EL PASO COUNTY IMPACT IDENTIFICATION REPORT

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

Prepared for:
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Table of Contents

Appendices

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 within the Project Area

Common Name *Scientific Name*	**Status[1]**	**Likelihood of Occurrence**
Complete Effects Analysis		
Eastern black rail *Laterallus jamaicensis jamaicensis*	FT	**None.** 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	**None.** 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).
Preble's meadow jumping mouse *Zapus hudsonius preblei*	FT	**None.** 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.

[1]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).

Table 2. Sensitive Wildlife Species Potential for Occurrence

COMMON NAME	SCIENTIFIC NAME	TYPE OF OCCURRENCE	STATUS[1]
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 ludovicianus*	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

COMMON NAME	SCIENTIFIC NAME	TYPE OF OCCURRENCE	STATUS[1]
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	*Sceloporus 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

[1] 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 deltoides*), narrowleaf cottonwood (*Populus angustifolia*), peachleaf willow (*Salix amygdaloides*), red-osier dogwood (*Cornus sericea*), and cattails.

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[1]	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[1]	Diffuse knapweed
Cirsium vulgare[1]	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[1]	Common mullein

SCIENTIFIC NAME	COMMON NAME
Sub-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

[1]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 egg-laying 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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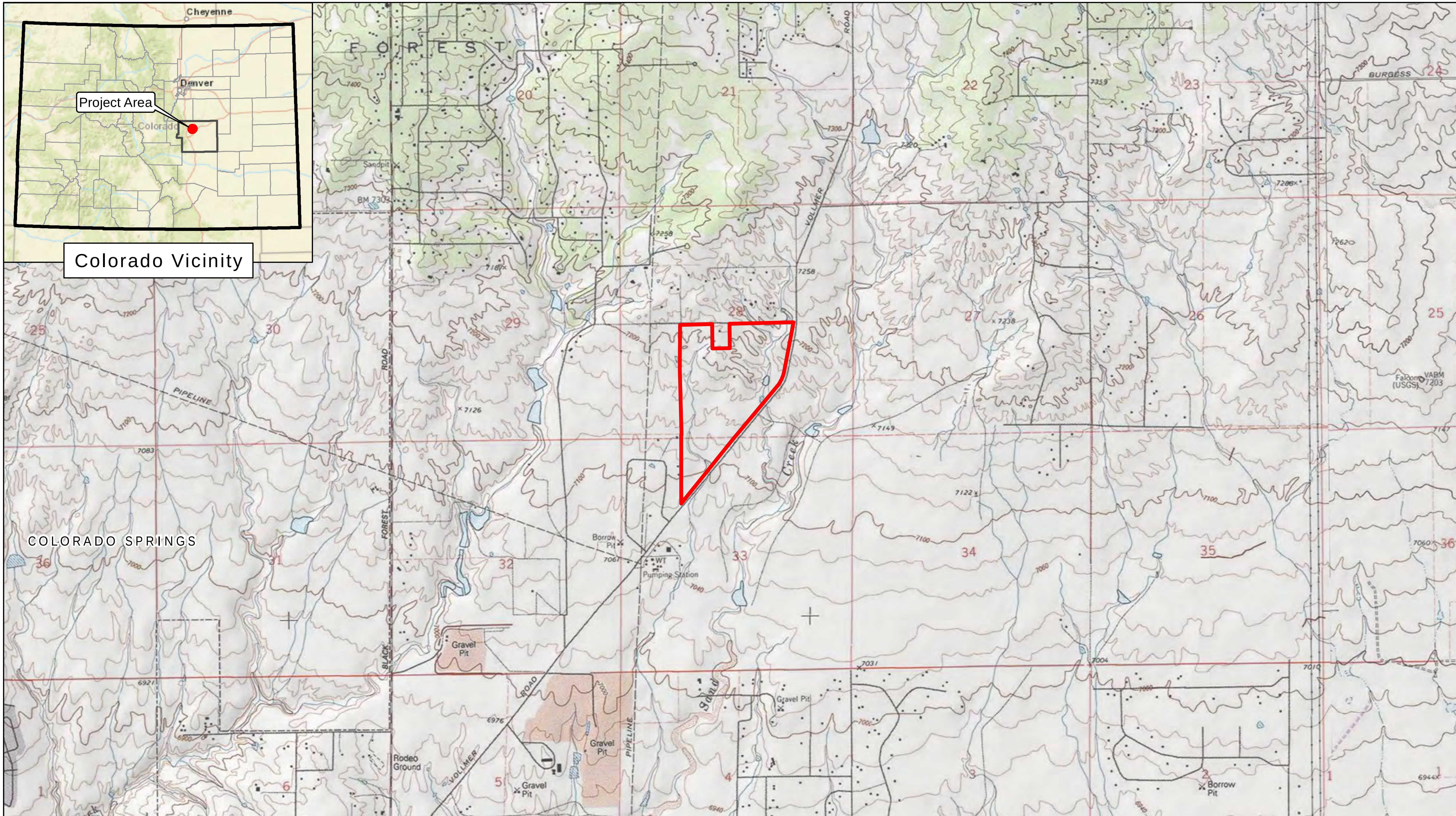
APPENDIX A

PROJECT LOCATION MAP



Project Boundary

Jayne's Parcel

Project Location Map

El Paso County, Colorado

Reference: USGS Topo. Quads - Falcon NW (accessed 1/19/22)

0 2,000
Feet

N

Project #: 22-008
Date: 1/19/2022

CORE LAND DEVELOPMENT ENERGY PUBLIC INFRASTRUCTURE

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
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Colorado Springs, CO 80919

Prepared by:

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

February 2022

Table of Contents

FIGURES

TABLES

APPENDICES

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.

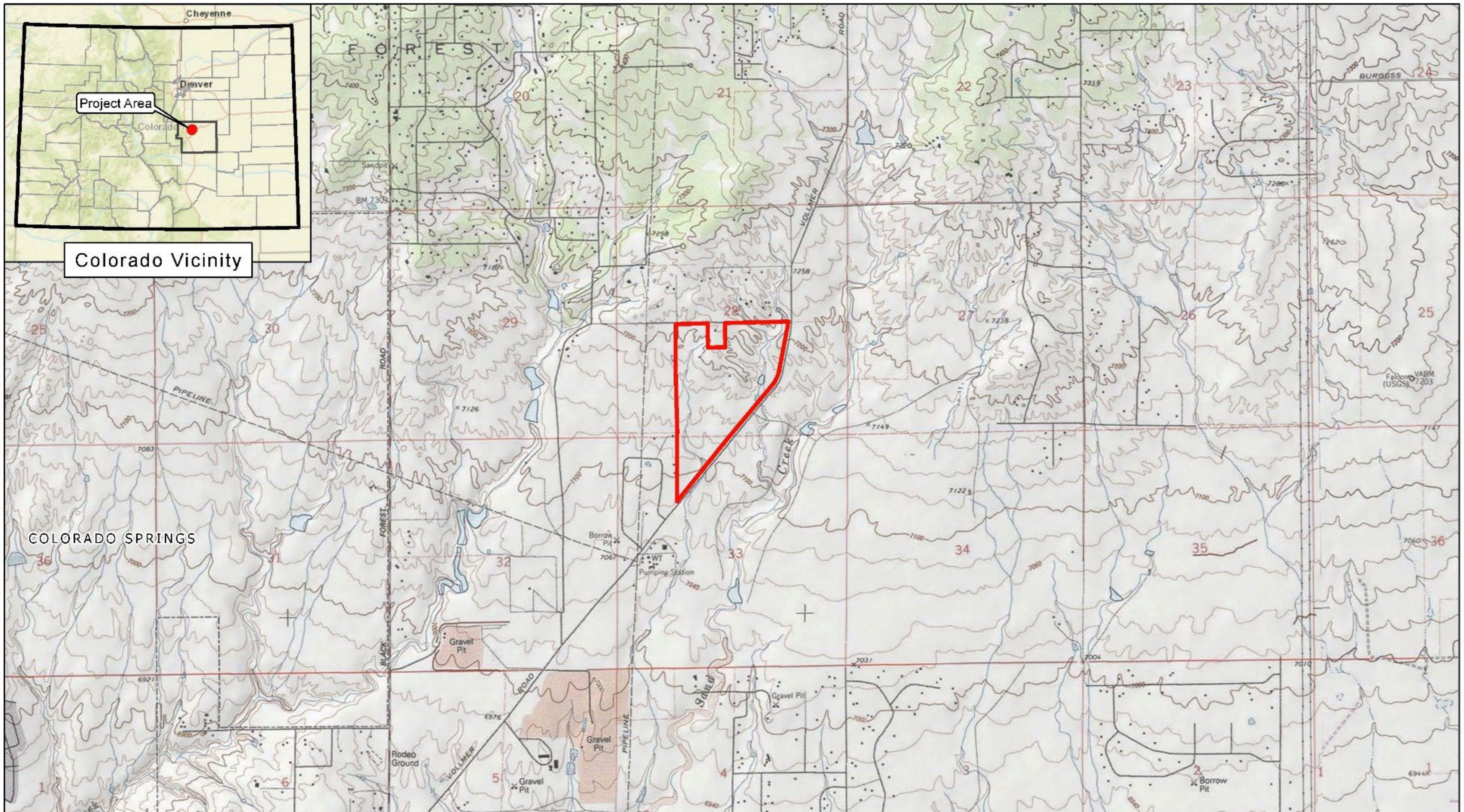
- U.S. Department of Agriculture (USDA) National Aerial Imagery Program imagery (USDA 2021a)
- USDA Natural Resources Conservation Service - County soil survey maps (USDA 2021b)
- U.S. Fish and Wildlife Service (USFWS) National Wetland Inventory (NWI) Maps (USFWS 2021)
- USGS Topographic Maps (USGS 2019)
- 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



Project Boundary	**Jayne's Parcel** **Project Location Map** El Paso County, CO	Reference: USGS Topo. Quads - Falcon NW	0 2,000 Feet
		Project #: 22-008 Date: 1/19/2022	CORE LAND DEVELOPMENT ENERGY PUBLIC INFRASTRUCTURE

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).

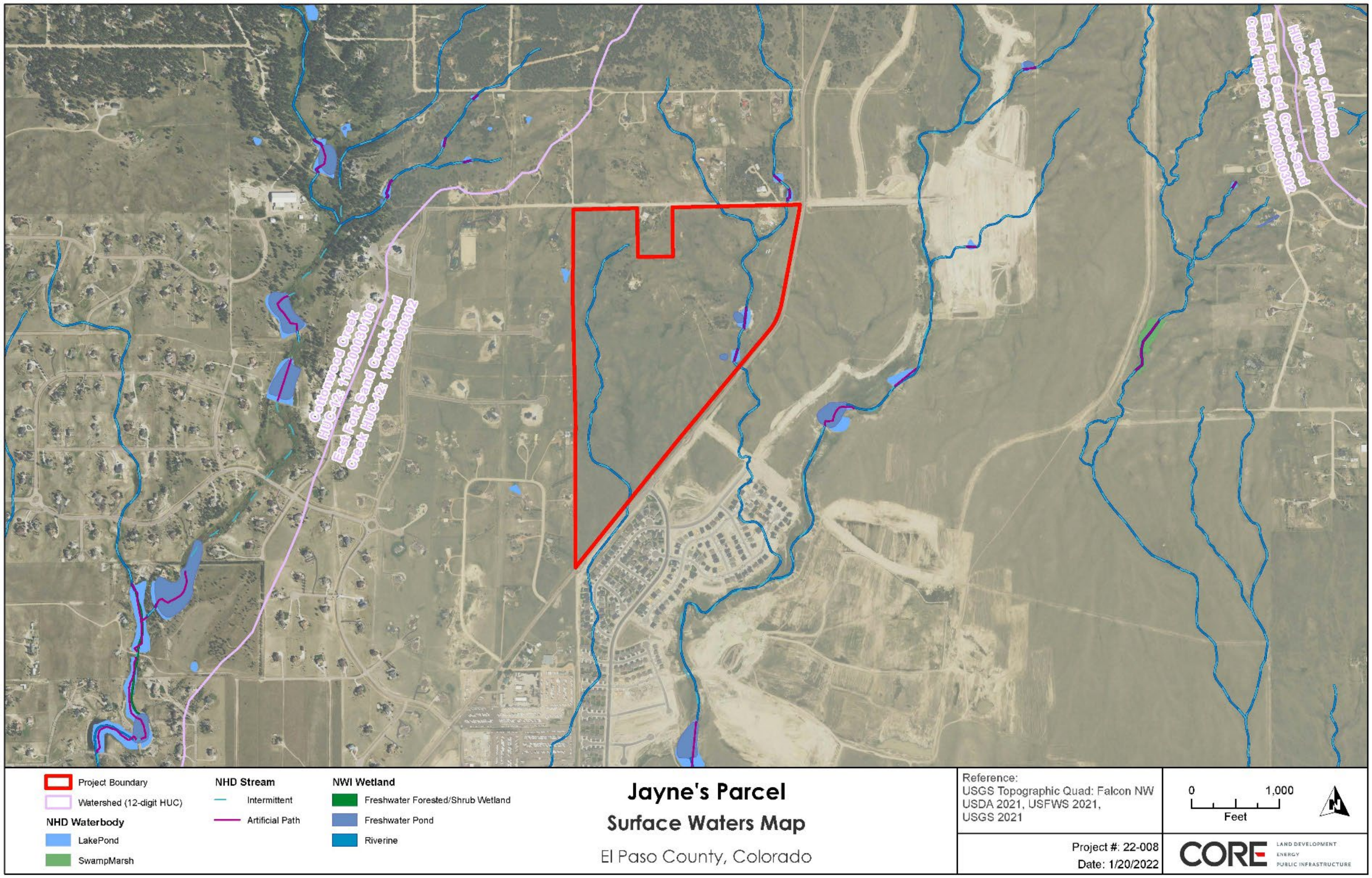


Figure 4.1 Surface Waters Map

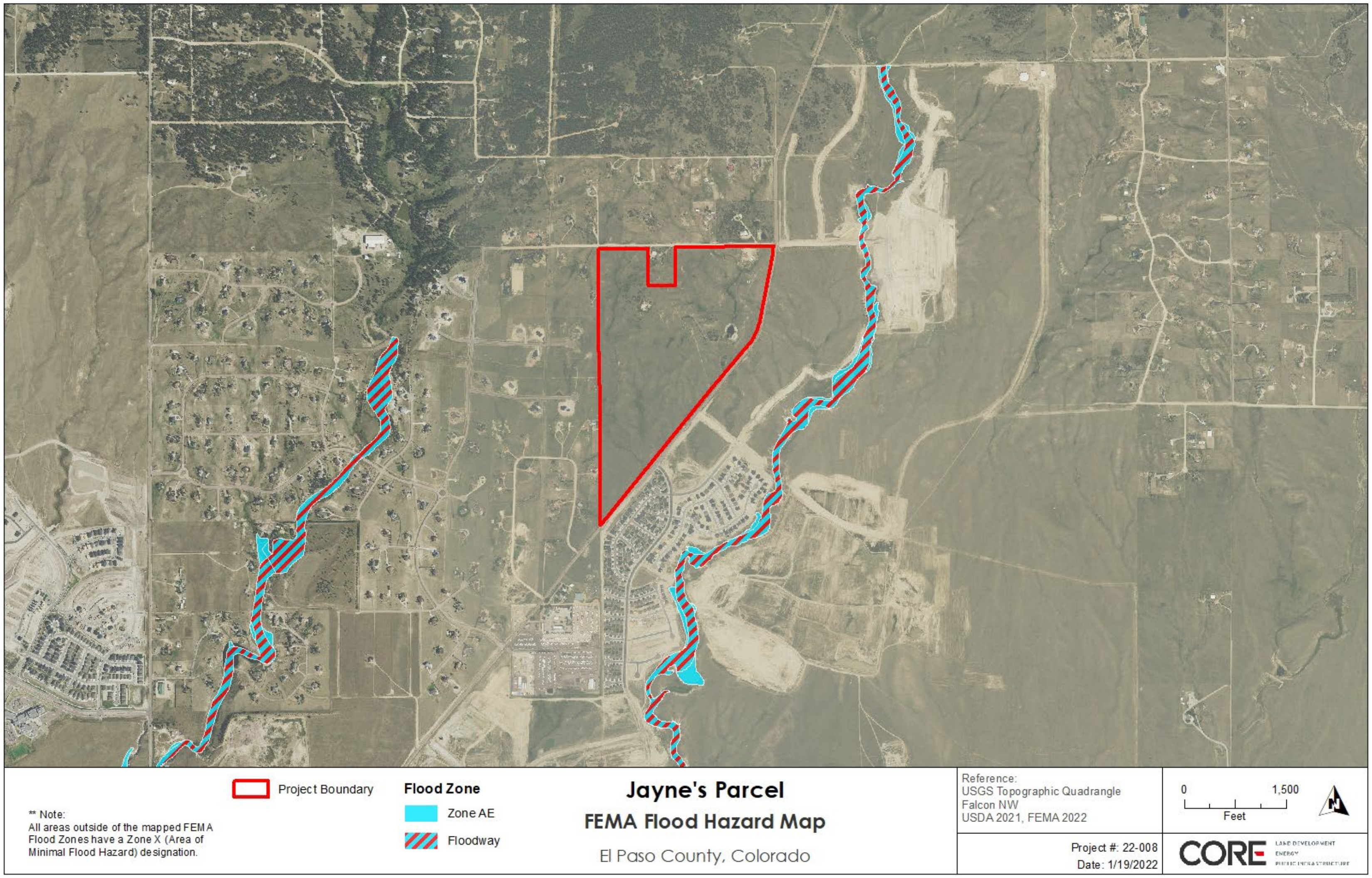


Figure 4.2 FEMA Flood Hazard Map

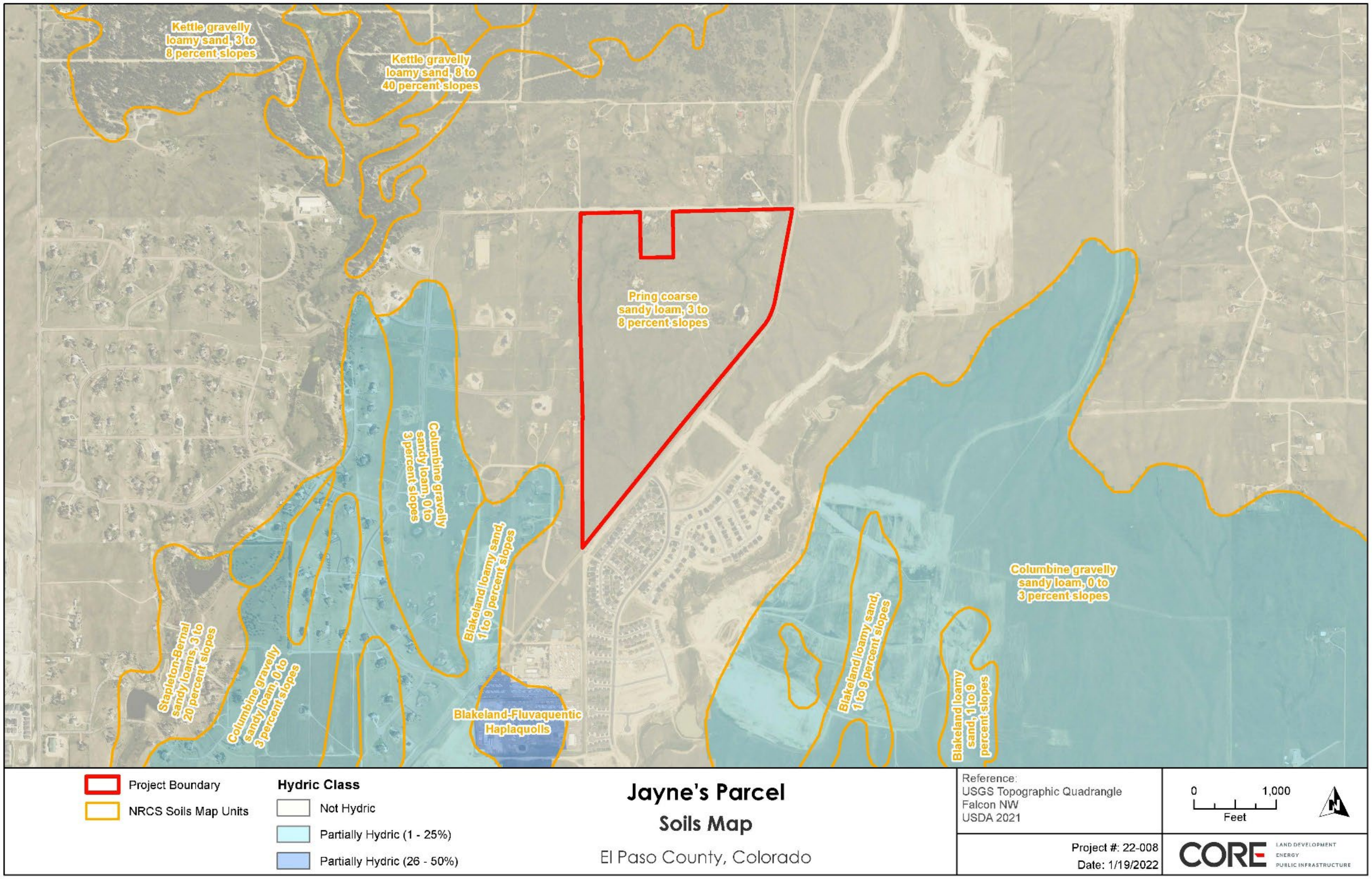


Figure 4.3 Soils Map

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
GRAMINOIDS/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[1]	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[1]	Musk thistle	UPL
Centaurea diffusa[1]	Diffuse knapweed	UPL

SCIENTIFIC NAME	COMMON NAME	WETLAND INDICATOR STATUS
Cirsium arvense[1]	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[1]	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

[1]Colorado-listed Noxious Weed (Colorado Department of Agriculture 2022).

