3.8.3 Fish and Wildlife Resources

The mixed habitats found in the Arroyo Seco watershed represent a remnant of the rich biotic community that was once dominant within the Los Angeles basin. However, despite the disturbed nature of the landscape and limited connectivity throughout the watershed, many wildlife species can still be found in the area. Because the least amount of urbanization is present above Devil's Gate Dam in the HWP, it hosts the most natural assemblage of wildlife habitat in the watershed. Species that are most commonly found in the watershed are discussed below.

Mammals common throughout the watershed include coyote (*Canis latrans*), raccoon (*Procyon lotor*), opossum (*Didelphis virginiana*), striped skunk (*Mephitis mephitis*), California ground squirrel (*Spermophilus beecheyi*), Botta's pocket gopher (*Thomomys bottae*), and Audubon cottontail (*Sylvilagus audubonii*). Non-native species such as feral cats and dogs are also common (City of Pasadena 2005). Evidence observed in the HWP suggests that dusky-footed woodrat (*Neotoma fuscipes*), gray fox (*Urocyon cinereoargenteus*), red fox (*Vulpes vulpes*), mule deer (*Odocoileus hemionus californicus*), cougar (*Puma concolor*) (ASF 2008a), and bobcat (*Lynx rufus*) utilize the upper watershed. Bat species are also present, using many habitats in the watershed for roosting, breeding, or foraging.

Over 180 native bird species have been documented in the Arroyo Seco watershed for breeding, wintering, or are residents (Pasadena Audubon Society 2005). Common residents include red-tailed hawk (*Buteo jamaicensis*), American kestrel (*Falco sparverius*), great blue heron (*Ardea herodias*), great egret (*Ardea alba*), mourning dove (*Zenaida macroura*), Anna's hummingbird (*Calypte anna*), Allen's hummingbird (*Selasphorus sasin*), cliff swallow (*Petrochelidon pyrrhonota*), northern flicker (*Colaptes auratus*), Say's phoebe (*Sayornis saya*), black phoebe (*Sayornis nigricans*), western scrub-jay (*Aphelocoma californica*), American crow (*Corvus brachyrhynchos*), chestnut-backed chickadee (*Poecile rufescens*), American robin (*Turdus migratorius*), northern mockingbird (*Mimus polyglottos*), California towhee (*Pipilo crissalis*), common yellowthroat (*Geothlypis trichas*), spotted towhee (*Pipilo maculatus*), song sparrow (*Melospiza melodia*), Brewer's blackbird (*Euphagus cyanocephalus*), and house finch (*Carpodacus mexicanus*). During the wet season when standing water is present, the watershed also attracts waterfowl and shorebirds. Dryer, more upland habitats host a diversity of passerine species such as western wood pewee (*Contopus sordidulus*), Hutton's vireo (*Vireo huttoni*), wrentit (*Chamaea fasciata*), oak titmouse (*Baeolophus inornatus*), bushtit (*Psaltriparus minimus*), house wren (*Troglodytes aedon*), ruby-crowned kinglet (*Regulus calendula*), California thrasher (*Toxostoma redivivum*), Townsend's warbler (*Dendroica townsendi*), yellow warbler (*Dendroica petechia*), and white-crowned sparrow (*Zonotrichia leucophrys*). Woodland habitat hosts red-shouldered hawk (*Buteo lineatus*), Cooper's hawk (*Accipiter cooperii*), sharp-shinned hawk (*Accipiter striatus*), California quail (*Callipepla californica*), band-tailed pigeon (*Columba fasciata*), great-horned owl (*Bubo virginianus*), acorn woodpecker (*Melanerpes formicivorus*), downy woodpecker (*Picoides pubescens*), and pacific-slope flycatcher (*Empidonax difficilis*).

Various native amphibians and reptiles are found in the Arroyo Seco watershed. Two amphibians common to the area are the California toad (*Bufo boreas halophilus*) and Pacific treefrog (*Hyla regilla*). Reptiles are most common in upland areas and include western fence lizard (*Sceleporous occidentalis biseriatus*), side-blotched lizard (*Uta stansburiana*), coastal western whiptail (*Cnemidophorus tigris multiscutatus*), San Diego alligator lizard (*Elgaria multicarinatus webbi*), California striped racer (Masticophis *lateralis lateralis*), San Diego gopher snake (*Pitouphis melanoleucus annectens*), California red-sided gartersnake (*Thamnophis sirtalis infernalis*), and southern Pacific rattlesnake (*Crotalus viridis helleri*) (CRA 2007). Two-striped gartersnake (*Thamnophis hammondii*) is one of the few species associated to wetter areas.

