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Natural Features Report

Greaves Pinery Subdivision

MVE Project No. 61233

September 24, 2026

PCD File No.

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Introduction, General Location, and Project Description

The Greaves Pinery Subdivision project is a Minor Subdivision of a currently unplatted parcel in northwest El Paso County. The site encompasses 9.093± acres of land located within the west half of the southeast one-quarter of Section 5, Township 12 South, Range 65 West of the 6th principal meridian in El Paso County, Colorado. The property has El Paso County Tax Schedule No. 5205400041 and address of 7520 Pinery Circle, Colorado Springs, Colorado 80908. The site is situated directly to the east and north of Pinery Circle, which is a looped drive (southwest interior corner of the loop). Pinery Circle is connected to Swan Road to the south by Pinery Drive. Herring Road is east of the site, but there are no connecting roads from Herring Road to Pinery Circle. The site is currently zoned RR-5 (Rural Residential 5 acres). The adjacent and surrounding properties are all unplatted rural residential parcels zoned RR-5 and vary in size from 4.3 acres to 13.7 acres. All surrounding parcels contain existing residential development. A Vicinity Map is included in the Appendix.

The proposed project will replat the site into three (3) single-family residential lots. Each proposed lot is 3.03+/- acres in area. An application for Zone Change has been submitted and is being reviewed concurrently with the Minor Subdivision by El Paso County proposing the existing RR-5 zone of the property be changed to RR-2.5 (Rural Residential 2.5 Acres). Each of the proposed lots is anticipated to contain a residence, driveway, residential landscaping, individual wells and individual onsite wastewater treatment systems (owts).

The property is the former location of one single-family residence with gravel driveway. This home was destroyed during the Black Forest Fire of 2013. The burned remains were removed from the site several years ago, but the domestic well remains in place and is operational. Vegetative ground cover is regrown since the fire. Trees in the northern portion of the property were spared from burning.

Site topography is highly variable. The site slopes to the southwest with grades that range from 6% to 40% and southeasterly with grades that range from 6% to 20%. There are no major drainageways in the Greaves Pinery Subdivision site. A small drainageway flows northeast to southwest across the northwest corner of the site. For the northern portion of the site, all storm runoff flows drain to the west and are routed to the west in an existing public 18” CSP culvert. The southeastern portion of the site drains to the southeast and flows enter an existing public 24” CSP culvert and continue south. The southwestern portion of the site drains to the south-west, where flows are collected into an existing public 24” CSP culvert and conveyed to the south under Pinery Circle. There is no storm drain system in the surrounding area. The flows from the site flow southwesterly and eventually enter Kettle Creek Major Drainage Basin.

M.V.E., Inc. personnel visited the site on September 1, 2026, to observe current general conditions and natural features of the site. The site has groundcover in good to fair condition consisting of native grasses, native and non-native plants. A few trees are scattered across the site while many were partially fully burned. Numerous unharmed trees grow across the northern portion of the property. No wildlife was observed at the time of the site visit

Soils

According to the National Resource Conservation Service, there are two (2) soil types in the Greaves Pinery Subdivision site. Kettle gravelly loamy sand, 3 to 8% slopes (map unit 40) makes up about 42% of the soil on the site. The soil is deep and somewhat excessively drained. Permeability is rapid, surface runoff is slow, and the hazard of erosion is slight to moderate. This soil is suited to Ponderosa Pine and good potential habitat for mule deer, tree squirrels, cottontail rabbit and wild turkey. It is also good potential for home sites.

The other soil type located on the site is Kettle gravelly loamy sand, 8 to 40% slopes (map unit 41) which makes up 58% of the soil on the site. The soil is deep and well drained. Permeability is rapid, surface runoff is medium, and the hazard of erosion is moderate. This soil is suited to Ponderosa Pine and good potential habitat for mule deer, tree squirrels, cottontail rabbit and wild turkey. It is also good potential for home sites.

Floodplain and Wetland

The current Flood Insurance Studies of the region include Flood Insurance Rate Maps (FIRM), effective on December 7, 2018. The proposed subdivision is covered in two FIRM maps, Community Panel Numbered 08041C0320 G and Community Panel Number 08041C0315 G of the Flood Insurance Rate Maps for the El Paso County. No part of the site is shown to be included in a FEMA designated 100-year flood hazard area or in a regulated floodplain. A portion of the current FEMA Flood Insurance Rate Maps with the site delineated is included in the Appendix.

The small drainage traversing the northwest corner of the site appears on the USFWS National Wetland Inventory Mapping which is classified as an R4SBC Seasonally Flooded Riverine Streambed. The area is also shown on the Soils and Geology Report for the Greaves Pinery Project and indicated as “Seasonally Wet”. A Drainage Easement (No-Build and No Storage of Materials) encompasses the drainage area on the proposed subdivision plat. The proposed easement is intended to protect the riverine streambed and banks of this small drainage from disturbance while ensuring that structures and materials will not be placed in improper locations within the site.

