

**Threatened and Endangered
Species Assessment
Technical Memorandum**

New Pueblo Freeway

CDOT Project No. IM 0251-156

Project Control No. 12831

Colorado Department of Transportation

October 2005, Updated October 2010

Contents

Project Description	1
Methods and Assumptions	1
Existing Conditions	2
Ecological Setting.....	2
Habitat Types.....	3
TES Data	3
Species Known to Occur.....	4
Species Potentially Occurring.....	5
Impacts.....	5
No Action Alternative.....	6
Existing I-25 Alignment Alternative.....	6
Modified I-25 Alignment Alternative.....	7
Avoidance, Minimization, and Mitigation Options	7
Bibliography.....	9

Appendixes

- A Review of TES and Rare Species Potentially Occurring in the Project Area
- B Colorado Natural Heritage Program Listing and Status of Rare and/or Imperiled Species In or Near the Project Area

Exhibits

- 1 TES and Rare Species Known to Occur or Potentially Occurring in the Project Area
- 2 Estimated Permanent Impacts to Potential Habitat: Leopard Frog (acres)
- 3 Estimated Permanent Impacts to Potential Habitat: Arkansas Darter (acres)

Project Description

The Federal Highway Administration (FHWA), in cooperation with the Colorado Department of Transportation (CDOT), is preparing an Environmental Impact Statement (EIS) for the New Pueblo Freeway project, a proposal to improve a 7-mile segment of Interstate 25 (I-25) through Pueblo, Colorado. Improvements are necessary to address an outdated roadway and bridges with inadequate geometrics, safety issues, and existing and future traffic demand.

Alternatives under consideration include taking no action (No Action Alternative), reconstruction of the interstate on essentially the existing alignment (Existing I-25 Alignment Alternative), and reconstruction of the interstate on existing and new alignments (Modified I-25 Alignment Alternative). The alternatives are further described as follows:

- **No Action Alternative** - This alternative provides only for minor improvements, repairs, and other maintenance actions. The existing four-lane highway will otherwise remain unchanged.
- **Existing I-25 Alignment Alternative** - This alternative consists of reconstructing I-25 to six lanes on essentially the same location, reconfiguring and eliminating access points to the interstate to improve safety, and providing other improvements to the local street system to enhance system connectivity and traffic movement near the interstate.
- **Modified I-25 Alignment Alternative** - This alternative consists of rebuilding I-25 to six lanes and providing the other improvements included in the Existing Alignment Alternative, except the alignment would be shifted to accommodate different interchange configurations.

Transportation Management strategies and design variations of grade and alignment are incorporated into the build alternatives.

Relative to impact analyses for the alternatives, it has been assumed that the alignment near Mineral Palace Park will be shifted toward the park and not Fountain Creek.

Methods and Assumptions

This Technical Memorandum (TM) presents an assessment of overall Project Area (PA) wildlife habitat and the presence or potential for presence of rare, and state and federal listed or candidate threatened and endangered species (TES) in the PA. Information presented here is the result of professional judgment, literature review, contact with state and federal wildlife officials, and reconnaissance field work conducted in the PA by project ecologists Jessie Gourlie and John DuWaldt. Some of the agency contact work was performed by Karmen King (CH2M HILL; 2001, 2002). Field reconnaissance was conducted on September 10 and 11, and October 27 and 28, 2003 by Gourlie and DuWaldt. Emphasis of the reconnaissance was placed on the following wetlands and wildlife habitat areas in the PA because these are the only sizable non-urban habitats within the PA capable of supporting TES:

- 1) Wetlands located adjacent to the existing Pueblo Boulevard exit;

- 2) The unnamed drainage located between the existing I-25 (and parallel railroad tracks) on the west, Santa Fe Avenue on the east, Mesa Avenue on the south, and the Arkansas River several hundred feet to the north;
- 3) The Arkansas River crossing area;
- 4) Fountain Creek; and
- 5) The Arkansas River Riverwalk Bypass channel located north of Ilex Street (see Exhibit 1).

The Existing Conditions section below reports general habitat conditions and wildlife field observations, and tabulates information on potential TES in the PA. Table 1 includes three types of data:

- 1) TES listed by the Colorado Natural Heritage Program (CNHP) as occurring within or near the PA in the past 45 years;
- 2) Species identified by the Colorado Division of Wildlife (CDOW) and the United States Fish and Wildlife Service (USFWS) as potentially occurring in Pueblo County; and
- 3) Documented sightings in or near the PA, and/or suitable habitat found in the PA.

In the case of birds, local experts were interviewed and expert literature was used to establish the likelihood of occurrence and importance of habitat within the PA.

Plants and animals including amphibians, birds, fish, insects, mammals, reptiles, and aquatic macro-invertebrates were considered in this review. Telephone contact was made with knowledgeable regional CDOW aquatic biology staff, USFWS staff, and local bird experts.

Fieldwork consisted of walking and driving the above-named areas and searching for the presence of TES species and their habitats. Recent aerial photography and United States (US) Geological Survey topographic maps were utilized to locate habitats and PA boundaries. Results of these data collection activities are presented below in the Existing Conditions section.

It is noted that the fall field season was not ideally conducive to determining the presence of breeding birds as most of these species had migrated, were not on-station, and, in the case of Warblers and other Passerines, had lost their distinguishing breeding plumage. In addition, most plant flowers were past, making it difficult to locate TES plants and nectar-seeking insects occurring in the PA.

Existing Conditions

Ecological Setting

While the PA consists primarily of disturbed urban areas, it also includes an Arkansas River channel crossing area and the Fountain Creek riparian area that combine to form an important wildlife habitat and travel corridor in an urban setting. Additionally, the

Runyon/Fountain Lakes State Wildlife Area occurs on the eastern boundary of the PA adjacent to the Arkansas River.

The Arkansas River is an important east/west regional migratory corridor for birds, as well as a locally important movement corridor for birds, mammals, and reptiles (Andrews and Righter, 1992; CDOW, 2003b). Many bird species (including Anseriformes, Charadriiformes, Ciconiiformes, Gruiformes, and Passeriformes) utilize eastern Colorado's two prominent river mainstems – the Arkansas River and South Platte River – as migration corridors. Likewise, Fountain Creek is an important north/south riparian corridor and escape habitat for mammals and breeding habitat for raptors and small fish (CNHP, 2003).

The Arkansas River, Fountain Creek, and their tributaries link a number of important habitat areas near Pueblo, including:

- St. Charles Reservoir, located south of Pueblo;
- Pueblo Reservoir State Wildlife Area; and
- Runyon/Fountain Lakes State Wildlife Area and riparian habitat along the Arkansas River

The City of Pueblo is a potential barrier to wildlife movement between these areas, although the riparian corridors of the Arkansas River and Fountain Creek provide passage through the City.

