

**Appendix 5.2B**  
**Potentially Occurring Special-status Wildlife**

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# Potentially Occurring Special-Status Wildlife Species Descriptions

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## Reptiles

**Desert Tortoise (FT, ST):** The desert tortoise was listed as federally threatened on April 2, 1990 (USFWS, 1990a). Critical habitat was designated on February 8, 1994 (USFWS, 1994a). The Desert Tortoise Recovery Plan was released on June 28, 1994 (USFWS, 1994b). The desert tortoise was listed as threatened by the State in 1989.

The decline in the desert tortoise population is primarily due to habitat loss, degradation, and fragmentation resulting from increased human population and urbanization in the desert and arid regions of the southwestern United States. The increase in urbanization, collection of tortoises for pets, overgrazing, landfills, subsidized predation, highway mortality, vandalism, agriculture, fire, drought, and off-road vehicle use have all contributed to the decline of the tortoise in the wild. Another important reason for the tortoise decline in the western Mojave Desert is the introduction of an upper respiratory tract disease into many of the wild populations (USFWS, 1990a; 1994b).

The desert tortoise is a large herbivorous terrestrial reptile. It has a high-domed shell that can reach a length of 36 centimeters (14 inches). The animal has stocky, elephant-like limbs and a short tail. The carapace (upper shell) is brown, and the plastron (lower shell) is yellow (both exhibiting prominent growth lines). Adult males can be distinguished from females by the concavity toward the rear of their plastron. Adult males also have larger chin glands, and a longer tail and gular horn than females (Stebbins, 1985).

The adult desert tortoise is generally active from mid-March or April to November and, during the winter months, is dormant in underground burrows (Luckenbach, 1982). Desert tortoises will congregate in winter dens during colder weather, and then spread out to nearby areas during moderate weather in the spring and fall and retreat into short individual burrows or under shrubs during more extreme heat in summer (Woodbury and Hardy, 1940). During the summer active period, desert tortoises have home ranges from 12.7 to 72.1 hectares (5 to 29 acres) (O'Conner et al., 1994). During active periods, tortoises feed on a wide variety of herbaceous plants, including cactus, grasses, and annual flowering plants (USFWS, 1994b).

Desert tortoises may live beyond 80 years and have a relatively slow rate of reproduction. Sexual maturity is reached at 15 to 20 years of age. Mating generally occurs in the spring (mid-March to late-May), with nesting and egg-laying occurring from May to July (Rostral et al., 1994). The female tortoise lays her eggs in a hole approximately 7 to 10 centimeters (3 to 4 inches) deep dug near the mouth of a burrow (Woodbury and Hardy, 1948). Following egg-laying, the female covers the eggs with soil. Clutch size ranges from 2 to 14 eggs, with an average of 5 to 6 eggs (Luckenbach, 1982). Desert tortoise eggs typically hatch from August through October. These hatchlings are provided a food source in the

form of an egg yolk that is assimilated into the underside of the shell. This yolk sac will sustain the animal for up to 6 months. The hatchling desert tortoise will go into hibernation in the late fall but can be active on warm sunny or rainy days (Luckenbach, 1982).

The desert tortoise can be found in desert and arid regions from southern Nevada and extreme southwestern Utah to northern Sinaloa, Mexico, southwestern Arizona west to the Mojave Desert, and eastern side of the Salton Basin, California (Stebbins, 1985). The desert tortoise can be divided into two distinct races, the Mojave and Sonoran, based on morphological and genetic characteristics.

The Mojave race is associated with the Mojave Desert in California, Nevada, and Utah, as well as a portion of Arizona. This race is primarily associated with flats and bajadas (shallow slopes that lie at the base of rocky hills), with soils ranging from sand to sandy-gravel but firm enough for the tortoise to construct burrows. In California, this desert tortoise is most commonly found in association with creosote bush scrub, with inter-shrub space for growth of herbaceous plants (USFWS, 1994b).

