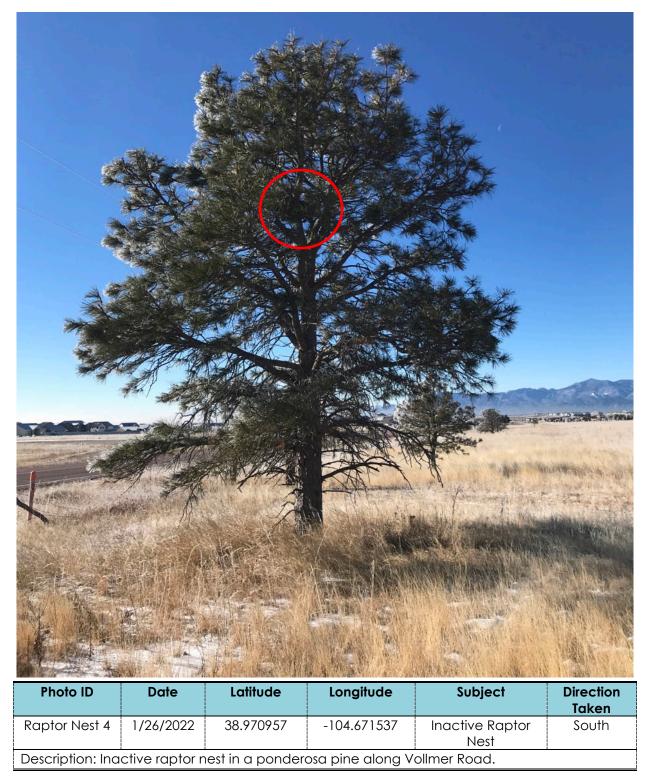




Photo ID	Date	Latitude	Longitude	Subject	Direction Taken
Raptor Nest 2	1/26/2022	38.973163	-104.671617	Inactive Raptor Nest	North
Description: Inactive raptor nest in the crown of a ponderosa pine on the ridge. This is potentially an inactive, black-billed magpie nest, but has been documented in the event that a small raptor would choose to use it.					





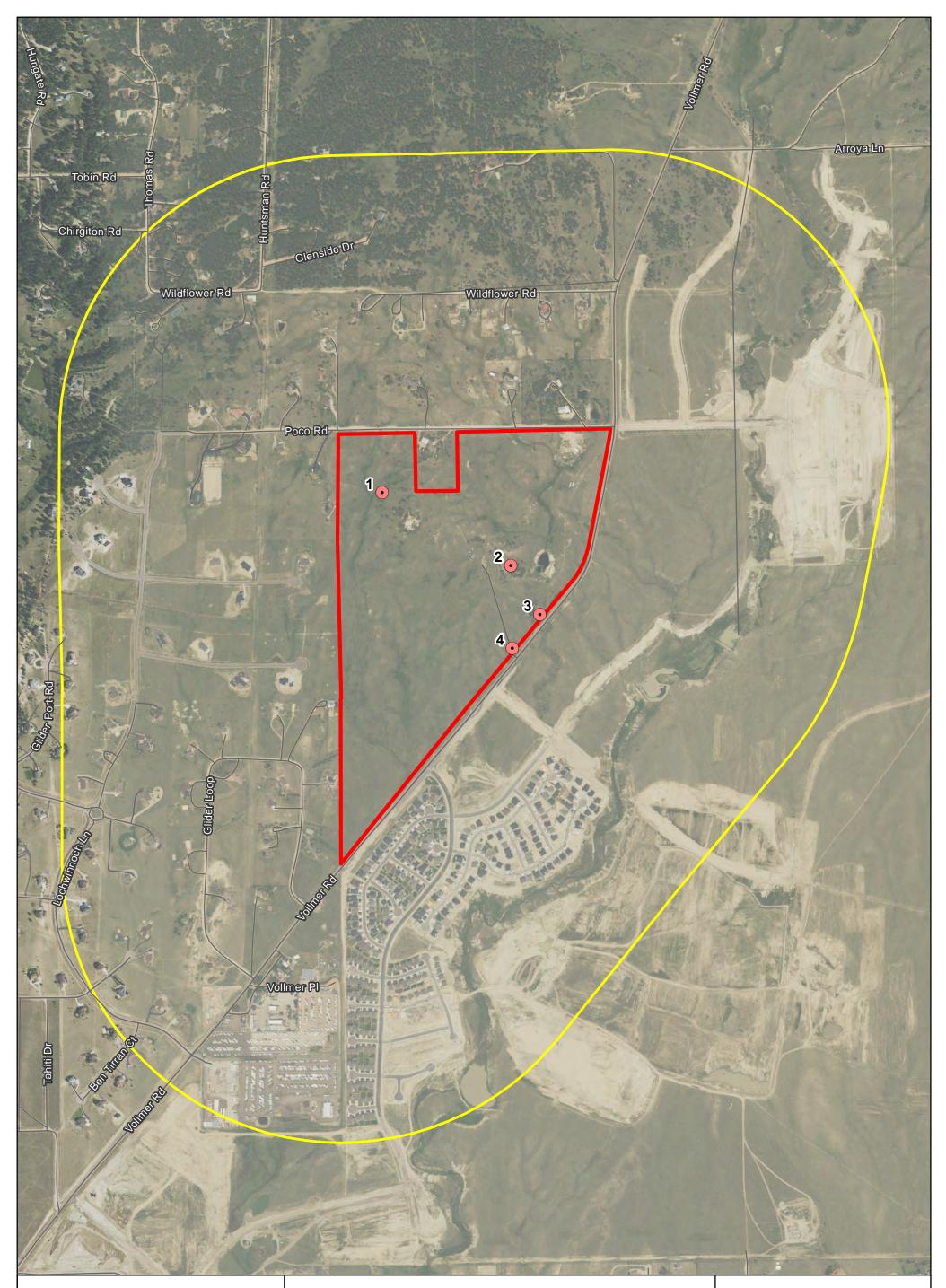




ATTACHMENT IV

RAPTOR NESTS MAP

3473 South Broadway Englewood, Colorado 80113 303.703.4444 LIVEYOURCORE.COM



Jayne's	Parcel
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Raptor Nests Map

El Paso County, CO

Project Boundary Raptor Nest	0 1,000
Study Area Inactive Unidentified	Feet
——— Street Species	Project #: 22-008 Date: 2/2/2022
Reference: USGS Topographic Quad: Falcon NW CORE Consultants 2022, USDA 2021	

Natalie -

I am writing to confirm that the US Army Corps of Engineers, Albuquerque District, Northwest Colorado Branch has received your request for an AJD for the *Classic Communities- Jayne's Parcel* on March 25, 2022.

I will begin to review your request shortly, and will reach out if additional information is needed to complete the process.

Please don't hesitate to contact me if you have any questions/comments/concerns. I can be reached via email, or at the telephone number in my signature block.

Respectfully,

*Tyler R. Adams* Project Manager Northwestern Colorado Branch U.S. Army Corps of Engineers Albuquerque District (Office) 970-243-1199, ext. 1013 (Cell) 970-549-6538

From: Natalie Graves <<u>ngraves@liveyourcore.com</u>>
Sent: Friday, March 25, 2022 2:03 PM

To: SPA-RD-CO <<u>SPA-RD-CO@usace.army.mil</u>>

**Subject:** [URL Verdict: Neutral][Non-DoD Source] Request for AJD- Classic Communities- Jayne's Parcel- El Paso County

Good afternoon. Please see the attached request for an approved jurisdictional determination to support planning/design efforts for the Jayne's Parcel project in El Paso County.

Please let me know if we can provide anything further to assist you with your review.

Thank you,

Natalie



NATALIE GRAVES, MS, PWS Natural Resources Project Manager

3473 S. Broadway, Englewood, CO 80113

Phone 303.730.5905 \ Mobile 720.520.3589 ngraves@liveyourcore.com \ liveyourcore.com



LAND DEVELOPMENT \ ENERGY \ PUBLIC INFRASTRUCTURE

From:	Natalie Graves
То:	<u>SPA-RD-CO</u>
Subject:	Request for AJD- Classic Communities- Jayne"s Parcel- El Paso County
Date:	Friday, March 25, 2022 2:03:37 PM
Attachments:	20220325 - Classic Communities - Jaynes Parcel - AJD Request - signed.pdf

Good afternoon. Please see the attached request for an approved jurisdictional determination to support planning/design efforts for the Jayne's Parcel project in El Paso County.

Please let me know if we can provide anything further to assist you with your review.

Thank you,

Natalie



### NATALIE GRAVES, MS, PWS

Natural Resources Project Manager

3473 S. Broadway, Englewood, CO 80113 Phone 303.730.5905 \ Mobile 720.520.3589 ngraves@liveyourcore.com \ <u>liveyourcore.com</u>



LAND DEVELOPMENT \ ENERGY \ PUBLIC INFRASTRUCTURE



March 25, 2022

U.S. Army Corps of Engineers Albuquerque District-Pueblo Regulatory Office 201 West 8<sup>th</sup> Street, Suite 350 Pueblo, Colorado 81003-4209

### RE: Request for Approved Jurisdictional Determination Jayne's Parcel Project El Paso County, Colorado

On behalf of Classic Communities, CORE Consultants, Inc. (CORE) has prepared this request for an Approved Jurisdictional Determination (AJD) in support of the proposed Jayne's Parcel Project (Project Area) in northern El Paso County, Colorado. The following documents are included with this request:

- Attachment I: Jurisdictional Determination Request Form
- Attachment II: Additional Photographs
- Attachment III: Photo Location Map
- Attachment IV: Wetland Delineation Report

### General Information

- USACE File Number: N/A
- Project Name: Jayne's Parcel
- Applicant Contact Information:
  - Name: Loren Moreland
  - o Phone: 719-499-3125
  - o E-Mail: lorenm@classichomes.com
  - Consultant Contact Information:
    - o Name: Natalie Graves
    - o Phone: 720-520-3589
    - E-Mail: ngraves@liveyourcore.com
- Latitude/Longitude for Project Access:
  - o 38.976682°, -104.668357°
- Name of watershed:
  - o Fountain HUC-8: 11020003
- Avg annual rainfall in the area (in/yr): 15.17 (NWS 2022)
- Avg annual snowfall in the area (in/yr): 39.1 (NWS 2022)
- Describe current land use at the site and around the site: The Survey Area (for the purposes
  of this report is synonymous with Project Area as project design has not been finalized) is
  mostly undeveloped grasslands with wetland pockets throughout, a pond, and a few
  residential structures. Existing and under-construction residential development surround
  the Project.

Resource Delineated Name	Resource Type	Latitude (°N)	Longitude (°W)	Flow Frequency	Flows to	Acreage within Survey Area	Linear Feet within Survey Area
WT-A1	Wetland	38.970661	-104.676433	N/A	WT-A3	0.004	N/A
WT-A2	Wetland	38.970803	-104.676475	N/A	Apparently isolated from downstream WOTUS	0.002	N/A
WT-A3	Wetland	38.970540	-104.676496	N/A	WT-A4	0.021	N/A
WT-A4	Wetland	38.970384	-104.676582	N/A	WT-A6	0.046	N/A
WT-A5	Wetland	38.969887	-104.676922	N/A	WT-A6	0.083	N/A
WT-A6	Wetland	38.969668	-104.676593	N/A	Apparently isolated from downstream WOTUS	0.493	N/A
WT-A7	Wetland	38.969305	-104.677008	N/A	WT-A8	0.022	N/A
WT-A8	Wetland	38.969152	-104.676868	N/A	Apparently isolated from downstream WOTUS	0.020	N/A
WT-A9	Wetland	38.968990	-104.676776	N/A	Apparently isolated from downstream WOTUS	0.005	N/A
WT-A10	Wetland	38.969381	-104.676267	N/A	WT-A11	0.036	N/A
WT-A11	Wetland	38.968659	-104.675937	N/A	Apparently isolated from downstream WOTUS	1.660	N/A
WT-A12	Wetland	38.970062	-104.675173	N/A	Apparently isolated from downstream WOTUS	1.410	N/A
WT-A13	Wetland	38.970486	-104.676669	N/A	Apparently isolated from downstream WOTUS	0.004	N/A
WT-A14	Wetland	38.971080	-104.675464	N/A	Apparently isolated	0.045	N/A
WT-A15	Wetland	38.971012	-104.676440	N/A	Apparently isolated from downstream WOTUS	0.027	N/A
WT-A16	Wetland	38.973065	-104.676223	N/A	Apparently isolated from downstream WOTUS	0.031	N/A
WT-A17	Wetland	38.973174	-104.676152	N/A	WT-A16	0.004	N/A
WT-A18	Wetland	38.973232	-104.676881	N/A	Apparently isolated from downstream WOTUS	1.670	N/A
WT-A19	Wetland	38.973737	-104.675815	N/A	Apparently isolated from downstream WOTUS	0.008	N/A

TABLE 1. AQUATIC FEATURES WITHIN THE SURVEY AREA

Resource Delineated Name	Resource Type	Latitude (°N)	Longitude (°W)	Flow Frequency	Flows to	Acreage within Survey Area	Linear Feet within Survey Area
WT-A20	Wetland	38.973655	-104.675665	N/A	Apparently isolated from downstream WOTUS	0.010	N/A
WT-A21	Wetland	38.973538	-104.675555	N/A	WT-A22	0.095	N/A
WT-A22	Wetland	38.973488	-104.675290	N/A	Apparently isolated from downstream WOTUS	0.094	N/A
WT-A23	Wetland	38.975754	-104.675073	N/A	Apparently isolated from downstream WOTUS	0.013	N/A
WT-A24	Wetland	38.974245	-104.677127	N/A	Apparently isolated from downstream WOTUS	0.068	N/A
WT-A25	Wetland	38.973315	-104.674113	N/A	Apparently isolated from downstream WOTUS	0.028	N/A
WT-A26	Wetland	38.972658	-104.673237	N/A	Apparently isolated from downstream WOTUS	0.014	N/A
WT-A27	Wetland	38.972880	-104.673013	N/A	Apparently isolated from downstream WOTUS	0.079	N/A
WT-A28	Wetland	38.972799	-104.674429	N/A	Apparently isolated from downstream WOTUS	0.159	N/A
WT-A29	Wetland	38.972942	-104.674035	N/A	Apparently isolated from downstream WOTUS	0.030	N/A
WT-A30	Wetland	38.972859	-104.673591	N/A	Apparently isolated from downstream WOTUS	0.229	N/A
WT-A33	Wetland	38.971870	-104.670868	N/A	Apparently isolated from downstream WOTUS	0.544	N/A
WT-A34	Wetland	38.974170	38.974170	N/A	Apparently isolated from downstream WOTUS	0.260	N/A
WT-A35	Wetland	38.974380	-104.672570	N/A	Apparently isolated from downstream WOTUS	0.055	N/A
WT-A36	Wetland	38.975112	-104.673611	N/A	WT-A37	0.016	N/A

Resource Delineated Name	Resource Type	Latitude (°N)	Longitude (°W)	Flow Frequency	Flows to	Acreage within Survey Area	Linear Feet within Survey Area
WT-A37	Wetland	38.975096	-104.673745	N/A	Apparently isolated from downstream WOTUS	0.006	N/A
WT-A38	Wetland	38.974225	-104.668939	N/A	Apparently isolated from downstream WOTUS	0.077	N/A
WT-A39	Wetland	38.974290	-104.670223	N/A	Apparently isolated from downstream WOTUS	2.005	N/A
WT-A40	Wetland	38.970287	-104.677075	N/A	Apparently isolated from downstream WOTUS	0.140	N/A
Pond	Pond	38.973292	-104.670502	N/A	Apparently isolated from downstream WOTUS	0.151	N/A

## Additional information for Aquatic Features

### WT-A1

Wetland WT-A1 is a depressional feature that does not appear to have continuous surface flow to a nearby stream or aquatic feature; however, it is upgradient of and may be connected to WT-A3 via brief surface flow events from snow melt and/or precipitation events. WT-A1 boundaries are entirely within the Survey Area with no apparent connection to any potential Waters of the U.S. offsite. WT-A1 is within a FEMA-mapped Area of Minimal Flood Hazard, Zone X, not within the 100-year floodplain of a nearby stream or other aquatic feature (FEMA 2022).

### WT-A2

Wetland WT-A2 is a depressional feature that does not appear to have continuous surface flow to a nearby stream or aquatic feature. WT-A2 boundaries are entirely within the Survey Area with no apparent connection to any potential Waters of the U.S. offsite. WT-A2 is within a FEMA-mapped Area of Minimal Flood Hazard, Zone X, not within the 100-year floodplain of a nearby stream or other aquatic feature (FEMA 2022).

### WT-A3

Wetland WT-A3 is a depressional feature that does not appear to have continuous surface flow to a nearby stream or aquatic feature; however, it is upgradient of and may be connected to WT-A4 via brief surface flow events from snow melt and/or precipitation events. WT-A3 boundaries are entirely within the Survey Area with no apparent connection to any potential Waters of the U.S. offsite. WT-A3 is within a FEMA-mapped Area of Minimal Flood Hazard, Zone X, not within the 100-year floodplain of a nearby stream or other aquatic feature (FEMA 2022).

### WT-A4

Wetland WT-A4 is a depressional feature that does not appear to have continuous surface flow to a nearby stream or aquatic feature; however, it is upgradient of and may be connected to WT-

A6 via brief surface flow events from snow melt and/or precipitation events. WT-A4 boundaries are entirely within the Survey Area with no apparent connection to any potential Waters of the U.S. offsite. WT-A4 is within a FEMA-mapped Area of Minimal Flood Hazard, Zone X, not within the 100-year floodplain of a nearby stream or other aquatic feature (FEMA 2022).

## WT-A5

Wetland WT-A5 is a depressional feature that does not appear to have continuous surface flow to a nearby stream or aquatic feature; however, it is upgradient of and may be connected to WT-A6 via brief surface flow events from snow melt and/or precipitation events due to its proximity to WT-A6. WT-A5 boundaries are entirely within the Survey Area with no apparent connection to any aquatic features offsite. WT-A5 is within a FEMA-mapped Area of Minimal Flood Hazard, Zone X, not within the 100-year floodplain of a nearby stream or other aquatic feature (FEMA 2022).

## WT-A6

Wetland WT-A6 is a depressional feature that does not appear to have continuous surface flow to a nearby stream or aquatic feature. WT-A6 boundaries are entirely within the Survey Area with no apparent connection to any potential Waters of the U.S. offsite. WT-A6 is within a FEMA-mapped Area of Minimal Flood Hazard, Zone X, not within the 100-year floodplain of a nearby stream or other aquatic feature (FEMA 2022).

## WT-A7

Wetland WT-A7 is a depressional feature that does not appear to have continuous surface flow to a nearby stream or aquatic feature; however, it is upgradient of and may be connected to WT-A8 via brief surface flow events from snow melt and/or precipitation events due to its proximity to WT-A8. WT-A7 boundaries, are entirely within the Survey Area with no apparent connection to any potential Waters of the U.S. offsite. WT-A7 is within a FEMA-mapped Area of Minimal Flood Hazard, Zone X, not within the 100-year floodplain of a nearby stream or other aquatic feature (FEMA 2022).

## WT-A8

Wetland WT-A8 is a depressional feature that does not appear to have continuous surface flow to a nearby stream or aquatic feature. WT-A8 boundaries are entirely within the Survey Area with no apparent connection to any potential Waters of the U.S. offsite. WT-A8 is within a FEMA-mapped Area of Minimal Flood Hazard, Zone X, not within the 100-year floodplain of a nearby stream or other aquatic feature (FEMA 2022).

## WT-A9

Wetland WT-A9 is a depressional feature that does not appear to have continuous surface flow to a nearby stream or aquatic feature. WT-A9 boundaries are entirely within the Survey Area with no apparent connection to any potential Waters of the U.S. offsite. WT-A9 is within a FEMA-mapped Area of Minimal Flood Hazard, Zone X, not within the 100-year floodplain of a nearby stream or other aquatic feature (FEMA 2022).

## WT-A10

Wetland WT-A10 is a depressional feature that does not appear to have continuous surface flow to a nearby stream or aquatic feature; however, it is upgradient of and may be connected to WT-A11 via brief surface flow events from snow melt and/or precipitation events due to its proximity to WT-A11. WT-A10 boundaries are entirely within the Survey Area with no apparent connection to any potential Waters of the U.S. offsite. WT-A10 is within a FEMA-mapped Area of Minimal Flood

Hazard, Zone X, not within the 100-year floodplain of a nearby stream or other aquatic feature (FEMA 2022).

## WT-A11

Wetland WT-A11 does not appear to have continuous surface flow to a nearby stream or aquatic feature; however, it has a culvert inlet at its southern-most boundary, which is directed southeast offsite under Vollmer Road (Attachment II: Photo Location [PL] 10, PL 13). A site visit following the original delineation was conducted by a CORE biologist on March 14, 2022, to investigate the potential nexus of WT-A11 to the nearby Sand Creek via this culvert inlet. No culvert outlet on the southern side of Vollmer Road was observed during the site visit although a drainage channel was observed adjacent to Vollmer Road, and appeared to terminate approximately 150 feet from its source (Attachment II: PL 02). The presence of a drainage channel in this area suggests the outlet of the culvert may be buried and no longer functional. To the southeast of the isolated drainage channel, a stormwater facility was observed within a residential development that was constructed outside of the proposed Project Area (Attachment II: PL 03). No evidence of a connection between potential Waters of the U.S. within the Project Area and the stormwater facility that discharges to Sand Creek was observed during the site visit. Therefore, WT-A11 appears to be isolated and not connected to offsite potential Waters of the U.S. including Sand Creek.

WT-A11 is within a FEMA-mapped Area of Minimal Flood Hazard, Zone X, not within the 100-year floodplain of a nearby stream or other aquatic feature (FEMA 2022). Additionally, no riparian corridor was observed near wetland WT-A11.

The Survey Area is within the northeastern boundary of the USFWS' Preble's meadow jumping mouse (PMJM) Block Clearance (USFWS 2012). Based on low quality to lack of suitable habitat and the overlap of the mapped block clearance with the Survey Area, it is unlikely that PMJM would occur on site. Additionally, Ute ladies'-tresses orchid (ULTO) was identified by the USFWS Information for Planning and Consultation database as having potential to occur within the Survey Area (USFWS 2022). However, due to the elevation of the Survey Area, along with a lack of a perennial water source and suitable features on site, ULTO is not expected to occur within WT-A11 or any other wetlands on site. The Project is therefore not anticipated to result in any impacts to federally-listed threatened or endangered species or their habitats. Pronghorn were also observed within upland areas of the Survey Area; however, no wildlife was observed within or adjacent to wetland WT-A11.

No water was observed within WT-A11 during the site visit, therefore, water quality of WT-A11 could not be assessed.

## WT-A12

Wetland WT-A12 is a linear, depressional feature that does not appear have continuous surface flow to a nearby stream or aquatic feature. WT-A12 boundaries are entirely within the Survey Area with no apparent connection to any potential Waters of the U.S. offsite. WT-A12 is within a FEMA-mapped Area of Minimal Flood Hazard, Zone X, not within the 100-year floodplain of a nearby stream or other aquatic feature (FEMA 2022).

## WT-A13

Wetland WT-A13 is a depressional feature that does not appear to have continuous surface flow to a nearby stream or aquatic feature. WT-A13 boundaries are entirely within the Survey Area with

no apparent connection to potential Waters of the U.S. offsite. WT-A13 is within a FEMA-mapped Area of Minimal Flood Hazard, Zone X, not within the 100-year floodplain of a nearby stream or other aquatic feature (FEMA 2022).

## WT-A14

Wetland WT-A14 is a linear, depressional feature that does not appear to have continuous surface flow to a nearby stream or aquatic feature. WT-A14 boundaries are entirely within the Survey Area with no apparent connection to potential Waters of the U.S. offsite. WT-A14 is within a FEMAmapped Area of Minimal Flood Hazard, Zone X, not within the 100-year floodplain of a nearby stream or other aquatic feature (FEMA 2022).

## WT-A15

Wetland WT-A15 is a depressional feature that does not appear to have continuous surface flow to a nearby stream or aquatic feature. WT-A15 boundaries are entirely within the Survey Area with no apparent connection to any aquatic features offsite. WT-A15 is within a FEMA-mapped Area of Minimal Flood Hazard, Zone X, not within the 100-year floodplain of a nearby stream or other aquatic feature (FEMA 2022).

## WT-A16

Wetland WT-A16 is a depressional feature that does not appear to have continuous surface flow to a nearby stream or aquatic feature. WT-A16 boundaries are entirely within the Survey Area with no apparent connection to any aquatic features offsite. WT-A16 is within a FEMA-mapped Area of Minimal Flood Hazard, Zone X, not within the 100-year floodplain of a nearby stream or other aquatic feature (FEMA 2022).

## WT-A17

Wetland WT-A17 is a depressional feature that does not appear to have continuous surface flow to a nearby stream or aquatic feature, however, it is upgradient of and may be connected to WT-A16 via brief surface flow events from snow melt and/or precipitation events due to its proximity to WT-A16. WT-A17 boundaries are entirely within the Survey Area with no apparent connection to any potential Waters of the U.S. offsite. WT-A17 is within a FEMA-mapped Area of Minimal Flood Hazard, Zone X, not within the 100-year floodplain of a nearby stream or other aquatic feature (FEMA 2022).

## WT-A18

Wetland WT-A18 is a linear, depressional feature that does not have continuous surface flow to a nearby stream or aquatic feature. WT-A18 boundaries are entirely within the Survey Area with no apparent connection to potential Waters of the U.S. offsite. WT-A18 is within a FEMA-mapped Area of Minimal Flood Hazard, Zone X, not within the 100-year floodplain of a nearby stream or other aquatic feature (FEMA 2022).

## WT-A19

Wetland WT-A19 is a depressional feature that does not appear to have continuous surface flow to a nearby stream or aquatic feature. WT-A19 boundaries are entirely within the Survey Area with no apparent connection to potential Waters of the U.S. offsite. WT-A19 is within a FEMA-mapped Area of Minimal Flood Hazard, Zone X, not within the 100-year floodplain of a nearby stream or other aquatic feature (FEMA 2022).

## WT-A20

Wetland WT-A20 is a depressional feature that does not appear to have continuous surface flow to a nearby stream or aquatic feature . WT-A20 boundaries are entirely within the Survey Area with no apparent connection to potential Waters of the U.S. offsite. WT-A20 is within a FEMA-mapped Area of Minimal Flood Hazard, Zone X, not within the 100-year floodplain of a nearby stream or other aquatic feature (FEMA 2022).

## WT-A21

Wetland WT-A21 is a depressional feature that does not appear to have continuous surface flow to a nearby stream or aquatic feature, however, it is upgradient of and may be connected to WT-A22. WT-A21 boundaries are entirely within the Survey Area with no apparent connection to potential Waters of the U.S. offsite. WT-A21 is within a FEMA-mapped Area of Minimal Flood Hazard, Zone X, not within the 100-year floodplain of a nearby stream or other aquatic feature (FEMA 2022).

## WT-A22

Wetland WT-A22 is a depressional feature that does not appear to have continuous surface flow to a nearby stream or aquatic feature. WT-A22 boundaries are entirely within the Survey Area with no apparent connection to potential Waters of the U.S. offsite. WT-A22 is within a FEMA-mapped Area of Minimal Flood Hazard, Zone X, not within the 100-year floodplain of a nearby stream or other aquatic feature (FEMA 2022).

## WT-A23

Wetland WT-A23 is a depressional feature that does not appear to have continuous surface flow to a nearby stream or aquatic feature. WT-A23 boundaries are entirely within the Survey Area with no apparent connection to potential Waters of the U.S. offsite. WT-A23 is within a FEMA-mapped Area of Minimal Flood Hazard, Zone X, not within the 100-year floodplain of a nearby stream or other aquatic feature (FEMA 2022).

## WT-A24

Wetland WT-A24 is a depressional feature that does not appear to have continuous surface flow to a nearby stream or aquatic feature. WT-A24 boundaries are entirely within the Survey Area with no apparent connection to potential Waters of the U.S. offsite. WT-A24 is within a FEMA-mapped Area of Minimal Flood Hazard, Zone X, not within the 100-year floodplain of a nearby stream or other aquatic feature (FEMA 2022).

## WT-A25

Wetland WT-A25 is a depressional feature that does not appear to have continuous surface flow to a nearby stream or aquatic feature. WT-A25 boundaries are entirely within the Survey Area with no apparent connection to any potential Waters of the U.S. offsite. WT-A25 is within a FEMA-mapped Area of Minimal Flood Hazard, Zone X, not within the 100-year floodplain of a nearby stream or other aquatic feature (FEMA 2022).

## WT-A26

Wetland WT-A26 is a depressional feature that does not appear to have continuous surface flow to a nearby stream or aquatic feature. WT-A26 boundaries are entirely within the Survey Area with no apparent connection to potential Waters of the U.S. offsite. WT-A26 is within a FEMA-mapped Area of Minimal Flood Hazard, Zone X, not within the 100-year floodplain of a nearby stream or another aquatic feature (FEMA 2022).

## WT-A27

Wetland WT-A27 is a depressional feature that does not appear to have continuous surface flow to a nearby stream or aquatic feature. WT-A27 boundaries are entirely within the Survey Area with no apparent connection to potential Waters of the U.S. offsite. WT-A27 is within a FEMA-mapped Area of Minimal Flood Hazard, Zone X, not within the 100-year floodplain of a nearby stream or other aquatic feature (FEMA 2022).

## WT-A28

Wetland WT-A28 is a depressional feature that does not appear to have continuous surface flow to a nearby stream or aquatic feature. WT-A28 boundaries are entirely within the Survey Area with no apparent connection to any potential Waters of the U.S. offsite. WT-A28 is within a FEMA-mapped Area of Minimal Flood Hazard, Zone X, not within the 100-year floodplain of a nearby stream or other aquatic feature (FEMA 2022).

## WT-A29

Wetland WT-A29 is a depressional feature that does not appear to have continuous surface flow to a nearby stream or aquatic feature. WT-A29 boundaries are entirely within the Survey Area with no apparent connection to any potential Waters of the U.S. offsite. WT-A29 is within a FEMA-mapped Area of Minimal Flood Hazard, Zone X, not within the 100-year floodplain of a nearby stream or other aquatic feature (FEMA 2022).

