3.2 - Biological Resources

3.2.1 - Summary

This section describes the existing biological resources within the proposed incorporation area and evaluates potential effects on these resources that may result from project implementation. This evaluation includes a review of potentially occurring special-status species; wildlife habitats; vegetation communities; and waters of the United States (U.S.), including wetlands. The results of this evaluation are based on a combination of field surveys, literature searches, and database queries.

3.2.2 - Environmental Setting

Regional Setting

The project is located in the southern Sacramento Valley, in the north-central portion of the County of Sacramento at the eastern boundary of the City of Sacramento, California. The City of Sacramento is located at the confluence of the American and Sacramento rivers, which provide habitat for a variety of aquatic and riparian dependent species. The Sacramento River flows from the north, and the American River flows from the Sierra Nevada Mountains to the east. From the confluence, the Sacramento River continues southwest, converges with the San Joaquin River, forming the Sacramento-San Joaquin Delta, and eventually enters San Francisco Bay.

From the City of Sacramento, the Central Valley stretches north and south and comprises a variety of agricultural lands with scattered urban areas. These agricultural lands provide important habitat for a number of special-status wildlife such as Swainson's hawk (*Buteo swainsoni*) and a large number of other raptor species

The proposed incorporation area is bounded on the northeast, east, and southeast by unincorporated County of Sacramento; and to the southwest, west, and northwest by the City of Sacramento. Lands close to the proposed incorporation area are highly developed and support primarily horticultural plant species and wildlife species adapted to an urban landscape, such as scrub jay (*Aphelocoma coerulescens*), Virginia opossum (*Diadelphus virginiana*), and fox squirrel (*Sciurus niger*). Remnant riparian areas associated with creeks and irrigation channels provide nesting habitat for diverse migratory and resident bird species.

Although very small areas of remnant native habitat occur in isolated, undeveloped areas, they are generally too small to support more than a few of the more common native plant and wildlife species. The exceptions are small, seasonal wetlands—which may occur within isolated parcels and which have the potential to support special-status plant and invertebrate wildlife species associated with vernal pool type habitats—and linear stretches along the Sacramento and American rivers. The American River Parkway (Parkway), which starts at the Sacramento river and continues east approximately 23 miles, has preserved important valley oak (*Quercus lobata*) and blue oak (*Q. douglasii*) woodland habitats. River otter (*Lutra canadensis*), chinook salmon (*Oncorhynchos tshawytscha*), ringtail (*Bassariscus astutus*), barred owl (*Strix varia*), red-shouldered hawk (*Buteo*

lineatus), osprey (*Pandion haliaetus*), mule deer (*Odocoileus hemionus*), gray fox (*Urocyon cinereoargenteus*), and a number of other species call the Parkway home. Just north of the proposed incorporation area is Arcade Creek, which also supports some areas of native habitat.

Local Setting

The proposed incorporation area is highly urbanized and densely developed. Plant species are primarily horticultural, and wildlife species are limited to those adapted to an urban environment. A few scattered undeveloped parcels, vacant lots, rural residences, and larger residential lots support native trees such as blue oak. The western half of the proposed incorporation area is primarily high-density residential and commercial uses; the eastern half includes primarily low- to medium-density residential uses. Several small, neighborhood parks provide habitat for birds, fox squirrel, and other urban wildlife. The largest open-space area is the approximately 150-acre Del Paso Country Club. Chicken Ranch Slough passes through the Country Club from the northeast and continues southwest to the Sacramento River. Strong Ranch Slough enters the east-central portion of the proposed incorporation area, passes through Cottage Park, and continues southwest to the Sacramento River. Approximately 5 miles of each of these sloughs have been channelized or filled (Bettis 1998), although sections of these drainages still support riparian habitat.

Special-Status Species

MBA conducted a review of special-status plant and wildlife species with potential to occur within the proposed incorporation area using the following resources:

- The Sacramento East, California USGS 7.5-minute topographic quadrangle (1992)
- Aerial photography of the project site (Google Earth 2009)
- A Natural Resource Conservation Service soils map of the project site (Soil Survey Staff undated)
- California Department of Fish and Game (CDFG) California Natural Diversity Data Base (CNDDB) records for the Sacramento East, California and the surrounding eight quadrangles (CNDDB 2009) (Appendix C-1)
- CDFG California Wildlife Habitat Relationship System (CWHR) (CDFG 2005)
- U.S. Fish and Wildlife Service (USFWS) list of endangered and threatened species that may occur, or be affected by the project, in the Sacramento East, California quadrangle (USFWS 2009) (Appendix C-2)
- The California Native Plant Society (CNPS) online Inventory of Rare and Endangered Vascular Plants of California (CNPS 2009) (Appendix C-2)
- Pertinent literature, including the Jepson Manual, Higher Plants of California (Hickman 1993); Amphibian and Reptile Species of Special Concern in California (Jennings and Hayes 1994); California Birds: Their Status and Distribution (Small 1994); California Bird Species of

Special Concern (Shuford and Gardali, eds. 2008); and Mammalian Species of Special Concern in California (Williams 1986)

For the purpose of this EIR, special-status species are those species:

- Listed as threatened or endangered under the Endangered Species Act (ESA) and those species formally proposed or candidates for listing
- Listed as threatened or endangered under California ESA (CESA) or candidates for listing
- Designated as endangered or rare pursuant to California Fish and Game Code (Section 1901)
- Designated as fully protected pursuant to California Fish and Game Code (Section 3511, Section 4700, Section 5050)
- Designated as a species of special concern by CDFG
- Bats designated as Medium or High Priority species by the Western Bat Working Group (WBWG)
- Plants listed as rare under the California Native Plant Protection Act or considered by CNPS as List 1A, 1B, or 2 species

Special-Status Plant Species

The special-status plant species considered for review in this EIR are included in a table provided in Appendix C-1. The list of species in this table was compiled based upon query results from CNDDB, the CNPS on-line inventories, as well as a list obtained from the USFWS.

Several regionally occurring species were determined not to have potential to occur within the proposed incorporation area, either because the distribution range of the species does not extend into the project vicinity or because the habitat and/or microsite conditions (e.g., serpentinite soils, mesic sites) required by the species are not present within the proposed incorporation area.

Based upon results of the species review, there is one special-status plant species with potential to occur within the proposed incorporation area. Table 3.2-1 lists this species, its regulatory status, general habitat requirements, and the period during which it is identifiable. Recorded occurrences of special-status plant species within 5 miles of the proposed incorporation area are shown in Exhibit 3.2-1a.