The HHSEGS site lies in the Eastern Mojave Recovery Unit established by the Desert Tortoise (Mojave Population) Recovery Plan (USFWS, 1994b). This recovery unit lies primarily in California but also extends into Nevada in the Amargosa, Pahrump, and Piute valleys. The eastern Mojave recovery unit has a bi-modal rainfall; it receives both winter and summer rains and supports two divergent annual floras on which desert tortoises feed. They are often active in late summer and early autumn in addition to spring because this tortoise population occupies a range of vegetation types and feed on summer and winter annuals, cacti, perennial grasses, and herbaceous perennials. They den singly in caliche caves, bajadas, and washes. This population has both the California and the southern Nevada genetics and the California shell type. (USFWS, 1994b)

Although the HH SEGS site is located in the eastern portion of the NEMO Planning Area Boundary, the project area does not lie within critical habitat for the desert tortoise, nor does it lie within a recovery unit or Desert Wildlife Management Area (DWMA). However, the Shadow Valley critical habitat unit is located south of the site. The project area lies approximately 24 miles from the nearest portion of the Shadow Valley critical habitat unit, which lies north of I-15 and south of Kingston Range Wilderness area.

**Banded Gila Monster (CSC, BLM SS):** The banded Gila monster is a CSC, and is therefore afforded protection under 14 CCR 670.2 and 670.5). Therefore, any potential impacts to individuals of this species resulting from the proposed project must be mitigated for to reduce those impacts to less-than-significant levels. BLM classifies it as a sensitive species in California and Nevada. CNDDDB search identified locations for this species in the 7.5-minute quadrangles to the south and southeast of the site.

The banded Gila monster is considered rare in California with only 26 credible records of the species within the past 153 years. The paucity of records may be due to the difficulty of observing this large and distinct looking lizard. Gila monsters are secretive and difficult to locate, spending more than 95 percent of their lives underground. Consequently, little is known about this species' distribution, population status, and life history in California. Based on the few documented observations, the California populations appear to be confined to the eastern portion of the California desert, and the current distribution is

apparently a function of summer rainfall. Throughout their range, Gila monsters appear to be most active during or following summer rain events. Populations are found mainly at elevations below 5,000 feet. Its geographic range approximates that of the desert tortoise and is coincident to the Colorado River drainage. Gila monster habitat requirements center on desert wash, spring and riparian habitats that interdigitate primarily with complex rocky landscapes of upland desert scrub and are occasionally found in alluvial fans. They will use and are occasionally encountered out in gentler terrain of alluvial fans (bajadas). Hence, Gila monster habitat bridges and overlaps that of both the desert tortoise and chuckwalla. They are found in canyon bottoms or arroyos with perennial or intermittent streams. They seek shelter in self-excavated burrows or alternatively, those made by small mammals, and occasionally in woodrat nests. They are also found in dense thickets, under rocks and in other natural cavities. This species seems to prefer rocky areas and are often found at dawn or dusk following warm summer rains. The banded Gila monster is primarily ground dwelling and subterranean (NDOW 2005).

## Birds

**Northern Harrier (FT, CT).** This northern harrier (*Circus cyaneus*) occurs year round within breeding range in California. At least some breeding populations may be resident. The species occurs more broadly and in much greater numbers during migration and winter than during the breeding season, which extends from March through August (Loughman and McLandress, 1994). The species appears to be nomadic, ranging widely, both within the breeding season and across years (Pavelka, 1992). Because harriers are much more numerous in the state in winter than summer, the breeding population is surely many fewer. Actual breeding numbers vary greatly from year-to-year with rainfall and prey abundance, probably because the species' primary habitats, marshes and grasslands, vary annually in quality and extent (MacWhirter and Bildstein, 1996). In California's southern deserts, suitable habitat is extremely limited. Harriers breed in the Saline and Panamint valleys (1 pair each) and the Lake Grimshaw area near Tecopa (1 pair) in Inyo County (T. & J. Heindel in litt.) and in the Fremont Valley near Cantil in eastern Kern County (Heindel, 2000). Although Harper Dry Lake in western San Bernardino County had long supported harriers, breeding has not been suspected there since the mid-1990s (S. Myers, in litt.). The center of abundance in this region is northern Los Angeles County (Davis and Niemela, 2008). Observations of banded northern harrier were recorded in the course of avian surveys. (CH2MHILL, 2011a).