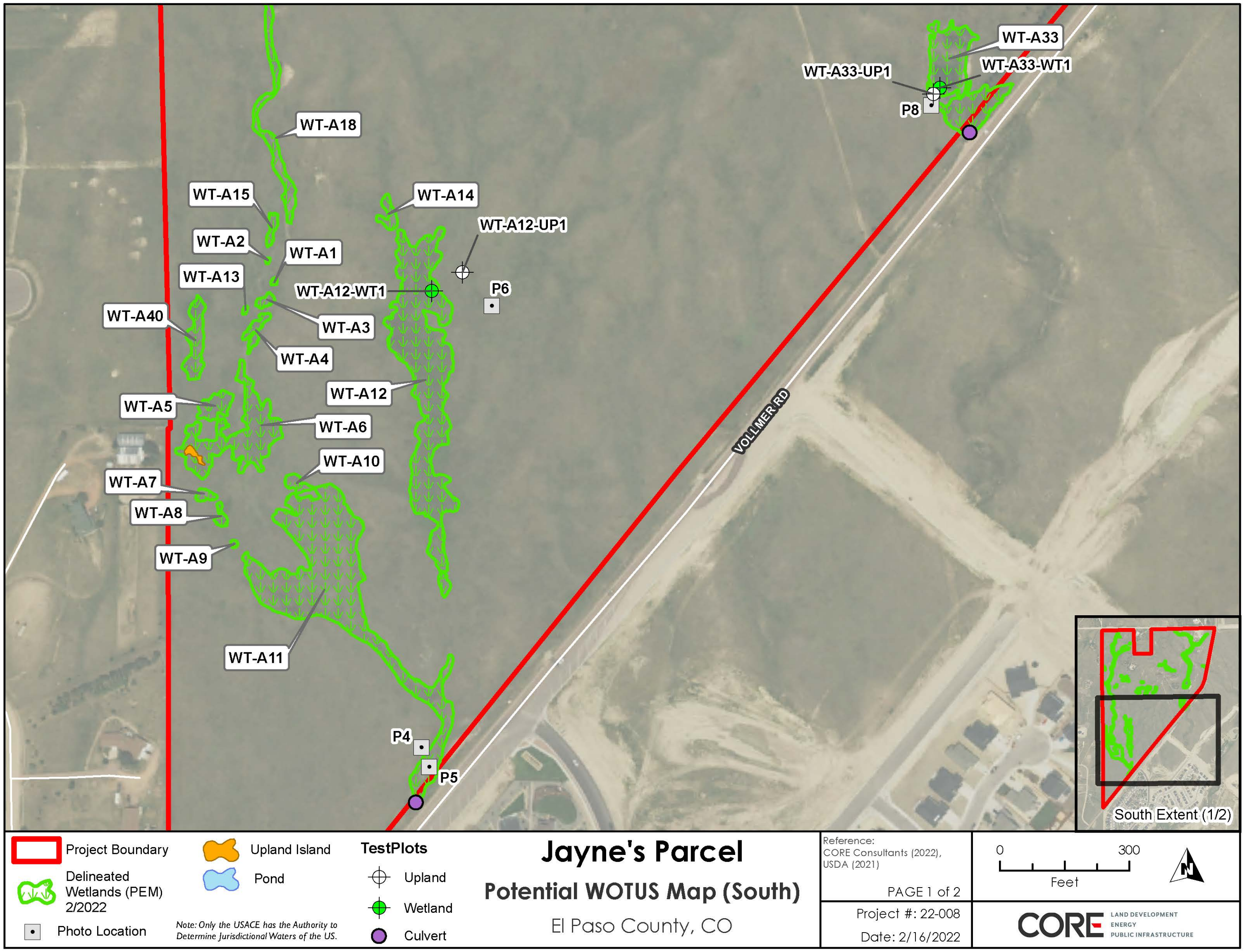


Figure 4.4 Potential WOTUS Location Map (South)

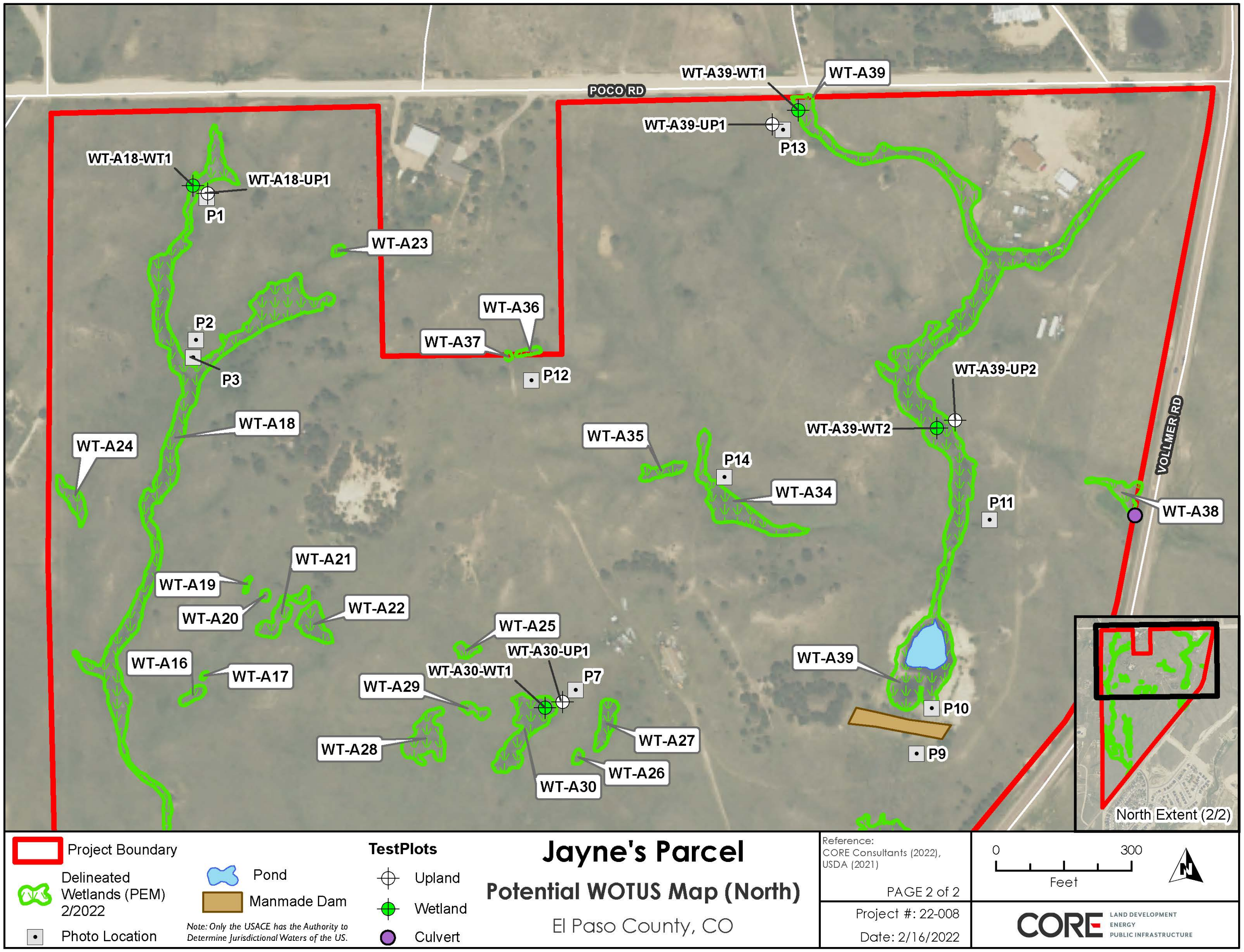


Figure 4.4 Potential WOTUS Location Map (North)

5 CONCLUSIONS

CORE delineated the boundary of 38 PEM wetlands and one pond within the Study Area. The 141-acre 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

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

Project/Site: Jayne's Parcel City/County: El Paso Sampling Date: 2/1/22

Applicant/Owner: ____ State: CO Sampling Point: WT-A12-UP1

Investigator(s): S. Clark Section, Township, Range: S28 and 33, T12S, R65W

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

Subregion (LRR): E Lat: 38°58'35.40"N Long: - 104°40'18.06"W Datum: WGS84

Soil Map Unit Name: Pring coarse sandy loam, 3-8% slopes NWI classification: 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 ____ significantly disturbed? Are "Normal Circumstances" present? Yes x No ____

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

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

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

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: NA)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
= Total Cover			
Sapling/Shrub Stratum (Plot size: NA)			
1.			
2.			
3.			
4.			
5.			
= Total Cover			
Herb Stratum (Plot size: 5')			
1. Artemisia ludoviciana	10		FACU
2. Schizachyrium scoparium	20	x	UPL
3. Bouteloua gracilis	20	x	UPL
4. Aristida purpurea	10		UPL
5. Sporobolus heterolepis	10		FACU
6. Symphyotrichum cf. falcatum	10		FACU
7.			
8.			
9.			
10.			
11.			
= Total Cover	60		
Woody Vine Stratum (Plot size: NA)			
1.			
2.			
= Total Cover			
% Bare Ground in Herb Stratum 40			

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:
OBL species	0	x 1 = 0
FACW species	0	x 2 = 0
FAC species	0	x 3 = 0
FACU species	30	x 4 = 120
UPL species	50	x 5 = 250
Column Totals:	80 (A)	370 (B)

Prevalence Index = B/A = 4.63

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- ___ 2 - Dominance Test is >50%
- ___ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ 5 - Wetland Non-Vascular Plants[1]
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? **Yes** ____ **No** x

Remarks:
Based on the time of year, species identifications were made based on remnant foliage and position on the landscape.

SOIL

Sampling Point: WT-A12-UP1

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

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

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

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

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: Frozen

Depth (inches): 7

Hydric Soil Present? **Yes** ______ **No** X

Remarks:

Unlikely to be hydric due to plant community and landscape position.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B)**
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Stunted or Stressed Plants (D1) (**LRR A**)
- ___ Other (Explain in Remarks)

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)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) (**LRR A**)
- ___ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes ______	No x	Depth (inches): ______
Water Table Present?	Yes ______	No x	Depth (inches): ______
Saturation Present? (includes capillary fringe)	Yes ______	No x	Depth (inches): ______

Wetland Hydrology Present? **Yes** ______ **No** X

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

Remarks:

Unlikely to have wetland hydrology due to landscape position.

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

Project/Site: Jayne's Parcel City/County: El Paso Sampling Date: 2/1/22

Applicant/Owner: ______ State: CO Sampling Point: WT-A12-WT1

Investigator(s): S. Clark Section, Township, Range: S28 and 33, T12S, R65W

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

Subregion (LRR): E Lat: 38°58'35.67"N Long: - 104°40'17.43"W Datum: WGS84

Soil Map Unit Name: Pring coarse sandy loam, 3-8% slopes NWI classification: R4SBC

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

Are Vegetation ___, Soil ___, or Hydrology ___ significantly disturbed? Are "Normal Circumstances" present? Yes x No ___

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

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

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

Remarks:

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: NA)			
1.			
2.			
3.			
4.			
= Total Cover			
Sapling/Shrub Stratum (Plot size: NA)			
1.			
2.			
3.			
4.			
5.			
= Total Cover			
Herb Stratum (Plot size: 5')			
1. Epilobium cf. ciliatum	2		FACW
2. Juncus arcticus	80	x	FACW
3. Cirsium arvense	15		FAC
4. Lactuca serriola	2		FACU
5. Typha sp.	10		OBL
6. Achillea millefolium	2		FACU
7. Pascopyrum smithii	5		FACU
8.			
9.			
10.			
11.			
= Total Cover	116		
Woody Vine Stratum (Plot size: NA)			
1.			
2.			
= Total Cover			

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:
OBL species	10	x 1 = 10
FACW species	82	x 2 = 164
FAC species	15	x 3 = 45
FACU species	9	x 4 = 36
UPL species		x 5 =
Column Totals:	116 (A)	255 (B)

Prevalence Index = B/A = 2.20

Hydrophytic Vegetation Indicators:

- x 1 - Rapid Test for Hydrophytic Vegetation
- x 2 - Dominance Test is >50%
- x 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ 5 - Wetland Non-Vascular Plants[1]
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes x No ___

Remarks:
Based on the time of year, species identifications were made based on remnant foliage and position on the landscape.

SOIL

Sampling Point: WT-A12-WT1

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

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

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

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

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- _x_ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: Frozen

Depth (inches): 2

Hydric Soil Present? Yes X No ___

Remarks:

This soil may be similar to DP-1 and meet the F6 hydric soil indicator.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B)**
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Stunted or Stressed Plants (D1) (**LRR A**)
- ___ Other (Explain in Remarks)

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)
- _x_ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- _x_ FAC-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) (**LRR A**)
- ___ Frost-Heave Hummocks (D7)

Field Observations:

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

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

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

Wetland Hydrology Present? Yes X No ___

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

Remarks:

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

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: S28 and 33, T12S, R65W

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): concave Slope (%): 10

Subregion (LRR): E Lat: 38°58'34.00"N Long: - 104°40'33.94"W Datum: WGS84

Soil Map Unit Name: Pring coarse sandy loam, 3-8% slopes NWI classification: 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 ___ significantly disturbed? Are "Normal Circumstances" present? Yes x No ___

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

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

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

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: NA)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
= Total Cover			
Sapling/Shrub Stratum (Plot size: NA)			
1.			
2.			
3.			
4.			
5.			
= Total Cover			
Herb Stratum (Plot size: 5')			
1. Schizachyrium scoparium	20	x	UPL
2. Bouteloua gracilis	40	x	UPL
3. Artemisia ludoviciana	2		FACU
4. Sporobolus cf. heterolepis	20	x	FACU
5. Heterotheca villosa	2		UPL
6. Pascopyrum smithii	2		FACU
7. Aristida purpurea	5		UPL
8. Sporobolus cryptandrus	5		FACU
9.			
10.			
11.			
= Total Cover	96		
Woody Vine Stratum (Plot size: NA)			
1.			
2.			
= Total Cover			
% Bare Ground in Herb Stratum 4			

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:
OBL species	0	x 1 = 0
FACW species	0	x 2 = 0
FAC species	0	x 3 = 0
FACU species	27	x 4 = 108
UPL species	69	x 5 = 345
Column Totals:	96 (A)	453 (B)

Prevalence Index = B/A = 4.72

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- ___ 2 - Dominance Test is >50%
- ___ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ 5 - Wetland Non-Vascular Plants[1]
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? **Yes** ___ **No** x

Remarks:
Based on the time of year, species identifications were made based on remnant foliage and position on the landscape.

SOIL

Sampling Point: WT-A18-UP1

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 2/1	100					Coarse sandy Loam	

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

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

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: Frozen

Depth (inches): 4

Hydric Soil Present? **Yes** ______ **No** X

Remarks:

Unlikely to be hydric due to plant community and landscape position.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B)**
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Stunted or Stressed Plants (D1) (**LRR A**)
- ___ Other (Explain in Remarks)

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)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) (**LRR A**)
- ___ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes ______	No x	Depth (inches): ______
Water Table Present?	Yes ______	No x	Depth (inches): ______
Saturation Present? (includes capillary fringe)	Yes ______	No x	Depth (inches): ______

Wetland Hydrology Present? **Yes** ______ **No** X

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

Remarks:

Unlikely to have wetland hydrology due to landscape position.

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

Project/Site: Jayne's Parcel City/County: El Paso Sampling Date: 2/1/22

Applicant/Owner: ______ State: CO Sampling Point: WT-A18-WT1

Investigator(s): S. Clark Section, Township, Range: S28 and 33, T12S, R65W

Landform (hillslope, terrace, etc.): swale Local relief (concave, convex, none): concave Slope (%): 5

Subregion (LRR): E Lat: 38°58'34.17"N Long: -104°40'34.34"W Datum: WGS84

Soil Map Unit Name: Pring coarse sandy loam, 3-8% slopes NWI classification: 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 ____ significantly disturbed? Are "Normal Circumstances" present? Yes x No ____

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

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

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

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

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: NA)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
		= Total Cover	
Sapling/Shrub Stratum (Plot size: NA)			
1.			
2.			
3.			
4.			
5.			
		= Total Cover	
Herb Stratum (Plot size: 5')			
1. Juncus arcticus	90	x	FACW
2. Carex sp.	20		FACW
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	110	= Total Cover	
Woody Vine Stratum (Plot size: NA)			
1.			
2.			
		= Total Cover	

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:
OBL species		x 1 =
FACW species	110	x 2 = 220
FAC species		x 3 =
FACU species		x 4 =
UPL species		x 5 =
Column Totals:	110 (A)	220 (B)

Prevalence Index = B/A = 2

Hydrophytic Vegetation Indicators:

x 1 - Rapid Test for Hydrophytic Vegetation

x 2 - Dominance Test is >50%

x 3 - Prevalence Index is ≤3.0[1]

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

___ 5 - Wetland Non-Vascular Plants[1]

___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes x No ____

Remarks:
Based on the time of year, species identifications were made based on remnant foliage and position on the landscape.

SOIL

Sampling Point: WT-A18-WT1

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	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	C	M/PL	Sandy Clay Loam	

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

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

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- x Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: frozen

Depth (inches): 18

Hydric Soil Present? Yes X **No** ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B)**
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- x Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Stunted or Stressed Plants (D1) (**LRR A**)
- ___ Other (Explain in Remarks)

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)
- x Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- x FAC-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) (**LRR A**)
- ___ Frost-Heave Hummocks (D7)

Field Observations:

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

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

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

Wetland Hydrology Present? Yes X **No** ___

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

Remarks:

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

Project/Site: Jayne's Parcel City/County: El Paso Sampling Date: 2/1/22

Applicant/Owner: ______ State: CO Sampling Point: WT-A30-UP1

Investigator(s): S. Clark Section, Township, Range: S28 and 33, T12S, R65W

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): concave Slope (%): 25

Subregion (LRR): E Lat: 38°58'14.57"N Long: - 104°40'29.61"W Datum: WGS84

Soil Map Unit Name: Pring coarse sandy loam, 3-8% slopes NWI classification: 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 ___ significantly disturbed? Are "Normal Circumstances" present? Yes x No ___

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

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

	Yes	No
Hydrophytic Vegetation Present?		x
Hydric Soil Present?		x
Wetland Hydrology Present?		x

Is the Sampled Area within a Wetland? **Yes** ___ **No** x

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: NA)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
= Total Cover			
Sapling/Shrub Stratum (Plot size: NA)			
1.			
2.			
3.			
4.			
5.			
= Total Cover			
Herb Stratum (Plot size: 5')			
1. Schizachyrium scoparium	20		UPL
2. Sporobolus heterolepis	40	x	FACU
3. Andropogon gerardii	40	x	FACU
4. Cirsium arvense	2		FAC
5.			
6.			
7.			
8.			
9.			
10.			
11.			
= Total Cover	102		
Woody Vine Stratum (Plot size: NA)			
1.			
2.			
= Total Cover			

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	2	x 3 =	6
FACU species	80	x 4 =	320
UPL species	20	x 5 =	100
Column Totals:	102 (A)		426 (B)

Prevalence Index = B/A = 4.18

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- ___ 2 - Dominance Test is >50%
- ___ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ 5 - Wetland Non-Vascular Plants[1]
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? **Yes** ___ **No** x

Remarks:
Based on the time of year, species identifications were made based on remnant foliage and position on the landscape.

SOIL

Sampling Point: WT-A30-UP1

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

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

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

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

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: Frozen

Depth (inches): 7

Hydric Soil Present? Yes ___ No X

Remarks:

Unlikely to be hydric due to plant community and landscape position.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B)**
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Stunted or Stressed Plants (D1) (**LRR A**)
- ___ Other (Explain in Remarks)

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)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) (**LRR A**)
- ___ Frost-Heave Hummocks (D7)

Field Observations:

	Yes	No	Depth (inches)
Surface Water Present?		x	
Water Table Present?		x	
Saturation Present? (includes capillary fringe)		x	

Wetland Hydrology Present? Yes ___ No X

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

Remarks:

Unlikely to have wetland hydrology due to landscape position.

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

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, Township, Range: S28 and 33, T12S, R65W

Landform (hillslope, terrace, etc.): swale Local relief (concave, convex, none): concave Slope (%): 7

Subregion (LRR): E Lat: - 38°58'14.18"N Long: - 104°40'30.34"W Datum: WGS84

Soil Map Unit Name: Pring coarse sandy loam, 3-8% slopes NWI classification: 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 ___ significantly disturbed? Are "Normal Circumstances" present? Yes x No ___

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

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

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

Remarks:

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: NA)			
1.			
2.			
3.			
4.			
= Total Cover			
Sapling/Shrub Stratum (Plot size: NA)			
1.			
2.			
3.			
4.			
5.			
= Total Cover			
Herb Stratum (Plot size: 5')			
1. Juncus arcticus	60	x	FACW
2. Rumex crispus	2		FAC
3. Achillea millefolium	10		FACU
4. Pascopyrum smithii	10		FACU
5. Elymus trachycaulus	5		FAC
6. Agrostis cf. gigantea	20		FAC
7.			
8.			
9.			
10.			
11.			
= Total Cover	107		
Woody Vine Stratum (Plot size: NA)			
1.			
2.			
= Total Cover			
% Bare Ground in Herb Stratum 0			

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	60	x 2 =	120
FAC species	27	x 3 =	81
FACU species	20	x 4 =	80
UPL species	0	x 5 =	0
Column Totals:	107 (A)		281 (B)

Prevalence Index = B/A = 2.63

Hydrophytic Vegetation Indicators:

x 1 - Rapid Test for Hydrophytic Vegetation

x 2 - Dominance Test is >50%

x 3 - Prevalence Index is ≤3.0[1]

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

___ 5 - Wetland Non-Vascular Plants[1]

___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes x No ___

Remarks:
Based on the time of year, species identifications were made based on remnant foliage and position on the landscape.

SOIL

Sampling Point: WT-A30-WT1

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-1	10YR 2/1	100					Sandy loam with a sand seam	

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

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

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- x Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: Frozen

Depth (inches): 2

Hydric Soil Present? Yes X **No** ___

Remarks:

This soil may be similar to DP-1 and meet the F6 hydric soil indicator.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Stunted or Stressed Plants (D1) (**LRR A**)
- ___ Other (Explain in Remarks)

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)
- x Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- x FAC-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) (**LRR A**)
- ___ Frost-Heave Hummocks (D7)

Field Observations:

	Yes	No	Depth (inches)
Surface Water Present?		x	
Water Table Present?		x	
Saturation Present? (includes capillary fringe)		x	

Wetland Hydrology Present? Yes X **No** ___

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

Remarks:

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

Project/Site: Jayne's Parcel City/County: El Paso Sampling Date: 2/1/22

Applicant/Owner: ______ State: CO Sampling Point: WT-A33-UP1

Investigator(s): S. Clark Section, Township, Range: S28 and 33, T12S, R65W

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): concave Slope (%): 5

Subregion (LRR): E Lat: 38°58'22.79"N Long: - 104°40'24.10"W Datum: WGS84

Soil Map Unit Name: Pring coarse sandy loam, 3-8% slopes NWI classification: 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 ___ significantly disturbed? Are "Normal Circumstances" present? Yes x No ___

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

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

Hydrophytic Vegetation Present?	Yes ___	No x
Hydric Soil Present?	Yes ___	No x
Wetland Hydrology Present?	Yes ___	No x

Is the Sampled Area within a Wetland? **Yes** ___ **No** x

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: NA)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
= Total Cover			
Sapling/Shrub Stratum (Plot size: NA)			
1.			
2.			
3.			
4.			
5.			
= Total Cover			
Herb Stratum (Plot size: 5')			
1. Centaurea diffusa	20	x	UPL
2. Pascopyrum smithii	20	x	FACU
3. Sporobolus heterolepis	20	x	FACU
4. Achillea millefolium	10		FACU
5. Cirsium arvense	10		FAC
6. Schizachyrium scoparium	5		UPL
7. Bouteloua gracilis	5		UPL
8. Artemisia frigida	2		UPL
9. Elymus elymoides	10		FACU
10.			
11.			
= Total Cover	102		
Woody Vine Stratum (Plot size: NA)			
1.			
2.			
= Total Cover			
% Bare Ground in Herb Stratum 0			

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	10	x 3 =	30
FACU species	60	x 4 =	240
UPL species	32	x 5 =	160
Column Totals:	102 (A)		430 (B)

Prevalence Index = B/A = 4.22

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- ___ 2 - Dominance Test is >50%
- ___ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ 5 - Wetland Non-Vascular Plants[1]
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? **Yes** ___ **No** x

Remarks:
Based on the time of year, species identifications were made based on remnant foliage and position on the landscape.

SOIL

Sampling Point: WT-A33-UP1

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-9	10YR 2/1	100					Fine sandy loam	

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

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

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Loamy Mucky Mineral (F1) (**except MLRA 1**)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

___ 2 cm Muck (A10)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

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

Restrictive Layer (if present):
Type: Frozen
Depth (inches): 9

Hydric Soil Present? Yes ___ No X

Remarks:
Unlikely to be hydric due to plant community and landscape position.

HYDROLOGY

Wetland Hydrology Indicators:

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

___ Surface Water (A1)
___ High Water Table (A2)
___ Saturation (A3)
___ Water Marks (B1)
___ Sediment Deposits (B2)
___ Drift Deposits (B3)
___ Algal Mat or Crust (B4)
___ Iron Deposits (B5)
___ Surface Soil Cracks (B6)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B)**
___ Salt Crust (B11)
___ Aquatic Invertebrates (B13)
___ Hydrogen Sulfide Odor (C1)
___ Oxidized Rhizospheres along Living Roots (C3)
___ Presence of Reduced Iron (C4)
___ Recent Iron Reduction in Tilled Soils (C6)
___ Stunted or Stressed Plants (D1) (**LRR A**)
___ Other (Explain in Remarks)

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)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ FAC-Neutral Test (D5)
___ Raised Ant Mounds (D6) (**LRR A**)
___ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ___ No x Depth (inches): ___
Water Table Present? Yes ___ No x Depth (inches): ___
Saturation Present? (includes capillary fringe) Yes ___ No x Depth (inches): ___

Wetland Hydrology Present? Yes ___ No X

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

Remarks:
Unlikely to have wetland hydrology due to landscape position.

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

Project/Site: Jayne's Parcel City/County: El Paso Sampling Date: 2/1/22

Applicant/Owner: ______ State: CO Sampling Point: WT-A33-WT1

Investigator(s): S. Clark Section, Township, Range: S28 and 33, T12S, R65W

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

Subregion (LRR): E Lat: 38°58'22.66"N Long: - 104°40'24.59"W Datum: WGS84

Soil Map Unit Name: Pring coarse sandy loam, 3-8% slopes NWI classification: 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 ____ significantly disturbed? Are "Normal Circumstances" present? Yes x No ____

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

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

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

Remarks:

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: NA)			
1.			
2.			
3.			
4.			
= Total Cover			
Sapling/Shrub Stratum (Plot size: NA)			
1.			
2.			
3.			
4.			
5.			
= Total Cover			
Herb Stratum (Plot size: 5')			
1. Juncus arcticus	90	x	FACW+
2. Verbascum thapsus	2		FACU
3. Cirsium arvense	10		FAC
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
= Total Cover	102		
Woody Vine Stratum (Plot size: NA)			
1.			
2.			
= Total Cover			
% Bare Ground in Herb Stratum 0			

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	90	x 2 =	180
FAC species	10	x 3 =	30
FACU species	2	x 4 =	8
UPL species		x 5 =	
Column Totals:	102 (A)		218 (B)

Prevalence Index = B/A = 2.14

Hydrophytic Vegetation Indicators:

- x 1 - Rapid Test for Hydrophytic Vegetation
- x 2 - Dominance Test is >50%
- x 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ 5 - Wetland Non-Vascular Plants[1]
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? **Yes** x **No** ____

Remarks:
Based on the time of year, species identifications were made based on remnant foliage and position on the landscape.