Table 3.2-1: Recorded Occurrences of Special-Status Plant Species within 5 Miles of the Project

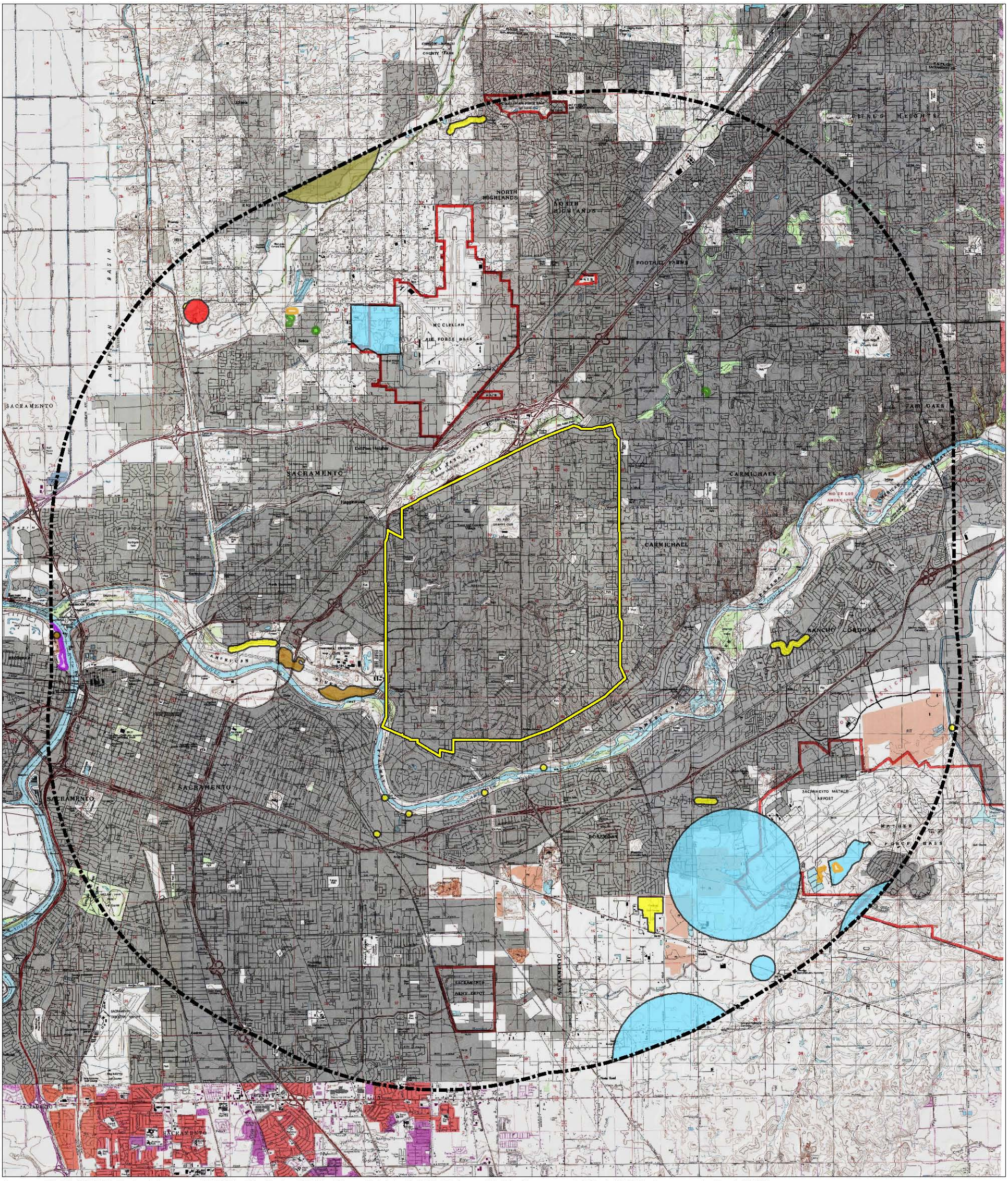
Scientific Name Common name	Listing Status USFWS/ CDFG/ CNPS	General Habitat Description	Potential for Presence?	Period of Identification
Plants				
Sagittaria sanfordii Sanford's arrowhead	—/—/1B.2	Assorted shallow freshwater marshes and swamps. 0 to 650 feet in elevation.	**Low.** Chicken Ranch and Strong Ranch Sloughs may be suitable for this species. There are several recorded occurrences of this species within 5 miles of the project, the nearest of which is 1.5 miles to the west (CNDDB 2009).	May - October
Status Codes				
Federal FE = Federally Endangered FT = Federally Threatened FD = Federally Delisted	**State** CE = State Endangered CT = State Threatened CFG = State Fully Protected SSC = State Species of Special Concern		**CNPS** 1A = Presumed extinct in CA 1B.X = Rare, Threatened, or Endangered in CA or elsewhere 2.X = Rare, Threatened, or Endangered in CA but more common elsewhere Extensions: X.1 = seriously threatened in CA, X.2 = Fairly threatened in CA	

Sanford's Arrowhead

Sanford's arrowhead is an obligate wetland species that is considered rare, threatened, or endangered throughout its range. Sanford's arrowhead is a rhizomatous perennial that occurs in shallow freshwater marshes and swamps, including ponds and ditches. There are known occurrences of Sanford's arrowhead in Butte, Del Norte, Fresno, Merced, Mariposa, Placer, Sacramento, Shasta, San Joaquin, and Tehama counties. This species is extirpated from southern California, and mostly extirpated from the Central Valley. Several known Sacramento County occurrences were not relocated during fieldwork conducted in 2005 (CNPS 2009). Known threats to this species include grazing, development, recreational activities, non-native plants, road widening, and channel alteration.

Special-Status Wildlife Species

The special-status wildlife species considered for review in this EIR are included in a table provided in Appendix C-1. This table was compiled from a list of species included on the USFWS list and from query results from CNDDB and California Wildlife Habitat Relationships (CWHR).



Source: TOPO! USGS Taylor Monument (1980), Rio Linda (1992), Citrus Heights (1992), Folsom (1980), Sacramento West (1992), Sacramento East (1992), Carmichael (1992), Buffalo Creek (1980), Clarksburg (1980), Florin (1980) & Elk Grove (1979). CDFG CNDDB data (September 2009).