**Golden Eagle (FSC, CSC, FP, BLMSS, MB, BGEPA).** The golden eagle (*Aquila chrysaetos*) is recognized as a FSC, CSC, and Fully Protected by CDFG, and a BLM Sensitive Species. This species is also offered protection under the BGEPA and MBTA. Habitat for this species is typically rolling foothills, mountain areas and desert. Golden eagles need open terrain for hunting and prefer grasslands, deserts, savannah, and early successional stages of forest and shrub habitats. This species prefers to nest in rugged, open habitats with canyons and escarpments, with overhanging ledges and cliffs and large trees used as cover.

A CNDDDB search for this species was performed prior to the wildlife survey and concurrent with the desert tortoise protocol survey, biologists documented any suitable habitat and

incidental sightings or sign of this species. Observations of golden eagle were recorded in the course of avian surveys.

**Prairie Falcon (FSC, CSC, MB).** The prairie falcon (*Falco mexicanus*) is an uncommon permanent resident that ranges from southeastern deserts to the northwest throughout the Central Valley and along the inner Coast Ranges and Sierra Nevada. It uses areas from annual grasslands to alpine meadows, but is associated primarily with perennial grasslands, savannahs, rangeland, some agricultural fields, and desert scrub areas. It requires sheltered cliff ledges for cover and usually nests in a scrape on a sheltered ledge of a cliff overlooking a large, open area. It sometimes nests on old raven or eagle stick nest on cliff, bluff, or rock outcrop. Southeast-facing nest site apparently preferred, but height and orientation secondary to nature and character of the ledge. Denton (1975) reported 76 percent of eyries had water within 0.4 km (0.25 mi). Uses open terrain for foraging; nests in open terrain with canyons, cliffs, escarpments, and rock outcrops. Observations of prairie falcon were recorded in the course of avian surveys.

**Western Yellow-Billed Cuckoo (FPE, SE, MNBMC).** The western yellow-billed cuckoo (*Coccyzus americanus occidentalis*) is a candidate for protection under the Endangered Species Act. Most of the remaining breeding pairs are found in Arizona, California, and New Mexico. Cuckoos prefer breeding habitat dominated by native tree species, especially cottonwood-willow habitat bordered by mesquite bosque habitat. The size of habitat patches matters; breeding cuckoos were found only in large, continuous areas of riparian habitat. These findings and the development of spatially explicit habitat models by USGS scientists will help resource managers conserve and manage riparian habitats needed to ensure the survival of the western yellow-billed cuckoo. (USGS, 2009). Incidental observations were recorded onsite during desert tortoise or plant surveys or sightings during avian surveys.

**Western Burrowing Owl (FSC, CSC, MB).** The burrowing owl (*Athene cunicularia*) is a Federal Species of Concern (FSC) and a CSC. Additionally, it is protected under the MBTA and several CDFG codes including 3503, 3503.5, and 3513. This species is widespread throughout the western U.S., but has declined in this area and many other areas because of habitat modification, poisoning of its prey, and introduced nest predators. The burrowing owl is diurnal and usually non-migratory in this portion of its range. This species is known to establish nests within abandoned burrows from ground squirrels, kit fox, desert tortoise, and other wildlife. It is found in low densities in desert habitats, but can occur in much higher densities near agricultural lands where rodent and insect prey tend to be more abundant.

A CNDDDB search for this species was performed prior to the wildlife survey and concurrent with the desert tortoise protocol survey, biologists documented any suitable habitat and any incidental sightings or sign of this species during surveys on the site or sightings during avian surveys.

**Vermilion Flycatcher (CSC, MB).** The Vermilion Flycatcher (*Pyrocephalus rubinus*) is a widespread tropical species whose range barely extends northward into the southwestern United States, where it breeds locally northward to southeastern California and southern Nevada. It is more abundant from central Arizona, central New Mexico, and west-central Texas south (with some range gaps) through northern Chile and central Venezuela (AOU,

1998), where it breeds from sea level to 10,000 ft. (3000 m). In North America, its winter range is largely the same, although it does withdraw toward the tropics at this season. During winter months some individuals disperse east, west, and north of their breeding range. It has been associated with low-lying, open riparian areas with accessible water (either pooled or flowing) and dominated by mesquite (*Prosopis* spp.). Willow (*Salix* spp.) and Fremont cottonwood (*Populus fremontii*) are also used (Grinnell and Miller, 1944). This species continues to occupy habitat similar to this description, at least in part, at Morongo Valley. Elsewhere in the Mojave Desert, this species invariably uses parkland or golf course settings that support either native or non-native trees, and may or may not have accessible water; indeed, there is a substantial parkland element to the occupied habitat at Morongo Valley. In native habitats, trees used for nesting range from massive cottonwoods, sycamores (*Platanus* spp.), and even oaks (*Quercus* spp.) to more mid-sized trees such as willow and mesquite (Patten, 2008).

