

November 10, 2023

Murray Fountain LLC

212 N. Wahsatch Ave., Suite 301
Colorado Springs, CO 80903

To whom it may concern,

Matrix Design Group, Inc. (Matrix) prepared this assessment on behalf of Murray Fountain LLC et al, which is pursuing a land development permit through El Paso County for the Rolling Meadows/ Bull Hill development located in El Paso County, Colorado (FIGURE 1). The proposed project includes the construction of residential buildings, amenities, and open space areas. The project lies within Section 1, Section 12, the east and southeast portions of Section 2, and the northeast $\frac{1}{4}$ of Section 11 and Section 13, Township 15 South, Range 65 West of the 6th Principal Meridian in El Paso County, Colorado; the approximate project center is 38.762619, -104.622954.

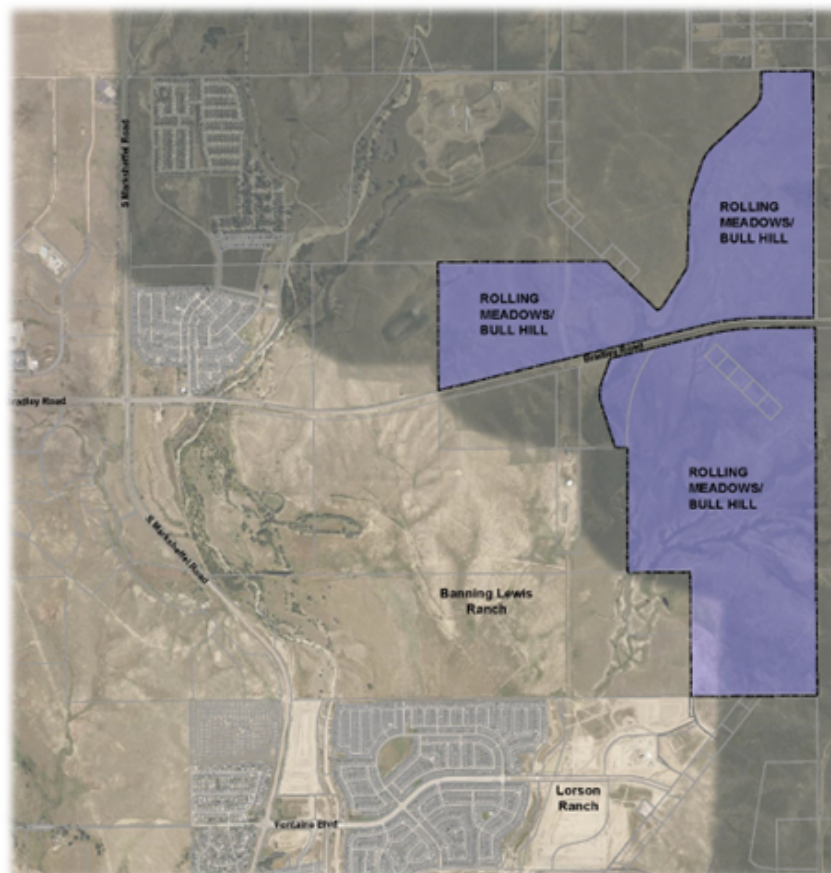


Figure 1. Project vicinity.

METHODS

For this assessment, Matrix first conducted a desktop analysis of the project area to determine whether known federal threatened and endangered species or critical habitats have been documented within or immediately adjacent to the proposed project area. Matrix queried the U.S. Fish and Wildlife Service’s (USFWS) Information for Planning and Consultation System (IPaC) database records for Pueblo County, Colorado’s State Wildlife Action Plan (CSWAP), and Colorado’s Conservation Data Explorer (CODEX). A field review of the project area was conducted by Matrix staff on November 3, 2023. The findings of the desktop analysis and field visit are summarized below.

RESULTS

Endangered Species Act

Desktop analyses identified eight threatened, endangered, or candidate species or species that may be impacted by activities in El Paso County, which are listed in TABLE 1. Representative site photos of the project area are provided, following this memo.

TABLE 1: THREATENED AND ENDANGERED SPECIES WITH POTENTIAL TO OCCUR IN PROJECT AREA

Scientific Name	Common Name	Species Type	USFWS Status
<i>Canis lupus</i>	gray wolf	mammal	Endangered
<i>Zapus hudsonius preblei</i>	Preble’s meadow jumping mouse	mammal	Threatened
<i>Danaus plexippus</i>	monarch butterfly	insect	Candidate
<i>Laterallus jamaicensis</i>	eastern black rail	bird	Threatened
<i>Charadrius melodus</i>	piping plover	bird	Threatened
<i>Oncorhynchus clarkii stomias</i>	greenback cutthroat trout	fish	Threatened
<i>Scaphirhynchus albus</i>	pallid sturgeon	fish	Endangered
<i>Spiranthes diluvialis</i>	Ute ladies’-tresses	flowering plant	Threatened

The project area and immediately adjacent areas do not provide suitable habitat or critical habitat for any of the above-listed species. The majority of the project area consists of dry rolling grasslands with no significant topography changes. According to the National Wetland Inventory (NWI), the mapped waters or wetlands on site are below and in Figure 2 (USFWS, 2023b). None of these waters or wetlands appeared to have any water in them during the site visit.

1. 14.05 ac Freshwater Emergent Wetland – PEM1A
2. 1.02 ac Freshwater Pond – PUSC
3. 0.75 ac Freshwater Emergent Wetland – PEM1C
4. 0.02 ac Freshwater Emergent Wetland – PEM1A
5. 6.44 ac Riverine – R4SBC
6. 3.20 ac Riverine – R4SBA
7. 12.21 ac Riverine – R4SBC1

8. 0.02 Freshwater Pond – PUSA

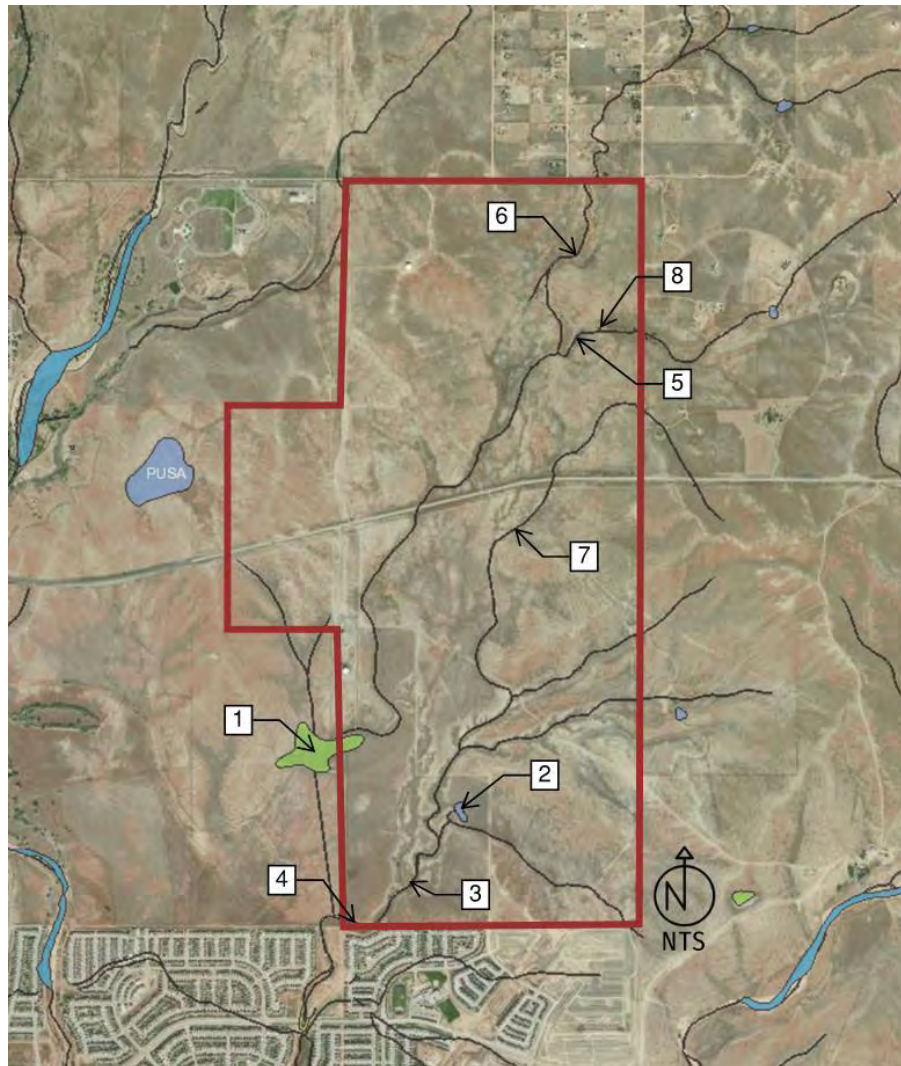


Figure 2: NWI water and wetlands on site.

According to the USFWS, the gray wolf does not have an overall range within the project area; however, the project is within the historic range. The only known population in Colorado occurs within the North Park area, which is over 200 miles to the north; therefore, no anticipated impacts are expected for the gray wolf throughout the project. Furthermore, the activity does not include a predator management program.

Preble's meadow jumping mouse (*Zapus hudsonius preblei*) is a small, jumping rodent commonly found in riparian areas near undisturbed grassland communities (USFWS, 2023c). Bradley Road, which bisects the project area, serves as the cut-off for the USFWS Block Clearance Zone for PMJM. The northern half of the project area falls within the Block Clearance Zone and the southern half is outside of the clearance zone. With no permanent wetlands on site, there are still no anticipated impacts for Preble's meadow jumping mouse throughout the project.

Monarch butterfly has the potential to reproduce within eastern Colorado between the months of June and September, producing one to three broods (Chu, 2011). However, Monarchs rely heavily on several species of milkweed as their host plant for egg laying, and milkweed

populations that the monarch requires were not observed within the project area; therefore, no anticipated impacts are expected for the monarch butterfly throughout the project.

Eastern black rail (*Laterallus jamaicensis*) is most commonly found in the southeastern United States near salt and brackish marshes with dense cover; however, can be found in Colorado within shallow wetlands dominated by cattail, bulrush, and willows (USFWS, 2023c). The project area does not support the habitat required by this species; therefore, no anticipated impacts are expected for the eastern black rail throughout the project.