SOIL

Sampling Point: WT-A33-WT1

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

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

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

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

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: Frozen

Depth (inches): 4

Hydric Soil Present? Yes X No ___

Remarks:

This soil may be similar to DP-1 and meet the F6 hydric soil indicator.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B)**
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Stunted or Stressed Plants (D1) (**LRR A**)
- ___ Other (Explain in Remarks)

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)
- x Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- x FAC-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) (**LRR A**)
- ___ Frost-Heave Hummocks (D7)

Field Observations:

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

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

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

Wetland Hydrology Present? Yes X No ___

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

Remarks:

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

Project/Site: Jayne's Parcel City/County: El Paso Sampling Date: 2/1/22

Applicant/Owner: ______ State: CO Sampling Point: WT-A39-UP1

Investigator(s): S. Clark Section, Township, Range: S28 and 33, T12S, R65W

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): concave Slope (%): 10

Subregion (LRR): E Lat: 38°58'28.88"N Long: - 104°40'13.01"W Datum: WGS84

Soil Map Unit Name: Pring coarse sandy loam, 3-8% slopes NWI classification: 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 ___ significantly disturbed? Are "Normal Circumstances" present? Yes x No ___

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

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

Hydrophytic Vegetation Present?	Yes ___	No x
Hydric Soil Present?	Yes ___	No x
Wetland Hydrology Present?	Yes ___	No x

Is the Sampled Area within a Wetland? **Yes** ___ **No** x

Remarks:

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: NA)			
1.			
2.			
3.			
4.			
= Total Cover			
Sapling/Shrub Stratum (Plot size: NA)			
1.			
2.			
3.			
4.			
5.			
= Total Cover			
Herb Stratum (Plot size: 5')			
1. Typha sp.	5		OBL
2. Verbascum thapsus	15	x	FACU
3. Centaurea diffusa	40	x	UPL
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
= Total Cover	60		
Woody Vine Stratum (Plot size: NA)			
1.			
2.			
= Total Cover			

% Bare Ground in Herb Stratum 20

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	5	x 1 =	5
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	15	x 4 =	60
UPL species	40	x 5 =	200
Column Totals:	60 (A)		265 (B)

Prevalence Index = B/A = 4.42

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- ___ 2 - Dominance Test is >50%
- ___ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ 5 - Wetland Non-Vascular Plants[1]
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? **Yes** ___ **No** x

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-UP1

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-3	10YR 3/1	100					Sandy loam	
3-7	10 YR 4/2	100					Sand	

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

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

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Loamy Mucky Mineral (F1) (**except MLRA 1**)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

___ 2 cm Muck (A10)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: Frozen

Depth (inches): 7

Hydric Soil Present? Yes ______ No X

Remarks:

Unlikely to be hydric due to plant community and landscape position.

HYDROLOGY

Wetland Hydrology Indicators:

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

___ Surface Water (A1)
___ High Water Table (A2)
___ Saturation (A3)
___ Water Marks (B1)
___ Sediment Deposits (B2)
___ Drift Deposits (B3)
___ Algal Mat or Crust (B4)
___ Iron Deposits (B5)
___ Surface Soil Cracks (B6)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
___ Salt Crust (B11)
___ Aquatic Invertebrates (B13)
___ Hydrogen Sulfide Odor (C1)
___ Oxidized Rhizospheres along Living Roots (C3)
___ Presence of Reduced Iron (C4)
___ Recent Iron Reduction in Tilled Soils (C6)
___ Stunted or Stressed Plants (D1) (**LRR A**)
___ Other (Explain in Remarks)

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)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ FAC-Neutral Test (D5)
___ Raised Ant Mounds (D6) (**LRR A**)
___ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ______ No x Depth (inches): ____________

Water Table Present? Yes ______ No x Depth (inches): ____________

Saturation Present? (includes capillary fringe) Yes ______ No x Depth (inches): ____________

Wetland Hydrology Present? Yes ______ No X

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

Remarks:

Unlikely to have wetland hydrology due to landscape position.

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

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, Township, Range: S28 and 33, T12S, R65W

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): concave Slope (%): 5

Subregion (LRR): E Lat: 38°58'18.58"N Long: - 104°40'15.65"W Datum: WGS84

Soil Map Unit Name: Pring coarse sandy loam, 3-8% slopes NWI classification: 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 ___ significantly disturbed? Are "Normal Circumstances" present? Yes x No ___

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

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

Hydrophytic Vegetation Present?	Yes ___	No x
Hydric Soil Present?	Yes ___	No x
Wetland Hydrology Present?	Yes ___	No x

Is the Sampled Area within a Wetland? **Yes** ___ **No** x

Remarks:

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: NA)			
1.			
2.			
3.			
4.			
= Total Cover			
Sapling/Shrub Stratum (Plot size: NA)			
1.			
2.			
3.			
4.			
5.			
= Total Cover			
Herb Stratum (Plot size: 5')			
1. Opuntia sp.	8		UPL
2. Pascopyrum smithii	20		FACU
3. Bouteloua gracilis	80	x	UPL
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
= Total Cover	108		
Woody Vine Stratum (Plot size: NA)			
1.			
2.			
= Total Cover			

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	20	x 4 =	80
UPL species	88	x 5 =	440
Column Totals:	108 (A)		520 (B)

Prevalence Index = B/A = 4.81

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation
___ 2 - Dominance Test is >50%
___ 3 - Prevalence Index is ≤3.0[1]
___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ 5 - Wetland Non-Vascular Plants[1]
___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? **Yes** ___ **No** x

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-UP2

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 2/1	100					Fine sandy loam	

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

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

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: Frozen

Depth (inches): 6

Hydric Soil Present? Yes ______ No X

Remarks:

Unlikely to be hydric due to plant community and landscape position.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B)**
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Stunted or Stressed Plants (D1) (**LRR A**)
- ___ Other (Explain in Remarks)

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)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) (**LRR A**)
- ___ Frost-Heave Hummocks (D7)

Field Observations:

	Yes	No	Depth (inches)
Surface Water Present?		x	
Water Table Present?		x	
Saturation Present? (includes capillary fringe)		x	

Wetland Hydrology Present? Yes ______ No X

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

Remarks:

Unlikely to have wetland hydrology due to landscape position.

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

Project/Site: Jayne's Parcel City/County: El Paso Sampling Date: 2/1/22

Applicant/Owner: ______ State: CO Sampling Point: WT-A39-WT1

Investigator(s): S. Clark Section, Township, Range: S28 and 33, T12S, R65W

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

Subregion (LRR): E Lat: 38°58'28.71"N Long: -104°40'13.52"W Datum: WGS84

Soil Map Unit Name: Pring coarse sandy loam, 3-8% slopes NWI classification: R4SBC

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

Are Vegetation ___, Soil ___, or Hydrology ___ significantly disturbed? Are "Normal Circumstances" present? Yes x No ___

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

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

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

Remarks:

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: NA)			
1.			
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: NA)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5')			
1. Typha sp.	100	x	OBL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: NA)			
1.			
2.			
	= Total Cover		
% Bare Ground in Herb Stratum 0			

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

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

Prevalence Index = B/A = 1.00

Hydrophytic Vegetation Indicators:

x 1 - Rapid Test for Hydrophytic Vegetation
x 2 - Dominance Test is >50%
x 3 - Prevalence Index is ≤3.0[1]
___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ 5 - Wetland Non-Vascular Plants[1]
___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? **Yes** x **No** ___

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

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-1	10YR 2/1	100					Duff layer	Organics
1-8	10 YR 3/1	60	7.5 YR 4/6	5	C	PL	Fine sandy clay loam	
			10 YR 4/1	35	RM	M		

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

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

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- _x_ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: Frozen

Depth (inches): 8

Hydric Soil Present? **Yes** X **No** ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B)**
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- _x_ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Stunted or Stressed Plants (D1) (**LRR A**)
- ___ Other (Explain in Remarks)

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)
- _x_ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- _x_ FAC-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) (**LRR A**)
- ___ Frost-Heave Hummocks (D7)

Field Observations:

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

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

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

Wetland Hydrology Present? **Yes** X **No** ___

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

Remarks:

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

Project/Site: Jayne's Parcel City/County: El Paso Sampling Date: 2/1/22

Applicant/Owner: ______ State: CO Sampling Point: WT-A39-WT2

Investigator(s): S. Clark Section, Township, Range: S28 and 33, T12S, R65W

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): concave Slope (%): 7

Subregion (LRR): E Lat: 38°58'18.72"N Long: - 104°40'15.51"W Datum: WGS84

Soil Map Unit Name: Pring coarse sandy loam, 3-8% slopes NWI classification: R5UBH

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 ___ significantly disturbed? Are "Normal Circumstances" present? Yes x No ___

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

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

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

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: NA)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
= Total Cover			
Sapling/Shrub Stratum (Plot size: NA)			
1.			
2.			
3.			
4.			
5.			
= Total Cover			
Herb Stratum (Plot size: 5')			
1. Juncus arcticus	90	x	FACW
2. Bromus inermis	8		FACU
3. Cirsium arvense	2		FAC
4. Pascopyrum smithii	10		FACU
5.			
6.			
7.			
8.			
9.			
10.			
11.			
= Total Cover	110		
Woody Vine Stratum (Plot size: NA)			
1.			
2.			
= Total Cover			
% Bare Ground in Herb Stratum 0			

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:
OBL species	0	x 1 = 0
FACW species	90	x 2 = 180
FAC species	2	x 3 = 6
FACU species	18	x 4 = 72
UPL species		x 5 =
Column Totals:	110 (A)	258 (B)

Prevalence Index = B/A = 2.35

Hydrophytic Vegetation Indicators:

- x 1 - Rapid Test for Hydrophytic Vegetation
- x 2 - Dominance Test is >50%
- x 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ 5 - Wetland Non-Vascular Plants[1]
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? **Yes** x **No** ___

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

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-3	10YR 2/1	100					Fine sandy loam	
3-8	10 YR 2/1	98	7.5 YR 4/6	2	C	PL	Fine sandy clay loam	

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

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

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- x Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: Frozen

Depth (inches): 8

Hydric Soil Present? Yes X **No** ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B)**
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- x Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Stunted or Stressed Plants (D1) (**LRR A**)
- ___ Other (Explain in Remarks)

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)
- x Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- x FAC-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) (**LRR A**)
- ___ Frost-Heave Hummocks (D7)

Field Observations:

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

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

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

Wetland Hydrology Present? Yes X **No** ___

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

Remarks:

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

CORE

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.

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

Common Name ***Scientific Name***	**Status[1]**	**Likelihood of Occurrence**
Complete Effects Analysis		
Eastern black rail *Laterallus jamaicensis jamaicensis*	FT	**None.** 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	**None.** 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	**None.** 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.

[1]FE = Federally Endangered; FT = Federally Threatened; FC = Federal Candidate for Listing
Source: USFWS 2022a

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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).

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Table 2. Sensitive Wildlife Species Potential for Occurrence

COMMON NAME	SCIENTIFIC NAME	TYPE OF OCCURRENCE	STATUS[1]
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 ludovicianus*	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
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	*Sceloporus 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

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COMMON NAME	SCIENTIFIC NAME	TYPE OF OCCURRENCE	STATUS[1]
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

[1]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.

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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
Forbs/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

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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 egg-laying 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.

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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

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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.

Tyler Stuart
Biologist

Natalie Graves
Project Manager

LIST OF ATTACHMENTS

ATTACHMENT I: *PROJECT LOCATION MAP*
ATTACHMENT II: PHOTO LOCATION MAP
ATTACHMENT III: *PHOTOGRAPHIC LOG*
ATTACHMENT IV: *RAPTOR NESTS MAP*

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ATTACHMENT I

PROJECT LOCATION MAP

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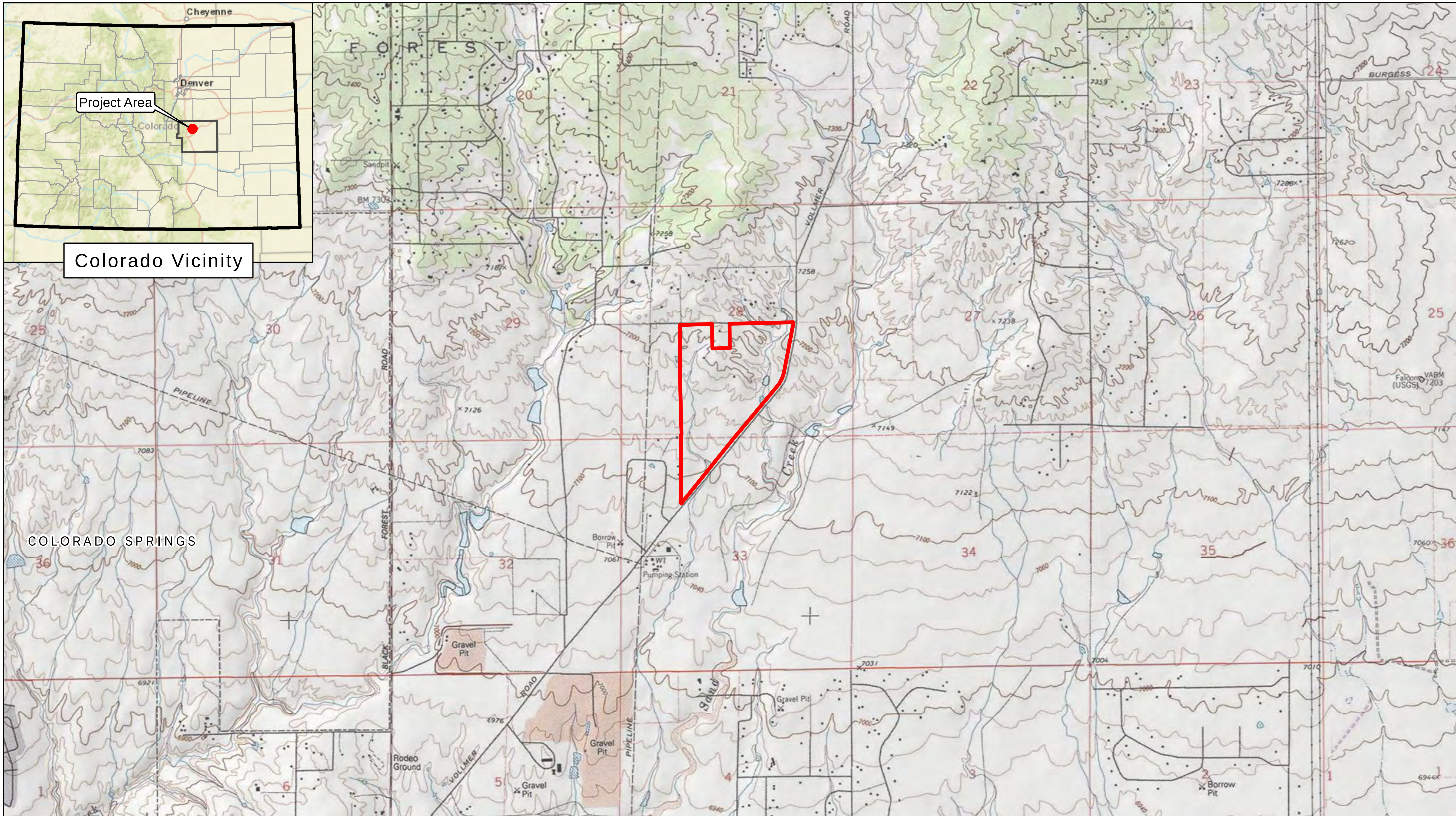


Jayne's Parcel

Project Location Map

El Paso County, Colorado

Reference: USGS Topo. Quads - Falcon NW (accessed 1/19/22)

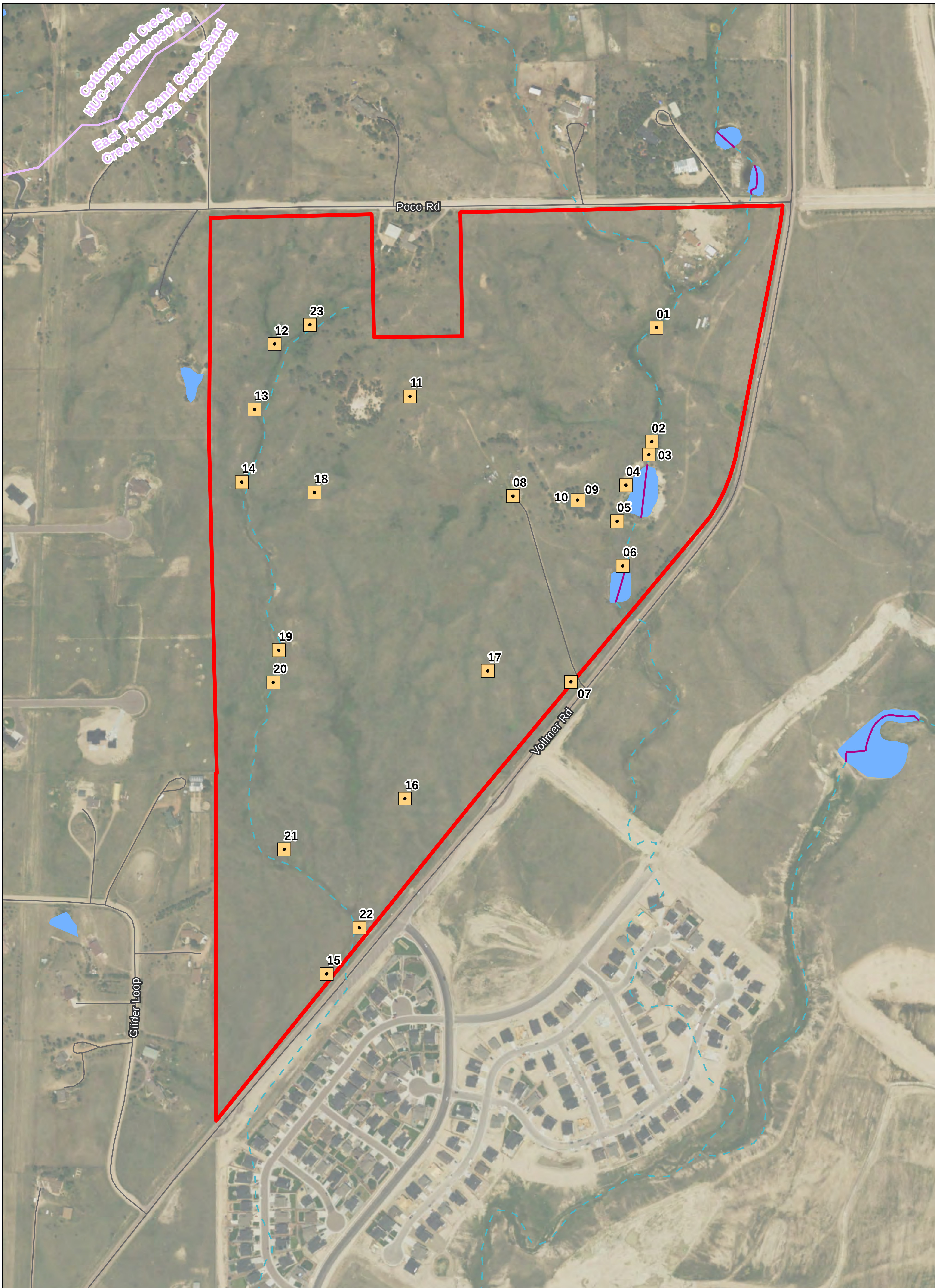
0 2,000
Feet

Project #: 22-008
Date: 1/19/2022

CORE LAND DEVELOPMENT ENERGY PUBLIC INFRASTRUCTURE

ATTACHMENT II

PHOTO LOCATION MAP



Jayne's Parcel

Photo Location Map

El Paso County, CO

Project Boundary

Photo Location

Street

NHD Stream

Intermittent

Artificial Path

NHD Waterbody

LakePond

Watershed (12-digit HUC)

0 500

Feet

N

Project #: 22-008

Date: 2/2/2022

Reference: USGS Topographic Quad: Falcon NW
CORE Consultants 2022, USDA 2021, USGS 2021

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CORE

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: Northern end of the eastern streambed, downstream of the house in the northeastern corner of the Project Area.					

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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.					

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Photo ID	Date	Latitude	Longitude	Subject	Direction Taken
JP_003	1/26/2022	38.973635	-104.670413	Large Pond	South
Description: Looking downstream at the larger pond in the Project Area, with surrounding vegetation including peachleaf willows, narrowleaf cottonwood, plains cottonwood, red-osier dogwood, and ponderosa pine. Cattails are visible at the far end of the pond.					

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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.					

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Photo ID	Date	Latitude	Longitude	Subject	Direction Taken
JP_005	1/26/2022	38.972817	-104.67092	Small Pond	South
Description: Looking south from the top of the dam on the large pond. The smaller pond is visible with willows at center-left in the photo.					

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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.					

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Photo ID	Date	Latitude	Longitude	Subject	Direction Taken
JP_007	1/26/2022	38.970828	-104.671681	Southern Meadow	Southwest
Description: Broad view of the large meadow at the southern end of the Project Area.					

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Photo ID	Date	Latitude	Longitude	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.

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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.					

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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 large enough to host large raptors.					

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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.					

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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.					

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Photo ID	Date	Latitude	Longitude	Subject	Direction Taken
JP_013	1/26/2022	38.974236	-104.676651	Western Stream	Southeast
Description: Looking downstream below the headwaters of the western stream.					

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Photo ID	Date	Latitude	Longitude	Subject	Direction 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.					

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Photo ID	Date	Latitude	Longitude	Subject	Direction Taken
JP_015	1/26/2022	38.967246	-104.675581	Stream Culvert	East
Description: Culvert under Vollmer Road at the southern end of the western stream.					

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Photo ID	Date	Latitude	Longitude	Subject	Direction Taken
JP_016	1/26/2022	38.969403	-104.67432	Southern Meadow	West
Description: Broad view across the meadow near the southern end of the Project Area.					

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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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Photo ID	Date	Latitude	Longitude	Subject	Direction Taken
JP_018	1/26/2022	38.973206	-104.675718	Burrowing Mammal Activity	N/A
Description: Burrowing activity of unknown rodents in the central-western part of the Project Area.					

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Photo ID	Date	Latitude	Longitude	Subject	Direction Taken
JP_019	1/26/2022	38.971254	-104.676308	Western Stream	South
Description: Looking downstream along the western stream near the central-western part of the Project Area.					

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Photo ID	Date	Latitude	Longitude	Subject	Direction Taken
JP_020	1/26/2022	38.970858	-104.676388	Showy Milkweed	N/A
Description: Showy milkweed seed pods found along the western stream.					

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Photo ID	Date	Latitude	Longitude	Subject	Direction Taken
JP_021	1/26/2022	38.968794	-104.676246	Southern Meadow	North
Description: A broad view of the meadow at the southern end of the Project Area, taken along the western stream.					

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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: Looking upstream along the western stream from near its southern terminus within the Project Area.					

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Photo ID	Date	Latitude	Longitude	Subject	Direction Taken
JP_023	1/26/2022	38.97528	-104.675763	Western Tributary	North
Description: Looking upstream near the headwaters of the western stream.					

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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.					

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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.					

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Photo ID	Date	Latitude	Longitude	Subject	Direction Taken
Raptor Nest 3	1/26/2022	38.971883	-104.670614	Inactive Raptor Nest	South
Description: Inactive raptor nest in the crown of a ponderosa pine along Vollmer Road.					

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Photo ID	Date	Latitude	Longitude	Subject	Direction Taken
Raptor Nest 4	1/26/2022	38.970957	-104.671537	Inactive Raptor Nest	South
Description: Inactive raptor nest in a ponderosa pine along Vollmer Road.					