#### WT-A30

Wetland WT-A30 is a depressional feature that does not appear to have continuous surface flow to a nearby stream or aquatic feature. WT-A30 boundaries are entirely within the Survey Area with no apparent connection to any potential Waters of the U.S. offsite. WT-A30 is within a FEMA-mapped Area of Minimal Flood Hazard, Zone X, not within the 100-year floodplain of a nearby stream or other aquatic feature (FEMA 2022).

## WT-A33

Wetland WT-A33 is a depressional feature that does not appear to have continuous surface flow to a nearby stream or aquatic feature (Attachment II: PL 11). A culvert inlet was observed at its southern boundary, directed southeast offsite under Vollmer Road (Attachment II: PL 14). During the site visit on March 14, 2022, a CORE biologist investigated the potential nexus of WT-A33. A culvert outlet was observed directly across Vollmer Road during the site visit (Attachment II: PL 4). A graded path under construction was observed downgradient of the culvert outlet. Southeast of the graded path, a meandering upland swale continued downgradient of the culvert for approximately 1,030 linear feet and terminated due to the construction of a permanent access road for a proposed residential development (Attachment II: PL 5, PL 6). An existing residential development was observed downgradient of this point. Therefore, WT-A33 appears to be isolated and lacks connection to Sand Creek.

WT-A33 is within a FEMA-mapped Area of Minimal Flood Hazard, Zone X, not within the 100-year floodplain of a nearby stream or other aquatic feature (FEMA 2022). Additionally, no riparian corridor was observed near wetland WT-A33.

The Project is not anticipated to result in any impacts to federally-listed threatened or endangered species or their habitats. For rationale, please refer to discussion for wetland WT-A11. As with WT-

A11, pronghorn were observed within the upland areas of the Survey Area; however, no wildlife was observed within or adjacent to wetland WT-A33.

No water was observed within WT-A33 during the site visit, therefore, water quality of WT-A33 could not be assessed.

## WT-A34

Wetland WT-A34 is a depressional feature that does not appear to have continuous surface flow to a nearby stream or aquatic feature. WT-A34 boundaries are entirely within the Survey Area with no apparent connection to any potential Waters of the U.S. offsite. WT-A34 is within a FEMA-mapped Area of Minimal Flood Hazard, Zone X, not within the 100-year floodplain of a nearby stream or other aquatic feature (FEMA 2022).

## WT-A35

Wetland WT-A35 is a depressional feature that does not appear to have continuous surface flow to a nearby stream or aquatic feature. WT-A35 boundaries are entirely within the Survey Area with no apparent connection to any potential Waters of the U.S. offsite. WT-A35 is within a FEMA-mapped Area of Minimal Flood Hazard, Zone X, not within the 100-year floodplain of a nearby stream or other aquatic feature (FEMA 2022).

## WT-A36

Wetland WT-A36 is a depressional feature that does not appear to have continuous surface flow to a nearby stream or aquatic feature, however, it is upgradient of and may be connected to WT-A37. A southern portion of WT-A36 is within the Survey Area, while the remainder of WT-A36 is located north of the Survey Area. WT-A36 is within a FEMA-mapped Area of Minimal Flood Hazard, Zone X, not within the 100-year floodplain of a nearby stream or other aquatic feature (FEMA 2022).

## WT-A37

Wetland WT-A37 is a depressional feature that does not appear to have continuous surface flow to a nearby stream or aquatic feature. A northern portion of WT-A37 is located north of the Survey Area, while the remainder of WT-A37 is located within the Survey Area. WT-A37 is within a FEMA-mapped Area of Minimal Flood Hazard, Zone X, not within the 100-year floodplain of a nearby stream or other aquatic feature (FEMA 2022).

## WT-A38

Wetland WT-A38 is a depressional feature that does not appear to have continuous surface flow to nearby streams or aquatic features (Attachment II: PL 15). A culvert inlet was observed along its eastern boundary, directed southeast offsite under Vollmer Road (Attachment II: PL 15). During the site visit on March 14, 2022, A CORE biologist investigated the potential nexus of WT-A38. No culvert outlet was observed in the vicinity across Vollmer Road (Attachment II: PL 8), showing evidence for lack of connectivity between WT-A38 and the nearest downstream WOTUS, Sand Creek. A meandering upland swale was observed downgradient of this location (Attachment II: PL 9); however, no evidence of connectivity was observed between the culvert inlet and the upland swale across Vollmer Road. Therefore, WT-A38 appears to be isolated and lacks connection to WOTUS.

WT-A38 is within a FEMA-mapped Area of Minimal Flood Hazard, Zone X, not within the 100-year floodplain of a nearby stream or other aquatic feature (FEMA 2022). Additionally, no riparian corridor was observed near wetland WT-A38.

The Project is not anticipated to result in any impacts to federally-listed threatened or endangered species or their habitats. For rationale, please refer to discussion for wetland WT-A11. As with WT-A11 and WT-A33, pronghorn were observed within the Survey Area; however, no wildlife was observed within or adjacent to wetland WT-A38.

No water was observed within WT-A38 during the site visit, therefore, water quality of WT-A38 could not be assessed.

## WT-A39

Wetland WT-A39 is a linear, depressional feature that does not appear to have continuous surface flow to any nearby streams or aquatic features. The northwestern boundary of WT-A39 abuts the northern boundary of the Survey Area. Upstream of this location, north of Poco Road, was not investigated since it is outside of the Survey Area boundary. All other WT-A39 boundaries are entirely within the Survey Area with no apparent connection to any aquatic features offsite. A manmade berm was observed directly south of WT-A39, with no apparent nexus to any downstream features (Attachment II: PL 12). The nearest observed wetland downgradient of WT-A39 is WT-A33, which appears to be isolated and not connected to Sand Creek. Finally, WT-A39 is within a FEMA-mapped Area of Minimal Flood Hazard, Zone X, not within the 100-year floodplain of a nearby stream or feature (FEMA 2022).

## WT-A40

Wetland WT-A40 is a depressional feature that does not appear to have continuous surface flow to a nearby stream or aquatic feature. WT-A40 boundaries are entirely within the Survey Area with no apparent connection to any potential Waters of the U.S. offsite. WT-A40 is within a FEMA-mapped Area of Minimal Flood Hazard, Zone X, not within the 100-year floodplain of a nearby stream or other aquatic feature (FEMA 2022).

## **Site History**

The Survey Area and surrounding landscape have been significantly modified over the past two decades (Google Earth 2022). Historical aerials from September 1999 show the existing Vollmer Road running along the eastern boundary of the Project and Poco Road running along the northern boundary of the Project. Additionally, an access road off Vollmer Road is shown running northwest through the Survey Area. The extents of the apparent tributaries of Sand Creek visible in the 1999 imagery exceed the current extents of the wetland features delineated in 2022. The 1999 imagery shows three tributaries of Sand Creek running southeast through the Survey Area, with an apparent connection to Sand Creek. At this time, the manmade berm observed on site in 2022 did exist, however, there appeared to be a clear connection between the tributary sections north and south of the berm. The annual precipitation of 1999 was 27.58 inches, the highest ever recorded for this area (NWS 2022). Historical aerials show the land southeast of the Survey Area to be undeveloped at this time.

By 2005, the connection between the north and south sections of the tributary with the manmade berm appears severed. South of the manmade berm, the tributary appears smaller, with no

connection to the tributary north of the berm. Additionally, all three tributaries leading from the Project to Sand Creek appear less defined. The average annual precipitation in the area between 2000 and 2005 was 14.18, slightly below average and significantly lower than 1999. The large difference in precipitation levels between 1999 and 2005 may help explain the difference in tributary connection and size. The Survey Area vicinity was still primarily grassland with minimal development during this period (Google Earth 2022).

No apparent notable changes occurred within, or in the vicinity of, the Survey Area between 2005 and 2017. Development of the area immediately east of the Project increased in 2017, when construction of residential development began east of Vollmer Road (Google Earth 2022). The southern tributary of Sand Creek, running southeast from the Project, appears to no longer exist in this area, due to land-clearing for development (Google Earth 2022). By 2019, historical imagery shows this residential development expanded northward. At this time, the middle tributary of Sand Creek running southeast from the Project appears to no longer exist past this area, due to the construction of a permanent access road and land clearing for development. The northern tributary of Sand Creek is still apparent in the historical imagery, however, appears less pronounced than previous years.

## Conclusion

CORE respectfully requests review of the documents herein regarding an approved jurisdictional determination for the Survey Area to assist with design and permitting efforts. If you should have any questions or require additional information, please feel free to contact me directly at 720-520-3589, or at ngraves@liveyourcore.com.

Sincerely,

CORE Consultants, Inc.

atalie Draves

Natalie Graves Natural Resources Project Manager

## REFERENCES

- FEMA (Federal Emergency Management Agency). 2022. National Flood Hazard Layer. FEMA Flood Map Service Center. <u>https://msc.fema.gov/portal/home</u>. Accessed March 2022.
- Google Earth. 2022. Google Earth Pro. El Paso County, Colorado. Imagery Dates: September 1999, October 2005, June 2017, October 2019, May 2020. Accessed March 2022.
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- USFWS (U.S. Fish and Wildlife Service). 2012. Preble's Meadow Jumping Mouse Block Clearance Map: Colorado Springs. Updated February 23, 2012. <u>https://www.fws.gov/mountainprairie/es/species/mammals/preble/BLOCK\_CLEARANCE/</u> <u>2-8-2012\_CO\_Springs\_Prebles\_Block\_Clearance\_Map\_USFWS\_REDUCED.pdf</u>. Accessed March 2022.
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## ATTACHMENT I

## JURISDICTIONAL DETERMINATION REQUEST FORM

#### **REQUEST FOR JURISDICTIONAL DETERMINATION**

This request sheet should be used when a jurisdictional determination (JD) is required from the U.S. Army Corps of Engineers, Albuquerque District. It is intended to help both the requestor and the Corps in determining which type of JD, if any, is appropriate. Use of the sheet is optional; however the information and consent is needed to complete a JD. If you are applying for a Department of the Army permit, you do not need to request a JD. A jurisdictional determination is not required to process a permit application. At the time an application is submitted, the Corps will assume the aquatic resources on the parcel/within the review area are waters of the United States for the purpose of making a permit decision. With no JD requested, the permit application may be processed more quickly. The permittee retains the ability to request a JD any time during or after the permit application review process.

I am requesting the U.S. Army Corps of Engineers, Albuquerque District, complete a jurisdictional determination for the parcel/ review area located at:

Street Address:		City:	County:
State: Zip: Section: 1	Township: _	Range:	
Latitude (decimal degrees): Longitude	de (decima	I degrees):	
The approximate size of the review area for the JD is	a	cres. (Please attacl	h location map)
Chasses and		Obsess size:	
Choose one: I currently own this property.		Choose one:	an Approved ID
I plan to purchase this property.			an Approved JD. a Preliminary JD.
I am an agent/consultant acting on behalf of the reque	octor		to which JD I would like to request and require
Other:	55101.		prmation to inform my decision.
Reason for request: (check all that apply)		dudional inte	
I intend to construct/develop a project or perform activ resources.	vities on this	s parcel/review area	which would be designed to avoid all aquatic
I intend to construct/develop a project or perform activ jurisdictional aquatic resources under Corps authori		s parcel/review area	which would be designed to avoid all
I intend to construct/develop a project or perform activities on this parcel/review area which may require authorization from the Corps, and the JD would be used to avoid and minimize impacts to jurisdictional aquatic resources and as an initial step in a			
future permitting process. I intend to construct/develop a project or perform activ	vities on this	s narcel/review area	which may require authorization from the
Corps; this request is accompanied by my permit ap			
I intend to construct/develop a project or perform activ			
navigable waters under Section 10 of the Rivers and			
A JD is required in order to obtain my local/state author			
I intend to contest jurisdiction over a particular aquatic	c resource a	and request the Cor	ps confirm that jurisdiction does/does not exist
over the aquatic resource on the parcel/review.			
I believe that the parcel/review area may be comprise	d entirely o	f dry land.	
Other:			
Attached Information:			
Maps depicting the general location and aquatic resou the South Pacific Division Regulatory Program	urces within	i the review area col	nsistent with Map and Drawing Standards for
http://www.spd.usace.army.mil/Missions/Regulatory	/Public-No	tices_and_Reference	es/Article/651327/undated-man-and-drawing-
standards/)			Sharloc/00102/hapdated map and drawing
Aquatic Resources Delineation Report consistent with	current we	etland and ordinary h	high water mark delineation manual/supplements
available at: http://www.spa.usace.army.mil/Mission			
By signing below, you are indicating that you have the a			
such authority, to and do hereby grant Corps personnel	right of ent	ry to legally access	the site if needed to perform the JD. Your
signature shall be an affirmation that you possess the re	quisite pro	perty rights to reque	st a JD on the subject property.
Notalia A.		-	
*Signature:	_ Dat	e:	
Name:	_ Company	/ name:	
Address:			
Talankan			
Telephone:	Email:	1344 Marine Protection Re	search and Sanctuaries Act. Section 103, 33 USC 1413. Regulatory

ogram of the U.S. Army Corps of Engineers; Final Rule for 33 CFR Parts 320-332 Principal Purpose: The information that you provide will be used in evaluating your request to determine whether there are any aquatic resources within the project area subject to federal jurisdiction under the regulatory authorities referenced above.

Routine Uses: This information may be shared with the Department of Justice and other federal, state, and local government agencies, and the public, and may be made available as part of a public notice as required by federal law. Your name and property location where federal jurisdiction is to be determined will be included in the approved jurisdictional determination (AJD), which will be made available to the public on the District's website and on the Headquarters USACE website. Disclosure: Submission of requested information is voluntary; however, if information is not provided, the request for an AJD cannot be evaluated nor can an AJD be issued.



## ATTACHMENT II

## ADDITIONAL PHOTOGRAPHS



Photo Location 01. Looking northwest at drainage channel on east side of Vollmer Road.





Photo Location 01. Looking southeast at drainage channel and development on east side of Vollmer Road.



Photo Location 02. Looking south at drainage channel termination point. No apparent downstream connection to other aquatic resources.



Photo Location 03. Looking southwest at stormwater facilities under residential development.





Photo Location 04. Looking west at culvert outlet on east side of Vollmer Road.



Photo Location 05. Looking southwest at meandering swale east of Vollmer Road.



Photo Location 05. Looking south at meandering swale termination due to access road construction.



Photo Location 06. Looking east at cleared land and residential development east of Vollmer Road.





Photo Location 07. Looking north at existing residential development east of Vollmer Road, near Sand Creek.



Photo Location 08. Looking west at east side of Vollmer Road.





Photo Location 09. Looking east at meandering swale east of Vollmer Road.



Photo Location 10. Looking southeast at culvert inlet directed offsite under Vollmer Road.



Photo Location 11. Looking northeast at a wetland pond, WT-A33, just downgradient of the manmade berm.



Photo Location 12. Looking northwest at a manmade berm.





Photo Location 13. Looking north at WT-A11.





Photo Location 14. Culvert inlet near WT-A33 directed southeast offsite under Vollmer Road.





Photo Location 15. Looking north at WT-A38.



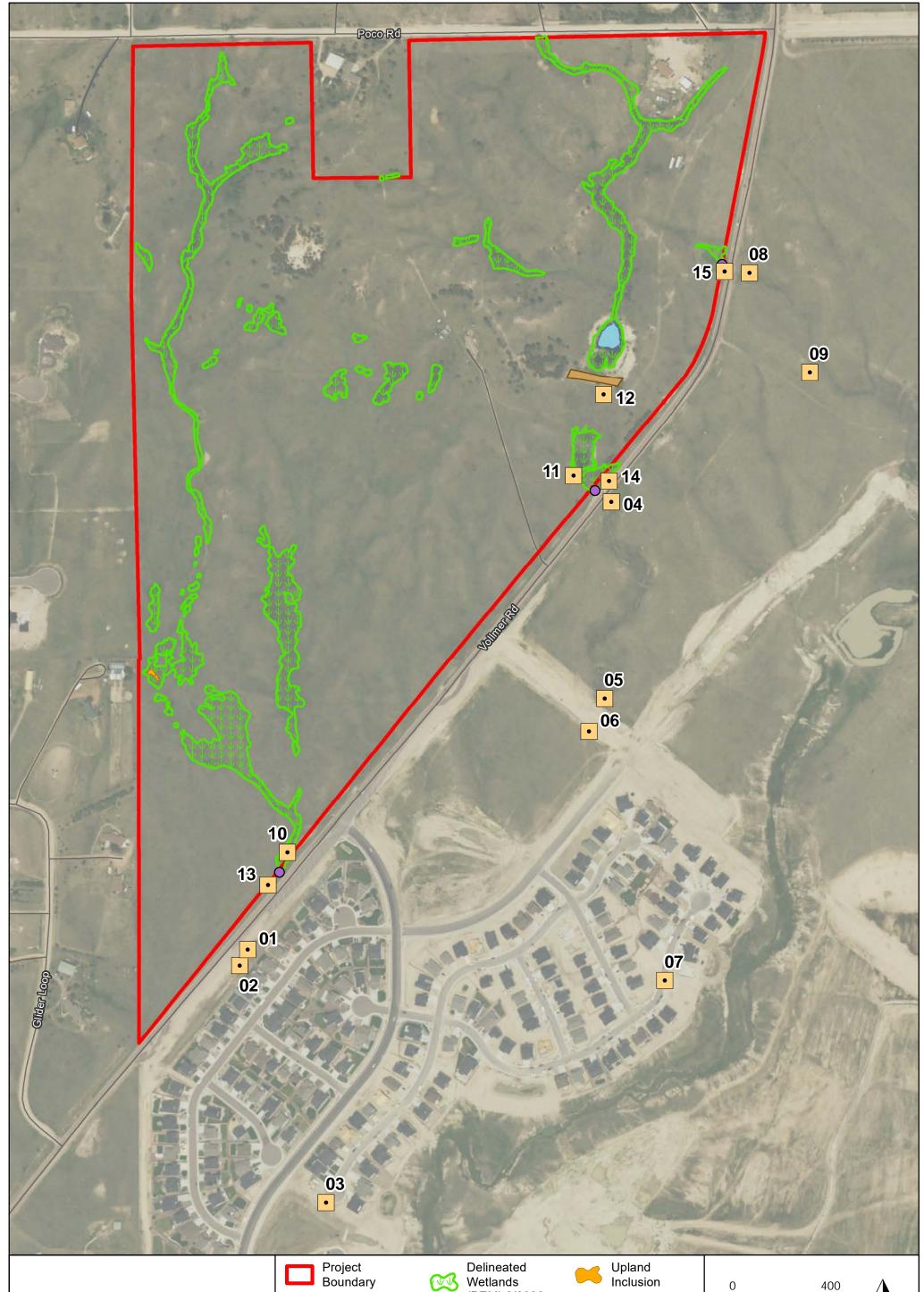


Photo Location 15. Culvert inlet near WT-A38 directed southeast offsite under Vollmer Road.



## ATTACHMENT III

PHOTO LOCATION MAP



Wetlands (PEM) 2/2022 400 0 Jayne's Parcel Manmade Dam Photo Location Feet Pond Street Photo Location Map Project #: 22-008 0 Culvert Date: 3/25/2022 El Paso County, CO Reference: USGS Topographic Quad: Falcon NW LAND DEVELOPMENT CO ENERGY CORE Consultants 2022, USDA 2021, USGS 2021 PUBLIC INFRASTRUCTURE



## ATTACHMENT IV

WETLAND DELINEATION REPORT

# POTENTIAL WATERS OF THE U.S. DELINEATION REPORT

## FOR

## JAYNE'S PARCEL PROJECT EL PASO COUNTY, COLORADO PROJECT NO. 22-008

## Prepared for:

Classic Communities 6385 Corporate Dr., Suite 200 Colorado Springs, CO 80919

## Prepared by:



CORE Consultants, Inc. 3473 South Broadway Englewood, CO 80113

February 2022



## Table of Contents

1	IN	TRODUCTION	.1
2	RE	GULATORY SETTING	1
3	М	ETHODS	2
	3.1	Desktop Review	2
	3.2	Field Survey	2
4	RE	SULTS	5
	4.1	Desktop Review	5
	4.2	Field Survey	9
		ONCLUSIONS1	
6	RE	FERENCES1	5

## **FIGURES**

Figure 3.1	Project Location Map	4
Figure 4.1	Surface Waters Map	6
Figure 4.2	FEMA Flood Hazard Map	7
Figure 4.3	Soils Map	8
Figure 4.4	Potential WOTUS Location Map	12

## <u>TABLES</u>

Table 3.1	Wetland Indicator Status	3
Table 4.1	Plant Species Observed in the Study Area1	0

## **APPENDICES**

Appendix A	Wetland Determination Forms

Appendix B Representative Photographs

## 1 INTRODUCTION

CORE Consultants, Inc. (CORE) was contracted by Classic Communities to perform a potential Waters of the U.S. (WOTUS) delineation for the proposed mixed-use development Jayne's Parcel Project in El Paso County, Colorado. The proposed Project would include the construction of single-family residential lots, open spaces, a detention pond, and commercial facilities. CORE completed the delineation to aid in avoidance and minimization of impacts to Waters of the U.S. (WOTUS). This report contains the methods, results, and conclusions of the delineation.

The Study Area encompasses 141 acres, southwest of the intersection of Vollmer Road and Poco Road in El Paso County. The Study Area ranges in elevation from 7,090 to 7,230 feet above mean sea level, and is situated on the U.S. Geological Survey (USGS) Falcon NW, Colorado 7.5-minute quadrangle (USGS 2019) within Sections 28 and 33 of Township 12 South, Range 65 West, 6th Principal Meridian.

## 2 **REGULATORY SETTING**

The U.S. Army Corps of Engineers (USACE) and U.S. Environmental Protection Agency (EPA) regulate the discharge of dredged and fill material into jurisdictional WOTUS pursuant to Section 404 of the Clean Water Act (CWA).

The USACE typically has jurisdiction over navigable or traditionally navigable waters, relatively permanent waters, and wetlands that abut such waters, and determines jurisdiction over other waters based predominantly on their significant nexus to navigable or traditionally navigable waters (i.e., WOTUS). The Navigable Waters Protection Rule, which became effective on June 22, 2020, changed the definition of a jurisdictional Water of the U.S (EPA 2020). However, on August 30, 2021, the Navigable Waters Protection Rule was vacated by order of the U.S. District Court for the District of Arizona, and on December 7, 2021, a proposed rule to reinstate the pre-2015 WOTUS definition was published in the Federal Register (EPA 2021a; EPA 2021b). The pre-2015 WOTUS definition more broadly applies federal jurisdiction to streams and wetlands than the recently vacated Navigable Waters Protection Rule. A public comment period for the proposed rule closed on February 7, 2022 (EPA 2021b). The features delineated in the Study Area may be considered jurisdictional by the USACE. Only the USACE can render an approved jurisdictional determination.

Section 40 of the Code of Federal Regulations Part 232.2 describes activities that do not require a permit under CWA Section 404. Residential and commercial development construction activities regulated under the CWA which typically require a CWA Section 404 permit include temporary construction disturbance, grading, access using heavy equipment, and placement of material or foundations within WOTUS.

The 2021 Nationwide Permit (NWP) 29-Residential Developments may authorize construction of residential developments including building foundations, building pads, and attendant features that do not cause the loss of greater than 0.5 acres of WOTUS and qualify for other thresholds in the 2021 Regional Conditions to Nationwide Permits in the State of Colorado. The NWP 29 can be considered if all proposed impacts to jurisdictional waters are directly related to residential developments and associated infrastructure. Alternatively, impacts to WOTUS due to construction of commercial facilities within a mixed-use development can be covered under the NWP 39 –

Commercial and Institutional Developments. NWP 39 retains the limitation of no loss greater than 0.5 acres of WOTUS and other thresholds in the 2021 Regional Conditions. An understanding of proposed impacts to WOTUS is necessary to determine the permits needed to authorize the activities in WOTUS.

In Colorado, joint Section 404 and 401 permitting is available through the NWP program (CDPHE 2017). NWPs are certified by the Colorado Department of Public Health and Environment (CDPHE) at each reissuance of NWPs. Certain NWPs certified by the CDPHE are conditionally certified, and applicants for those certain NWPs must comply with the general conditions issued by the CDPHE.

### 3 METHODS

CORE conducted a desktop review and field delineation for wetlands and other potential WOTUS within the Study Area (Figure 3.1). The delineation was conducted according to methods described in the 1987 USACE Wetland Delineation Manual (USACE 1987) and the Regional Supplement to the USACE Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0, USACE 2010).

The field delineation was completed on February 1 and 9, 2022. The wetland scientist delineated and mapped boundaries of features within the Study Area during the field delineation.

### 3.1 Desktop Review

A review of desktop data sources was performed to determine the presence and location of potential wetlands and other WOTUS within the Study Area.

- U.S. Department of Agriculture (USDA) National Aerial Imagery Program imagery (USDA 2021a)
- USDA Natural Resources Conservation Service County soil survey maps (USDA 2021b)
- U.S. Fish and Wildlife Service (USFWS) National Wetland Inventory (NWI) Maps (USFWS 2021)
- USGS Topographic Maps (USGS 2019)
- USGS National Hydrography Dataset (NHD; USGS 2021)
- Federal Emergency Management Agency (FEMA) National Flood Hazard Layer (FEMA 2022)
- EPA Ecoregions of the Continental United States (Chapman et al. 2006)

### 3.2 Field Survey

CORE staff collected data for wetland and upland sample plots in the Study Area and reviewed the plots for indicators of hydrophytic vegetation, hydric soil, and hydrology in order to document jurisdictional wetlands. Potential WOTUS were evaluated for ordinary high water mark (OHWM) characteristics following methods in the *Guide to Ordinary High Water Mark (OHWM) Delineation for Non-Perennial Streams in the Western Mountains, Valleys, and Coast Region of the United States* (USACE 2014). Plants were identified using the *Flora of Colorado* (Ackerfield 2015). Wetland indicator status for vegetation was determined following the 2020 National Wetland Plant List (USACE 2021). The 2020 National Wetland Plant List attributes species with five ratings based on their occurrence within wetlands (Table 3.1; USACE 2021). Data for each sample plot were collected on the Wetland Determination Data Sheet: Western Mountains, Valleys, and Coast Region (Appendix A) and site photos and sample plots were captured as well (Appendix B).

### TABLE 3.1 WETLAND INDICATOR STATUS

Indicator Status (abbreviation)	Occurrence in Wetlands
Obligate (OBL)	almost always occur in wetlands
Facultative Wetland (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
Upland (UPL)	almost always occur in non-wetlands

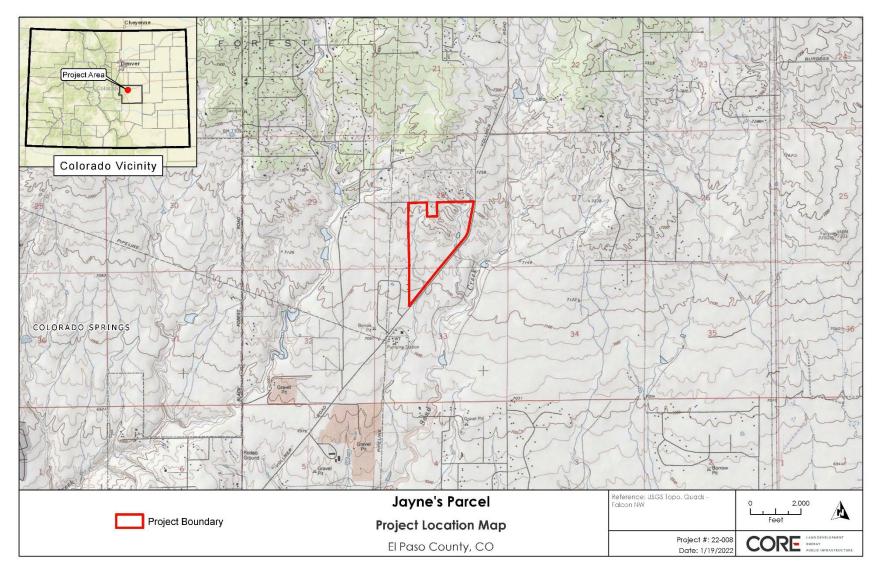


Figure 3.1 Project Location Map

### 4 **RESULTS**

### 4.1 Desktop Review

NWI and NHD indicated the presence of potential WOTUS, including two unnamed, intermittent streams and three freshwater ponds, which intersect the Study Area at multiple locations (Figure 4.1). NHD states that the stream on the western side of the Study Area has an annual mean flow of less than one cubic foot per second (USGS 2021). Similar parameters were not available for the stream on the eastern side of the Study Area.

The Study Area is within a FEMA-mapped Area of Minimal Flood Hazard, Zone X (FEMA 2022). Other flood hazard types in the vicinity of the Study Area are located 0.23 miles east and 0.60 miles west of the Study Area and are both FEMA-mapped Floodplain, Zone AE (Regulatory Floodway; Figure 4.2).

The Study Area consists of Pring coarse sandy loam soils, with 3 to 8 percent slopes (Figure 4.3; USDA 2021b). Pring soils exhibit rapid permeability, good drainage, and slow runoff. They can have slope gradients ranging from 0 to 30 or more percent. Pring soils are typically found on hills, ridges, alluvial fans, and valley side slopes (Soil Survey Staff et al. 1999)

The Study Area is in the Foothill Grasslands Level IV Ecoregion of the Southwestern Tablelands Level III Ecoregion (Chapman et al. 2006). The Foothill Grasslands region includes a mix of grassland types with isolated pockets of tallgrass prairie species and is dominated by loamy, gravelly, deep and mesic substrate. Pine woodlands are scattered throughout the region. Common plant species in the region include big bluestem (*Andropogon gerardii*), little bluestem (*Schizachyrium scoparium*), yellow indiangrass (*Sorghastrum nutans*), and switchgrass (*Panicum virgatum L.;* Chapman et al. 2006).