Piping plover (*Charadrius melodus*) is a riparian species often found along ocean shores, rivers, and wetlands, nesting in sandy areas with sparse vegetation (USFWS, 2003). The project area does not impact the N. Platte, S. Platte, or Laramie River Basin; therefore, no anticipated impacts are expected for the piping plover throughout the project.

Greenback cutthroat trout (*Oncorhynchus clarkii stomias*) prefer cold freshwater streams and lakes with varying habitat types dependent on life stages (USFWS, 2023c). The project area does not support the habitat required by this species; therefore, no anticipated impacts are expected for the greenback cutthroat trout throughout the project.

Pallid sturgeon (*Scaphirhynchus albus*) has a historic range stretching from Montana down to Louisiana throughout the Missouri and Mississippi River systems (USFWS, 2023c). The project area does not impact the N. Platte, S. Platte, or Laramie River Basin; therefore, no anticipated impacts are expected for the pallid sturgeon throughout the project.

Ute's Ladies'-stresses (*Spiranthes diluvialis*) is a perennial herb with ivory-colored flowers typically associated with perennial streams, moist meadows, and sometimes irrigation ditches or canals (USFWS, 2023c). The project area does not support the habitat required by this species; therefore, no anticipated impacts are expected for Ute's Ladies'-stresses throughout the project.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) protects all migratory birds, raptors, and their active nests. The MBTA prohibits the removal or disturbance of active nests that would result in the loss of eggs or young. Migratory birds and raptors could potentially be impacted by the project, both directly through habitat loss and indirectly due to sound disturbance related to construction activities. Colorado Parks & Wildlife (CPW) recommends all construction-related disturbances occur outside of the migratory bird and raptor nesting season, January 15 through September 30. If a disturbance occurs within the nesting season, it is recommended that a qualified biologist conduct a survey of the site for nesting migratory birds within seven days prior to clearing/grubbing or other construction activities. Desktop analyses identified ten birds of conservation concern that may be impacted by activities in El Paso County, which are listed in TABLE 2.

TABLE 2: STATE SPECIES OF CONCERN WITH POTENTIAL TO OCCUR IN PROJECT AREA

Scientific Name	Common Name	Species Type	State Status	SWAP Tier	Potential to Occur
<i>Haliaeetus leucocephalus</i>	bald eagle	bird	Bald and Golden Eagle Protection Act	None	Yes
<i>Chaetura pelagica</i>	chimney swift	bird	Bird of Conservation Concern	None	Yes
<i>Aechmophorus clarkii</i>	Clark's grebe	bird	Bird of Conservation Concern	None	No
<i>Buteo regalis</i>	ferruginous hawk	bird	Bird of Conservation Concern	None	Yes

<i>Aquila chrysaetos</i>	golden eagle	bird	Bald and Golden Eagle Protection Act	Tier 1	Yes
<i>Tringa flavipes</i>	lesser yellowlegs	bird	Bird of Conservation Concern	None	No
<i>Numenius americanus</i>	long-billed curlew	bird	Bird of Conservation Concern	None	Yes
<i>Charadrius montanus</i>	mountain plover	bird	Bird of Conservation Concern	Tier 1	Yes
<i>Calidris melanotos</i>	pectoral sandpiper	bird	Bird of Conservation Concern	None	No
<i>Melanerpes erythrocephalus</i>	red-headed woodpecker	bird	Bird of Conservation Concern	None	Yes

Bald eagles (*Haliaeetus leucocephalus*) are protected under the Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act. They are typically found breeding and wintering in large trees adjacent to open bodies of water and tend to forage from perches or while soaring over habitats suitable for their prey which includes small mammals, fish, and waterfowl (USFWS, 2023c). There are no records of bald eagles nesting on or near this site and no former nests, but they were seen foraging on the site during the site visit which suggests that they are using this area for foraging opportunities during movement periods. Therefore, reduction of the habitat on site, and removal of potential food sources could negatively impact this species but is not expected to directly result in take of individuals.

Chimney swifts (*Chaetura pelagica*) rely on natural features like tree cavities for nesting and roosting but will use chimneys and other artificial sites with vertical surfaces and low light to nest (USFWS, 2023a; Wickersham 2016). This property is slated for the development of single and multi-family residences at a density of 10 DU/AC and 12-24 DU/AC respectively in addition to school sites, an electrical substation, various parks, and open spaces. The site is also bordered by future proposed residential development to the south, west, and north. Due to these factors, we recommend keeping existing trees on site that do not present a safety concern to residents to allow chimney swifts to forage on area flying insects contributing to a reduction of pest control costs. Further, we recommend blocking all vents, flues, and chimneys from birds that may attempt to nest within them as this may cause a fire hazard.

Ferruginous hawks (*Buteo regalis*) are often found in grasslands and shrub-steppe habitats including pastures and croplands and generally nest in trees, large shrubs, on rooftops, and sometimes near the ground or on river cutbanks. This species' prey consists mainly of small ground mammals including ground squirrels, pocket gophers, and prairie dogs (USFWS, 2023c). The presence of the prairie dog colony on-site has the potential to provide a foraging opportunity for ferruginous hawks and development will reduce this for the species.

Golden eagles (*Aquila chrysaetos*) are protected under the Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act. CPW acknowledges that these birds are known to be present year-round in this location and utilize the grasslands for foraging, including small mammals like prairie dogs. The presence of the prairie dog colony on-site has the potential to provide a foraging opportunity for golden eagles and development will reduce this for the species. Therefore, reduction of the habitat on site, and removal of potential food sources could negatively impact this species but is not expected to directly result in take of individuals.

Long-billed curlew (*Numenius americanus*) can be found in open shortgrass and mixed prairie habitats feeding on insects and other prey (USFWS, 2023c). The species is known to nest within or near prairie dog towns in Colorado and was recorded in El Paso County during the first Breeding Bird Atlas but was not observed during the second count (Wickersham 2016). Surveys

should be conducted to identify any active nests to be avoided on site prior to any construction activity.

Mountain plover (*Charadrius montanus*) can be found in open grassland habitats with sparse vegetation and feed mainly on small ground-dwelling invertebrates (USFWS, 2023c). This indicates a possibility for mountain plover to be found near the prairie dog colonies on site and could be nesting in the area. Surveys should be conducted to identify any potential habitat and active nests on site and any construction activity should be completed outside of critical nesting periods, April 1st through August 15th.

Red-headed woodpeckers (*Melanerpes erythrocephalus*) rely on forest edges, orchards, open pine woods, and groves of tall trees in open country (USFWS, 2023a). Even though these birds also have the potential to nest in wooden utility poles, they typically nest in Colorado in “large-diameter snags and trees with substantial dead limbs” (Wickersham 2016). There is some suitable habitat on site with the few existing trees that could provide foraging and nesting opportunities. We would therefore recommend protecting the trees on site and avoiding the immediate area if any nesting is suspected.

State and Local Protections and Considerations CODEX

Colorado’s Conservation Data Explorer (CODEX) considers biological diversity, lands, hydrology, and other natural resources including potential impacts on threatened, endangered, and special concern species and their habitat within project areas. During our CODEX review, which includes a one-mile buffer of the project area, eight Tier 1 Species of Greatest Conservation Need (SGCN) were noted to potentially occur within the project area, which are listed in TABLE 3.

TABLE 3: STATE SPECIES OF CONCERN WITH POTENTIAL TO OCCUR IN PROJECT AREA

Scientific Name	Common Name	Species Type	State Status	SWAP Tier	Potential to Occur
<i>Athene cunicularia</i>	burrowing owl	bird	Threatened	Tier 1	Yes
<i>Aquila chrysaetos</i>	golden eagle*	bird	Threatened	Tier 1	Yes
<i>Charadrius montanus</i>	mountain plover*	bird	Concern	Tier 1	Yes
<i>Etheostoma cragini</i>	Arkansas darter	fish	Concern	Tier 1	No
<i>Myotis lucifugus</i>	little brown myotis	mammal	None	Tier 1	No
<i>Perognathus fasciatus</i>	olive-backed pocket mouse	mammal	None	Tier 1	No
<i>Platygobio gracilis</i>	flathead chub	fish	Concern	Tier 1	No
<i>Zapus hudsonius preblei</i>	Prebles’s meadow jumping mouse	mammal	Threatened	Tier 1	No

*see notes above for species-specific information

Burrowing owl (*Athene cunicularia*) often occupy habitats within grasslands, shrub-steppe, and desert environments and nest in areas with short grass. They are often found foraging in lower vegetation including croplands, pastures, and prairie dog colonies (USFWS, 2023c). Due to the presence of a large prairie dog colony on site, it is possible that there are active burrowing owl nests as well. [Preconstruction surveys](#) are recommended to identify active nests and avoidance of those areas should follow CPW guidelines of 660-feet of human activity and up to ¼-mile for larger construction activities during the nesting season.

Habitat

The project area is located just to the east of Jimmy Camp Creek which likely provides a north-south movement corridor for large and small wildlife species [e.g., amphibians, reptiles, small mammals, and arthropods (insects and spiders, including pollinators), mule deer, and coyotes]. Signs and observations of black-tailed prairie dogs, bald eagles, red-tailed hawks, horned larks, western meadowlarks, and coyotes were noted within the project area during the site visit. There is an area of black-tailed prairie dogs on the eastern side of the project area that extends eastward onto other private lands which could pose future issues within the new development without proper planning and mitigation efforts. This area is not identified as a human-wildlife conflict area by CPW, which primarily focuses on black bear and mountain lion encounters. However, by developing the land adjacent to the Jimmy Camp Creek riparian and upland habitats, the developer should consider opportunities to reduce conflict with nuisance wildlife species (e.g., prairie rattlesnakes, raccoons, red fox, coyote, and mule deer) from negative interactions with people, their pets, and vehicles. Additionally, developing this area may result in increased black bear nuisance activity resulting in CPW to expand their designation into the area. Wildlife, their ecosystem services, and dispersal corridors are important to the immediate area and larger region. A report from Colorado's Conservation Data Explorer (CODEX) is included as an appendix. Most species indicated in this report are known from the broader area and do not necessarily occur at the project site. As indicated in the IPaC, no Federally Threatened or Endangered species occur at this site. Take or removal of game (i.e., prairie rattlesnakes) or nongame species is anticipated on site. Black-tailed prairie dogs and the species that are associated with their town, including various amphibians, invertebrates, mammals, and reptiles, would be removed from the site to make way for development. The prairie dogs are likely to persist on neighboring properties but could attempt to reestablish a town on the site unless mitigation measures are considered to keep them off-site.

