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WILDLIFE REPORT
COTTAGES AT MESA RIDGE
EL PASO COUNTY, COLORADO



WWW.SMITHDELIVERS.COM

250 Perry Lane Dacono, CO 80514 phone: 720.887.4928 fax: 720.887.4680

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Prepared for:

Goodwin Knight, LLC
8605 Explorer Drive, #250
Colorado Springs, CO 80920

Prepared by:

Smith Environmental and Engineering
250 Perry Lane
Dacono, CO 80514
(720) 887-4928

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1.0 INTRODUCTION

Smith Environmental and Engineering (SMITH) prepared this wildlife report for the proposed Cottages at Mesa in El Paso County, Colorado in July 2021. The assessment includes a review of a) threatened and endangered species, b) migratory birds, c) and other wildlife including Colorado Parks and Wildlife (CPW) mapped habitat, prairie dogs, and Burrowing Owls (*Athene cunicularia*). This report was written to support the PUD submittal to El Paso County and will serve as a guide for further action, if needed, to comply with City, State, and Federal regulations or policy.

1.1 LOCATION

The Study Area (Figure 1) consists of approximately 13 acres located northwest of the intersection of Mesa Ridge Parkway and S Powers Boulevard in unincorporated El Paso County, Colorado. The Study Area occurs at the corner where Sections 20, 21, 28, and 29 of Township 15 South, Range 65 West meet. It is located on the Fountain US Geological Survey (USGS) quadrangle at 38.721538 degrees north, 104.683862 degrees west with an elevation range from approximately 5,765 to 5,800 ft. The Study Area is currently vacant, but it has been subject to ongoing disturbance during development in the local area, most notably in 2019 during the construction of apartments to the southwest. The surrounding area is primarily residential with some remaining vacant land east of S Powers Boulevard.

1.2 LANDFORM, HYDROLOGY, SOILS AND VEGETATION

While historically the Study Area likely sloped to the southeast, the topography has been substantially altered over time by staging and stockpiling for construction on adjacent properties. There are no mapped natural drainages, and the only irrigation feature present is the Fountain Ditch, an aboveground concrete-lined structure. Soils within the Study Area are mapped primarily as Nelson-Tassel fine sandy loams, 3 to 18 percent slopes, with a small amount of Stoneham sandy loam, 3 to 8 percent slopes, in the northern extent (NRCS 2021). Both are well-drained soil types that do not carry a hydric soil rating.

Vegetation in the Study Area consists primarily of weedy forbs and grasses (both native and nonnative) characteristic of a highly disturbed urban site. There were only a handful of trees within the Study Area. A small patch of cottonwoods (*Populus deltoides*) and saltcedar (*Tamarisk* spp.) occurred in a low spot where runoff collects, and Siberian elms (*Ulmus pumila*) were scattered in drier portions of the site.



2.0 THREATENED AND ENDANGERED SPECIES

Twelve threatened and endangered species with the potential to occur in El Paso County were investigated for this assessment. Some of these species are listed under the federal Endangered Species Act (ESA) while others are listed by the State of Colorado. Ten of these species are on the federal list (USFWS 2021), and seven are on the state list (CPW 2021b). These species are described in Table 1 with an explanation of why they may or may not occur in the Study Area, and whether development is likely to affect them.

