

Date: August 9, 2022

RE: Wildlife Report

The CO Natural Heritage Program Conservation Data Explorer (CODEX) report is provided herein. CODEX searches multiple conservation databases including CO Parks and Wildlife data for sensitive species and natural wildlife communities. The study area includes the proposed permit area and a one-mile radius buffer area.

CODEX identified one potential conversation area and two regulatory species within one-mile of the project area. Kelso's Prairie potential conservation area is within a one-mile radius of the mine but is as of the date of this report, not a conservation or preservation area. The Golden Eagle and Meadow Jumping Mouse have documented occurrences within 1 mile of the project.

The Golden Eagle habitat is open mountains and foothills, according to the National Audubon Society website. Nests site may be on a cliff ledge or in large trees. Eagle nests have not been observed in the permit area and the permit area does not contain large trees that would be suitable for nests.

Preble's meadow jumping mouse habitat is identified by US Fish and Wildlife north of Colorado Springs. The permit area is not included in the critical habitat of this species.

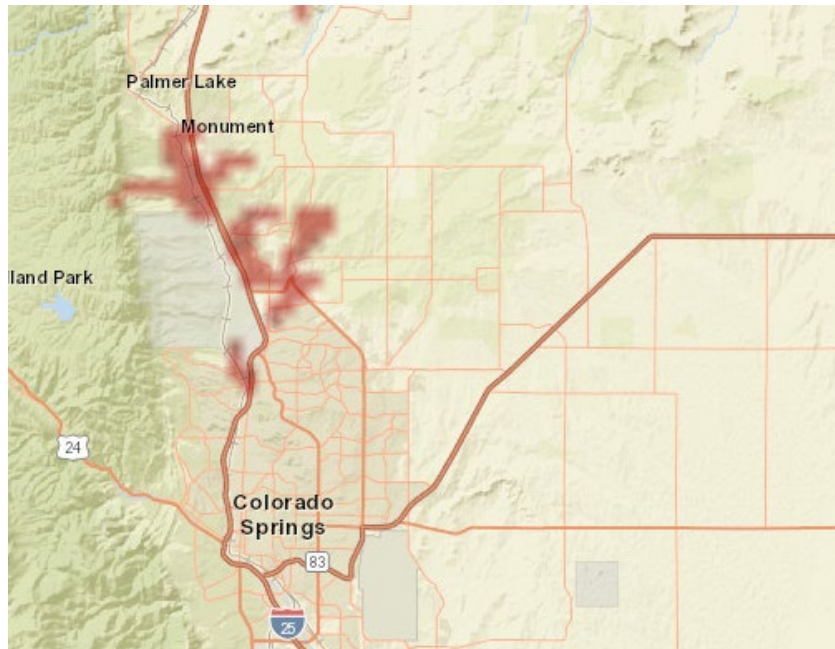
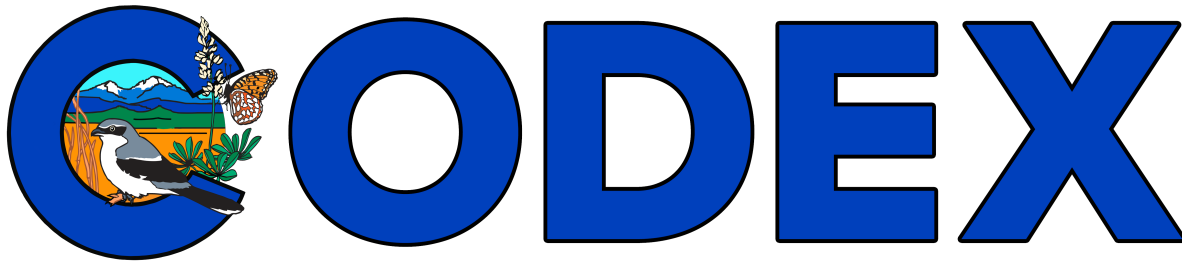


Figure 1: Critical Habitat Spatial Extents from [ecos.fws.gov](https://ecos.fws.gov)



## Colorado's Conservation Data Explorer

### Project Review Report

#### Project Description

Sand quarry amendment

#### Project Information

Report Generation Date: 11/3/2021 01:17:11 PM

Project Title: Solberg Sand Quarry for Pioneer

User Project Number(s):

System Generated ID: CODEX-131

Project Type: Mining

Project Size: 330.61 (acres)

Latitude/Longitude: 38.907309 / -104.562420

County(s): EL PASO

Watershed(s) HUC 8: Chico

Township/Range and/or Section(s): 013S064W - 17 - 6P, 013S064W - 15 - 6P, 013S064W - 16 - 6P, 013S064W - 20 - 6P, 013S064W - 22 - 6P, 013S064W - 21 - 6P

#### Contact Information

Organization: Environmental Alternatives Inc.