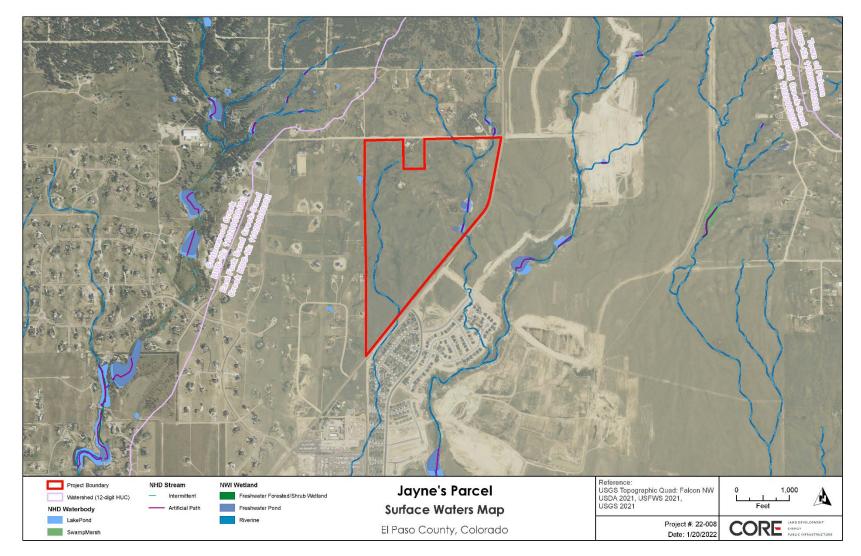


Figure 4.1 Surface Waters Map



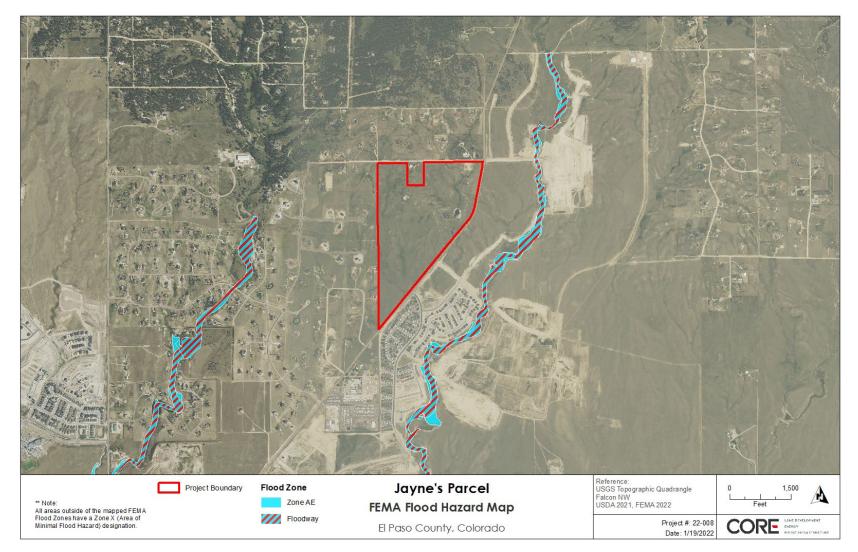


Figure 4.2 FEMA Flood Hazard Map



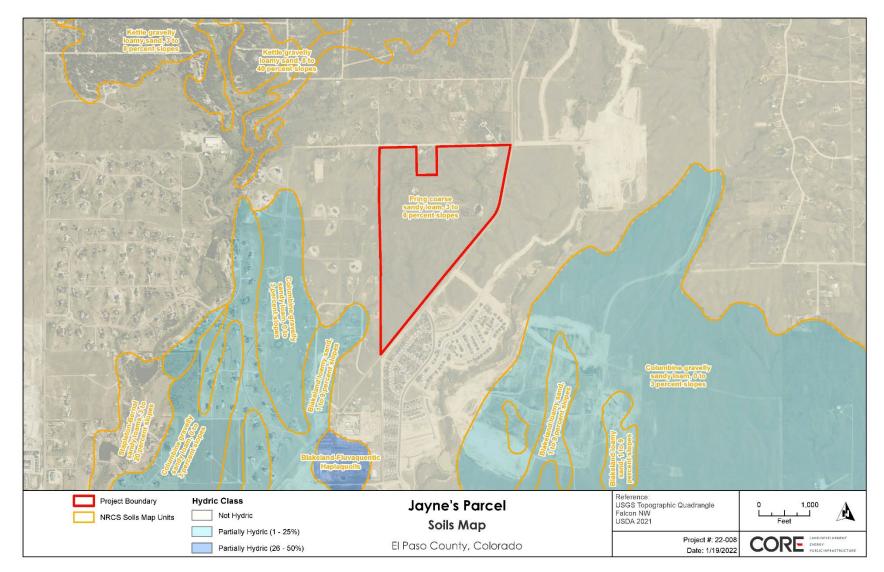


Figure 4.3 Soils Map



### 4.2 Field Survey

A wetland scientist conducted field surveys of the Study Area on February 1 and 9, 2022. It is generally desirable to conduct delineations during the growing season, as winter conditions can make field work challenging and reduce the accuracy of mapping. Vegetation was remnant from 2021 and may not be fully representative of the species that may be present in both wetlands and uplands. In addition, one of the dominant wetland species identified, Arctic rush (*Juncus arcticus*), may regularly occur in areas that do not meet soil hydric soil criteria. Soils were frozen in some locations, and as a result, limited soil excavation and confirmation of wetland/non-wetland soil types could occur. In addition, up to 10% of upland inclusions (with what appeared to be predominantly upland vegetation) may be mapped within wetland areas. As a result, we recommend that an additional field visit occur during the growing season to confirm that mapped wetland areas meet the three wetland criteria. The information provided in this report is our professional opinion based on field conditions at the time of the field visit.

Thirty-eight palustrine emergent (PEM) wetland pockets and one pond were delineated within the Study Area. The PEM wetland pockets totaled 9.48 acres (Figure 4.4). As shown on Figure 4.4, most of the PEM wetland pockets occurred where streams were mapped on the USGS topographic map. A human made dam was observed just south of WT-A39 in the eastern portion of the Study Area. Behind this dam (to the north), a former pond filled with wetland vegetation was observed (WT-A39). A pond with an OHWM was also observed within WT-A39. Down gradient (south) of the dam, wetlands were not observed until wetland WT-A-33. A portion of WT-A-33 appears to be a former pond that is vegetated primarily with cattails (*Typha* sp.). Additional wetland pockets occurred in depressions throughout the Study Area where groundwater may be seeping out of side slopes. Data for upland and wetland sample plots collected throughout the Study Area are included in Appendix A.

Where possible to observe, the hydric soil indicator within the PEM wetlands was Redox Dark Surface. As mentioned above, additional soil pits will need to be excavated during the growing season to confirm that hydric soils are present throughout the currently mapped wetlands. The primary wetland hydrology indicator, Oxidized Rhizospheres on Living Roots, was present in the wetland sample plots that met the Redox Dark Surface hydric soil indicator. Secondary wetland hydrology indicators, including Geomorphic Position and the FAC-Neutral Test, were also observed in the mapped wetlands. Dominant plant species within wetland sample plots included Arctic rush (*Juncus arcticus*) and cattails (*Typha* sp.). Hydrophytic vegetation indicators included the Rapid Test for Hydrophytic Vegetation, Dominance Test is >50%, and Prevalence Index is  $\leq$  3.0.

Uplands around the delineated wetlands and pond lacked requisite indicators of wetland hydrology, hydric soil, and hydrophytic vegetation. The upland plant community was diverse; some of the species observed included blue grama (*Bouteloua gracilis*), diffuse knapweed (*Centaurea diffusa*), little bluestem (*Schizachyrium scoparium*), prairie dropseed (*Sporobolus heterolepis*), fringed sage (*Artemisia frigida*), western wheatgrass (*Pascopyrum smithil*), and wormwood/sagebrush (*Artemisia sp.*). A list of the plant species observed in the Study Area is provided in Table 4.1.

### TABLE 4.1 PLANT SPECIES OBSERVED IN THE STUDY AREA

Scientific NAME	COMMON NAME	WETLAND INDICATOR STATUS
	AMINOIDS/RUSHES/SEDGES	
Agrostis cf. gigantea	Redtop bent	FAC
Andropogon gerardii	Big bluestem	FACU
Aristida purpurea	Purple three-awn	UPL
Bouteloua gracilis	Blue grama	UPL
Bromus inermis	Smooth brome	UPL
Bromus tectorum <sup>1</sup>	Cheatgrass	UPL
Carex sp.	Sedge	Various
Dactylis glomerata	Orchard grass	FACU
Eleocharis sp.	Spikerush	FACW or OBL
Elymus canadensis	Canada wildrye	FAC
Elymus elymoides	Squirreltail	FACU
Elymus trachycaulus	Slender wheatgrass	FAC
Eragrostis sp.	Lovegrass	Various
Festuca sp.	Fescue	Various
Hordeum jubatum	Foxtail barley	FAC
Juncus arcticus	Arctic rush	FACW
Juncus dudleyi	Path rush	FAC
Koeleria macrantha	Junegrass	UPL
Muhlenbergia montana	Mountain muhly	UPL
Pascopyrum smithii	Western wheatgrass	FACU
Poa pratensis	Kentucky bluegrass	FAC
Schizachyrium scoparium	Little bluestem	FACU
Schoenoplectus tabernaemontani	Softstem bulrush	OBL
Setaria sp.	Foxtail	Various
Sporobolus cryptandrus	Sand dropseed	FACU
Sporobolus heterolepis	Prairie dropseed	FACU
	FORBS/VINES/CACTI	1
Achillea millefolium	Common yarrow	FACU
Alisma sp.	Water-plantain	OBL
Alyssum cf. desertorum	Desert madwort	UPL
Antennaria sp.	Pussytoes	Variable
Artemisia ludoviciana	Louisiana sagewort	FACU
Artemisia sp.	Wormwood	Variable
Asclepias speciosa	Showy milkweed	FAC
Bassia scoparia	Kochia	FAC
Carduus nutans <sup>1</sup>	Musk thistle	UPL
Centaurea diffusa <sup>1</sup>	Diffuse knapweed	UPL

Scientific Name	COMMON NAME	WETLAND INDICATOR STATUS
Cirsium arvense <sup>1</sup>	Canada thistle	FAC
Cirsium sp.	Thistle	Variable
Conyza canadensis	Horseweed	UPL
Descurainia sophia	Flixweed	UPL
Epilobium cf. ciliatum	American willow-herb	FACW
Eriogonum sp.	Buckwheat	Variable
Geum macrophyllum	Large-leaved avens	FAC
Geranium sp.	Geranium	FAC or FACU
Helianthus sp.	Sunflower	Variable
Heterotheca villosa	Hairy false goldenaster	UPL
Lactuca serriola	Prickly lettuce	FACU
Mentha arvensis	Wild mint	FACW
Oenothera sp.	Evening primrose	Variable
Opuntia cf. polyacantha	Plains pricklypear	UPL
Penstemon sp.	Beardtongue	FAC, FACU, UPL
Plantago lanceolata	Narrowleaf plantain	FACU
Plantago patagonica	Woolly plantain	UPL
Potentilla sp.	Cinquefoil	Variable
Rumex crispus	Curly dock	FAC
Salsola tragus	Russian thistle	FACU
Sisymbrium altissimum	Tall tumblemustard	FACU
Solidago cf. canadensis	Canada goldenrod	FACU
Solidago cf. rigida var. humilis	Stiff goldenrod	FACU
Solidago sp.	Goldenrod	FACW, FAC, FACU
Symphyotrichum cf. falcatum	White prairie aster	FACU
Tragopogon dubius	Western salsify	UPL
Typha sp.	Cattails	OBL
Verbascum thapsus <sup>1</sup>	Common mullein	FACU
Yucca glauca	Soapweed yucca	UPL
	SUB-SHRUBS/SHRUBS/TREES	
Artemisia frigida	Fringed sage	UPL
Cercocarpus montanus	Mountain mahogany	UPL
Juniperus sp.	Juniper	UPL
Pinus ponderosa	Ponderosa pine	FACU
Populus deltoides	Plains cottonwood	FAC
Rosa sp.	Rose	FAC, FACU, UPL
Salix exigua	Coyote willow	FACW
Symphoricarpos sp.	Snowberry	FAC, FACU, UPL

<sup>1</sup>Colorado-listed Noxious Weed (Colorado Department of Agriculture 2022).

CORE

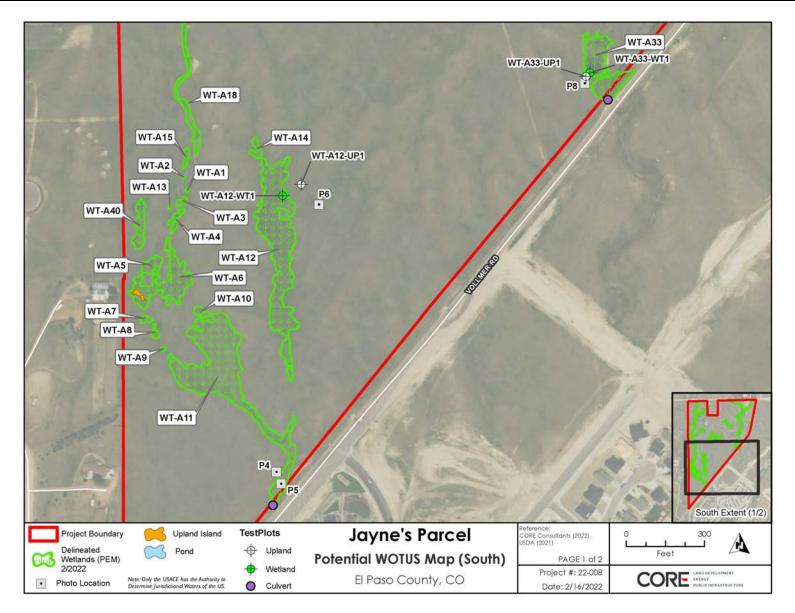


Figure 4.4 Potential WOTUS Location Map (South)

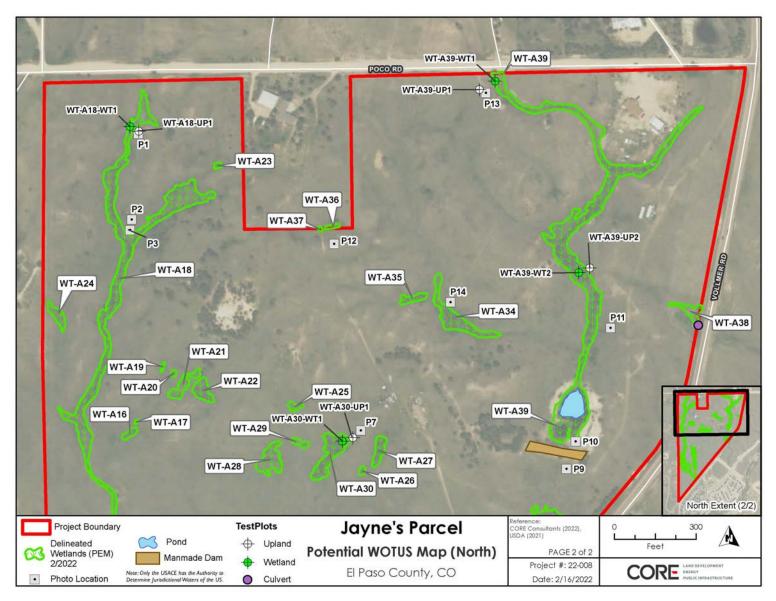


Figure 4.4 Potential WOTUS Location Map (North)



## 5 CONCLUSIONS

CORE delineated the boundary of 38 PEM wetlands and one pond within the Study Area. The 141acre Study Area contains a total of 9.48 acres of wetland area.

Impacts to WOTUS should be avoided to the extent practicable. If WOTUS impacts are minimal, it is likely that the project could be permitted for temporary and permanent impacts incurred as a result of construction activities under a USACE Nationwide Permit. Mitigation may be required for losses of greater than 0.1 acre of wetlands. Should impacts to WOTUS exceed the thresholds for the appropriate NWP, the project would be permitted under an Individual Permit (IP). If NWP impact limits are exceeded, IPs require a 30-day public notice period, alternatives evaluation, and a separate 401 Water Quality Certification from the CDPHE.

The results and conclusions of the delineation are limited to the Study Area. If additional area will be disturbed as part of construction, additional analysis and delineation may be required.



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# APPENDIX A

## Wetland Determination Data Forms

Project/Site: Jayne's Parcel	City/County: El Paso		Sampling D	ate: 2/1/22
Applicant/Owner:		State: CO		oint:WT-A12-UP1
Investigator(s): S. Clark	Section, Township, Range	: S28 and 33, T12S	, R65W	
Landform (hillslope, terrace, etc.): terrace	_ Local relief (concave, con			Slope (%): 0
Subregion (LRR): E Lat: 38	°58'35.40"N Lo	ong: - 104°40'18.06"	W	Datum: WGS84
Soil Map Unit Name: Pring coarse sandy loam, 3-8% slopes		NWI classific	ation: <u>None</u>	
Are climatic / hydrologic conditions on the site typical for this time of y	ear? Yes <u>×</u> No	(If no, explain in R	emarks.)	
Are Vegetation, Soil, or Hydrology significantly	y disturbed? Are "Nor	rmal Circumstances" p	oresent? Ye	s_X No
Are Vegetation, Soil, or Hydrology naturally p	oblematic? (If neede	ed, explain any answe	rs in Remark	s.)

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

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

### **VEGETATION – Use scientific names of plants.**

NA	Absolute	Dominant		Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: <u>NA</u> )	% Cover	Species?	Status	Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
1				
2				Total Number of Dominant
3				Species Across All Strata: <u>2</u> (B)
4				Percent of Dominant Species
NA		= Total Co	over	That Are OBL, FACW, or FAC: 0 (A/B)
Sapling/Shrub Stratum (Plot size: NA )				Prevalence Index worksheet:
1				Total % Cover of: Multiply by:
2				
3				
4				
5				FAC species $\frac{0}{22}$ x 3 = $\frac{0}{122}$
0		= Total Co	wor	FACU species 30 x 4 = 120
Herb Stratum (Plot size: 5')		10tal CC		UPL species $50   x  ext{ 5} = 250$
1 Artemisia ludoviciana	10		FACU	Column Totals: 80 (A) 370 (B)
2. Schizachyrium scoparium	20	x	UPL	
3. Bouteloua gracilis	20	x	UPL	Prevalence Index = $B/A = \frac{4.63}{2}$
Aristida purpurea	10		UPL	Hydrophytic Vegetation Indicators:
5 Sporobolus heterolepis	10		FACU	1 - Rapid Test for Hydrophytic Vegetation
6 Symphyotrichum cf. falcatum	- 10		FACU	2 - Dominance Test is >50%
				3 - Prevalence Index is $≤3.0^1$
7				4 - Morphological Adaptations <sup>1</sup> (Provide supporting
8				data in Remarks or on a separate sheet)
9				5 - Wetland Non-Vascular Plants <sup>1</sup>
10				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
11				<sup>1</sup> Indicators of hydric soil and wetland hydrology must
	60	= Total Co	ver	be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size: NA )				
1				Hydrophytic
2				Vegetation
		= Total Co		Present? Yes <u>No X</u>
% Bare Ground in Herb Stratum 40		10101 00		
Remarks:				1

Dooth										
Depth	Matrix			x Features	S T. 1	2	<b>-</b> ·		<b>.</b> .	_
	<u>Color (moist)</u> )YR 2/1	<u> </u>	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	<u>Texture</u>		Remark	S
<u> </u>	5111 2/1						Sandy loa	m		
				·						
		·		·						
		·		·						
				·						
1 <u>Turney</u>	ntration D-Dan							21	-Dena Linina	N4-N4-strive
			Reduced Matrix, CS RRs, unless other			ed Sand Gr			_=Pore Lining oblematic Hy	
-					su.)				-	
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Black Histic (		-	Loamy Mucky N		) (excent				Dark Surface	(TF12)
Hydrogen Su	. ,	-	Loamy Gleyed I	•				-	n in Remarks)	
	ow Dark Surface	e (A11)	Depleted Matrix		,					
Thick Dark S		· / <u>-</u>	Redox Dark Su	. ,			<sup>3</sup> Indi	cators of hydi	ophytic veget	ation and
	y Mineral (S1)	_	Depleted Dark \$	Surface (F	7)			-	ogy must be p	
Sandy Gleye	d Matrix (S4)	_	Redox Depress	ions (F8)			u	nless disturbe	ed or problemation	atic.
Restrictive Laye										
<sub>Type:</sub> <u>Frozen</u>										
Depth (inches)	): 7						Hydric	Soil Present	Yes	No_X
Jnlikely to b	e hydric du	ie to pla	nt community	/ and la	andsca	ape pos	sition.			
Jnlikely to b		ie to pla	nt community	/ and la	andsca	ape pos	sition.			
Jnlikely to b	ogy Indicators:		nt community		andsca			econdary Indi	cators (2 or m	ore required)
Jnlikely to b	ogy Indicators: s (minimum of o		check all that apply	y)						
UNIIKELY to b	ogy Indicators: s (minimum of o er (A1)		check all that apply	γ) ined Leave	es (B9) ( <b>e</b>			Water-Stai	ned Leaves (E	ore required) 39) ( <b>MLRA 1, 2,</b>
Jnlikely to b         YDROLOGY         Wetland Hydrold         Primary Indicators	<b>ogy Indicators:</b> <u>s (minimum of o</u> er (A1) <sup>°</sup> able (A2)		check all that apply	y) ined Leave 1, 2, 4A, a	es (B9) ( <b>e</b>			Water-Stai 4A, and	ned Leaves (E I <b>4B)</b>	39) ( <b>MLRA 1, 2</b> ,
Unlikely to b	ogy Indicators: s (minimum of o er (A1) able (A2) 3)		<u>check all that apply</u> Water-Stai MLRA Salt Crust	y) ined Leave <b>1, 2, 4A, a</b> (B11)	es (B9) (e Ind 4B)		<u>S</u>	_ Water-Stai <b>4A, anc</b> _ Drainage F	ned Leaves (E I <b>4B)</b> Patterns (B10)	39) ( <b>MLRA 1, 2</b> ,
UNDROLOGY Wetland Hydrold Primary Indicators Surface Wate High Water T Saturation (A Water Marks	ogy Indicators: s (minimum of o er (A1) able (A2) (B1)		<u>check all that appl</u> Water-Stai MLRA Salt Crust Aquatic Inv	γ) ined Leave <b>1, 2, 4A, a</b> (B11) vertebrates	es (B9) ( <b>e</b> in <b>d 4B)</b> s (B13)		<u>S</u>	Water-Stai <b>4A, and</b> Drainage F Dry-Seaso	ned Leaves (B I <b>4B)</b> Patterns (B10) n Water Table	39) ( <b>MLRA 1, 2,</b> e (C2)
Jnlikely to b         YDROLOGY         Wetland Hydrold         Primary Indicators         Surface Wate         High Water T         Saturation (A         Water Marks         Sediment De	bgy Indicators: s (minimum of o er (A1) Table (A2) .3) (B1) posits (B2)		<u>check all that apply</u> Water-Stai Salt Crust Aquatic Inv Hydrogen	y) ined Leave <b>1, 2, 4A, a</b> (B11) vertebrates Sulfide Oc	es (B9) ( <b>e</b> in <b>d 4B)</b> s (B13) dor (C1)	xcept	<u>Sr</u>	Water-Stai 4A, and Drainage F Dry-Seaso Saturation	ned Leaves (B I <b>4B)</b> Patterns (B10) n Water Table Visible on Ae	39) ( <b>MLRA 1, 2,</b> e (C2) rial Imagery (C9
UNDROLOGY Wetland Hydrold Primary Indicators Surface Wate High Water T Saturation (A Water Marks Sediment De Drift Deposits	bgy Indicators: s (minimum of o er (A1) Table (A2) (3) (B1) eposits (B2) s (B3)		<u>check all that apply</u> Water-Stai MLRA Salt Crust Aquatic Inv Hydrogen Oxidized F	y) ined Leave <b>1, 2, 4A, a</b> (B11) vertebrates Sulfide Oc Rhizospher	es (B9) ( <b>e</b> I <b>nd 4B)</b> s (B13) dor (C1) res along	xcept	<u>S</u> i  	Water-Stai 4A, and Drainage F Dry-Seaso Saturation Geomorph	ned Leaves (E I <b>4B)</b> Patterns (B10) n Water Table Visible on Ae ic Position (D2)	39) ( <b>MLRA 1, 2,</b> e (C2) rial Imagery (C9
UNDROLOGY Wetland Hydrold Primary Indicators Surface Wate High Water T Saturation (A Water Marks Sediment De Drift Deposits Algal Mat or 0	by Indicators: s (minimum of o er (A1) Table (A2) (B1) (B1) (B1) s (B3) Crust (B4)		<u>check all that apply</u> Water-Stai <b>MLRA</b> Salt Crust Aquatic Inv Hydrogen Oxidized F Presence of	y) ined Leave 1, 2, 4A, a (B11) vertebrate: Sulfide Oc Rhizospher of Reduce	es (B9) ( <b>e</b> I <b>nd 4B)</b> s (B13) dor (C1) res along d Iron (C4	xcept	<u>Si</u>   	Water-Stai 4A, and Drainage F Dry-Seaso Saturation Geomorph Shallow Ac	ned Leaves (E <b>I 4B)</b> Patterns (B10) n Water Table Visible on Aer ic Position (D2 juitard (D3)	39) ( <b>MLRA 1, 2,</b> e (C2) rial Imagery (C9
Jnlikely to b IYDROLOGY Wetland Hydrold Primary Indicators Surface Wate High Water T Saturation (A Water Marks Sediment De Drift Deposits Algal Mat or 0 Iron Deposits	bgy Indicators: <u>s (minimum of o</u> er (A1) Table (A2) (B1) (B1) posits (B2) s (B3) Crust (B4) s (B5)		<u>check all that apply</u> Water-Stai <b>MLRA</b> Salt Crust Aquatic Inv Hydrogen Oxidized R Presence of Recent Iro	y) ined Leave (B11) vertebrate: Sulfide Oc Rhizospher of Reduce n Reductio	es (B9) ( <b>e</b> and <b>4B)</b> s (B13) dor (C1) res along d Iron (C4 on in Tille	xcept Living Roc 1) d Soils (C6	<u>Sr</u>  	Water-Stai 4A, and Drainage F Dry-Seaso Saturation Geomorph Shallow Ad FAC-Neutr	ned Leaves (E Patterns (B10) n Water Table Visible on Ae ic Position (D2 juitard (D3) al Test (D5)	39) ( <b>MLRA 1, 2,</b> e (C2) rial Imagery (C9 2)
Jnlikely to b         IYDROLOGY         Wetland Hydrold         Primary Indicators         Surface Water         High Water T         Saturation (A         Water Marks         Sediment De         Drift Deposits         Algal Mat or (C)         Iron Deposits         Surface Soil	bgy Indicators: <u>s (minimum of o</u> er (A1) Table (A2) (B1) (B1) posits (B2) s (B3) Crust (B4) s (B5)	ne required;	<u>check all that apply</u> Water-Stai MLRA Salt Crust Aquatic Inv Hydrogen Oxidized F Presence of Recent Iro Stunted or	y) ined Leave 1, 2, 4A, a (B11) vertebrates Sulfide Oc Rhizospher of Reduce n Reductio Stressed	es (B9) ( <b>e</b> a <b>nd 4B)</b> s (B13) dor (C1) res along d Iron (C4 on in Tille Plants (D	xcept Living Roc 1) d Soils (C6	<u>Sr</u>  	Water-Stai 4A, and Drainage F Dry-Seaso Saturation Geomorph Shallow Ad FAC-Neutr Raised An	ned Leaves (E <b>I 4B)</b> Patterns (B10) n Water Table Visible on Aer ic Position (D2 juitard (D3)	39) ( <b>MLRA 1, 2,</b> e (C2) rial Imagery (C9 2)
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Jnlikely to b	bgy Indicators: s (minimum of o er (A1) Table (A2) (B1) (B1) (B1) s (B3) Crust (B2) s (B3) Crust (B4) s (B5) Cracks (B6) isible on Aerial I getated Concave	ne required; magery (B7)	<u>check all that apply</u> <u>Water-Stai</u> <u>MLRA</u> <u>Salt Crust</u> <u>Aquatic Inv</u> <u>Hydrogen</u> <u>Oxidized F</u> <u>Recent Iro</u> <u>Stunted or</u> <u>Other (Exp</u>	y) ined Leave 1, 2, 4A, a (B11) vertebrates Sulfide Oc Rhizospher of Reduce n Reductio Stressed	es (B9) ( <b>e</b> a <b>nd 4B)</b> s (B13) dor (C1) res along d Iron (C4 on in Tille Plants (D	xcept Living Roc 1) d Soils (C6	<u>Sr</u>  	Water-Stai 4A, and Drainage F Dry-Seaso Saturation Geomorph Shallow Ad FAC-Neutr Raised An	ned Leaves (E Patterns (B10) n Water Table Visible on Ael ic Position (D2) juitard (D3) al Test (D5) Mounds (D6)	39) ( <b>MLRA 1, 2,</b> e (C2) rial Imagery (C9 2)
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HYDROLOGY         Wetland Hydrold         Primary Indicators         Surface Water         High Water T         Saturation (A         Water Marks         Sediment De         Drift Deposits         Algal Mat or Q         Iron Deposits         Surface Soil Q         Inundation Vi         Sparsely Veg         Field Observation         Surface Water Prive         Water Table Press         Saturation Preservation	bgy Indicators: s (minimum of o er (A1) Table (A2) (B1) (B1) posits (B2) s (B3) Crust (B4) s (B5) Cracks (B6) isible on Aerial I getated Concave ons: resent? Y sent? Y	ne required; magery (B7) es N es N	<u>check all that apply</u> <u> </u> Water-Stai <b>MLRA</b> <u> </u> Salt Crust <u> </u> Aquatic Inv <u> </u> Oxidized F <u> </u> Oxidized F <u> </u> Presence of <u> </u> Recent Iro <u> </u> Stunted or <u> </u> Other (Exp 8)	y) ined Leave 1, 2, 4A, a (B11) vertebrates Sulfide Oc Rhizospher of Reduce n Reductio Stressed olain in Re ches): ches):	es (B9) ( <b>e</b> in <b>d 4B)</b> s (B13) dor (C1) res along d Iron (C4 on in Tille Plants (D marks)	Living Roo xcept 4) d Soils (C6 1) (LRR A	<u>S</u> I  ots (C3) S)	Water-Stai 4A, and Drainage F Dry-Seaso Saturation Geomorph Shallow Ad FAC-Neutr Raised Ant Frost-Heav	ned Leaves (E Patterns (B10) n Water Table Visible on Ael ic Position (D2) juitard (D3) al Test (D5)	39) ( <b>MLRA 1, 2,</b> e (C2) rial Imagery (C9 2) ) ( <b>LRR A</b> ) (D7)
Jnlikely to b  IYDROLOGY  Wetland Hydrolo  Primary Indicators Surface Water High Water T Saturation (A Water Marks Sediment De Drift Deposits Algal Mat or (B Iron Deposits Surface Soil (B) Surface Water Pri Water Table Press Saturation Preser (includes capillary)	bgy Indicators: <u>s (minimum of o</u> er (A1) Table (A2) (B1) s (B3) Crust (B4) s (B5) Cracks (B6) isible on Aerial I getated Concave ons: resent? Y sent? Y offinge)	ne required; magery (B7) e Surface (B es N es N es N	<u>check all that apply</u> <u></u> Water-Stai <u>MLRA</u> <u>Salt Crust</u> <u>Aquatic Inv</u> <u>Aquatic Inv</u> <u>Cylocetric Construct</u> <u>Cylo</u>	y) ined Leave (B11) vertebrate: Sulfide Oc Rhizospher of Reduce n Reductio Stressed olain in Re ches): ches):	es (B9) ( <b>e</b> and <b>4B</b> ) s (B13) dor (C1) res along d Iron (C4 on in Tille Plants (D marks)	xcept Living Roc ) d Soils (C6 1) (LRR A	Si 	Water-Stai 4A, and Drainage F Dry-Seaso Saturation Geomorph Shallow Ad FAC-Neutr Raised Ant Frost-Heav	ned Leaves (E I <b>4B)</b> Patterns (B10) n Water Table Visible on Ae ic Position (D2 juitard (D3) al Test (D5) Mounds (D6) re Hummocks	39) ( <b>MLRA 1, 2,</b> e (C2) rial Imagery (C9 2) ) ( <b>LRR A</b> ) (D7)
Jnlikely to b  IYDROLOGY  Wetland Hydrolo  Primary Indicators Surface Water High Water T Saturation (A Water Marks Sediment De Drift Deposits Algal Mat or (B Iron Deposits Surface Soil (B) Surface Water Pri Water Table Press Saturation Preser (includes capillary)	bgy Indicators: <u>s (minimum of o</u> er (A1) Table (A2) (B1) s (B3) Crust (B4) s (B5) Cracks (B6) isible on Aerial I getated Concave ons: resent? Y sent? Y offinge)	ne required; magery (B7) e Surface (B es N es N es N	<u>check all that apply</u> <u> </u> Water-Stai <u>    MLRA</u> <u>    Salt Crust</u> <u>    Aquatic Inv</u> <u>    Aquatic Inv</u> <u>    Oxidized F</u> <u>    Presence of</u> <u>    Recent Iro</u> <u>    Stunted or</u> <u>    Stunted or</u> <u>    Other (Exp</u> 8) lo <u>x</u> Depth (inc 10 <u>x</u> Depth (inc	y) ined Leave (B11) vertebrate: Sulfide Oc Rhizospher of Reduce n Reductio Stressed olain in Re ches): ches):	es (B9) ( <b>e</b> and <b>4B</b> ) s (B13) dor (C1) res along d Iron (C4 on in Tille Plants (D marks)	xcept Living Roc ) d Soils (C6 1) (LRR A	Si 	Water-Stai 4A, and Drainage F Dry-Seaso Saturation Geomorph Shallow Ad FAC-Neutr Raised Ant Frost-Heav	ned Leaves (E I <b>4B)</b> Patterns (B10) n Water Table Visible on Ae ic Position (D2 juitard (D3) al Test (D5) Mounds (D6) re Hummocks	39) ( <b>MLRA 1, 2,</b> e (C2) rial Imagery (C9 2) ) ( <b>LRR A</b> ) (D7)
Hydrology     Wetland Hydrology     Wetland Hydrolog     Primary Indicators     Surface Water     High Water T     Saturation (A     Water Marks     Sediment De     Drift Deposits     Algal Mat or (C     Iron Deposits     Surface Soil (C     Iron Deposits     Surface Soil (C     Sparsely Veg     Field Observation     Surface Water Press     Saturation Preser     (includes capillary)	bgy Indicators: <u>s (minimum of o</u> er (A1) Table (A2) (B1) s (B3) Crust (B4) s (B5) Cracks (B6) isible on Aerial I getated Concave ons: resent? Y sent? Y offinge)	ne required; magery (B7) e Surface (B es N es N es N	<u>check all that apply</u> <u> </u> Water-Stai <u>    MLRA</u> <u>    Salt Crust</u> <u>    Aquatic Inv</u> <u>    Aquatic Inv</u> <u>    Oxidized F</u> <u>    Presence of</u> <u>    Recent Iro</u> <u>    Stunted or</u> <u>    Stunted or</u> <u>    Other (Exp</u> 8) lo <u>x</u> Depth (inc 10 <u>x</u> Depth (inc	y) ined Leave (B11) vertebrate: Sulfide Oc Rhizospher of Reduce n Reductio Stressed olain in Re ches): ches):	es (B9) ( <b>e</b> and <b>4B</b> ) s (B13) dor (C1) res along d Iron (C4 on in Tille Plants (D marks)	xcept Living Roc ) d Soils (C6 1) (LRR A	Si 	Water-Stai 4A, and Drainage F Dry-Seaso Saturation Geomorph Shallow Ad FAC-Neutr Raised Ant Frost-Heav	ned Leaves (E I <b>4B)</b> Patterns (B10) n Water Table Visible on Ae ic Position (D2 juitard (D3) al Test (D5) Mounds (D6) re Hummocks	39) ( <b>MLRA 1, 2,</b> e (C2) rial Imagery (C9) 2) ) ( <b>LRR A</b> ) (D7)
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Project/Site: Jayne's Parcel	City/County: El Pasc	)	Sampling Date: 2/1/22
Applicant/Owner:		State: CO	Sampling Point: WT-A12-WT1
Investigator(s): S. Clark	Section, Township, R	ange: <u>S28 and 33, T128</u>	, R65W
Landform (hillslope, terrace, etc.): swale			Slope (%): 0
Subregion (LRR): E	Lat: <u>38°58'35.67"N</u>	Long: - 104°40'17.43	W Datum: WGS84
Soil Map Unit Name: Pring coarse sandy loam, 3-8% slop	es	NWI classific	cation: R4SBC
Are climatic / hydrologic conditions on the site typical for this til	me of year? Yes <u>x</u> No	(If no, explain in F	emarks.)
Are Vegetation, Soil, or Hydrology sign	ificantly disturbed? Are	e "Normal Circumstances"	present? Yes X No
Are Vegetation, Soil, or Hydrology natu	Irally problematic? (If r	needed, explain any answe	rs in Remarks.)
SUMMARY OF EINDINGS Attach site man ab	owing compling point	locationa transacto	important factures ato