A search for this species was performed prior to the wildlife survey and concurrent with the desert tortoise protocol survey, biologists documented any suitable habitat and any incidental sightings or sign of this species or sightings during avian surveys.

**Brown-Crested Flycatcher (CSC, MB).** In California, Brown-crested Flycatchers (*Myiarchus tyrannulus*) nest along the Colorado River and at a few scattered localities throughout the deserts. They are rarely observed in California during migration away from known breeding areas (Garrett and Dunn, 1981). In the eastern Mojave Desert of California, they nest or have nested at a few scattered localities including Victorville, Cushenbury Springs, Morongo Valley, Tecopa, the South Fork Kern River Preserve at Wildon and at Rattlesnake Ranch near Mecca. Tecopa is approximately 25 miles west. In California, Brown-crested Flycatchers usually arrive on their nesting grounds during the first or second week of May, with an early arrival date in the region of 24 April. They normally depart the nesting grounds by mid-August, exceptionally remaining into early September (Garrett and Dunn, 1981). Nesting localities in the California deserts include Fremont Cottonwoods (*Populus fremontii*) and various willows (*Salix* spp.) are probably the most common trees used for nest sites. They are secondary cavity nesters, utilizing sites originally excavated by flickers and woodpeckers 10-30 ft. (3-9 m) above ground (Kaufman, 1996). In California, Brown-crested Flycatchers occur in riparian woodland or forest dominated by cottonwoods and willows, usually in a climax stage; along the Colorado River they have also bred in residential areas with tall, planted trees (Garrett and Dunn, 1981; Rosenberg et al., 1991). All southern California breeding localities contain large cottonwoods and/or willows. The presence of woodpeckers or other cavity excavating species is important (Meyers, 1984).

**Loggerhead Shrike (FSC, CSC, MB).** The loggerhead shrike (*Lanius ludovicianus*) is a FSC and a CSC. It is offered protection under the MBTA and CDFG code. Loggerhead shrikes are common residents and winter visitors of California foothills and lowlands. This species can be found within open habitat types, including sage scrub, non-native grasslands, chaparral, riparian, croplands, and areas characterized by open scattered trees and shrubs. Fences, posts, or other potential perches are typically present. The loggerhead shrike forages for large insects and lizards over open ground within areas of short vegetation, usually impaling prey on thorns, wire barbs, or sharp twigs to cache for later feeding.

A CNDDDB search for this species was performed prior to the wildlife survey and concurrent with the desert tortoise protocol survey, biologists documented any suitable habitat and any incidental sightings or sign of this species or sightings during avian surveys.

**Least Bell's Vireo (FE, SE, MNBMC).** Least Bell's vireo (*Vireo bellii pusillus*), by 1983, was restricted to several nesting localities in southern California, including one locality along the Amargosa River, Inyo County (Matthews and Moseley, 1990). Populations migrate into southern California near the end of March (Biosystems Analysis, 1989). Most pairs leave breeding areas between late July and late September. The preferred habitat is dense brush, willow-cottonwood forest, mesquite stands, streamside thickets, and scrub oak in arid regions but usually near water (AOU, 1983), willow-dominated riparian woodlands (Biosystems Analysis, 1989) and open woodland, brush in winter (NatureServe, 2011). Nests are generally built about 1 m above ground, generally in a horizontal or drooping twig fork near the edge of thicket. In California, they select that averages 3-5 m in height. Generally, they return to same nesting territory in successive years (Franzreb, 1989).

A search for this species was performed concurrent with the desert tortoise protocol survey, biologists documented any suitable habitat and any incidental sightings or sign of this species or sightings during avian surveys.