Revegetation and landscape design in the project area should focus on reducing human-wildlife conflicts by keeping dense vegetation away from the surrounding commercial properties. CPW provides guidance for developers to reduce conflicts with wildlife: [Colorado Parks & Wildlife - Developing with Wildlife in Mind \(state.co.us\)](https://state.co.us/colorado-parks-wildlife-developing-wildlife-in-mind). This will help to keep species moving through the area near the floodplain of Jimmy Camp Creek and discourage movement through adjacent properties.

CPW also recommend designing [fences with wildlife in mind](#), and the current fencing on site is not wildlife-friendly and does not appear to be regularly maintained. We suggest using fencing materials and techniques that reduce human-wildlife conflicts within and surrounding the development. While it is not possible to eliminate human-wildlife conflicts, careful and thoughtful design solutions can reduce conflict, especially within new developments. In this case, we recognize the density of homes in the development may not be conducive to wildlife movement, including mule deer and pronghorn as pointed-out by CPW. Wildlife should be considered in the design of this development, and planned corridors are preferred to reduce vehicle-wildlife collisions and nuisance issues. Such corridors should consider areas for wildlife to safely pass through but not reside and areas more prohibitive to wildlife, especially potentially problematic species. Further and given the presence of the prairie dog colony and the likely presence of prairie rattlesnakes, we recommend tailoring fencing to prevent prairie dog burrowing near the development reducing zoonotic disease exposure (e.g., [plague](#)), and will deter rattlesnakes from entering those areas reducing chances of bites to people and their pets. Since prairie dogs generally avoid digging at or near barriers, we recommend a combined visual and exclusion barrier consisting of a solid, permanent structure buried at least 18 inches deep that is continuous above ground to at least 24 inches to deter digging along the perimeter of the development. Further information on prairie dog barriers can be found here: [Wild Earth Guardians – Prairie Dog Barriers](#). To be clear, this recommendation does not focus wildlife conflicts on the neighbors at

the ends of the barriers but rather reduces conflicts throughout the entire property. Any changes to culverts, storm outfalls, or other structures potentially used for wildlife movement should be evaluated and the design will be adjusted to maintain or improve the safe passage of wildlife through the greater corridor while remaining mindful of human and wildlife safety.

PROJECT IMPACTS AND CONCLUSION

The proposed project would include the development of multiple residential buildings and parking areas. Based on a review of the USFWS IPaC species list, CODEX report, and field conditions, Matrix determined that the proposed project would result in “no potential for take” of threatened and endangered species, however, this project would result in the “take” of state special status and SGCN, or their habitats. With the black-tailed prairie dog’s status as a Tier 2 species, their removal and the removal of their habitat would also result in the trickle-down removal of the associated Tier 1 species such as burrowing owls and mountain plovers. CPW recommends pre-construction surveys to identify habitat and any mountain plover nests within the project area that are to be avoided. Construction activities should occur outside of the critical nesting period for these birds, April 1st to August 15th. CPW also recommends surveying all prairie dog colonies for the presence of burrowing owls prior to construction. Should any owls be present on site, no human encroachment is allowed within 660 ft of any nesting burrows between March 15th and October 31st and any large disturbances, including residential construction, should include a larger buffer of up to a quarter mile from burrowing owl nests. The removal of this habitat will also reduce rattlesnake populations on site and reduce viable habitat for pronghorn and mule deer that may be using the site. Additionally, this site is part of the overall range for swift fox (*Vulpes velox*), a Tier 2 species, that could be using the site for denning. CPW recommends pre-construction surveys for denning sites and, should any be present on the property, to avoid disturbing any active den sites. This determination, aligned with the IPaC, is justified by the following rationale, which are summarized in TABLE 4 below:

- The project area contains CPW-designated concentration areas for mule deer that should be considered during construction,
- Nesting sites for mountain plovers, burrowing owls, and den sites for swift foxes need to be surveyed prior to construction,
- Black-tailed prairie dog colonies and associated habitats should be protected as development allows, and mitigation efforts should be utilized to prevent human-wildlife conflicts, and;
- Any potential for human-wildlife conflicts should be fully evaluated during the design phase to implement proper wildlife-friendly fencing and best management practices for species of concern.

TABLE 4: EFFECTS DETERMINATION RATIONAL

Scientific Name	Common Name	Impact	Rationale
<i>Canis lupus</i>	gray wolf	No	Project area located outside of designated critical habitat and known/expected range.
<i>Zapus hudsonius preblei</i>	Preble’s meadow jumping mouse	No	Project area does not support suitable habitat conditions
<i>Danaus plexippus</i>	monarch butterfly	No	Project area does not support suitable habitat conditions

<i>Laterallus jamaicensis</i>	eastern black rail	No	Project area does not support suitable habitat conditions
<i>Charadrius melodus</i>	piping plover	No	Project area does not support suitable habitat conditions
<i>Oncorhynchus clarkii stomias</i>	greenback cutthroat trout	No	Project area does not support suitable habitat conditions
<i>Scaphirhynchus albus</i>	pallid sturgeon	No	Project area does not support suitable habitat conditions
<i>Spiranthes diluvialis</i>	Ute ladies'-tresses	No	Project area does not support suitable habitat conditions

Please contact Joseph Ehrenberger at joseph.ehrenberger@matrixdesigngroup.com or (765) 532-8340 with questions or concerns.



Sincerely,
Joseph Ehrenberger, M.S.
Senior Ecologist

REFERENCES

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SITE PHOTOS



Photo 1: Representative photo of the site from the eastern edge looking west.



Photo 2: Representative photo of the site looking south.



Photo 3: Representative photo of unmaintained fencing on property.



Photo 4: Representative photo of black-tailed prairie dog town on property.



Photo 5: Western meadowlark on property.



Photo 6: Red-tailed hawk on property.

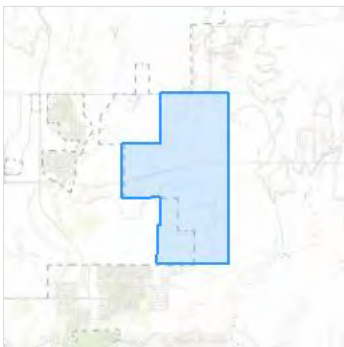
IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

El Paso County, Colorado



Local office

Colorado Ecological Services Field Office

☎ (303) 236-4773

📠 (303) 236-4005

MAILING ADDRESS

Denver Federal Center
P.O. Box 25486
Denver, CO 80225-0486

PHYSICAL ADDRESS

134 Union Boulevard, Suite 670
Lakewood, CO 80228-1807

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species¹ and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries²).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information. IPaC only shows species that are regulated by USFWS (see FAQ).
2. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Mammals

NAME	STATUS
<p>Gray Wolf <i>Canis lupus</i></p> <p>This species only needs to be considered if the following condition applies:</p> <ul style="list-style-type: none">• Lone, dispersing gray wolves may be present throughout the state of Colorado. If your activity includes a predator management program, please consider this species in your environmental review. <p>There is final critical habitat for this species. https://ecos.fws.gov/ecp/species/4488</p>	Endangered
<p>Preble's Meadow Jumping Mouse <i>Zapus hudsonius preblei</i></p> <p>Wherever found</p> <p>There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/4090</p>	Threatened

Birds

NAME	STATUS
<p>Eastern Black Rail <i>Laterallus jamaicensis</i> ssp. <i>jamaicensis</i></p> <p>Wherever found</p> <p>No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/10477</p>	Threatened

Piping Plover *Charadrius melodus* Threatened

This species only needs to be considered if the following condition applies:

- Project includes water-related activities and/or use in the N. Platte, S. Platte, and Laramie River Basins which may affect listed species in Nebraska.

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

<https://ecos.fws.gov/ecp/species/6039>

Fishes

NAME	STATUS
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Greenback Cutthroat Trout <i>Oncorhynchus clarkii stomias</i>	Threatened
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Wherever found

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/2775>

Pallid Sturgeon <i>Scaphirhynchus albus</i>	Endangered
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Wherever found

This species only needs to be considered if the following condition applies:

- Project includes water-related activities and/or use in the N. Platte, S. Platte, and Laramie River Basins which may affect listed species in Nebraska.

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/7162>

Insects

NAME	STATUS
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Monarch Butterfly <i>Danaus plexippus</i>	Candidate
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Wherever found

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/9743>

Flowering Plants

NAME	STATUS
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Ute Ladies'-tresses <i>Spiranthes diluvialis</i>	Threatened
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Wherever found

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/2159>

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

There are no critical habitats at this location.

You are still required to determine if your project(s) may have effects on all above listed species.

Bald & Golden Eagles

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act¹ and the Migratory Bird Treaty Act².

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats³, should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>

- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

There are bald and/or golden eagles in your project area.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds Oct 15 to Jul 31
Golden Eagle <i>Aquila chrysaetos</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680	Breeds Dec 1 to Aug 31

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

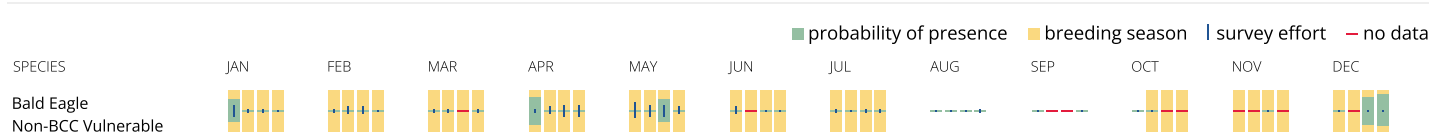
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (—)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.





What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?