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

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

### **VEGETATION – Use scientific names of plants.**

NA	Absolute	Dominant		Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: NA)	<u>% Cover</u>	Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC: (A)
2				
				Total Number of Dominant         Species Across All Strata:         1         (B)
3				Species Across All Strata. (B)
4				Percent of Dominant Species
NIA		= Total Co	ver	That Are OBL, FACW, or FAC: 100 (A/B)
Sapling/Shrub Stratum (Plot size: NA )				Prevalence Index worksheet:
1				
2				Total % Cover of: Multiply by:
3				OBL species $\frac{10}{10}$ x 1 = $\frac{10}{10}$
				FACW species $\frac{82}{x \cdot 2} = \frac{164}{x \cdot 2}$
4				FAC species $\frac{15}{x \ 3} = \frac{45}{x}$
5				FACU species $9 \times 4 = 36$
		= Total Co	ver	
Herb Stratum (Plot size: 5')				UPL species $x 5 = $
<sub>1.</sub> Epilobium cf. ciliatum	2		FAC₩	Column Totals: <u>116</u> (A) <u>255</u> (B)
2. Juncus arcticus	80	x	FACW	Prevalence Index = $B/A = 2.20$
3. Cirsium arvense	15		FAC	Hydrophytic Vegetation Indicators:
4 Lactuca serriola	2		FACU	<u>×</u> 1 - Rapid Test for Hydrophytic Vegetation
5. Typha sp.	10		OBL	× 2 - Dominance Test is >50%
6. Achillea millefolium	2		FACU	
7. Pascopyrum smithii	5		FACU	<u>x</u> 3 - Prevalence Index is $\leq 3.0^{1}$
				4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
8				5 - Wetland Non-Vascular Plants <sup>1</sup>
9				
10				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
11				<sup>1</sup> Indicators of hydric soil and wetland hydrology must
	116	= Total Co	/er	be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size: NA )				
1				Hudrophytic
				Hydrophytic Vegetation
2				Present? Yes X No
% Bare Ground in Herb Stratum <sup>0</sup>		= Total Co	ver	
Remarks:				

# Sampling Point: WT-A12-WT1

Depth	Matrix				K Features		. ?	_				
<u>inches)</u>	Color (moist)	<u>%</u>	Color	(moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Textur	e		Remarks	
0-2	10YR 2/1	100						Sandy loa	am			
			·									
			·									
			·									
			·									
									2			
	dicators: (Applic						d Sand Gi				ore Lining, M matic Hydr	
		able to al				ea.)					-	
Histosol (A				ly Redox (S						uck (A10)		
Black Hist	bedon (A2)			ped Matrix	• •	1) (oxcont				rent Mate	riai (1F2) k Surface (1	E12)
-	Sulfide (A4)			ny Gleyed N			WILKA I)		-		Remarks)	F12)
	Below Dark Surface	e (A11)		eted Matrix		)					ixemarks)	
	k Surface (A12)	0 (/ (/ / / /		ox Dark Sur				<sup>3</sup> Ind	icators o	of hydroph	iytic vegetati	on and
	cky Mineral (S1)			eted Dark S		7)					must be pre	
-	eyed Matrix (S4)			ox Depressi		,					r problemati	
strictive La	yer (if present):											
Type: Froz	en											
Depth (inch	les); 2							Hydric	Soil Pre	esent?	Yes X	No
	nay be simila	r to DF	P-1 and	meet th	ne F6 ł	nydric s	soil ind	icator.				
iis soil m	-	r to DF	P-1 and	meet th	ne F6 ł	nydric s	soil ind	icator.				
iis soil m DROLOG	-		P-1 and	meet th	ne F6 ł	nydric s	soil ind	icator.				
iis soil m DROLOG etland Hydr	εY					nydric s	soil ind		Seconda	ry Indicato	ors (2 or mor	e required)
DROLOG DROLOG etland Hydr	iY rology Indicators: tors (minimum of o		ed; check a	Il that apply	()							
DROLOG etland Hydr imary Indica _ Surface W	FY rology Indicators: tors (minimum of o /ater (A1)		ed; check a	II that apply Water-Stai	/) ned Leave	es (B9) (e			Wate	er-Stained	Leaves (B9	<u>e required)</u> ) ( <b>MLRA 1, 2</b> ,
is soil m DROLOG etland Hydr mary Indica _ Surface W _ High Wate	FY rology Indicators: tors (minimum of o /ater (A1) er Table (A2)		ed; check a	II that apply Water-Stai MLRA 1	/) ned Leave I, 2, 4A, a	es (B9) (e			_ Wate 4	er-Stained <b>A, and 4B</b>	Leaves (B9) )	
is soil m DROLOG etland Hydr mary Indica _ Surface W _ High Wate _ Saturation	Fology Indicators: tors (minimum of o /ater (A1) er Table (A2) h (A3)		ed; check a 	<u>II that apply</u> Water-Stai <b>MLRA</b> 2 Salt Crust	/) ned Leav( <b>I, 2, 4A, a</b> (B11)	es (B9) (e: and 4B)		<u>s</u> 	Wate	er-Stained <b>A, and 4B</b> nage Patte	Leaves (B9 <b>)</b> erns (B10)	) (MLRA 1, 2,
is soil m DROLOG etland Hydr mary Indica _ Surface W _ High Wate _ Saturation _ Water Ma	<b>Fology Indicators:</b> tors (minimum of o /ater (A1) er Table (A2) n (A3) rks (B1)		ed; check a 	II that apply Water-Stai MLRA 1 Salt Crust of Aquatic Inv	/) ned Leave I, 2, 4A, a (B11) rertebrate	es (B9) (e: and 4B) s (B13)		<u>s</u> 	Wate 4 Drair Dry-\$	er-Stained <b>A, and 4B</b> nage Patte Season W	Leaves (B9 ) erns (B10) ater Table (0	) ( <b>MLRA 1, 2</b> , C2)
DROLOG etland Hydr imary Indica _ Surface W _ High Wate _ Saturation _ Water Mai _ Sediment	<b>SY</b> <b>rology Indicators:</b> tors (minimum of o /ater (A1) er Table (A2) a (A3) rks (B1) Deposits (B2)		ed; check a 	Il that apply Water-Stair MLRA 1 Salt Crust ( Aquatic Inv Hydrogen 5	/) ned Leave I, <b>2, 4A, a</b> (B11) rertebrate Sulfide Oo	es (B9) (e: and 4B) s (B13) dor (C1)	xcept	<u>S</u> 	Wate Drair Dry-{ Satu	er-Stained <b>A, and 4B</b> nage Patte Season W ration Visi	Leaves (B9 ) erns (B10) ater Table ( ble on Aeria	) ( <b>MLRA 1, 2</b> , C2)
is soil m DROLOG etland Hydr mary Indica Surface W High Wate Saturation Saturation Saturation Saturation Dift Depo	<b>SY</b> <b>rology Indicators:</b> <u>tors (minimum of o</u> /ater (A1) er Table (A2) a (A3) rks (B1) Deposits (B2) sits (B3)		ed; check a 	II that apply Water-Stair MLRA 1 Salt Crust of Aquatic Inv Hydrogen S Oxidized R	/) ned Leav I, <b>2, 4A, a</b> (B11) rertebrate Sulfide Oo hizosphe	es (B9) (e: ind 4B) s (B13) dor (C1) res along	xcept	<u>S</u>  	Wate Drair Dry-{ Satu Geor	er-Stained <b>A, and 4B</b> nage Patte Season W ration Visi morphic Pe	Leaves (B9 ) erns (B10) ater Table ( ble on Aeria osition (D2)	) ( <b>MLRA 1, 2</b> , C2)
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is soil m DROLOG etland Hydr mary Indica _ Surface W _ High Wate _ Saturation _ Water Mai _ Sediment _ Drift Depo _ Algal Mat _ Iron Depo	FY rology Indicators: tors (minimum of o /ater (A1) er Table (A2) a (A3) rks (B1) Deposits (B2) usits (B3) or Crust (B4) sits (B5)		ed; check a     	II that apply Water-Stai MLRA 2 Salt Crust of Aquatic Inv Hydrogen S Oxidized R Presence of Recent Iron	r) ned Leave (B11) rertebrate Sulfide Oc hizosphe of Reduce n Reductio	es (B9) (e: and 4B) s (B13) dor (C1) res along l od Iron (C4 on in Tilleo	xcept Living Roo	<u>S</u>  ots (C3) <u></u> 6) <u></u>	Wate Drair Dry-{ Satu Satu Shall FAC	er-Stained A, and 4B hage Patte Season W ration Visi morphic Po low Aquita -Neutral T	Leaves (B9 ) erns (B10) ater Table (0 ble on Aeria osition (D2) urd (D3) est (D5)	) ( <b>MLRA 1, 2</b> , C2) I Imagery (C9
<b>DROLOG</b> <b>etland Hydr</b> <b>imary Indica</b> _ Surface W _ High Wate _ Saturation _ Water Mar _ Sediment _ Drift Depo _ Algal Mat _ Iron Depo _ Surface S	Fology Indicators: tors (minimum of o /ater (A1) er Table (A2) (A3) rks (B1) Deposits (B2) osits (B3) or Crust (B4) sits (B5) oil Cracks (B6)	one require	ed; check a	Il that apply Water-Stain MLRA 1 Salt Crust of Aquatic Inv Hydrogen S Oxidized R Presence of Recent Iron Stunted or	() ned Leave (B11) rertebrate Sulfide Oo hizosphe of Reduce n Reduction Stressed	es (B9) (e: and 4B) s (B13) dor (C1) res along dor (C4 on in Tilleo Plants (D	xcept Living Roo	S  ots (C3) 6)	Wate Drair Dry-{ Satu Satu K Geor Shall C FAC Rais	er-Stained A, and 4B nage Patte Season W ration Visi morphic Pe low Aquita -Neutral Te ed Ant Mo	Leaves (B9 erns (B10) ater Table (0 ble on Aeria osition (D2) urd (D3) est (D5) unds (D6) (I	( <b>MLRA 1, 2</b> , C2) I Imagery (C9 <b>.RR A</b> )
is soil m DROLOG etland Hydr mary Indica Surface W High Wate Saturation Water Mai Sediment Drift Depo Algal Mat Iron Depo Surface S Inundatior	rology Indicators: tors (minimum of o /ater (A1) er Table (A2) (A3) rks (B1) Deposits (B2) isits (B3) or Crust (B4) sits (B5) oil Cracks (B6) n Visible on Aerial I	ne require	ed; check a 	II that apply Water-Stai MLRA 2 Salt Crust of Aquatic Inv Hydrogen S Oxidized R Presence of Recent Iron	() ned Leave (B11) rertebrate Sulfide Oo hizosphe of Reduce n Reduction Stressed	es (B9) (e: and 4B) s (B13) dor (C1) res along dor (C4 on in Tilleo Plants (D	xcept Living Roo	S  ots (C3) 6)	Wate Drair Dry-{ Satu Satu K Geor Shall C FAC Rais	er-Stained A, and 4B nage Patte Season W ration Visi morphic Pe low Aquita -Neutral Te ed Ant Mo	Leaves (B9 ) erns (B10) ater Table (0 ble on Aeria osition (D2) urd (D3) est (D5)	( <b>MLRA 1, 2</b> , C2) I Imagery (C9 <b>.RR A</b> )
is soil m DROLOG etland Hydr mary Indica Surface W High Wate Saturation Water Mai Sediment Drift Depo Algal Mat Iron Depo Surface S Inundatior Sparsely V	FY rology Indicators: tors (minimum of o /ater (A1) er Table (A2) (A3) rks (B1) Deposits (B2) sits (B3) or Crust (B4) sits (B5) oil Cracks (B6) n Visible on Aerial I /egetated Concave	ne require	ed; check a 	Il that apply Water-Stain MLRA 1 Salt Crust of Aquatic Inv Hydrogen S Oxidized R Presence of Recent Iron Stunted or	() ned Leave (B11) rertebrate Sulfide Oo hizosphe of Reduce n Reduction Stressed	es (B9) (e: and 4B) s (B13) dor (C1) res along dor (C4 on in Tilleo Plants (D	xcept Living Roo	S  ots (C3) 6)	Wate Drair Dry-{ Satu Satu K Geor Shall C FAC Rais	er-Stained A, and 4B nage Patte Season W ration Visi morphic Pe low Aquita -Neutral Te ed Ant Mo	Leaves (B9 erns (B10) ater Table (0 ble on Aeria osition (D2) urd (D3) est (D5) unds (D6) (I	( <b>MLRA 1, 2</b> , C2) I Imagery (C9 <b>.RR A</b> )
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DROLOG etland Hydr imary Indica _ Surface W _ High Water _ Saturation _ Water Mar _ Sediment _ Drift Depo _ Algal Mat _ Iron Depo _ Surface S _ Inundation _ Sparsely V eld Observation	Frology Indicators: tors (minimum of o /ater (A1) er Table (A2) (A3) rks (B1) Deposits (B2) usits (B3) or Crust (B4) sits (B5) oil Cracks (B6) to Visible on Aerial I /egetated Concave ations: Present? Y	magery (I Surface	ed; check a 	II that apply Water-Stair MLRA 2 Salt Crust of Aquatic Inv Hydrogen S Oxidized R Presence of Recent Iron Stunted or Other (Exp Depth (inc	r) ned Leave (B11) rertebrate Sulfide Oc hizosphe of Reduce n Reduction Stressed lain in Re	es (B9) (e: and 4B) s (B13) dor (C1) res along b d Iron (C4 on in Tilleo Plants (D marks)	xcept	S  ots (C3) 6)	Wate Drair Dry-{ Satu Satu K Geor Shall C FAC Rais	er-Stained A, and 4B nage Patte Season W ration Visi morphic Pe low Aquita -Neutral Te ed Ant Mo	Leaves (B9 erns (B10) ater Table (0 ble on Aeria osition (D2) urd (D3) est (D5) unds (D6) (I	( <b>MLRA 1, 2</b> , C2) I Imagery (C9 <b>.RR A</b> )
DROLOG etland Hydr imary Indica Surface W High Wate Saturation Water Mai Sediment Drift Depo Algal Mat Iron Depo Surface S Inundatior Sparsely V eld Observa urface Water ater Table P	rology Indicators: tors (minimum of o /ater (A1) er Table (A2) (A3) rks (B1) Deposits (B2) sits (B3) or Crust (B4) sits (B5) oil Cracks (B6) n Visible on Aerial I /egetated Concave tions: Present? Y	magery (F e Surface fes	ed; check a 	Il that apply Water-Stain MLRA 1 Salt Crust ( Aquatic Inv Hydrogen S Oxidized R Presence of Recent Iron Stunted or Other (Exp Depth (inc Depth (inc	() ned Leave (B11) rertebrate Sulfide Oc hizosphe of Reduction Stressed lain in Re ches):	es (B9) (e: and 4B) s (B13) dor (C1) res along dor (C4) on in Tilleo Plants (D marks)	xcept	S	Wate Drair Dry-{ Satu Shall FAC Rais Fros	er-Stained <b>A, and 4B</b> nage Patte Season W ration Visi morphic Pe low Aquita -Neutral Te ed Ant Mo t-Heave H	Leaves (B9 ) erns (B10) ater Table (f ble on Aeria osition (D2) ird (D3) est (D5) unds (D6) (I ummocks (D	) ( <b>MLRA 1, 2</b> , C2) I Imagery (C9 <b>_RR A</b> ) 7)
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<b>DROLOG Tetland Hydr Seliment Sediment Drift Depo Algal Mat Iron Depo Algal Mat Iron Depo Surface S Inundation Sparsely V eld Observa urface Water Table P aturation Pre aturation P</b>	FY Fology Indicators: tors (minimum of or /ater (A1) er Table (A2) (A3) rks (B1) Deposits (B2) sits (B3) or Crust (B4) sits (B5) oil Cracks (B6) n Visible on Aerial I /egetated Concave ations: Present? Y sent? Y	magery (f e Surface es es	ed; check a 	II that apply Water-Stai MLRA 2 Salt Crust ( Aquatic Inv Hydrogen S Oxidized R Presence o Recent Iror Stunted or Other (Exp Depth (inc Depth (inc	r) ned Leave <b>I, 2, 4A, a</b> (B11) rertebrate Sulfide Oc hizosphe of Reduce n Reduction Stressed lain in Re ches): thes):	es (B9) (e: and 4B) s (B13) dor (C1) res along d Iron (C4 on in Tilleo Plants (D marks)	xcept		Wate Drair Dry-{ Satu Shall FAC Rais Fros Fros	er-Stained <b>A, and 4B</b> nage Patte Season W ration Visi morphic Pe low Aquita -Neutral Te ed Ant Mo t-Heave H	Leaves (B9 ) erns (B10) ater Table (f ble on Aeria osition (D2) ird (D3) est (D5) unds (D6) (I ummocks (D	) ( <b>MLRA 1, 2</b> , C2) I Imagery (C9 <b>_RR A</b> ) 7)
<b>DROLOG Tetland Hydr Seliment Sediment Drift Depo Algal Mat Iron Depo Algal Mat Iron Depo Surface S Inundation Sparsely V eld Observa urface Water Table P aturation Pre aturation P</b>	Fology Indicators: tors (minimum of o /ater (A1) er Table (A2) (A3) rks (B1) Deposits (B2) ists (B3) or Crust (B4) ists (B5) oil Cracks (B6) tvisible on Aerial I /egetated Concave ations: Present? Y sent? Y lary fringe)	magery (f e Surface es es	ed; check a 	II that apply Water-Stai MLRA 2 Salt Crust ( Aquatic Inv Hydrogen S Oxidized R Presence o Recent Iror Stunted or Other (Exp Depth (inc Depth (inc	r) ned Leave <b>I, 2, 4A, a</b> (B11) rertebrate Sulfide Oc hizosphe of Reduce n Reduction Stressed lain in Re ches): thes):	es (B9) (e: and 4B) s (B13) dor (C1) res along d Iron (C4 on in Tilleo Plants (D marks)	xcept		Wate Drair Dry-{ Satu Shall FAC Rais Fros Fros	er-Stained <b>A, and 4B</b> nage Patte Season W ration Visi morphic Pe low Aquita -Neutral Te ed Ant Mo t-Heave H	Leaves (B9 ) erns (B10) ater Table (f ble on Aeria osition (D2) ird (D3) est (D5) unds (D6) (I ummocks (D	) ( <b>MLRA 1, 2</b> , C2) I Imagery (C9 <b>_RR A</b> ) 7)
DROLOG     Vetland Hydr     imary Indica     Surface W     High Wate     Saturation     Water Mai     Sediment     Drift Depo     Algal Mat     Iron Depo     Surface S     Inundatior     Sparsely V     ield Observa     vater Table P     aturation Pre     ncludes capil	Fology Indicators: tors (minimum of o /ater (A1) er Table (A2) (A3) rks (B1) Deposits (B2) ists (B3) or Crust (B4) ists (B5) oil Cracks (B6) tvisible on Aerial I /egetated Concave ations: Present? Y sent? Y lary fringe)	magery (f e Surface es es	ed; check a 	II that apply Water-Stai MLRA 2 Salt Crust ( Aquatic Inv Hydrogen S Oxidized R Presence o Recent Iror Stunted or Other (Exp Depth (inc Depth (inc	r) ned Leave <b>I, 2, 4A, a</b> (B11) rertebrate Sulfide Oc hizosphe of Reduce n Reduction Stressed lain in Re ches): thes):	es (B9) (e: and 4B) s (B13) dor (C1) res along d Iron (C4 on in Tilleo Plants (D marks)	xcept		Wate Drair Dry-{ Satu Shall FAC Rais Fros Fros	er-Stained <b>A, and 4B</b> nage Patte Season W ration Visi morphic Pe low Aquita -Neutral Te ed Ant Mo t-Heave H	Leaves (B9 ) erns (B10) ater Table (f ble on Aeria osition (D2) ird (D3) est (D5) unds (D6) (I ummocks (D	) ( <b>MLRA 1, 2</b> , C2) I Imagery (C9 <b>_RR A</b> ) 7)
DROLOG etland Hydr imary Indica Surface W High Water Saturation Water Mar Sediment Drift Depo Algal Mat Iron Depo Surface S Inundatior Sparsely V eld Observa urface Water ater Table P aturation Pre icludes capil escribe Reco	Fology Indicators: tors (minimum of o /ater (A1) er Table (A2) (A3) rks (B1) Deposits (B2) ists (B3) or Crust (B4) ists (B5) oil Cracks (B6) tvisible on Aerial I /egetated Concave ations: Present? Y sent? Y lary fringe)	magery (f e Surface es es	ed; check a 	II that apply Water-Stai MLRA 2 Salt Crust ( Aquatic Inv Hydrogen S Oxidized R Presence o Recent Iror Stunted or Other (Exp Depth (inc Depth (inc	r) ned Leave <b>I, 2, 4A, a</b> (B11) rertebrate Sulfide Oc hizosphe of Reduce n Reduction Stressed lain in Re ches): thes):	es (B9) (e: and 4B) s (B13) dor (C1) res along d Iron (C4 on in Tilleo Plants (D marks)	xcept		Wate Drair Dry-{ Satu Shall FAC Rais Fros Fros	er-Stained <b>A, and 4B</b> nage Patte Season W ration Visi morphic Pe low Aquita -Neutral Te ed Ant Mo t-Heave H	Leaves (B9 ) erns (B10) ater Table (f ble on Aeria osition (D2) ird (D3) est (D5) unds (D6) (I ummocks (D	) ( <b>MLRA 1, 2</b> , C2) I Imagery (C9 <b>_RR A</b> ) 7)
DROLOG etland Hydr imary Indica Surface W High Water Saturation Water Mar Sediment Drift Depo Algal Mat Iron Depo Surface S Inundatior Sparsely V eld Observa urface Water fater Table P aturation Pre acludes capil escribe Reco	Fology Indicators: tors (minimum of o /ater (A1) er Table (A2) (A3) rks (B1) Deposits (B2) ists (B3) or Crust (B4) ists (B5) oil Cracks (B6) tvisible on Aerial I /egetated Concave ations: Present? Y sent? Y lary fringe)	magery (f e Surface es es	ed; check a 	II that apply Water-Stai MLRA 2 Salt Crust ( Aquatic Inv Hydrogen S Oxidized R Presence o Recent Iror Stunted or Other (Exp Depth (inc Depth (inc	r) ned Leave <b>I, 2, 4A, a</b> (B11) rertebrate Sulfide Oc hizosphe of Reduce n Reduction Stressed lain in Re ches): thes):	es (B9) (e: and 4B) s (B13) dor (C1) res along d Iron (C4 on in Tilleo Plants (D marks)	xcept		Wate Drair Dry-{ Satu Shall FAC Rais Fros Fros	er-Stained <b>A, and 4B</b> nage Patte Season W ration Visi morphic Pe low Aquita -Neutral Te ed Ant Mo t-Heave H	Leaves (B9 ) erns (B10) ater Table (f ble on Aeria osition (D2) ird (D3) est (D5) unds (D6) (I ummocks (D	) ( <b>MLRA 1, 2</b> , C2) I Imagery (C9 <b>_RR A</b> ) 07)

Project/Site: Jayne's Parcel	City/County: El Paso		Sampling Date:	2/1/22
Applicant/Owner:		State: CO	Sampling Point:	<u>WT-A18-UP</u> 1
Investigator(s): S. Clark	Section, Township, Range:	S28 and 33, T12S	, R65W	
Landform (hillslope, terrace, etc.): hillslope	Local relief (concave, conve			
	°58'34.00"N Lor	ıg: <mark>- 104°40'33.94</mark> "	'W Dat	<sub>um:</sub> WGS84
Soil Map Unit Name: Pring coarse sandy loam, 3-8% slopes		NWI classific	ation: None	
Are climatic / hydrologic conditions on the site typical for this time of ye	ear? Yes X No	_ (If no, explain in R	emarks.)	
Are Vegetation, Soil, or Hydrology significantly	v disturbed? Are "Norm	nal Circumstances" p	oresent? Yes x	No
Are Vegetation, Soil, or Hydrology naturally pr	oblematic? (If needed	, explain any answe	rs in Remarks.)	