**Gray Vireo (BCC, CSC, BLMSS, MB).** The gray vireo (*Vireo vicinior*) is a USFWS Bird of Conservation Concern, a CSC, and a BLM Sensitive Species. It is offered protection under the MBTA and CDFG code. This species is an uncommon, local, summer resident in arid pinyon-juniper, juniper, and chamise-redshank chaparral habitats from 600 to 2,000 meters (2,000 to 6,500 feet) in mountains of the eastern Mojave Desert, on northeastern slopes of the San Bernardino Mountains, in the San Jacinto Mountains, and on southern slopes of the Laguna Mountains. The gray vireo forages among shrubs and small trees, using them for cover as well. Breeders of this species frequent arid, shrub-covered slopes with sparse to moderate cover and scattered small trees, commonly junipers, pinyon pines, chamise, or other chaparral. The Gray Vireo inhabits thorn scrub, oak-juniper woodland, pinyon-juniper, dry chaparral, mesquite and riparian willow habitats. It favors dry chaparral that forms a continuous zone of twigs 1 to 5 feet above ground.

A CNDDDB search for this species was performed prior to the wildlife survey and concurrent with the desert tortoise protocol survey, biologists documented any suitable habitat and any incidental sightings or sign of this species or sightings during avian surveys.

**Bendire's Thrasher (BCC, CSC, BLMSS, MB).** The Bendire's Thrasher (*Toxostoma bendirei*) is a USFWS Bird of Conservation Concern, a CSC, and a BLM Sensitive Species. It is offered protection under the MBTA and CDFG code. This species is a very local spring and summer resident and breeder in flat areas of desert succulent shrub and Joshua tree habitats in Mojave Desert area. Bendire's Thrashers frequent flat desert areas with scattered stands of thorny shrubs, yucca, and cactus for cover, foraging, and nesting. A CNDDDB search for this species was performed prior to the wildlife survey and concurrent with the desert tortoise protocol survey, biologists documented any suitable habitat and any incidental sightings or sign of this species, however, these may have been erroneous.

**Le Conte's Thrasher (BCC, CSC, BLMSS, MB).** The Le Conte's thrasher (*Toxostoma lecontei*) is a USFWS Bird of Conservation Concern, a CSC, and a BLM Sensitive Species. It is offered

protection under the MBTA and CDFG code. This species is a desert resident that inhabits areas with sparse desert scrub, alkali desert scrub, and desert succulent scrub habitats with open desert washes. It can be found year-round throughout much of the Mojave and Colorado deserts of California. The Le Conte's thrasher population densities are among the lowest of passerine (perching) birds, estimated at less than five birds per square mile in optimal habitat. This low population density decreases the probability of their detection during field surveys. The Le Conte's thrasher feeds on seeds, insects, small lizards, and other small vertebrates. This species requires areas with an accumulated leaf litter under most plants as cover for its mostly arthropod prey (Bureau of Land Management, Undated). A CNDDDB search for this species was performed prior to the wildlife survey and concurrent with the desert tortoise protocol survey, biologists documented any suitable habitat and any incidental sightings or sign of this species or sightings during avian surveys.

**Crissal Thrasher (BCC, CSC, MB).** The Crissal thrasher (*Toxostoma crissale*) is a USFWS Bird of Conservation Concern and a CSC. It is a non-migratory resident ranging from southern Nevada and southeastern California to western Texas and central Mexico. This species prefers habitats characterized by dense, low scrubby vegetation, such as desert and foothill scrub and riparian brush. The nest of the Crissal thrasher typically consists of an open cup of twigs, lined with finer vegetation, and placed in the middle of a dense shrub or bush. Loss of habitat to clearing for agriculture or urban and suburban development threatens some populations. A CNDDDB search for this species was performed prior to the wildlife survey and concurrent with the desert tortoise protocol survey, biologists documented any suitable habitat and any incidental sightings or sign of this species or sightings during avian surveys.