The potential for eagle presence is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply). To see a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What does IPaC use to generate the probability of presence graphs of bald and golden eagles in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the [Eagle Act](#) should such impacts occur. Please contact your local Fish and Wildlife Service Field Office if you have questions.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats³ should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern \(BCC\)](#) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds Oct 15 to Jul 31
Chimney Swift <i>Chaetura pelagica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 15 to Aug 25

Clark's Grebe <i>Aechmophorus clarkii</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Jun 1 to Aug 31
Ferruginous Hawk <i>Buteo regalis</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/6038	Breeds Mar 15 to Aug 15
Golden Eagle <i>Aquila chrysaetos</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680	Breeds Dec 1 to Aug 31
Lesser Yellowlegs <i>Tringa flavipes</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9679	Breeds elsewhere
Long-billed Curlew <i>Numenius americanus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/5511	Breeds Apr 1 to Jul 31
Mountain Plover <i>Charadrius montanus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3638	Breeds Apr 15 to Aug 15
Pectoral Sandpiper <i>Calidris melanotos</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds elsewhere
Red-headed Woodpecker <i>Melanerpes erythrocephalus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Sep 10

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

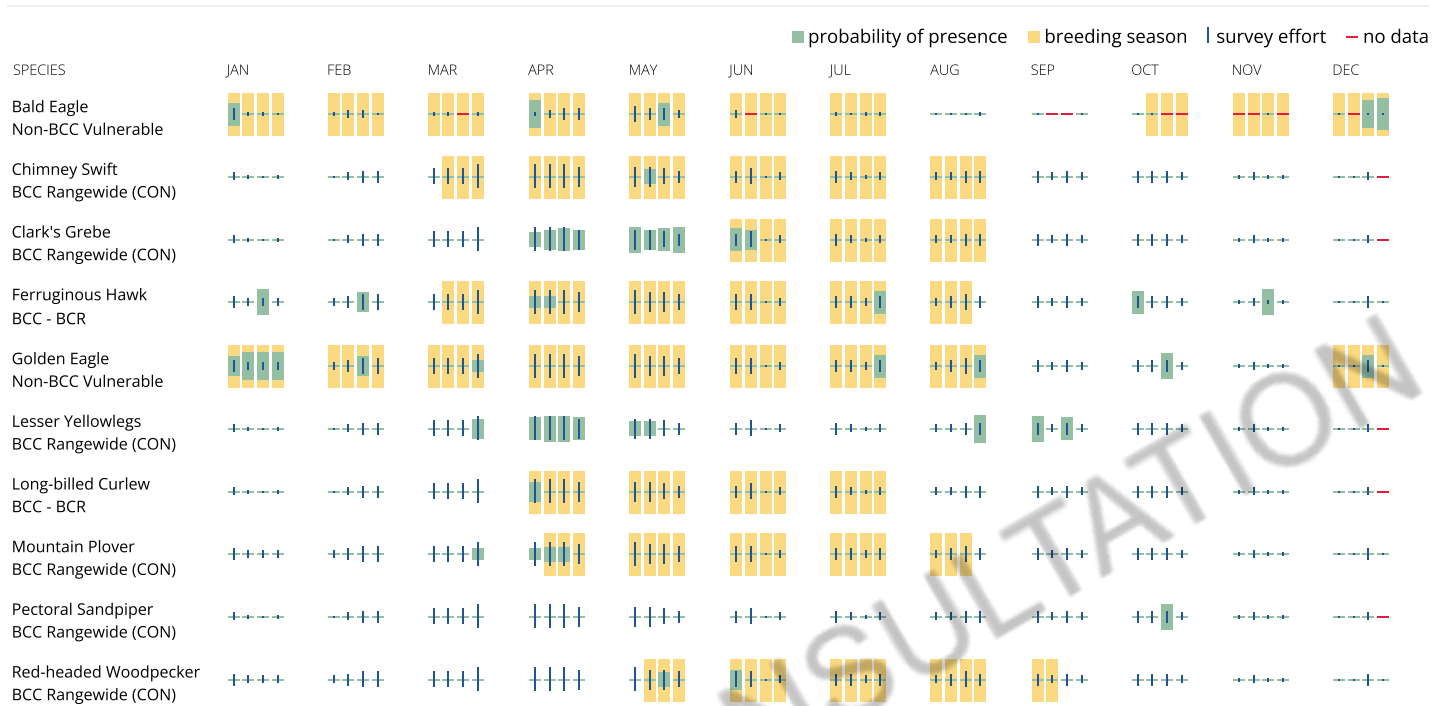
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (-)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds are breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the [Probability of Presence Summary](#). [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the [Probability of Presence Summary](#) and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the [RAIL Tool](#) and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

There are no refuge lands at this location.

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory (NWI)

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

FRESHWATER EMERGENT WETLAND

[PEM1A](#)
[PEM1C](#)

FRESHWATER POND

[PUSA](#)
[PUSC](#)

RIVERINE

[R4SBC](#)
[R4SBA](#)
[R5UBH](#)

A full description for each wetland code can be found at the [National Wetlands Inventory website](#)

NOTE: This initial screening does **not** replace an on-site delineation to determine whether wetlands occur. Additional information on the NWI data is provided below.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.



Colorado's Conservation Data Explorer

Project Review Report

Project Description

Development planning

Project Information

Report Generation Date: 10/31/2023 04:33:37 PM

Project Title: Rolling Meadows - Bull Hill

User Project Number(s):

System Generated ID: CODEX-2915

Project Type: Development/Redevelopment, Residential

Project Size: 2,617.92 (acres)

Latitude/Longitude: 38.762619 / -104.622954

County(s): EL PASO

Watershed(s) HUC 8: Fountain

Township/Range and/or Section(s): 015S065W - 01 - 6P, 015S064W - 06 - 6P, 015S065W - 02 - 6P, 015S064W - 07 - 6P, 015S065W - 12 - 6P, 015S065W - 11 - 6P, 015S065W - 13 - 6P, 015S064W - 18 - 6P, 015S065W - 14 - 6P

Contact Information

Organization: Matrix Design Group

Contact Name: Joseph Ehrenberger

Contact Phone: 7655328340

Contact Email: joseph.ehrenberger@matrixdesigngroup.com

Contact Address: 707 17th Street Suite 3150, Denver, CO 80202

Submitted On Behalf Of:

Prepared By:

Project Report:

The information contained herein represents the results of a search of Colorado's Conservation Data Explorer (CODEX) and can be used as notice to anticipate possible impacts or identify areas of interest. This tool queries multiple conservation datasets and includes a synthesis of Colorado Natural Heritage Program (CNHP) and Colorado Parks and Wildlife (CPW) data for sensitive animal and plant species and natural communities. Care should be taken in interpreting these data.

Please note that the absence of data for a particular area, species, or habitat does not necessarily mean that these natural heritage resources do not occur on or adjacent to the project site, rather that our files do not currently contain information to document their presence. CODEX information should not replace field studies necessary for more localized planning efforts, especially if impacts to wildlife habitat are possible. Although every attempt is made to provide the most current and precise information possible, please be aware that some of our sources provide a higher level of accuracy than others, and some interpretation may be required. CODEX data is constantly updated and revised. Please contact CNHP, CPW and our partners for assistance with interpretation of this report or to obtain more information.

Disclaimer:

1. This is a preliminary environmental screening tool. It is not a substitute for the potential knowledge gained by having a biologist conduct a field survey of the project area. **This review does not constitute environmental consultation (including federal consultation under the Endangered Species Act), land use permitting, or the review of site-specific projects by CNHP and CPW and our partners.**
2. This Project Report is based on the project study area that was entered. The report must be updated if the project study area, location, or the type of project changes.
3. The Conservation Data Explorer (CODEX) data is constantly changing and being updated and is not intended to be the final word on the potential distribution of special status species. Colorado is large and diverse with plants, animals, and environmental conditions that are ever changing. Consequently, many areas may contain species that biologists do not know about or species previously noted in a particular area may no longer occur there. CODEX data contains information about species occurrences that have actually been reported to CNHP, CPW and our partners. Not all of Colorado has been surveyed for special status species, and surveys that have been conducted have varied greatly in scope and intensity. Such surveys may reveal previously undocumented population of species of special concern.

Location Accuracy Disclaimer:

Project locations are assumed to be both precise and accurate for the purposes of environmental review. The creator/owner of the Project Review Report is solely responsible for the project location and thus the correctness of the Project Review Report content.

Contact for CODEX Support:

Colorado Natural Heritage Program (CNHP)

CNHP

Colorado State University

1475 Campus Delivery

Fort Collins, CO 80523-1475

Tel: (970) 491-7331

Email: CNHP_codex_support@mail.colostate.edu

CNHP Website: cnhp.colostate.edu

Colorado Parks and Wildlife

For support regarding project review of land use impacts to wildlife, please contact the regional office in which your project resides and visit <https://cpw.state.co.us/conservation/Pages/CON-Energy-Land.aspx>