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

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

### **VEGETATION – Use scientific names of plants.**

NA	Absolute		Indicator	Dominance Test worksheet:	
Tree Stratum (Plot size: NA ) 1)	<u>% Cover</u>	Species?	Status	Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)	
2 3				Total Number of Dominant Species Across All Strata: <u>3</u> (B)	
4(Plot size: <u>NA</u>		_= Total Co		Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/E	3)
1,				Prevalence Index worksheet:	
				Total % Cover of: Multiply by:	
2				OBL species $0$ x 1 = $0$	
3				FACW species $0$ $x = 0$	
4				FAC species $0 \times 3 = 0$	
5				FACU species $27$ $x = 108$	
<u>Herb Stratum</u> (Plot size: <sup>5</sup> ')		= Total Co	over	UPL species 69 x 5 = 345	
1 Schizachyrium scoparium	20	х	UPL	Column Totals: <u>96</u> (A) <u>453</u> (B	)
2. Bouteloua gracilis	40	x	UPL	Prevalence Index = $B/A = 4.72$	
3. Artemisia ludoviciana	2		FACU	Hydrophytic Vegetation Indicators:	
4. Sporobolus cf. heterolepis	20	x	FACU	1 - Rapid Test for Hydrophytic Vegetation	
5. Heterotheca villosa	2		UPL	2 - Dominance Test is >50%	
6. Pascopyrum smithii	2		FACU		
7 Aristida purpurea	5		UPL	4 - Morphological Adaptations <sup>1</sup> (Provide supportin	na
8 Sporobolus cryptandrus	5		FACU	data in Remarks or on a separate sheet)	iy
9				5 - Wetland Non-Vascular Plants <sup>1</sup>	
10				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
11				<sup>1</sup> Indicators of hydric soil and wetland hydrology must	
	96	= Total Co	ver	be present, unless disturbed or problematic.	
Woody Vine Stratum (Plot size: NA )					
1				Hydrophytic	
2				Vegetation	
		= Total Co	ver	Present? Yes <u>No X</u>	
% Bare Ground in Herb Stratum 4					
Remarks:					

# Sampling Point: WT-A18-UP1

			needed to document the		onfirm the absence of indicators.)
Depth	Matrix		Redox Feature	es	
(inches)	Color (moist)		Color (moist) %	Type <sup>1</sup> Lo	oc <sup>2</sup> Texture Remarks
0-41	0YR 2/1	100 _			Coarse sandy Loam
					· · · · · · · · · · · · · · · · · · _ /
1 <u></u>					and Oraina <sup>2</sup> l a attion. DL Dave Linian M Mateix
			Reduced Matrix, CS=Covere RRs, unless otherwise not		and Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Soils <sup>3</sup> :
-				eu.)	-
Histosol (A1 Histic Epipe		_	_ Sandy Redox (S5) _ Stripped Matrix (S6)		2 cm Muck (A10) Red Parent Material (TF2)
Black Histic			_ Loamy Mucky Mineral (F	1) (except MLR	
Hydrogen S		_	Loamy Gleyed Matrix (F2	, . <b>.</b>	Other (Explain in Remarks)
	elow Dark Surface	e (A11)	Depleted Matrix (F3)	-,	<u> </u>
	Surface (A12)	( ) _	Redox Dark Surface (F6)	)	<sup>3</sup> Indicators of hydrophytic vegetation and
Sandy Mucl	ky Mineral (S1)	_	Depleted Dark Surface (F	F7)	wetland hydrology must be present,
	ed Matrix (S4)		_ Redox Depressions (F8)		unless disturbed or problematic.
Restrictive Lay					
<sub>Type:</sub> Froze					
Depth (inche	s): <u>4</u>				Hydric Soil Present? Yes No X
HYDROLOGY	/				
Wetland Hydro	logy Indicators:				
Primary Indicato	ors (minimum of o	no roquirod			
Surface Wa	$tor(\Lambda 1)$	le required,	check all that apply)		Secondary Indicators (2 or more required)
		<u>ne required,</u>	check all that apply) Water-Stained Leav	ves (B9) ( <b>excep</b>	
High Water	( )	ne required,		· · · ·	
	Table (A2)	<u>ne required,</u>	Water-Stained Leav	· · · ·	water-Stained Leaves (B9) (MLRA 1,
High Water	Table (A2) A3)	ne required,	Water-Stained Leav MLRA 1, 2, 4A,	and 4B)	pt Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B)
High Water     Baturation (     Water Mark	Table (A2) A3)	<u>ne required.</u>	Water-Stained Leav MLRA 1, 2, 4A, Salt Crust (B11)	and 4B) es (B13)	<pre>water-Stained Leaves (B9) (MLRA 1, 4A, and 4B)  Drainage Patterns (B10)</pre>
High Water     Baturation (     Water Mark	Table (A2) A3) s (B1) eposits (B2)	<u>ne required.</u>	Water-Stained Leav MLRA 1, 2, 4A, a Salt Crust (B11) Aquatic Invertebrate	and 4B) es (B13) dor (C1)	ot Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (6)
High Water Saturation ( Water Mark Sediment D	Table (A2) A3) s (B1) eposits (B2) ts (B3)	<u>ne required.</u>	Water-Stained Leaven MLRA 1, 2, 4A, 5     Salt Crust (B11)     Aquatic Invertebrate Hydrogen Sulfide O	and 4B) es (B13) dor (C1) eres along Living	by Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery ( Geomorphic Position (D2) Shallow Aquitard (D3)
High Water Saturation ( Water Mark Sediment D Drift Deposi	Table (A2) A3) s (B1) eposits (B2) ts (B3) r Crust (B4)	<u>ne required.</u>	Water-Stained Leav MLRA 1, 2, 4A, 4 Salt Crust (B11) Aquatic Invertebrate Hydrogen Sulfide O Oxidized Rhizosphe	and 4B) es (B13) edor (C1) eres along Living ed Iron (C4)	by Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery ( Geomorphic Position (D2) Shallow Aquitard (D3)
High Water Saturation ( Water Mark Sediment D Drift Deposi Algal Mat or Surface Soi	Table (A2) A3) s (B1) eposits (B2) ts (B3) c Crust (B4) ts (B5) l Cracks (B6)		Water-Stained Leav MLRA 1, 2, 4A, 4 Salt Crust (B11) Aquatic Invertebrate Hydrogen Sulfide O Oxidized Rhizosphe Presence of Reduce Recent Iron Reduct Stunted or Stressed	and 4B) es (B13) idor (C1) eres along Living ed Iron (C4) ion in Tilled Soil d Plants (D1) (LI	ot
High Water Saturation ( Water Mark Sediment D Drift Deposi Algal Mat ou Iron Deposi Surface Soi Inundation	Table (A2) A3) s (B1) eposits (B2) ts (B3) r Crust (B4) ts (B5) I Cracks (B6) visible on Aerial In	magery (B7)	Water-Stained Leav MLRA 1, 2, 4A, 4 Salt Crust (B11) Aquatic Invertebrate Hydrogen Sulfide O Oxidized Rhizosphe Presence of Reduce Recent Iron Reduct Stunted or Stressed Other (Explain in Re	and 4B) es (B13) idor (C1) eres along Living ed Iron (C4) ion in Tilled Soil d Plants (D1) (LI	ot
High Water Saturation ( Water Mark Sediment D Drift Deposi Algal Mat or Iron Deposi Surface Soi Surface Soi Sparsely Ve	Table (A2) A3) s (B1) eposits (B2) ts (B3) r Crust (B4) ts (B5) I Cracks (B6) Visible on Aerial In egetated Concave	magery (B7)	Water-Stained Leav MLRA 1, 2, 4A, 4 Salt Crust (B11) Aquatic Invertebrate Hydrogen Sulfide O Oxidized Rhizosphe Presence of Reduce Recent Iron Reduct Stunted or Stressed Other (Explain in Re	and 4B) es (B13) idor (C1) eres along Living ed Iron (C4) ion in Tilled Soil d Plants (D1) (LI	mathematical system       Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B)         mathematical system       Drainage Patterns (B10)         mathematical system       Dry-Season Water Table (C2)         mathematical system       Saturation Visible on Aerial Imagery (Carried System)         mg Roots (C3)       Geomorphic Position (D2)         mg Roots (C3)       Shallow Aquitard (D3)         ills (C6)       FAC-Neutral Test (D5)         mathematical system       Raised Ant Mounds (D6) (LRR A)
High Water Saturation ( Water Mark Sediment D Drift Deposi Algal Mat or Iron Deposi Surface Soi Surface Soi Field Observat	Table (A2) A3) s (B1) eposits (B2) ts (B3) r Crust (B4) ts (B5) I Cracks (B6) Visible on Aerial In egetated Concave	magery (B7) Surface (B8	Water-Stained Leav MLRA 1, 2, 4A, 4 Salt Crust (B11) Aquatic Invertebrate Hydrogen Sulfide O Oxidized Rhizosphe Presence of Reduce Recent Iron Reduct Stunted or Stressed Other (Explain in Re	and 4B) es (B13) dor (C1) eres along Living ed Iron (C4) ion in Tilled Soil I Plants (D1) (LI emarks)	mathematical action       Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B)
High Water Saturation ( Water Mark Sediment D Drift Deposi Algal Mat or Iron Deposi Surface Soi Surface Soi	Table (A2) A3) s (B1) eposits (B2) ts (B3) r Crust (B4) ts (B5) I Cracks (B6) Visible on Aerial In egetated Concave ions: Present? Ye	magery (B7) Surface (B8	Water-Stained Leaven MLRA 1, 2, 4A, 5     Salt Crust (B11)     Aquatic Invertebrate     Hydrogen Sulfide O     Oxidized Rhizosphe     Presence of Reduce     Recent Iron Reduct     Stunted or Stressed     Other (Explain in Reference)	and 4B) es (B13) dor (C1) eres along Living ed Iron (C4) ion in Tilled Soil d Plants (D1) (Li emarks)	mathematical action       Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B)
High Water Saturation ( Water Mark Sediment D Drift Deposi Algal Mat or Iron Deposi Surface Soi Surface Soi Field Observat	Table (A2) A3) s (B1) eposits (B2) ts (B3) r Crust (B4) ts (B5) I Cracks (B6) Visible on Aerial In egetated Concave ions: Present? Ye	magery (B7) Surface (B8	Water-Stained Leav MLRA 1, 2, 4A, 4 Salt Crust (B11) Aquatic Invertebrate Hydrogen Sulfide O Oxidized Rhizosphe Presence of Reduce Recent Iron Reduct Stunted or Stressed Other (Explain in Re	and 4B) es (B13) dor (C1) eres along Living ed Iron (C4) ion in Tilled Soil d Plants (D1) (Li emarks)	ot
High Water Saturation ( Water Mark Sediment D Drift Deposi Algal Mat or Iron Deposi Surface Soi Surface Soi Field Observati Surface Water F Water Table Press	Table (A2) A3) s (B1) eposits (B2) ts (B3) r Crust (B4) ts (B5) l Cracks (B6) Visible on Aerial In egetated Concave tons: Present? Ye esent? Ye	magery (B7) Surface (B8 es No es No	Water-Stained Leaven MLRA 1, 2, 4A, 5     Salt Crust (B11)     Aquatic Invertebrate     Hydrogen Sulfide O     Oxidized Rhizosphe     Presence of Reduce     Recent Iron Reduct     Stunted or Stressed     Other (Explain in Reference)	and 4B) es (B13) idor (C1) eres along Living ed Iron (C4) ion in Tilled Soil d Plants (D1) (Lf emarks)	mathematical action       Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B)
High Water Saturation ( Water Mark Sediment D Drift Deposi Algal Mat or Uron Deposi Surface Soi Surface Soi Surface Vater F Water Table Pres (includes capilla	Table (A2) A3) s (B1) eposits (B2) ts (B3) r Crust (B4) ts (B5) l Cracks (B6) Visible on Aerial In egetated Concave ions: Present? Ye esent? Ye ent? Ye	magery (B7) Surface (B8 es No es No es No	Water-Stained Leav MLRA 1, 2, 4A, 4 Salt Crust (B11) Aquatic Invertebrate Hydrogen Sulfide O Oxidized Rhizosphe Presence of Reduce Recent Iron Reduct Stunted or Stressed Other (Explain in Ref Depth (inches): Dex Depth (inches):	and 4B) es (B13) idor (C1) eres along Living ed Iron (C4) ion in Tilled Soil d Plants (D1) (LF emarks)	water-Stained Leaves (B9) (MLRA 1, 4A, and 4B)         Drainage Patterns (B10)         Dry-Season Water Table (C2)         Saturation Visible on Aerial Imagery (Market 1, 1, 1, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2,
High Water Saturation ( Water Mark Sediment D Drift Deposi Algal Mat or Iron Deposi Surface Soi Surface Soi Field Observati Surface Water F Water Table Pres (includes capilla	Table (A2) A3) s (B1) eposits (B2) ts (B3) r Crust (B4) ts (B5) l Cracks (B6) Visible on Aerial In egetated Concave ions: Present? Ye esent? Ye ent? Ye	magery (B7) Surface (B8 es No es No es No	Water-Stained Leaven MLRA 1, 2, 4A, 3     Salt Crust (B11)     Aquatic Invertebrated     Hydrogen Sulfide O     Oxidized Rhizosphee     Presence of Reduced     Recent Iron Reduct     Stunted or Stressed     Other (Explain in Reference)     Depth (inches):     Depth (inches):	and 4B) es (B13) idor (C1) eres along Living ed Iron (C4) ion in Tilled Soil d Plants (D1) (LF emarks)	water-Stained Leaves (B9) (MLRA 1, 4A, and 4B)         Drainage Patterns (B10)         Dry-Season Water Table (C2)         Saturation Visible on Aerial Imagery (Market 1, 1, 1, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2,
High Water Saturation ( Water Mark Sediment D Drift Deposi Algal Mat or Iron Deposi Surface Soi Inundation Field Observati Surface Water F Water Table Prese (includes capilla Describe Record	Table (A2) A3) s (B1) eposits (B2) ts (B3) r Crust (B4) ts (B5) l Cracks (B6) Visible on Aerial In egetated Concave ions: Present? Ye esent? Ye ent? Ye	magery (B7) Surface (B8 es No es No es No	Water-Stained Leav MLRA 1, 2, 4A, 4 Salt Crust (B11) Aquatic Invertebrate Hydrogen Sulfide O Oxidized Rhizosphe Presence of Reduce Recent Iron Reduct Stunted or Stressed Other (Explain in Ref Depth (inches): Dex Depth (inches):	and 4B) es (B13) idor (C1) eres along Living ed Iron (C4) ion in Tilled Soil d Plants (D1) (LF emarks)	water-Stained Leaves (B9) (MLRA 1, 4A, and 4B)         Drainage Patterns (B10)         Dry-Season Water Table (C2)         Saturation Visible on Aerial Imagery (Market 1, 1, 1, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2,
High Water Saturation ( Water Mark Sediment D Drift Deposi Algal Mat or Iron Deposi Surface Soi Inundation Field Observati Surface Water F Water Table Prese (includes capilla Describe Record Remarks:	Table (A2) A3) s (B1) eposits (B2) ts (B3) r Crust (B4) ts (B5) I Cracks (B6) Visible on Aerial In egetated Concave fons: Present? Ye ent? Ye ent? Ye of ry fringe) ded Data (stream	magery (B7) s Surface (B8 es No es No gauge, mon	Water-Stained Leav MLRA 1, 2, 4A, 4 Salt Crust (B11) Aquatic Invertebrate Hydrogen Sulfide O Oxidized Rhizosphe Presence of Reduce Recent Iron Reduct Stunted or Stressed Other (Explain in Re Other (Explain in Re Depth (inches): D x D x Depth (inches): D x D x Depth (inches): D x D x D x D x D x D x D x D x D x D x	and 4B) es (B13) bdor (C1) eres along Living ed Iron (C4) ion in Tilled Soil Plants (D1) (Li emarks)	ot
High Water Saturation ( Water Mark Sediment D Drift Deposi Algal Mat or Iron Deposi Surface Soi Inundation Field Observati Surface Water F Water Table Prese (includes capilla Describe Record Remarks:	Table (A2) A3) s (B1) eposits (B2) ts (B3) r Crust (B4) ts (B5) I Cracks (B6) Visible on Aerial In egetated Concave fons: Present? Ye ent? Ye ent? Ye of ry fringe) ded Data (stream	magery (B7) s Surface (B8 es No es No gauge, mon	Water-Stained Leav MLRA 1, 2, 4A, 4 Salt Crust (B11) Aquatic Invertebrate Hydrogen Sulfide O Oxidized Rhizosphe Presence of Reduce Recent Iron Reduct Stunted or Stressed Other (Explain in Ref Depth (inches): Dex Depth (inches):	and 4B) es (B13) bdor (C1) eres along Living ed Iron (C4) ion in Tilled Soil Plants (D1) (Li emarks)	ot
High Water Saturation ( Water Mark Sediment D Drift Deposi Algal Mat or Iron Deposi Surface Soi Inundation Field Observati Surface Water F Water Table Prese (includes capilla Describe Record Remarks:	Table (A2) A3) s (B1) eposits (B2) ts (B3) r Crust (B4) ts (B5) I Cracks (B6) Visible on Aerial In egetated Concave fons: Present? Ye ent? Ye ent? Ye of ry fringe) ded Data (stream	magery (B7) s Surface (B8 es No es No gauge, mon	Water-Stained Leav MLRA 1, 2, 4A, 4 Salt Crust (B11) Aquatic Invertebrate Hydrogen Sulfide O Oxidized Rhizosphe Presence of Reduce Recent Iron Reduct Stunted or Stressed Other (Explain in Re Other (Explain in Re Depth (inches): D x D x Depth (inches): D x D x Depth (inches): D x D x D x D x D x D x D x D x D x D x	and 4B) es (B13) bdor (C1) eres along Living ed Iron (C4) ion in Tilled Soil Plants (D1) (Li emarks)	ot

I

Project/Site: Jayne's Parcel	City/County: El Pa	ISO	Sampling Date: 2/1	/22
Applicant/Owner:		State: CO	Sampling Point: W	<u>T-A18-W</u> T1
Investigator(s): S. Clark	Section, Township	, <sub>Range:</sub> <u>S28 and 33, T12</u>	2S, R65W	
Landform (hillslope, terrace, etc.): swale		ave, convex, none): <u>concav</u>		(%): 5
Subregion (LRR): E	Lat: <u>38°58'34.17"N</u>	Long: -104°40'34.34	1"W Datum:	WGS84
Soil Map Unit Name: Pring coarse sandy loam, 3-8% slop	Des	NWI classi	fication: None	
Are climatic / hydrologic conditions on the site typical for this t	ime of year? Yes X	lo (If no, explain in	Remarks.)	
Are Vegetation, Soil, or Hydrology sig	nificantly disturbed?	Are "Normal Circumstances	" present? Yes X	No
Are Vegetation, Soil, or Hydrology na	turally problematic? (	If needed, explain any answ	vers in Remarks.)	
SUMMARY OF EINDINGS Attach aita man a	howing compling noi	nt locations transport	te important foat	uros oto

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

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

### **VEGETATION – Use scientific names of plants.**

NA	Absolute		Indicator	Dominance Test worksheet:	
<u>Tree Stratum</u> (Plot size: <u>NA</u> ) 1)		Species?		Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)	
2 3				Total Number of Dominant Species Across All Strata: <u>1</u> (B)	
4		_= Total Co		Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B	)
				Prevalence Index worksheet:	
1				Total % Cover of: Multiply by:	
2				OBL species x 1 =	
3				FACW species <u>110</u> x 2 = <u>220</u>	
4				FAC species x 3 =	
5				FACU species x 4 =	
5'		= Total Co	over	UPL species         x 5 =	
<u>Herb Stratum</u> (Plot size: <u>5'</u> ) 1 Juncus arcticus	90	v		Column Totals: 110 (A) 220 (B)	
	- 90	<u>x</u>	FAC		
2. Carex sp.			FAC\	Prevalence Index = B/A = 2	
3				Hydrophytic Vegetation Indicators:	
4				<u>×</u> 1 - Rapid Test for Hydrophytic Vegetation	
5				<u>×</u> 2 - Dominance Test is >50%	
6				<b>_x</b> 3 - Prevalence Index is $\leq 3.0^1$	
7				4 - Morphological Adaptations <sup>1</sup> (Provide supporting	g
8				data in Remarks or on a separate sheet)	
9				5 - Wetland Non-Vascular Plants <sup>1</sup>	
10				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
11				<sup>1</sup> Indicators of hydric soil and wetland hydrology must	
	110	= Total Co	ver	be present, unless disturbed or problematic.	
Woody Vine Stratum (Plot size: <u>NA</u> )					
1				Hydrophytic	
2				Vegetation	
% Bare Ground in Herb Stratum 0		= Total Co		Present? Yes X No	
Remarks <sup>.</sup>				1	

### SOIL

# Sampling Point: WT-A18-WT1

Profile Desc	cription: (Describe	to the dep	oth needed to docu	ment the	indicator	or confirm	n the absence	e of indicators.)
Depth	Matrix			ox Feature				
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-6	10YR 2/1	100					Sandy Loam	Lots of roots and organics
6-18	10 YR 2/1	98	7.5 YR 4/6	2	С	M/PL	Sandy Clay Lo	bam
				_				
							·	
<sup>1</sup> Type: C=C	oncentration. D=Der	 pletion. RM	=Reduced Matrix, C	 S=Covere	d or Coate	ed Sand G	irains. <sup>2</sup> Lo	cation: PL=Pore Lining, M=Matrix.
			LRRs, unless othe					ors for Problematic Hydric Soils <sup>3</sup> :
Histosol			Sandy Redox (					m Muck (A10)
	pipedon (A2)		Stripped Matrix	,				d Parent Material (TF2)
	istic (A3)		Loamy Mucky	. ,	1) ( <b>excep</b>	t MLRA 1		y Shallow Dark Surface (TF12)
	en Sulfide (A4)		Loamy Gleyed	•			,	ner (Explain in Remarks)
Deplete	d Below Dark Surfac	æ (A11)	Depleted Matri	x (F3)				
	ark Surface (A12)		× Redox Dark Su					ors of hydrophytic vegetation and
	Aucky Mineral (S1)		Depleted Dark		=7)			and hydrology must be present,
	Gleyed Matrix (S4)		Redox Depress	sions (F8)			unle	ss disturbed or problematic.
	Layer (if present):							
Type: fro								×
Depth (in	ches): <u>18</u>						Hydric Soi	I Present? Yes X No
Remarks:								
HYDROLO								
-	drology Indicators:		d; check all that app	ba)			Soco	ndary Indicators (2 or more required)
	Water (A1)		Water-Sta			except	\	Water-Stained Leaves (B9) (MLRA 1, 2,
-	ater Table (A2)			1, 2, 4A, a	and 4B)		r	4A, and 4B)
Saturati	( )		Salt Crust	· · /				Drainage Patterns (B10)
	larks (B1)		Aquatic In		. ,			Dry-Season Water Table (C2)
	nt Deposits (B2)		Hydrogen			Linda D		Saturation Visible on Aerial Imagery (C9)
	posits (B3)		X Oxidized	•	-	-	• • —	Geomorphic Position (D2)
-	at or Crust (B4)				ed Iron (C			Shallow Aquitard (D3)
-	posits (B5)		Recent Iro					FAC-Neutral Test (D5)
	Soil Cracks (B6)		Stunted o			( <b>LRR A</b>		Raised Ant Mounds (D6) ( <b>LRR A</b> )
	on Visible on Aerial			piain in Re	emarks)		F	Frost-Heave Hummocks (D7)
	y Vegetated Concav	e Surrace (	B0)					
Field Obser		/						
Surface Wat			No × Depth (in					
Water Table			No x Depth (in					~
Saturation P		′es	No x Depth (in	iches):		Wet	land Hydrolog	gy Present? Yes X No
	pillary fringe) corded Data (stream		onitoring well, aerial	nhotos n	revious ins	pections)	if available.	
Desende I/C		, gauge, m	ontoning wen, aeriar	priotos, pi		ροσιοπο),		
Domortics								
Remarks:								

Project/Site: <u>Jayne's Parcel</u>	City/County: El	Paso	Sampling Date: 2/1/22
Applicant/Owner:		State: CO	_ Sampling Point: WT-A30-UP1
Investigator(s): S. Clark	Section, Towns	hip, Range: <u>S28</u> and 33, T12	S, R65W
Landform (hillslope, terrace, etc.): hillslope		ncave, convex, none): <u>concave</u>	
Subregion (LRR): E	<sub>Lat:</sub> <u>38°58'14.57"N</u>	Long: - 104°40'29.6	"W Datum: WGS84
Soil Map Unit Name: Pring coarse sandy loam, 3-8% slop	bes	NWI classif	cation: None
Are climatic / hydrologic conditions on the site typical for this t	ime of year? Yes x	_ No (If no, explain in	Remarks.)
Are Vegetation, Soil, or Hydrology sig	nificantly disturbed?	Are "Normal Circumstances"	present? Yes X No
Are Vegetation, Soil, or Hydrology nat	turally problematic?	(If needed, explain any answ	ers in Remarks.)

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

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

### **VEGETATION – Use scientific names of plants.**

NA	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: NA )	% Cover	Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC: 0 (A)
2				
				Total Number of Dominant Species Across All Strata: 2 (B)
3				Species Across All Strata: 2 (B)
4			·	Percent of Dominant Species
		= Total Co	over	That Are OBL, FACW, or FAC: 0 (A/B)
Sapling/Shrub Stratum (Plot size: NA )				Prevalence Index worksheet:
1				
2				Total % Cover of: Multiply by:
				OBL species $\underline{0}$ x 1 = $\underline{0}$
3				FACW species $\frac{0}{x 2} = \frac{0}{x}$
4				FAC species $2$ x 3 = $6$
5				
		= Total Co	over	$\begin{array}{c} \text{FACU species}  \underline{\underline{}} \\ x 4 = \underline{\underline{}} \\ x 4 = \underline{\phantom{aaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaa$
Herb Stratum (Plot size: 5')				UPL species $\frac{20}{x  5} = \frac{100}{x  5}$
1. Schizachyrium scoparium	20		UPL	Column Totals: <u>102</u> (A) <u>426</u> (B)
2. Sporobolus heterolepis	40	x	FACU	Prevalence Index = $B/A = 4.18$
3 Andropogon gerardii	40	x	FACU	Hydrophytic Vegetation Indicators:
<sup>4</sup> Cirsium arvense	2		FAC	
····			·	1 - Rapid Test for Hydrophytic Vegetation
5				2 - Dominance Test is >50%
6				$\_$ 3 - Prevalence Index is $\leq 3.0^{1}$
7				4 - Morphological Adaptations <sup>1</sup> (Provide supporting
8				data in Remarks or on a separate sheet)
9				5 - Wetland Non-Vascular Plants <sup>1</sup>
10				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
11				<sup>1</sup> Indicators of hydric soil and wetland hydrology must
	102	= Total Co		be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size: NA )		<u>= 10tal Co</u>	ver	
1				Hydrophytic
2			·	Vegetation Present? Yes No _X
		= Total Co	ver	
% Bare Ground in Herb Stratum 0				
Remarks:				