Proposed Incorporation Boundary

5 Mile Buffer

CNDDB Plants		CNDDB Habitat
Common Name	***Scientific Name***	**Common Name**
Boggs Lake hedge-hyssop	*Gratiola heterosepala*	Elderberry Savanna
Sanford's arrowhead	*Sagittaria sanfordii*	Great Valley Cottonwood Riparian Forest
legenere	*Legenere limosa*	Northern Claypan Vernal Pool
stinkbells	*Fritillaria agrestis*	Northern Hardpan Vernal Pool

NORTH

1.5 0.75 0 1.5 Miles

Michael Brandman Associates

32230001 • 10/2009 | 3.2-1a_cnddb_plant.mxd

Exhibit 3.2-1a
Recorded Occurrences of Special-Status Plant Species within 5 Miles of the Project

CWHR is a predictive model that lists species likely to occur in a given location under certain habitat conditions. It also predicts the suitability of those conditions for reproduction, cover, and feeding for each modeled species. Information fed into the model includes location (Sacramento County) and habitat type (urban, blue oak woodland, valley riparian). CWHR does not include any information on plants, fish, invertebrates, or rare natural communities.

Several regionally occurring species were determined not to have potential to occur within the proposed incorporation area, either because the distribution range of the species does not extend into the project vicinity or because the habitat or habitat elements (e.g., caves, tall snags) required by the species are not present. Based upon results of the species review, there are seven special-status wildlife species with potential to occur within the proposed incorporation area. Table 3.2-2 lists these species, their regulatory status, general habitat requirements, and the period during which they are commonly identifiable. Recorded occurrences of special-status wildlife species within 5 miles of the proposed incorporation area are shown in Table 3.2-2 and in Exhibit 3.2-1b.

Table 3.2-2: Recorded Occurrences of Special-Status Wildlife Species within 5 Miles of the Project

Scientific Name **Common name**	**Listing Status USFWS/ CDFG/ WBWG**	**General Habitat Description**	**Potential for Presence?**	**Period of Identification**
Invertebrates				
Desmocerus californicus dimorphus Valley elderberry longhorn beetle	FT/—/—	Elderberry shrubs (*Sambucus mexicana*).	**Low.** Elderberry shrubs may be present within the project area. There are several recorded occurrences of this species within 5 miles of the project; one occurrence extends into the southwestern corner of the project (CNDDB 2009).	Year-round
Birds				
Accipiter cooperi Cooper's hawk	—/SSC/—	Nests in densely canopied trees from foothill oak woodlands up to ponderosa pine forests. Nesting usually occurs in a deciduous tree near open water or riparian vegetation.	**Moderate.** This species commonly nests and hunts in urban habitats, and there are many mature trees within the project are that are suitable for nesting. This species has been recorded along the American River just east of the project (CNDDB 2009).	Year-round

Table 3.2-2 (cont.): Recorded Occurrences of Special-Status Wildlife Species within 5 Miles of the Project

Scientific Name Common name	Listing Status USFWS/ CDFG/ WBWG	General Habitat Description	Potential for Presence?	Period of Identification
Accipiter striatus Sharp-shinned hawk	—/SSC/—	Winter resident throughout much of the State; permanent at higher elevations. Breeds in ponderosa pine, black oak, riparian deciduous, mixed conifer, and Jeffrey pine habitats. Prefers but is not restricted to riparian habitats.	**Moderate.** This species is a common winter resident to urban area, and there are many mature trees within the project are that are suitable for roosting. There are no recorded occurrences of this species within 5 miles of the project (CNDDB 2009).	October - March
Dendroica petechia Yellow warbler	—/SSC/—	Requires riparian thickets of willow and other brushy tangles near watercourses for cover. Nests in dense shrubs along streams or rivers.	**Low.** Riparian habitat adjacent to Chicken Ranch and Strong Ranch Sloughs may provide marginal habitat for this species. There are no recorded occurrences of this species within 5 miles of the project (CNDDB 2009).	April - September
Elanus leucurus White-tailed kite	—/CFP/—	Year-round resident. Nests or roosts in dense, broad-leafed deciduous trees. Forages in herbaceous lowlands with variable tree growth and dense populations of voles.	**Moderate.** White-tailed kite is a relatively common urban resident, and mature trees within the project area are suitable for nesting/cover. There are several occurrences of this species within 5 miles of the project, the nearest of which is at the southwestern boundary along the American River (CNDDB 2009).	January - August (breeding)

Table 3.2-2 (cont.): Recorded Occurrences of Special-Status Wildlife Species within 5 Miles of the Project

Scientific Name Common name	Listing Status USFWS/ CDFG/ WBWG	General Habitat Description	Potential for Presence?	Period of Identification
Progne subis Purple martin	—/SSC/—	An uncommon to rare summer resident in a variety of wooded, low-elevation habitats; a rare migrant in spring and fall, absent in winter. Breeding habitat includes old-growth, multi-layered, open forest and woodland with snags; forages over riparian areas, forest, and woodlands. Drain holes in bridges and overpasses now commonly used for nesting in urban habitats.	**Moderate.** Suitable nesting habitat may be present in overpasses that may occur within the project area. There are several recorded occurrences of this species within 5 miles of the project, located primarily in the downtown/midtown area of Sacramento (CNDDB 2009).	April - September
Mammals				
Antrozous pallidus *Pallid bat*	—/SSC/—	Broadly distributed in California from sea level to over 6,000 feet. Roosts in caves, buildings, rock crevices, and tree hollows. Overwinters in summer habitats at lower elevations.	**Moderate.** Heavily treed lots and areas adjacent to Chicken Ranch and Strong Ranch Sloughs may be suitable for roosting by this species. There are no recorded occurrences of this species within 5 miles of the project (CNDDB 2009).	April - October
Status Codes				
Federal FE = Federally Endangered FT = Federally Threatened FD = Federally Delisted	**State** CE = State Endangered CT = State Threatened CFP = State Fully Protected SSC = State Species of Special Concern		**WBWG** High (H) = These species are imperiled or are at high risk of imperilment. Medium (M) = A lack of meaningful information is a major obstacle in adequately assessing these species' status and should be considered a threat.	