CPW Website : cpw.state.co.us

Northeast Region

Denver Office

6060 Broadway

Denver, CO 80216

Tel: (303) 291-7227

Northwest Region

Grand Junction Office

711 Independent Avenue

Grand Junction, CO 81505

Tel: (970) 255-6100

Southeast Region

Colorado Springs Office

4255 Sinton Road

Colorado Springs, CO 80907

Tel: (719) 227-5200

Southwest Region

Durango Office

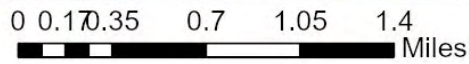
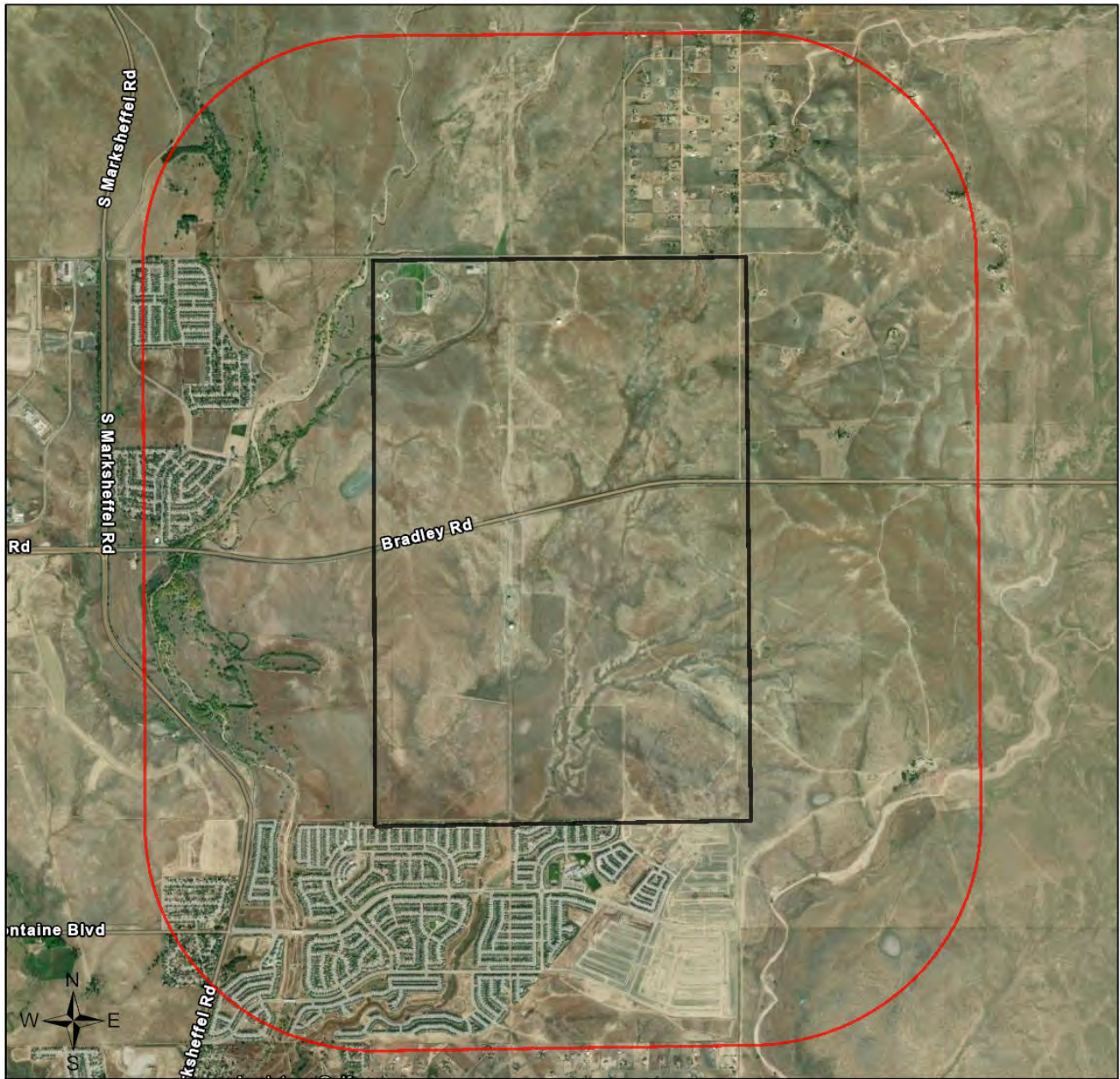
151 East 16th Street



Durango, CO 81301

Tel: (970) 247-0855

For questions regarding CPW data in CODEX please contact 303-291-7152 or matt.schulz@state.co.us

Rolling Meadows - Bull Hill Aerial Image with Locator Map

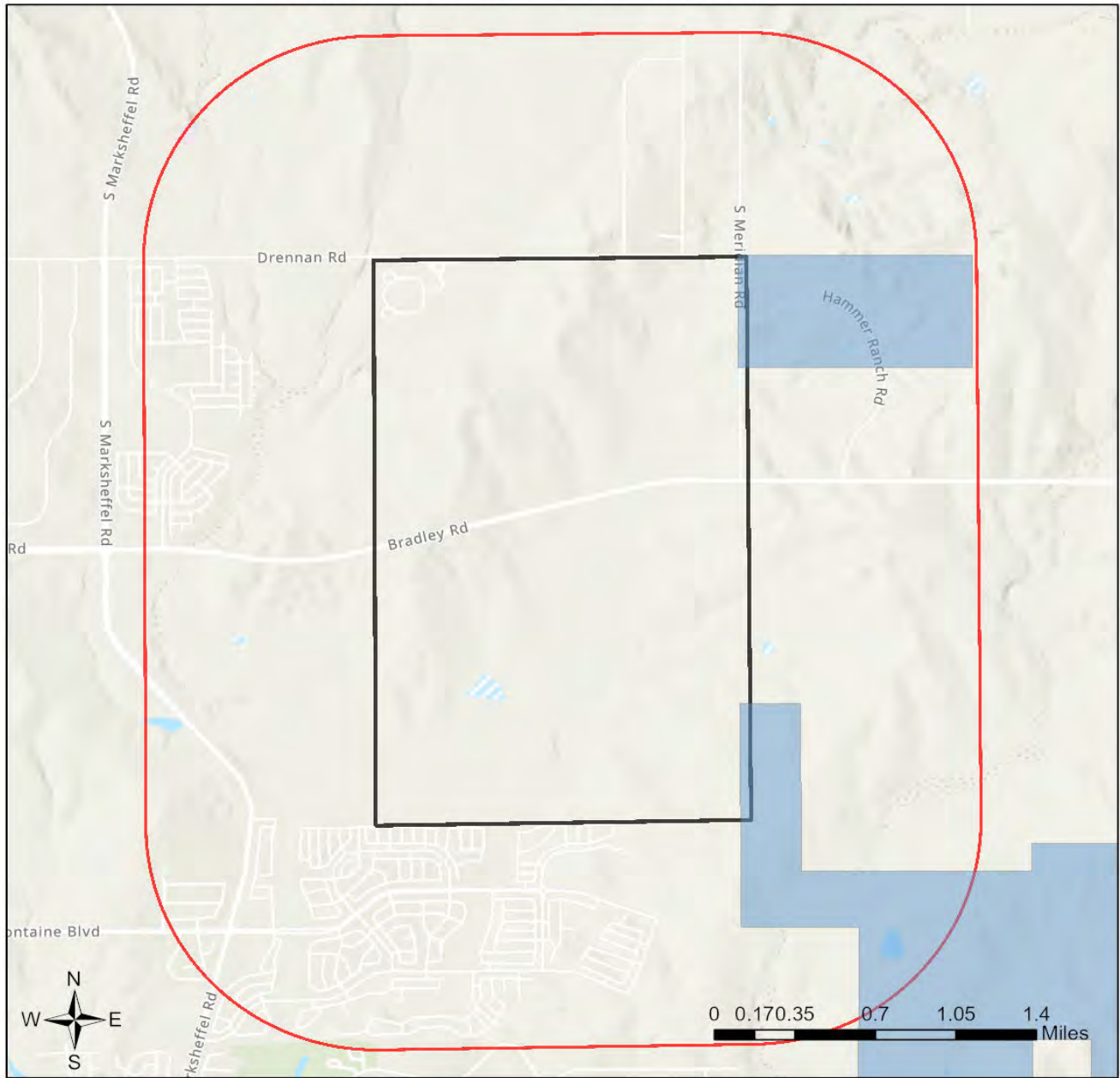


-  Buffered Search Area
-  Project Boundary



Earthstar Geographics
Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA
Esri, HERE, Garmin, FAO, NOAA, USGS, EPA

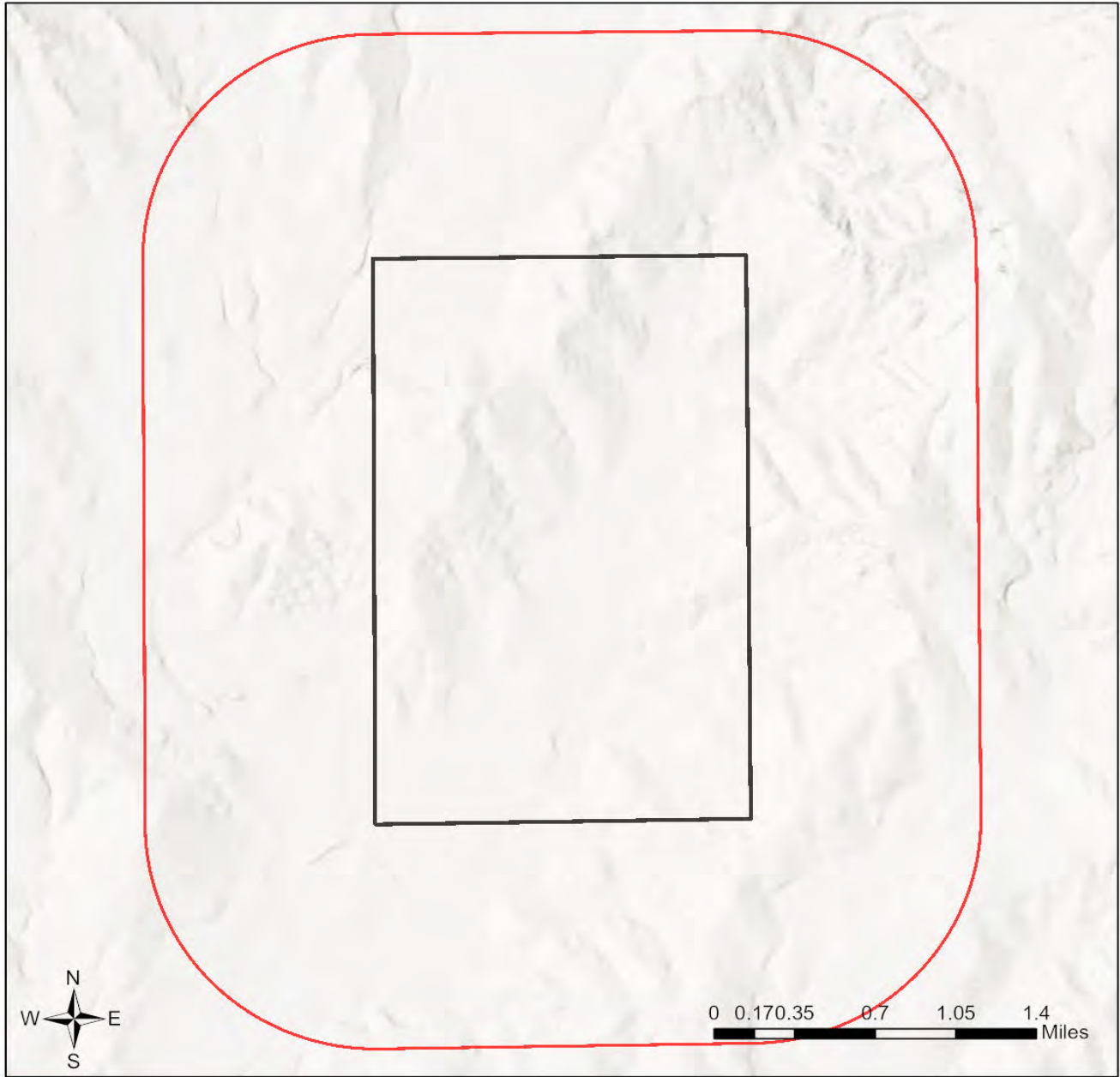
Rolling Meadows - Bull Hill Topographic Map with Land Management Status





- | | | |
|-------------------------------|--------|----------------------|
| Buffered Search Area | NPS | Local |
| Project Boundary | USFS | NGO/Land Trust |
| Misc Federal (BOR, DOD, Misc) | USFWS | Private Conservation |
| BLM | Tribal | Private |
| | State | |

Esri, NASA, NGA, USGS, FEMA
Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA

Rolling Meadows - Bull Hill Web Map As Submitted By User



-  Buffered Search Area
-  Project Boundary

Esri, NASA, NGA, USGS, FEMA

Regulatory Species

Table 1. Documented Occurrences Within 1 Miles Of Project Area

No results were found for this project area.