Habitat Types

The majority of the PA is developed and urbanized, and comprises commercial, industrial, recreational, and residential land uses, and transportation corridors. Urbanized areas in the PA are disturbed, highly maintained, and do not provide important wildlife habitat.

Non-urban habitat types in the project area were consolidated into the following classifications: stream channels (open water), riparian areas, wetlands, and wooded upland habitats. Habitat and wildlife that are not considered rare or protected by state or federal laws are described in a separate TM.

TES Data

Exhibit 1 lists potentially occurring or known to occur TES and rare species in the PA and summarizes regulatory status, habitat requirements, and the potential for occurrence in the PA. Occurrence potential is based on field reconnaissance, literature review (including search results from CNHP's location and status database), informal agency contact (USFWS, CDOW), local bird experts, and professional judgment of the author. Field reconnaissance was undertaken as a means of confirming the presence of habitat. However, the fall season reconnaissance does not provide evidence of summertime raptor nesting or use by other summer resident migratory birds.

Other rare or protected species that are indicated in the USFWS, CDOW, and CNHP databases as potentially occurring in the county were reviewed to determine the probability of actual occurrence in the PA. The results of this review, which included consideration of the presence or absence of habitat, are provided in Appendix A. The CNHP database report (CNHP, 2001) (Appendix B) lists all current and historical occurrences of rare and sensitive

species known for the PA and includes historical records to 1895.

EXHIBIT 1

TES and Rare Species Known to Occur or Potentially Occurring in the Project Area

Common Name	Scientific Name	Regulatory Status*	Rarity**	Habitat	Occurrence Potential
Amphibians					
Plains Leopard Frog	<i>Rana blairi</i>	SC	G5/S3	Wetlands and riparian areas adjacent to open water/open water	Observed along the shore of Arkansas River in PA.
Birds					
Bald Eagle	<i>Haliaeetus leucocephalus</i>	ST	G4, S1B, S3N	River floodplains, lakes, reservoirs, and prairie dog towns	Possible winter visitor in PA. However, use of PA is incidental to more heavily used upstream areas.
Fish					
Arkansas Darter	<i>Etheostoma cragini</i>	FC, ST	G3/S2	Spring-fed, pebble or sand bottomed pools of small spring-fed streams and wetlands, open water.	Possible that some ephemeral habitat may be present in the form of overflow pools on Fountain Creek wetlands in the PA (CDOW 2003a and 2003b).

Sources: Colorado Rare Plant Field Guide, 1999; Colorado Breeding Bird Atlas, 1998; Hammerson, 1999; CNHP, 1999; Andrews and Righter, 1992; CDOW, 2003a; CDOW, 2003b; Pantle, 2003; USFWS, 2003.

*FC = Federal endangered species candidate; FE = Federal endangered species; FT = Federal threatened species; SC = state species of concern; SE = state endangered species; ST = state threatened species

**Colorado Natural Heritage Program Ranking Scheme:

S/G1 = critically imperiled in the state/globally*** (five or fewer occurrences)

S/G2 = imperiled in the state/globally (6 to 20 occurrences)

S/G3 = vulnerable throughout the state/globally or found locally in a restricted range (21 to 100 occurrences)

S/G4 = apparently secure in state/globally, though may be rare in parts of range, especially periphery

S/G5 = demonstrably secure state/globally, though it may be quite rare in parts of its range

S#B = refers to breeding season rareness

S#N = refers to non-breeding season rareness

G = Global ranking – imperilment of species over its entire range

Species Known to Occur

Plains Leopard Frog

The plains leopard frog occurs along creek and river channels (wetlands and riparian areas adjacent to open water) in southeastern Colorado (Hammerson, 1999). The plains leopard frog is not a state or federal legally protected (listed) TES, but is listed by CNHP as a rare and vulnerable species. CNHP designates this species S3, meaning that between 21 and 100 populations occur in the state. Species population status within the Colorado range has not been accurately determined; however, water projects, cattle grazing, and predation/competition with the bullfrog (*Rana catesbeiana*) are considered threats to this species.

Species Potentially Occurring

Bald Eagle

The Bald Eagle is a state-listed threatened species that may occur incidentally in the PA as a winter migration visitor. CNHP designates this species S1B/S3N meaning five or fewer breeding pairs exist and 21 to 100 non-breeding occurrences are known in the state. Andrews and Righter (1992) show the bald eagle distributed throughout the Arkansas River (open water, riparian, and wetland habitats) as a winter migrant from Pueblo County east in Colorado. However, personal communication with a local avian expert suggests that only casual winter/migratory use of the Arkansas River in the PA by Bald Eagles may occur (Truen, 2003). This was confirmed by a second regional avian expert who stated that the primary Bald Eagle concentration is upstream of the PA at Pueblo Reservoir (Pantle, 2003). Thus, the occurrence of this species in the PA would be ephemeral at best. Due to the minimal potential for occurrence in the PA, the Bald Eagle was not considered for further analysis.

Arkansas Darter

The Arkansas darter is a state threatened species and a federal candidate for listing under the Endangered Species Act. The CNHP designation is S2, meaning that there are between 6 and 20 occurrences of this species in the state. This species is known to inhabit Fountain Creek (open water and wetland habitats) in El Paso County north of Pueblo, and CDOW believes that small overflow ponds in Fountain Creek wetlands in the PA could potentially harbor Arkansas darters after flood events when the darter is washed downstream from El Paso County. Thus, potential habitat may exist in the PA, although presence of the species has not been confirmed (CDOW 2003b).

Other Species

Other species potentially occurring in the project area are not discussed due to lack of suitable habitat or because they have not been observed in the project area. Pre-construction surveys will be conducted for all species, including prairie dogs and Burrowing Owls.

Impacts

Results of the evaluation for the potential occurrence of TES or rare species indicate that only one rare species, the plains leopard frog, is known to exist in the PA. This species is not a state or federal listed species, and is not protected under state or federal regulations. Although Arkansas darters are not known to occur in the PA, potentially suitable habitat does exist in the ephemeral pools formed in Fountain Creek wetlands after flooding, as well as the open water habitat. Alternatives investigated for this project were the No Action Alternative, the Existing I-25 Alternative, and the Modified I-25 Alternative. The following impacts analysis was conducted for potential leopard frog habitat (riparian areas and wetlands adjacent to open water/open water) and the Arkansas darter (Fountain Creek open water and wetlands in the project area).

Calculations for estimated permanent project impacts from both Build Alternatives to potential habitat for the leopard frog and Arkansas darter are summarized in Exhibits 2 and 3, respectively. The leopard frog could be found in wetlands and riparian areas adjacent to open water habitats in Fountain Creek and the Arkansas River in the PA. The Arkansas

darter could be found in the wetland areas and open water habitats of Fountain Creek. Permanent and temporary impacts to potential leopard frog and Arkansas darter habitats from each alternative are evaluated in the following section.