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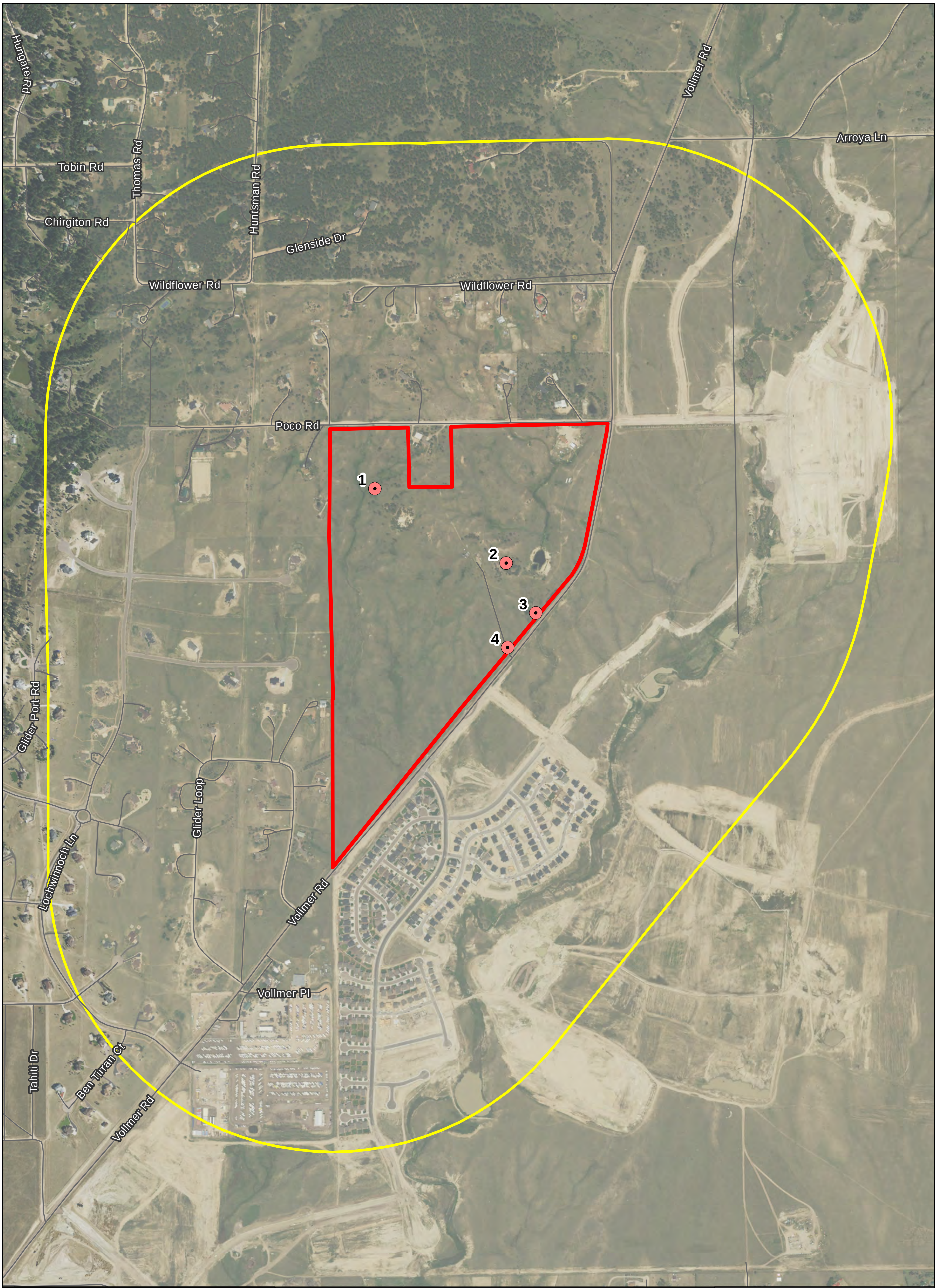
ATTACHMENT IV

RAPTOR NESTS MAP



Jayne's Parcel

Raptor Nests Map

El Paso County, CO

Reference: USGS Topographic Quad: Falcon NW
CORE Consultants 2022, USDA 2021

Project #: 22-008
Date: 2/2/2022

CORE LAND DEVELOPMENT ENERGY PUBLIC INFRASTRUCTURE

CORE

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

Appendices

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.

Natalie Graves

Natalie Graves
Project Manager

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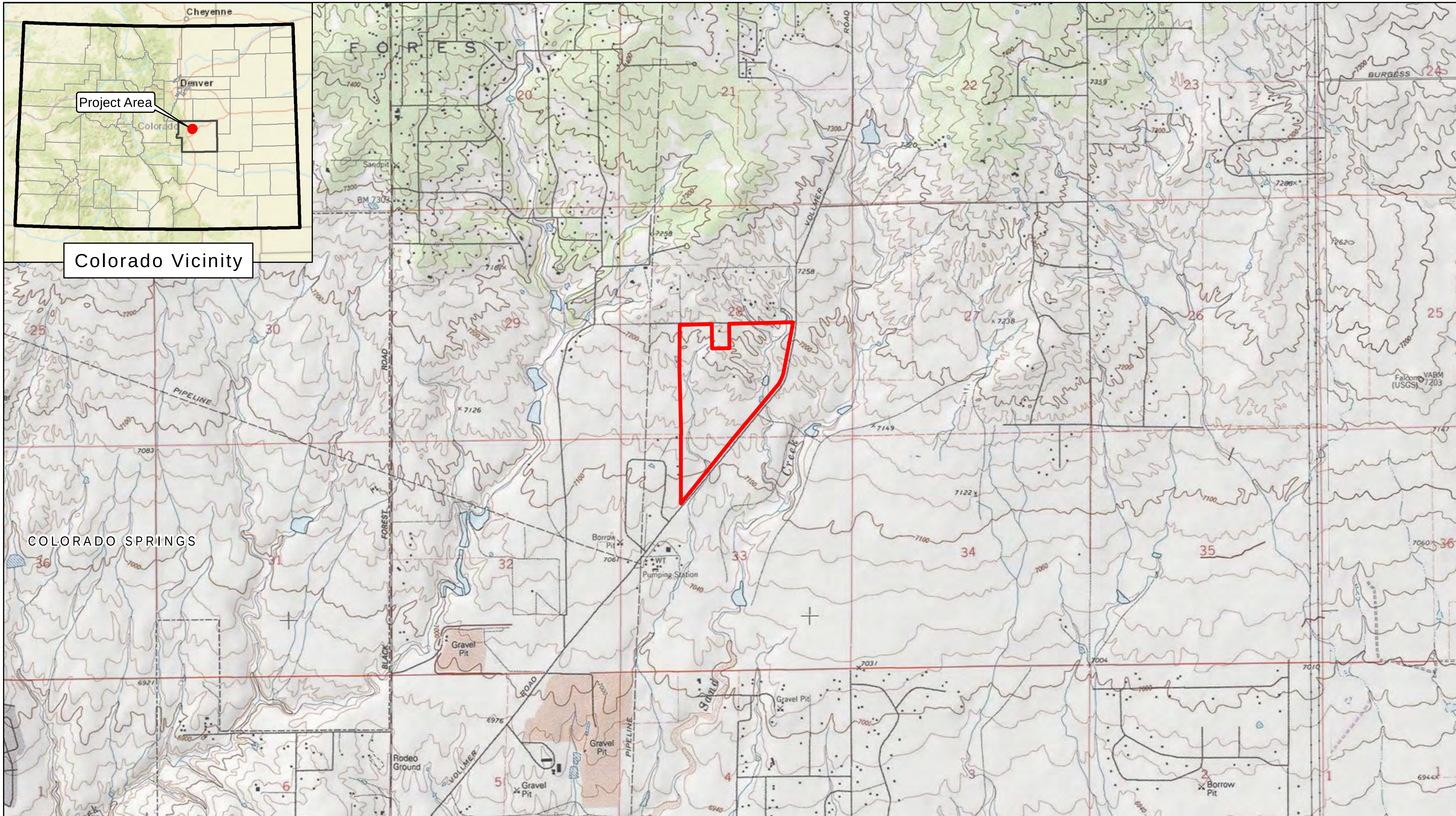
APPENDIX A

Project Location Map



Project Boundary

Jayne's Parcel

Project Location Map

El Paso County, Colorado

Reference: USGS Topo. Quads - Falcon NW (accessed 1/19/22)

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Feet

N

Project #: 22-008
Date: 1/19/2022

CORE LAND DEVELOPMENT ENERGY PUBLIC INFRASTRUCTURE

APPENDIX B

El Paso County Noxious Weeds and Control Methods

EL PASO COUNTY

COLORADO

Community Services Department
Environmental Division

Noxious Weeds and Control Methods

Purple loosestrife
(EPC Environmental Division)

Orange hawkweed
(EPC Environmental Division)

Canada thistle
(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?

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

LIST A

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

LIST A

Dyer's wood - *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

Bohemian knotweed

co.thurston.wa.us

Giant knotweed

dnr.wi.gov

Japanese knotweed

cumberlandcd.com

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:

<u>Biological</u>:

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

<u>Mechanical</u>: 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

LIST A

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

LIST A

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:

<u>Biological</u>:

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

<u>Mechanical</u>:

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

<u>Chemical</u>:

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

LIST B

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:

Biological:

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

LIST B

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 mid-summer.

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 (½ 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:

Biological: 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.

Mechanical: 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

LIST B

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.

Mechanical: Pull or dig up the plant prior to flowering when soil is moist; remove all roots.

Chemical:

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

LIST B

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:

<u>Biological</u>: 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.

<u>Chemical</u>:

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

LIST B

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

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

LIST B

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

LIST B

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

Norman E Reese, USDA ARS, Bugwood.org

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.

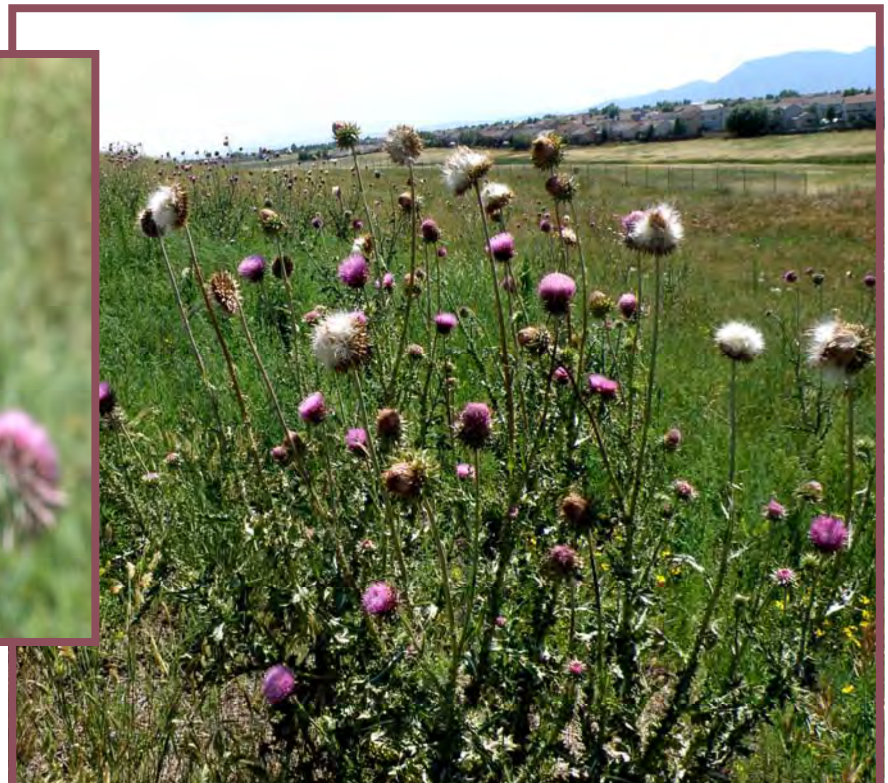
The label is the law!

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

LIST B

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

LIST B

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.

<u>Biological</u>:

There is no biological control available at this time.

<u>Mechanical</u>:

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

<u>Chemical</u>:

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.

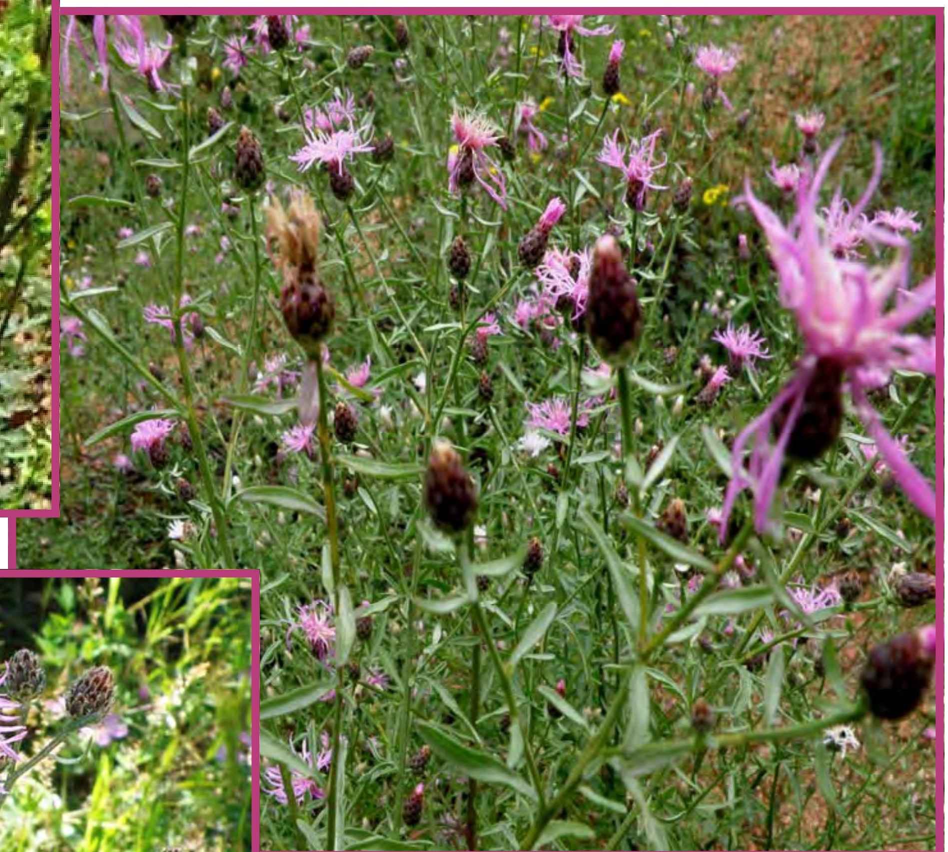
Chlorsulfuron: From bolting to flower bud stages.

Metsulfuron + Chlorsulfuron: Appy rosette to flower bud stages.

Clopyralid: Apply to rosettes in spring or fall.

Aminocyclopyrachlor + chlorsulfuron: Apply from seedling to bolting stage.

Spotted knapweed



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.

<u>Biological</u>:

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

<u>Mechanical</u>:

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

<u>Chemical</u>:

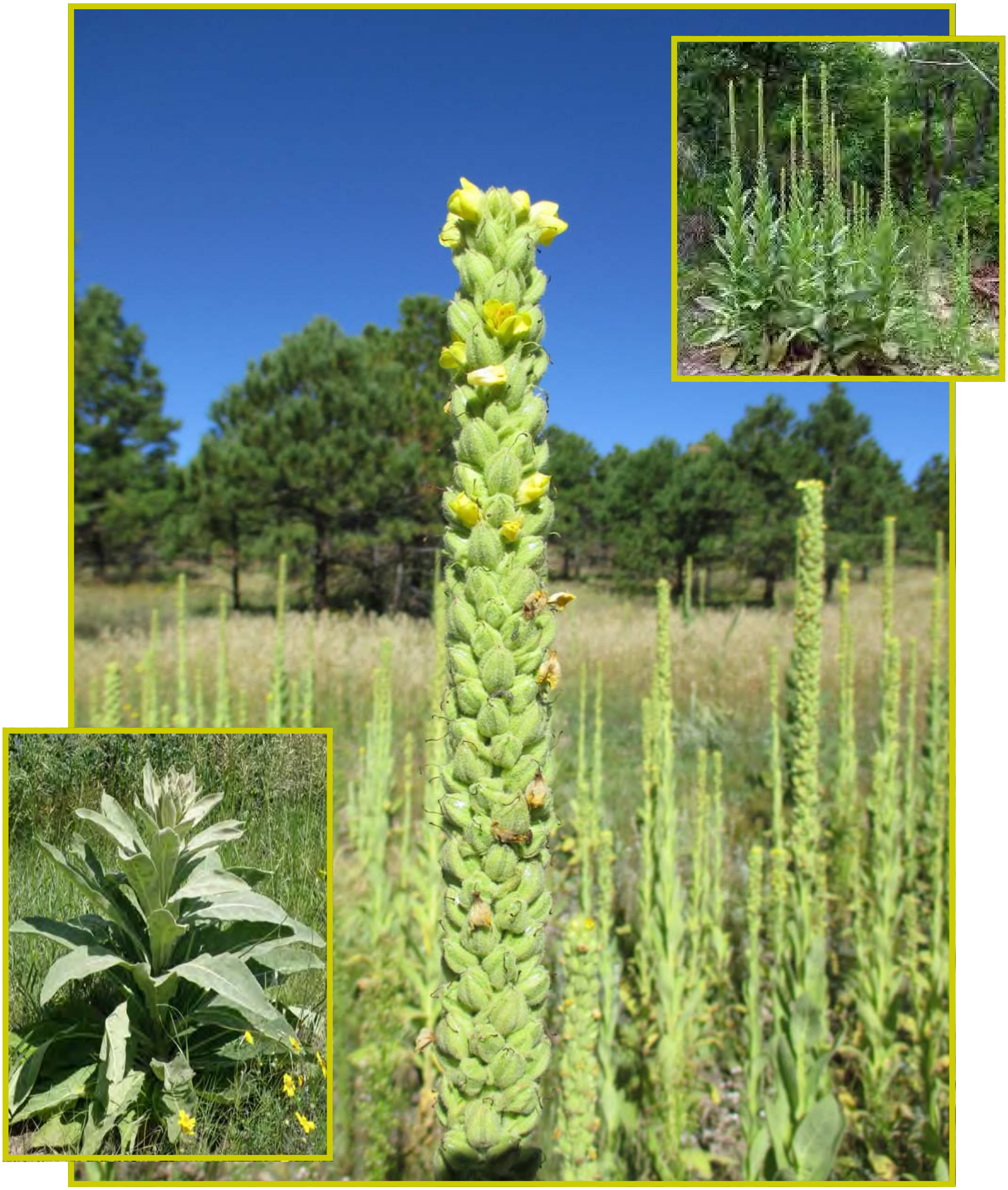
Recommendations only! Always read, understand and follow the label.

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



LIST C

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

List C

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 multi-branched 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:

<u>Biological</u>: 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.

<u>Chemical</u>:

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!

Dicamba + 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
http://elpasoco.colostate.edu/

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. micranthos)*
Spotted x diffuse knapweed hybric	*(Centaurea x psammogena)*
Sulfur cinquefoil	*(Potentilla recta)*
Wild caraway	*(Carum carvi)*
Yellow nutsedge	*(Cyperus esculentus)*
Yellow toadflax	*(Linaria vulgaris)*
Yellow x Dalmatian toadflax hybric	*(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)*

APPENDIX E

AGENCY CORRESPONDENCE

From:	Tyler Stuart
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,

CORE

TYLER STUART, MA
Environmental Specialist, Biologist

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

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 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 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,

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

Sincerely,
CORE Consultants, Inc.

Tyler Stuart
Project Biologist

Natalie Graves
Project Manager

Appendices

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

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References

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

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APPENDIX A

HABITAT ASSESSMENT MEMO FOR JAYNE'S PARCEL DEVELOPMENT PROJECT

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CORE

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.

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

Common Name *Scientific Name*	**Status[1]**	**Likelihood of Occurrence**
Complete Effects Analysis		
Eastern black rail *Laterallus jamaicensis jamaicensis*	FT	**None.** 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	**None.** 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	**None.** 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.

[1]FE = Federally Endangered; FT = Federally Threatened; FC = Federal Candidate for Listing
Source: USFWS 2022a

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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).

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Table 2. Sensitive Wildlife Species Potential for Occurrence

COMMON NAME	SCIENTIFIC NAME	TYPE OF OCCURRENCE	STATUS[1]
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 ludovicianus*	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
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	*Sceloporus 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

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COMMON NAME	SCIENTIFIC NAME	TYPE OF OCCURRENCE	STATUS[1]
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

[1]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.

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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
Forbs/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

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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 egg-laying 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.

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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

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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.

Tyler Stuart
Biologist

Natalie Graves
Project Manager

LIST OF ATTACHMENTS

ATTACHMENT I: *PROJECT LOCATION MAP*
ATTACHMENT II: PHOTO LOCATION MAP
ATTACHMENT III: *PHOTOGRAPHIC LOG*
ATTACHMENT IV: *RAPTOR NESTS MAP*

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CORE

ATTACHMENT I

PROJECT LOCATION MAP

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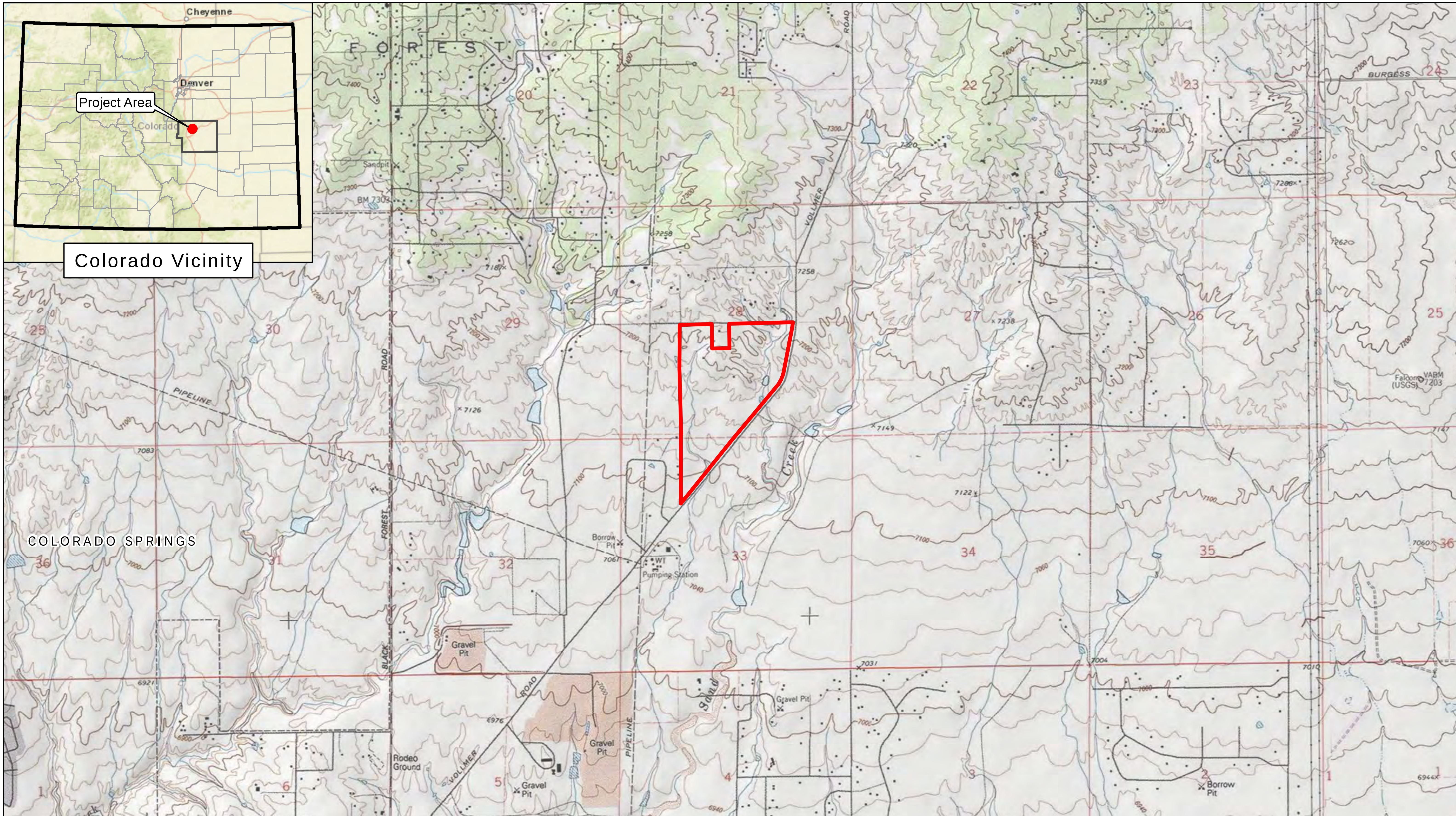

Jayne's Parcel

Project Location Map

El Paso County, Colorado

Project Boundary

Reference: USGS Topo. Quads - Falcon NW (accessed 1/19/22)

0 2,000
Feet

Project #: 22-008
Date: 1/19/2022

CORE LAND DEVELOPMENT ENERGY PUBLIC INFRASTRUCTURE

ATTACHMENT II

PHOTO LOCATION MAP

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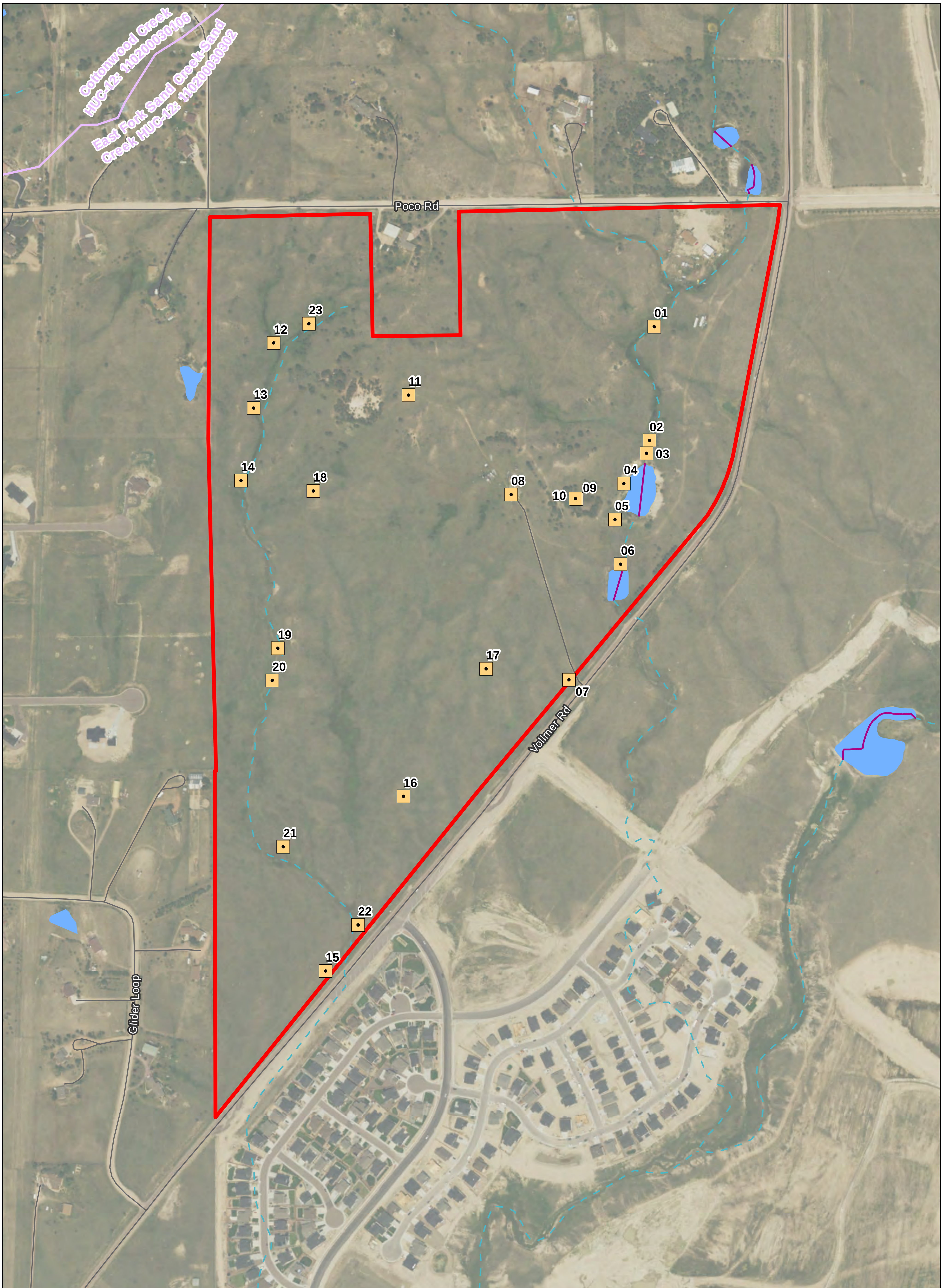

Jayne's Parcel

Photo Location Map

El Paso County, CO

Project Boundary

Photo Location

Street

NHD Stream

Intermittent

Artificial Path

NHD Waterbody

LakePond

Watershed (12-digit HUC)

0 500 Feet

Reference: USGS Topographic Quad: Falcon NW
CORE Consultants 2022, USDA 2021, USGS 2021

Project #: 22-008

Date: 2/2/2022

CORE LAND DEVELOPMENT ENERGY PUBLIC INFRASTRUCTURE

CORE

ATTACHMENT III

PHOTOGRAPHIC LOG

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CORE

Photo ID	Date	Latitude	Longitude	Subject	Direction Taken
JP_001	1/26/2022	38.975207	-104.670271	Eastern Stream	North
Description: Northern end of the eastern streambed, downstream of the house in the northeastern corner of the Project Area.					