Valley Elderberry Longhorn Beetle

The valley elderberry longhorn beetle (VELB) is a federally threatened insect. It has a patchy distribution throughout the Central Valley from Redding to Bakersfield, to approximately 3,000 feet. VELB occurs exclusively on elderberry shrubs (*Sambucus* sp.). Adults mate in spring, and females

lay their eggs on the stems of live elderberry shrubs. The larvae hatch and burrow into the stems, where they remain for 1 to 2 years. The larvae enter the pupal stage and transform into adults, which then exit the stem in the spring by chewing an exit hole. Adults are active from March to June, during which time they feed and mate.

Cooper's Hawk

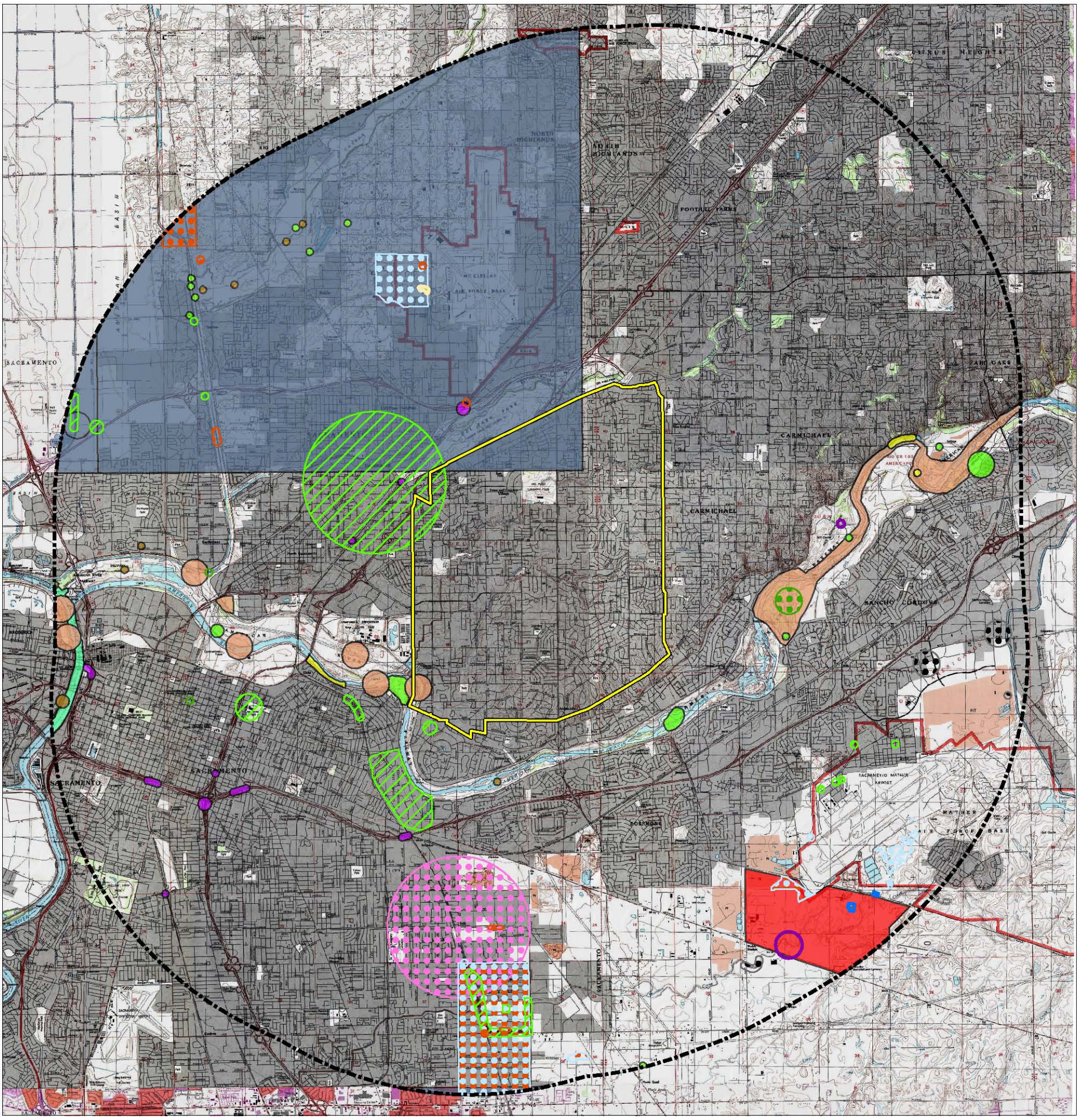
Cooper's hawk is a California species of special concern and is a breeding resident throughout most of the wooded portion of the State. This species frequents landscapes where wooded areas occur in patches and groves, and often uses patchy woodlands and edges with snags for perching. Dense stands of live oak, riparian deciduous, or other forest habitats near water are used most frequently. Cooper's hawk hunts in broken woodland and habitat edges; it catches prey in the air, on ground, and in vegetation. The diet includes small birds, small mammals, and reptiles and amphibians. Cooper's hawk typically nests in second-growth conifer stands or in deciduous riparian areas, usually near streams. This species occurs only infrequently in urban areas. Breeding occurs from March through August.

Sharp-Shinned Hawk

Sharp-shinned hawk is a California species of special concern. It is a fairly common migrant and winter resident throughout California, except in areas with deep snow, and an uncommon permanent resident and breeder in mid-elevation habitats. Some individuals migrate into California for the winter, and others migrate to the mountains for summer and downslope to foothills and valleys for the winter. The breeding distribution of sharp-shinned hawk is poorly documented. It is known to breed in ponderosa pine, black oak, riparian deciduous, mixed conifer, and Jeffrey pine habitats, and it prefers but is not restricted to riparian habitats. Nesting typically occurs in dense, pole, and small-tree stands of conifers, which are cool, moist, well shaded, with little ground cover, and near water. Sharp-shinned hawk eats mostly small birds, small mammals, insects, reptiles, and amphibians. North-facing slopes with plucking perches are critical habitat requirements for this species. Breeding occurs from April through August.

Yellow Warbler

Yellow warbler is a California species of special concern. This species has a patchy breeding distribution throughout the northern part of the State, the Sierra Nevada foothills, and the Coast and Transverse ranges. Yellow warbler usually arrives in California in April and departs by October. Small numbers of this species winter in southern and southeastern deserts within the State. Yellow warbler typically is found in riparian deciduous habitats in summer, including cottonwoods, willows, alders, and other small trees and shrubs typical of low, open-canopy riparian woodland. During migration, this species visits woodland, forest, and shrub habitats. Breeding occurs from mid-April through early August.