EXHIBIT 2

Estimated Permanent Impacts to Potential Habitat: Leopard Frog (acres)

	Open Water	Riparian	Wetlands	Total
Existing I-25 Alternative	0.05	5.28	0.35	5.68
Modified I-25 Alternative	0.05	7.81	1.21	9.07

EXHIBIT 2

Estimated Permanent Impacts to Potential Habitat: Arkansas Darter (acres)

	Open-Water	Wetlands	Total
Existing I-25 Alternative	0.051	0.129	0.18
Modified I-25 Alternative	0.051	0.129	0.18

No Action Alternative

Permanent Impacts

Under the No Action Alternative, the existing roadway would not be modified; therefore, no impacts to levels beyond existing impacts from transportation corridors and urban disturbances would occur to the leopard frog or the Arkansas darter.

Temporary Impacts

Under the No Action Alternative, construction would not occur; therefore, no temporary impacts from construction would occur to the leopard frog or Arkansas darter.

Existing I-25 Alignment Alternative

Permanent Impacts

As shown in Exhibits 3 and 4, the Existing I-25 Alternative is expected to permanently affect an estimated total area of 5.68 acres of potential habitat for the leopard frog, and 0.18 acres of potential Arkansas darter habitat. This alternative could impact about 62 percent less of potential leopard frog habitat than the Modified I-25 Alternative. The amount of potential habitat impact for the Arkansas darter would be the same for both alternatives. Exhibit 1 indicates the potential leopard frog and Arkansas darter habitat areas within the study area overlain with the toe of slope requirements for the Existing I-25 Alignment Alternative.

Temporary Impacts

Temporary impacts to potential leopard frog and Arkansas darter habitat could result from construction activities for the Existing I-25 Alternative. There could be a temporary impact to the Fountain Creek and Arkansas River channel bottoms during construction for the purpose of placing work pads for construction of bridge piers and placement of riprap, and for the modifications to the existing bridges at SR 50, 8th Street, and the Arkansas River.

Modified I-25 Alignment Alternative

Permanent Impacts

As shown in Exhibits 3 and 4, the Modified I-25 Alternative is expected to permanently affect an estimated total area of 9.07 acres of potential habitat for the leopard frog, and 0.18 acres of potential habitat for the Arkansas darter. Exhibit 1 indicates the potential leopard frog and Arkansas darter habitat areas within the study area overlain with the toe of slope requirements for the Modified I-25 Alternative

The Modified I-25 Alternative could affect approximately 3.39 acres more leopard frog habitat in the PA than the Existing I-25 Alternative. Impacts to potential Arkansas darter habitat are the same for both alternatives (0.18 acres). The key differences are due to more new infrastructure compared with the Existing I-25 Alternative, as well as effects to the riparian and wetland habitats that exist on the south shore of the Arkansas River and in the unnamed drainage south of the Arkansas River.

Temporary Impacts

Temporary impacts to open water and wetland habitats could result from construction activities for the existing alignment alternative. There could be a temporary impact to the Fountain Creek and Arkansas River channel bottoms during construction for the purpose of placing work pads for construction of bridge piers and placement of riprap, and for the modifications to the existing bridges at SR 50, 8th Street, and the Arkansas River.

Avoidance, Minimization, and Mitigation Options

Substantial efforts have been made to avoid and minimize impacts to the wetland. As noted earlier, there is a total of 13.85 acres of wetlands in the project area. Although complete avoidance of wetlands was not possible, an effort was made to avoid as many wetlands and other waters of the United States as possible and to minimize impacts to others. As the project is located in a highly urbanized corridor, there is little room available to accommodate shifts in the alignment due to the proximity of residential and commercial structures. In some cases, avoiding wetlands and other waters of the United States would cause considerable residential and commercial displacements and was not considered practicable. In other areas, wetlands exist along both sides of the roadway, therefore, shifting one direction to avoid an individual wetland resulted in impacts to another wetland.

Project impacts have been minimized to the extent practicable, staying on the existing alignment where possible. New fill slopes have been steepened to 3:1 and the use of retaining walls will also be incorporated into the design in some locations to prevent new fill slopes from extending into wetland areas. This slope will allow vegetation to become established but will not pose a safety hazard to the motoring public. The alignment was shifted to the extent possible to reduce construction impacts into wetland areas.

Unless otherwise specified, the following mitigations apply to both the Existing I-25 Alternative and the Modified I-25 Alternative. Mitigation will be required to offset impacts to Arkansas darter and plains leopard frog habitat within the project area. Although avoidance and minimization techniques were used to the extent feasible during the design process to limit or reduce impacts to habitat, minor impacts are still expected to occur. Specific mitigation actions that CDOT will implement during final design are listed below:

Habitat restoration or enhancement will be conducted to mitigate for impacts that could not be avoided, including impacts to the wetland and riparian areas along Fountain Creek and adjacent to the Arkansas River. Examples of habitat restoration and enhancement include planting of native species beneficial to wildlife, and removal and management of noxious weeds.

CDOT will obtain a SB 40 permit, as explained in Chapter 3 - Fish and Wildlife of the Environmental Impact Statement.

Please refer to Chapter 3 - Noxious Weeds of the Environmental Impact Statement for detailed information on weed control mitigation measures.

Please refer to the Chapter 3 - Wetlands Section for detailed information on wetlands mitigation measures.

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APPENDIX A

Review of TES and Rare Species Potentially Occurring in the Project Area

Review of TES and Rare Species Potentially Occurring in the Project Area

Common Name	Scientific Name	Regulatory Status*	Rarity**	Habitat	Occurrence Potential
Amphibians					
Plains Leopard Frog	<i>Rana blairi</i>	SC	G5/S3	Riparian Zones	Observed along the shore of the Arkansas River in PA.
Birds					
Bald Eagle	<i>Haliaeetus leucocephalus</i>	ST	G4,S1B, S3N	River floodplains, lakes, reservoirs, and prairie dog towns.	Possible winter visitor in PA. However, use of PA is incidental to more heavily used upstream areas.
Grace's Warbler	<i>Dendroica graciae</i>		G5, S3B, SZN	Ponderosa pine and Gambel's oak woodlands.	Current distribution includes evidence of a small population on the Pueblo/Custer County border near Wetmore. Not known to occur in PA.
Mexican Spotted Owl	<i>Strix occidentalis</i>	FT, SC,	G3T3/S1B/SUN	Dense conifer stands and steep canyons.	No habitat and not known to occur in PA.
Mountain Plover	<i>Charadrius montanus</i>	Proposed for Federal listing, but withdrawn 2003, SC	S2B, SZN	Shortgrass prairie and prairie dog colonies.	No habitat and not known to occur in PA.
Whooping Crane	<i>Grus americana</i>	FE, SE,	G1, SAN	Migratory species associated with open water, shallow lakes.	No occurrence records for Pueblo County.
Fish					
Arkansas Darter	<i>Etheostoma cragini</i>	FC, ST	G3/S2,	Spring-fed, pebble or sand bottomed pools of small spring-fed streams and wetlands.	Possible that some ephemeral habitat may be present in the form of short-lived overflow pools in Fountain Creek wetlands in the PA.
Southern Redbelly Dace	<i>Phoxinus erythrogaster</i>	SE	G5, S1	Inhabits cool, clear streams or off-channel ponds with abundant vegetation and riparian shade.	Populations inhabited the upper Arkansas River drainage near the City of Pueblo during the early 1980s. No habitat and not known to occur in PA.