TABLE 1
THREATENED AND ENDANGERED SPECIES IN EL PASO COUNTY, COLORADO

Species	Listing Status*	Habitat and Conclusions
BIRDS		
Burrowing Owl (<i>Athene cunicularia</i>)	ST	Burrowing Owls in Colorado nest almost exclusively in abandoned prairie dog burrows in grassland areas. A few dilapidated burrows were observed in the northern extent of the Study Area, but they are densely overgrown and collapsed and did not appear suitable for owls. Development of the Study Area is unlikely to adversely affect this species, and no further actions are recommended.
Eastern Black Rail (<i>Laterallus jamaicensis</i> ssp. <i>jamaicensis</i>)	FT	The rail occurs in wetlands with dense overhead cover, especially shallow wetlands dominated by cattails, bulrushes, and willow in the overstory. These conditions do not occur in the Study Area. Additionally, sightings or nests in Colorado have been documented primarily in the southeast portion of the state (Wickersham 2016).
Least Tern (<i>Sterna antillarum</i>)	SE	The tern requires open-beach habitat for nesting, with sand preferred over silt and gravel. The only documented nesting sites in Colorado occur in the southeastern portion of the state (Wickersham 2016). The Study Area does not provide suitable habitat.
Mexican Spotted Owl (<i>Strix occidentalis lucida</i>)	FT, ST	Suitable habitat for the owl consists of old growth forests and rock outcrops in steep canyons (Wickersham 2016). The Study Area does not include these habitat features. The nearest designated Critical Habitat is located 8 miles west of the Study Area (USFWS 2021a).
Piping Plover (<i>Charadrius melodus</i>)	FT, ST	The plover is an open beach-nesting specialist. Documented nesting sites in Colorado occur in the southeastern portion of the state along reservoir shorelines (Wickersham 2016). The Study Area does not provide suitable habitat. Depletions to the South Platte River basin can impact downstream habitat, but municipal suppliers maintain compliance though the PRRIP. Additionally, the Study Area does not occur in the South Platte basin; it occurs in the Arkansas basin.
Whooping Crane (<i>Grus americana</i>)	FE, SE	The Whooping Crane does not nest in Colorado. Depletions to the South Platte River basin can impact downstream habitat, but municipal suppliers maintain compliance though the PRRIP. Additionally, the Study Area does not occur in the South Platte basin; it occurs in the Arkansas basin.

FISH		
Greenback cutthroat trout (<i>Oncorhynchus clarki stomias</i>)	FT, ST	The greenback cutthroat trout is found in cold, clear, oxygenated streams of moderate gradient. Overhanging branches, undercut banks and eddies behind rubble provides essential feeding and resting habitat. The Study Area does not include any aquatic resources capable of supporting the trout, nor will it affect any such features.
Pallid sturgeon (<i>Scaphirhynchus albus</i>)	FE	The sturgeon does not occur in Colorado. Depletions to the South Platte River basin can impact downstream habitat, but municipal suppliers maintain compliance though the PRRIP. Additionally, the Study Area does not occur in the South Platte basin; it occurs in the Arkansas basin.
INVERTEBRATES		
Pawnee montane skipper (<i>Hesperia leonardus montana</i>)	FT	The skipper occurs only in dry, open ponderosa pine woodlands with sparse understory at 6,000 to 7,500 ft. in portions of Jefferson, Douglas, Teller, and Park Counties. The skipper occurs only in the Pikes Peak Granite Formation in the South Platte River drainage system (Vaughan and Shepherd 2005). These conditions do not occur in the Study Area.
MAMMALS		
Preble's meadow jumping mouse (<i>Zapus hudsonius preblei</i>)	FT, ST	Typical habitat for the mouse includes well-developed plains riparian vegetation with adjacent, undisturbed grasslands and a nearby water source. The Study Area does not provide suitable habitat. Additionally, the nearest designated Critical Habitat for the mouse is located over 15 miles north of the Study Area (USFWS 2021).
PLANTS		
Ute ladies'-tresses orchid (<i>Spiranthes diluvialis</i>)	FT	The orchid thrives in seasonally moist soils and wet meadows near springs, lakes, or perennial streams and associated floodplains at 4,500-6,500 feet (Carlson 1992). These conditions do not occur in the Study Area. Additionally, there are no known populations of the orchid in El Paso County, and the nearest known population is located in central Jefferson County (Colorado Natural Heritage Program 1997+).
Western prairie fringed orchid (<i>Platanthera praeclara</i>)	FT	The orchid occurs in mesic to wet tallgrass prairies in the central plains states; it is not known to occur in Colorado. Depletions to the South Platte River basin can impact downstream habitat, but the Study Area occurs in the Arkansas River basin.

*FE – Federally Endangered, FT – Federally Threatened, SE – State Endangered, ST – State Threatened

3.0 MIGRATORY BIRDS

The Migratory Bird Treaty Act (MBTA) of 1918 as amended prohibits "take" of migratory birds, their eggs, feathers, or nests. Take is defined in the MBTA to include by any means or in any manner, any attempt at hunting, pursuing, wounding, killing, possessing, or transporting any migratory bird, nest, egg, or part thereof. The typical annual nesting period for most birds begins in mid-April and extends through August. Some raptors (eagles and owls) nest as early as February.

