



Consultants in Natural Resources and the Environment

Burrowing Owl Survey Report P125 Gravel Mine Weld County, Colorado

Prepared for—

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ERO Project #24-180

May 12, 2025

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Appendix A Photo Log

Burrowing Owl Survey Report

P125 Gravel Mine

Weld County, Colorado

May 12, 2025

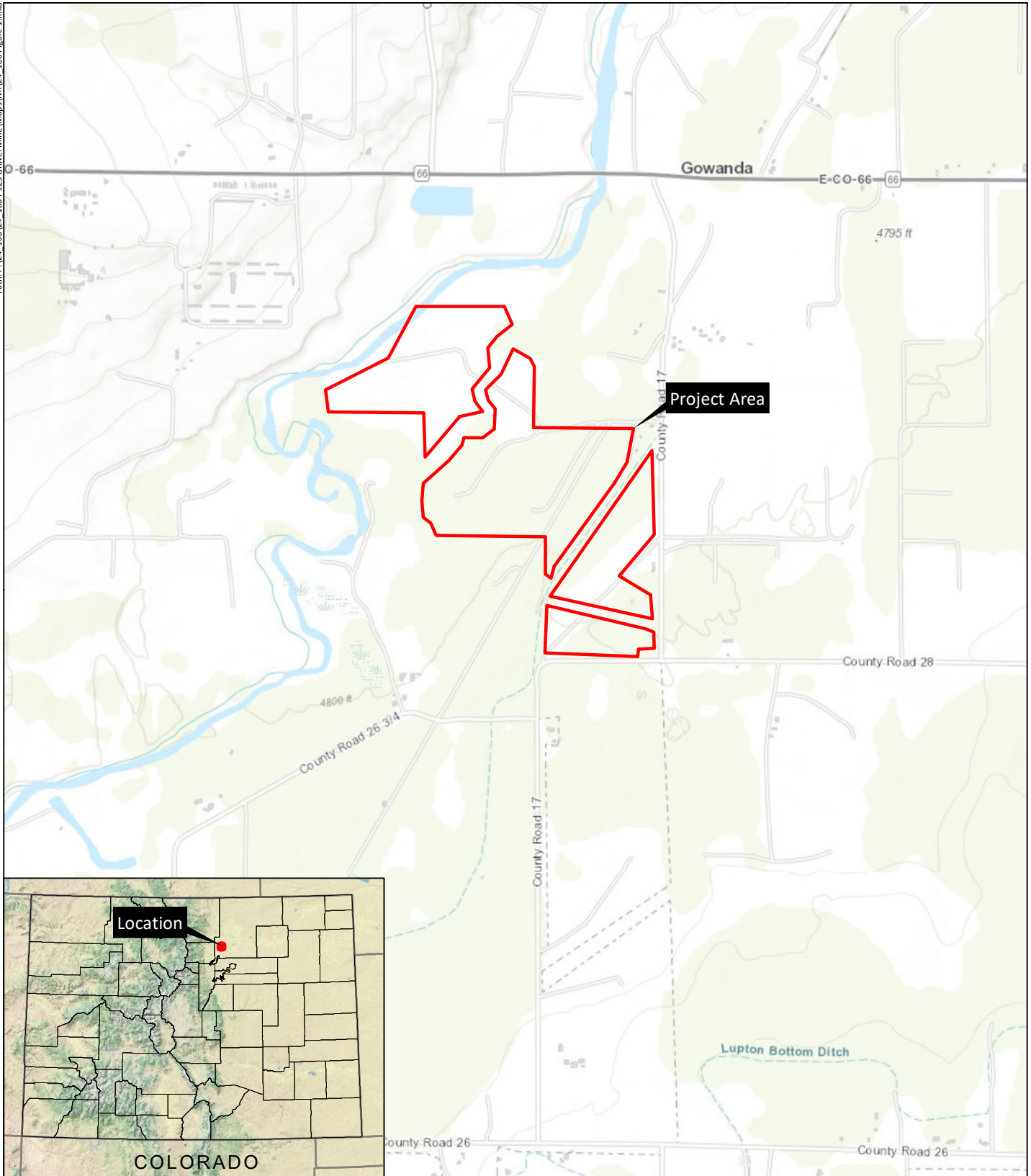
Introduction

Raptor Materials retained ERO Resources Corporation (ERO) to conduct burrowing owl (*Athene cunicularia*) surveys (project) for the P125 Gravel Mine property south Colorado Highway 66 and west of Weld County Road 17 near Firestone in Weld County, Colorado (project area; Figure 1). ERO conducted a presence/absence burrowing owl survey for the project in spring 2025 to determine if any owls were present in the project area.

The burrowing owl is a migratory bird species protected by international treaty under the Migratory Bird Species Act (MBTA) of 1918 (16 United States Code 703-711). The MBTA makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed in 50 Code of Federal Regulations (CFR) Part 10, including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 CFR 21). In addition, the burrowing owl has been listed as threatened by Colorado Parks and Wildlife (CPW 2025).