Contact Name: Angela Bellantoni

Contact Phone: 7192758951

Contact Email: [angela@envalternatives.com](mailto:angela@envalternatives.com)

Contact Address: P.O. Box 326, Canon City, CO 81215

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 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](mailto:CNHP_codex_support@mail.colostate.edu)

**CNHP Website:** [cnhp.colostate.edu](http://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](http://cpw.state.co.us)

#### Northeast Region

##### Denver Office

6060 Broadway

Denver, CO 80216

**Tel:** (303) 291-7227

#### Southeast Region

##### Colorado Springs Office

4255 Sinton Road

Colorado Springs, CO 80907

**Tel:** (719) 227-5200

#### Northwest Region

##### Grand Junction Office

711 Independent Avenue

Grand Junction, CO 81505

**Tel:** (970) 255-6100

#### Southwest Region

##### Durango Office

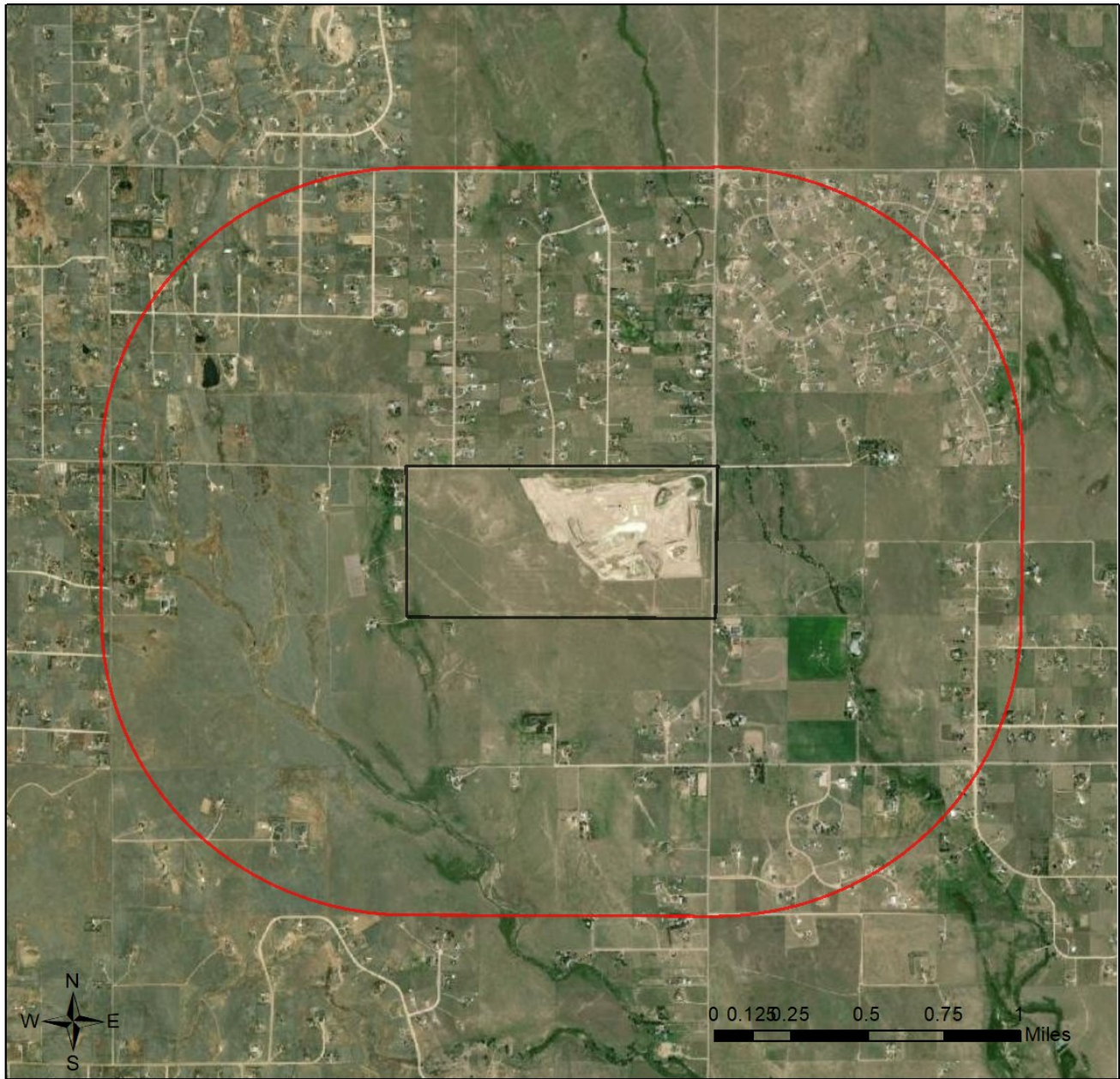
151 East 16th Street



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](mailto:matt.schulz@state.co.us)