**Phainopepla. (FSC, MB).** The Phainopepla (*Phainopepla nitens*) is a habitat specialist that is threatened by commercial development of valley bottoms. Phainopeplas are closely associated with the mesquite-and-mistletoe woodlands that once covered large areas of many southwestern valleys and that graded into adjacent drainages. Phainopeplas are common in the southern deserts of California but less common and seasonal visitors elsewhere in the state. Much of the southern desert population reportedly leaves for more western and northern parts of range from early May to September. Some individuals may nest first on southern deserts and again in a different summer area in the same year (Hoffmann 1927, Grinnell and Miller 1944, McCaskie et al. 1979, Garrett and Dunn 1981, Ehrlich et al. 1988).

In California, the species is heavily dependent on mistletoe berries (Grinnell and Miller, 1944; Garrett and Dunn, 1981) which parasitize mesquite, acacia, ironwood, cottonwood, blue oak and live oak. It also eats other berries, including juniper, elderberry, grape, buckthorn, poison-oak, and the introduced pepper-tree. They capture insects in flight by sallying from a high perch (Granholm, 2008).

A CNDDDB search for this species was performed prior to the wildlife survey and concurrent with the desert tortoise protocol survey, biologists documented any suitable habitat and any incidental sightings or sign of this species or sightings during avian surveys.

**Brewer's Sparrow (BCC, MB).** The Brewer's sparrow (*Spizella breweri*) is a USFWS Bird of Conservation Concern. It is offered protection under the MBTA and CDFG code. This species is a common summer resident and breeder east of the Cascade-Sierra Nevada crest

in mountains and higher valleys of the Mojave Desert. In summer, Brewer's sparrow often finds cover in sagebrush in extensive stands with moderate canopy unbroken by trees, while similar shrub habitats, such as bitterbrush, are used to a lesser extent. This species breeds in treeless shrub habitats with moderate canopy, especially in sagebrush. In winter, this species is common in open desert scrub and cropland habitats of the southern Mojave and Colorado deserts, usually in areas with some herbaceous understory. A CNDDDB search for this species was performed prior to the wildlife survey and concurrent with the desert tortoise protocol survey, biologists documented any suitable habitat and any incidental sightings or sign of this species or sightings during avian surveys.

**Gray-Headed Junco (CSC, MB).** The gray-headed junco (*Junco hyemalis caniceps*) is a CSC. It is offered protection under the MBTA and CDFG code. The gray-headed junco is a common to abundant species, breeding and wintering in California. This species breeds in mountains and foothills throughout the state, including higher desert ranges (McCaskie et al., 1979; Garrett and Dunn, 1981). Found mostly in forests and woodlands from montane hardwood-conifer forests up through alpine dwarf-shrub habitat of the Sierra Nevada. The "gray-headed" race of the dark-eyed junco breeds locally in the White Mountains (160 mi. es NW) and Grapevine Mountains (45 miles NW), and on Clark Mountain (36 miles SW) in southeastern California (McCaskie et al., 1979). A CNDDDB search for this species was performed prior to the wildlife survey and concurrent with the desert tortoise protocol survey, biologists document any suitable habitat and any incidental sightings or sign of this species or sightings during avian surveys.

**Hepatic Tanager (CSC, MB).** The hepatic tanager (*Piranga flava*) is a CSC. It is offered protection under the MBTA and CDFG code. This species is a neo-tropical migrant that breeds from northwestern Arizona, New Mexico, southern Nevada, southeastern California, and Texas, south to Mexico, and is found in open, mountainous pine and pine-oak forests, where it both forages and nests. The hepatic tanager is a very shy, wary species. A CNDDDB search for this species was performed prior to the wildlife survey and concurrent with the desert tortoise protocol survey, biologists documented any suitable habitat and any incidental sightings or sign of this species or sightings during avian surveys.

**Summer Tanager (CSC, MB).** The summer tanager (*Piranga rubra*) is a CSC. It is offered protection under the MBTA and CDFG code. This species is an uncommon (formerly common) summer resident and breeder in desert riparian habitat along the lower Colorado River, also occurring very locally elsewhere in southern California deserts. Summer tanagers are also found in additional deserts and other localities during migration. This species breeds in mature, desert riparian habitat dominated by cottonwoods and willows (Grinnell and Miller, 1944; McCaskie et al., 1979, 1988; Garrett and Dunn, 1981). Cottonwoods and willows, especially older, dense stands along rivers and streams, provide nesting, feeding, and other cover. Summer tanagers are much less common now than in the 1940s, primarily because of loss and fragmentation of mature cottonwood and willow stands, especially along the Colorado River (Grinnell and Miller, 1944; Remsen, 1978). A CNDDDB search for this species was performed prior to the wildlife survey and concurrent with the desert tortoise protocol survey, biologists documented any suitable habitat and any incidental sightings or sign of this species or sightings during avian surveys..