Review of TES and Rare Species Potentially Occurring in the Project Area

Common Name	Scientific Name	Regulatory Status*	Rarity**	Habitat	Occurrence Potential
Greenback Cutthroat Trout	<i>Oncorhynchus clarki stomias</i>	FT, ST	G4T, 2T3/S2	Requires cold, clear headwater streams.	No habitat and not known to occur in PA.
<i>Insects</i>					
Rhesus Skipper	<i>Polites rhesus</i>		G4/S2S3	Larva: Blue Grama Grass. Adult: small flowered composites and white milkvetches on ridge tops.	Ranges across Colorado's eastern plains. Minimal habitat and not known to occur in PA.
Simius Roadside Skipper	<i>Amblyscirtes simius</i>		G4/S3	Pinyon/Juniper, and short/mixed grass prairie.	Minimal habitat and not known to occur in PA.
<i>Mammals</i>					
Black-tailed Prairie Dog	<i>Cynomys ludovicianus</i>		G4/S4	Short/mixed grass prairie.	None occur in the PA. There is evidence of a past colony in the NW corner of the existing Pueblo Blvd. interchange.
Black-footed Ferret	<i>Mustela nigripes</i>	FE, SE	G1/ SH	Prairie dog colonies.	No habitat and no occurrences in the PA.
Canada Lynx	<i>Lynx Canadensis</i>	FT, SE	G5/S1	Subalpine and montane conifer forests.	No habitat and no occurrences in the PA.
Preble's Meadow Jumping Mouse	<i>Zapus hudsonius preblei</i>	FT, SC	G5T2/S1	Riverine/ floodplain grasses and mixed shrubland.	Does not occur in Fountain Creek south of Colorado Springs. Does not occur along Arkansas River.
<i>Mussels</i>					
Giant Floater	<i>Anodonta grandis</i>		G5/S1	Ponds, lakes, and sluggish mud-bottomed pools of creeks and rivers; can be found in a variety of other habitats as well.	Potential habitat exists in the PA; however species only known from area reservoirs outside the PA, and not running water systems. Not known to occur in PA.

Review of TES and Rare Species Potentially Occurring in the Project Area

Common Name	Scientific Name	Regulatory Status*	Rarity**	Habitat	Occurrence Potential
Reptiles					
Triploid Colorado Checkered Whiptail	<i>Cnemidophorus neotesselatus</i>		G2Q/S2	Shortgrass prairie, and juniper stands, including arroyos and hillsides.	This species has been extirpated in Pueblo east of I-25. No habitat in PA west of I-25.
Plants					
Arkansas Feverfew	<i>Bolophytia tetraeuris</i>	FC	G3/S2	Gypsophile; tops of cliffs and bluffs of various rocks types; open pinyon/juniper stands. Elevation 4,800-5,600 K ft.	Multiple occurrences in the northwestern portion of Pueblo County including the city of Pueblo. Not known or observed in PA.
Arkansas Valley Evening Primrose	<i>Oenothera harringtonii</i>		G2/S2	On compacted silty clays to looser rocky and sandy soils in open grasslands. Elev. 4,700-6,100 ft.	Known from one location near Pueblo, little habitat in the PA.
Dwarf Milkweed	<i>Asclepias uncialis</i>	FC	G1G2/S1S2	Shortgrass prairie, often on sandstone-derived soils and gravelly or rocky slopes. Elev. 4000-6500 ft.	Three occurrences known from the Pueblo area. However, no habitat in PA.
Rocky Mountain Bladderpod	<i>Lesquerella calioicola</i>		G2/S2	Arkansas River drainage, on limestone or gypsum.	Little habitat in PA, not observed in PA.
Rocky Mountain Columbine	<i>Aquilegia saximontana</i>		G3/S3	Cliffs and rocky slopes, subalpine and alpine. Elev. 9,000-12,300 ft.	Known from the western boundary of Pueblo County; not in PA.
Round-leaf Four O'Clock	<i>Oxybaphus rotundifolius</i>	FC	G1G2/S1S2	Restricted to barren shale outcrops of the Smoky Hill Member of the Niobrara Formation in sparse shrublands or woodlands. <i>Frankenia jamesii</i> is the most commonly associated species. Elev. 4,800-5,600 ft.	Colorado endemic. Known from Fremont and Pueblo Cos., in the Arkansas River Valley between Pueblo and Canon City. No habitat in PA.
Sandhill Goosefoot	<i>Chenopodium cycloides</i>	FC	G4/S1	Sandy soil on dunes, stabilized sand in blowouts. Elev. 4,000- 5,500 ft.	Known east of the PA. No habitat in PA.

Review of TES and Rare Species Potentially Occurring in the Project Area

Common Name	Scientific Name	Regulatory Status*	Rarity**	Habitat	Occurrence Potential
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Sources: Colorado Rare Plant Field Guide 1999; Colorado Breeding Bird Atlas 1998; Hammerson 1999; CNHP, 1999; Andrews and Righter 1992; CDOW 2003a; CDOW 2003b; Pantle 2003; USFWS 2003.

* State and Federal Listing Status:

FC = Federal endangered species candidate

FE = Federal endangered species

FT = Federal threatened species

SC = state species of concern

SE = state endangered species

ST = state threatened species

**Colorado Natural Heritage Program Ranking Scheme:

S/G1 = critically imperiled in the state/globally*** (five or fewer occurrences)

S/G2 = imperiled in the state/globally (6 to 20 occurrences)

S/G3 = vulnerable throughout the state/globally or found locally in a restricted range (21 to 100 occurrences)

S/G4 = apparently secure in state/globally, though may be rare in parts of range, especially periphery

S/G5 = demonstrably secure state/globally, though it may be quite rare in parts of its range

S#B = refers to breeding season rareness

S#N = refers to non-breeding season rareness

G= Global ranking – imperilment of species over its entire range

APPENDIX B

**Colorado Natural Heritage Program Listing and
Status of Rare and/or Imperiled Species
In or Near the Project Area**

Colorado Natural Heritage Program Listing and Status of Rare and/or Imperiled Species In or Near the Project Area

Definitions for each of the columns in the table below can be found at the end of the table.