## Solberg Sand Quarry for Pioneer Aerial Image with Locator Map

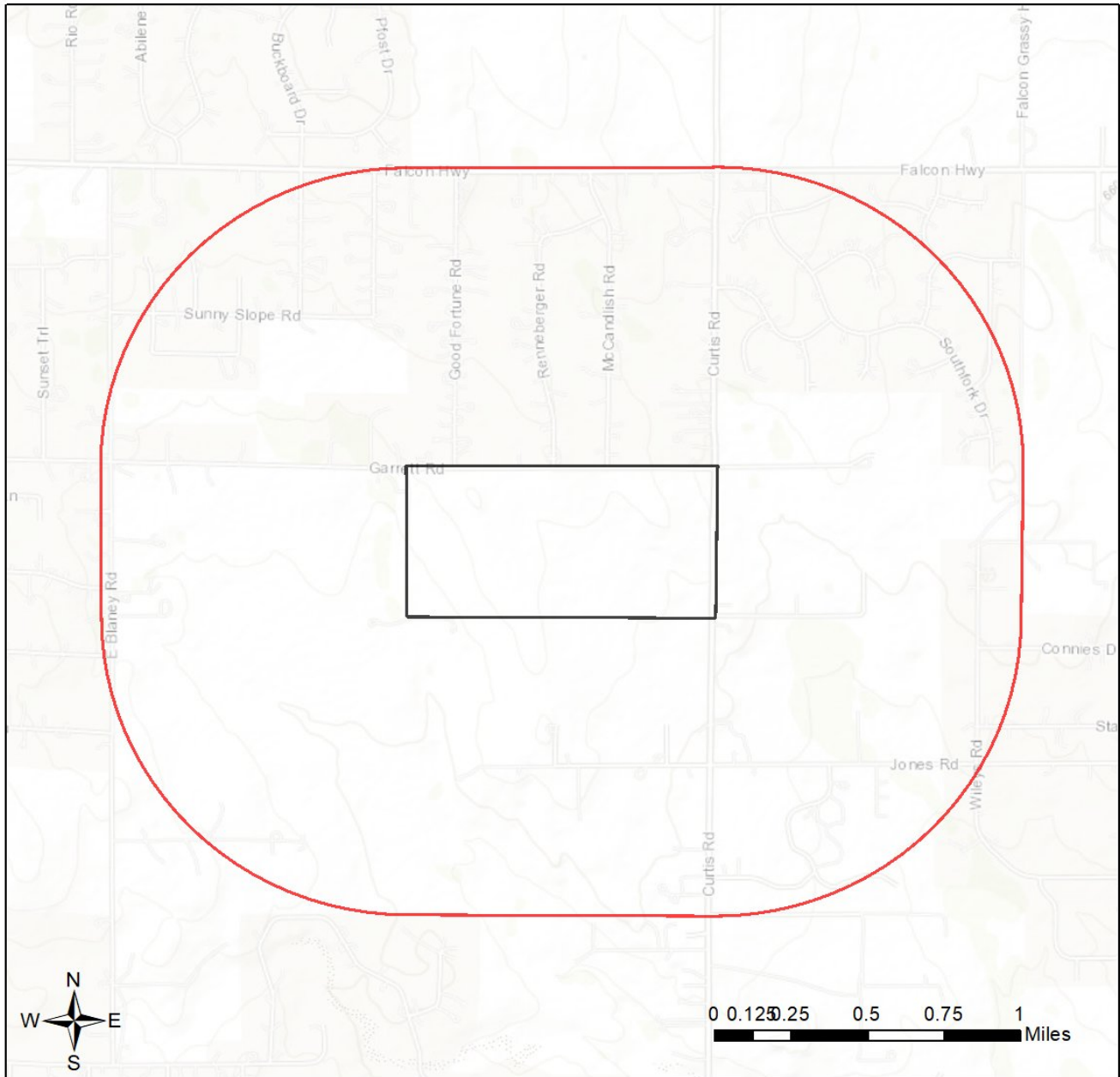















-  Project Boundary
-  Buffered Search Area



Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community  
Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