Ecoregion and site vegetation

According to EPA’s “Level III and IV Ecoregions of the Conterminous United States” map, the project area is located within the Pine-Oak Woodlands Level IV Ecoregion in Colorado. The Pine-Oak Woodlands is composed of both oakbrush/oak woodlands and ponderosa woodlands, interspersed with grasslands forming a mosaic as commonly seen in the Black Forest area. Dominant species typical of the ecoregion include ponderosa pine, Gambel oak, mountain mahogany, three-leaf sumac, and other shrubs; grasslands are dominated by little bluestem,

switchgrass, yellow Indiangrass, prairie Junegrass, mountain muhly, and various fescues and wheatgrasses. The site supports all of these species to some degree, but trees present on the site consist predominantly of ponderosa pine with variable understory of grasses and plants listed above.

Noxious Weeds are regulated in the State of Colorado under the "Colorado Noxious Weed Act" (Colorado Revised Statute 35-5.5-103), which governs the designation of Noxious Weeds and sets forth responsibilities for government entities private landowners regarding management of Noxious Weeds. Plants categorized as Noxious Weeds were observed on the site consisting of Common mullien (Verbascum thapsus), a List C species dispersed throughout the site, but heavily concentrated adjacent to the public roadway, and Yellow toadflax (Linaria vulgaris), a List B species. A separate Noxious Weed Management Plan has been submitted for this project.

Wildlife

The site is included in the known ranges of several wildlife species of birds, mammals and reptiles. A few of the species noted below are listed as Federally Threatened, State Threatened or have State Special Concern status. Wildlife on the site consists primarily of mule deer, small animals, and birds. None of these or any of the listed species were observed during the September 1, 2026 site visit.

Preble's Meadow Jumping Mouse: no mammals were observed on the project site during the site visit. Preble's Meadow Jumping Mouse was listed as a threatened species on May 13, 1998 and currently remains protected. Preble's is found along the foothills of southeastern Wyoming and southward along the eastern edge of the Colorado Front Range to Colorado Springs (Clark and Stromberg 1987; Fitzgerald, Meaney, and Armstrong 1994). The semiarid climate in southeastern Wyoming and eastern Colorado limits the extent of riparian corridors and therefore restricts Preble's range, which is associated with these corridors.

Along Colorado's Front Range, Preble's is found below 7,800 feet in elevation, generally in lowlands with medium to high moisture along permanent or intermittent streams. Preble's prefers riparian areas featuring well-developed, multistoried, and horizontal cover with an understory of grasses and forbs (Armstrong et al. 1997a; 1997b). Preble's typically inhabits areas characterized by plains riparian vegetation with relatively undisturbed grassland and a water source nearby (Armstrong, Fitzgerald, and Meaney 2011). High-occurrence areas for Preble's Meadow Jumping Mouse tend to be close to creeks and are associated with a high percentage of shrubs, grasses, and woody debris (Trainor, Shenk, and Wilson 2007 Mountain riparian sites may be surrounded by dense forest vegetation (such as ponderosa pine in Colorado), and sites on the plains have less woody vegetation.

Preble's is unlikely to be present in the project area as the site does not appear to contain suitable habitat: The project area lacks adequate tree and shrub cover typically associated with Preble's. The project area is predominantly dominated by herbaceous vegetation. The drainages in the project area lack a continuous water source with only ephemeral to intermittent flows present.

The roadway berms that cut across the nearby drainages may disrupt Preble's movement into the project area.

Black Tailed Prairie Dog: No evidence of prairie dog habitation was observed on the site. The black-tailed prairie dog is a Colorado species of concern (CPW 2017). Black-tailed prairie dogs are important components of the short and mesic grasslands systems. Threats to this species include habitat loss and degradation, habitat fragmentation, disease (sylvatic plague), and lethal control activities. Typically, areas occupied by prairie dogs have greater cover and abundance of perennial grasses and annual forbs compared with non-occupied sites (Whicker and Detling 1988; Witmer et al. 2002).

Black-tailed prairie dogs are commonly considered a "keystone" species because their activities (burrowing and intense grazing) provide food and shelter for many other grassland species and have a large effect on community structure and ecosystem function (Power et al. 1996). Prairie dogs can contribute to overall landscape heterogeneity, affect nutrient cycling, and provide nest sites and shelter for wildlife (Whicker and Detling 1988). Species such as black-footed ferret, burrowing owl, prairie rattlesnake, and mountain plover are closely linked to prairie dog burrow systems for food and/or cover. Prairie dogs also provide an important prey resource for numerous predators including American badger, coyote, red fox, bald eagle, golden eagle, ferruginous hawk, and other raptors. Prairie dogs also can denude the surface by clipping aboveground vegetation and contributing to exposed bare ground by digging up roots (Kuford 1958). No evidence of prairie dog habitation was observed on the site.