## Mammals

**American Badger (CSC).** The American Badger (*Taxidea taxus*) is a CSC. It was once fairly widespread throughout the open grassland habitats of California. Badgers are now an uncommon, permanent resident found throughout most of the state, with the exception of the northern North Coast area. They are most abundant in the drier open stages of most shrub, forest, and herbaceous habitats with friable soils. Badgers are generally associated with treeless regions, prairies, parklands, and cold desert areas. Cultivated lands have been reported to provide little usable habitat for this species. They feed mainly on small mammals, especially ground squirrels, pocket gophers, rats, mice, and chipmunks. This species captures some of its prey above ground foraging on birds, eggs, reptiles, invertebrates, and carrion. Its diet will shift seasonally and yearly depending upon prey availability. This species is somewhat tolerant of human activities. Predator control with the usage of indiscriminate trapping and poisons along with habitat loss have caused extensive losses. Additionally, vehicular accidents, farming operations, and indiscriminate shootings are also causes of mortality. A CNDDDB search for this species was performed prior to the wildlife survey and concurrent with the desert tortoise protocol survey, biologists documented any suitable habitat and any incidental sightings or sign of this species in the course of desert tortoise surveys.

**Nelson's Bighorn Sheep.** CNDDDB records that Nelson's bighorn sheep occur in the Nopah Range to the west and the Kingston Range to the south, portions of which lie within 10 miles of the project site.

A CNDDDB search for this species was performed prior to the wildlife survey and concurrent with the desert tortoise protocol survey, biologists documented any suitable habitat and any incidental sightings or sign of this species in the course of desert tortoise surveys.

**Townsend's Big-eared Bat (CSC, FSS, BLMSS).** The Townsend's big-eared bat (*Corynorhinus townsendii*) is a CSC, a BLM Sensitive Species, and a USFS Sensitive Species. Townsend's big-eared bat is found throughout California, in all but subalpine and alpine habitats, and may be found at any season throughout its range. Once considered common, Townsend's big-eared bat now is considered uncommon in California. It is most abundant in mesic habitats. This species requires caves, mines, tunnels, buildings, or other human-made structures for roosting. The Townsend's big-eared bat captures their prey in flight using echolocation, or by gleaning from foliage, with small moths being the principal food of this species. Extremely sensitive to disturbance of roosting sites, a single visit may result in the abandonment of the roost. A CNDDDB search for this species was performed prior to the wildlife survey and concurrent with the desert tortoise protocol survey, biologists documented any suitable habitat and any incidental sightings of this species in the course of desert tortoise, plant and avian surveys.

**Pallid Bat (CSC, BLM SS).** Pallid bat (*Antrozous pallidus*) is widely distributed in western North America. The pallid bat prefers day roosts in rock crevices, structures and less frequently in mines, caves, and hollow trees. Suitable sites protect from precipitation and predators. It provides a microenvironment with moderate daily temperature changes, shade from direct sunlight, room for more than two dozen bats, and an open entrance at least 1.5 meters above the ground, since the bat drops for flight. Night roosts include buildings, bridges, rock overhangs, and other sheltered places, which are open and offer easy

accessibility by flight (AGFD, 2002). They occur in a variety of habitat types including coniferous and non-coniferous forests, brushy terrain, rocky canyons, open farmland, and deserts where suitable roosts exist at elevations less than 8,000 feet (2,440 m).