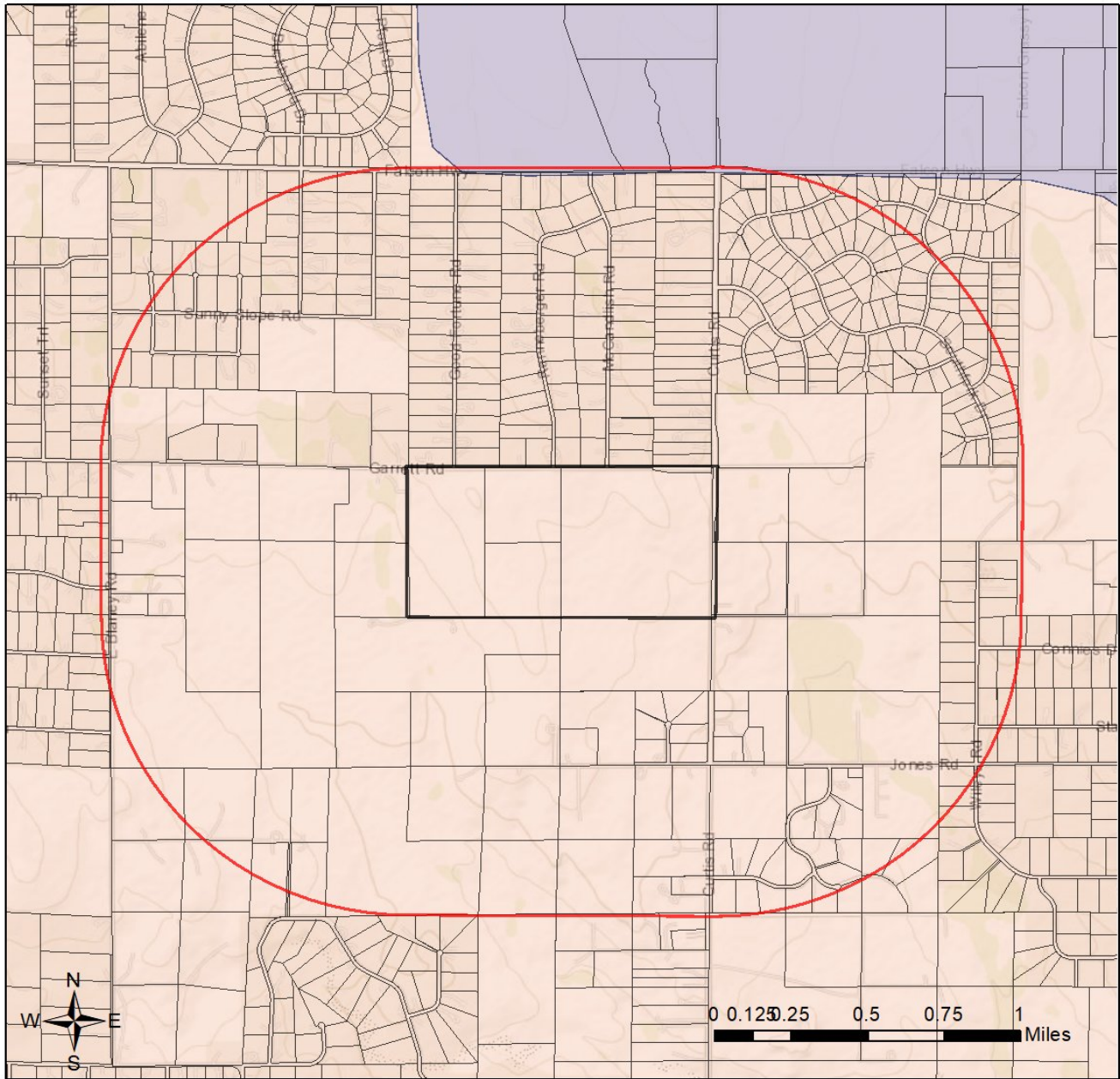
## Solberg Sand Quarry for Pioneer Topographic Map with Land Management Status



- |   |  |
|---|--|
|  Project Boundary              |  USFWS                |
|  Buffered Search Area          |  Tribal               |
| <b>COMaP Land Status (Full Version)</b>   |  |
|  Misc Federal (BOR, DOD, Misc) |  State                |
|  BLM                           |  Local                |
|  NPS                           |  NGO/Land Trust       |
|  USFS                          |  Private Conservation |
|   |  Private              |