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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.					

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Photo ID	Date	Latitude	Longitude	Subject	Direction Taken
JP_003	1/26/2022	38.973635	-104.670413	Large Pond	South
Description: Looking downstream at the larger pond in the Project Area, with surrounding vegetation including peachleaf willows, narrowleaf cottonwood, plains cottonwood, red-osier dogwood, and ponderosa pine. Cattails are visible at the far end of the pond.					

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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.					

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Photo ID	Date	Latitude	Longitude	Subject	Direction Taken
JP_005	1/26/2022	38.972817	-104.67092	Small Pond	South
Description: Looking south from the top of the dam on the large pond. The smaller pond is visible with willows at center-left in the photo.					

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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.					

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Photo ID	Date	Latitude	Longitude	Subject	Direction Taken
JP_007	1/26/2022	38.970828	-104.671681	Southern Meadow	Southwest
Description: Broad view of the large meadow at the southern end of the Project Area.					

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Photo ID	Date	Latitude	Longitude	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.					

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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.					

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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 large enough to host large raptors.					

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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.					

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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.					

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Photo ID	Date	Latitude	Longitude	Subject	Direction Taken
JP_013	1/26/2022	38.974236	-104.676651	Western Stream	Southeast
Description: Looking downstream below the headwaters of the western stream.					

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Photo ID	Date	Latitude	Longitude	Subject	Direction 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.					

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Photo ID	Date	Latitude	Longitude	Subject	Direction Taken
JP_015	1/26/2022	38.967246	-104.675581	Stream Culvert	East
Description: Culvert under Vollmer Road at the southern end of the western stream.					

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Photo ID	Date	Latitude	Longitude	Subject	Direction Taken
JP_016	1/26/2022	38.969403	-104.67432	Southern Meadow	West
Description: Broad view across the meadow near the southern end of the Project Area.					

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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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Photo ID	Date	Latitude	Longitude	Subject	Direction Taken
JP_018	1/26/2022	38.973206	-104.675718	Burrowing Mammal Activity	N/A
Description: Burrowing activity of unknown rodents in the central-western part of the Project Area.					

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Photo ID	Date	Latitude	Longitude	Subject	Direction Taken
JP_019	1/26/2022	38.971254	-104.676308	Western Stream	South
Description: Looking downstream along the western stream near the central-western part of the Project Area.					

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Photo ID	Date	Latitude	Longitude	Subject	Direction Taken
JP_020	1/26/2022	38.970858	-104.676388	Showy Milkweed	N/A
Description: Showy milkweed seed pods found along the western stream.					

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Photo ID	Date	Latitude	Longitude	Subject	Direction Taken
JP_021	1/26/2022	38.968794	-104.676246	Southern Meadow	North
Description: A broad view of the meadow at the southern end of the Project Area, taken along the western stream.					

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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: Looking upstream along the western stream from near its southern terminus within the Project Area.					

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Photo ID	Date	Latitude	Longitude	Subject	Direction Taken
JP_023	1/26/2022	38.97528	-104.675763	Western Tributary	North
Description: Looking upstream near the headwaters of the western stream.					

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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.					

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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.					

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Photo ID	Date	Latitude	Longitude	Subject	Direction Taken
Raptor Nest 3	1/26/2022	38.971883	-104.670614	Inactive Raptor Nest	South
Description: Inactive raptor nest in the crown of a ponderosa pine along Vollmer Road.					

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Photo ID	Date	Latitude	Longitude	Subject	Direction Taken
Raptor Nest 4	1/26/2022	38.970957	-104.671537	Inactive Raptor Nest	South
Description: Inactive raptor nest in a ponderosa pine along Vollmer Road.					

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ATTACHMENT IV

RAPTOR NESTS MAP

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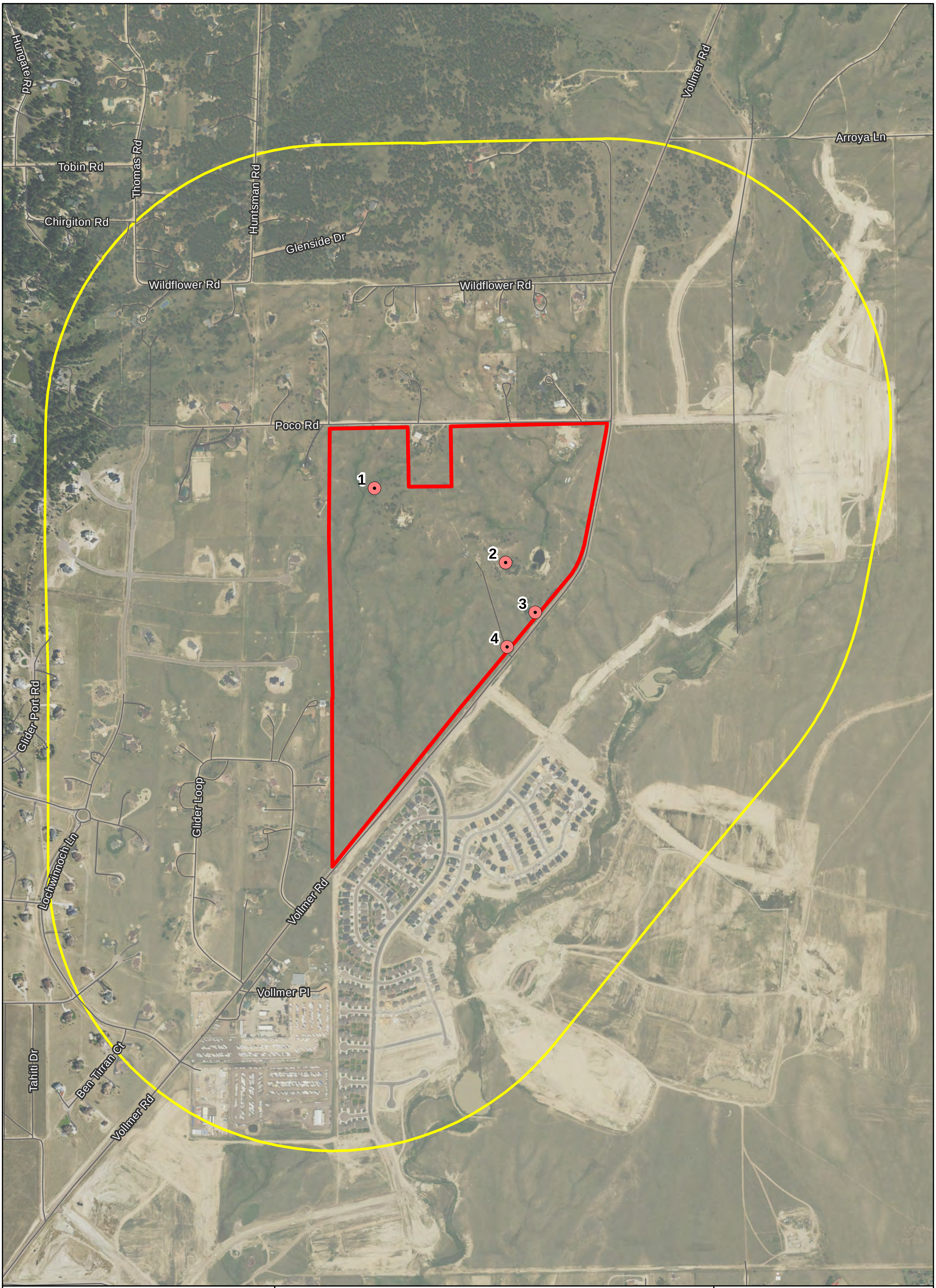

Jayne's Parcel

Raptor Nests Map

El Paso County, CO

Project Boundary

Study Area

Street

Raptor Nest

Inactive Unidentified Species

0 1,000
Feet

Project #: 22-008

Date: 2/2/2022

Reference: USGS Topographic Quad: Falcon NW
CORE Consultants 2022, USDA 2021

CORE LAND DEVELOPMENT ENERGY PUBLIC INFRASTRUCTURE

From: Tyler Stuart
To: 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

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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 \ liveyourcore.com

CORE

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 federally-listed 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).

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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 tstuart@liveyourcore.com or ngraves@liveyourcore.com.

Sincerely,
CORE Consultants, Inc.

Tyler Stuart
Project Biologist

Natalie Graves
Project Manager

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

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References

USFWS (U.S. Fish and Wildlife Service). 2022a. Information for Planning and Consultation Online System. https://ecos.fws.gov/ipac/. Accessed January 2022.

USFWS. 2022b. Environmental Conservation Online System (ECOS) – Critical Habitat Portal. https:/ecos.fws.gov/ecp/report/table/critical-habitat.html. Accessed January 2022.

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APPENDIX A

HABITAT ASSESSMENT MEMO FOR JAYNE'S PARCEL DEVELOPMENT PROJECT

CORE

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.

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

Common Name ***Scientific Name***	**Status[1]**	**Likelihood of Occurrence**
Complete Effects Analysis		
Eastern black rail *Laterallus jamaicensis jamaicensis*	FT	**None.** 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	**None.** 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	**None.** 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.

[1]FE = Federally Endangered; FT = Federally Threatened; FC = Federal Candidate for Listing
Source: USFWS 2022a

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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).

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Table 2. Sensitive Wildlife Species Potential for Occurrence

COMMON NAME	SCIENTIFIC NAME	TYPE OF OCCURRENCE	STATUS[1]
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 ludovicianus*	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
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	*Sceloporus 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

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COMMON NAME	SCIENTIFIC NAME	TYPE OF OCCURRENCE	STATUS[1]
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

[1]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.

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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
Forbs/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

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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 egg-laying 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.

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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

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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.

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Sincerely,
CORE Consultants, Inc.

Tyler Stuart
Biologist

Natalie Graves
Project Manager

LIST OF ATTACHMENTS

ATTACHMENT I:	*PROJECT LOCATION MAP*
ATTACHMENT II:	PHOTO LOCATION MAP
ATTACHMENT III:	*PHOTOGRAPHIC LOG*
ATTACHMENT IV:	*RAPTOR NESTS MAP*

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Attachment I

Project Location Map

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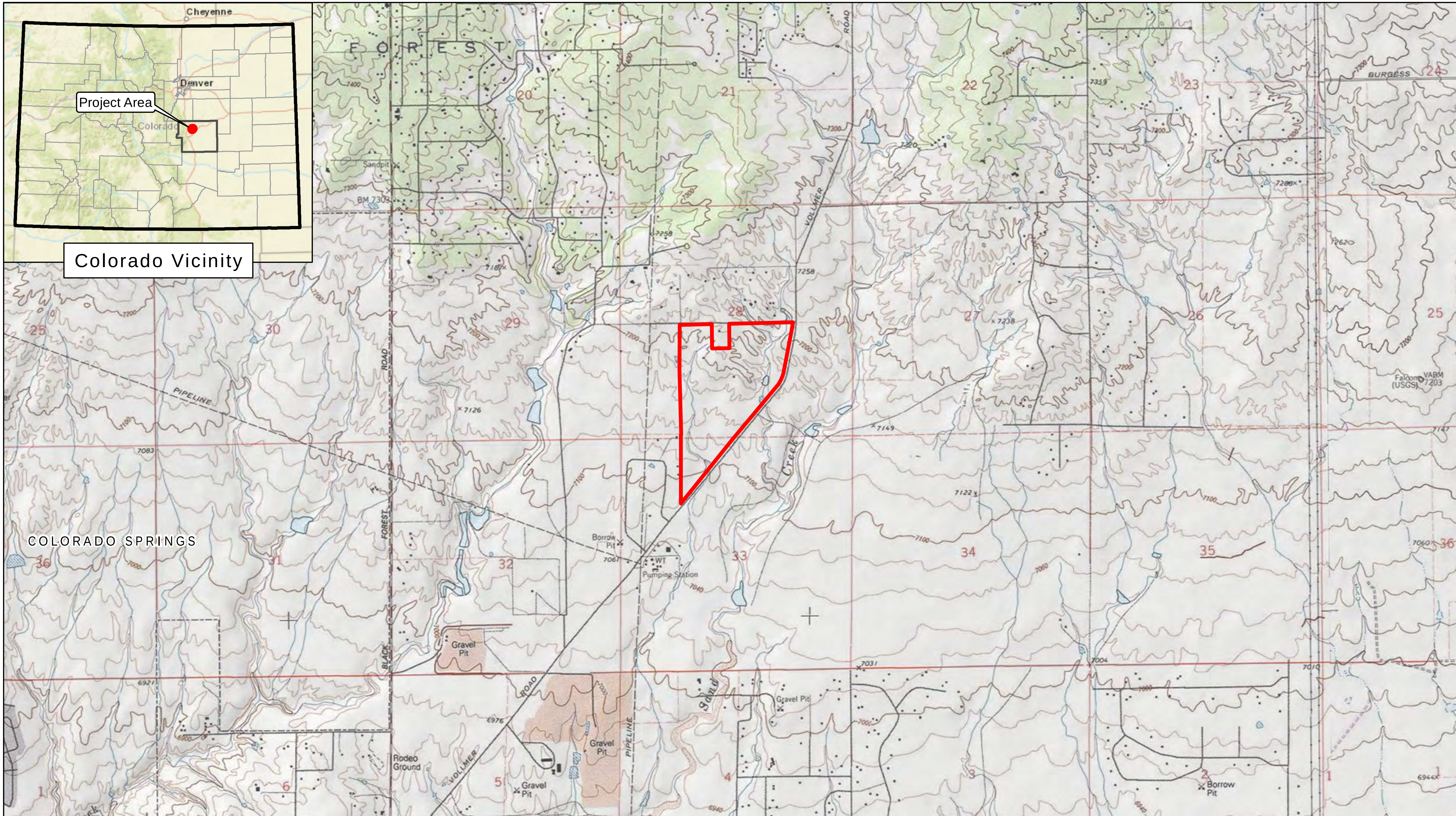


Project Boundary

Jayne's Parcel

Project Location Map

El Paso County, Colorado

Reference: USGS Topo. Quads - Falcon NW (accessed 1/19/22)

0 2,000
Feet

N

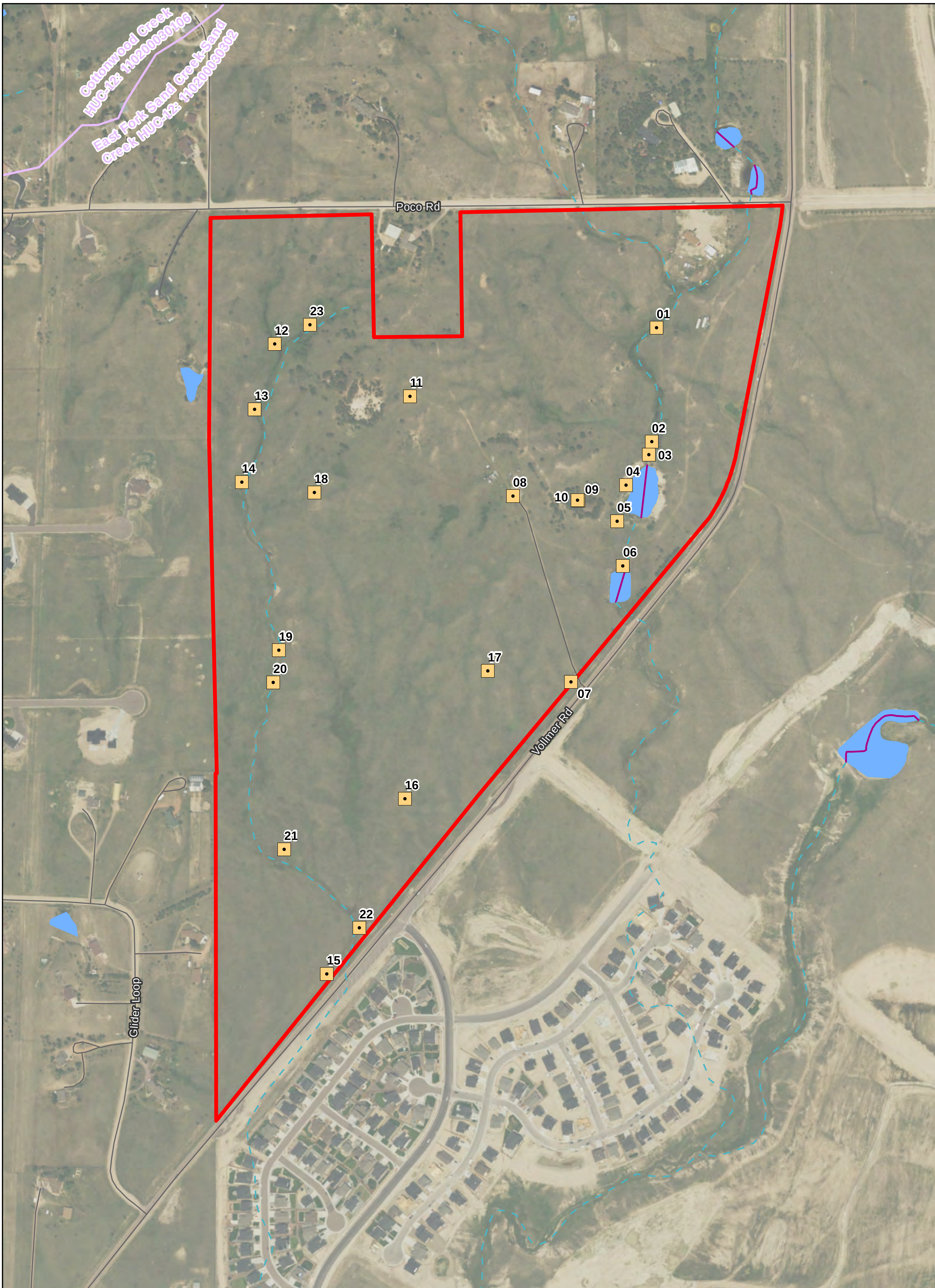
Project #: 22-008
Date: 1/19/2022

CORE LAND DEVELOPMENT ENERGY PUBLIC INFRASTRUCTURE

CORE

ATTACHMENT II

PHOTO LOCATION MAP



Jayne's Parcel

Photo Location Map

El Paso County, CO

Project Boundary

Photo Location

Street

NHD Stream

Intermittent

Artificial Path

NHD Waterbody

LakePond

Watershed (12-digit HUC)

0 500

Feet

Project #: 22-008

Date: 2/2/2022

Reference: USGS Topographic Quad: Falcon NW

CORE Consultants 2022, USDA 2021, USGS 2021

CORE LAND DEVELOPMENT ENERGY PUBLIC INFRASTRUCTURE

CORE

Attachment III

Photographic Log

3473 South Broadway
Englewood, Colorado 80113
303.703.4444
LIVEYOURCORE.COM

Photo ID	Date	Latitude	Longitude	Subject	Direction Taken
JP_001	1/26/2022	38.975207	-104.670271	Eastern Stream	North
Description: Northern end of the eastern streambed, downstream of the house in the northeastern corner of the Project Area.					

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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.					

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Photo ID	Date	Latitude	Longitude	Subject	Direction Taken
JP_003	1/26/2022	38.973635	-104.670413	Large Pond	South
Description: Looking downstream at the larger pond in the Project Area, with surrounding vegetation including peachleaf willows, narrowleaf cottonwood, plains cottonwood, red-osier dogwood, and ponderosa pine. Cattails are visible at the far end of the pond.					

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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.					

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Photo ID	Date	Latitude	Longitude	Subject	Direction Taken
JP_005	1/26/2022	38.972817	-104.67092	Small Pond	South
Description: Looking south from the top of the dam on the large pond. The smaller pond is visible with willows at center-left in the photo.					

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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.					

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Photo ID	Date	Latitude	Longitude	Subject	Direction Taken
JP_007	1/26/2022	38.970828	-104.671681	Southern Meadow	Southwest
Description: Broad view of the large meadow at the southern end of the Project Area.					

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Photo ID	Date	Latitude	Longitude	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.					

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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.					

CORE

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 large enough to host large raptors.					

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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.					

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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.					

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Photo ID	Date	Latitude	Longitude	Subject	Direction Taken
JP_013	1/26/2022	38.974236	-104.676651	Western Stream	Southeast
Description: Looking downstream below the headwaters of the western stream.					

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Photo ID	Date	Latitude	Longitude	Subject	Direction 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.					

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Photo ID	Date	Latitude	Longitude	Subject	Direction Taken
JP_015	1/26/2022	38.967246	-104.675581	Stream Culvert	East
Description: Culvert under Vollmer Road at the southern end of the western stream.					

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Photo ID	Date	Latitude	Longitude	Subject	Direction Taken
JP_016	1/26/2022	38.969403	-104.67432	Southern Meadow	West
Description: Broad view across the meadow near the southern end of the Project Area.					

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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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Photo ID	Date	Latitude	Longitude	Subject	Direction Taken
JP_018	1/26/2022	38.973206	-104.675718	Burrowing Mammal Activity	N/A
Description: Burrowing activity of unknown rodents in the central-western part of the Project Area.					

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Photo ID	Date	Latitude	Longitude	Subject	Direction Taken
JP_019	1/26/2022	38.971254	-104.676308	Western Stream	South
Description: Looking downstream along the western stream near the central-western part of the Project Area.					

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Photo ID	Date	Latitude	Longitude	Subject	Direction Taken
JP_020	1/26/2022	38.970858	-104.676388	Showy Milkweed	N/A
Description: Showy milkweed seed pods found along the western stream.					

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Photo ID	Date	Latitude	Longitude	Subject	Direction Taken
JP_021	1/26/2022	38.968794	-104.676246	Southern Meadow	North
Description: A broad view of the meadow at the southern end of the Project Area, taken along the western stream.					

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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: Looking upstream along the western stream from near its southern terminus within the Project Area.					

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Englewood, Colorado 80113
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Photo ID	Date	Latitude	Longitude	Subject	Direction Taken
JP_023	1/26/2022	38.97528	-104.675763	Western Tributary	North
Description: Looking upstream near the headwaters of the western stream.					

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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.					

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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.					

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Photo ID	Date	Latitude	Longitude	Subject	Direction Taken
Raptor Nest 3	1/26/2022	38.971883	-104.670614	Inactive Raptor Nest	South
Description: Inactive raptor nest in the crown of a ponderosa pine along Vollmer Road.					

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Photo ID	Date	Latitude	Longitude	Subject	Direction Taken
Raptor Nest 4	1/26/2022	38.970957	-104.671537	Inactive Raptor Nest	South
Description: Inactive raptor nest in a ponderosa pine along Vollmer Road.					