The burrowing owl is a small migratory owl that nests in sparsely vegetated areas on the plains, such as prairie dog towns, in eastern Colorado. The owl is active during the day and uses abandoned prairie dog burrows for nesting and roosting (Haug, Milsap, and Martell 1993). Burrowing owls typically do not occur at sites with vegetation greater than 4 inches high. Burrowing owls typically stop nesting in prairie dog colonies within one to three years after a colony has been abandoned by prairie dogs (Dechant et al. 1999).

Burrowing owls are typically present in Colorado between March 15 and October 31 (CPW 2021). Federal and state laws, including the MBTA, prohibit the killing of burrowing owls. Inadvertent killing of burrowing owls could occur during prairie dog poisoning, construction, or earthmoving activities. To avoid accidental killing of owls, CPW has issued guidelines for conducting clearance surveys in areas subject to poisoning or construction projects during the period from March 15 through October 31 (CPW 2021). This period coincides with the summer residency period for burrowing owls in Colorado.



Project Area

Location

COLORADO

P125 Gravel Mine, Weld County
Section 29, T3N, R67W; 6th PM
UTM NAD 83: Zone 13N; 507688mE, 4449436mN
Longitude 104.909671°W, Latitude 40.195283°N
USGS Gowanda, CO Quadrangle

Weld County, Colorado
Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community
Copyright: © 2013 National Geographic Society, i-cubed

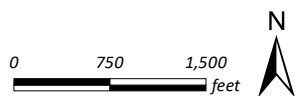


Figure 1
Vicinity Map

Prepared for: Raptor Materials
File: 24_180 Figure 1.mxd [dlH]
July 17, 2024

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Project Location

The project area is south of Colorado Highway 66 and west of Weld County Road 17 near Firestone in Weld County, Colorado (Figure 1). The legal description of the project area is Section 29, Township 3 North, Range 67 West of the 6th Principal Meridian in Weld County, Colorado. The UTM coordinates of the approximate center of the project area are NAD 83: Zone 13 North; 507688mE, 4449436mN. The longitude/latitude of the project area is 104.909671°W/40.195283°N. The elevation of the project area is approximately 4,790 to 4,810 feet above mean sea level. Photo points are shown on Figure 2, and photos of the project area are included in Appendix A.

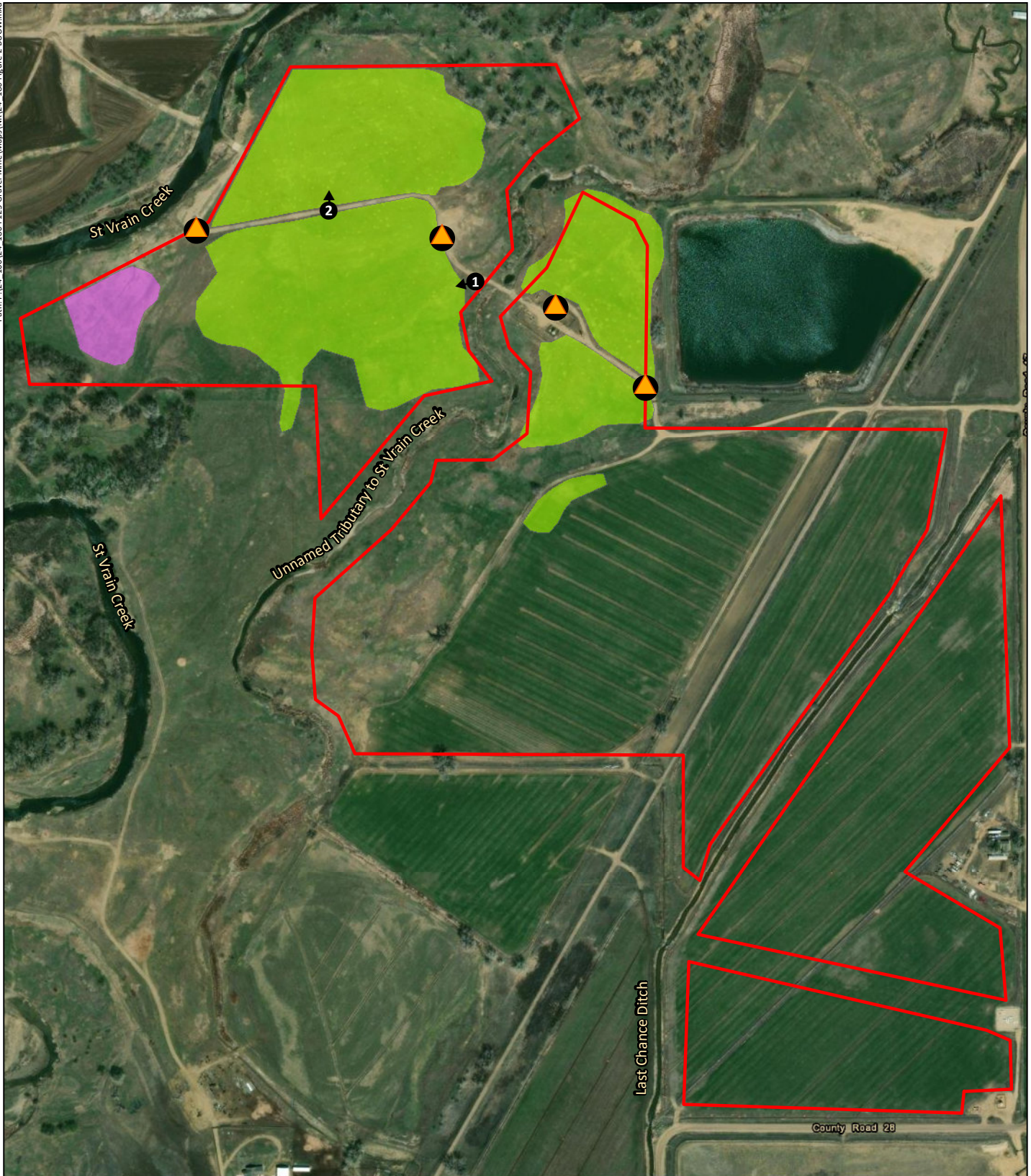
Ecological Characteristics of the Project Area