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

## Solberg Sand Quarry for Pioneer Web Map As Submitted By User



- |   |                                    |                                    |                                    |   |
|---|------------------------------------|------------------------------------|------------------------------------|---|
| <input type="checkbox"/> Project Boundary     | <input type="checkbox"/> Denver    | <input type="checkbox"/> Lake      | <input type="checkbox"/> Pitkin    | <b>CNHP_L4Elements</b>                              |
| <input type="checkbox"/> Buffered Search Area | <input type="checkbox"/> Douglas   | <input type="checkbox"/> LaPlata   | <input type="checkbox"/> Pueblo    |   |
| <input type="checkbox"/> Adams                | <input type="checkbox"/> Eagle     | <input type="checkbox"/> Larimer   | <input type="checkbox"/> RioBlanco | <input type="checkbox"/> G1 Element Present         |
| <input type="checkbox"/> Arapahoe             | <input type="checkbox"/> ElPaso    | <input type="checkbox"/> Logan     | <input type="checkbox"/> Routt     | <input type="checkbox"/> G2 Element Present         |
| <input type="checkbox"/> Archuleta            | <input type="checkbox"/> Garfield  | <input type="checkbox"/> Mesa      | <input type="checkbox"/> SanMiguel | <input type="checkbox"/> G3 Element Present         |
| <input type="checkbox"/> Boulder              | <input type="checkbox"/> Gilpin    | <input type="checkbox"/> Montezuma | <input type="checkbox"/> Sedgwick  | <input type="checkbox"/> G4 Element Present         |
| <input type="checkbox"/> Broomfield           | <input type="checkbox"/> Grand     | <input type="checkbox"/> Montrose  | <input type="checkbox"/> Summit    | <input type="checkbox"/> G5 Element Present         |
| <input type="checkbox"/> ClearCreek           | <input type="checkbox"/> Gunnison  | <input type="checkbox"/> Morgan    | <input type="checkbox"/> Weld      | <input type="checkbox"/> Occurrences are Extirpated |
| <input type="checkbox"/> Custer               | <input type="checkbox"/> Jefferson | <input type="checkbox"/> Ouray     |                                    | <input type="checkbox"/> Elements are Unranked      |

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

## Regulatory Species

**Table 1. Documented Occurrences Within 1 Miles Of Project Area**

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	<a href="#">Aquila chrysaetos</a>	Golden Eagle	CPW Breeding Range	G5	S3S4B,S 4N					BGEPA/SWAP Tier 1		CPW 20201203
Mammals	<a href="#">Zapus hudsonius preblei</a>	Meadow Jumping Mouse Subsp	CPW Overall Range	G5T2	S1			LT	ST	SWAP Tier 1		CPW 20201203

**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	<a href="#">Aquila chrysaetos</a>	Golden Eagle	CPW Breeding Range	G5	S3S4B,S 4N			BGEPA/SWAP Tier 1	CPW 20201203
Mammals	<a href="#">Zapus hudsonius preblei</a>	Meadow Jumping Mouse Subsp	CPW Overall Range	G5T2	S1	LT	ST	SWAP Tier 1	CPW 20201203

**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	<a href="#">Ammodramus savannarum</a>	Grasshopper Sparrow	CPW Breeding Range	G5	S3S4B					SWAP Tier 2/USFS		CPW 20201203
Birds	<a href="#">Athene cunicularia</a>	Burrowing Owl	CPW Breeding Range	G4	S4B				ST	BLM/SWAP Tier 1/USFS		CPW 20201203
Birds	<a href="#">Buteo swainsoni</a>	Swainson's Hawk	CPW Breeding	G5	S5B					SWAP Tier 2		CPW 20201203



**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
			Range									201203
Birds	<a href="#">Calamospiza melanocorys</a>	Lark Bunting	CPW Breeding Range	G5	S4					SWAP Tier 2		CPW 201203
Birds	<a href="#">Callipepla squamata</a>	Scaled Quail	CPW Overall Range	G5	S4							CPW 201203
Birds	<a href="#">Charadrius montanus</a>	Mountain Plover	CPW Breeding Range	G3	S2B				SC	BLM/SWAP Tier 1/USFS		CPW 201203
Birds	<a href="#">Circus hudsonius</a>	Northern Harrier	CPW Breeding Range	G5	S3B					SWAP Tier 2/USFS		CPW 201203
Birds	<a href="#">Falco mexicanus</a>	Prairie Falcon	CPW Breeding Range	G5	S4B,S4N					SWAP Tier 2		CPW 201203
Birds	<a href="#">Melanerpes lewis</a>	Lewis's Woodpecker	CPW Breeding Range	G4	S4					SWAP Tier 2/USFS		CPW 201203
Birds	<a href="#">Passerina amoena</a>	Lazuli Bunting	CPW Breeding Range	G5	S5B					SWAP Tier 2		CPW 201203
Birds	<a href="#">Peucaea cassinii</a>	Cassin's Sparrow	CPW Breeding Range	G5	S4B					SWAP Tier 2/USFS		CPW 201203
Birds	<a href="#">Selasphorus rufus</a>	Rufous Hummingbird	CPW Migration Range	G4	SNA					SWAP Tier 2		CPW 201203
Birds	<a href="#">Spizella breweri</a>	Brewer's Sparrow	CPW Breeding Range	G5	S4B					BLM/SWAP Tier 2/USFS		CPW 201203
Birds	<a href="#">Vermivora virginiae</a>	Virginia's Warbler	CPW Breeding Range	G5	S5					SWAP Tier 2		CPW 201203
Mammals	<a href="#">Antilocapra americana</a>	Pronghorn	CPW Overall Range	G5	S4							CPW 201203
Mammals	<a href="#">Cynomys ludovicianus</a>	Black-tailed Prairie Dog	CPW Overall Range	G4	S3				SC	BLM/SWAP Tier 2/USFS		CPW 201203
Mammals	<a href="#">Cynomys ludovicianus</a>	Black-tailed Prairie Dog	CPW Potential Occurrence	G4	S3				SC	BLM/SWAP Tier 2/USFS		CPW 201203
Mammals	<a href="#">Eptesicus fuscus</a>	Big Brown Bat	CPW Overall Range	G5	S5							CPW 201203
Mammals	<a href="#">Lasionycteris noctivagans</a>	Silver-haired Bat	CPW Overall Range	G3G4	S3S4							CPW 201203
Mammals	<a href="#">Lasiurus borealis</a>	Eastern Red Bat	CPW Overall Range	G3G4	S2S3B							CPW 201203