Source: TOPO! USGS Taylor Monument (1980), Rio Linda (1992), Citrus Heights (1992), Folsom (1980), Sacramento West (1992), Sacramento East (1992), Carmichael (1992), Buffalo Creek (1980), Clarksburg (1980), Florin (1980) & Elk Grove (1979). CDFG CNDDB data (September 2009).

Proposed Incorporation Boundary

5 Mile Buffer

Common Name	Scientific Name
American badger	*Taxidea taxus*
Cooper's hawk	*Accipiter cooperii*
Sacramento splittail	*Pogonichthys macrolepidotus*
Swainson's hawk	*Buteo swainsoni*
bank swallow	*Riparia riparia*
burrowing owl	*Athene cunicularia*
giant garter snake	*Thamnophis gigas*
midvalley fairy shrimp	*Branchinecta mesovallensis*
northwestern pond turtle	*Actinemys marmorata marmorata*
purple martin	*Progne subis*
tricolored blackbird	*Agelaius tricolor*
valley elderberry longhorn beetle	*Desmocerus californicus dimorphus*
vernal pool fairy shrimp	*Branchinecta lynchi*
vernal pool tadpole shrimp	*Lepidurus packardi*
western pond turtle	*Actinemys marmorata*
white-tailed kite	*Elanus leucurus*

Area Occupied by Multiple Species

American badger, California linderiella, burrowing owl, ferruginous hawk *(Buteo regalis)*, golden eagle *(Aquila chrysaetos)*, tricolored blackbird, vernal pool fairy shrimp, vernal pool tadpole shrimp

NORTH

1.5 0.75 0 1.5 Miles

Michael Brandman Associates

32230001 • 10/2009 | 3.2-1b_cnddb_wildlife.mxd

Exhibit 3.2-1b
Recorded Occurrences of Special-Status Wildlife Species within 5 Miles of the Project

White-Tailed Kite

White-tailed kite is a California species of special concern and a fully protected species. This species is considered a common to uncommon, yearlong resident in coastal and valley lowlands; it is strongly associated with agricultural areas. White-tailed kite inhabits herbaceous and open stages of most habitats. It preys mostly on voles and other small, diurnal mammals, and occasionally on birds, insects, reptiles, and amphibians. Foraging occurs in undisturbed, open grasslands, meadows, farmlands, and emergent wetlands. White-tailed kite typically nests in and roosts in substantial groves of dense, broad-leafed deciduous trees located near an open foraging area. Breeding occurs from February through October.

Purple Martin

Purple martin is a California species of special concern. It is a summer resident throughout the northern portion of the State, the Sierra Nevada foothills, and the Coast and Transverse ranges. This species uses valley foothill and montane hardwood, valley foothill and montane hardwood-conifer, and riparian habitats. It also occurs in coniferous habitats, including closed-cone pine-cypress, ponderosa pine, Douglas fir, and redwood. Purple martin forages over riparian areas, forests, and woodlands. Nests typically are established in old woodpecker cavities and sometimes in human-made structures such as nesting boxes, bridges, and culvert. In urban areas, this species commonly nests in weep holes in overpasses and bridges. During migration, purple martins are found in a variety of open habitats including grassland, wet meadow, and fresh emergent wetland, usually near water. Nesting occurs from April into August.

Pallid Bat

Pallid bat is a California species of special concern. This species occurs in a variety of habitats throughout the State, typically below 6,000 feet in elevation. It is most abundant in xeric ecosystems. Pallid bats roost alone and in both large and small groups. Day and night roosts include crevices in rocky outcrops and cliffs, caves, mines, trees, and human structures such as bridges, barns, porches, bat boxes, and buildings. This species has also been found roosting on or near the ground under stone piles, rags, and baseboards. Pallid bats are generalists that surface glean for arthropods and capture insects on the wing. Breeding occurs from October to February, pups are born from late April to July, and breeding colonies disperse between August and October. In California, pallid bat often overwinters in or near its summer roost site, and it is active periodically throughout the winter. This species' tendency to roost gregariously, combined with a relative sensitivity to disturbance, makes it vulnerable to mass displacement.

3.2.3 - Regulatory Framework

Federal

Special-Status Species

Federal Endangered Species Act

The USFWS administers the Federal Endangered Species Act (ESA), which provides a process for listing species as either threatened or endangered, and methods of protecting them. The ESA defines

as "endangered" any plant or animal species that is in danger of extinction throughout all or a significant portion of its range. A "threatened" species is a species that is likely to become endangered in the near future. A "proposed" species is one that has been officially proposed by USFWS for addition to the federal threatened and endangered species list.

Section 9 of the ESA prohibits "take" of threatened or endangered species. The term "take" means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in such conduct. The presence of any federally threatened or endangered species that are in a project incorporation area generally imposes severe constraints on development, particularly if development would result in "take" of the species or its habitat. Under the regulations of the ESA, the USFWS may authorize "take" when it is incidental to, but not the purpose of, an otherwise lawful act.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) makes it unlawful to pursue, capture, kill, or possess or attempt to do the same to any migratory bird or part, nest, or egg of any such bird listed in wildlife protection treaties between the United States, Great Britain, Mexico, Japan, and the countries of the former Soviet Union.

Waters of the U.S., Including Wetlands

Clean Water Act

Section 404 of the federal Clean Water Act, which is administered by the U.S. Army Corps of Engineers (USACE), regulates the discharge of dredge and fill material into waters of the U.S. The USACE has established a series of nationwide permits that authorize certain activities in waters of the U.S., if a proposed activity can demonstrate compliance with standard conditions. Normally, the USACE requires an individual permit for an activity that will affect an area equal to or in excess of 0.5 acre of waters of the U.S. Projects that result in impacts to less than 0.5 acre can normally be conducted pursuant to one of the nationwide permits, if consistent with the standard permit conditions. The USACE also has discretionary authority to require an Environmental Impact Statement for projects that result in impacts to an area between 0.1 and 0.5 acre. Use of any nationwide permit is contingent on the activities having no impacts to endangered species.

Section 401 of the Clean Water Act requires that "any applicant for a federal permit for activities that involve a discharge to waters of the State shall provide the federal permitting agency with a certification from the State, in which the discharge is proposed, that states the discharge will comply with the applicable provisions under the federal Clean Water Act." Therefore, before the USACE will issue a Section 404 permit, applicants must apply for and receive a Section 401 water quality certification from the Regional Water Quality Control Board.