MAJOR_GROUP	STATE_SCIENTIFIC_NAME	GLOBAL_SCIENTIFIC_NAME	PRIMARY_COMMON_NAME	G_RANK	S_RANK	USESA	FED_SENS_AGENCY	CO_PROT_STATUS	CNHP_ELEMENT_SENSITIVE	EO_TRACK_STATUS_CD	COUNTY	ELEMENT_SUBNATIONAL_ID
Amphibians	Rana blairi	Rana blairi	Plains Leopard Frog	G5	S3	-	BLM	SC	N	Y	Pueblo (CO)	21637
Amphibians	Rana blairi	Rana blairi	Plains Leopard Frog	G5	S3	-	USFS	SC	N	Y	Pueblo (CO)	21637
Birds	Buteo regalis	Buteo regalis	Ferruginous Hawk	G4	S3B, S4N	-	BLM	SC	N	Y	Pueblo (CO)	19973
Birds	Buteo regalis	Buteo regalis	Ferruginous Hawk	G4	S3B, S4N	-	USFS	SC	N	Y	Pueblo (CO)	19973
Birds	Charadrius montanus	Charadrius montanus	Mountain Plover	G2	S2B	-	BLM	SC	N	Y	Pueblo (CO)	18609
Birds	Charadrius montanus	Charadrius montanus	Mountain Plover	G2	S2B	-	USFS	SC	N	Y	Pueblo (CO)	18609
Birds	Dendroica graciae	Dendroica graciae	Grace's Warbler	G5	S3B	-	-	-	N	Y	Pueblo (CO)	22571
Birds	Haliaeetus leucocephalus	Haliaeetus leucocephalus	Bald Eagle	G5	S1B, S3N	-	-	ST	Y	Y	Pueblo (CO)	21249
Birds	Melanerpes lewis	Melanerpes lewis	Lewis's Woodpecker	G4	S4	-	USFS	-	N	Y	Pueblo (CO)	23250
Birds	Numenius americanus	Numenius americanus	Long-billed Curlew	G5	S2B	-	BLM	SC	N	Y	Pueblo (CO)	17214
Birds	Numenius americanus	Numenius americanus	Long-billed Curlew	G5	S2B	-	USFS	SC	N	Y	Pueblo (CO)	17214

MAJOR_GROUP	STATE_SCIENTIFIC_NAME	GLOBAL_SCIENTIFIC_NAME	S_PRIMARY_COMMON_NAME	G_RANK	S_RANK	USESA	FED_SENS_AGENCY	CO_PROT_STATUS	CNHP_ELEMENT_SENSITIVE	EO_TRACK_STATUS_CD	COUNTY	ELEMENT_SUBNATIONAL_ID
Birds	Seiurus aurocapillus	Seiurus aurocapilla	Ovenbird	G5	S2B	-	-	-	N	Y	Pueblo (CO)	20309
Birds	Strix occidentalis lucida	Strix occidentalis lucida	Mexican Spotted Owl	G3T3	S1B, SUN	LT	-	ST	Y	Y	Pueblo (CO)	17954
Fish	Etheostoma cragini	Etheostoma cragini	Arkansas Darter	G3G4	S2	C	-	ST	N	Y	Pueblo (CO)	20664
Fish	Oncorhynchus clarkii stomias	Oncorhynchus clarkii stomias	Greenback Cutthroat Trout	G4T2T3	S2	LT	-	ST	Y	Y	Pueblo (CO)	16680
Fish	Phoxinus erythrogaster	Phoxinus erythrogaster	Southern Redbelly Dace	G5	S1	-	USFS	SE	N	Y	Pueblo (CO)	19970
Insects	Amblyscirtes simius	Amblyscirtes simius	Simius Roadside Skipper	G4	S3	-	-	-	N	Y	Pueblo (CO)	17735
Insects	Atrytonopsis hianna	Atrytonopsis hianna	Dusted Skipper	G4G5	S2	-	-	-	N	Y	Pueblo (CO)	17734
Insects	Euphilotes rita coloradensis	Euphilotes rita coloradensis	Colorado Blue	G3G4T2T3	S2	-	-	-	N	Y	Pueblo (CO)	18074
Insects	Polites rhesus	Polites rhesus	Rhesus Skipper	G4	S2S3	-	-	-	N	Y	Pueblo (CO)	22389
Mammals	Cynomys ludovicianus	Cynomys ludovicianus	Black-tailed Prairie Dog	G4	S3	-	USFS	SC	N	P	Pueblo (CO)	17796
Mammals	Gulo gulo	Gulo gulo	Wolverine	G4	S1	-	USFS	SE	Y	Y	Pueblo (CO)	19854
Mammals	Plecotus townsendii pallescens	Corynorhinus townsendii pallescens	Townsend's Big-eared Bat Subsp	G4T4	S2	-	BLM	SC	N	Y	Pueblo (CO)	21654

MAJOR_GROUP	STATE_SCIENTIFIC_NAME	GLOBAL_SCIENTIFIC_NAME	S_PRIMARY_COMMON_NAME	G_RANK	S_RANK	USESA	FED_SENS_AGENCY	CO_PROT_STATUS	CNHP_ELEMENT_SENSITIVE	EO_TRACK_STATUS_CD	COUNTY	ELEMENT_SUBNATIONAL_ID
Mammals	Plecotus townsendii pallescens	Corynorhinus townsendii pallescens	Townsend's Big-eared Bat Subsp	G4T4	S2	-	USFS	SC	N	Y	Pueblo (CO)	21654
Mammals	Vulpes velox	Vulpes velox	Swift Fox	G3	S3	-	USFS	SC	Y	Y	Pueblo (CO)	21012
Mollusks	Anodonta grandis	Pyganodon grandis	Giant Floater	G5	S2	-	-	-	N	Y	Pueblo (CO)	23663
Natural Communities	Abies concolor - Picea pungens - Populus angustifolia / Acer glabrum Forest	Abies concolor - Picea pungens - Populus angustifolia / Acer glabrum Forest	Montane Riparian Forests	G2	S2	-	-	-	N	Y	Pueblo (CO)	24810
Natural Communities	Artemisia bigelovii / Achnatherum hymenoides Shrubland	Artemisia bigelovii / Achnatherum hymenoides Shrubland	Plains Escarpment Prairies (Limestone Breaks)	G3Q	S3Q	-	-	-	N	Y	Pueblo (CO)	24800
Natural Communities	Artemisia filifolia / Andropogon hallii Shrubland	Artemisia filifolia / Andropogon hallii Shrubland	Northern Sandhill Prairie	G3?	S2	-	-	-	N	Y	Pueblo (CO)	24668
Natural Communities	Bouteloua gracilis - Pleuraphis jamesii Herbaceous Vegetation	Bouteloua gracilis - Pleuraphis jamesii Herbaceous Vegetation	Shortgrass Prairie	G2G4	S3	-	-	-	N	Y	Pueblo (CO)	24511
Natural Communities	Bouteloua gracilis Herbaceous Vegetation	Bouteloua gracilis Herbaceous Vegetation	Blue Grama Short Grass Prairie	G4Q	S4	-	-	-	N	P	Pueblo (CO)	24512