The Study Area provides nesting, foraging, and shelter habitat for a variety of bird species. Species such as the Killdeer (*Charadrius vociferous*) and Western Meadowlark (*Sturnella neglecta*) will nest on the ground in grassland areas, and other species such as the Lark Bunting, (*Calamospiza melanocorys*) nest at the base of small shrubs and cacti, which were present on the site. The trees in the Study Area, though sparse and generally small, also provide nesting habitat. The only birds observed during the site investigation were Western Kingbirds (*Tyrannus verticalis*) and Barn Swallows (*Hirundo rustica*).

If any site disturbance (e.g., grubbing, grading, vegetation removal, construction) is proposed to occur during the nesting season, a pedestrian survey to identify active nests should be completed no more than seven days prior to the start of such activities. Inactive bird nests, including raptor nests but excluding Bald (*Haliaeetus leucocephalus*) and Golden Eagle (*Aquila chrysaetos*) nests, can be removed and destroyed. Active grassland and perching bird nests should be protected by at least a 50-ft buffer until chicks fledge.

3.1 RAPTORS

The nesting season for raptors begins as early as February and extends through the summer. CPW has established seasonal restrictions and recommended protective buffer zones of 0.25 – 0.50 miles around raptor nest sites (CPW 2020). Most raptor species along the Front Range of Colorado nest in cottonwoods and other large trees, though Swainson's Hawks (*Buteo swainsoni*), Cooper's Hawks (*Accipiter cooperii*), American Kestrels (*Falco sparverius*), and other species may nest in smaller trees. Ferruginous Hawks (*Buteo regalis*) may nest on a variety of natural and man-made substrates, including the ground, and Northern Harriers (*Circus cyaneus*) nest exclusively on the ground.

The Study Area does not provide high quality raptor nesting habitat, but there are several stands of cottonwood trees located east of S Powers Boulevard within 0.5 mile that could provide raptor nesting sites. SMITH observed a Swainson's Hawk soaring overhead during the site investigation but did not identify any active nests.

If disturbance activities are scheduled to begin outside of the nesting season, SMITH does not recommend raptor surveys. However, if construction will begin during the nesting season, active nest surveys should be completed. The timing and frequency of these surveys depends on the flexibility of the project schedule. If there is flexibility in the project schedule, the Study Area and adjacent potential nesting sites should be surveyed by a wildlife biologist no more than seven days in advance of scheduled activity. If an active nest is found, the appropriate CPW District Wildlife Manager should be consulted to develop and implement protections during construction. Protection for active nests usually consists of no surface occupancy of personnel or equipment within the recommended buffer. The buffer restrictions should remain in place until a biologist confirms that the nest is inactive (i.e., the juveniles have fledged or the nest has failed).

If the schedule is less flexible, surveys can be performed more frequently to assess the likelihood that a nest becomes active and causes a project delay. Additionally, to reduce the risk of a nest becoming active,

inactive nests can be destroyed in place prior to construction, assuming the landowner grants permission for nests outside of the Study Area. Similarly, if raptors (excluding eagles) are observed building a nest or if a partially constructed nest is discovered, it can also be destroyed. These removals should continue until any local raptor breeding pairs have abandoned the area, or construction has begun, thus establishing a baseline level of disturbance.

3.2 BALD AND GOLDEN EAGLES

Bald and Golden Eagles are afforded additional protections under the Bald and Golden Eagle Protection Act (BGEPA). The BGEPA prohibits anyone from "taking" eagles, their parts, nests or eggs, with "take" being defined as "to pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb." All eagle nests are protected by a 0.5-mile buffer per the CPW guidelines, and nests cannot be removed until they have been inactive for five consecutive years.