**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
Mammals	<a href="#">Lasiurus cinereus</a>	Hoary Bat	CPW Overall Range	G3G4	S3S4B					SWAP Tier 2/USFS		CPW 20 201203
Mammals	<a href="#">Lepus townsendii</a>	White-tailed Jackrabbit	CPW Overall Range	G5	S4					SWAP Tier 2		CPW 20 201203
Mammals	<a href="#">Myotis lucifugus</a>	Little Brown Myotis	CPW Overall Range	G3	S4					SWAP Tier 1		CPW 20 201203
Mammals	<a href="#">Odocoileus hemionus</a>	Mule Deer	CPW Overall Range	G5	S4							CPW 20 201203
Mammals	<a href="#">Odocoileus hemionus</a>	Mule Deer	CPW Winter Range	G5	S4							CPW 20 201203
Mammals	<a href="#">Odocoileus virginianus</a>	White-tailed Deer	CPW Overall Range	G5	S5							CPW 20 201203
Mammals	<a href="#">Perognathus fasciatus</a>	Olive-backed Pocket Mouse	CPW Overall Range	G5	S3					SWAP Tier 1		CPW 20 201203
Mammals	<a href="#">Sorex nanus</a>	Dwarf Shrew	CPW Overall Range	G4	S2					SWAP Tier 2		CPW 20 201203
Mammals	<a href="#">Ursus americanus</a>	Black Bear	CPW Overall Range	G5	S5							CPW 20 201203
Reptiles	<a href="#">Aspidoscelis sexlineata</a>	Six-lined Racerunner	CPW Overall Range	G5	S5							CPW 20 201203
Reptiles	<a href="#">Chrysemys picta</a>	Painted Turtle	CPW Overall Range	G5	S5							CPW 20 201203
Reptiles	<a href="#">Crotalus oreganus</a>	Western Rattlesnake	CPW Overall Range	G5	SNR							CPW 20 201203
Reptiles	<a href="#">Crotalus viridis</a>	Western Rattlesnake	CPW Overall Range	G5	S5							CPW 20 201203
Reptiles	<a href="#">Holbrookia maculata</a>	Lesser Earless Lizard	CPW Overall Range	G5	S5							CPW 20 201203
Reptiles	<a href="#">Lampropeltis gentilis</a>	Central Plains Milk Snake	CPW Overall Range	G5	S5					SWAP Tier 2		CPW 20 201203
Reptiles	<a href="#">Liochlorophis vernalis</a>	Smooth Green Snake	CPW Overall Range	G5	S4							CPW 20 201203
Reptiles	<a href="#">Masticophis flagellum</a>	Coachwhip	CPW Overall Range	G5	S5							CPW 20 201203
Reptiles	<a href="#">Phrynosoma hernandesi</a>	Hernandez's Short-horned	CPW Overall	G5	S5							CPW 20

**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
		Lizard	Range									201203
Reptiles	<a href="#">Pituophis catenifer sayi</a>	Bullsnake	CPW Overall Range	G5T5	S5							CPW 201203
Reptiles	<a href="#">Plestiodon multivirgatus epipleurotus</a>	Variable Skink	CPW Overall Range	G5T5	S3							CPW 201203
Reptiles	<a href="#">Plestiodon multivirgatus</a>	Many-lined Skink	CPW Overall Range	G5	S4							CPW 201203
Reptiles	<a href="#">Sceloporus consobrinus</a>	Fence/prairie/plateau Lizard	CPW Overall Range	G5	S5							CPW 201203
Reptiles	<a href="#">Sceloporus tristichus</a>	Southern Plateau Lizard	CPW Overall Range	G5	S3							CPW 201203
Reptiles	<a href="#">Terrapene ornata ornata</a>	Ornate Box Turtle	CPW Overall Range	G5T5	S5							CPW 201203
Reptiles	<a href="#">Thamnophis elegans</a>	Western Terrestrial Garter Snake	CPW Overall Range	G5	S5							CPW 201203
Reptiles	<a href="#">Thamnophis radix</a>	Plains Garter Snake	CPW Overall Range	G5	S5							CPW 201203