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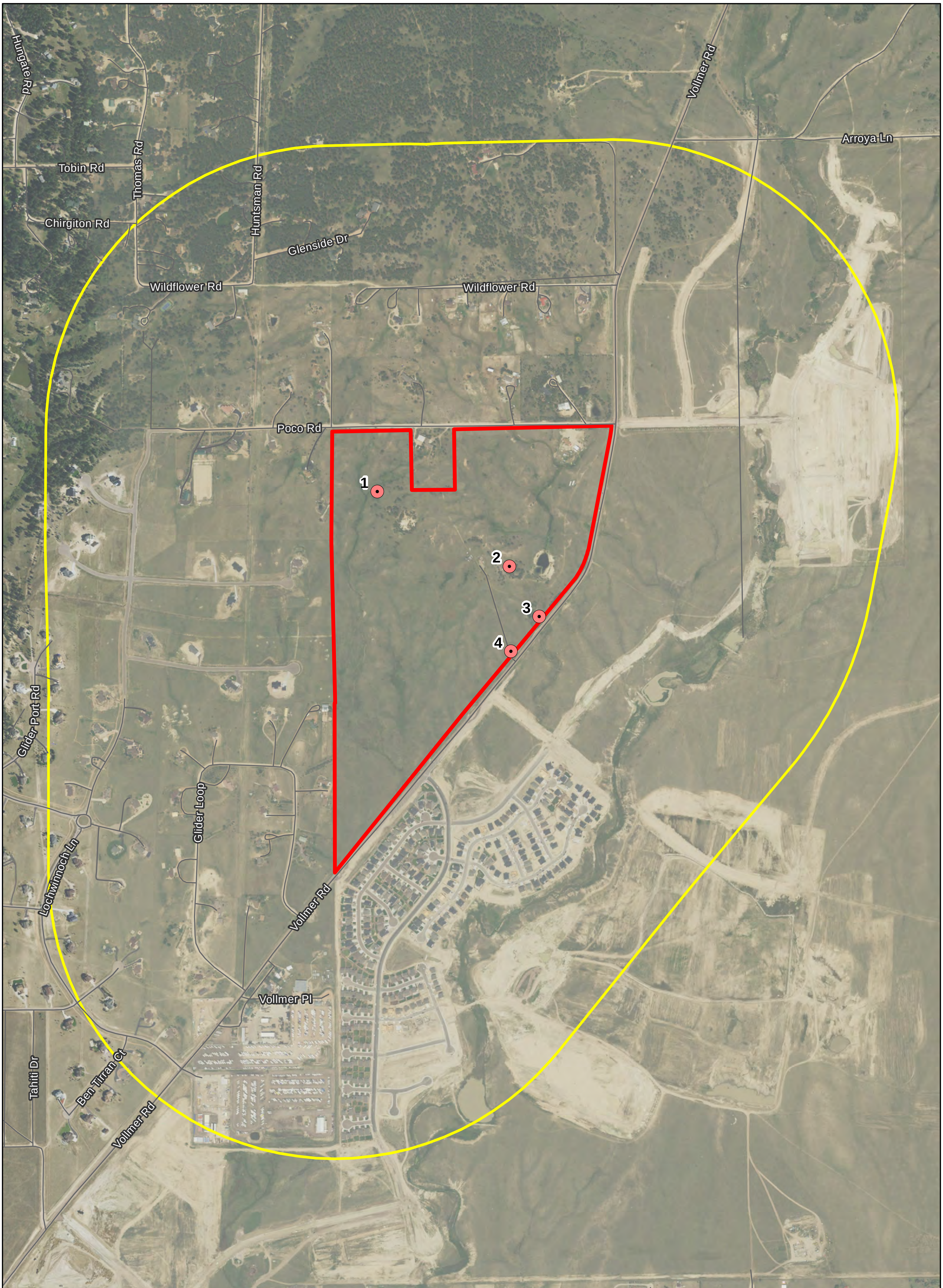
ATTACHMENT IV

RAPTOR NESTS MAP



Jayne's Parcel

Raptor Nests Map

El Paso County, CO

Project Boundary

Study Area

Street

Raptor Nest

Inactive Unidentified Species

0 1,000

Feet

N

Project #: 22-008

Date: 2/2/2022

Reference: USGS Topographic Quad: Falcon NW
CORE Consultants 2022, USDA 2021

CORE
LAND DEVELOPMENT
ENERGY
PUBLIC INFRASTRUCTURE

From:	Adams, Tyler R CIV USARMY CESPA (USA)
To:	Natalie Graves
Subject:	AJD for the Classic Communities- Jayne"s Parcel (SPA-2022-00163)
Date:	Friday, April 22, 2022 11:23:58 AM

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 <ngraves@liveyourcore.com>
Sent: Friday, March 25, 2022 2:03 PM
To: SPA-RD-CO <SPA-RD-CO@usace.army.mil>
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

CORE

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
To:	SPA-RD-CO
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

CORE

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

March 25, 2022

U.S. Army Corps of Engineers
Albuquerque District-Pueblo Regulatory Office
201 West 8th 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
  - Phone: 719-499-3125
  - E-Mail: lorenm@classichomes.com
- Consultant Contact Information:
  - Name: Natalie Graves
  - Phone: 720-520-3589
  - E-Mail: ngraves@liveyourcore.com
- Latitude/Longitude for Project Access:
  - 38.976682°, -104.668357°
- Name of watershed:
  - 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.

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-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

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 (Attachment II: PL 01). The drainage channel was directed south, parallel 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 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-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 the access road (Attachment II: PL 7). No evidence of continuation of the swale 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.

Natalie Graves

Natalie Graves
Natural Resources Project Manager

REFERENCES

FEMA (Federal Emergency Management Agency). 2022. National Flood Hazard Layer. FEMA Flood Map Service Center. https://msc.fema.gov/portal/home. 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.

NWS (National Weather Service). 2022. NWS Forecast Office Pueblo, Colorado. https://www.weather.gov/pub/. Accessed March 2022.

USFWS (U.S. Fish and Wildlife Service). 2012. Preble's Meadow Jumping Mouse Block Clearance Map: Colorado Springs. Updated February 23, 2012. https://www.fws.gov/mountainprairie/es/species/mammals/preble/BLOCK_CLEARANCE/2-8-2012_CO_Springs_Prebles_Block_Clearance_Map_USFWS_REDUCED.pdf. Accessed March 2022.

USFWS. 2022. Information for Planning and Consultation. https://ecos.fws.gov/ipac/. Accessed March 2022.

ATTACHMENT I

JURISDICTIONAL DETERMINATION REQUEST FORM

3473 South Broadway
Englewood, Colorado 80113
303.703.4444
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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: 8455 Poco Road City: Colorado Springs County: El Paso
State: CO Zip: 80908 Section: 28, 33 Township: 12 South Range: 65 West
Latitude (decimal degrees): 38.976682 Longitude (decimal degrees): -104.668357
The approximate size of the review area for the JD is 141 acres. **(Please attach location map)**

Choose one:
- ☐ I currently own this property.
- ☐ I plan to purchase this property.
- ☑ I am an agent/consultant acting on behalf of the requestor.
- ☐ Other: ______

Choose one:
- ☑ I am requesting an Approved JD.
- ☐ I am requesting a Preliminary JD.
- ☐ I am unclear as to which JD I would like to request and require additional information to inform my decision.

Reason for request: (check all that apply)
- ☐ I intend to construct/develop a project or perform activities on this parcel/review area which would be designed to avoid all aquatic resources.
- ☐ I intend to construct/develop a project or perform activities on this parcel/review area which would be designed to avoid all jurisdictional aquatic resources under Corps authority.
- ☑ 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 activities on this parcel/review area which may require authorization from the Corps; this request is accompanied by my permit application and the JD is to be used in the permitting process.
- ☐ I intend to construct/develop a project or perform activities in a navigable water of the U.S. which is included on the district's list of navigable waters under Section 10 of the Rivers and Harbors Act of 1899.
- ☐ A JD is required in order to obtain my local/state authorization.
- ☐ I intend to contest jurisdiction over a particular aquatic resource and request the Corps confirm that jurisdiction does/does not exist over the aquatic resource on the parcel/review.
- ☐ I believe that the parcel/review area may be comprised entirely of dry land.

Other: ______

Attached Information:
- ☑ Maps depicting the general location and aquatic resources within the review area consistent with Map and Drawing Standards for the South Pacific Division Regulatory Program http://www.spd.usace.army.mil/Missions/Regulatory/Public-Notices-and-References/Article/651327/updated-map-and-drawing-standards/)
- ☑ Aquatic Resources Delineation Report consistent with current wetland and ordinary high water mark delineation manual/supplements available at: http://www.spa.usace.army.mil/Missions/Regulatory-Program-and-Permits/Jurisdiction/

By signing below, you are indicating that you have the authority, or are acting as the duly authorized agent of a person or entity with such authority, to and do hereby grant Corps personnel right of entry to legally access the site if needed to perform the JD. Your signature shall be an affirmation that you possess the requisite property rights to request a JD on the subject property.

*Signature: Natalie Graves Date: 03/25/2022
Name: Natalie Graves Company name: CORE Consultants, Inc.
Address: 3473 S Broadway, Englewood, CO 80113

Telephone: 720-520-3589 Email: ngraves@liveyourcore.com

***Authorities:** Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Marine Protection, Research, and Sanctuaries Act, Section 103, 33 USC 1413; Regulatory Program 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

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Photo Location 01. Looking northwest at drainage channel on east side of Vollmer Road.

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Photo Location 01. Looking southeast at drainage channel and development on east side of Vollmer Road.

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Photo Location 02. Looking south at drainage channel termination point. No apparent downstream connection to other aquatic resources.

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Photo Location 03. Looking southwest at stormwater facilities under residential development.

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Photo Location 04. Looking west at culvert outlet on east side of Vollmer Road.

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Photo Location 05. Looking southwest at meandering swale east of Vollmer Road.

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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.

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Photo Location 08. Looking west at east side of Vollmer Road.

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Photo Location 09. Looking east at meandering swale east of Vollmer Road.

CORE


Photo Location 10. Looking southeast at culvert inlet directed offsite under Vollmer Road.

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Photo Location 11. Looking northeast at a wetland pond, WT-A33, just downgradient of the manmade berm.

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Photo Location 12. Looking northwest at a manmade berm.

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Photo Location 13. Looking north at WT-A11.

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Photo Location 14. Culvert inlet near WT-A33 directed southeast offsite under Vollmer Road.


Photo Location 15. Looking north at WT-A38.

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Photo Location 15. Culvert inlet near WT-A38 directed southeast offsite under Vollmer Road.

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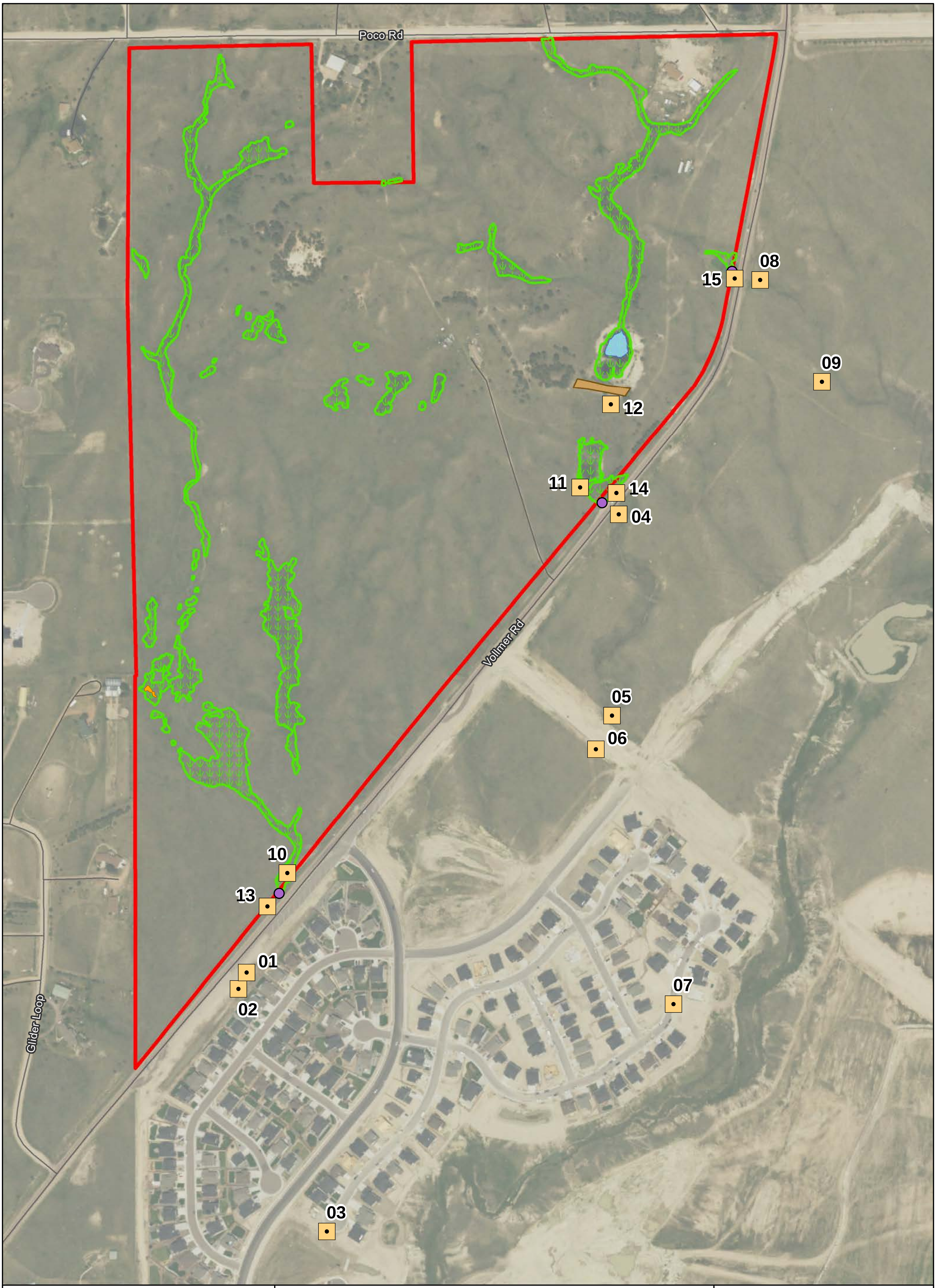
ATTACHMENT III

PHOTO LOCATION MAP



Project Boundary

Photo Location

Street

Culvert

Delineated Wetlands (PEM) 2/2022

Pond

Upland Inclusion

Manmade Dam

0 400
Feet

Jayne's Parcel

Photo Location Map

El Paso County, CO

Project #: 22-008
Date: 3/25/2022

Reference: USGS Topographic Quad: Falcon NW
CORE Consultants 2022, USDA 2021, USGS 2021

CORE
LAND DEVELOPMENT
ENERGY
PUBLIC INFRASTRUCTURE

ATTACHMENT IV

WETLAND DELINEATION REPORT

3473 South Broadway
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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 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

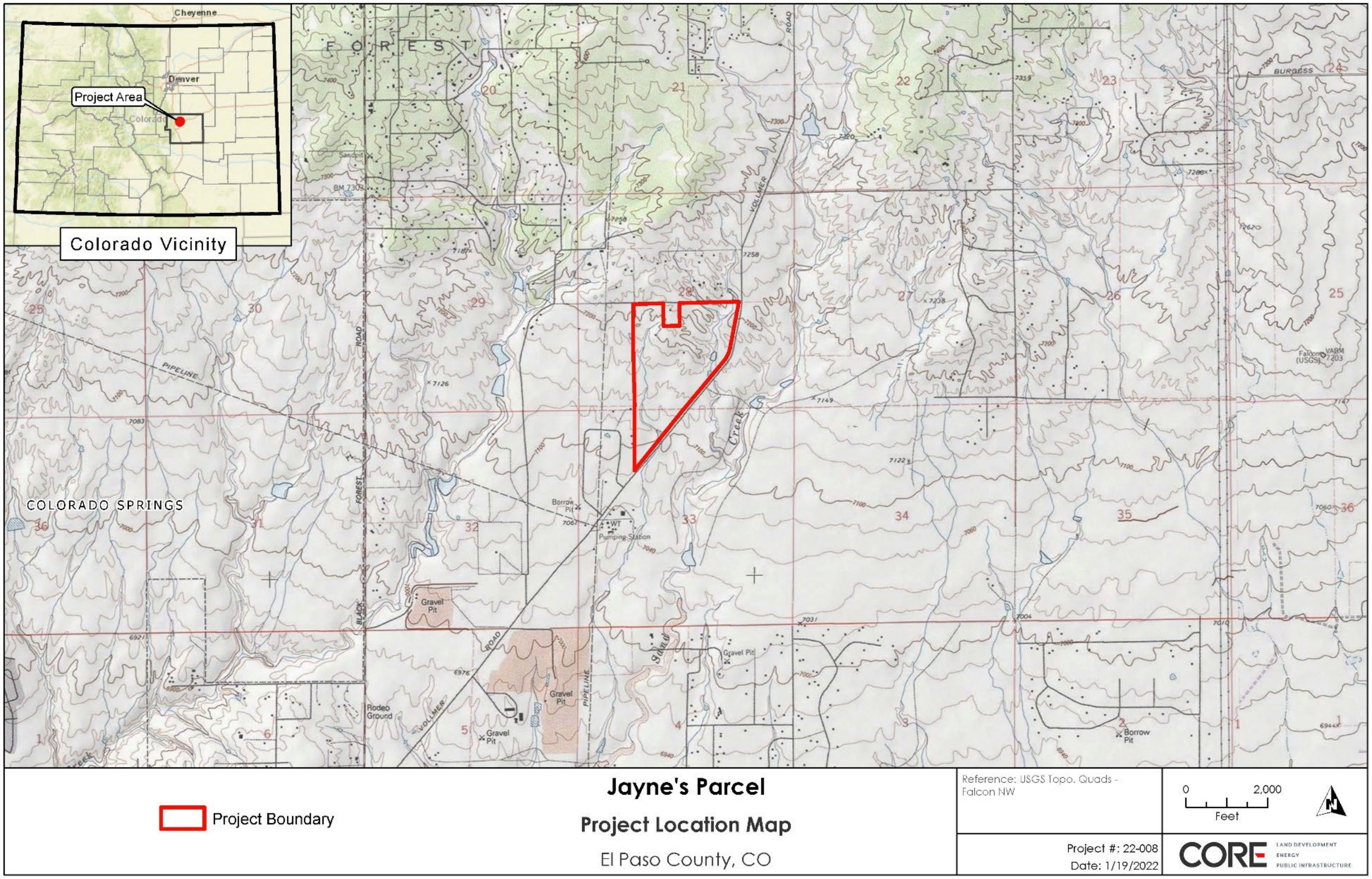

Figure 3.1 Project Location Map

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).