In Colorado, Bald Eagles nest primarily in large cottonwood trees, and in the Front Range, they frequently use trees on reservoir edges. They also frequently forage around streams and reservoirs in the winter (Wickersham 2016). Bald Eagles may be observed passing through the Study Area, but it is highly unlikely that they use the area for nesting, roosting, or foraging. The Study Area is not mapped to include any roosting sites or forage areas. CPW maps one active Bald Eagle nest approximately two miles northwest of the Study Area.

Golden Eagles usually nest on cliffs near open habitats that provide an abundant source of prey (Wickersham 2016). CPW does not provide mapping data on Golden Eagle nests and roosts. Golden Eagles are unlikely to use the Study Area for nesting or foraging, given the lack of prey and high levels of disturbance, but they still may occasionally be observed in or near the Study Area.

4.0 OTHER WILDLIFE

The typical wildlife community present in urban and exurban areas includes small perching birds, raptors, small and medium size herbivores (rodents and rabbits), carnivores (foxes, coyotes, raccoons, and weasels), and occasionally larger ungulates (deer and elk). These animals typically use undeveloped and undisturbed parcels for travel, cover, and foraging in urban environments. The Study Area is located adjacent to a busy roadway and residential developments. Some wildlife species, primarily smaller birds and rodents, may use the undisturbed portions of the Project Area. Larger species may also use the Project Area as they pass through the landscape between more desirable habitat areas. However, there is a lack of structural diversity to provide forage and cover, so the Project Area would not be considered significant wildlife habitat.

4.1 COLORADO PARKS AND WILDLIFE MAPPED HABITAT

CPW maps habitat features for many wildlife species throughout Colorado. The Study Area is located within the Overall Range for the black bear, mountain lion, mule deer, pronghorn, and white-tailed deer. It is also within the Winter Range for the mule deer. However, it is highly unlikely that these species would occur in the Study Area due to the high level of human activity in the surrounding area (e.g., vehicle traffic and residential developments) and the highly disturbed nature of the Study Area itself. The vegetation is primarily weedy and does not provide valuable forage or browse for the grazers. The Study Area lacks the vegetative structure and diversity that would support black bears and significant prey populations for mountain lions. No signs of any of these species (i.e., scat or tracks) were observed in the Study Area.

4.2 PRAIRIE DOGS

SMITH observed a few old burrows in the northern portion of the Study Area, but they were all overgrown and/or collapsed. None showed any signs of activity. An analysis of aerial imagery on Google Earth does not show any expansive prairie dog colony in the area in the past decade, so it is possible that these burrows are extremely old or were dug by another species. There are not currently any active colonies adjacent to the Study Area that would provide a population for potential migration. As such, there are no recommendations for prairie dog management activities at this time.

5.0 CONCLUSIONS AND RECOMMENDATIONS

After evaluating the Study Area, SMITH offers the following conclusions and recommendations:

1. Twelve species listed by the USFWS and/or the State of Colorado as threatened or endangered have the potential to occur in El Paso County. SMITH believes that none of these species are likely to occur in the Study Area, and development of the Study Area will not jeopardize the continued existence of these species.
2. The Study Area provides habitat for ground- and tree-nesting birds. If disturbance activities will begin during the nesting season, surveys should be conducted no more than one week in advance.
3. SMITH observed only one Swainson's Hawk soaring above the Study Area, and no eagles were observed. Additionally, no large nests suitable for raptors or eagles were identified. However, there is suitable raptor nesting habitat within 0.5 miles of the Study Area. If construction will occur during the nesting season, surveys should be conducted prior to the initiation of disturbance activities.
4. The Study Area is located in the Overall Range of five mammal species mapped by CPW, and the Winter Range for mule deer. However, the Study Area provides poor habitat for these species and will not result in negative impacts to these individuals or to overall populations.
5. There are no prairie dogs within the Study Area nor are there adjacent populations that could migrate into the Study Area.

6.0 REFERENCES

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APPENDIX A – DRAFT SITE PLAN

APPENDIX B – PHOTOS



Photo 1. View looking south across the Study Area.



Photo 2. View looking northeast along the Fountain Ditch.

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Photo 3. View looking northwest towards a small, treed area with cottonwoods and saltcedar.



Photo 4. View of an inactive burrow overgrown with vegetation. Spider webs occur in the opening and no scat was observed.