**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	<a href="#">Ammodramus savannarum</a>	Grasshopper Sparrow	CPW Breeding Range	G5	S3S4B			SWAP Tier 2/USFS	CPW 20201203
Birds	<a href="#">Athene cucularia</a>	Burrowing Owl	CPW Breeding Range	G4	S4B		ST	BLM/SWAP Tier 1/USFS	CPW 20201203
Birds	<a href="#">Buteo swainsoni</a>	Swainson's Hawk	CPW Breeding Range	G5	S5B			SWAP Tier 2	CPW 20201203
Birds	<a href="#">Calamospiza melanocorys</a>	Lark Bunting	CPW Breeding Range	G5	S4			SWAP Tier 2	CPW 20201203
Birds	<a href="#">Callipepla squamata</a>	Scaled Quail	CPW Overall Range	G5	S4				CPW 20201203
Birds	<a href="#">Charadrius montanus</a>	Mountain Plover	CPW Breeding Range	G3	S2B		SC	BLM/SWAP Tier 1/USFS	CPW 20201203
Birds	<a href="#">Circus hudsonius</a>	Northern Harrier	CPW Breeding Range	G5	S3B			SWAP Tier 2/USFS	CPW 20201203
Birds	<a href="#">Falco mexicanus</a>	Prairie Falcon	CPW Breeding Range	G5	S4B,S4N			SWAP Tier 2	CPW 20201203
Birds	<a href="#">Passerina amoena</a>	Lazuli Bunting	CPW Breeding Range	G5	S5B			SWAP Tier 2	CPW 20201203
Birds	<a href="#">Peucaea cassinii</a>	Cassin's Sparrow	CPW Breeding Range	G5	S4B			SWAP Tier 2/USFS	CPW 20201203

**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	<a href="#">Selasphorus rufus</a>	Rufous Hummingbird	CPW Migration Range	G4	SNA			SWAP Tier 2	CPW 20201203
Birds	<a href="#">Spizella breweri</a>	Brewer's Sparrow	CPW Breeding Range	G5	S4B			BLM/SWAP Tier 2/USFS	CPW 20201203
Crayfish	<a href="#">Hypochilus bonneti</a>		Range Map - present	GNR	SNR			SWAP Tier 2	CNHP 20210615
Insects	<a href="#">Amblyscirtes simius</a>	Simius Roadside Skipper	Range Map - within range	G3	S3				CNHP 20210615
Insects	<a href="#">Bombus (Bombus) occidentalis</a>	Western Bumble Bee	Range Map - within range	G4	S3S4			SWAP Tier 2	CNHP 20210615
Insects	<a href="#">Bombus (Thoracobombus) pennsylvanicus</a>	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	<a href="#">Callophrys mossii schryveri</a>	Moss's Elfin	Range Map - within range	G4T4	S2S3			SWAP Tier 2	CNHP 20210615
Insects	<a href="#">Danaus plexippus</a>	Monarch	Range Map - present	G4	S5			SWAP Tier 2	CNHP 20210615
Insects	<a href="#">Epiteca petechialis</a>	Dot-winged Baskettail	Range Map - present	G4	SNR			SWAP Tier 2	CNHP 20210615
Insects	<a href="#">Euphilotes rita coloradensis</a>	Colorado Blue	Range Map - within range	G3G4T3	S2			SWAP Tier 2	CNHP 20210615
Insects	<a href="#">Hemileuca grotei diana</a>	A Buckmoth	Range Map - within range	G4T3T4	S2				CNHP 20210615
Insects	<a href="#">Polites origenes</a>	Cross-line Skipper	Range Map - within range	G5?	S3				CNHP 20210615
Mammals	<a href="#">Antilocapra americana</a>	Pronghorn	CPW Overall Range	G5	S4				CPW 20201203
Mammals	<a href="#">Cynomys ludovicianus</a>	Black-tailed Prairie Dog	CPW Overall Range	G4	S3		SC	BLM/SWAP Tier 2/USFS	CPW 20201203
Mammals	<a href="#">Cynomys ludovicianus</a>	Black-tailed Prairie Dog	CPW Potential Occurrence	G4	S3		SC	BLM/SWAP Tier 2/USFS	CPW 20201203
Mammals	<a href="#">Eptesicus fuscus</a>	Big Brown Bat	CPW Overall Range	G5	S5				CPW 20201203
Mammals	<a href="#">Lasionycteris noctivagans</a>	Silver-haired Bat	CPW Overall Range	G3G4	S3S4				CPW 20201203
Mammals	<a href="#">Lasiurus borealis</a>	Eastern Red Bat	CPW Overall Range	G3G4	S2S3B				CPW 20201203
Mammals	<a href="#">Lasiurus cinereus</a>	Hoary Bat	CPW Overall Range	G3G4	S3S4B			SWAP Tier 2/USFS	CPW 20201203
Mammals	<a href="#">Lepus townsendii</a>	White-tailed Jackrabbit	CPW Overall Range	G5	S4			SWAP Tier 2	CPW 20201203
Mammals	<a href="#">Myotis lucifugus</a>	Little Brown Myotis	CPW Overall Range	G3	S4			SWAP Tier 1	CPW 20201203
Mammals	<a href="#">Odocoileus hemionus</a>	Mule Deer	CPW Overall Range	G5	S4				CPW 20201203
Mammals	<a href="#">Odocoileus hemionus</a>	Mule Deer	CPW Winter Range	G5	S4				CPW 20201203
Mammals	<a href="#">Odocoileus virginianus</a>	White-tailed Deer	CPW Overall Range	G5	S5				CPW 20201203
Mammals	<a href="#">Perognathus fasciatus</a>	Olive-backed Pocket Mouse	CPW Overall Range	G5	S3			SWAP Tier 1	CPW 20201203
Mammals	<a href="#">Perognathus fasciatus</a>	Olive-backed Pocket Mouse	Range Map - within range	G5	S3			SWAP Tier 1	CNHP 20210615
Mammals	<a href="#">Sorex nanus</a>	Dwarf Shrew	CPW Overall Range	G4	S2			SWAP Tier 2	CPW 20201203
Mammals	<a href="#">Ursus americanus</a>	Black Bear	CPW Overall Range	G5	S5				CPW 20201203
Reptiles	<a href="#">Aspidoscelis sexlineata</a>	Six-lined Racerunner	CPW Overall Range	G5	S5				CPW 20201203