The project area consists of flood-irrigated alfalfa fields and an organic dairy cattle pasture (Photo 1 and Photo 2; Figure 2). St. Vrain Creek is to the northwest but is outside of the project area while an unnamed tributary to St. Vrain Creek is between but outside of two portions of the project area. The project area is located within the Boulder Creek-Saint Vrain Creek Hydrologic Unit Code (HUC) 10 watersheds of central Colorado. Streams generally flow from southwest to northeast out of the foothills and into the South Platte River. The South Platte River converges with the North Platte River just west of Ogallala, Nebraska to form the Platte River. The Platte River is tributary to the Missouri River, which eventually flows into the Mississippi River. Most of the tributaries that flow into the Boulder Creek-Saint Vrain Creek HUC 10 watersheds contain riparian corridors dominated by deciduous woodlands and transitional shrubs and grasslands.

The vegetation in the project areas is dominated by alfalfa (*Medicago sativa*), western wheatgrass (*Pascopyrum smithii*), cheatgrass (*Bromus tectorum*), smooth brome (*Bromus inermis*), flixweed (*Descurainia sophia*), squirreltail (*Elymus elymoides*), little hogweed (*Portulaca oleracea*), pigweed (*Amaranthus* sp.), and kochia (*Bassia scoparia*).

Methods

On April 17, April 26, and May 2, 2025, ERO conducted the surveys (2025 surveys) following CPW's *recommended Survey Protocol and Actions to Protect Nesting Burrowing Owls* (CPW 2021). Active prairie dog colonies were observed in the northern portion of the project area during the 2025 surveys (Figure 2). ERO reviewed aerial imagery of the properties within 0.25 mile of the project area for active and inactive prairie dog towns (Google, Inc. 2025). ERO conducted the three 2025 surveys when temperatures were above 40°F and below 80°F and wind speeds were below 12 miles per hour, with no fog or precipitation occurring during the surveys. The 2025 surveys consisted of both visual observations and recorded playback of burrowing owl calls from four survey points (Figure 2).



P125 Gravel Mine, Weld County

- Project Area
- Active Prairie Dog Colony
- Photo Point
- Inactive Prairie Dog Colony
- Burrowing Owl Survey Point

0 250 500
feet



Figure 2 Existing Conditions

Prepared for: Raptor Materials
File: 24_180 Figure 2 BUOW.mxd [dlH]
May 2, 2025

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Results

ERO did not observe burrowing owls during any of the three 2025 surveys of the burrows located in the northern portion of the project area.

Conclusions

Burrowing owls were not observed in the project area during any of the three 2025 surveys. It is possible that owls may occupy the prairie dog colonies, but not nest, and that owls may nest elsewhere but use the project area for foraging, or they may be present on a transient basis. These temporary uses would not restrict project activities as long as individual birds are not injured or killed by project-related activities. Project activities are unlikely to impact burrowing owls in the project area.

References

- Colorado Parks and Wildlife. 2021. "Recommended Survey Protocol and Actions to Protect Nesting Burrowing Owls." Colorado Parks and Wildlife.
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- Google, Inc. 2025. "Google Earth Pro." Online database. Google Earth Pro Version 7.3.3.7786 (64-Bit). 2025. <https://earth.google.com/web>.
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PHOTO LOG
P125 GRAVEL MINE
APRIL 17, APRIL 26, MAY 2, 2025
WELD COUNTY, COLORADO



Photo 1 - Central prairie dog colony. View is west.



Photo 2 - Northern prairie dog colony. View is north.