MAJOR_GROUP	STATE_SCIENTIFIC_NAME	GLOBAL_SCIENTIFIC_NAME	S_PRIMARY_COMMON_NAME	G_RANK	S_RANK	USES	FED_SENS_AGENCY	CO_PROT_STATUS	CNHP_ELEMENT_SENSITIVE	EO_TRACK_STATUS_CD	COUNTY	ELEMENT_SUBNATIONAL_ID
Natural Communities	Carex nebrascensis Herbaceous Vegetation	Carex nebrascensis Herbaceous Vegetation	Wet Meadows	G4	S3	-	-	-	N	P	Pueblo (CO)	22403
Natural Communities	Carex praegracilis Herbaceous Vegetation	Carex praegracilis Herbaceous Vegetation	Clustered Sedge Wetland	G3G4	S2	-	-	-	N	Y	Pueblo (CO)	18593
Natural Communities	Distichlis spicata Herbaceous Vegetation	Distichlis spicata Herbaceous Vegetation	Salt Meadows	G5	S3	-	-	-	N	P	Pueblo (CO)	17188
Natural Communities	Eleocharis palustris Herbaceous Vegetation	Eleocharis palustris Herbaceous Vegetation	Emergent Wetland	G5	S4	-	-	-	N	P	Pueblo (CO)	18783
Natural Communities	Frankenia jamesii / Achnatherum hymenoides Shrubland	Frankenia jamesii / Achnatherum hymenoides Shrubland	Foothills Shrubland	GU	SU	-	-	-	N	Y	Pueblo (CO)	24880
Natural Communities	Frankenia jamesii / Hilaria jamesii - (Bouteloua gracilis) Shrubland	Frankenia jamesii / Hilaria jamesii - (Bouteloua gracilis) Shrubland	James' Seaheath/Gall eta-Blue Grama Shrubland	GU	SU	-	-	-	N	Y	Pueblo (CO)	24952
Natural Communities	Hesperostipa neomexicana Herbaceous Vegetation	Hesperostipa neomexicana Herbaceous Vegetation	Great Plains Mixed Grass Prairie	G3	S3	-	-	-	N	Y	Pueblo (CO)	22673

MAJOR_GROUP	STATE_SCIENTIFIC_NAME	GLOBAL_SCIENTIFIC_NAME	S_PRIMARY_COMMON_NAME	G_RANK	S_RANK	USES	FED_SENS_AGENCY	CO_PROT_STATUS	CNHP_ELEMENT_SENSITIVE	EO_TRACK_STATUS_CD	COUNTY	ELEMENT_SUBNATIONAL_ID
Natural Communities	Juniperus monosperma / Bouteloua curtipendula Woodland	Juniperus monosperma / Bouteloua curtipendula Woodland	Foothills Pinyon-Juniper Woodlands	G5	S3S4	-	-	-	N	P	Pueblo (CO)	24715
Natural Communities	Juniperus monosperma / Bouteloua gracilis Woodland	Juniperus monosperma / Bouteloua gracilis Woodland	Foothills Pinyon-Juniper Woodlands	G5	S3S4	-	-	-	N	P	Pueblo (CO)	24940
Natural Communities	Juniperus monosperma / Hesperostipa neomexicana Woodland	Juniperus monosperma / Hesperostipa neomexicana Woodland	Foothills Pinyon-Juniper Woodlands	G4	S3	-	-	-	N	P	Pueblo (CO)	24700
Natural Communities	Opuntia imbricata Shrubland	Opuntia imbricata Shrubland	Shortgrass Prairie	GU	S3	-	-	-	N	Y	Pueblo (CO)	24604
Natural Communities	Phragmites australis Western North America Temperate Semi-natural Herbaceous Vegetation	Phragmites australis Western North America Temperate Semi-natural Herbaceous Vegetation	Western Slope Marsh	G5	S3	-	-	-	N	P	Pueblo (CO)	19162
Natural Communities	Populus angustifolia / Alnus incana Woodland	Populus angustifolia / Alnus incana Woodland	Montane Riparian Forest	G3	S3	-	-	-	N	Y	Pueblo (CO)	24541

MAJOR_GROUP	STATE_SCIENTIFIC_NAME	GLOBAL_SCIENTIFIC_NAME	S_PRIMARY_COMMON_NAME	G_RANK	S_RANK	USES	FED_SENS_AGENCY	CO_PROT_STATUS	CNHP_ELEMENT_SENSITIVE	EO_TRACK_STATUS_CD	COUNTY	ELEMENT_SUBNATIONAL_ID
Natural Communities	Populus deltoides - (Salix amygdaloides) / Salix (exigua, interior) Woodland	Populus deltoides - (Salix amygdaloides) / Salix (exigua, interior) Woodland	Plains Cottonwood Riparian Woodland	G3G4	S3	-	-	-	N	Y	Pueblo (CO)	24670
Natural Communities	Populus deltoides / Pascopyrum smithii - Panicum obtusum Forest	Populus deltoides / Pascopyrum smithii - Panicum obtusum Forest	Plains Cottonwood/ Western Wheatgrass-Vine Mesquite	G2	S2	-	-	-	N	Y	Pueblo (CO)	24901
Natural Communities	Populus deltoides / Sporobolus airoides Forest	Populus deltoides / Sporobolus airoides Forest	Plains Cottonwood/ Alkali Sacaton	G3	S2	-	-	-	N	Y	Pueblo (CO)	24641
Natural Communities	Sarcobatus vermiculatus / Sporobolus airoides Sparse Vegetation	Sarcobatus vermiculatus / Sporobolus airoides Sparse Vegetation	Saline Bottomland Shrublands	G3?	S2	-	-	-	N	Y	Pueblo (CO)	24486
Natural Communities	Schoenoplectus acutus - Typha latifolia - (Schoenoplectus tabernaemontani) Sandhills Herbaceous Vegetation	Schoenoplectus acutus - Typha latifolia - (Schoenoplectus tabernaemontani) Sandhills Herbaceous Vegetation	Great Plains Marsh	G4	S2S3	-	-	-	N	P	Pueblo (CO)	24564