Western Burrowing Owl: No burrowing owls or prairie dog burrows were observed in the project area. The western burrowing owl (burrowing owl) is a small migrant owl listed by the State of Colorado as a threatened species (CPW 2017) and is federally protected under the Migratory Bird Treaty Act (MBTA). Primary threats to the burrowing owl include habitat loss and fragmentation, anthropogenic sources of mortality (e.g., vehicular collisions), and loss of wintering grounds, largely in Mexico.

In general, burrowing owls are found in grasslands with vegetation less than 4 inches high and a relatively large proportion of bare ground. In Colorado, burrowing owls are usually associated with black-tailed prairie dog colonies (Jones 2016; Andrews and Righter 1992). More than 70 percent of sightings reported by Colorado Breeding Bird Atlasers were in prairie dog colonies (Jones 2016).

Burrowing owls usually arrive on their breeding grounds about mid-March to early April and remain until September. Burrowing owls are present in Colorado between March 15 and October 31, with breeding from mid-April to early/mid-August (Andrews and Righter 1992; Jones 2016). CPW suggests conducting burrowing owl clearance surveys in prairie dog towns that are subject to poisoning or construction projects from March 15 through October 31 (Colorado Division of Wildlife (CDOW) 2008). No burrowing owls or prairie dog burrows were observed in the project area.

Conclusions

The proposed subdivision is not anticipated to have significant impact on wildlife in the area. Since a moderate level of rural residential development including roadway and dry utility infrastructure already exist in the immediate vicinity and because the proposed development will be similar in nature and character to the surrounding, significant impacts to all the natural resources on the site are not expected.

References

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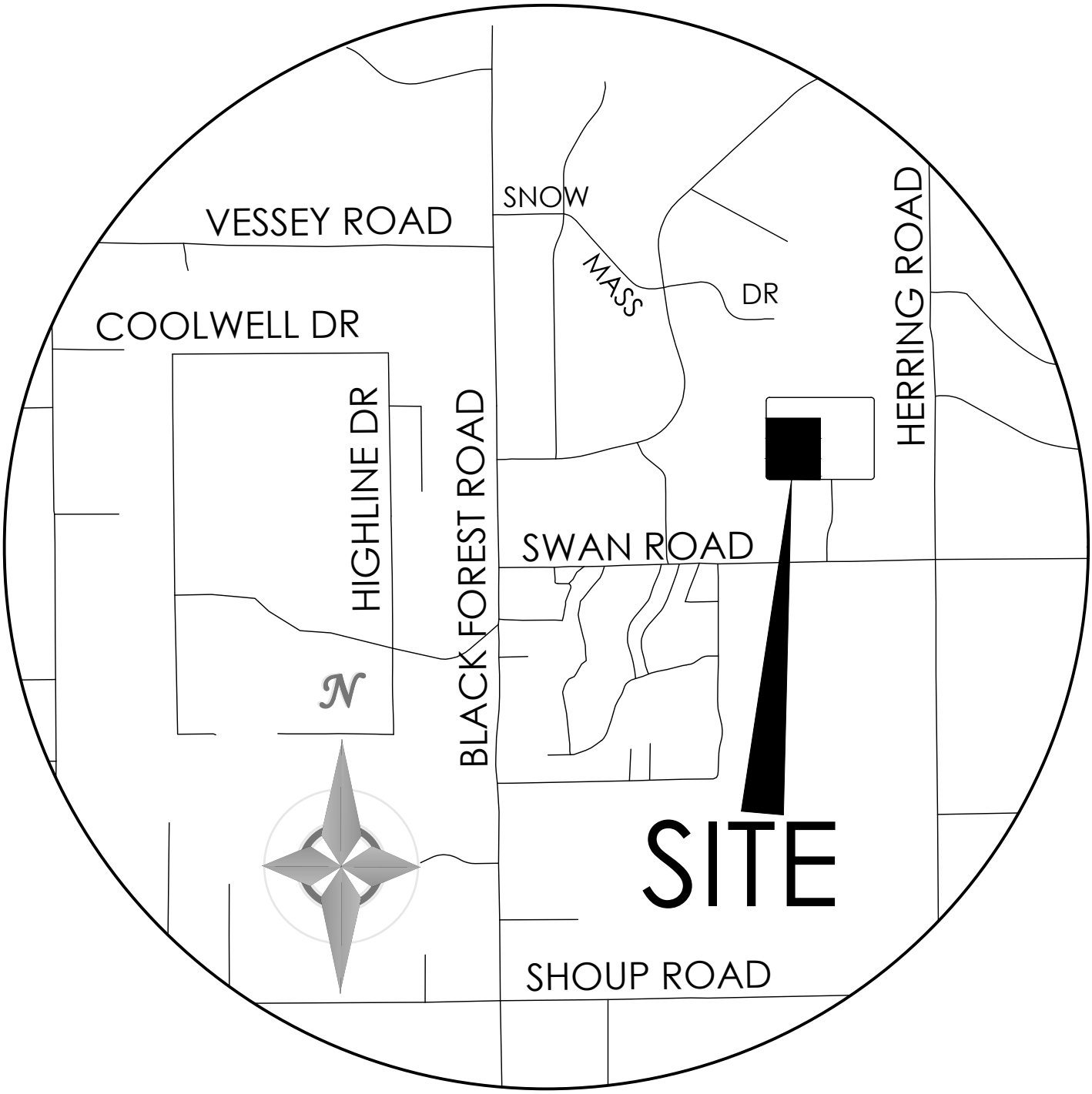
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Exhibit A	Vicinity Map
Exhibit B	Site Map
Exhibit C	Portion of FEMA Flood Insurance Rate Map
Exhibit D	NWI Mapping with Site Overlay
Exhibit E	Site Photographs