Depth (inches)       Matrix Color (moist)       Redox Features         0-1       10YR 2/1       100       %       Type1       Loc2         0-1       10YR 2/1       100       %       Type1       Loc2	Indicators for Problematic Hydric Soils <sup>3</sup> : 2 cm Muck (A10) Red Parent Material (TF2)
Image:	Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.         Indicators for Problematic Hydric Soils <sup>3</sup> :         2 cm Muck (A10)         Red Parent Material (TF2)         )       Very Shallow Dark Surface (TF12)         Other (Explain in Remarks)
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)         Histosol (A1)       Sandy Redox (S5)         Histic Epipedon (A2)       Stripped Matrix (S6)         Black Histic (A3)       Loamy Mucky Mineral (F1) (except MLRA 1         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)         Depleted Below Dark Surface (A11)       Depleted Matrix (F3)         Thick Dark Surface (A12)       Redox Dark Surface (F6)         Sandy Mucky Mineral (S1)       Depleted Dark Surface (F7)         Sandy Gleyed Matrix (S4)       Redox Depressions (F8)	Indicators for Problematic Hydric Soils <sup>3</sup> : 2 cm Muck (A10) Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)         Histosol (A1)       Sandy Redox (S5)         Histic Epipedon (A2)       Stripped Matrix (S6)         Black Histic (A3)       Loamy Mucky Mineral (F1) (except MLRA 1         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)         Depleted Below Dark Surface (A11)       Depleted Matrix (F3)         Thick Dark Surface (A12)       Redox Dark Surface (F6)         Sandy Mucky Mineral (S1)       Depleted Dark Surface (F7)         Sandy Gleyed Matrix (S4)       Redox Depressions (F8)	Indicators for Problematic Hydric Soils <sup>3</sup> : 2 cm Muck (A10) Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)         Histosol (A1)       Sandy Redox (S5)         Histic Epipedon (A2)       Stripped Matrix (S6)         Black Histic (A3)       Loamy Mucky Mineral (F1) (except MLRA 1         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)         Depleted Below Dark Surface (A11)       Depleted Matrix (F3)         Thick Dark Surface (A12)       Redox Dark Surface (F6)         Sandy Mucky Mineral (S1)       Depleted Dark Surface (F7)         Sandy Gleyed Matrix (S4)       Redox Depressions (F8)	Indicators for Problematic Hydric Soils <sup>3</sup> : 2 cm Muck (A10) Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)         Histosol (A1)       Sandy Redox (S5)         Histic Epipedon (A2)       Stripped Matrix (S6)         Black Histic (A3)       Loamy Mucky Mineral (F1) (except MLRA 1         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)         Depleted Below Dark Surface (A11)       Depleted Matrix (F3)         Thick Dark Surface (A12)       Redox Dark Surface (F6)         Sandy Mucky Mineral (S1)       Depleted Dark Surface (F7)         Sandy Gleyed Matrix (S4)       Redox Depressions (F8)	Indicators for Problematic Hydric Soils <sup>3</sup> : 2 cm Muck (A10) Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)         Histosol (A1)       Sandy Redox (S5)         Histic Epipedon (A2)       Stripped Matrix (S6)         Black Histic (A3)       Loamy Mucky Mineral (F1) (except MLRA 1         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)         Depleted Below Dark Surface (A11)       Depleted Matrix (F3)         Thick Dark Surface (A12)       Redox Dark Surface (F6)         Sandy Mucky Mineral (S1)       Depleted Dark Surface (F7)         Sandy Gleyed Matrix (S4)       Redox Depressions (F8)	Indicators for Problematic Hydric Soils <sup>3</sup> : 2 cm Muck (A10) Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)         Histosol (A1)       Sandy Redox (S5)         Histic Epipedon (A2)       Stripped Matrix (S6)         Black Histic (A3)       Loamy Mucky Mineral (F1) (except MLRA 1         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)         Depleted Below Dark Surface (A11)       Depleted Matrix (F3)         Thick Dark Surface (A12)       Redox Dark Surface (F6)         Sandy Mucky Mineral (S1)       Depleted Dark Surface (F7)         Sandy Gleyed Matrix (S4)       Redox Depressions (F8)	Indicators for Problematic Hydric Soils <sup>3</sup> : 2 cm Muck (A10) Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)         Histosol (A1)       Sandy Redox (S5)         Histic Epipedon (A2)       Stripped Matrix (S6)         Black Histic (A3)       Loamy Mucky Mineral (F1) (except MLRA 1         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)         Depleted Below Dark Surface (A11)       Depleted Matrix (F3)         Thick Dark Surface (A12)       Redox Dark Surface (F6)         Sandy Mucky Mineral (S1)       Depleted Dark Surface (F7)         Sandy Gleyed Matrix (S4)       Redox Depressions (F8)	Indicators for Problematic Hydric Soils <sup>3</sup> : 2 cm Muck (A10) Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)         Histosol (A1)       Sandy Redox (S5)         Histic Epipedon (A2)       Stripped Matrix (S6)         Black Histic (A3)       Loamy Mucky Mineral (F1) (except MLRA 1         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)         Depleted Below Dark Surface (A11)       Depleted Matrix (F3)         Thick Dark Surface (A12)       Redox Dark Surface (F6)         Sandy Mucky Mineral (S1)       Depleted Dark Surface (F7)         Sandy Gleyed Matrix (S4)       Redox Depressions (F8)	Indicators for Problematic Hydric Soils <sup>3</sup> : 2 cm Muck (A10) Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)         Histosol (A1)       Sandy Redox (S5)         Histic Epipedon (A2)       Stripped Matrix (S6)         Black Histic (A3)       Loamy Mucky Mineral (F1) (except MLRA 1         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)         Depleted Below Dark Surface (A11)       Depleted Matrix (F3)         Thick Dark Surface (A12)       Redox Dark Surface (F6)         Sandy Mucky Mineral (S1)       Depleted Dark Surface (F7)         Sandy Gleyed Matrix (S4)       Redox Depressions (F8)	Indicators for Problematic Hydric Soils <sup>3</sup> : 2 cm Muck (A10) Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)         Histosol (A1)       Sandy Redox (S5)         Histic Epipedon (A2)       Stripped Matrix (S6)         Black Histic (A3)       Loamy Mucky Mineral (F1) (except MLRA 1         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)         Depleted Below Dark Surface (A11)       Depleted Matrix (F3)         Thick Dark Surface (A12)       Redox Dark Surface (F6)         Sandy Mucky Mineral (S1)       Depleted Dark Surface (F7)         Sandy Gleyed Matrix (S4)       Redox Depressions (F8)	Indicators for Problematic Hydric Soils <sup>3</sup> : 2 cm Muck (A10) Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)
Histosol (A1)       Sandy Redox (S5)         Histic Epipedon (A2)       Stripped Matrix (S6)         Black Histic (A3)       Loamy Mucky Mineral (F1) (except MLRA 1         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)         Depleted Below Dark Surface (A11)       Depleted Matrix (F3)         Thick Dark Surface (A12)       Redox Dark Surface (F6)         Sandy Mucky Mineral (S1)       Depleted Dark Surface (F7)         Sandy Gleyed Matrix (S4)       Redox Depressions (F8)	<ul> <li>2 cm Muck (A10)</li> <li>Red Parent Material (TF2)</li> <li>Very Shallow Dark Surface (TF12)</li> <li>Other (Explain in Remarks)</li> </ul>
Histic Epipedon (A2)       Stripped Matrix (S6)         Black Histic (A3)       Loamy Mucky Mineral (F1) (except MLRA 1         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)         Depleted Below Dark Surface (A11)       Depleted Matrix (F3)         Thick Dark Surface (A12)       Redox Dark Surface (F6)         Sandy Mucky Mineral (S1)       Depleted Dark Surface (F7)         Sandy Gleyed Matrix (S4)       Redox Depressions (F8)	<ul> <li>Red Parent Material (TF2)</li> <li>Very Shallow Dark Surface (TF12)</li> <li>Other (Explain in Remarks)</li> </ul>
Black Histic (A3)       Loamy Mucky Mineral (F1) (except MLRA 1         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)         Depleted Below Dark Surface (A11)       Depleted Matrix (F3)         Thick Dark Surface (A12)       Redox Dark Surface (F6)         Sandy Mucky Mineral (S1)       Depleted Dark Surface (F7)         Sandy Gleyed Matrix (S4)       Redox Depressions (F8)         Restrictive Layer (if present):       Estimation	) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)
Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)         Depleted Below Dark Surface (A11)       Depleted Matrix (F3)         Thick Dark Surface (A12)       Redox Dark Surface (F6)         Sandy Mucky Mineral (S1)       Depleted Dark Surface (F7)         Sandy Gleyed Matrix (S4)       Redox Depressions (F8)         Restrictive Layer (if present):       Estimation	Other (Explain in Remarks)
Depleted Below Dark Surface (A11)       Depleted Matrix (F3)         Thick Dark Surface (A12)       Redox Dark Surface (F6)         Sandy Mucky Mineral (S1)       Depleted Dark Surface (F7)         Sandy Gleyed Matrix (S4)       Redox Depressions (F8)         Restrictive Layer (if present):       Depleted Dark Surface (F7)	
Thick Dark Surface (A12)      Redox Dark Surface (F6)        Sandy Mucky Mineral (S1)      Depleted Dark Surface (F7)        Sandy Gleyed Matrix (S4)      Redox Depressions (F8)         Restrictive Layer (if present):	<sup>3</sup> Indicators of hydrophytic vegetation and
Sandy Mucky Mineral (S1)       Depleted Dark Surface (F7)         Sandy Gleyed Matrix (S4)       Redox Depressions (F8)         Restrictive Layer (if present):	
Restrictive Layer (if present):	wetland hydrology must be present,
	unless disturbed or problematic.
- Frozen	
Type: Frozen	
Depth (inches): 7	Hydric Soil Present? Yes No X
YDROLOGY	
Vetland Hydrology Indicators: rimary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required)
Surface Water (A1) Water-Stained Leaves (B9) (except	Water-Stained Leaves (B9) (MLRA 1, 2,
High Water Table (A2)         MLRA 1, 2, 4A, and 4B)           Saturation (A3)         Salt Crust (B11)	<b>4A, and 4B)</b> <u> </u>
,	
_ Water Marks (B1) Aquatic Invertebrates (B13) _ Sediment Deposits (B2) Hydrogen Sulfide Odor (C1)	Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9
	bots (C3) Geomorphic Position (D2)
Algal Mat or Crust (B4) Presence of Reduced Iron (C4)	Shallow Aquitard (D3)
Iron Deposits (B5) Recent Iron Reduction in Tilled Soils (C	
Not Deposits (D5)	· _ · · ·
Other (Explain in Remarks)	Frost-Heave Hummocks (D7)
Sparsely Vegetated Concave Surface (B8)	
ield Observations:	
surface Water Present? Yes No _x _ Depth (inches):	
Vater Table Present?         Yes         No _x         Depth (inches):	
	tland Hydrology Present? Yes No _ <sup>X</sup>
Saturation Present? Yes <u>No x</u> Depth (inches): <u>Wet</u> includes capillary fringe)	
Saturation Present? Yes <u>No x</u> Depth (inches): <u>Wet</u> includes capillary fringe)	, if available:
	), if available:
Saturation Present?       Yes Nox Depth (inches): Wet         includes capillary fringe)	), if available:
Saturation Present?       Yes Nox       Depth (inches):       Wet         includes capillary fringe)	ı, if available:

Project/Site: Jayne's Parcel	City/County: El I	Paso	Sampling Date: 2/1/22
Applicant/Owner:		State: CO	_ Sampling Point: WT-A30-WT1
Investigator(s): S. Clark	Section, Townsh	hip, Range: <u>S28 and 33, T12</u>	S, R65W
Landform (hillslope, terrace, etc.): swale			Slope (%): <u>7</u>
Subregion (LRR): E		Long: - 104°40'30.34	"W Datum: WGS84
Soil Map Unit Name: Pring coarse sandy loam, 3-8% slo	opes	NWI classif	<sub>cation:</sub> <u>None</u>
Are climatic / hydrologic conditions on the site typical for this	s time of year? Yes X	No (If no, explain in I	Remarks.)
Are Vegetation, Soil, or Hydrologys	ignificantly disturbed?	Are "Normal Circumstances"	present? Yes X No
Are Vegetation, Soil, or Hydrology n	aturally problematic?	(If needed, explain any answ	ers in Remarks.)
CUMMARY OF FINDINGS Attach site man	abowing compling p	aint locations transact	important factures ato

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

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

### **VEGETATION – Use scientific names of plants.**

NIA	Absolute		Indicator	Dominance Test worksheet:	
Tree Stratum (Plot size: NA)	% Cover	Species?	Status	Number of Dominant Species	
1				That Are OBL, FACW, or FAC: 1 (A)	.)
2					
				Total Number of Dominant	
3				Species Across All Strata: <u>1</u> (B)	)
4			·	Percent of Dominant Species	
NA		= Total Co	over	That Are OBL, FACW, or FAC: 100 (A)	/B)
Sapling/Shrub Stratum (Plot size: NA )				Prevalence Index worksheet:	,
1					
2.				Total % Cover of: Multiply by:	
				OBL species $0$ x 1 = $0$	
3				FACW species $\frac{60}{x 2} = \frac{120}{x}$	
4			·	FAC species $\frac{27}{x 3} = \frac{81}{x 3}$	
5					
		= Total Co	wer		
Herb Stratum (Plot size: 5')				UPL species $0   x 5 = 0$	
Juncus arcticus	60	х	FACW	Column Totals: <u>107</u> (A) <u>281</u> (B	B)
2. Rumex crispus	2		FAC	Prevalence Index = $B/A = 2.63$	
3 Achillea millefolium	10		FACU	Hydrophytic Vegetation Indicators:	
4 Pascopyrum smithii	10		FACU		
5 Elymus trachycaulus	5		FAC	<u>×</u> 1 - Rapid Test for Hydrophytic Vegetation	
				<u>x</u> 2 - Dominance Test is >50%	
6. Agrostis cf. gigantea	20		FAC	<u>x</u> 3 - Prevalence Index is $\leq 3.0^{1}$	
7				4 - Morphological Adaptations <sup>1</sup> (Provide support	ting
8				data in Remarks or on a separate sheet)	0
9				5 - Wetland Non-Vascular Plants <sup>1</sup>	
10				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
11.				<sup>1</sup> Indicators of hydric soil and wetland hydrology must	t
	107	= Total Co		be present, unless disturbed or problematic.	
Woody Vine Stratum (Plot size: NA )		- 10tal C0	vei		
1			·	Hydrophytic	
2			·	Vegetation Present? Yes X No	
		= Total Co	ver		
% Bare Ground in Herb Stratum _0					
Remarks:					

# Sampling Point: WT-A30-WT1

Depth	Matrix Color (moint)	%	Color		<u>K Features</u>	Type <sup>1</sup>	Loc <sup>2</sup>	Tout	~		Domorko	
( <u>inches)</u> 0-1	Color (moist) 10YR 2/1	100	<u> </u>	r (moist)		Туре		<u>Textu</u>			Remarks	
	101112/1						S	andy loa	m with a sand	i seam		
					<u> </u>		<u> </u>					
							<u> </u>					
						·						
	centration, D=Dep						Sand Grai		<sup>2</sup> Location: F			
-	dicators: (Applic	able to all				.)			icators for P		atic Hydrid	; 50115 :
Histosol (/ Histic Enir	bedon (A2)			idy Redox (S pped Matrix	,				2 cm Muck ( Red Parent			
Black Hist				my Mucky M		(excent			Very Shallo			(12)
	Sulfide (A4)			my Gleyed I		(except			Other (Expla			12)
	Below Dark Surfac	æ (A11)		leted Matrix				—				
	k Surface (A12)	. /	- '	lox Dark Sur	( )			<sup>3</sup> Inc	licators of hyd	drophyti	c vegetatio	n and
Sandy Mu	cky Mineral (S1)		Dep	leted Dark S	Surface (F7)	)		١	wetland hydro	ology m	ust be pres	ent,
	eyed Matrix (S4)		Rec	lox Depress	ions (F8)				unless disturb	oed or p	roblematic.	
	yer (if present):											
Type: Froz											v	
Depth (inch	ies): <u>2</u>							Hydric	Soil Presen	t? Ye	s X	No
	ay be simila	ır to DP	9-1 and	l meet th	ne F6 hy	/dric s	oil indic	cator.				
/DROLOG	ïΥ		P-1 and	l meet th	ne F6 hy	/dric s	oil indic	cator.				
<b>/DROLOG</b> Vetland Hydr	Y ology Indicators:					/dric s	oil indic				(0	
<b>DROLOG</b> /etland Hydr rimary Indica	iY ology Indicators: tors (minimum of c			all that apply	/)				Secondary Inc			
<b>/DROLOG</b> /etland Hydr rimary Indica Surface W	SY ology Indicators: tors (minimum of c /ater (A1)			all that apply	/) ned Leaves	; (B9) ( <b>ex</b>			Water-Sta	ained Le		<u>required)</u> (MLRA 1, 2,
<b>DROLOG</b> Tetland Hydr rimary Indica Surface W High Wate	iY ology Indicators: tors (minimum of c /ater (A1) er Table (A2)			<u>all that apply</u> Water-Stai <b>MLRA</b>	/) ned Leaves 1, 2, 4A, and	; (B9) ( <b>ex</b>			Water-Sta 4A, an	ained Le 1 <b>d 4B)</b>	eaves (B9)	
<b>DROLOG</b> <b>Tetland Hydr</b> <u>rimary Indica</u> _ Surface W _ High Wate _ Saturation	<b>Sology Indicators</b> tors (minimum of c /ater (A1) er Table (A2) (A3)			<u>all that apply</u> Water-Stai <b>MLRA</b>	/) ned Leaves <b>1, 2, 4A, an</b> (B11)	; (B9) ( <b>ex</b> d <b>4B)</b>		<u>_</u>	Water-Sta <b>4A, ar</b> Drainage	ained Le <b>id 4B)</b> Pattern	eaves (B9) s (B10)	(MLRA 1, 2,
<b>/DROLOG</b> /etland Hydr rimary Indica Surface W High Wate Saturatior Water Ma	<b>ology Indicators</b> tors (minimum of o /ater (A1) er Table (A2) (A3) rks (B1)			<u>all that apply</u> Water-Stai <b>MLRA</b> Salt Crust Aquatic Inv	/) ned Leaves <b>1, 2, 4A, an</b> (B11) vertebrates (	: (B9) ( <b>ex</b> <b>d 4B)</b> (B13)		<u>_</u>	Water-Sta <b>4A, an</b> Drainage Dry-Seas	ained Le <b>id 4B)</b> Pattern on Wate	eaves (B9) s (B10) er Table (C	( <b>MLRA 1, 2</b> , 2)
<b>/DROLOG</b> /etland Hydr rimary Indica Surface W High Wate Saturatior Water Ma Sediment	<b>ology Indicators</b> tors (minimum of o /ater (A1) er Table (A2) (A3) rks (B1) Deposits (B2)			all that apply Water-Stai <b>MLRA</b> Salt Crust Aquatic Inv Hydrogen	/) ned Leaves <b>1, 2, 4A, an</b> (B11) rertebrates ( Sulfide Odo	; (B9) ( <b>ex</b> <b>d 4B)</b> (B13) r (C1)	cept	<u>\$</u> 	Water-Sta 4A, an Drainage Dry-Seas Saturation	ained Le <b>Id 4B)</b> Pattern on Wate n Visible	eaves (B9) s (B10) er Table (C e on Aerial I	( <b>MLRA 1, 2</b> ,
<b>/DROLOG</b> <b>/etland Hydr</b> rimary Indica Surface W High Wate Saturatior Water Ma Sediment Drift Depo	<b>ology Indicators</b> tors (minimum of c /ater (A1) er Table (A2) (A3) rks (B1) Deposits (B2) sits (B3)			all that apply Water-Stai <b>MLRA</b> Salt Crust Aquatic Inv Hydrogen Oxidized R	/) ned Leaves <b>1, 2, 4A, an</b> (B11) vertebrates ( Sulfide Odo chizosphere:	; (B9) ( <b>ex</b> <b>d 4B)</b> (B13) r (C1) s along L	cept iving Roots	<u>5</u>  s (C3)	Water-Sta 4A, an Drainage Dry-Seas Saturation X Geomorp	ained Le <b>Id 4B)</b> Pattern on Wate n Visible hic Posi	eaves (B9) s (B10) er Table (C e on Aerial l ition (D2)	( <b>MLRA 1, 2</b> ,
<b>/DROLOG</b> <b>/etland Hydr</b> <u>rimary Indica</u> Surface W High Wate Saturation Water Ma Sediment Drift Depo Algal Mat	<b>iY</b> <b>ology Indicators:</b> <u>tors (minimum of c</u> /ater (A1) er Table (A2) (A3) rks (B1) Deposits (B2) sits (B3) or Crust (B4)			all that apply Water-Stai MLRA Salt Crust Aquatic Inv Hydrogen Oxidized R Presence o	/) ned Leaves <b>1, 2, 4A, an</b> (B11) vertebrates ( Sulfide Odo sulfide Odo hizosphere: of Reduced	: (B9) ( <b>ex</b> <b>d 4B)</b> (B13) r (C1) s along L Iron (C4)	cept iving Roots	<u>5</u>  s (C3)	Water-Sta 4A, an Drainage Dry-Seas Saturation X Geomorp Shallow A	ained Le nd 4B) Pattern on Wate n Visible hic Posi	eaves (B9) s (B10) er Table (C e on Aerial ition (D2) (D3)	( <b>MLRA 1, 2</b> ,
YDROLOG Vetland Hydr Inimary Indica Surface W High Wate Saturation Water Ma Sediment Sediment Drift Depo Algal Mat Iron Depo	FY rology Indicators: tors (minimum of c /ater (A1) er Table (A2) (A3) rks (B1) Deposits (B2) sits (B3) or Crust (B4) sits (B5)			all that apply Water-Stai MLRA Salt Crust Aquatic Inv Hydrogen Oxidized R Presence o Recent Iro	/) ned Leaves <b>1, 2, 4A, an</b> (B11) vertebrates ( Sulfide Odo hizosphere: of Reduced n Reduction	(B9) ( <b>ex</b> <b>d 4B)</b> (B13) r (C1) s along L Iron (C4) i in Tilled	cept iving Roots Soils (C6)	<u>s</u> (C3)	Water-Sta 4A, an Drainage Dry-Seas Saturation X Geomorp Shallow A FAC-Neu	ained Le <b>nd 4B)</b> Pattern on Wate n Visible hic Posi Aquitard tral Tes	s (B10) er Table (C. e on Aerial ition (D2) (D3) t (D5)	( <b>MLRA 1, 2,</b> 2) magery (C9)
YDROLOG Vetland Hydr Inimary Indica Surface W High Wate Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo Surface S	ology Indicators: tors (minimum of o /ater (A1) er Table (A2) (A3) rks (B1) Deposits (B2) sits (B3) or Crust (B4) sits (B5) oil Cracks (B6)	: one require	<u>:d; check</u> 	all that apply Water-Stai MLRA Salt Crust Aquatic Inv Hydrogen Oxidized R Presence o Recent Iro	() ned Leaves <b>1, 2, 4A, an</b> (B11) vertebrates ( Sulfide Odo chizosphere: of Reduced n Reduction Stressed P	; (B9) ( <b>ex</b> <b>d 4B)</b> (B13) r (C1) s along L Iron (C4) i in Tilled lants (D1	cept iving Roots Soils (C6)	s (C3)	Water-Sta 4A, an Drainage Dry-Seas Saturation X Geomorp Shallow A	ained Le <b>Id 4B)</b> Pattern on Wate n Visible hic Posi Aquitard tral Tes nt Moun	eaves (B9) s (B10) er Table (C. e on Aerial ition (D2) (D3) t (D5) ids (D6) (LI	(MLRA 1, 2, 2) magery (C9) RR A)
PROLOG     /etland Hydr     rimary Indica     Surface W     High Wate     Saturatior     Water Ma     Sediment     Drift Depo     Algal Mat     Iron Depo     Surface S     Inundatior	FY rology Indicators: tors (minimum of c /ater (A1) er Table (A2) (A3) rks (B1) Deposits (B2) sits (B3) or Crust (B4) sits (B5)	ne require	<u>ed; check</u>	all that apply Water-Stai MLRA Salt Crust Aquatic Inv Hydrogen Oxidized R Presence o Recent Iron Stunted or	() ned Leaves <b>1, 2, 4A, an</b> (B11) vertebrates ( Sulfide Odo chizosphere: of Reduced n Reduction Stressed P	; (B9) ( <b>ex</b> <b>d 4B)</b> (B13) r (C1) s along L Iron (C4) i in Tilled lants (D1	cept iving Roots Soils (C6)	s (C3)	Water-Sta 4A, an Drainage Dry-Seas Saturation Ceomorp Shallow A FAC-Neu Raised Au	ained Le <b>Id 4B)</b> Pattern on Wate n Visible hic Posi Aquitard tral Tes nt Moun	eaves (B9) s (B10) er Table (C. e on Aerial ition (D2) (D3) t (D5) ids (D6) (LI	(MLRA 1, 2, 2) magery (C9) RR A)
DROLOG     /etland Hydr rimary Indica     Surface W     High Wate     Saturatior     Water Ma     Sediment     Drift Depo     Algal Mat     Iron Depo     Surface S     Inundatior     Sparsely V	ology Indicators: tors (minimum of c /ater (A1) er Table (A2) (A3) rks (B1) Deposits (B2) sits (B3) or Crust (B4) sits (B5) oil Cracks (B6) n Visible on Aerial /egetated Concav	one require	<u>ed; check</u>	all that apply Water-Stai MLRA Salt Crust Aquatic Inv Hydrogen Oxidized R Presence o Recent Iron Stunted or	() ned Leaves <b>1, 2, 4A, an</b> (B11) vertebrates ( Sulfide Odo chizosphere: of Reduced n Reduction Stressed P	; (B9) ( <b>ex</b> <b>d 4B)</b> (B13) r (C1) s along L Iron (C4) i in Tilled lants (D1	cept iving Roots Soils (C6)	s (C3)	Water-Sta 4A, an Drainage Dry-Seas Saturation Ceomorp Shallow A FAC-Neu Raised Au	ained Le <b>Id 4B)</b> Pattern on Wate n Visible hic Posi Aquitard tral Tes nt Moun	eaves (B9) s (B10) er Table (C. e on Aerial ition (D2) (D3) t (D5) ids (D6) (LI	(MLRA 1, 2, 2) magery (C9) RR A)
PROLOG     Auformation     Surface W     High Wate     Saturation     Water Ma     Sediment     Drift Depo     Algal Mat     Iron Depo     Surface S     Inundation     Sparsely W	iY ology Indicators: tors (minimum of o /ater (A1) er Table (A2) (A3) rks (B1) Deposits (B2) sits (B3) or Crust (B4) sits (B5) oil Cracks (B6) oil Cracks (B6) o Visible on Aerial /egetated Concav ttions:	one require	ed; check	all that apply Water-Stai MLRA Salt Crust Aquatic Inv Hydrogen Oxidized R Presence o Recent Iron Stunted or	/) ned Leaves <b>1, 2, 4A, an</b> (B11) vertebrates ( Sulfide Odo thizosphere: of Reduced n Reduction Stressed Pi lain in Rem	: (B9) ( <b>ex</b> <b>d 4B)</b> (B13) r (C1) s along L lron (C4) i in Tilled lants (D1 arks)	cept iving Roots Soils (C6) ) (LRR A)	s (C3)	Water-Sta 4A, an Drainage Dry-Seas Saturation Ceomorp Shallow A FAC-Neu Raised Au	ained Le <b>Id 4B)</b> Pattern on Wate n Visible hic Posi Aquitard tral Tes nt Moun	eaves (B9) s (B10) er Table (C. e on Aerial ition (D2) (D3) t (D5) ids (D6) (LI	(MLRA 1, 2, 2) magery (C9) RR A)
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YDROLOG     Vetland Hydr     Indica     Surface W     High Wate     Saturatior     Water Ma     Sediment     Drift Depo     Algal Mat     Iron Depo     Surface S     Inundatior     Sparsely ield Observa	ology Indicators: tors (minimum of of /ater (A1) er Table (A2) (A3) rks (B1) Deposits (B2) sits (B3) or Crust (B4) sits (B5) oil Cracks (B6) oil Cracks (B6) oil Visible on Aerial /egetated Concav ations: Present?	Imagery (B e Surface ( ′es	ed; check 	all that apply Water-Stai MLRA Salt Crust Aquatic Inv Hydrogen Oxidized R Presence o Recent Iron Stunted or Other (Exp	/) ned Leaves <b>1, 2, 4A, an</b> (B11) vertebrates ( Sulfide Odo chizosphere: of Reduced n Reduction Stressed Pi lain in Rem ches): ches):	(B9) ( <b>ex</b> <b>d 4B)</b> (B13) r (C1) s along L Iron (C4) i in Tilled lants (D1 arks)	cept Soils (C6) ) (LRR A)	s (C3)	Water-Sta 4A, an Drainage Dry-Seas Saturation Ceomorp Shallow A FAC-Neu Raised Au	ained Le <b>nd 4B)</b> Pattern on Wate n Visible hic Posi Aquitard tral Tes nt Moun ave Hun	eaves (B9) s (B10) er Table (C. e on Aerial ition (D2) (D3) t (D5) ids (D6) (LI nmocks (D7	(MLRA 1, 2, 2) magery (C9) RR A) 7)
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YDROLOG Vetland Hydr Primary Indica Surface W High Wate Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo Surface S Inundation Sparsely V Vater Table P Saturation Pre ncludes capil	iY rology Indicators: tors (minimum of o /ater (A1) er Table (A2) (A3) rks (B1) Deposits (B2) sits (B3) or Crust (B4) sits (B5) oil Cracks (B6) tisble on Aerial /egetated Concav ations: Present? sent? lary fringe)	Imagery (B e Surface ( 'es 'es	ed; check	all that apply Water-Stai MLRA Salt Crust Aquatic Inv Hydrogen Oxidized R Presence of Recent Iron Stunted or Other (Exp Depth (ino Depth (ino	() ned Leaves 1, 2, 4A, and (B11) vertebrates ( Sulfide Odo thizosphere: of Reduced n Reduction Stressed Pi lain in Rem ches): ches): ches):	(B9) ( <b>ex</b> <b>d 4B)</b> (B13) r (C1) s along L lron (C4) i in Tilled lants (D1 arks)	cept Soils (C6) ) (LRR A)	s (C3)	Water-Sta 4A, an Drainage Dry-Seas Saturation Shallow A FAC-Neu Raised An Frost-Hea	ained Le <b>nd 4B)</b> Pattern on Wate n Visible hic Posi Aquitard tral Tes nt Moun ave Hun	eaves (B9) s (B10) er Table (C. e on Aerial ition (D2) (D3) t (D5) ids (D6) (LI nmocks (D7	(MLRA 1, 2, 2) magery (C9) RR A) 7)
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Project/Site: Jayne's Parcel	City/County: E	l Paso	Sampling	g Date: <u>2/1/22</u>
Applicant/Owner:		State: CO		g <sub>Point:</sub> WT-A33-UP1
Investigator(s): S. Clark	Section, Town	ship, Range: <u>S28</u> and 33, T	12S, R65W	
Landform (hillslope, terrace, etc.): hillslope		oncave, convex, none): <u>conc</u>		Slope (%): <u>5</u>
	38°58'22.79"N	Long: - 104°40'24	l.10"W	Datum: WGS84
Soil Map Unit Name: Pring coarse sandy loam, 3-8% slopes		NWI cla	ssification: No	ne
Are climatic / hydrologic conditions on the site typical for this time o	f year? Yes <u>X</u>	No (If no, explain	in Remarks.)	
Are Vegetation, Soil, or Hydrology signification	ntly disturbed?	Are "Normal Circumstanc	es" present?	Yes <u>×</u> No
Are Vegetation, Soil, or Hydrology naturally	problematic?	(If needed, explain any ar	nswers in Rem	arks.)
		• • • • •		<b>.</b>

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

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

### **VEGETATION – Use scientific names of plants.**

NA	Absolute	Dominant		Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: <u>NA</u> ) 1)	<u>% Cover</u>	Species?	Status	Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
2				
				Total Number of Dominant
3				Species Across All Strata: <u>3</u> (B)
4				Percent of Dominant Species
		= Total Co	over	That Are OBL, FACW, or FAC: 0 (A/B)
Sapling/Shrub Stratum (Plot size: NA )				Prevalence Index worksheet:
1				Total % Cover of: Multiply by:
2				$\overline{\text{OBL species } \underbrace{0}_{x 1 = 0}}$
3				FACW species $0 \times 2 = 0$
4				
5				FAC species $\frac{1}{2}$ $x_3 = \frac{1}{2}$
		= Total Co	ver	
Herb Stratum (Plot size: <u>5</u> ')				UPL species $\frac{32}{32}$ x 5 = $\frac{160}{32}$
<sub>1.</sub> Centaurea diffusa	20	х	UPL	Column Totals: <u>102</u> (A) <u>430</u> (B)
2. Pascopyrum smithii	20	x	FACU	Prevalence Index = $B/A = 4.22$
3. Sporobolus heterolepis	20	x	FACU	Hydrophytic Vegetation Indicators:
Achillea millefolium	10		FACU	
5. Cirsium arvense	10		FAC	1 - Rapid Test for Hydrophytic Vegetation
6. Schizachyrium scoparium	5		UPL	2 - Dominance Test is >50%
7 Bouteloua gracilis	- 5		UPL	3 - Prevalence Index is ≤3.0 <sup>1</sup>
8. Artemisia frigida	- 2		UPL	4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
g. Elymus elymoides			FACU	5 - Wetland Non-Vascular Plants <sup>1</sup>
10				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
11				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
NIA	102	= Total Co	ver	be present, unless disturbed of problematic.
Woody Vine Stratum (Plot size: NA )				
1				Hydrophytic
2				Vegetation
_		= Total Co		Present? Yes No X
% Bare Ground in Herb Stratum _0				
Remarks:				