MAJOR_GROUP	STATE_SCIENTIFIC_NAME	GLOBAL_SCIENTIFIC_NAME	S_PRIMARY_COMMON_NAME	G_RANK	S_RANK	USES	FED_SENS_AGENCY	CO_PROT_STATUS	CNHP_ELEMENT_SENSITIVE	EO_TRACK_STATUS_CD	COUNTY	ELEMENT_SUBNATIONAL_ID
Natural Communities	Schoenoplectus pungens Herbaceous Vegetation	Schoenoplectus pungens Herbaceous Vegetation	Bulrush	G3G4	S3	-	-	-	N	Y	Pueblo (CO)	18654
Natural Communities	Spartina pectinata Western Herbaceous Vegetation	Spartina pectinata Western Herbaceous Vegetation	Prairie Slough Grass	G3?	S3	-	-	-	N	Y	Pueblo (CO)	16738
Natural Communities	Sporobolus airoides Southern Plains Herbaceous Vegetation	Sporobolus airoides Southern Plains Herbaceous Vegetation	Great Plains Salt Meadows	G3Q	S3	-	-	-	N	Y	Pueblo (CO)	19429
Natural Communities	Typha (latifolia, angustifolia) Western Herbaceous Vegetation	Typha (latifolia, angustifolia) Western Herbaceous Vegetation	Narrow-leaf Cattail Marsh	G5	S4	-	-	-	N	P	Pueblo (CO)	24687
Reptiles	Aspidoscelis neotesselata	Aspidoscelis neotesselata	Triploid Colorado Checkered Whiptail	G2G3	S2	-	-	SC	N	Y	Pueblo (CO)	20191
Reptiles	Elaphe guttata	Elaphe guttata	Corn Snake	G5	S3	-	-	-	N	Y	Pueblo (CO)	18984
Reptiles	Phrynosoma cornutum	Phrynosoma cornutum	Texas Horned Lizard	G4G5	S3	-	BLM	SC	N	Y	Pueblo (CO)	22686
Reptiles	Sistrurus catenatus	Sistrurus catenatus	Massasauga	G3G4	S2	C	BLM	SC	N	Y	Pueblo (CO)	16720
Reptiles	Sistrurus catenatus	Sistrurus catenatus	Massasauga	G3G4	S2	C	USFS	SC	N	Y	Pueblo (CO)	16720

MAJOR_GROUP	STATE_SCIENTIFIC_NAME	GLOBAL_SCIENTIFIC_NAME	S_PRIMARY_COMMON_NAME	G_RANK	S_RANK	USES	FED_SENS_AGENCY	CO_PROT_STATUS	CNHP_ELEMENT_SENSITIVE	EO_TRACK_STATUS_CD	COUNTY	ELEMENT_SUBNATIONAL_ID
Vascular Plants	Agastache foeniculum	Agastache foeniculum	lavender hyssop	G4G5	S1	-	-	-	N	Y	Pueblo (CO)	20055
Vascular Plants	Ambrosia linearis	Ambrosia linearis	plains ragweed	G3	S3	-	-	-	N	Y	Pueblo (CO)	23164
Vascular Plants	Aquilegia saximontana	Aquilegia saximontana	Rocky Mountain columbine	G3	S3	-	-	-	N	Y	Pueblo (CO)	18092
Vascular Plants	Asclepias uncialis ssp. uncialis	Asclepias uncialis ssp. uncialis	dwarf milkweed	G3G4T2 T3	S2	-	BLM	-	N	Y	Pueblo (CO)	23798
Vascular Plants	Asclepias uncialis ssp. uncialis	Asclepias uncialis ssp. uncialis	dwarf milkweed	G3G4T2 T3	S2	-	USFS	-	N	Y	Pueblo (CO)	23798
Vascular Plants	Bolophyta tetraeuris	Parthenium tetraeuris	Barneby's fever-few	G3	S3	-	-	-	N	Y	Pueblo (CO)	20399
Vascular Plants	Carex peckii	Carex peckii	Peck sedge	G4G5	S1	-	-	-	N	Y	Pueblo (CO)	17622
Vascular Plants	Cheilanthes eatonii	Cheilanthes eatonii	Eaton's lip fern	G5?	S2	-	-	-	N	Y	Pueblo (CO)	21047
Vascular Plants	Chenopodium cycloides	Chenopodium cycloides	sandhill goosefoot	G3G4	S1	-	USFS	-	N	Y	Pueblo (CO)	17343
Vascular Plants	Cypripedium calceolus ssp. parviflorum	Cypripedium parviflorum	American yellow lady's-slipper	G5	S2	-	USFS	-	Y	Y	Pueblo (CO)	20940
Vascular Plants	Draba crassa	Draba crassa	thick-leaf whitlow-grass	G3	S3	-	-	-	N	Y	Pueblo (CO)	21274
Vascular Plants	Lesquerella calcicola	Lesquerella calcicola	Rocky Mountain bladderpod	G2	S2	-	-	-	N	Y	Pueblo (CO)	21031
Vascular Plants	Nuttallia chrysantha	Mentzelia chrysantha	golden blazing star	G2	S2	-	BLM	-	N	Y	Pueblo (CO)	19348

MAJOR_GROUP	STATE_SCIENTIFIC_NAME	GLOBAL_SCIENTIFIC_NAME	S_PRIMARY_COMMON_NAME	G_RANK	S_RANK	USES	FED_SENS_AGENCY	CO_PROT_STATUS	CNHP_ELEMENT_SENSITIVE	EO_TRACK_STATUS_CD	COUNTY	ELEMENT_SUBNATIONAL_ID
Vascular Plants	Oenothera harringtonii	Oenothera harringtonii	Arkansas Valley evening primrose	G2	S2	-	USFS	-	N	Y	Pueblo (CO)	19476
Vascular Plants	Oonopsis sp. 1	Oonopsis sp. 1	Pueblo goldenweed	G2	S2	-	-	-	N	Y	Pueblo (CO)	19251
Vascular Plants	Oxybaphus rotundifolius	Mirabilis rotundifolia	round-leaf four-o'clock	G2	S2	-	-	-	N	Y	Pueblo (CO)	23147
Vascular Plants	Stellaria irrigua	Stellaria irrigua	Altai chickweed	G4?	S2	-	-	-	N	Y	Pueblo (CO)	17150
Vascular Plants	Viola pedatifida	Viola pedatifida	prairie violet	G5	S2	-	-	-	N	Y	Pueblo (CO)	18073
Vascular Plants	Woodsia neomexicana	Woodsia neomexicana	New Mexico cliff fern	G4?	S2	-	-	-	N	Y	Pueblo (CO)	23381

Colorado Natural Heritage Program

Tracking List Column Definitions

February 2007

MAJOR_GROUP. The major group in which the organism or community falls.