State

Special-Status Species

California Endangered Species Act

The CDFG administers the California Endangered Species Act (CESA). The State of California considers an endangered species as one whose prospects of survival and reproduction are in immediate jeopardy. A threatened species is considered as one present in such small numbers throughout its range that it is likely to become an endangered species in the near future in the absence of special protection or management. A rare species is one that is considered present in such small numbers throughout its range that it may become endangered if its present environment worsens. State threatened and endangered species are fully protected against take, as defined above.

California Fish and Game Code, Sections 3503 and 3511

The CDFG administers the California Fish and Game Code. There are particular sections of the Code that are applicable to natural resource management. For example, Section 3503 of the Code states it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird. Section 3511 of the Code lists fully protected bird species, where the CDFG is unable to authorize the issuance of permits or licenses to take these species.

Native Plant Protection Act

The Native Plant Protection Act (California Fish and Game Code Sections 1900-1913) prohibits taking, possessing, or selling within the State any rare, threatened, or endangered plants as defined by CDFG. Where notification has been received that state-listed plants are present on private property, CDFG must be notified 10 days prior to destruction to allow for salvage of individuals and/or populations.

Waters and Wetlands

California Fish and Game Code, Sections 1600 Through 1603

All diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake in California are subject to the regulatory authority of the CDFG pursuant to Sections 1600 through 1603 of the California Fish and Game Code (Code), requiring preparation of a Streambed Alteration Agreement. Under the Code, a stream is defined as a body of water that flows at least periodically, or intermittently, through a bed or channel having banks and supporting fish or other aquatic life. Included are watercourses with surface or subsurface flows that support or have supported riparian vegetation. Additionally, CDFG has jurisdiction over altered or artificial waterways as well as dry washes that carry water ephemerally during storm events based on the biological value of these drainages to fish and wildlife.

Local

Sacramento LAFCo Policies, Standards, and Procedures

As described in Section 2, Project Description, LAFCo has developed standards and guidelines in its Plans, Policies, and Procedures manual that aid in the implementation of the Cortese-Knox-Hertzberg

Act. Policies related to incorporations are also provided in Section 1, Introduction, and Section 2, Project Description.

County of Sacramento General Plan

The County of Sacramento General Plan (General Plan) was adopted in 1993 (County of Sacramento 1993), and the County currently is in the process of updating this document. A Public Review Draft of the Conservation Element (General Plan Update) was released on May 30, 2007 (County of Sacramento 2007); however, the General Plan Update has not yet been adopted.

The major goal of the current General Plan (County of Sacramento 1993) is the management and protection of natural resources for the use and enjoyment of present and future generations, while maintaining the long-term ecological health and balance of the environment. Sections of the Conservation Element that address biological resources are Water Resources and Vegetation and Wildlife sections. Strategies, objectives, and policies of these sections that are pertinent to the proposed incorporation area are summarized below.

Section 1: Water Resources

A. Surface Water Supplies

- **Goal:** Conjunctive use of surface and ground water to provide long-term water supply for Sacramento residents while maintaining river flows and reservoir levels that protect environmental resources and provide substantial recreational benefits.

American River Flows

- **Objective:** Adequate water flows to protect riparian, fisheries, and recreation values in the American River.

Section 5: Vegetation and Wildlife

A. Marsh and Riparian Areas

- **Goal:** Healthy, well-managed marsh and riparian woodlands along Sacramento County's waterways.

Habitat Protection

- **Objective:** Marsh and riparian habitat protected.
- **Policy CO-60.** Marshland and riparian areas of special significance shall be designated as natural preserves on the General Plan.
- **Policy CO-61.** Natural Preserves shall not include adjacent irrigated pasture or cropland. However, they may include up to 200 feet of adjoining grassland or grazing area, or up to one-fourth mile of grassland between parallel riparian or marsh areas.
- **Policy CO-62.** Ensure no net loss of marsh and riparian woodland acreage, values or functions.

- **Policy CO-63.** Community Plans and specific plans shall include a complete inventory of seasonal and permanent marshland, riparian habitat, and riparian woodland.
- **Policy CO-64.** Seasonal and permanent marshland within designated natural preserves shall not be drained or filled for the purpose of converting the land to another use.
- **Policy CO-65.** In any cases where complete or selective removal of riparian woodland or scrub habitat is necessary for channel maintenance, public safety, or installation of infrastructure, it will be planned and carried out, or mitigated, so as to minimize unavoidable impacts upon biological resources.
- **Policy CO-66.** Encroachments within the designated floodway of Sacramento waterways shall be consistent with policies to protect marsh and riparian areas.
- **Policy CO-67.** Parcels shall not be created wherein much of the parcel area would comprise marsh or riparian habitat rendering the parcel unbuildable except when within a floodplain corridor or to be dedicated to and maintained by the County for flood control, drainage, and wetland maintenance.
- **Policy CO-68.** Consistent with overall land use policies, the County shall support and facilitate the creation and biological enhancement of large natural preserves or wildlife refuges by other government entities or by private individuals or organizations. Such areas may, but need not necessarily, function as mitigation banks for other impacts upon biological resources due to development.

Habitat Restoration

- **Objective:** Ten percent increase in marsh and riparian woodland habitat, respectively, by 2010.
- **Policy CO-69.** Review projects for potential to restore marsh/riparian woodlands, considering effects on vernal pools, ground water, flooding, and proposed fill or removal of marsh and riparian habitat.
- **Policy CO-70.** Public or private projects involving filling or removal of marsh/riparian habitat shall be mitigated outside of natural preserves where on-site mitigation is not desirable or appropriate shall be mitigated through the purchase of mitigation credits for restored wetlands/riparian areas at no net loss.
- **Policy CO-71.** Community and Specific Plans shall identify potential areas, if any, where marsh or riparian habitat restoration/creation can be undertaken.
- **Policy CO-72.** New or restored marsh/riparian woodlands shall be under ownership of a public agency or subject to a permanent conservation easement.
- **Policy CO-73.** Specific restoration/creation areas identified in Community Plans in accordance with Policy CO-71 shall be adequate in characteristics and acreage to accommodate mitigation for likely wetland impacts resulting from development as designated in the respective Community Plans.

- **Policy CO-71.** shall be adequate in characteristics and acreage to accommodate mitigation for likely wetland impacts resulting from development as designated in the respective Community Plans.

B. Vernal Pools and Ephemeral Wetlands

- **Goal:** Preserve and enhance high-quality, self-sustaining vernal pool habitats.