Texture       Remarks         Fine sandy loam
Fine sandy loam         Fine sandy loam         Grains.       2         Location:       PL=Pore Lining, M=Matrix.         Indicators for Problematic Hydric Soils <sup>3</sup> :        2 cm Muck (A10)        2 cm Material (TF2)
Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Soils <sup>3</sup> : 2 cm Muck (A10) Red Parent Material (TF2)
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2 cm Muck (A10) Red Parent Material (TF2)
Red Parent Material (TF2)
· _ · · · ·
Other (Explain in Remarks)
<sup>3</sup> Indicators of hydrophytic vegetation and
wetland hydrology must be present,
unless disturbed or problematic.
Hydric Soil Present? Yes No X
Hydric Soil Present? Yes No _^
Secondary Indicators (2 or more required)
Water-Stained Leaves (B9) (MLRA 1, 2,
4A, and 4B)
Drainage Patterns (B10)
Dry-Season Water Table (C2)
Saturation Visible on Aerial Imagery (C9
oots (C3) Geomorphic Position (D2)
Shallow Aquitard (D3)
C6) Shallow Aquitard (D3) FAC-Neutral Test (D5)
Shallow Aquitard (D3)           C6)         FAC-Neutral Test (D5)           A)         Raised Ant Mounds (D6) (LRR A)
C6) Shallow Aquitard (D3) FAC-Neutral Test (D5)
Shallow Aquitard (D3)           C6)         FAC-Neutral Test (D5)           A)         Raised Ant Mounds (D6) (LRR A)
Shallow Aquitard (D3)           C6)         FAC-Neutral Test (D5)           A)         Raised Ant Mounds (D6) (LRR A)
Shallow Aquitard (D3)           C6)         FAC-Neutral Test (D5)           A)         Raised Ant Mounds (D6) (LRR A)
<ul> <li>Shallow Aquitard (D3)</li> <li>FAC-Neutral Test (D5)</li> <li>Raised Ant Mounds (D6) (LRR A)</li> <li>Frost-Heave Hummocks (D7)</li> </ul>
Shallow Aquitard (D3)           C6)         FAC-Neutral Test (D5)           A)         Raised Ant Mounds (D6) (LRR A)
Shallow Aquitard (D3)     FAC-Neutral Test (D5)     Raised Ant Mounds (D6) (LRR A)     Frost-Heave Hummocks (D7)
<ul> <li>Shallow Aquitard (D3)</li> <li>FAC-Neutral Test (D5)</li> <li>Raised Ant Mounds (D6) (LRR A)</li> <li>Frost-Heave Hummocks (D7)</li> </ul>
Shallow Aquitard (D3)     FAC-Neutral Test (D5)     Raised Ant Mounds (D6) (LRR A)     Frost-Heave Hummocks (D7)
Shallow Aquitard (D3)     FAC-Neutral Test (D5)     Raised Ant Mounds (D6) (LRR A)     Frost-Heave Hummocks (D7)
Shallow Aquitard (D3)     FAC-Neutral Test (D5)     A) Raised Ant Mounds (D6) (LRR A)     Frost-Heave Hummocks (D7)  etland Hydrology Present? Yes NoX
Shallow Aquitard (D3)     FAC-Neutral Test (D5)     A)     Raised Ant Mounds (D6) (LRR A)     Frost-Heave Hummocks (D7)  etland Hydrology Present? Yes No _X
((

Project/Site: Jayne's Parcel	City/County: El Pase	D	_ Sampling Date: 2/1/22
Applicant/Owner:		State: CO	_ Sampling Point: WT-A33-WT1
Investigator(s): S. Clark	Section, Township, F	Range: <u>S28 and 33, T12</u>	S, R65W
Landform (hillslope, terrace, etc.): swale			Slope (%): 0
Subregion (LRR): E	Lat: <u>38°58'22.66"N</u>	Long: - 104°40'24.5	9"W Datum: WGS84
Soil Map Unit Name: Pring coarse sandy loam, 3-8% slop	bes	NWI classif	ication: None
Are climatic / hydrologic conditions on the site typical for this	ime of year? Yes X No	(If no, explain in	Remarks.)
Are Vegetation, Soil, or Hydrology sig	nificantly disturbed? Ar	e "Normal Circumstances"	present? Yes X No
Are Vegetation, Soil, or Hydrology na	turally problematic? (If	needed, explain any answ	ers in Remarks.)
SUMMARY OF FINDINGS Attach site man a	howing compling point	locationa transact	a important factures ato

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

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

### **VEGETATION – Use scientific names of plants.**

ΝΔ	Absolute	Dominant		Dominance Test worksheet:
Tree Stratum (Plot size: NA)	% Cover			Number of Dominant Species
1				That Are OBL, FACW, or FAC: 1 (A)
2				Total Number of Deminent
3				Total Number of Dominant         Species Across All Strata:         1         (B)
4				Percent of Dominant Species
ΝΔ		= Total Co	over	That Are OBL, FACW, or FAC: 100 (A/B)
Sapling/Shrub Stratum (Plot size: NA )				Prevalence Index worksheet:
1				Total % Cover of: Multiply by:
2				
3				OBL species $\frac{0}{20}$ x 1 = $\frac{0}{100}$
				FACW species $\frac{90}{x 2} = \frac{180}{x}$
4				FAC species $\frac{10}{x 3} = \frac{30}{x 3}$
5				FACU species $\frac{2}{x 4} = \frac{8}{x}$
<b></b>		= Total Co	over	· · · · · · · · · · · · · · · · · · ·
Herb Stratum (Plot size: 5' )				UPL species x 5 =
<sub>1.</sub> Juncus arcticus	90	Х	FAC₩	Column Totals: <u>102</u> (A) <u>218</u> (B)
2. Verbascum thapsus	2		FACU	Prevalence Index = $B/A = 2.14$
3. Cirsium arvense	10		FAC	
				Hydrophytic Vegetation Indicators:
4				<u>x</u> 1 - Rapid Test for Hydrophytic Vegetation
5				<u>×</u> 2 - Dominance Test is >50%
6				<u>x</u> 3 - Prevalence Index is ≤3.0 <sup>1</sup>
7			. <u> </u>	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
8				data in Remarks or on a separate sheet)
9				5 - Wetland Non-Vascular Plants <sup>1</sup>
10				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
				<sup>1</sup> Indicators of hydric soil and wetland hydrology must
11				be present, unless disturbed or problematic.
ΝΔ	102	= Total Co	ver	
Woody Vine Stratum (Plot size: NA )				
1				Hydrophytic
2				Vegetation
		= Total Co		Present? Yes X No
% Bare Ground in Herb Stratum _0		<u> </u>	VCI	
Remarks:				1

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

Profile Desc	cription: (Describe	to the dep	oth needed	to docu	ment the i	ndicator	or confirn	n the abs	ence of	findicators.)
Depth	Matrix				x Feature		. 2	- /		<b>-</b> .
<u>(inches)</u> 0-4	Color (moist) 10YR 2/1	<u>%</u>	Color (	moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Textu		Remarks
0-4	1018 2/1							Sandy Lo	am	
							<u> </u>			
								_		
							<u> </u>			
<sup>1</sup> Type: C=C	oncentration, D=De	– – – – – – – – – – – – – – – – – – –	=Reduced	Matrix C		d or Coate	ed Sand G	rains	<sup>2</sup> Locat	ion: PL=Pore Lining, M=Matrix.
	Indicators: (Applie									for Problematic Hydric Soils <sup>3</sup> :
Histosol			Sand			,				Juck (A10)
	pipedon (A2)			ed Matrix						arent Material (TF2)
	istic (A3)				. ,	1) (except	t MLRA 1)	)		Shallow Dark Surface (TF12)
	en Sulfide (A4)				Matrix (F2		,		•	(Explain in Remarks)
	d Below Dark Surfac	ce (A11)		ted Matrix		,				
Thick D	ark Surface (A12)		Redo	x Dark Su	irface (F6)			<sup>3</sup> Inc	dicators	of hydrophytic vegetation and
Sandy M	/lucky Mineral (S1)		Deple	ted Dark	Surface (F	7)			wetland	l hydrology must be present,
	Gleyed Matrix (S4)		Redo	x Depress	sions (F8)				unless	disturbed or problematic.
	Layer (if present):									
Type: Fro										~
Depth (in	ches): <u>4</u>							Hydric	Soil P	resent? Yes X No
Remarks:										
HYDROLO	GY									
Wetland Hy	drology Indicators	:								
Primary Indi	cators (minimum of	one require	d; check al	I that appl	y)				Seconda	ary Indicators (2 or more required)
Surface	Water (A1)		١	Nater-Sta	ined Leav	es (B9) ( <b>e</b>	xcept		Wat	ter-Stained Leaves (B9) (MLRA 1, 2,
	ater Table (A2)				1, 2, 4A, a		•	-		4A, and 4B)
Saturati			Ş	Salt Crust		,				inage Patterns (B10)
	larks (B1)				vertebrate	s (B13)		-		-Season Water Table (C2)
	nt Deposits (B2)			•	Sulfide O	` '		-	-	uration Visible on Aerial Imagery (C9)
	posits (B3)						Living Roo	ots (C3)		pmorphic Position (D2)
	at or Crust (B4)				of Reduce	-	-			allow Aquitard (D3)
-	posits (B5)						+) d Soils (C6			C-Neutral Test (D5)
	Soil Cracks (B6)						1) ( <b>LRR A</b>			sed Ant Mounds (D6) (LRR A)
	on Visible on Aerial	Imageny (P			plain in Re					st-Heave Hummocks (D7)
	y Vegetated Concav					marks		-		
Field Obser		C Ounace (	(00)							
Surface Wat		Yes	No <u>×</u>	Depth (in	ches).					
			No <u>x</u>							
Water Table								land Live		Present? Yes X No
Saturation P (includes ca	pillary fringe)	185	No <u>x</u>	Depth (In	unes):			ialiu Hydr	ology F	Present? Yes <u>No</u> No
	corded Data (stream	n gauge, m	onitoring w	ell, aerial	photos, pr	evious ins	pections),	if availab	e:	
Remarks:										

Project/Site: <u>Jayne's Parcel</u>	City/County: El	Paso	_ Sampling Date: 2/1/22
Applicant/Owner:		State: CO	_ Sampling Point: WT-A39-UP1
Investigator(s): S. Clark	Section, Towns	hip, Range: <u>S28</u> and 33, T12	S, R65W
Landform (hillslope, terrace, etc.): hillslope		ncave, convex, none): <u>concav</u>	
Subregion (LRR): E	Lat: <u>38°58'28.88"N</u>	Long: - 104°40'13.0	1"W Datum: WGS84
Soil Map Unit Name: Pring coarse sandy loam, 3-8% slop	es	NWI classi	ication: None
Are climatic / hydrologic conditions on the site typical for this ti	me of year? Yes x	_ No (If no, explain in	Remarks.)
Are Vegetation, Soil, or Hydrology sign	nificantly disturbed?	Are "Normal Circumstances'	present? Yes X No
Are Vegetation, Soil, or Hydrology nat	urally problematic?	(If needed, explain any answ	vers in Remarks.)
		• • • • • •	• • • • • •

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

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

### **VEGETATION – Use scientific names of plants.**

NA	Absolute		t Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: NA) 1	<u>% Cover</u>			Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
2 3				Total Number of Dominant Species Across All Strata: (B)
4		= Total Co		Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
				Prevalence Index worksheet:
1				Total % Cover of: Multiply by:
2				OBL species $5   x_1 = 5$
3				FACW species $0$ x 2 = $0$
4				FAC species $0   x 3 = 0$
5				FACU species $15$ x 4 = $60$
5'		= Total Co	over	$\begin{array}{c} \text{UPL species} \\ 40 \\ \text{x 5} = \end{array} \begin{array}{c} 200 \\ \hline \end{array}$
Herb Stratum (Plot size: 5')	5		OBL	00 005
1. Typha sp.				Column Totals: $\frac{60}{(A)}$ (A) $\frac{265}{(B)}$ (B)
2. Verbascum thapsus	15	x	FACU	Prevalence Index = $B/A = 4.42$
<sub>3.</sub> Centaurea diffusa	40	х	UPL	Hydrophytic Vegetation Indicators:
4				1 - Rapid Test for Hydrophytic Vegetation
5				2 - Dominance Test is >50%
6				3 - Prevalence Index is ≤3.0 <sup>1</sup>
7				4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
9				5 - Wetland Non-Vascular Plants <sup>1</sup>
10				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
				<sup>1</sup> Indicators of hydric soil and wetland hydrology must
11	~~			be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size: NA )		= Total Co	ver	
1				Hydrophytic
2				Vegetation
% Bare Ground in Herb Stratum 20		= Total Co	ver	Present? Yes <u>No X</u>
Remarks:				1

		•					the abse	nce of indicators.)
Depth	Matrix			Features		. 2	<b>-</b> .	
<u>(inches)</u> 0-3	Color (moist) 10YR 3/1	_ <u>%</u> _ 100 _	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	
							Sandy loa	am
3-7	10 YR 4/2	100					Sand	
						·		
<sup>1</sup> Type: C=C	oncentration D=De	pletion RM=F	Reduced Matrix, CS	=Covered	or Coate		ains	<sup>2</sup> Location: PL=Pore Lining, M=Matrix.
			RRs, unless otherv					cators for Problematic Hydric Soils <sup>3</sup> :
Histosol			Sandy Redox (S					2 cm Muck (A10)
	pipedon (A2)	_	Stripped Matrix (	,				Red Parent Material (TF2)
	istic (A3)	_	Loamy Mucky M		) (except	MLRA 1)		Very Shallow Dark Surface (TF12)
Hydroge	en Sulfide (A4)	_	Loamy Gleyed N	latrix (F2)				Other (Explain in Remarks)
	d Below Dark Surfa	ce (A11)	Depleted Matrix	. ,			-	
	ark Surface (A12)	_	Redox Dark Surf	( )				icators of hydrophytic vegetation and
-	Aucky Mineral (S1)	-	Depleted Dark S	•	7)			vetland hydrology must be present,
	Gleyed Matrix (S4)		Redox Depression	ons (F8)			u	inless disturbed or problematic.
Type: Fro	Layer (if present):							
								Soil Present? Yes No
Depth (ind Remarks:	cnes): <u>/</u>						Hydric	Soil Present? Yes No
HYDROLO Wetland Hyd	GY drology Indicators	:						
Primary Indic	cators (minimum of	one required;	check all that apply	)				
Surface	Water (A1)						<u>S</u>	econdary Indicators (2 or more required)
High Wa	ater Table (A2)		Water-Stair	ed Leave	es (B9) ( <b>e</b> :	cept	<u>S</u>	econdary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2,
Saturatio				ied Leave , <b>2, 4A, a</b>		cept	<u> </u>	
	on (A3)			, 2, 4A, a		ccept	<u> </u>	Water-Stained Leaves (B9) (MLRA 1, 2,
	on (A3) Iarks (B1)		MLRA 1	, <b>2, 4A, a</b> B11)	nd 4B)	cept		Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
Water M	. ,		MLRA 1 Salt Crust (	, <b>2, 4A, a</b> B11) ertebrates	nd 4B) s (B13)	ccept		Water-Stained Leaves (B9) ( <b>MLRA 1, 2,</b> <b>4A, and 4B)</b> Drainage Patterns (B10)
Water M Sedimer	larks (B1)		MLRA 1 Salt Crust ( Aquatic Inve	, <b>2, 4A, a</b> B11) ertebrates sulfide Od	nd 4B) s (B13) or (C1)		-	Water-Stained Leaves (B9) ( <b>MLRA 1, 2,</b> <b>4A, and 4B)</b> Drainage Patterns (B10) Dry-Season Water Table (C2)
Water M Sedimer	larks (B1) nt Deposits (B2)		MLRA 1 Salt Crust (I Aquatic Invo Hydrogen S	, <b>2, 4A, a</b> B11) ertebrates sulfide Od nizospher	nd 4B) s (B13) or (C1) es along l	iving Root	  ts (C3)	<ul> <li>Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)</li> <li>Drainage Patterns (B10)</li> <li>Dry-Season Water Table (C2)</li> <li>Saturation Visible on Aerial Imagery (C9)</li> </ul>
Water M Sedimer Drift Dep Algal Ma	larks (B1) nt Deposits (B2) posits (B3)		MLRA 1 Salt Crust ( Aquatic Invo Hydrogen S Oxidized R	, <b>2, 4A, a</b> B11) ertebrates Sulfide Od hizospher f Reduced	nd 4B) s (B13) or (C1) es along l d Iron (C4	_iving Root	  ts (C3)	<ul> <li>Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)</li> <li>Drainage Patterns (B10)</li> <li>Dry-Season Water Table (C2)</li> <li>Saturation Visible on Aerial Imagery (C9)</li> <li>Geomorphic Position (D2)</li> </ul>
Water M Sedimer Drift Dep Algal Ma	larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4)		MLRA 1 Salt Crust ( Aquatic Invo Hydrogen S Oxidized Ri Presence o	, <b>2, 4A, a</b> B11) ertebrates sulfide Od nizospher f Reduced Reductio	nd 4B) s (B13) or (C1) es along l d Iron (C4 on in Tillec	iving Root: ) I Soils (C6)	  ts (C3) )	<ul> <li>Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)</li> <li>Drainage Patterns (B10)</li> <li>Dry-Season Water Table (C2)</li> <li>Saturation Visible on Aerial Imagery (C9)</li> <li>Geomorphic Position (D2)</li> <li>Shallow Aquitard (D3)</li> </ul>
Water M Sedimer Drift Dep Algal Ma Iron Dep Surface	larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aerial	0,00,000	MLRA 1 Salt Crust (i Aquatic Inve Hydrogen S Oxidized Ri Presence o Recent Iron Stunted or S Other (Expl	, <b>2, 4A, a</b> B11) ertebrates Gulfide Od hizospher f Reduced Reductic Stressed	nd 4B) or (C1) es along l d Iron (C4 on in Tilleo Plants (D	iving Root: ) I Soils (C6)	  ts (C3) )	<ul> <li>Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)</li> <li>Drainage Patterns (B10)</li> <li>Dry-Season Water Table (C2)</li> <li>Saturation Visible on Aerial Imagery (C9)</li> <li>Geomorphic Position (D2)</li> <li>Shallow Aquitard (D3)</li> <li>FAC-Neutral Test (D5)</li> </ul>
Water M Sedimer Drift Dep Algal Ma Iron Dep Surface	larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6)	0,00,000	MLRA 1 Salt Crust (i Aquatic Inve Hydrogen S Oxidized Ri Presence o Recent Iron Stunted or S Other (Expl	, <b>2, 4A, a</b> B11) ertebrates Gulfide Od hizospher f Reduced Reductic Stressed	nd 4B) or (C1) es along l d Iron (C4 on in Tilleo Plants (D	iving Root: ) I Soils (C6)	  ts (C3) )	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Water M Sedimer Drift Dep Algal Ma Iron Dep Surface	larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aerial y Vegetated Concav	0,00,000	MLRA 1 Salt Crust (i Aquatic Inve Hydrogen S Oxidized Ri Presence o Recent Iron Stunted or S Other (Expl	, <b>2, 4A, a</b> B11) ertebrates Gulfide Od hizospher f Reduced Reductic Stressed	nd 4B) or (C1) es along l d Iron (C4 on in Tilleo Plants (D	iving Root: ) I Soils (C6)	  ts (C3) )	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundati Sparsely	larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aerial y Vegetated Concav vations:	ve Surface (B	MLRA 1 Salt Crust (i Aquatic Inve Hydrogen S Oxidized Ri Presence o Recent Iron Stunted or S Other (Expl	, <b>2, 4A, a</b> B11) ertebrates Sulfide Od hizospher f Reduced Reductio Stressed ain in Rer	nd 4B) or (C1) es along I d Iron (C4 on in Tilleo Plants (D marks)	iving Root: ) I Soils (C6)	  ts (C3) )	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundati Sparsely	larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aerial y Vegetated Concav vations: er Present?	ve Surface (Ba	MLRA 1 Salt Crust (I Aquatic Inve Hydrogen S Oxidized RI Presence o Recent Iron Stunted or S Other (Expl	, <b>2</b> , <b>4A</b> , <b>a</b> B11) ertebrates Sulfide Od hizospher f Reduced Reductio Stressed ain in Rer hes):	nd 4B) or (C1) es along I d Iron (C4 on in Tilleo Plants (D marks)	Living Root: ) I Soils (C6) I) ( <b>LRR A</b> )	  ts (C3) )	Water-Stained Leaves (B9) ( <b>MLRA 1, 2,</b> <b>4A, and 4B</b> ) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) ( <b>LRR A</b> ) Frost-Heave Hummocks (D7)
Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundati Sparsely Field Obser Surface Wate Water Table Saturation P	larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aerial y Vegetated Concav vations: er Present? Present?	ve Surface (Bi Yes N Yes N	MLRA 1 Salt Crust (i Aquatic Invo Hydrogen S Oxidized Ri Presence o Recent Iron Stunted or S Other (Expl 3) o X Depth (incl	, 2, 4A, a B11) ertebrates Gulfide Od hizospher f Reduced Reductic Stressed ain in Rer hes):	nd 4B) or (C1) es along I d Iron (C4 on in Tilleo Plants (D marks)	Living Root: )   Soils (C6)  ) ( <b>LRR A</b> )		Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundati Sparsely Field Obser Surface Wate Water Table Saturation P (includes cap	larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aerial y Vegetated Concav vations: er Present? Present? pillary fringe)	ve Surface (Ba Yes N Yes N Yes N	MLRA 1 Salt Crust (i Aquatic Inva Hydrogen S Oxidized Ri Presence o Recent Iron Stunted or S Other (Expl 3) o Depth (incl o	, 2, 4A, a B11) ertebrates Sulfide Od hizospher f Reduced Reductio Stressed ain in Rer hes): hes):	nd 4B) or (C1) es along I d Iron (C4 on in Tilleo Plants (D marks)	Living Root: ) I Soils (C6) I) ( <b>LRR A</b> )		Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundati Sparsely Field Obser Surface Wate Water Table Saturation P (includes cap	larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aerial y Vegetated Concav vations: er Present? Present? pillary fringe)	ve Surface (Ba Yes N Yes N Yes N	MLRA 1 Salt Crust (i Aquatic Inve Hydrogen S Oxidized RI Presence o Recent Iron Stunted or S Other (Expl 3) o Depth (incl o Depth (incl	, 2, 4A, a B11) ertebrates Sulfide Od hizospher f Reduced Reductio Stressed ain in Rer hes): hes):	nd 4B) or (C1) es along I d Iron (C4 on in Tilleo Plants (D marks)	Living Root: ) I Soils (C6) I) ( <b>LRR A</b> )		Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundati Sparsely Field Obser Surface Wate Water Table Saturation P (includes cap Describe Ref	larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aerial y Vegetated Concav vations: er Present? Present? pillary fringe)	ve Surface (Ba Yes N Yes N Yes N	MLRA 1 Salt Crust (i Aquatic Inva Hydrogen S Oxidized Ri Presence o Recent Iron Stunted or S Other (Expl 3) o Depth (incl o	, 2, 4A, a B11) ertebrates Sulfide Od hizospher f Reduced Reductio Stressed ain in Rer hes): hes):	nd 4B) or (C1) es along I d Iron (C4 on in Tilleo Plants (D marks)	Living Root: ) I Soils (C6) I) ( <b>LRR A</b> )		Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Water M Sedimer Drift Deg Algal Ma Iron Deg Surface Inundati Sparsely Field Obser Surface Wate Water Table Saturation P (includes cap Describe Re	larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aerial y Vegetated Concav vations: er Present? Present? pillary fringe) corded Data (strear	ve Surface (Ba Yes N Yes N Yes N n gauge, mon	MLRA 1 Salt Crust (( Aquatic Inve Hydrogen S Oxidized RH Presence o Recent Iron Stunted or S Other (Expl 3) o Depth (incl o Depth (incl itoring well, aerial pl	, 2, 4A, a B11) ertebrates Sulfide Od hizospher f Reduced Reductio Stressed I ain in Ren hes): hes): hotos, pre	nd 4B) or (C1) es along I d Iron (C4 on in Tillec Plants (D marks)	Living Root: ) I Soils (C6) I) (LRR A) U (LRR A) Wetla		Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Water M Sedimer Drift Deg Algal Ma Iron Deg Surface Inundati Sparsely Field Obser Surface Wate Water Table Saturation P (includes cap Describe Re	larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aerial y Vegetated Concav vations: er Present? Present? pillary fringe) corded Data (strear	ve Surface (Ba Yes N Yes N Yes N n gauge, mon	MLRA 1 Salt Crust (i Aquatic Inva Hydrogen S Oxidized Ri Presence o Recent Iron Stunted or S Other (Expl 3) o Depth (incl o	, 2, 4A, a B11) ertebrates Sulfide Od hizospher f Reduced Reductio Stressed I ain in Ren hes): hes): hotos, pre	nd 4B) or (C1) es along I d Iron (C4 on in Tillec Plants (D marks)	Living Root: ) I Soils (C6) I) (LRR A) U (LRR A) Wetla		Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Water M Sedimer Drift Deg Algal Ma Iron Deg Surface Inundati Sparsely Field Obser Surface Wate Water Table Saturation P (includes cap Describe Re	larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aerial y Vegetated Concav vations: er Present? Present? pillary fringe) corded Data (strear	ve Surface (Ba Yes N Yes N Yes N n gauge, mon	MLRA 1 Salt Crust (( Aquatic Inve Hydrogen S Oxidized RH Presence o Recent Iron Stunted or S Other (Expl 3) o Depth (incl o Depth (incl itoring well, aerial pl	, 2, 4A, a B11) ertebrates Sulfide Od hizospher f Reduced Reductio Stressed I ain in Ren hes): hes): hotos, pre	nd 4B) or (C1) es along I d Iron (C4 on in Tillec Plants (D marks)	Living Root: ) I Soils (C6) I) (LRR A) U (LRR A) Wetla		Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)

Project/Site: Jayne's Parcel	City/County: El	Paso	Sampling Date: 2/1/22				
Applicant/Owner:		State: CO	Sampling Point: WT-A39-UP2				
Investigator(s): S. Clark	Section, Towns	Section, Township, Range: S28 and 33, T12S, R65W					
Landform (hillslope, terrace, etc.): hillslope		oncave, convex, none): <u>concave</u>	_				
Subregion (LRR): E	Lat: <u>38°58'18.58"N</u>	Long: - 104°40'15.65"	W Datum: WGS84				
Soil Map Unit Name: Pring coarse sandy loam, 3-8% slo	pes	NWI classific	ation: None				
Are climatic / hydrologic conditions on the site typical for this	time of year? Yes X	No (If no, explain in R	emarks.)				
Are Vegetation, Soil, or Hydrology si	gnificantly disturbed?	Are "Normal Circumstances" p	resent? Yes X No				
Are Vegetation, Soil, or Hydrology na	aturally problematic?	(If needed, explain any answer	rs in Remarks.)				
			· · · · · · ·				

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

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

### **VEGETATION – Use scientific names of plants.**

NA	Absolute		Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: NA) 1)		Species?		Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
2 3			·	Total Number of Dominant       Species Across All Strata:   (B)
4		= Total Co		Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)
1,				Prevalence Index worksheet:
				Total % Cover of: Multiply by:
2				OBL species $0$ $x = 0$
3				FACW species $0   x 2 = 0$
4				FAC species $0   x 3 = 0$
5				FACU species 20 x 4 = 80
5'		= Total Co	over	UPL species $\frac{88}{x5} = \frac{440}{x5}$
Herb Stratum (Plot size: 5')	8		UPL	Column Totals: $108$ (A) $520$ (B)
1. Opuntia sp.				$\begin{array}{c} \text{Column rotals.} \xrightarrow{100} \text{(A)} \xrightarrow{200} \text{(B)} \end{array}$
2. Pascopyrum smithii	20		FACU	Prevalence Index = $B/A = \frac{4.81}{1000}$
3. Bouteloua gracilis	80	X	UPL	Hydrophytic Vegetation Indicators:
4				1 - Rapid Test for Hydrophytic Vegetation
5				2 - Dominance Test is >50%
6				3 - Prevalence Index is ≤3.0 <sup>1</sup>
7				4 - Morphological Adaptations <sup>1</sup> (Provide supporting
8				data in Remarks or on a separate sheet)
9				5 - Wetland Non-Vascular Plants <sup>1</sup>
				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
10			·	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
11	100		·	be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size: NA )	100	= Total Co	ver	
1				Hydrophytic
2				Vegetation
% Bare Ground in Herb Stratum 0		= Total Co		Present? Yes <u>No X</u>
Remarks:				

Profile Desc	ription: (Describe	to the dept	h needed to docun	nent the in	dicator o	r confirm	n the absence of indicators.)
Depth	Matrix			Features	1		
(inches)	Color (moist)		Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture Remarks
0-6	10YR 2/1	100					Fine sandy loam
				<u> </u>			
<sup>1</sup> Type: C=Ce	oncentration, D=De	pletion, RM=	Reduced Matrix, CS	=Covered	or Coated	Sand Gr	
Hydric Soil	Indicators: (Appli	cable to all L	RRs, unless other	wise noted	1.)		Indicators for Problematic Hydric Soils <sup>3</sup> :
Histosol	( )	-	Sandy Redox (S				2 cm Muck (A10)
	pipedon (A2)	-	Stripped Matrix	· /			Red Parent Material (TF2)
	stic (A3)	-	Loamy Mucky M		(except	MLRA 1)	
	n Sulfide (A4)		Loamy Gleyed I Doploted Matrix				Other (Explain in Remarks)
	d Below Dark Surfa ark Surface (A12)		Depleted Matrix Redox Dark Sur				<sup>3</sup> Indicators of hydrophytic vegetation and
	fucky Mineral (S1)	-	Depleted Dark S	· · /	)		wetland hydrology must be present,
	Gleyed Matrix (S4)	-	Redox Depress		,		unless disturbed or problematic.
	Layer (if present):	-		( )			
Type: Fro	ozen						
Depth (in	ches): 6						Hydric Soil Present? Yes No _X
Remarks:	,						
HYDROLO	GY						
Wetland Hy	drology Indicators	:					
Primary India	cators (minimum of	one required	; check all that apply	()			Secondary Indicators (2 or more required)
Surface	Water (A1)		Water-Stai	ned Leaves	s (B9) ( <b>ex</b>	cept	Water-Stained Leaves (B9) (MLRA 1, 2,
High Wa	iter Table (A2)		MLRA	I, 2, 4A, an	id 4B)		4A, and 4B)
Saturatio	on (A3)		Salt Crust	(B11)			Drainage Patterns (B10)
Water M	. ,		Aquatic Inv				Dry-Season Water Table (C2)
	nt Deposits (B2)		Hydrogen		. ,		Saturation Visible on Aerial Imagery (C9)
	posits (B3)		Oxidized F		-	-	
	at or Crust (B4)		Presence				Shallow Aquitard (D3)
	oosits (B5)		Recent Iro				
	Soil Cracks (B6)		Stunted or			) ( <b>LRR A</b>	
	on Visible on Aerial			lain in Rem	narks)		Frost-Heave Hummocks (D7)
	/ Vegetated Concav	e Surface (B	8)				
Field Obser							
Surface Wat			lo × Depth (ind				
Water Table			lo <u>x</u> Depth (inc				
Saturation P (includes cap		Yes N	lo <u>x</u> Depth (ind	:hes):		_   Wetla	and Hydrology Present? Yes No X
		n gauge, mor	nitoring well, aerial p	hotos, prev	ious insp	ections),	if available:
			<b>C</b> ,	2 F	- 1-	- /1	
Remarks:							
	o have wetla	nd hydro	logy due to la	Indscap	e posi	tion.	
		<b>,</b>	0,	1-			

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

Project/Site: <u>Jayne's Parcel</u>	City/County: El Pas	SO	Sampling Date: 2/1/22
Applicant/Owner:		State: CO	_ Sampling Point: WT-A39-WT1
Investigator(s): S. Clark	Section, Township,	Range: S28 and 33, T12	S, R65W
Landform (hillslope, terrace, etc.): depression			Slope (%): 0
Subregion (LRR): E	Lat: <u>38°58'28.71"N</u>	Long: -104°40'13.52	W Datum: WGS84
Soil Map Unit Name: Pring coarse sandy loam, 3-8% sl	opes	NWI classif	cation: R4SBC
Are climatic / hydrologic conditions on the site typical for this	s time of year? Yes <u>×</u> N	o (If no, explain in l	Remarks.)
Are Vegetation, Soil, or Hydrologys	significantly disturbed? A	are "Normal Circumstances"	present? Yes X No
Are Vegetation, Soil, or Hydrology r	naturally problematic? (I	f needed, explain any answ	ers in Remarks.)
SUMMARY OF FINDINGS Attach site man	chowing compling poir	t locations transact	important factures ato

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

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

#### **VEGETATION – Use scientific names of plants.**

ΝΑ	Absolute		Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: NA )	% Cover	Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC: 1 (A)
2				Total Number of Deminent
3				Total Number of Dominant         Species Across All Strata:         1         (B)
4				Percent of Dominant Species
Sapling/Shrub Stratum (Plot size: NA )		= Total Co	over	That Are OBL, FACW, or FAC: 100 (A/B)
				Prevalence Index worksheet:
1				Total % Cover of: Multiply by:
2				$\overline{\text{OBL species}}  \underline{100} \qquad x \ 1 = \underline{100}$
3				
4				FACW species x 2 =
5				FAC species x 3 =
5			·	FACU species x 4 =
Herb Stratum (Plot size: 5')		= Total Co	over	UPL species x 5 =
, Typha en	100	х	OBL	Column Totals: 100 (A) 100 (B)
2				Prevalence Index = $B/A = 1.00$
3				Hydrophytic Vegetation Indicators:
4				<u>×</u> 1 - Rapid Test for Hydrophytic Vegetation
5				$\underline{x}$ 2 - Dominance Test is >50%
6				$\underline{x}$ 3 - Prevalence Index is ≤3.0 <sup>1</sup>
7				4 - Morphological Adaptations <sup>1</sup> (Provide supporting
8				data in Remarks or on a separate sheet)
9				5 - Wetland Non-Vascular Plants <sup>1</sup>
10				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
				<sup>1</sup> Indicators of hydric soil and wetland hydrology must
11	100		·	be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size: NA )	100	= Total Co	ver	
1			·	Hydrophytic
2				Vegetation Present? Yes <sup>X</sup> No
		= Total Co	ver	
% Bare Ground in Herb Stratum 0				
Remarks:				

Based on the time of year, species identifications were made based on remnant foliage and position on the landscape.