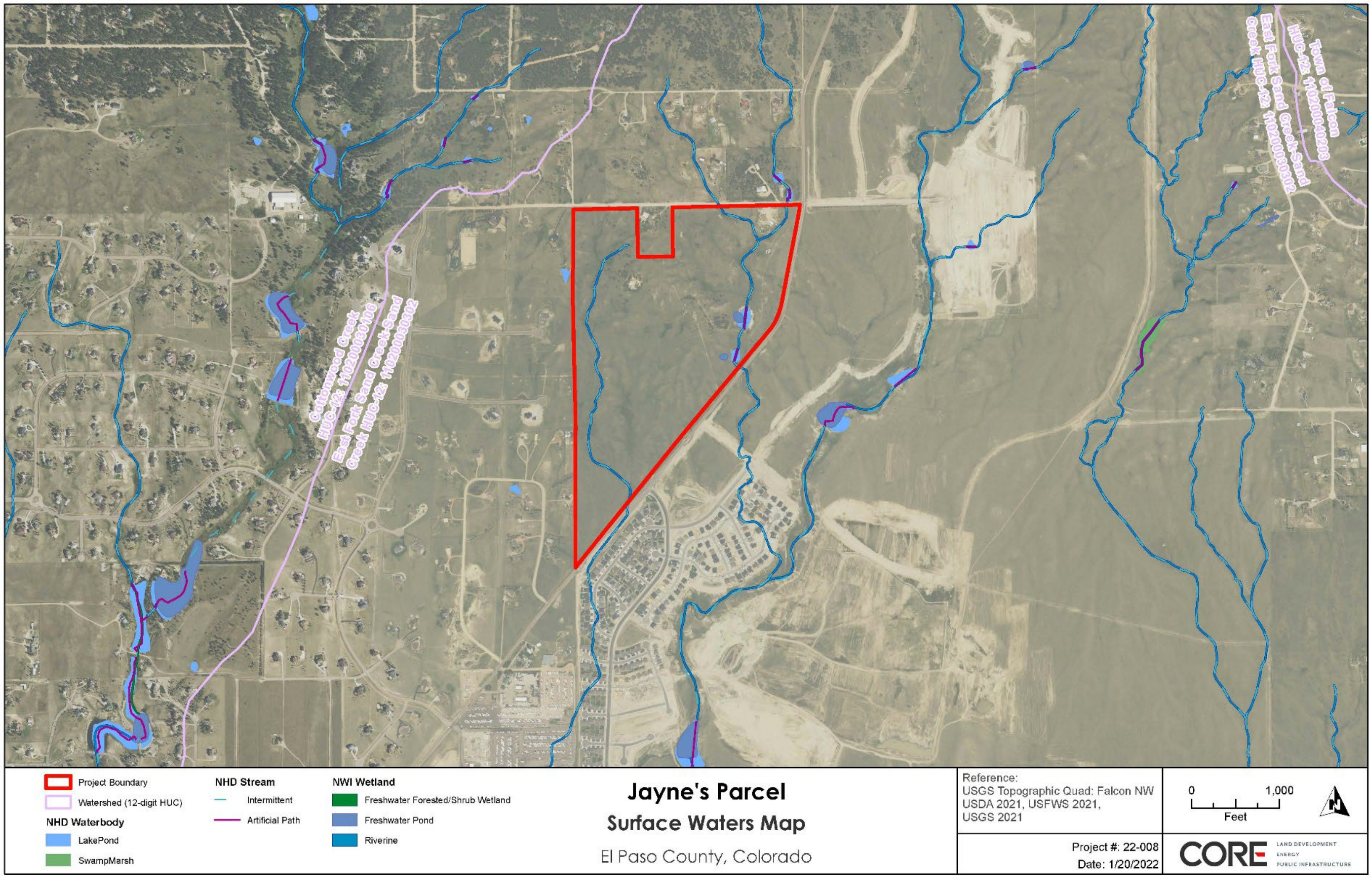

Figure 4.1 Surface Waters Map

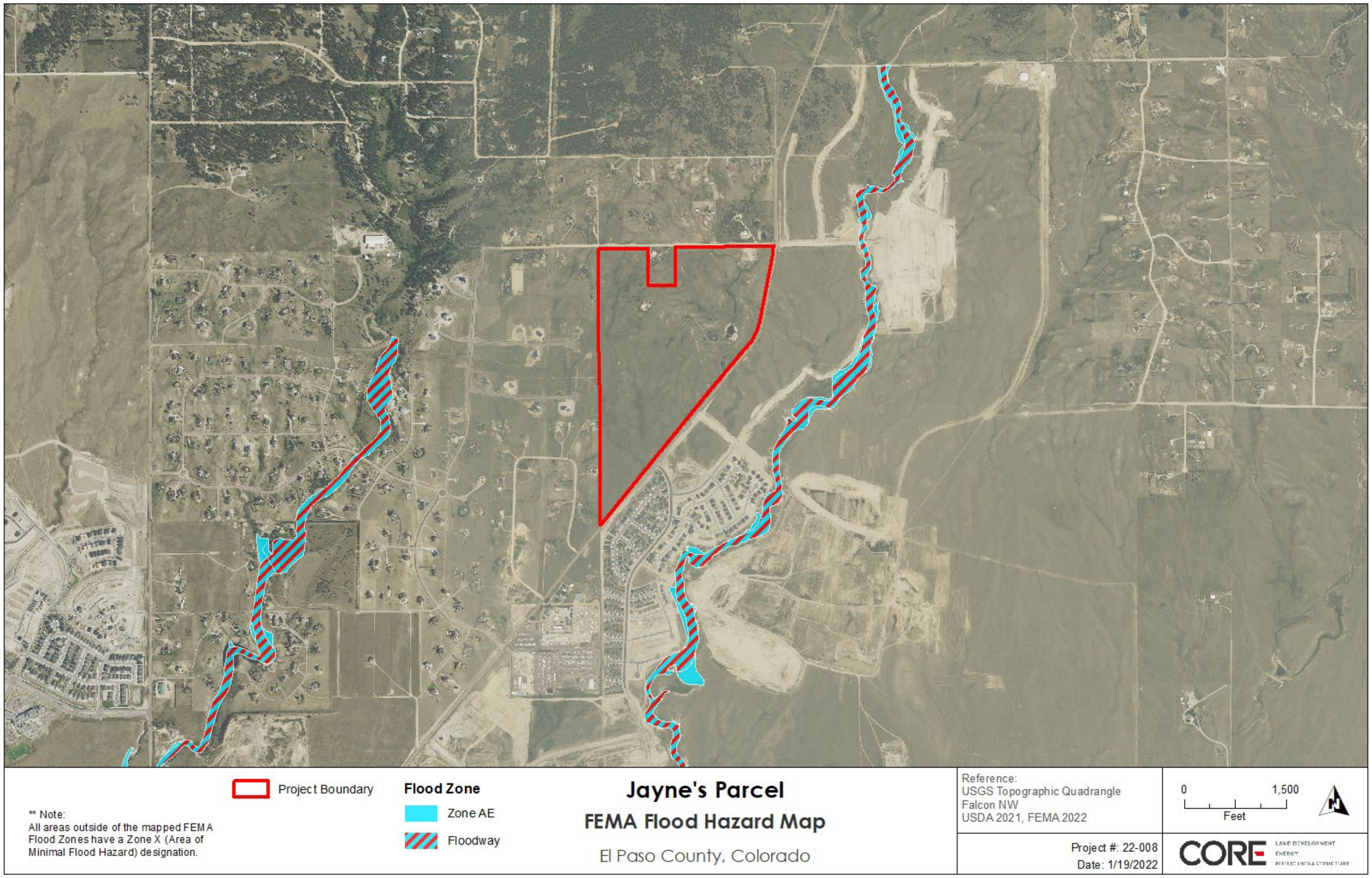

Figure 4.2 FEMA Flood Hazard Map

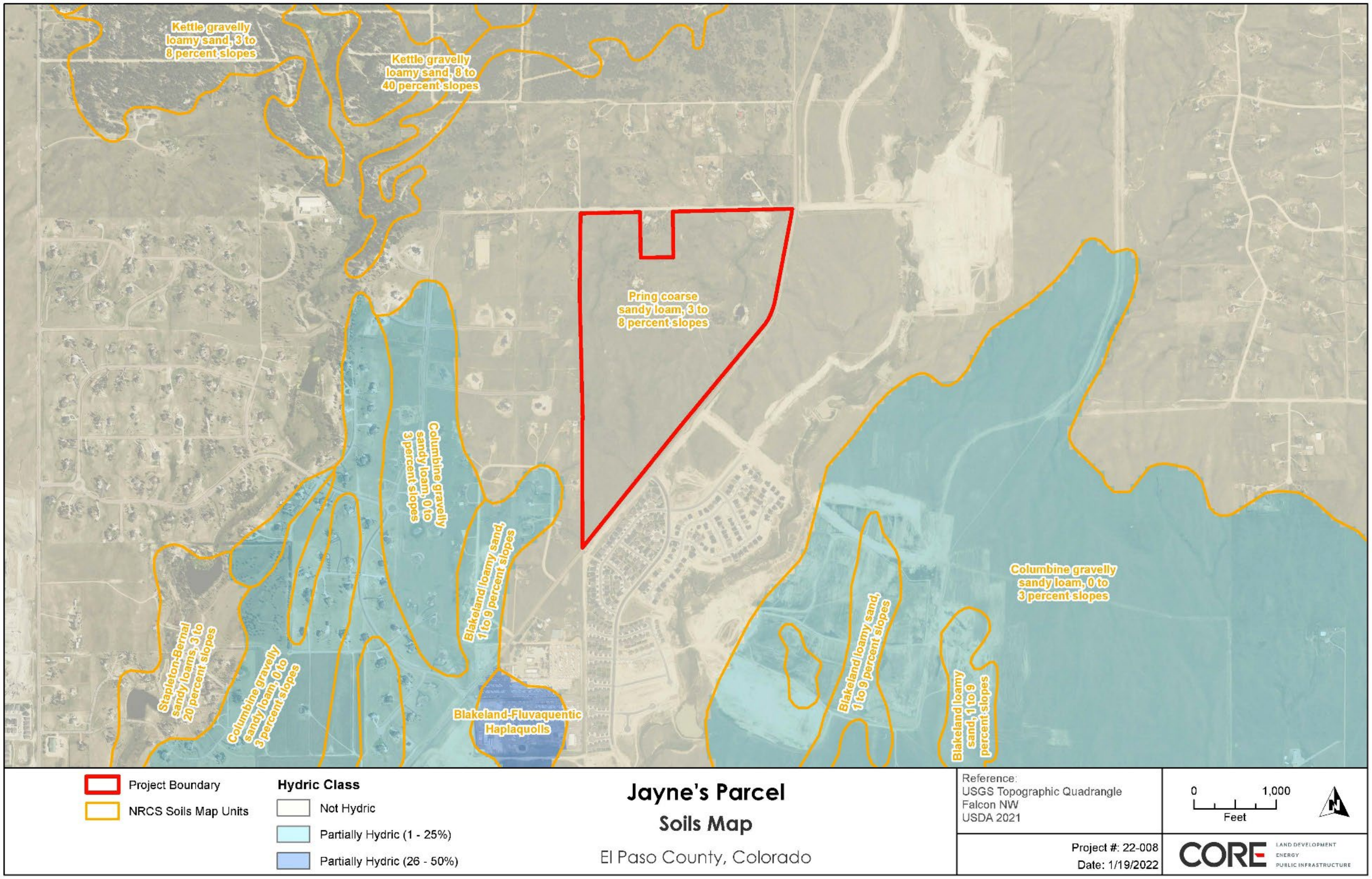

Figure 4.3 Soils Map

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 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
GRAMINOIDS/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[1]	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[1]	Musk thistle	UPL
Centaurea diffusa[1]	Diffuse knapweed	UPL

SCIENTIFIC NAME	COMMON NAME	WETLAND INDICATOR STATUS
Cirsium arvense[1]	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[1]	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

[1]Colorado-listed Noxious Weed (Colorado Department of Agriculture 2022).

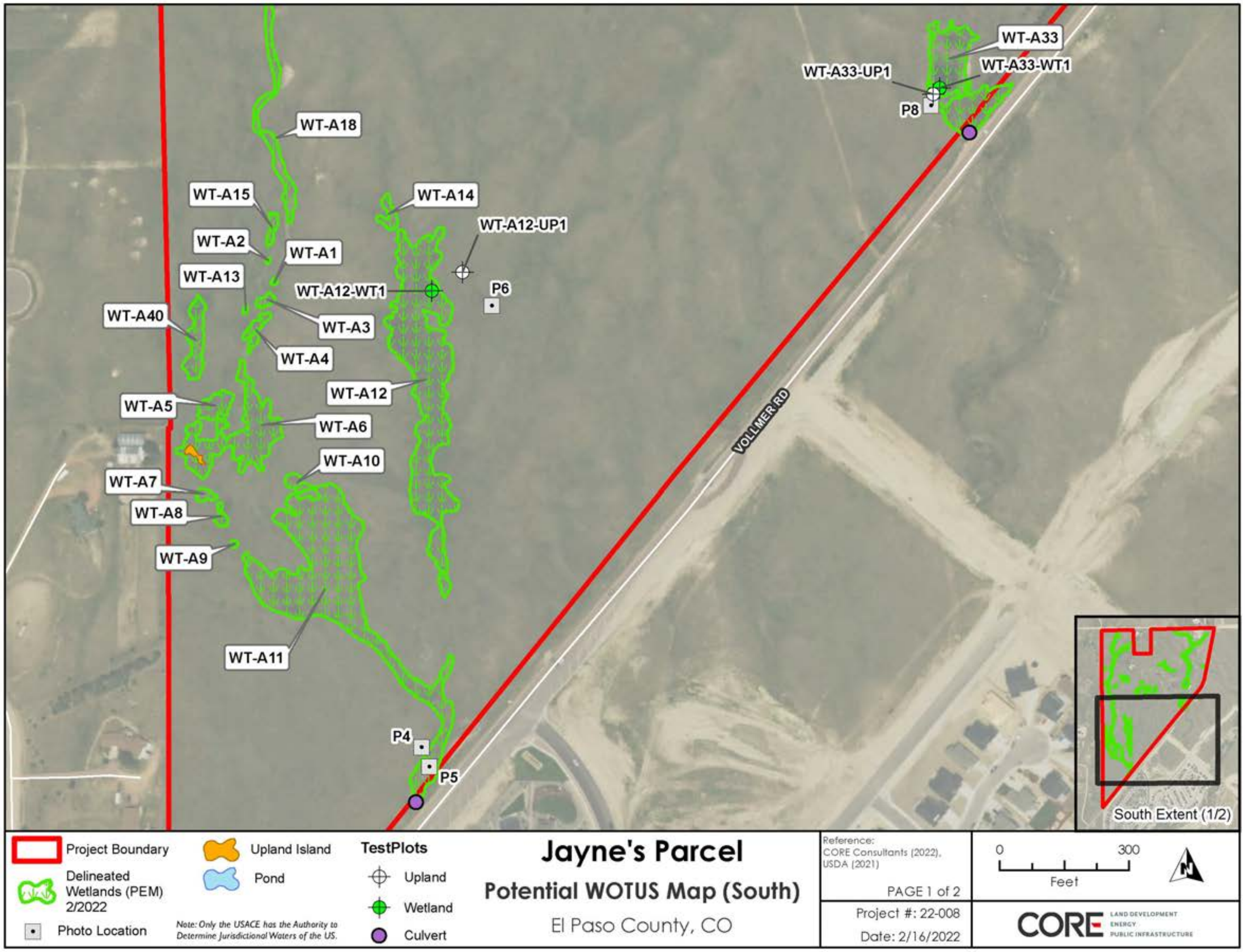

Figure 4.4 Potential WOTUS Location Map (South)

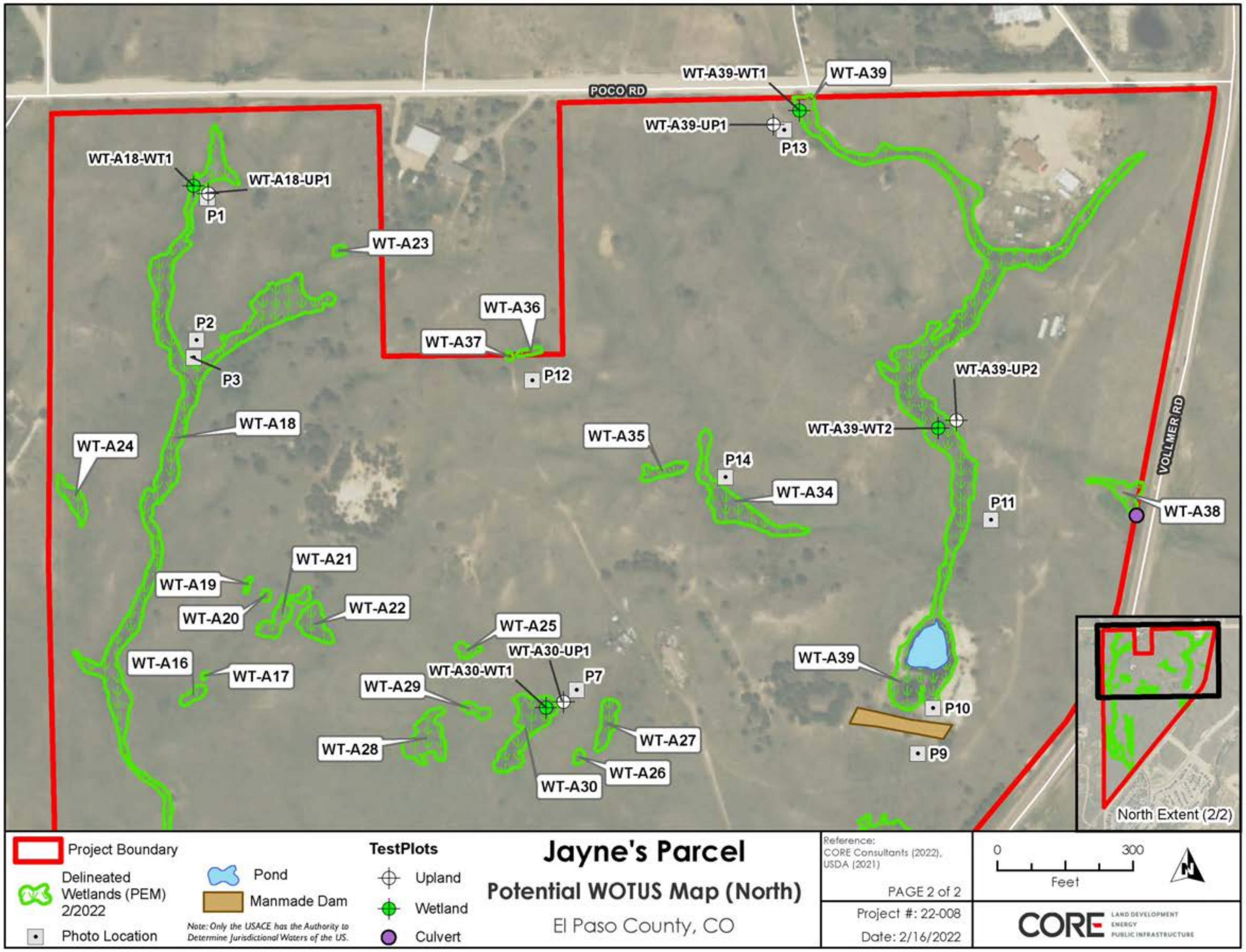

Figure 4.4 Potential WOTUS Location Map (North)

5 CONCLUSIONS

CORE delineated the boundary of 38 PEM wetlands and one pond within the Study Area. The 141-acre 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

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

Project/Site: Jayne's Parcel City/County: El Paso Sampling Date: 2/1/22

Applicant/Owner: ______ State: CO Sampling Point: WT-A12-UP1

Investigator(s): S. Clark Section, Township, Range: S28 and 33, T12S, R65W

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

Subregion (LRR): E Lat: 38°58'35.40"N Long: - 104°40'18.06"W Datum: WGS84

Soil Map Unit Name: Pring coarse sandy loam, 3-8% slopes NWI classification: 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 ___ significantly disturbed? Are "Normal Circumstances" present? Yes x No ___

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

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

	Yes	No
Hydrophytic Vegetation Present?		x
Hydric Soil Present?		x
Wetland Hydrology Present?		x

Is the Sampled Area within a Wetland? **Yes** ___ **No** x

Remarks:

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: NA)			
1.			
2.			
3.			
4.			
= Total Cover			
Sapling/Shrub Stratum (Plot size: NA)			
1.			
2.			
3.			
4.			
5.			
= Total Cover			
Herb Stratum (Plot size: 5')			
1. Artemisia ludoviciana	10		FACU
2. Schizachyrium scoparium	20	x	UPL
3. Bouteloua gracilis	20	x	UPL
4. Aristida purpurea	10		UPL
5. Sporobolus heterolepis	10		FACU
6. Symphyotrichum cf. falcatum	10		FACU
7.			
8.			
9.			
10.			
11.			
= Total Cover	60		
Woody Vine Stratum (Plot size: NA)			
1.			
2.			
= Total Cover			

% Bare Ground in Herb Stratum 40

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:
OBL species	0	x 1 = 0
FACW species	0	x 2 = 0
FAC species	0	x 3 = 0
FACU species	30	x 4 = 120
UPL species	50	x 5 = 250
Column Totals:	80 (A)	370 (B)

Prevalence Index = B/A = 4.63

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation
___ 2 - Dominance Test is >50%
___ 3 - Prevalence Index is ≤3.0[1]
___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ 5 - Wetland Non-Vascular Plants[1]
___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? **Yes** ___ **No** x

Remarks:
Based on the time of year, species identifications were made based on remnant foliage and position on the landscape.

SOIL

Sampling Point: WT-A12-UP1

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

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

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

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

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Loamy Mucky Mineral (F1) (**except MLRA 1**)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

___ 2 cm Muck (A10)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: Frozen

Depth (inches): 7

Hydric Soil Present? Yes ______ No X

Remarks:

Unlikely to be hydric due to plant community and landscape position.

HYDROLOGY

Wetland Hydrology Indicators:

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

___ Surface Water (A1)
___ High Water Table (A2)
___ Saturation (A3)
___ Water Marks (B1)
___ Sediment Deposits (B2)
___ Drift Deposits (B3)
___ Algal Mat or Crust (B4)
___ Iron Deposits (B5)
___ Surface Soil Cracks (B6)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B)**
___ Salt Crust (B11)
___ Aquatic Invertebrates (B13)
___ Hydrogen Sulfide Odor (C1)
___ Oxidized Rhizospheres along Living Roots (C3)
___ Presence of Reduced Iron (C4)
___ Recent Iron Reduction in Tilled Soils (C6)
___ Stunted or Stressed Plants (D1) (**LRR A**)
___ Other (Explain in Remarks)

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)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ FAC-Neutral Test (D5)
___ Raised Ant Mounds (D6) (**LRR A**)
___ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ______ No x Depth (inches): ____________
Water Table Present? Yes ______ No x Depth (inches): ____________
Saturation Present? (includes capillary fringe) Yes ______ No x Depth (inches): ____________

Wetland Hydrology Present? Yes ______ No X

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

Remarks:

Unlikely to have wetland hydrology due to landscape position.

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

Project/Site: Jayne's Parcel City/County: El Paso Sampling Date: 2/1/22

Applicant/Owner: ______ State: CO Sampling Point: WT-A12-WT1

Investigator(s): S. Clark Section, Township, Range: S28 and 33, T12S, R65W

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

Subregion (LRR): E Lat: 38°58'35.67"N Long: - 104°40'17.43"W Datum: WGS84

Soil Map Unit Name: Pring coarse sandy loam, 3-8% slopes NWI classification: R4SBC

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

Are Vegetation ___, Soil ___, or Hydrology ___ significantly disturbed? Are "Normal Circumstances" present? Yes x No ___

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

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

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

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: NA)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
= Total Cover			
Sapling/Shrub Stratum (Plot size: NA)			
1.			
2.			
3.			
4.			
5.			
= Total Cover			
Herb Stratum (Plot size: 5')			
1. Epilobium cf. ciliatum	2		FACW
2. Juncus arcticus	80	x	FACW
3. Cirsium arvense	15		FAC
4. Lactuca serriola	2		FACU
5. Typha sp.	10		OBL
6. Achillea millefolium	2		FACU
7. Pascopyrum smithii	5		FACU
8.			
9.			
10.			
11.			
= Total Cover	116		
Woody Vine Stratum (Plot size: NA)			
1.			
2.			
= Total Cover			
% Bare Ground in Herb Stratum 0			

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:
OBL species	10	x 1 = 10
FACW species	82	x 2 = 164
FAC species	15	x 3 = 45
FACU species	9	x 4 = 36
UPL species		x 5 =
Column Totals:	116 (A)	255 (B)

Prevalence Index = B/A = 2.20

Hydrophytic Vegetation Indicators:

- x 1 - Rapid Test for Hydrophytic Vegetation
- x 2 - Dominance Test is >50%
- x 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ 5 - Wetland Non-Vascular Plants[1]
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes x No ___

Remarks:
Based on the time of year, species identifications were made based on remnant foliage and position on the landscape.

SOIL

Sampling Point: WT-A12-WT1

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

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

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

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

- [ ] Histosol (A1)
- [ ] Histic Epipedon (A2)
- [ ] Black Histic (A3)
- [ ] Hydrogen Sulfide (A4)
- [ ] Depleted Below Dark Surface (A11)
- [ ] Thick Dark Surface (A12)
- [ ] Sandy Mucky Mineral (S1)
- [ ] Sandy Gleyed Matrix (S4)
- [ ] Sandy Redox (S5)
- [ ] Stripped Matrix (S6)
- [ ] Loamy Mucky Mineral (F1) (**except MLRA 1**)
- [ ] Loamy Gleyed Matrix (F2)
- [ ] Depleted Matrix (F3)
- [x] Redox Dark Surface (F6)
- [ ] Depleted Dark Surface (F7)
- [ ] Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- [ ] 2 cm Muck (A10)
- [ ] Red Parent Material (TF2)
- [ ] Very Shallow Dark Surface (TF12)
- [ ] Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: Frozen

Depth (inches): 2

Hydric Soil Present? Yes X No ____

Remarks:

This soil may be similar to DP-1 and meet the F6 hydric soil indicator.

HYDROLOGY

Wetland Hydrology Indicators:

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

- [ ] Surface Water (A1)
- [ ] High Water Table (A2)
- [ ] Saturation (A3)
- [ ] Water Marks (B1)
- [ ] Sediment Deposits (B2)
- [ ] Drift Deposits (B3)
- [ ] Algal Mat or Crust (B4)
- [ ] Iron Deposits (B5)
- [ ] Surface Soil Cracks (B6)
- [ ] Inundation Visible on Aerial Imagery (B7)
- [ ] Sparsely Vegetated Concave Surface (B8)
- [ ] Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B)**
- [ ] Salt Crust (B11)
- [ ] Aquatic Invertebrates (B13)
- [ ] Hydrogen Sulfide Odor (C1)
- [ ] Oxidized Rhizospheres along Living Roots (C3)
- [ ] Presence of Reduced Iron (C4)
- [ ] Recent Iron Reduction in Tilled Soils (C6)
- [ ] Stunted or Stressed Plants (D1) (**LRR A**)
- [ ] Other (Explain in Remarks)

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)
- [x] Geomorphic Position (D2)
- [ ] Shallow Aquitard (D3)
- [x] FAC-Neutral Test (D5)
- [ ] Raised Ant Mounds (D6) (**LRR A**)
- [ ] Frost-Heave Hummocks (D7)

Field Observations:

	Yes	No	Depth (inches)
Surface Water Present?		x	
Water Table Present?		x	
Saturation Present? (includes capillary fringe)		x	

Wetland Hydrology Present? Yes X No ____

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

Remarks:

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

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: S28 and 33, T12S, R65W

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): concave Slope (%): 10

Subregion (LRR): E Lat: 38°58'34.00"N Long: - 104°40'33.94"W Datum: WGS84

Soil Map Unit Name: Pring coarse sandy loam, 3-8% slopes NWI classification: 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 ___ significantly disturbed? Are "Normal Circumstances" present? Yes x No ___

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

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

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

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: NA)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
= Total Cover			
Sapling/Shrub Stratum (Plot size: NA)			
1.			
2.			
3.			
4.			
5.			
= Total Cover			
Herb Stratum (Plot size: 5')			
1. Schizachyrium scoparium	20	x	UPL
2. Bouteloua gracilis	40	x	UPL
3. Artemisia ludoviciana	2		FACU
4. Sporobolus cf. heterolepis	20	x	FACU
5. Heterotheca villosa	2		UPL
6. Pascopyrum smithii	2		FACU
7. Aristida purpurea	5		UPL
8. Sporobolus cryptandrus	5		FACU
9.			
10.			
11.			
= Total Cover	96		
Woody Vine Stratum (Plot size: NA)			
1.			
2.			
= Total Cover			
% Bare Ground in Herb Stratum 4			

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:
OBL species	0	x 1 = 0
FACW species	0	x 2 = 0
FAC species	0	x 3 = 0
FACU species	27	x 4 = 108
UPL species	69	x 5 = 345
Column Totals:	96 (A)	453 (B)

Prevalence Index = B/A = 4.72

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- ___ 2 - Dominance Test is >50%
- ___ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ 5 - Wetland Non-Vascular Plants[1]
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? **Yes** ___ **No** x

Remarks:
Based on the time of year, species identifications were made based on remnant foliage and position on the landscape.

SOIL

Sampling Point: WT-A18-UP1

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 2/1	100					Coarse sandy Loam	

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

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

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Loamy Mucky Mineral (F1) (**except MLRA 1**)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

___ 2 cm Muck (A10)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: Frozen

Depth (inches): 4

Hydric Soil Present? Yes ______ No X

Remarks:
Unlikely to be hydric due to plant community and landscape position.

HYDROLOGY

Wetland Hydrology Indicators:

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

___ Surface Water (A1)
___ High Water Table (A2)
___ Saturation (A3)
___ Water Marks (B1)
___ Sediment Deposits (B2)
___ Drift Deposits (B3)
___ Algal Mat or Crust (B4)
___ Iron Deposits (B5)
___ Surface Soil Cracks (B6)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B)**
___ Salt Crust (B11)
___ Aquatic Invertebrates (B13)
___ Hydrogen Sulfide Odor (C1)
___ Oxidized Rhizospheres along Living Roots (C3)
___ Presence of Reduced Iron (C4)
___ Recent Iron Reduction in Tilled Soils (C6)
___ Stunted or Stressed Plants (D1) (**LRR A**)
___ Other (Explain in Remarks)

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)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ FAC-Neutral Test (D5)
___ Raised Ant Mounds (D6) (**LRR A**)
___ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ______ No x Depth (inches): ________
Water Table Present? Yes ______ No x Depth (inches): ________
Saturation Present? (includes capillary fringe) Yes ______ No x Depth (inches): ________

Wetland Hydrology Present? Yes ______ No X

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

Remarks:
Unlikely to have wetland hydrology due to landscape position.