Vernal Pool Preserves

- **Objective:** A system of self-sustaining vernal pool preserves representative of the four types of vernal pools in Sacramento.
- **Policy CO-78.** Focus vernal pool preservation in permanent open space areas beyond the Urban Area.
- **Policy CO-79.** Strive to link preserves in the County system and create a network that encompasses all vernal pool types.
- **Policy CO-80.** Select vernal pool preserves based on the following evaluation criteria: representativeness, habitat quality, watershed integrity, defensibility, buffer, preserve size, plant species variety, and presence of special status species.
- **Policy CO-81.** Ensure that vernal pool preserves are large enough to protect vernal pool watersheds, provide an adequate buffer, have sufficient number and extent of pools to support adequate species populations and a range of vernal pool classes.
- **Policy CO-82.** Establish criteria and guidelines addressing the need for siting and management of natural preserves. At a minimum, the following should be considered:
    - resource(s) to be lost, restored and/or replaced, functional values,
    - mitigation alternatives, including mitigation banks.

Urban Development and Vernal Pools

- **Objective:** Development directed so as to avoid concentrated vernal pool areas and achieve a balance between essential growth needs and vernal pool resource protection.
- **Policy CO-83.** Ensure no net loss of vernal pool acreage, and/or values and functions, and mitigate any loss in relation to the values of quality of habitat.
- **Policy CO-84.** Evaluate feasible on-site alternatives in the environmental review process that reduce impacts on vernal pools and provide effective on-site preservation in terms of minimum management requirements, effective size, and evaluation criteria identified in the report "Sacramento County Vernal Pools" (1990).
- **Policy CO-85.** Require in-kind compensation for the type and functional values of vernal pools eliminated by development.
- **Policy CO-86.** When on-site preservation or mitigation is infeasible or undesirable, require off-site mitigation at County-approved mitigation banks within Sacramento County.
- **Policy CO-87.** Mitigation for vernal pool loss shall be considered in the environmental review process, and mitigation shall be required based on information contained within the

environmental documents on the quality of those resources and their ability to be sustained within an urban setting.

C. Urban Streams

- **Goal:** Natural and open space values of urban stream corridors preserved and protected.

Land Use Adjacent to Urban Streams

- **Objective:** Land uses within and development adjacent to the Urban Stream Corridor consistent with natural values.
- **Goal CO-117.** Provide a transition zone adjacent to stream corridors that incorporates:
    1) A buffer zone on each side of the stream, between the outer edge of any existing or planned riparian or wetland vegetation and more intensive uses.
    2) The transition zone for stream corridors shall provide sufficient width to allow a minimum 50 to 150 foot natural buffer, a 20-foot mowed fire break at the outer edge, sufficient additional width to provide for access for channel maintenance and flood control and for planned passive recreation uses.
    3) The width of the natural buffers shall be based on:
        a. quality and quantity of existing and planned habitat,
        b. presence of species as well as species sensitivity to human disturbance,
        c. areas for regeneration of vegetation,
        d corridor for wildlife habitat linkage,
        e nature of planned urban uses adjacent to the corridor,
        f need for community greenways, and
        g. the effective use of active barriers.
    4) The transition zone shall not include containment ponds for other features implementing pollutant discharge requirements.
    5) Master drainage plans may provide for other standards that meet the intent of this policy.
- **Goal CO-118.** Uses within the Urban Stream Corridor shall be limited to recreation and agricultural uses compatible with resource protection and flood control measures. Turfed areas are acceptable provided the natural grassland buffer is maintained.
- **Goal CO-119.** Roads, parking, and associated fill slopes shall be located outside of the Urban Stream Corridor, except at stream crossings. Crossings shall be minimized and be aesthetically compatible with naturalistic values of the stream channel.
- **Goal CO-120.** Development design shall minimize the total floodplain frontage which is fenced off from public view. Development adjacent to Urban Stream Corridors shall be encouraged to provide where physically reasonable a public street paralleling at least one side of the corridor with vertical curbs, gutters, foot path, street lighting, and post and cable barriers to prevent vehicular entry.

- **Goal CO-121.** Urban Stream Corridor trails shall be primarily located beyond the riparian corridor and wetlands to minimize wildlife impacts and shall be restricted to non-motorized traffic.
- **Goal CO-122.** Secure easement or fee title to open space lands within corridor as a condition of development approval.

Maintenance of Urban Streams

- **Objective:** Adequately funded maintenance and law enforcement programs to protect natural values of Urban Stream Corridors.
- **Goal CO-123.** Accept ownership and maintenance responsibility of Lot A open space parcels within Urban Stream Corridors provided the lot(s) have good access, are not small or isolated, local park districts are unwilling to accept ownership responsibility, maintenance by a viable homeowners' association is not feasible, and there is no other feasible alternative.
- **Goal CO-124.** Development projects adjacent to the Urban Stream Corridor shall provide unencumbered maintenance access to the stream as necessary and consistent with policies of this plan.
- **Goal CO-125.** No grading, clearing, tree cutting, debris disposal or any other despoiling action shall be allowed in Urban Stream Corridors except for normal channel maintenance.
- **Goal CO-126.** Maintain streams to allow natural vegetation in and along streams, commensurate with flood control and public acceptance, to assist in removal of nutrients, pollutants, and silt.
- **Goal CO-127.** The use of special-status plant species, especially candidate 1 or 2 species, shall be encouraged on revegetation plans, if and only if such plant material can be propagated from local genetic stocks without significant adverse impacts upon the existing populations.

Restoration of Urban Streams

- **Objective:** Restoration of channelized creeks to increase natural values.

D. Tree Resources

- **Goal:** Sacramento trees preserved and protected.

Native and Landmark Tree Protection

- **Objective:** native oak woodlands resources and landmark tree resources preserved and protected for their historic, economic, and environmental values.
- **Policy CO-130.** Make every effort to protect and preserve non-oak native, excluding cottonwoods, and landmark trees and protect and preserve native oak trees measuring 6 inches in diameter at 4.5 feet above ground in urban and rural areas, excluding parcels zoned exclusively for agriculture.
- **Policy CO-131.** Native trees other than oaks, which cannot be protected shall be replaced with in-kind species in accordance with established tree planting specifications, the combined diameter of which shall equal the combined diameter of the trees removed. In addition, with

respect to oaks, a provision for a comparable on-site area for the propagation of oak trees may substitute for replacement tree planting requirements at the discretion of the County Tree Coordinator when removal of a mature oak tree is necessary in accordance with consistent policy.