#### SOIL

# Sampling Point: WT-A39-WT1

Depth	Matrix			dox Feature		. 0				_		
inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Text	ure	<u></u>	Remark	(S	
0-1	10YR 2/1	100					Duff la	yer	Organi	CS		
-8	10 YR 3/1	60	7.5 YR 4/6	5	С	PL	Fine sandy	clay lo	am			
			10 YR 4/1	35	RM	M						
			_									
			_									
								2.		<b>D</b>		
			M=Reduced Matrix, (			ed Sand				=Pore Lining blematic Hy		
					ieu.)					-		•
_ Histoso	( )		Sandy Redox Stripped Matr	. ,			—		Muck (A1	iu) aterial (TF2)		
	pipedon (A2) listic (A3)		Loamy Mucky	• •			1)			Dark Surface		
_	en Sulfide (A4)		Loamy Gleye				•)	-		in Remarks		
	ed Below Dark Sur	ace (A11)	Depleted Mat		-)			_ 0116			/	
	ark Surface (A12)		x Redox Dark S	· · ·	6)		<sup>3</sup> lr	idicator	s of hvdro	phytic vege	tation and	
	Mucky Mineral (S1	)	Depleted Dar							gy must be		
-	Gleyed Matrix (S4)		Redox Depre						•	d or problem		
	Layer (if present				,							
Type: Fr	ozen											
	nches): <u>8</u>						Hydri	c Soil	Present?	Yes X	No	
emarks:												
emarks: <b>′DROLC</b>		rs:										
emarks: /DROLC /etland Hy	)GY /drology Indicato		ed; check all that ap	ply)				Secon	dary Indic	ators (2 or n	nore require	ed)
emarks: DROLC etland Hy	)GY /drology Indicato			<u>ply)</u> tained Lea	ves (B9) (6	except				ators (2 or n ed Leaves (		
DROLC	DGY /drology Indicato icators (minimum c		Water-S		. , .	except				ed Leaves (		
<b>DROLC</b> <b>etland Hy</b> imary Indi _ Surface _ High W	DGY /drology Indicato icators (minimum c water (A1)		Water-S	tained Lea A 1, 2, 4A,	. , .	except		W	ater-Stain 4A, and	ed Leaves (	B9) ( <b>MLRA</b>	
<b>DROLC</b> etland Hy imary Indi _ Surface _ High W _ Saturat	DGY /drology Indicato icators (minimum o e Water (A1) fater Table (A2)		Water-S MLR. Salt Cru	tained Lea <b>A 1, 2, 4A,</b> st (B11)	and 4B)	except		W	ater-Stain <b>4A, and</b> ainage Pa	ed Leaves ( <b>4B)</b> atterns (B10)	B9) ( <b>MLRA</b> )	
<b>DROLC</b> <b>etland Hy</b> <u>imary Ind</u> _ Surface _ High W _ Saturat _ Water N	DGY vdrology Indicato icators (minimum of Water (A1) ater Table (A2) ion (A3) Marks (B1)		Water-S MLR Salt Cru:	tained Lea <b>A 1, 2, 4A,</b> st (B11) Invertebrat	and 4B) es (B13)	except		W Dr Dr	ater-Stain <b>4A, and</b> ainage Pa y-Season	ed Leaves ( <b>4B)</b>	B9) ( <b>MLRA</b> ) ) e (C2)	A 1, 2
<b>DROLC</b> etland Hy imary Indi _ Surface _ High W _ Saturat _ Water N _ Sedime	DGY /drology Indicato icators (minimum of Water (A1) ater Table (A2) ion (A3)		Water-S MLR. Salt Cru: Aquatic Hydroge	tained Lea <b>A 1, 2, 4A</b> , st (B11) Invertebrat	<b>and 4B)</b> es (B13) Odor (C1)	·		W Dr Sa	ater-Stain <b>4A, and</b> ainage Pa y-Season turation V	ed Leaves ( <b>4B)</b> atterns (B10) Water Table /isible on Ae	B9) ( <b>MLRA</b> ) e (C2) rrial Imager	A 1, 2
<b>DROLC</b> etland Hy imary Indi Surface High W Saturat Water M Sedime Drift De	DGY /drology Indicato icators (minimum of Water (A1) fater Table (A2) ion (A3) Marks (B1) ent Deposits (B2)		Water-S MLR Salt Cru Aquatic Hydroge X Oxidized	tained Lea <b>A 1, 2, 4A</b> , st (B11) Invertebrat	and 4B) es (B13) Odor (C1) eres along	Living R	coots (C3)	W Dr Sa Sa Ge	ater-Stain <b>4A, and</b> ainage Pa y-Season turation V comorphic	ed Leaves ( <b>4B)</b> atterns (B10) Water Table /isible on Ae c Position (D	B9) ( <b>MLRA</b> ) e (C2) rrial Imager	A 1, 2
<b>DROLC</b> <b>etland Hy</b> <b>imary Indi</b> Surface High W Saturat Water N Sedime Drift De Algal M	DGY /drology Indicato icators (minimum of water (A1) ater Table (A2) ion (A3) Marks (B1) ent Deposits (B2) eposits (B3)		Water-S MLR. Salt Cru: Aquatic Hydroge X Oxidized Presenc	tained Lea A 1, 2, 4A, st (B11) Invertebrat n Sulfide C I Rhizosph e of Reduc	and 4B) es (B13) Odor (C1) eres along ced Iron (C	J Living R		W Dr Sa St	ater-Stain 4A, and ainage Pa y-Season turation V comorphic allow Aqu	ed Leaves ( <b>4B)</b> atterns (B10) Water Table /isible on Ae	B9) ( <b>MLRA</b> ) e (C2) rrial Imager	A 1, 2
<b>DROLC</b> <b>TOROLC</b> <b>etland Hy</b> <u>imary Indi</u> _ Surface _ High W _ Saturat _ Saturat _ Water M _ Sedime _ Drift De _ Algal M _ Iron De	DGY /drology Indicato icators (minimum of Water (A1) ater Table (A2) ion (A3) Marks (B1) Marks (B1) ent Deposits (B2) eposits (B3) lat or Crust (B4) posits (B5)		Water-S MLR. Salt Cru: Aquatic Hydroge X Oxidized Recent I	tained Lea A 1, 2, 4A, st (B11) Invertebrat In Sulfide C I Rhizosph e of Reduc ron Reduc	and 4B) es (B13) Ddor (C1) eres along ced Iron (C tion in Tille	J Living R 4) ed Soils (	C6)	W Dr Sa St St F/	ater-Stain <b>4A, and</b> ainage Pa y-Season turation V comorphic allow Aqu AC-Neutra	ed Leaves ( 4 <b>B)</b> atterns (B10) Water Table /isible on Ae c Position (D uitard (D3) I Test (D5)	B9) ( <b>MLRA</b> ) e (C2) rial Imager 2)	A 1, 2
The second	DGY /drology Indicato icators (minimum of Water (A1) ater Table (A2) ion (A3) Marks (B1) ent Deposits (B2) eposits (B3) lat or Crust (B4) posits (B5) e Soil Cracks (B6)	<u>ıf one requi</u>	Water-S MLR Salt Cru Aquatic Hydroge X Oxidized Recent I Stunted	tained Lea A 1, 2, 4A, st (B11) Invertebrat n Sulfide C I Rhizosph e of Reduc ron Reduc or Stresse	and 4B) es (B13) Ddor (C1) eres along ced Iron (C tion in Tille d Plants (E	J Living R 4) ed Soils (	C6)	W Dr Sa Sr Sr Ra	ater-Stain 4A, and ainage Pa y-Season turation V comorphic allow Aqu allow Aqu allow Aqu	ed Leaves ( 4B) atterns (B10) Water Table /isible on Ae c Position (D uitard (D3) I Test (D5) Mounds (D6	B9) ( <b>MLRA</b> ) e (C2) rial Imager 2) ) ( <b>LRR A</b> )	A 1, 2
DROLC     DEVENTION     DEVENTION     Seturat     Sedime     Drift De     Algal M     Iron De     Surface     Inundat	DGY /drology Indicato icators (minimum of water (A1) fater Table (A2) ion (A3) Marks (B1) ent Deposits (B2) eposits (B3) lat or Crust (B4) posits (B5) e Soil Cracks (B6) tion Visible on Aeri	<u>f one requii</u>	Water-S     Water-S     MLR     Salt Cru     Aquatic     Hydroge     X Oxidized     Presenc     Recent I     Stunted     B7) Other (E	tained Lea A 1, 2, 4A, st (B11) Invertebrat n Sulfide C I Rhizosph e of Reduc ron Reduc or Stresse	and 4B) es (B13) Ddor (C1) eres along ced Iron (C tion in Tille d Plants (E	J Living R 4) ed Soils (	C6)	W Dr Sa Sr Sr Ra	ater-Stain 4A, and ainage Pa y-Season turation V comorphic allow Aqu allow Aqu allow Aqu	ed Leaves ( 4 <b>B)</b> atterns (B10) Water Table /isible on Ae c Position (D uitard (D3) I Test (D5)	B9) ( <b>MLRA</b> ) e (C2) rial Imager 2) ) ( <b>LRR A</b> )	A 1, 2
DROLC etland Hy imary Indi     Surface     High W     Saturat     Water N     Sedime     Drift De     Algal M     Iron De     Surface     Inundat     Sparsel	DGY /drology Indicato icators (minimum of Water (A1) ater Table (A2) ion (A3) Marks (B1) ent Deposits (B2) eposits (B3) lat or Crust (B4) posits (B5) e Soil Cracks (B6) ition Visible on Aeri ly Vegetated Conc	<u>f one requii</u>	Water-S     Water-S     MLR     Salt Cru     Aquatic     Hydroge     X Oxidized     Presenc     Recent I     Stunted     B7) Other (E	tained Lea A 1, 2, 4A, st (B11) Invertebrat n Sulfide C I Rhizosph e of Reduc ron Reduc or Stresse	and 4B) es (B13) Ddor (C1) eres along ced Iron (C tion in Tille d Plants (E	J Living R 4) ed Soils (	C6)	W Dr Sa Sr Sr Ra	ater-Stain 4A, and ainage Pa y-Season turation V comorphic allow Aqu allow Aqu allow Aqu	ed Leaves ( 4B) atterns (B10) Water Table /isible on Ae c Position (D uitard (D3) I Test (D5) Mounds (D6	B9) ( <b>MLRA</b> ) e (C2) rial Imager 2) ) ( <b>LRR A</b> )	A 1, 2
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DROLC etland Hy imary Indi     Surface     High W     Saturat     Vater N     Sedime     Drift De     Algal M     Iron De     Surface     Inundat     Sparsei eld Obse	DGY /drology Indicato icators (minimum of Water (A1) ater Table (A2) ion (A3) Marks (B1) ent Deposits (B2) eposits (B3) lat or Crust (B4) posits (B5) e Soil Cracks (B6) ion Visible on Aeri ly Vegetated Conc rvations: ter Present?	<u>f one requii</u> al Imagery ( ave Surface Yes	Water-S MLR. Salt Cru: Aquatic Hydroge X Oxidized Presenc Recent I Stunted B7) Other (E (B8)	tained Lea A 1, 2, 4A, st (B11) Invertebrat In Sulfide C I Rhizosph e of Reduc or Reduc or Stresse Explain in R	and 4B) es (B13) Ddor (C1) eres along ed Iron (C tion in Tille d Plants (D emarks)	Living R 4) ed Soils ( D1) ( <b>LRR</b>	C6)	W Dr Sa Sr Sr Ra	ater-Stain 4A, and ainage Pa y-Season turation V comorphic allow Aqu allow Aqu allow Aqu	ed Leaves ( 4B) atterns (B10) Water Table /isible on Ae c Position (D uitard (D3) I Test (D5) Mounds (D6	B9) ( <b>MLRA</b> ) e (C2) rial Imager 2) ) ( <b>LRR A</b> )	A 1, 2
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Comparison of the second	DGY /drology Indicato icators (minimum of water (A1) fater Table (A2) ion (A3) Marks (B1) ent Deposits (B2) eposits (B3) lat or Crust (B4) posits (B5) e Soil Cracks (B6) tion Visible on Aeri ly Vegetated Conc rvations: ter Present? Present? Present?	f one requii al Imagery ( ave Surface Yes Yes	Water-S MLR. Salt Cru: Aquatic Hydroge X Oxidized Presenc Recent I Stunted B7) Other (E (B8)	tained Lea <b>A 1, 2, 4A,</b> st (B11) Invertebrat Inverte	and 4B) es (B13) Ddor (C1) eres along ced Iron (C tion in Tille d Plants (E temarks)	(Living R 4) 2d Soils (1 01) ( <b>LRR</b>	C6) A)	W Dr Sa St St Fr Fr	ater-Stain <b>4A, and</b> ainage Pa y-Season turation V comorphic allow Aqu AC-Neutra hised Ant bost-Heave	ed Leaves ( 4B) atterns (B10) Water Table /isible on Ae c Position (D uitard (D3) I Test (D5) Mounds (D6	B9) ( <b>MLRA</b> ) e (C2) rial Imager 2) ) ( <b>LRR A</b> )	<u>,</u> <b>1</b> , <b>2</b> уу (С
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emarks: <b>'DROLC</b> <b>'etland Hy</b> <u>'imary Indi</u> _ Surface _ High W _ Saturat _ Water N _ Sedime _ Drift De _ Drift De _ Algal M _ Iron De _ Surface _ Inundat _ Sparsel <b>ield Obse</b> urface Wa aturation F <u>includes ca</u> escribe Re	DGY /drology Indicato icators (minimum of Water (A1) ater Table (A2) ion (A3) Marks (B1) ent Deposits (B2) eposits (B3) lat or Crust (B4) posits (B5) e Soil Cracks (B6) ion Visible on Aeri ly Vegetated Conc rvations: ter Present? e Present? Present? pullary fringe)	f one requii al Imagery ( ave Surface Yes Yes Yes	Water-S MLR, Salt Cru: Aquatic Hydroge Voidized Presenc Recent I Stunted B7) Other (E (B8) No Depth ( No Depth (	tained Lea A 1, 2, 4A, st (B11) Invertebrat Invertebrat Invertebrat I Rhizosph e of Reduc or Reduc or Reduc or Stresse inches): inches):	and 4B) es (B13) Ddor (C1) eres along ced Iron (C tion in Tille d Plants (E temarks)	(Living R 4) ed Soils (1 01) ( <b>LRR</b>	C6) A) etland Hyc	W Dr Sa St St Ra Fr Fr	ater-Stain <b>4A, and</b> ainage Pa y-Season turation V comorphic allow Aqu AC-Neutra hised Ant bost-Heave	ed Leaves ( 4B) atterns (B10) Water Table (isible on Ae Position (D uitard (D3) I Test (D5) Mounds (D6 Hummocks	B9) ( <b>MLRA</b> ) e (C2) rial Imager 2) ) ( <b>LRR A</b> ) s (D7)	<b>х 1, 2</b> уу (СS
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#### WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: <u>Jayne's Parcel</u>	City/County: El Pa	aso	Sampling Date: 2/1/22	
Applicant/Owner:		State: CO	Sampling Point: WT-A	<u>39-W</u> T2
Investigator(s): S. Clark	Section, Townshi	p, Range: <u>S28 and 33, T12S</u>	, R65W	
Landform (hillslope, terrace, etc.): hillslope		ave, convex, none): <u>concave</u>		,
Subregion (LRR): E La	<sub>at:</sub> <u>38°58'18.72"N</u>	Long: - 104°40'15.51"	W Datum: WGS	84
Soil Map Unit Name: Pring coarse sandy loam, 3-8% slopes	;	NWI classific	ation: R5UBH	
Are climatic / hydrologic conditions on the site typical for this time	e of year? Yes <u>x</u>	No (If no, explain in R	emarks.)	
Are Vegetation, Soil, or Hydrology signifi	cantly disturbed?	Are "Normal Circumstances" p	resent? Yes X No	
Are Vegetation, Soil, or Hydrology natura	ally problematic?	(If needed, explain any answe	rs in Remarks.)	
				- 1 -

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

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

#### **VEGETATION – Use scientific names of plants.**

NA	Absolute	Dominant		Dominance Test worksheet:
Tree Stratum (Plot size: NA )	<u>% Cover</u>	Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC: 1 (A)
2				
				Total Number of Dominant
3				Species Across All Strata: 1 (B)
4			<u> </u>	Percent of Dominant Species
NA		= Total Co	over	That Are OBL, FACW, or FAC: 100 (A/B)
Sapling/Shrub Stratum (Plot size: NA )				Prevalence Index worksheet:
1				
2				Total % Cover of: Multiply by:
				OBL species $0   x  ext{ 1} = 0$
3				FACW species 90 $x_2 = 180$
4				FAC species $2   x 3 = 6$
5				
		= Total Co	ver	FACU species $18$ x 4 = $72$
Herb Stratum (Plot size: 5')				UPL species x 5 =
Juncus arcticus	90	х	FACW	Column Totals: 110 (A) 258 (B)
2. Bromus inermis	- 8		FACU	0.05
3. Cirsium arvense	2		FAC	Prevalence Index = B/A = 2.35
	- <u>-</u>			Hydrophytic Vegetation Indicators:
4. Pascopyrum smithii			FACU	<u>x</u> 1 - Rapid Test for Hydrophytic Vegetation
5				× 2 - Dominance Test is >50%
6				$\overline{\mathbf{x}}$ 3 - Prevalence Index is ≤3.0 <sup>1</sup>
7				4 - Morphological Adaptations <sup>1</sup> (Provide supporting
				data in Remarks or on a separate sheet)
8				5 - Wetland Non-Vascular Plants <sup>1</sup>
9				
10			<u> </u>	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
11				<sup>1</sup> Indicators of hydric soil and wetland hydrology must
	110	= Total Co	ver	be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size: NA )				
1				I hadrow hadio
				Hydrophytic Vegetation
2				Present? Yes <sup>X</sup> No
		= Total Co	ver	
% Bare Ground in Herb Stratum 0				
Remarks:				

Based on the time of year, species identifications were made based on remnant foliage and position on the landscape.

### SOIL

# Sampling Point: WT-A39-WT2

Depth (inchos)	Matrix Color (moist)	%	Color (moist)	lox Featu	Type <sup>1</sup>	Loc <sup>2</sup>	Text			Remarks	
( <u>inches)</u> 0-3	10YR 2/1	100	Color (moist)	%_	Туре					Remarks	
							Fine sand				
3-8	10 YR 2/1	_ 98	7.5 YR 4/6	2	<u> </u>	PL F	ine sandy	/ clay loan	n		
			·			·					
						·					
						d Sand C		<sup>2</sup> L conti	on: DI =D	ore Lining, M	1-Motrix
			1=Reduced Matrix, C I LRRs, unless oth							ematic Hydr	
_ Histosol (			Sandy Redox		otoui,			_ 2 cm M		-	
	pedon (A2)		Stripped Matri							, erial (TF2)	
Black His			Loamy Mucky	• •	(F1) ( <b>excep</b>	t MLRA 1				rk Surface (T	F12)
	n Sulfide (A4)		Loamy Gleyed				,	-		Remarks)	,
	Below Dark Surfa	ice (A11)	Depleted Matr	•	,			_ `	•	,	
	rk Surface (A12)		x Redox Dark S		6)		<sup>3</sup> Ir	ndicators of	of hydropl	nytic vegetati	on and
	ucky Mineral (S1)		Depleted Dark		. ,					must be pre	
	eyed Matrix (S4)		Redox Depres	ssions (F8	3)			unless d	isturbed c	or problemation	<b>c</b> .
	ayer (if present):										
Type: Froz											
Depth (incl	hes): <u>8</u>						Hydri	ic Soil Pre	esent?	Yes X	No
emarks:											
DROLO(											
/DROLO( /etland Hyd	rology Indicator		od: check all that an					Seconda	ry Indicat		e required)
DROLOC	rology Indicators ators (minimum of		ed; check all that ap							ors (2 or mor	
<b>DROLOC</b> <b>fetland Hyd</b> <u>rimary Indica</u> _ Surface V	rology Indicators ators (minimum of Vater (A1)		Water-St	ained Lea	aves (B9) (e	except		Wate	er-Stained	Leaves (B9)	
<b>DROLOC</b> etland Hyd imary Indica _ Surface V _ High Wat	rology Indicators ators (minimum of Vater (A1) er Table (A2)		Water-St	ained Lea A 1, 2, 4A	aves (B9) (6 , and 4B)	except		Wate 4	er-Stained A, and 4E	Leaves (B9) <b>3)</b>	
<b>DROLOC</b> etland Hyd imary Indica _ Surface V _ High Wat _ Saturation	rology Indicators ators (minimum of Vater (A1) er Table (A2) n (A3)		Water-St MLRA Salt Crus	ained Lea <b>A 1, 2, 4A</b> st (B11)	, and 4B)	except		Wate 4. Drain	er-Stained <b>A, and 4E</b> nage Patte	l Leaves (B9) <b>3)</b> erns (B10)	) (MLRA 1, 2,
<b>DROLOO</b> etland Hyd imary Indica Surface V High Wat Saturation Saturation Water Ma	rology Indicators ators (minimum of Vater (A1) er Table (A2) n (A3) arks (B1)		Water-St MLRA Salt Crus Aquatic I	ained Lea A 1, 2, 4A st (B11) nvertebra	a, <b>and 4B)</b> ates (B13)	∋xcept		Wate 4, Drain Dry-3	er-Stained <b>A, and 4E</b> nage Patte Season W	l Leaves (B9) <b>3)</b> erns (B10) /ater Table ((	) ( <b>MLRA 1, 2</b> ,
<b>DROLOC</b> <b>etland Hyd</b> <u>imary Indica</u> _ Surface V _ High Wat _ Saturation _ Water Ma _ Sediment	rology Indicators ators (minimum of Vater (A1) er Table (A2) n (A3) arks (B1) t Deposits (B2)		Water-St MLRA Salt Crus Aquatic I Hydroge	ained Lea A 1, 2, 4A st (B11) nvertebra n Sulfide	ates (B13) Odor (C1)			Wate 4. Drain Dry-3 Satu	er-Stained <b>A, and 4E</b> nage Patte Season W ration Vis	l Leaves (B9) <b>3)</b> erns (B10) /ater Table (( ible on Aeria	) ( <b>MLRA 1, 2</b> ,
<b>DROLOC</b> <b>(etland Hyd</b> <u>imary Indica</u> _ Surface V _ High Wat _ Saturation _ Saturation _ Water Ma _ Sediment _ Drift Depo	rology Indicators ators (minimum of Vater (A1) er Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3)		Water-St MLR/ Salt Crus Aquatic I Hydrogel X Oxidized	ained Lea A 1, 2, 4A st (B11) nvertebra n Sulfide Rhizospł	a, <b>and 4B)</b> ates (B13) Odor (C1) heres along	Living Ro	pots (C3)	Wate 4, Drain Dry-3 Satu Satu Geor	er-Stainec <b>A, and 4E</b> nage Patte Season W ration Vis morphic F	l Leaves (B9) 8) erns (B10) /ater Table (( ible on Aeria Position (D2)	) ( <b>MLRA 1, 2</b> ,
<b>'DROLOC</b> <b>Tetland Hyd</b> <b>imary Indica</b> Surface V High Wat Saturation Water Ma Sediment Drift Depo Algal Mat	rology Indicators ators (minimum of Vater (A1) er Table (A2) n (A3) arks (B1) t Deposits (B2) posits (B3) t or Crust (B4)		Water-St MLR/ Salt Crus Aquatic I Hydroget X Oxidized Presence	ained Lea A 1, 2, 4A St (B11) nvertebra n Sulfide Rhizosph e of Redu	ates (B13) Odor (C1) heres along ced Iron (C	Living Ro 4)		Wate 4. Drain Dry-1 Satu Satu Shal	er-Stainec A, and 4E nage Patt Season W ration Vis morphic F low Aquita	l Leaves (B9) s) erns (B10) /ater Table (( ible on Aeria /osition (D2) ard (D3)	) ( <b>MLRA 1, 2</b> ,
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PROLOC     /etland Hyd     rimary Indica     Surface V     High Wat     Saturation     Saturation     Drift Depo     Algal Mat     Iron Depo     Surface S     Inundatio     Sparsely     ield Observ     urface Wate     rable F     aturation Pre     ncludes capi	rology Indicators ators (minimum of Vater (A1) er Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) Soil Cracks (B6) n Visible on Aeria Vegetated Conca ations: r Present? Present? esent? llary fringe)	I Imagery (E ve Surface Yes Yes Yes	Water-St MLRJ Salt Crus Aquatic I Hydrogel X Oxidized Presence Recent In Stunted of 37) Other (E (B8)	ained Lea <b>A 1, 2, 4A</b> st (B11) nvertebra n Sulfide Rhizosph e of Redu or Reduc or Stresse xplain in F nches): nches):	ates (B13) Odor (C1) heres along ced Iron (C ction in Tille ed Plants (E Remarks)	Living Ro 4) ed Soils (C 01) ( <b>LRR 4</b>	c6) A) tland Hyc	Wate 4. Drair Dry-3 Satu X Geon Shal X FAC Rais Fros	A, and 4E nage Patte Season W ration Vis morphic F low Aquita -Neutral T ed Ant Mo t-Heave F	l Leaves (B9) s) erns (B10) /ater Table (( ible on Aerial Position (D2) ard (D3) Fest (D5) bunds (D6) ( <b>I</b> Hummocks (D	(MLRA 1, 2, C2) I Imagery (C9 LRR A) 07)
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## **APPENDIX B**

### **Representative Photographs**





Photo 1. Looking north at Palustrine Emergent (PEM) wetland.





Photo 2. Looking northeast at PEM wetland.





Photo 3. Looking south at PEM wetland.





Photo 4. Looking northeast at PEM wetland.





Photo 5. Looking southeast at a culvert under Vollmer Road.





Photo 6. Looking west at PEM wetland.





Photo 7. Looking southwest at PEM wetland.





Photo 8. Looking north at a pond vegetated with cattails.





Photo 9. Looking northwest at a human-made berm.





Photo 10. Looking northwest at a wetland pond just upgradient of the human-made berm.





Photo 11. Looking northwest at a PEM wetland.





Photo 12. Looking west at a PEM wetland pocket.





Photo 13. Looking northeast at a PEM wetland pocket.





Photo 14. Looking south at a PEM wetland pocket.