Table 2. Potential Regulatory Species within Project Area: Models, Range Maps, or Records with Low Precision

Major Group	Scientific Name	Common Name	Data Type	Global Rarity	State Rarity	ESA Status	CO Status	Other Status	Data Source
Birds	Aquila chrysaetos	Golden Eagle	CPW Breeding Range	G5	S3S4B,S4N			BGEPA/SWAP Tier 1	CPW 20221213
Mammals	Zapus hudsonius preblei	Meadow Jumping Mouse Subsp	CPW Overall Range	G5T2	S1	LT	ST	SWAP Tier 1	CPW 20221213

Table 3. Fish & Wildlife Service Critical Habitats within 1 Miles of Project Area

No results were found for this project area.

Other Species of Concern

Table 4. Documented Occurrences within 1 Miles of Project Area: Rare Species, Natural Communities, and Species of Economic, Recreational or Conservation Value

Major Group	Scientific Name	Common Name	Data Type	Global Rarity	State Rarity	Viability Rank	Last Observation	ESA Status	CO Status	Other Status	CNHP Identifier	Data Source
Birds	Peucaea cassinii	Cassin's Sparrow	CNHP Observation	G5	S4B	E	2003-06-19			SWAP Tier 2/USFS	18417	CNHP 20221028
Birds	Peucaea cassinii	Cassin's Sparrow	CNHP Observation	G5	S4B	E	2003-06-19			SWAP Tier 2/USFS	18420	CNHP 20221028
Fish	Etheostoma cragini	Arkansas Darter	CNHP EO	G3G4	S2	C	1998-05-12		ST	BLM/SWAP Tier 1	2417	CNHP 20221028
Fish	Etheostoma cragini	Arkansas Darter	CPW HUC12 Presence	G3G4	S2				ST	BLM/SWAP Tier 1		CPW 20221213

Table 4. Documented Occurrences within 1 Miles of Project Area: Rare Species, Natural Communities, and Species of Economic, Recreational or Conservation Value

Major Group	Scientific Name	Common Name	Data Type	Global Rarity	State Rarity	Viability Rank	Last Observation	ESA Status	CO Status	Other Status	CNHP Identifier	Data Source
Fish	Platygobio gracilis	Flathead Chub	CPW HUC12 Presence	G5	S3				SC	SWAP Tier 1/USFS		CPW 20221213
Insects	Bombus variabilis	Variable Cuckoo Bumble Bee	CNHP EO	G1G2	SH	H	1980-09-27				17584	CNHP 20221028
Mammals	Antilocapra americana	Pronghorn	CPW Concentration Area	G5	S4							CPW 20221213
Mammals	Cynomys ludovicianus	Black-tailed Prairie Dog	CNHP EO	G4	S3	A	2011-09-08		SC	BLM/SWAP Tier 2/USFS	2344	CNHP 20221028
Mammals	Cynomys ludovicianus	Black-tailed Prairie Dog	CNHP EO	G4	S3	C	2000-09-20		SC	BLM/SWAP Tier 2/USFS	9950	CNHP 20221028
Mammals	Odocoileus hemionus	Mule Deer	CPW Concentration Area	G5	S4							CPW 20221213
Mammals	Ursus americanus	Black Bear	CPW Human Conflict Area	G5	S5							CPW 20221213
Reptiles	Plestiodon multivirgatus multivirgatus	Northern Many-lined Skink	CNHP EO	G5T5	S4	E	2020-04-23				18455	CNHP 20221028

Table 5. Potential Occurrences within Project Area: Models, Range Maps, or Records with Low Precision

Major Group	Scientific Name	Common Name	Data Type	Global Rarity	State Rarity	ESA Status	CO Status	Other Status	Data Source
Birds	Ammodramus savannarum	Grasshopper Sparrow	CPW Breeding Range	G5	S3S4B			SWAP Tier 2/USFS	CPW 20221213
Birds	Antigone canadensis	Sandhill Crane	CPW Overall Range	G5	S3B,S4N				CPW 20221213
Birds	Athene cunicularia	Burrowing Owl	CPW Breeding Range	G4	S4B		ST	BLM/SWAP Tier 1/USFS	CPW 20221213
Birds	Buteo swainsoni	Swainson's Hawk	CPW Breeding Range	G5	S5B			SWAP Tier 2	CPW 20221213
Birds	Calamospiza melanocorys	Lark Bunting	CPW Breeding Range	G5	S4			SWAP Tier 2	CPW 20221213
Birds	Callipepla squamata	Scaled Quail	CPW Overall Range	G5	S4				CPW 20221213
Birds	Catharus fuscescens	Veery	CPW Breeding Range	G5	S3B			SWAP Tier 2	CPW 20221213
Birds	Charadrius montanus	Mountain Plover	CPW Breeding Range	G3	S2B		SC	BLM/SWAP Tier 1/USFS	CPW 20221213
Birds	Circus hudsonius	Northern Harrier	CPW Breeding Range	G5	S3B			SWAP Tier 2/USFS	CPW 20221213
Birds	Falco mexicanus	Prairie Falcon	CPW Breeding Range	G5	S4B,S4N			SWAP Tier 2	CPW 20221213

Table 5. Potential Occurrences within Project Area: Models, Range Maps, or Records with Low Precision

Major Group	Scientific Name	Common Name	Data Type	Global Rarity	State Rarity	ESA Status	CO Status	Other Status	Data Source
Birds	Melanerpes lewis	Lewis's Woodpecker	CPW Breeding Range	G4	S4			SWAP Tier 2/USFS	CPW 20221213
Birds	Meleagris gallopavo	Wild Turkey	CPW Overall Range	G5	S5				CPW 20221213
Birds	Passerina amoena	Lazuli Bunting	CPW Breeding Range	G5	S5B			SWAP Tier 2	CPW 20221213
Birds	Peucaea cassinii	Cassin's Sparrow	CPW Breeding Range	G5	S4B			SWAP Tier 2/USFS	CPW 20221213
Birds	Rhynchophanes mccownii	Thick-billed Longspur	CPW Breeding Range	G4	S2B			SWAP Tier 2/USFS	CPW 20221213
Birds	Selasphorus rufus	Rufous Hummingbird	CPW Migration Range	G4	SNA			SWAP Tier 2	CPW 20221213
Birds	Spizella breweri	Brewer's Sparrow	CPW Breeding Range	G5	S4B			BLM/SWAP Tier 2/USFS	CPW 20221213
Birds	Vermivora virginiae	Virginia's Warbler	CPW Breeding Range	G5	S5			SWAP Tier 2	CPW 20221213
Insects	Acronicta albarufa	Barrens Daggermoth	Range Map - present	G3G4	SH				CNHP 20210615
Insects	Acronicta exempta	A Dagger Moth	Range Map - present	GNR	S3				CNHP 20210615
Insects	Argia alberta	Paiute Dancer	Range Map - within range	G4	S4			SWAP Tier 2	CNHP 20210615
Insects	Atrytonopsis hianna	Dusted Skipper	Range Map - within range	G4G5	S2				CNHP 20210615
Insects	Bombus (Cullumanobombus) fraternus (Bombus fraternus)	Southern Plains Bumble Bee	Range Map - within range	G2G4	S2S3			SWAP Tier 2	CNHP 20210615
Insects	Bombus (Cullumanobombus) morrisoni (Bombus morrisoni)	Morrison's Bumble Bee	Range Map - within range	G3	S2S4			SWAP Tier 2	CNHP 20210615
Insects	Bombus (Thoracobombus) pensylvanicus (Bombus pensylvanicus)	American Bumble Bee	Range Map - within range	G3G4	S2S3			SWAP Tier 2	CNHP 20210615
Insects	<i>Bombus fervidus</i>	Yellow Bumble Bee	Range Map - within range	GNR	S3S4			SWAP Tier 2	CNHP 20210615
Insects	Bombus occidentalis	Western Bumble Bee	Range Map - within range	G3	S3S4			SWAP Tier 2	CNHP 20210615
Insects	Bombus variabilis	Variable Cuckoo Bumble Bee	Range Map - within range	G1G2	SH				CNHP 20210615
Insects	Callophrys mossii schryveri	Moss's Elfin	Range Map - within range	G4T4	S2S3			SWAP Tier 2	CNHP 20210615
Insects	Danaus plexippus	Monarch	Range Map - present	G4	S5			SWAP Tier 2	CNHP 20210615
Insects	Euphilotes rita coloradensis	Colorado Blue	Range Map - within range	G3G4T3	S2			SWAP Tier 2	CNHP 20210615
Insects	Heliothis australis	Southern Gem Moth	Range Map - present	GNR	S1				CNHP 20210615
Insects	Melemaea magdalena	A Geometrid Moth	Range Map - present	GU	S3				CNHP 20210615
Insects	Paratrytone snowi	Snow's Skipper	Range Map - within range	G5	S3				CNHP 20210615
Insects	Plathemis subornata	Desert Whitetail	Range Map - present	G4	S3				CNHP 20210615
Insects	Polites origenes	Cross-line Skipper	Range Map - within range	G5?	S3				CNHP 20210615
Insects	Somatochlora ensigera	Plains Emerald	CNHP General EO	G4	SH			SWAP Tier 2	CNHP 20221028
Insects	Stinga morrisoni	Morrison's Skipper	Range Map - within range	G4G5	S3S4				CNHP 20210615
Insects	Sympetrum costiferum	Saffron-winged Meadowhawk	Range Map - present	G5	S3				CNHP 20210615