Exhibit A Vicinity Map



VICINITY MAP

NOT TO SCALE

Exhibit B Site Map

UNPLATTED
TSN: 5205400008
NAP

UNPLATTED
TSN: 5205400016
NAP

UNPLATTED
TSN: 5205400038
NAP

UNPLATTED
TSN: 5205400033
NAP

UNPLATTED
TSN: 5205400040
NAP

UNPLATTED
TSN: 5205400034
NAP

UNPLATTED
TSN: 5205400018
NAP

N 88°52'38" E, 628.67'

209.64'

209.69'

(N 78°04'39" E, 213.47')

209.34'

(100.00')

20' PUDE (TYP)

7530

7540

(N 50°26'33" E, 78.38')

(100.00')

(N 24°45'55" E, 80.00')

N 01°06'12" W, 329.79'

(N 69°45'55" E, 120.00')

7520

7525

10' PUDE (TYP)

10' PUDE (TYP)

7535

7530

7535

20' PUDE (TYP)

7535

LOT 1
132,024 ± SF
3.03 ± AC

N 01°06'50" W, 629.41'

LOT 2
132,024 ± SF
3.03 ± AC

N 01°06'50" W, 629.64'

LOT 3
132,024 ± SF
3.03 ± AC

7530

7525

S 01°10'27" E, 629.67'

7530

7525

WELL

7530

20' PUDE (TYP)

7520

10' PUDE (TYP)

10' PUDE (TYP)

7525

7520

7515

SEPTIC

7515

7510

20' PUDE (TYP)

7515

7510

7505

209.76'

209.69'

210.01'

S 88°53'10" W, 629.45'

Exhibit C Portion of FEMA Flood Insurance Rate Map

National Flood Hazard Layer FIRMette

FEMA

104°41'26"W 39°2'8"N



0 250 500 1,000 1,500 2,000 Feet

1:6,000

104°40'49"W 39°1'40"N

Basemap Imagery Source: USGS National Map 2023

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 Cross Sections with 1% Annual Chance
- 17.5 Water Surface Elevation
- Coastal Transect
- 513 Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 6/18/2025 at 9:13 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

Exhibit D NWI Mapping with Site Overlay



LEGEND

———	PROPOSED SUBDIVISION BOUNDARY LINE	(15980)	ADDRESS NUMBER
— — — —	PROPOSED LOT LINE	PUDE	PUBLIC UTILITY AND DRAINAGE EASEMENT
———	ADJACENT BOUNDARIES		DRAINAGE EASEMENT WITH NO BUILD AND NO STORAGE OF MATERIALS
○	FOUND CORNER AS SHOWN		
●	SET #5 REBAR W/ ALUMINUM CAP MARKED "POLARIS, PLS 27605" FLUSH WITH THE GROUND (UNLESS SHOWN OTHERWISE)	NAP	NOT A PART OF THIS SUBDIVISION (NO AREAS OUTSIDE OF THE SHOWN BOUNDARY ARE A PART OF THIS SUBDIVISION)

10 0 20 50 100

1" = 50' 1:600

N

NWI Mapping Exhibit

GREAVES PINERY SUBDIVISION

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MVE PROJECT: 61233

MVE DRAWING: 61233-PLAT-PS1

DATE: AUGUST 18, 2026

SHEET: 2 OF 2

Exhibit E Site Photographs



