Rainbow trout (*Oncorhynchus mykiss*) and arroyo chub (*Gila orcutti*) are the only native fish that are present in the Arroyo Seco watershed (ASF 2008b and Entrix 2008). A few rainbow trout were observed near the JPL Bridge in the HWP (Swift 2001; City of Pasadena 2003a; CDFG 2007); however, it is not know if this population is persistent or whether these fish are from native or introduced stock. Arroyo chub, a southern California endemic that has been extirpated from most of its native range, was reintroduced to the Arroyo Seco below Devil's Gate Dam on August 25, 2008 (ASF 2008b and Entrix 2008). As of summer 2009, this small population has apparently continued to persist (ASF 2009). Overall, habitat that could support native fish species is very limited because of the lack of connectivity from dam obstructions, reduced flows, and the mostly channelized structure of the stream bottom in the downstream reach. However, the various restoration efforts have begun to improve habitat for fish in the Arroyo Seco. The only other fish species known to be currently present in the watershed is mosquitofish (*Gambusia affinis*); a non-native from the eastern United States. A population of mosquitofish was observed in a standing pool located between the SR-134 and Colorado Boulevard (Swift 2001).

3.8.4 Species of Special Concern

The following discussions and summarize the listing status, habitat requirements, distributions, and likelihood of occurrence for each Federally or state listed species of special concern potentially occurring in the Arroyo Seco watershed study area. These species were identified using U.S. Fish and Wildlife Service (USFWS) – Threatened and Endangered Species System (USFWS 2010c) and CDFG – CNDDB (CDFG 2010). California Native Plant Society (CNPS) rare plant data was also used to describe the status of plant species of special concern. Because anadromous fish were historically present in the Arroyo Seco, National Oceanic and Atmospheric Administration – National Marine Fisheries Service (NOAA 2010) was also consulted. Species demographics were obtained from USFWS, National Oceanic and Atmospheric Administration (NOAA), NatureServe, primary literature, and from field survey data whenever available.

Many species of special concern have been listed by USFWS (138 species) and CDFG (66 species) as potentially occurring in Los Angeles County (A complete list is available in **Appendix A**). Of these, seven have been assessed as historically occurring and currently or potentially preset in the study area. Potential for occurrence is based on availability of suitable habitat, direct observations during field visits by Tetra Tech biologists, and whenever available, field observation data from other entities. Included species of special concern are seven USFWS

listed species; five endangered and two threatened, and four CDFG listed species, all of which are listed as endangered. In addition, the two USFWS listed plant species potentially occurring in the study area have also been listed by CNPS as rare (1B.1). Each of these species of special concern is listed in and discussed below.

Table 3.14 Special Status Species Potentially Occurring in the Study Area

COMMON NAME (*Scientific Name*)	FEDERAL STATUS	CA STATE STATUS	CNPS STATUS	POTENTIAL FOR OCCURRENCE
Plants				
Nevin's barberry (*Berberis nevinii*)	Endangered	Endangered	1B.1	Present
Slender-horned spineflower (*Dodecahema leptoceras*)	Endangered	Endangered	1B.1	Unlikely
Amphibians				
Arroyo toad (*Bufo californicus*)	Endangered	None	NA	Possible
California red-legged frog (*Rana aurora draytonii*)	Threatened	None	NA	Unlikely
Birds				
Coastal California gnatcatcher (*Polioptila californica californica*)	Threatened	None	NA	Unlikely
Least Bell's vireo (*Vireo bellii pusillus*)	Endangered	Endangered	NA	Possible
Southwestern willow flycatcher (*Empidonax traillii extimus*)	Endangered	Endangered	NA	Possible

Some species of special concern that historically occurred in the study area have been extirpated, and habitat features required to support these species have been severely degraded or altogether eliminated from the system. The historic range of southern steelhead (*Oncorhynchus mykiss irideus*), Santa Ana sucker (*Catostomus santaanae*), and Santa Ana speckled dace (*Rhinichthys osculus* ssp.) includes the Arroyo Seco watershed (CDFG 2007). These species have not been documented in the study area since before the 1970s (City of Pasadena 2002a). The absence of these fishes is the result of natural stream features being restricted to only two reaches of the Arroyo Seco: the reach located upstream of Devil's Gate Dam, and the reach located between the SR-134 and Colorado Boulevard (City of Pasadena 2002a). The rest of the stream channel is concrete-lined with no fish passage structures, preventing it from supporting these fish. Although southern steelhead are currently extinct in the Arroyo Seco, they remain very important as an indicator species for the entire watershed, and any effort to reestablish a population would result in the necessary reestablishment of natural habitat that would support other species of special concern.

3.8.4.1 Nevin's barberry (Berberis nevinii) – (USFWS endangered, CDFG endangered, CNPS 1B.1)

Nevin's barberry occurs in sandy or gravelly places between 800 and 2,700 feet in elevation, on steep north-facing slopes or on low gradient, south-facing washes (Boyd 1987; CPC 2010). Associated plant communities are alluvial scrub, riverine scrub or woodland, coastal sage scrub, chaparral, and/or oak woodland (USFWS 2007a; Calflora 2010; NatureServe 2010). Individuals have been documented mainly in wetlands, but have also been identified in non-wetland areas