Table 5. Potential Occurrences within Project Area: Models, Range Maps, or Records with Low Precision

Major Group	Scientific Name	Common Name	Data Type	Global Rarity	State Rarity	ESA Status	CO Status	Other Status	Data Source
Mammals	Antilocapra americana	Pronghorn	CPW Overall Range	G5	S4				CPW 20221213
Mammals	Conepatus leuconotus	Common Hog-nosed Skunk	Range Map - within range	G4	S1			SWAP Tier 2/USFS	CNHP 20210615
Mammals	Cynomys ludovicianus	Black-tailed Prairie Dog	CPW Overall Range	G4	S3		SC	BLM/SWAP Tier 2/USFS	CPW 20221213
Mammals	Cynomys ludovicianus	Black-tailed Prairie Dog	CPW Potential Occurrence	G4	S3		SC	BLM/SWAP Tier 2/USFS	CPW 20221213
Mammals	Eptesicus fuscus	Big Brown Bat	CPW Overall Range	G5	S5				CPW 20221213
Mammals	Lasionycteris noctivagans	Silver-haired Bat	CPW Overall Range	G3G4	S3S4				CPW 20221213
Mammals	Lasiurus borealis	Eastern Red Bat	CPW Overall Range	G3G4	S2S3B				CPW 20221213
Mammals	Lasiurus cinereus	Hoary Bat	CPW Overall Range	G3G4	S3S4B			SWAP Tier 2/USFS	CPW 20221213
Mammals	Lepus townsendii	White-tailed Jackrabbit	CPW Overall Range	G5	S4			SWAP Tier 2	CPW 20221213
Mammals	Myotis lucifugus	Little Brown Myotis	CPW Overall Range	G3G4	S4			SWAP Tier 1	CPW 20221213
Mammals	Neotamias quadrivittatus	Colorado Chipmunk	Range Map - within range	G5	S5				CNHP 20210615
Mammals	Odocoileus hemionus	Mule Deer	CPW Overall Range	G5	S4				CPW 20221213
Mammals	Odocoileus hemionus	Mule Deer	CPW Winter Range	G5	S4				CPW 20221213
Mammals	Odocoileus virginianus	White-tailed Deer	CPW Overall Range	G5	S5				CPW 20221213
Mammals	Perognathus fasciatus	Olive-backed Pocket Mouse	CPW Overall Range	G5	S3			SWAP Tier 1	CPW 20221213
Mammals	Perognathus fasciatus	Olive-backed Pocket Mouse	Range Map - within range	G5	S3			SWAP Tier 1	CNHP 20210615
Mammals	Puma concolor	Mountain Lion	CPW Overall Range	G5	S4				CPW 20221213
Mammals	Puma concolor	Mountain Lion	CPW Peripheral Range	G5	S4				CPW 20221213
Mammals	Sorex nanus	Dwarf Shrew	CPW Overall Range	G4	S2			SWAP Tier 2	CPW 20221213
Mammals	Ursus americanus	Black Bear	CPW Overall Range	G5	S5				CPW 20221213
Reptiles	Aspidoscelis sexlineata	Six-lined Racerunner	CPW Overall Range	G5	S5				CPW 20221213
Reptiles	Chrysemys picta	Painted Turtle	CPW Overall Range	G5	S5				CPW 20221213
Reptiles	Coluber constrictor	Racer	CPW Overall Range	G5	S5				CPW 20221213
Reptiles	Crotalus oreganus	Western Rattlesnake	CPW Overall Range	G5	SNR				CPW 20221213
Reptiles	Crotalus viridis	Western Rattlesnake	CPW Overall Range	G5	S5				CPW 20221213
Reptiles	Heterodon nasicus	Plains Hognose Snake	CPW Overall Range	G5	S4				CPW 20221213
Reptiles	Holbrookia maculata	Lesser Earless Lizard	CPW Overall Range	G5	S5				CPW 20221213
Reptiles	Lampropeltis gentilis	Central Plains Milk Snake	CPW Overall Range	G5	S5			SWAP Tier 2	CPW 20221213
Reptiles	Liochlorophis vernalis	Smooth Green Snake	CPW Overall Range	G5	S4				CPW 20221213
Reptiles	Masticophis flagellum	Coachwhip	CPW Overall Range	G5	S5				CPW 20221213
Reptiles	Phrynosoma hernandesi	Hernandez's Short-horned Lizard	CPW Overall Range	G5	S5				CPW 20221213
Reptiles	Pituophis catenifer sayi	Bullsnake	CPW Overall Range	G5T5	S5				CPW 20221213

Table 5. Potential Occurrences within Project Area: Models, Range Maps, or Records with Low Precision

Major Group	Scientific Name	Common Name	Data Type	Global Rarity	State Rarity	ESA Status	CO Status	Other Status	Data Source
Reptiles	Plestiodon multivirgatus	Many-lined Skink	CPW Overall Range	G5	S4				CPW 20221213
Reptiles	Sceloporus consobrinus	Fence/prairie/plateau Lizard	CPW Overall Range	G5	S5				CPW 20221213
Reptiles	Sceloporus tristichus	Southern Plateau Lizard	CPW Overall Range	G5	S3				CPW 20221213
Reptiles	Terrapene ornata ornata	Ornate Box Turtle	CPW Overall Range	G5T5	S5				CPW 20221213
Reptiles	Thamnophis elegans	Western Terrestrial Garter Snake	CPW Overall Range	G5	S5				CPW 20221213
Reptiles	Thamnophis radix	Plains Garter Snake	CPW Overall Range	G5	S5				CPW 20221213
Vascular Plants	Asclepias uncialis	Dwarf Milkweed	CNHP Model	G2	S2			BLM/SWAP Tier 2/USFS	CNHP 20210601
Vascular Plants	Delphinium robustum	Wahatoya Creek Larkspur	CNHP Model	G2G3	S2?			SWAP Tier 2	CNHP 20210318

Special Areas and Land Status

Table 6. CNHP Potential Conservation Areas and Other Special Areas within 1 Miles of Project Area

Name	Data Type	CNHP Biodiversity Rank	CNHP Edit Date	CNHP Identifier	Data Source
Aquatic Native Species Conservation Waters	SB181 High Priority Habitat				CPW 20220528
Aquatic Sportfish Management Waters	SB181 High Priority Habitat				CPW 20220528
Fountain Creek	CNHP PCA	B5: General Biodiversity Interest	2004-10-04	82	CNHP 20221028
Fountain and Jimmy Camp Creeks	CNHP PCA	B4: Moderate Biodiversity Significance	2001-06-15	124	CNHP 20221028

Table 7. Managed Areas within Project Area

Name	Owner	Manager	Management Description	Public Access*	Protection Mechanism	Easement Holder	Data Source
	PRIVATE	PRIVATE	Private Land	No	NA		COMaP 20230223
	SLB	SLB	State Land Board	No	Fee		COMaP 20230223

* It is the responsibility of the user to verify public access on any site as access can change over time. Entering an area that is not open to the public subjects an individual to possible

sanctions for trespass under Colorado law.

Water and Wetlands

Table 8. National Wetland Inventory (NWI) Features within Project Area

NWI Code	Wetland Type	Total Acres	System	Class	Water Regime	Modifier	Data Source
PEM1A	Emergent	15.27	Palustrine	Emergent/Herbaceous	Temporarily Flooded	None	CNHP 20210122
PEM1C	Emergent	0.75	Palustrine	Emergent/Herbaceous	Seasonally Flooded	None	CNHP 20210122
PUSA	Other	20.16	Palustrine	Unconsolidated Shore	Temporarily Flooded	None	CNHP 20210122
PUSC	Other	1.02	Palustrine	Unconsolidated Shore	Seasonally Flooded	None	CNHP 20210122
R4SBA	Rivers & Streams	3.20	Riverine	Stream Bed	Temporarily Flooded	None	CNHP 20210122
R4SBC	Rivers & Streams	29.36	Riverine	Stream Bed	Seasonally Flooded	None	CNHP 20210122
R5UBH	Rivers & Streams	0.06	Riverine	Unconsolidated Bottom	Permanently Flooded	None	CNHP 20210122
Rp1SS	Riparian	2.66	Riparian	Forested/Shrub Riparian	N/A	None	CNHP 20210122

Project Report Appendix

Please visit the [CNHP website](#) for a more extensive collection of definitions for CODEX reports in addition to what is provided here below.

About CNHP Data

One of CNHP's core research activities is managing a statewide database that details the locations of rare and imperiled species and natural plant communities in Colorado. We gather data from CNHP surveys and monitoring projects, as well as from partners and other trusted sources like herbariums. All of our data are compiled and managed in the Biodiversity Information Management System (Biotics), a web-enabled database platform hosted by [NatureServe](#). The species and natural plant communities we track are assigned global and state imperilment ranks based on rarity, threats, and trends, and their locations are mapped as element occurrences. Element occurrences include spatial data as well as details on condition, size, and landscape context. This information allows us to track both overall distribution and site-specific details describing how well

elements are thriving at each location. We use element occurrences to delineate Potential Conservation Areas that represent the primary area needed to support the element occurrences, and often include additional suitable habitat or buffers from disturbance. **Please visit the [CNHP website](#) for more definitions and details related to CNHP data in CODEX.**

CODEX Report Definitions

CNHP Biodiversity Rank – The significance of a potential conservation area in terms of its biological diversity ranging from B1 (Outstanding Biodiversity significance meaning protection of this potential conservation area can prevent a species from going extinct) to B5 (General interest or open space for more globally secure species).

CNHP Edit Date– The date the CNHP potential conservation area record was last updated.

CNHP Identifier– A unique identifier for each CNHP data type, applicable only to CNHP data records.

CO Status – State status per Colorado Parks & Wildlife: Endangered (SE), Threatened (ST), or State Special Concern (SC).

Common Name – The common name of the species or plant community.

Critical Habitat Status – Critical habitat status for federally listed species under the Endangered Species Act.

Proposed – Proposed critical habitat

Final – Final critical habitat

Critical Habitat Federal Register- The volume number and first page of

Managed Areas Name – Name of the managed area.

Manager – The general land Manager.

Management Description - The general category of how the feature is managed.