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

Project/Site: Jayne's Parcel City/County: El Paso Sampling Date: 2/1/22

Applicant/Owner: ______ State: CO Sampling Point: WT-A18-WT1

Investigator(s): S. Clark Section, Township, Range: S28 and 33, T12S, R65W

Landform (hillslope, terrace, etc.): swale Local relief (concave, convex, none): concave Slope (%): 5

Subregion (LRR): E Lat: 38°58'34.17"N Long: -104°40'34.34"W Datum: WGS84

Soil Map Unit Name: Pring coarse sandy loam, 3-8% slopes NWI classification: 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 ___ significantly disturbed? Are "Normal Circumstances" present? Yes x No ___

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

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

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

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: NA)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
= Total Cover			
Sapling/Shrub Stratum (Plot size: NA)			
1.			
2.			
3.			
4.			
5.			
= Total Cover			
Herb Stratum (Plot size: 5')			
1. Juncus arcticus	90	x	FACW
2. Carex sp.	20		FACW
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
= Total Cover	110		
Woody Vine Stratum (Plot size: NA)			
1.			
2.			
= Total Cover			
% Bare Ground in Herb Stratum 0			

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species	110	x 2 =	220
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	110 (A)		220 (B)

Prevalence Index = B/A = 2

Hydrophytic Vegetation Indicators:

- x 1 - Rapid Test for Hydrophytic Vegetation
- x 2 - Dominance Test is >50%
- x 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ 5 - Wetland Non-Vascular Plants[1]
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? **Yes** x **No** ___

Remarks:
Based on the time of year, species identifications were made based on remnant foliage and position on the landscape.

SOIL

Sampling Point: WT-A18-WT1

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	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	C	M/PL	Sandy Clay Loam	

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

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

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- _x_ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: frozen

Depth (inches): 18

Hydric Soil Present? Yes X **No** ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B)**
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- _x_ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Stunted or Stressed Plants (D1) (**LRR A**)
- ___ Other (Explain in Remarks)

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)
- _x_ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- _x_ FAC-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) (**LRR A**)
- ___ Frost-Heave Hummocks (D7)

Field Observations:

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

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

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

Wetland Hydrology Present? Yes X **No** ___

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

Remarks:

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

Project/Site: Jayne's Parcel City/County: El Paso Sampling Date: 2/1/22

Applicant/Owner: ______ State: CO Sampling Point: WT-A30-UP1

Investigator(s): S. Clark Section, Township, Range: S28 and 33, T12S, R65W

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): concave Slope (%): 25

Subregion (LRR): E Lat: 38°58'14.57"N Long: - 104°40'29.61"W Datum: WGS84

Soil Map Unit Name: Pring coarse sandy loam, 3-8% slopes NWI classification: 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 ___ significantly disturbed? Are "Normal Circumstances" present? Yes x No ___

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

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

Hydrophytic Vegetation Present?	Yes ___	No x
Hydric Soil Present?	Yes ___	No x
Wetland Hydrology Present?	Yes ___	No x

Is the Sampled Area within a Wetland? **Yes** ___ **No** x

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: NA)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
= Total Cover			
Sapling/Shrub Stratum (Plot size: NA)			
1.			
2.			
3.			
4.			
5.			
= Total Cover			
Herb Stratum (Plot size: 5')			
1. Schizachyrium scoparium	20		UPL
2. Sporobolus heterolepis	40	x	FACU
3. Andropogon gerardii	40	x	FACU
4. Cirsium arvense	2		FAC
5.			
6.			
7.			
8.			
9.			
10.			
11.			
= Total Cover	102		
Woody Vine Stratum (Plot size: NA)			
1.			
2.			
= Total Cover			

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	2	x 3 =	6
FACU species	80	x 4 =	320
UPL species	20	x 5 =	100
Column Totals:	102 (A)		426 (B)

Prevalence Index = B/A = 4.18

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- ___ 2 - Dominance Test is >50%
- ___ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ 5 - Wetland Non-Vascular Plants[1]
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? **Yes** ___ **No** x

Remarks:
Based on the time of year, species identifications were made based on remnant foliage and position on the landscape.

SOIL

Sampling Point: WT-A30-UP1

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

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

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

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

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Loamy Mucky Mineral (F1) (**except MLRA 1**)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

___ 2 cm Muck (A10)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: Frozen

Depth (inches): 7

Hydric Soil Present? Yes ______ No X

Remarks:

Unlikely to be hydric due to plant community and landscape position.

HYDROLOGY

Wetland Hydrology Indicators:

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

___ Surface Water (A1)
___ High Water Table (A2)
___ Saturation (A3)
___ Water Marks (B1)
___ Sediment Deposits (B2)
___ Drift Deposits (B3)
___ Algal Mat or Crust (B4)
___ Iron Deposits (B5)
___ Surface Soil Cracks (B6)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B)**
___ Salt Crust (B11)
___ Aquatic Invertebrates (B13)
___ Hydrogen Sulfide Odor (C1)
___ Oxidized Rhizospheres along Living Roots (C3)
___ Presence of Reduced Iron (C4)
___ Recent Iron Reduction in Tilled Soils (C6)
___ Stunted or Stressed Plants (D1) (**LRR A**)
___ Other (Explain in Remarks)

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)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ FAC-Neutral Test (D5)
___ Raised Ant Mounds (D6) (**LRR A**)
___ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ______ No __x__ Depth (inches): ____________
Water Table Present? Yes ______ No __x__ Depth (inches): ____________
Saturation Present? (includes capillary fringe) Yes ______ No __x__ Depth (inches): ____________

Wetland Hydrology Present? Yes ______ No X

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

Remarks:

Unlikely to have wetland hydrology due to landscape position.

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

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, Township, Range: S28 and 33, T12S, R65W

Landform (hillslope, terrace, etc.): swale Local relief (concave, convex, none): concave Slope (%): 7

Subregion (LRR): E Lat: - 38°58'14.18"N Long: - 104°40'30.34"W Datum: WGS84

Soil Map Unit Name: Pring coarse sandy loam, 3-8% slopes NWI classification: 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 ___ significantly disturbed? Are "Normal Circumstances" present? Yes x No ___

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

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

Hydrophytic Vegetation Present?	Yes x	No ___
Hydric Soil Present?	Yes x	No ___
Wetland Hydrology Present?	Yes x	No ___

Is the Sampled Area within a Wetland? **Yes** x **No** ___

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: NA)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: NA)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5')			
1. Juncus arcticus	60	x	FACW
2. Rumex crispus	2		FAC
3. Achillea millefolium	10		FACU
4. Pascopyrum smithii	10		FACU
5. Elymus trachycaulus	5		FAC
6. Agrostis cf. gigantea	20		FAC
7.			
8.			
9.			
10.			
11.			
	107 = Total Cover		
Woody Vine Stratum (Plot size: NA)			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:
OBL species	0	x 1 = 0
FACW species	60	x 2 = 120
FAC species	27	x 3 = 81
FACU species	20	x 4 = 80
UPL species	0	x 5 = 0
Column Totals:	107 (A)	281 (B)

Prevalence Index = B/A = 2.63

Hydrophytic Vegetation Indicators:

x 1 - Rapid Test for Hydrophytic Vegetation

x 2 - Dominance Test is >50%

x 3 - Prevalence Index is ≤3.0[1]

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

___ 5 - Wetland Non-Vascular Plants[1]

___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? **Yes** x **No** ___

Remarks:
Based on the time of year, species identifications were made based on remnant foliage and position on the landscape.

SOIL

Sampling Point: WT-A30-WT1

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-1	10YR 2/1	100					**Sandy loam with a sand seam**	

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

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

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- x Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: Frozen

Depth (inches): 2

Hydric Soil Present? **Yes** X **No** ___

Remarks:

This soil may be similar to DP-1 and meet the F6 hydric soil indicator.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B)**
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Stunted or Stressed Plants (D1) (**LRR A**)
- ___ Other (Explain in Remarks)

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)
- x Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- x FAC-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) (**LRR A**)
- ___ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes ___	No x	Depth (inches): ___
Water Table Present?	Yes ___	No x	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No x	Depth (inches): ___

Wetland Hydrology Present? **Yes** X **No** ___

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

Remarks:

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

Project/Site: Jayne's Parcel City/County: El Paso Sampling Date: 2/1/22

Applicant/Owner: ______ State: CO Sampling Point: WT-A33-UP1

Investigator(s): S. Clark Section, Township, Range: S28 and 33, T12S, R65W

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): concave Slope (%): 5

Subregion (LRR): E Lat: 38°58'22.79"N Long: - 104°40'24.10"W Datum: WGS84

Soil Map Unit Name: Pring coarse sandy loam, 3-8% slopes NWI classification: 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 ___ significantly disturbed? Are "Normal Circumstances" present? Yes x No ___

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

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

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

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: NA)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
= Total Cover			
Sapling/Shrub Stratum (Plot size: NA)			
1.			
2.			
3.			
4.			
5.			
= Total Cover			
Herb Stratum (Plot size: 5')			
1. Centaurea diffusa	20	x	UPL
2. Pascopyrum smithii	20	x	FACU
3. Sporobolus heterolepis	20	x	FACU
4. Achillea millefolium	10		FACU
5. Cirsium arvense	10		FAC
6. Schizachyrium scoparium	5		UPL
7. Bouteloua gracilis	5		UPL
8. Artemisia frigida	2		UPL
9. Elymus elymoides	10		FACU
10.			
11.			
= Total Cover	102		
Woody Vine Stratum (Plot size: NA)			
1.			
2.			
= Total Cover			
% Bare Ground in Herb Stratum 0			

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	10	x 3 =	30
FACU species	60	x 4 =	240
UPL species	32	x 5 =	160
Column Totals:	102 (A)		430 (B)

Prevalence Index = B/A = 4.22

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation
___ 2 - Dominance Test is >50%
___ 3 - Prevalence Index is ≤3.0[1]
___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ 5 - Wetland Non-Vascular Plants[1]
___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? **Yes** ___ **No** x

Remarks:
Based on the time of year, species identifications were made based on remnant foliage and position on the landscape.

SOIL

Sampling Point: WT-A33-UP1

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-9	10YR 2/1	100					Fine sandy loam	

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

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

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Loamy Mucky Mineral (F1) (**except MLRA 1**)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

___ 2 cm Muck (A10)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

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

Restrictive Layer (if present):
Type: Frozen
Depth (inches): 9

Hydric Soil Present? Yes ___ No X

Remarks:
Unlikely to be hydric due to plant community and landscape position.

HYDROLOGY

Wetland Hydrology Indicators:

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

___ Surface Water (A1)
___ High Water Table (A2)
___ Saturation (A3)
___ Water Marks (B1)
___ Sediment Deposits (B2)
___ Drift Deposits (B3)
___ Algal Mat or Crust (B4)
___ Iron Deposits (B5)
___ Surface Soil Cracks (B6)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
___ Salt Crust (B11)
___ Aquatic Invertebrates (B13)
___ Hydrogen Sulfide Odor (C1)
___ Oxidized Rhizospheres along Living Roots (C3)
___ Presence of Reduced Iron (C4)
___ Recent Iron Reduction in Tilled Soils (C6)
___ Stunted or Stressed Plants (D1) (**LRR A**)
___ Other (Explain in Remarks)

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)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ FAC-Neutral Test (D5)
___ Raised Ant Mounds (D6) (**LRR A**)
___ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ___ No x Depth (inches): ___
Water Table Present? Yes ___ No x Depth (inches): ___
Saturation Present? (includes capillary fringe) Yes ___ No x Depth (inches): ___

Wetland Hydrology Present? Yes ___ No X

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

Remarks:
Unlikely to have wetland hydrology due to landscape position.

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

Project/Site: Jayne's Parcel City/County: El Paso Sampling Date: 2/1/22

Applicant/Owner: ______ State: CO Sampling Point: WT-A33-WT1

Investigator(s): S. Clark Section, Township, Range: S28 and 33, T12S, R65W

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

Subregion (LRR): E Lat: 38°58'22.66"N Long: - 104°40'24.59"W Datum: WGS84

Soil Map Unit Name: Pring coarse sandy loam, 3-8% slopes NWI classification: 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 ___ significantly disturbed? Are "Normal Circumstances" present? Yes x No ___

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

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

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

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: NA)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
= Total Cover			
Sapling/Shrub Stratum (Plot size: NA)			
1.			
2.			
3.			
4.			
5.			
= Total Cover			
Herb Stratum (Plot size: 5')			
1. Juncus arcticus	90	x	FACW
2. Verbascum thapsus	2		FACU
3. Cirsium arvense	10		FAC
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
= Total Cover	102		
Woody Vine Stratum (Plot size: NA)			
1.			
2.			
= Total Cover			
% Bare Ground in Herb Stratum 0			

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:
OBL species	0	x 1 = 0
FACW species	90	x 2 = 180
FAC species	10	x 3 = 30
FACU species	2	x 4 = 8
UPL species		x 5 =
Column Totals:	102 (A)	218 (B)

Prevalence Index = B/A = 2.14

Hydrophytic Vegetation Indicators:

x 1 - Rapid Test for Hydrophytic Vegetation

x 2 - Dominance Test is >50%

x 3 - Prevalence Index is ≤3.0[1]

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

___ 5 - Wetland Non-Vascular Plants[1]

___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? **Yes** x **No** ___

Remarks:
Based on the time of year, species identifications were made based on remnant foliage and position on the landscape.

SOIL

Sampling Point: WT-A33-WT1

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

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

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

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

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Loamy Mucky Mineral (F1) (**except MLRA 1**)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

___ 2 cm Muck (A10)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

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

Restrictive Layer (if present):
Type: Frozen
Depth (inches): 4

Hydric Soil Present? Yes X No ___

Remarks:
This soil may be similar to DP-1 and meet the F6 hydric soil indicator.

HYDROLOGY

Wetland Hydrology Indicators:

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

___ Surface Water (A1)
___ High Water Table (A2)
___ Saturation (A3)
___ Water Marks (B1)
___ Sediment Deposits (B2)
___ Drift Deposits (B3)
___ Algal Mat or Crust (B4)
___ Iron Deposits (B5)
___ Surface Soil Cracks (B6)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B)**
___ Salt Crust (B11)
___ Aquatic Invertebrates (B13)
___ Hydrogen Sulfide Odor (C1)
___ Oxidized Rhizospheres along Living Roots (C3)
___ Presence of Reduced Iron (C4)
___ Recent Iron Reduction in Tilled Soils (C6)
___ Stunted or Stressed Plants (D1) (**LRR A**)
___ Other (Explain in Remarks)

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)
x Geomorphic Position (D2)
___ Shallow Aquitard (D3)
x FAC-Neutral Test (D5)
___ Raised Ant Mounds (D6) (**LRR A**)
___ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ___ No x Depth (inches): ___
Water Table Present? Yes ___ No x Depth (inches): ___
Saturation Present? (includes capillary fringe) Yes ___ No x Depth (inches): ___

Wetland Hydrology Present? Yes X No ___

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

Remarks:

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

Project/Site: Jayne's Parcel City/County: El Paso Sampling Date: 2/1/22

Applicant/Owner: ______ State: CO Sampling Point: WT-A39-UP1

Investigator(s): S. Clark Section, Township, Range: S28 and 33, T12S, R65W

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): concave Slope (%): 10

Subregion (LRR): E Lat: 38°58'28.88"N Long: - 104°40'13.01"W Datum: WGS84

Soil Map Unit Name: Pring coarse sandy loam, 3-8% slopes NWI classification: 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 ___ significantly disturbed? Are "Normal Circumstances" present? Yes x No ___

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

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

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

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: NA)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	___ = Total Cover		
Sapling/Shrub Stratum (Plot size: NA)			
1.			
2.			
3.			
4.			
5.			
	___ = Total Cover		
Herb Stratum (Plot size: 5')			
1. Typha sp.	5		OBL
2. Verbascum thapsus	15	x	FACU
3. Centaurea diffusa	40	x	UPL
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	60 = Total Cover		
Woody Vine Stratum (Plot size: NA)			
1.			
2.			
	___ = Total Cover		

% Bare Ground in Herb Stratum 20

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:
OBL species	5	x 1 = 5
FACW species	0	x 2 = 0
FAC species	0	x 3 = 0
FACU species	15	x 4 = 60
UPL species	40	x 5 = 200
Column Totals:	60 (A)	265 (B)

Prevalence Index = B/A = 4.42

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- ___ 2 - Dominance Test is >50%
- ___ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ 5 - Wetland Non-Vascular Plants[1]
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? **Yes** ___ **No** x

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-UP1

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-3	10YR 3/1	100					Sandy loam	
3-7	10 YR 4/2	100					Sand	

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

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

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: Frozen

Depth (inches): 7

Hydric Soil Present? Yes ______ No X

Remarks:

Unlikely to be hydric due to plant community and landscape position.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B)**
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Stunted or Stressed Plants (D1) (**LRR A**)
- ___ Other (Explain in Remarks)

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)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) (**LRR A**)
- ___ Frost-Heave Hummocks (D7)

Field Observations:

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

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

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

Wetland Hydrology Present? Yes ______ No X

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

Remarks:

Unlikely to have wetland hydrology due to landscape position.

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

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, Township, Range: S28 and 33, T12S, R65W

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): concave Slope (%): 5

Subregion (LRR): E Lat: 38°58'18.58"N Long: - 104°40'15.65"W Datum: WGS84

Soil Map Unit Name: Pring coarse sandy loam, 3-8% slopes NWI classification: 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 ___ significantly disturbed? Are "Normal Circumstances" present? Yes x No ___

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

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

	Yes	No
Hydrophytic Vegetation Present?		x
Hydric Soil Present?		x
Wetland Hydrology Present?		x

Is the Sampled Area within a Wetland? **Yes** ___ **No** x

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: NA)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
= Total Cover			
Sapling/Shrub Stratum (Plot size: NA)			
1.			
2.			
3.			
4.			
5.			
= Total Cover			
Herb Stratum (Plot size: 5')			
1. Opuntia sp.	8		UPL
2. Pascopyrum smithii	20		FACU
3. Bouteloua gracilis	80	x	UPL
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
= Total Cover	108		
Woody Vine Stratum (Plot size: NA)			
1.			
2.			
= Total Cover			

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	20	x 4 =	80
UPL species	88	x 5 =	440
Column Totals:	108 (A)		520 (B)

Prevalence Index = B/A = 4.81

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation
___ 2 - Dominance Test is >50%
___ 3 - Prevalence Index is ≤3.0[1]
___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ 5 - Wetland Non-Vascular Plants[1]
___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? **Yes** ___ **No** x

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-UP2

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 2/1	100					Fine sandy loam	

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

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

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Loamy Mucky Mineral (F1) (**except MLRA 1**)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

___ 2 cm Muck (A10)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

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

Restrictive Layer (if present):
Type: Frozen
Depth (inches): 6

Hydric Soil Present? Yes ______ No X

Remarks:
Unlikely to be hydric due to plant community and landscape position.

HYDROLOGY

Wetland Hydrology Indicators:

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

___ Surface Water (A1)
___ High Water Table (A2)
___ Saturation (A3)
___ Water Marks (B1)
___ Sediment Deposits (B2)
___ Drift Deposits (B3)
___ Algal Mat or Crust (B4)
___ Iron Deposits (B5)
___ Surface Soil Cracks (B6)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B)**
___ Salt Crust (B11)
___ Aquatic Invertebrates (B13)
___ Hydrogen Sulfide Odor (C1)
___ Oxidized Rhizospheres along Living Roots (C3)
___ Presence of Reduced Iron (C4)
___ Recent Iron Reduction in Tilled Soils (C6)
___ Stunted or Stressed Plants (D1) (**LRR A**)
___ Other (Explain in Remarks)

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)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ FAC-Neutral Test (D5)
___ Raised Ant Mounds (D6) (**LRR A**)
___ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes _____ No x Depth (inches): ___________
Water Table Present? Yes _____ No x Depth (inches): ___________
Saturation Present? (includes capillary fringe) Yes _____ No x Depth (inches): ___________

Wetland Hydrology Present? Yes ______ No X

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

Remarks:
Unlikely to have wetland hydrology due to landscape position.

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

Project/Site: Jayne's Parcel City/County: El Paso Sampling Date: 2/1/22

Applicant/Owner: ______ State: CO Sampling Point: WT-A39-WT1

Investigator(s): S. Clark Section, Township, Range: S28 and 33, T12S, R65W

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

Subregion (LRR): E Lat: 38°58'28.71"N Long: -104°40'13.52"W Datum: WGS84

Soil Map Unit Name: Pring coarse sandy loam, 3-8% slopes NWI classification: R4SBC

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

Are Vegetation ___, Soil ___, or Hydrology ___ significantly disturbed? Are "Normal Circumstances" present? Yes x No ___

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

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

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

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: NA)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
		= Total Cover	
Sapling/Shrub Stratum (Plot size: NA)			
1.			
2.			
3.			
4.			
5.			
		= Total Cover	
Herb Stratum (Plot size: 5')			
1. Typha sp.	100	x	OBL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	100	= Total Cover	
Woody Vine Stratum (Plot size: NA)			
1.			
2.			
		= Total Cover	
% Bare Ground in Herb Stratum 0			

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

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

Prevalence Index = B/A = 1.00

Hydrophytic Vegetation Indicators:

x 1 - Rapid Test for Hydrophytic Vegetation
x 2 - Dominance Test is >50%
x 3 - Prevalence Index is ≤3.0[1]
___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ 5 - Wetland Non-Vascular Plants[1]
___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? **Yes** x **No** ___

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

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-1	10YR 2/1	100					Duff layer	Organics
1-8	10 YR 3/1	60	7.5 YR 4/6	5	C	PL	Fine sandy clay loam	
			10 YR 4/1	35	RM	M		

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

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

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Loamy Mucky Mineral (F1) (**except MLRA 1**)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
_x_ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

___ 2 cm Muck (A10)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

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

Restrictive Layer (if present):
Type: Frozen
Depth (inches): 8

Hydric Soil Present? Yes X No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

___ Surface Water (A1)
___ High Water Table (A2)
___ Saturation (A3)
___ Water Marks (B1)
___ Sediment Deposits (B2)
___ Drift Deposits (B3)
___ Algal Mat or Crust (B4)
___ Iron Deposits (B5)
___ Surface Soil Cracks (B6)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B)**
___ Salt Crust (B11)
___ Aquatic Invertebrates (B13)
___ Hydrogen Sulfide Odor (C1)
_x_ Oxidized Rhizospheres along Living Roots (C3)
___ Presence of Reduced Iron (C4)
___ Recent Iron Reduction in Tilled Soils (C6)
___ Stunted or Stressed Plants (D1) (**LRR A**)
___ Other (Explain in Remarks)

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)
_x_ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
_x_ FAC-Neutral Test (D5)
___ Raised Ant Mounds (D6) (**LRR A**)
___ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ___ No _x_ Depth (inches): ___
Water Table Present? Yes ___ No _x_ Depth (inches): ___
Saturation Present? (includes capillary fringe) Yes ___ No _x_ Depth (inches): ___

Wetland Hydrology Present? Yes X No ___

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

Remarks:

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

Project/Site: Jayne's Parcel City/County: El Paso Sampling Date: 2/1/22

Applicant/Owner: ______ State: CO Sampling Point: WT-A39-WT2

Investigator(s): S. Clark Section, Township, Range: S28 and 33, T12S, R65W

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): concave Slope (%): 7

Subregion (LRR): E Lat: 38°58'18.72"N Long: - 104°40'15.51"W Datum: WGS84

Soil Map Unit Name: Pring coarse sandy loam, 3-8% slopes NWI classification: R5UBH

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 ___ significantly disturbed? Are "Normal Circumstances" present? Yes x No ___

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

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

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

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: NA)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
		= Total Cover	
Sapling/Shrub Stratum (Plot size: NA)			
1.			
2.			
3.			
4.			
5.			
		= Total Cover	
Herb Stratum (Plot size: 5')			
1. Juncus arcticus	90	x	FACW
2. Bromus inermis	8		FACU
3. Cirsium arvense	2		FAC
4. Pascopyrum smithii	10		FACU
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	110	= Total Cover	
Woody Vine Stratum (Plot size: NA)			
1.			
2.			
		= Total Cover	
% Bare Ground in Herb Stratum 0			

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	90	x 2 =	180
FAC species	2	x 3 =	6
FACU species	18	x 4 =	72
UPL species		x 5 =	
Column Totals:	110 (A)		258 (B)

Prevalence Index = B/A = 2.35

Hydrophytic Vegetation Indicators:

x 1 - Rapid Test for Hydrophytic Vegetation
x 2 - Dominance Test is >50%
x 3 - Prevalence Index is ≤3.0[1]
___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ 5 - Wetland Non-Vascular Plants[1]
___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes x No ___

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

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-3	10YR 2/1	100					Fine sandy loam	
3-8	10 YR 2/1	98	7.5 YR 4/6	2	C	PL	Fine sandy clay loam	

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

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

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- x Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: Frozen

Depth (inches): 8

Hydric Soil Present? **Yes** X **No** ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B)**
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- x Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Stunted or Stressed Plants (D1) (**LRR A**)
- ___ Other (Explain in Remarks)

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)
- x Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- x FAC-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) (**LRR A**)
- ___ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes ___	No x	Depth (inches): ___
Water Table Present?	Yes ___	No x	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No x	Depth (inches): ___

Wetland Hydrology Present? **Yes** X **No** ___

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

Remarks:

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.