**American Badger (CSC).** Badgers (*Taxidea taxus*) are active year round throughout most of the California. It is most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. In winter, home range is smaller than at other times. Water does not seem to be important to badgers it is assumed they meet their moisture requirements through their prey. However, they will take water if it is available. Therefore, water is not a relevant habitat element. An herbaceous layer and friable soil are required for requirements for reproduction, cover and feeding. Soils must support a burrow for den sites and also permit digging for prey. Prey includes small mammals (shrews, mice, voles) but small to medium mammals (gophers, ground squirrels) are essential. Badgers will also eat terrestrial insects, invertebrates, reptiles (lizards, snakes, big lizards such as the chuckwalla), small birds (sparrows, warblers), medium birds (jays, robins, woodpeckers, band-tailed pigeon, kestrel), and eggs. (Laudenslayer, 2007)

**Amargosa Vole (FE, SE).** The Amargosa vole is restricted in distribution to those riparian areas along the Amargosa River near Tecopa Hot Springs and Tecopa, Inyo County, California. Typically, these areas are characterized by freshwater marsh vegetation, dominated by *Scirpus* spp., *Carex* spp., and *Juncus* spp. Plant density ranges from open to dense, topographic relief ranges from 0 to 20% slope, and water distribution varies from absent to incised streams, pools, that spread out beneath the plant canopy.

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**Long-legged Myotis.** This bat species (*Myotis volans*) occurs in colonies of 2,000-5,000 individuals throughout much of its range. Habitats vary from desert floodplains and rocky canyonlands to the cave country from central Texas to southcentral Kansas. In summer, this species congregates in caves, mines, and less often in buildings. Most individuals in populations in Arizona and California appear to be migratory and most in Kansas, Oklahoma, and Texas appear to be permanent residents that hibernate in caves during winter. Flight is stronger, more direct, and with less flutter than most other bats of the genus. These bats begin emerging from the daytime roost well before dark, fill their stomachs within about 0.5 hour of foraging, and retire to some shelter such as a building, cave, or mine for a night resting period. There is no clearly defined second foraging period in early morning as in some other species. Predators include snakes, hawks, owls, and raccoons.

Like many insectivorous bats, this species is opportunistic in feeding habits, with diets that fluctuate by season and habitat. Common food items are small moths and beetles. (Best et al. 2011)

**The Brazilian (Mexican) free-tailed bat.** This species (*Tadarida brasiliensis*) roosts in caves, hollow trees, buildings, and rock crevices. It is found in a wide variety of habitats but is predominantly a lower elevation species. It is a summer resident that migrates away from colder regions and winters in areas with predominantly non-freezing temperatures. Migratory animals appear to be active in the winter range, including the low desert of southern Nevada. It selects a variety of day roosts including cliff faces, mines, caves, buildings, bridges, and hollow trees. Although colonies number in the millions in some areas, colonies in Nevada are generally several hundred to several thousand (largest known colonies have been estimated at ca. 70,000- 100,000). Some caves may be used as long term transient stopover roosts during migration.

Food items include a variety of insects but moths predominate. Foraging occurs in the open and some individuals travel more than 25 miles to reach feeding grounds and feed more than 1,000 feet above the ground. (Bradley et al., 2006)

**Kingston Mountain Chipmunk.** This species (*Neotamias panamintinus acrus*) is endemic to the Kingston Range of northeastern San Bernardino County. The Kingston Mountain chipmunk is restricted to pinyon-juniper woodland. Approximately 40 mi<sup>2</sup> (100 km<sup>2</sup>) in the Kingston Range is suitable habitat for this subspecies; the population effectively isolated by the surrounding desert vegetation (Johnson 1943; Laudenslayer, 2007).

**The following species were reported in the CNDDDB or NNHDB queries but have no potential to occur on the site or near the site.**

Spring Mountains pyrg (*Pyrgulopsis deacon*)  
 Death Valley Agabus diving beetle (*Agabus rumppi*)  
 Death Valley June beetle (*Polyphylla erratica*)  
 Amargosa naucorid bug (*Pelocoris Shoshone*)  
 Carole's silverspot (*Speyeria zerene carolae*)  
 Amargosa Canyon speckled dace (*Rhinichthys osculus ssp.*)  
 Amargosa pupfish (*Cyprinodon nevadensis amargosae*)  
 Pahrump poolfish (*Empetrichthys latos latos*)  
 Least Bell's vireo (*Vireo bellii pusillus*)  
 Kingston Mountain chipmunk (*Neotamias panamintinus acrus*)  
 Amargosa vole (*Microtus californicus scirpensis*)