Other Species of Concern – Other globally rare species and plant communities, BLM or USFS sensitive species, state listed species, or Tier 1 and Tier 2 priority species from Colorado's State Wildlife Action Plan, and species of economic and recreational value.

Other Status – Other status such as BLM sensitive species (BLM), U.S Forest Service sensitive species (USFS), and Tier 1 and Tier 2 priority species from Colorado's State Wildlife Action Plan (SWAP Tier 1, SWAP Tier 2).

Owner – The general land owner.

Public Access – Level of public access to the feature.

Protection Mechanism – Any mechanism of protection assigned to the managed area.

the federal register publication describing the critical habitat.

Critical Habitat Publication Date - Federal Register publication date.

Data Source – The agency and date of the data provided.

Data Type –

[CNHP EO](#) – A location in which an element is, or was, present.

CNHP General EO – An element occurrence with imprecise directions; broadly mapped and typically historical or extirpated.

[CNHP Observation](#) – Sightings of species on CNHP's watchlist or sightings of tracked elements that do not meet the minimum criteria necessary to make an occurrence.

[CNHP PCA](#) – Areas in the state contributing to Colorado's biological diversity.

CNHP Model – Modeled presumed presence or habitat for a particular species.

CNHP PCA (Important Plant Area) – B1 or B2 CNHP potential conservation area supporting globally rare plants.

CNHP Range Map – Overall range for a particular species by HUC 10 and HUC 12 for aquatics.

[Important Bird Area](#) – The most important places for birds as identified by the National Audubon Society.

Regulatory Species – Species with federal protection under the Endangered Species Act or Bald and Golden Eagle Protection Act along with FWS designated critical habitat.

Return on Investment Report - Provides maps and the estimated annual benefit in dollars of conserved ecosystem services by ecosystem type within the project area in PDF format. Ecosystem types are derived from the 2016 National Land Cover Database (NLCD).

Scientific Name – The scientific name of the species or plant community

Special Areas and Land Status – CNHP Potential Conservation Areas ([PCA](#)), [State Designated Natural Areas](#), [Important Bird Areas](#), and managed lands from the Colorado Ownership, Management and Protection database ([COMaP](#)), SB181 High Priority Habitat

Special Areas Name – The name of the special area.

State Rarity - The [rarity rank](#) used by CNHP and The Natural Heritage Network to track how rare a species or plant community is in Colorado, ranging from S1 (rarest) to S5 (most common).

Viability Rank – The estimated viability of the species or ecological integrity of the natural community based on condition, size, and landscape context, ranging from A (excellent) to D (poor).

Water and Wetlands – Wetland types from the [National Wetland Inventory database](#).

Class - The general appearance of the habitat in terms of either the

State Natural Area - Areas that contain at least one unique or high-quality natural feature of statewide significance as designated by the Colorado Natural Areas Program.

CPW <description> - CPW data with a long list of data types: observations, nest sites, leks, etc.

Easement Holder – Organization or agency holding an easement (if present).

ESA Status – Federal status under the [Endangered Species Act](#): Endangered (E), Threatened (T), or Federal Candidate (C) with qualifiers for Partial Status (PS) and experimental populations (XN).

Global Rarity – The [rarity rank](#) used by CNHP and The Natural Heritage Network to track how rare a species or plant community is globally, ranging from G1 (rarest) to G5 (most common).

Last Observation – The most recent field observation.

Major group – The major group in which the element falls: Amphibians, Birds, Crayfish, Fish, Insects, Mammals, Mollusks, Natural Communities, Nonvascular Plants, Reptiles, and Vascular Plants.

dominant life form of the vegetation, or the physiography and composition of the substrate.

Modifier - Modifier assigned to further describe wetlands and deepwater habitats within the classification hierarchy based on water chemistry or ph, wetland or deepwater alteration, or soil type.

NWI Code – An alpha-numeric code corresponding to the classification nomenclature that best describes a particular wetland habitat. For more information on NWI data values, visit <https://www.fws.gov/wetlands/data/wetland-codes.html>

System – A complex of wetlands and deepwater habitats that share the influence of similar hydrologic, geomorphologic, chemical or biological factors.

Water Regime - Description of water duration within a wetland habitat.

Wetland Total Acres - Total acres of the wetland type in the project area.

Wetland Type – The generalized [Cowardin](#) wetland type.



COLORADO

Parks and Wildlife

Department of Natural Resources

Southeast Region
4255 Sinton Road
Colorado Springs, CO 80907
P 719.227.5200 | F 719.227.5264

October 31, 2023

El Paso County Planning and Development
Attn: Kari Parsons, Project Manager
2880 International Circle, Suite 110
Colorado Springs, CO 80910

RE: Villas at Aspen Trails Preliminary Plan

Dear Ms. Parsons,

Colorado Parks and Wildlife (CPW) thanks you for the opportunity to comment on the Villas at Aspen Trails Preliminary Plan. CPW staff is familiar with the proposed location of the project as well as the area surrounding the site. Due to the general nature of the project, CPW comments will address potential impacts to wildlife found on shortgrass prairie habitat

CPW has a statutory responsibility to manage all wildlife species in Colorado; as such we encourage protection for Colorado's wildlife species and habitats through responsible energy development and land use planning. Protection of core wildlife areas, quality fisheries and habitat, big game winter range and seasonal migration corridors, and raptor nesting locations are of extreme importance. CPW recommends that all proposed projects be assessed to avoid, minimize, or mitigate impacts to sensitive wildlife habitats and species. That includes species of concern as well as Federal and/or State listed species, big game wildlife (migration corridors, winter range, and parturition areas), breeding and nesting habitats for sensitive ground-nesting birds, and nests of raptors sensitive to development in order to prevent loss of habitat or fragmentation of habitat. US Fish and Wildlife Service should be consulted on any Federally-listed Endangered and Threatened Species that might be present at the location.

Wildlife species that can be found on the project site include: black tailed prairie dog, burrowing owls, mule deer, white-tailed deer, pronghorn, several bat species, many additional species of small mammals, a variety of reptiles, and a variety of grassland birds as well as scaled quail. Golden eagles are present year-round and utilize the area frequently. Golden eagles, as well as Ferruginous hawk, Red-tailed hawk, Prairie falcon, and Swainson's hawk, hunt nearby and within prairie dog colonies, and nest in the surrounding area. This is also a migratory flyway with staging and wintering areas for waterfowl and other migratory birds.



The majority of the project is shortgrass prairie which provides habitat for the species listed above. If black-tailed prairie dog towns are present within the project area, there is a high probability that burrowing owls and mountain plovers are present within those towns as well. Consultation with USFWS is recommended to ensure compliance with the Migratory Bird Treaty Act and the Bald and Golden Eagle Act. The best way to avoid impacts on the nesting efforts of migratory birds is to focus construction activities outside of the breeding season (March 15th -August 31st). If construction must occur during the breeding season, surveys for active nests should be conducted prior to groundbreaking. All migratory birds are protected under the Migratory Bird Treaty Act and removal or disturbance of any migratory bird nest would require consultation with CPW and USFWS prior to disturbance.

Other Threatened, Endangered, and State Species of Concern:

Burrowing Owls (*Athene cunicularia*), a state threatened bird, may be found within the preferred corridor and CPW recommends a survey of prairie dog colonies prior to construction to determine absence or presence of the species. If nesting burrowing owls are present, CPW recommends no human encroachment within 660 ft. of nesting burrows from March 15 to October 31. If burrowing owls merely occupy the site, it is recommended that earthmoving and other disturbance activities be delayed until late fall after they have migrated. CPW would like to note that the recommended survey protocol and actions to protect nesting burrowing owls document has been updated and revised as of April 4, 2021. If groundbreaking cannot be postponed, surface activity can proceed in areas greater than 660 feet (200 meters) from the nest burrow. If the actual nest burrow cannot be determined, then buffer the entire group of burrows in use. NOTE: For large industrial disturbances (e.g. drilling rigs, residential construction, etc.), CPW recommends a larger buffer of ¼ mile (1320 feet, 400 meters) from the nest burrow.

The proposed project area is within the range of the Mountain Plover (*Charadrius montanus*), a state species of special concern. The Best Management Practices for mountain plover recommend surveys to identify habitat and plover nests within the project area, and plan construction activity outside of critical nesting periods, April 1st through August 15 where these species are found. Mountain plovers can nest in short-grass prairie, dryland cultivated farms, and prairie dog towns and are likely to be nesting on the project area.

The entire project area is within the overall range of the Swift Fox (*Vulpes velox*), a state species of special concern. CPW recommends pre-construction surveys to identify and avoid all maternal swift fox den sites. Swift fox live here year-round, breed during December, and raise their young into the next fall. It is recommended that swift fox surveys include daylight searches for den areas and nighttime spotlight searches during August and September. Swift fox is a species of state and federal concern that lives in and around the proposed area.

Fencing

If a new fence must be constructed, CPW recommends that fences, whether wire, wood, electric, or synthetic, be wildlife friendly (not exceed 42 inches in height and not restrict movement of elk or deer). "Fencing with Wildlife in Mind" is a landowner resource available

from CPW that is intended to help design and construct wildlife friendly fences that also meet property owners' needs.

<https://cpw.state.co.us/Documents/LandWater/PrivateLandPrograms/FencingWithWildlifeInMind.pdf#search=fencing%20with%20wildlife%20in%20mind>

Household Pets

Household pets, including cats and dogs, present a threat to native wildlife when new development occurs. Dogs which are allowed to roam may harass and kill wildlife. Dogs outside their yard, kennel or dog-run should be on a leash or otherwise under direct control. Domestic cats are formidable hunters and may be extremely impactful to populations of local birds and small mammals. They may also attract and ultimately become prey for coyotes, foxes, and other predators. Consideration should be given to the potential impacts and conflicts that could result from free ranging domestic cats. Pet food left outside may attract predators as well as nuisance wildlife species. CPW recommends securing any and all food sources to help mitigate conflict.

We appreciate being given the opportunity to comment. Please feel free to contact District Wildlife Manager Philip Gurule, should you have any questions or require additional information at 719-828-4960 or via email at philip.gurule@state.co.us.

Sincerely,

A handwritten signature in black ink, appearing to read "Tim Kroening", with a stylized flourish at the end.

Tim Kroening

Area Wildlife Manager

Cc: Philip Gurule, DWM