Domain_Values:

Amphibians
Birds
Fish
Insects
Mammals
Mollusks
Natural Communities
Nonvascular Plants
Reptiles
Vascular Plants

STATE_SCIENTIFIC_NAME. The state scientific name of the element.

GLOBAL_SCIENTIFIC_NAME. The global scientific name of the element.

S_PRIMARY_COMMON_NAME. The state common name of the element. This field can be null.

G_RANK. Global Imperilment Rank. The global element rank that best characterizes the relative rarity or endangerment of the element worldwide. Global ranks are derived primarily by staff at NatureServe, unless CNHP has lead responsibility for that element (ex. state endemics).

Domain_Values:

- G1 - Globally critically imperiled; typically 5 or fewer EOs and/or very few remaining acres or very vulnerable to elimination throughout its range due to other factor(s)
- G2 - Globally imperiled; typically 6 to 20 EOs and/or few remaining acres or very vulnerable to elimination throughout its range due to other factor(s)
- G3 - Globally rare or uncommon; typically 21 to 100 EOs; either very rare and local throughout its range or found locally, even abundantly, within a restricted range or vulnerable to elimination throughout its range due to specific factor(s)
- G4 - Globally widespread, abundant, and apparently secure, but with cause for long-term concern; uncommon but not rare (although it may be quite rare in parts of its range, especially at the periphery); typically > 100 EOs; apparently not vulnerable in most of its range
- G5 - Globally demonstrably widespread, abundant and secure; common, widespread, and abundant (although it may be quite rare in parts of its range, especially at the periphery); not vulnerable in most of its range
- G#G# - Numeric range rank (with range no greater than 2); greater uncertainty about a rank is expressed by indicating the full range of ranks which may be appropriate (for example, a G1G3 rank indicates the rank could be G1, G2, or G3)
- NR - Unranked; element is not yet ranked globally
- GU - Unrankable; status cannot be determined at this time

- GH - Historical; presumed eliminated throughout its range, with no or virtually no likelihood that it will be rediscovered, but with potential for restoration (e.g., *Castanea dentata* Forest)
- GX - Extirpated; eliminated throughout its range, with no restoration potential due to extinction of dominant or characteristic species
- T# - Rank applies to a subspecies or variety
- ? - Inexact numeric rank; a question mark added to a rank expresses an uncertainty about the rank in the range of 1 (i.e., +/- 1 rank either way on the 1-5 scale); for example, a G2? Rank indicates that the rank is thought to be G2, but could be G1 or G3
- Q - Questionable taxonomy classification?; a Q added to a rank denotes questionable taxonomy; it modifies the degree of imperilment and is only used in cases where the type would have a less imperiled rank if it were not recognized as a valid type (i.e., if it were combined with a more common community type); a GUQ rank often indicates that the type is unrankable because of daunting taxonomic questions
- C - Element is extant only in captivity or cultivation

S_RANK. State Imperilment Rank. The state element rank that best characterizes the relative rarity or endangerment of the element statewide. State ranks are derived by CNHP staff. Other factors, in addition to the number of occurrences, may be considered when assigning a state rank

Domain Values:

- S1 - State critically imperiled; typically 5 or fewer EOs
- S2 - State imperiled; typically 6 to 20 EOs
- S3 - State rare or uncommon; typically 21 to 100 EOs
- S4 - State apparently secure; usually > 100 EOs
- S5 - State demonstrably secure
- S#S# - Numeric range rank (with range no greater than 2); greater uncertainty about a rank is expressed by indicating the full range of ranks which may be appropriate (for example, a S1S3 rank indicates the rank could be S1, S2, or S3)
- NR - Unranked; element is not yet ranked in the state
- SU - Unrankable; status cannot be determined at this time
- SH - Historically known with hopes of rediscovery
- SX - Extirpated; unlikely to be rediscovered
- SE - An exotic established in the state; native to a nearby region
- A - Accidental; includes species (usually birds or butterflies) recorded once or twice or only at very great intervals, hundreds or thousands of miles outside their usual range
- R - Reported in the state, but not confirmed
- Z - Zero occurrences; typically refers to nonbreeding bird populations
- B - Rank refers to the breeding population of the element
- N - Rank refers to the nonbreeding population of the element
- C - Element is extant only in captivity or cultivation

USES A. The federal legal status of the species as assigned by the U.S. Fish and Wildlife Service under the Endangered Species Act (ESA). This field can be null. Blank values indicate no federal legal status per USFWS.

Domain Values:

- C - ESA Candidate
- LE - Listed Endangered

LE,LT - Listed as Endangered in a portion of the species' range and listed as Threatened in the rest of the species' range
LT - Listed Threatened
PT - Proposed Threatened
LE-PDL - Listed Endangered, proposed delisting
LE,XN - All of the species' infraspecific taxa worldwide are listed as Endangered or as a nonessential experimental population

FED_SENS_AGENCY. Denotes species considered sensitive by the U.S. Forest Service and/or the Bureau of Land Management (does NOT equal ESA status). This field can be null. Blank values indicate no legal status per BLM or USFS.

Domain Values:

BLM - Legal status assigned by the Bureau of Land Management
USFS - Legal status assigned by the U.S. Forest Service
BLM/USFS - Legal status assigned by both the U.S. Forest Service and the Bureau of Land Management

CO_PROT_STATUS. State Protection Status. The state legal status of vertebrate or invertebrate species as assigned by the Colorado Division of Wildlife. This field can be null. Blank values indicate no state legal status per CDOW.

Domain Values:

E - State endangered; elements of native wildlife whose prospects for survival or recruitment within this state are in jeopardy
T - State threatened; elements that are not in immediate jeopardy of extinction, but are vulnerable due to small numbers, restricted throughout its range, or experiencing low recruitment or survival
SC- Special concern

CNHP_ELEMENT_SENSITIVE. Elements may be considered sensitive either due to collection value, susceptibility to disturbance, federal status, or other factors.

Domain Values:

Y - Yes
N - No

EO_TRACK_STATUS_CD. Code indicating status of tracking for this element.

Domain Values:

Y - Track all extant and selected historical EOs
P - Track selected extant EOs (i.e. partial tracking)
W - Track on a watch list only
N - Do not track

COUNTY. County name. This field can be null for one of two reasons: 1) the element is not tracked by CNHP (EO_TRACK = N), or 2) CNHP tracks the element (CNHP_TRACK = Y), but there are currently no EOs in the database for that county.

QUAD CODE. USGS 7.5 Minute Quadrangle code.

EO ID. Unique identifier for an EO.

ELEMENT_SUBNATIONAL_ID. A sequentially assigned number generated in BIOTICS for each element (species, subspecies or natural community). This is the state ID used by the Colorado Natural Heritage Program.