**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	<a href="#">Chrysemys picta</a>	Painted Turtle	CPW Overall Range	G5	S5				CPW 20201203
Reptiles	<a href="#">Crotalus oreganus</a>	Western Rattlesnake	CPW Overall Range	G5	SNR				CPW 20201203
Reptiles	<a href="#">Crotalus viridis</a>	Western Rattlesnake	CPW Overall Range	G5	S5				CPW 20201203
Reptiles	<a href="#">Holbrookia maculata</a>	Lesser Earless Lizard	CPW Overall Range	G5	S5				CPW 20201203
Reptiles	<a href="#">Lampropeltis gentilis</a>	Central Plains Milk Snake	CPW Overall Range	G5	S5			SWAP Tier 2	CPW 20201203
Reptiles	<a href="#">Liochlorophis vernalis</a>	Smooth Green Snake	CPW Overall Range	G5	S4				CPW 20201203
Reptiles	<a href="#">Masticophis flagellum</a>	Coachwhip	CPW Overall Range	G5	S5				CPW 20201203
Reptiles	<a href="#">Phrynosoma hernandesi</a>	Hernandez's Short-horned Lizard	CPW Overall Range	G5	S5				CPW 20201203
Reptiles	<a href="#">Pituophis catenifer sayi</a>	Bullsnake	CPW Overall Range	G5T5	S5				CPW 20201203
Reptiles	<a href="#">Plestiodon multivirgatus epipleurotus</a>	Variable Skink	CPW Overall Range	G5T5	S3				CPW 20201203
Reptiles	<a href="#">Plestiodon multivirgatus</a>	Many-lined Skink	CPW Overall Range	G5	S4				CPW 20201203
Reptiles	<a href="#">Sceloporus consobrinus</a>	Fence/prairie/plateau Lizard	CPW Overall Range	G5	S5				CPW 20201203
Reptiles	<a href="#">Sceloporus tristichus</a>	Southern Plateau Lizard	CPW Overall Range	G5	S3				CPW 20201203
Reptiles	<a href="#">Terrapene ornata ornata</a>	Ornate Box Turtle	CPW Overall Range	G5T5	S5				CPW 20201203
Reptiles	<a href="#">Thamnophis elegans</a>	Western Terrestrial Garter Snake	CPW Overall Range	G5	S5				CPW 20201203
Reptiles	<a href="#">Thamnophis radix</a>	Plains Garter Snake	CPW Overall Range	G5	S5				CPW 20201203

## 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
<a href="#">Kelso's Prairie</a>	CNHP PCA	B2: Very High Biodiversity Significance	2016-09-08	558	CNHP 20210920

**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 v20190306

\* 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
R4SBC	Rivers & Streams	7.35	Riverine	Stream Bed	Seasonally Flooded	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 the federal register publication describing the critical habitat.

**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.

**Regulatory Species** – Species with federal protection under the

**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.

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



**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.

**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.