- **Policy CO-132.** If the project site is not capable of supporting all the required replacement trees, a sum equivalent to the replacement cost of the number of trees that cannot be accommodated shall be paid to the County's Tree Preservation Fund. The replacement cost of trees shall be established in accordance with the Council of Tree and Landscape Appraiser's standards for appraising trees.
- **Policy CO-133.** For discretionary projects involving native oaks, ensure no net loss of canopy area by (1) preserving the main, central portions of consolidated and isolated groves constituting the existing healthy and unhealthy native oak canopy and (2) provide an area on-site to mitigate any canopy lost. Native oak mitigation area must be a contiguous area on-site which is equal to the size of canopy area lost and shall be adjacent to existing oak canopy to ensure opportunities for regeneration. If on-site mitigation area is not available due to area limitations, developer shall provide off-site mitigation consistent with policy proposed in CO-136.
- **Policy CO-134.** Mitigate for loss of trees for road expansion and development consistent with County Tree Ordinance and General Plan policies.
- **Policy CO-135.** In 15 years the native oak canopy within on-site mitigation areas shall be 50 percent canopy coverage for valley oak and 30 percent canopy coverage for blue oak and other native oaks.
- **Policy CO-136.** If on-site mitigation is not possible given site limitation, off-site mitigation may be considered. Such a mitigation area must meet all of the following criteria to preserve, enhance, and maintain a natural woodland habitat in perpetuity, preferably by transfer of title to an appropriate public entity. Protected woodland habitat could be used as a suitable site for replacement tree plantings required by ordinances or other mitigations.
    a. Equal or greater in area to the total area that is included within a radius of 30 feet of the dripline of all trees to be removed;
    b. Adjacent to protected stream corridor or other preserved natural areas;
    c. Supports a significant number of native broadleaf trees; and
    d. Offers good potential for continued regeneration of an integrated woodland community.

New Urban Trees

- **Objective:** One million new trees planted within the urban area between now and 2000.
- **Policy CO-137.** Increase the number of trees planted within residential lots and within new and existing parking lots.
- **Policy CO-138.** Support private foundations with local funds for their tree planting efforts.

E. Rare and Endangered Species

- **Goal:** Increase population of threatened and endangered species found in Sacramento County.

Management of Rare and Endangered Species Habitat

- **Objective:** riparian and wetland environments managed with sensitivity to threatened species and maintained to the extent feasible in a manner that avoids conflicts with privately owned land and agricultural operations.
- **Policy CO-141.** Manage vegetation on public lands with special status species to encourage native species and discourage nonindigenous invasive species.
- **Policy CO-142.** Public land shall be maintained to the extent feasible in a manner that avoids conflicts with privately owned lands and agricultural operations.
- **Policy CO-143.** Control human access to critical habitat areas on public lands to minimize impact upon and disturbance of threatened and endangered species.
- **Policy CO-144.** Protect critical habitat areas on public lands from pesticide and other similar chemical residues.
- **Policy CO-145.** The County shall work with the mosquito abatement district to ensure that mosquito control measures having the least effect on non-target species are implemented in preserved wetlands throughout the county.
- **Policy CO-146.** The proximity of diverse habitat types shall be considered in identifying nondevelopment areas in Community Plans and in identifying potential or preferred natural preserves and mitigation banks.

Protection of Rare and Endangered Species Habitat

- **Objective:** Habitat suitable for threatened and endangered species identified, protected, interlinked with natural corridors, and where possible, reestablished with viable populations of special-status species.
- **Policy CO-147.** Identify suitable habitat for threatened and endangered species through the Community and Specific Plan process.
- **Policy CO-148.** Habitat conservation plans shall be adopted by the county for any listed species that are year-round inhabitants of the county, are subject to significant cumulative impacts from development, and are not otherwise adequately protected by designated systems of riparian corridors, vernal pool and wetland preserves and mitigation banks, or other nature preserves or wildlife refuges.
- **Policy CO-149.** Acquisition programs for acquiring open space located within natural areas shall, wherever possible, review the significance of obtaining areas known to contain threatened, endangered, and special status species.
- **Policy CO-150.** To the extent feasible, plans for urban development and flood control projects shall incorporate habitat corridors connecting on-site or adjoining areas (if any) not designated for alteration.

Sacramento County Tree Preservation Ordinance

The Sacramento County Tree Preservation Ordinance protects native oak trees 6 inches or more in diameter at breast height, defined as 4.5 feet above the ground. In addition, any removal, grading (cut or fill), and trenching within the dripline are subject to permit approval. The ordinance has not been updated to include all those areas proposed for urbanization by the Sacramento County General Plan.

Arden Arcade Community Plan

The Arden Arcade Community Plan does not address natural resources, including biological resources.

3.2.4 - Project Impact Analysis

Methodology for Analysis

As previously mentioned, the special-status wildlife species considered for review in this EIR are included in a table provided in Appendix C-1. This table was compiled from the USFWS species list and from query results from the CNDDB, CNPS, and CWHR. Several regionally occurring species were determined not to have potential to occur within the proposed incorporation area, either because the distribution range of the species does not extend into the proposed incorporation area or because the habitat or habitat elements (e.g., caves, tall snags) required by the species are not present.

Thresholds of Significance

For the purposes of this EIR, to determine whether impacts to biological resources are significant environmental effects, the following questions are analyzed and evaluated.

Would the project:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?
- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of wildlife nursery sites?

- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

3.2.5 - Impact Statements and Mitigation Discussions

Special-Status Species

Impact 3.2-1: **The project would not have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or the U.S. Fish and Wildlife Service.**

Impact Analysis

The proposed incorporation area contains habitats that have potential to support one special-status plant species and seven special-status wildlife species (Table 3.2-1 and Table 3.2-2). Under existing, pre-incorporation conditions, the County conducts a CEQA review of any project planned within the proposed incorporation area that requires a discretionary permit. Under this review, potential project-related impacts to special-status species are identified and mitigation is prescribed where appropriate. With the implementation of the project, all discretionary projects planned within the new city's jurisdiction would continue to be subject to CEQA review, and, if necessary, mitigation would be required under CEQA in conjunction with other applicable regulations.

Significance Determination Before Mitigation

No impact.

Mitigation Measures

No mitigation is required.

Significance Determination After Mitigation

No impact.

Riparian Habitat and Sensitive Natural Communities

Impact 3.2-2: **The project would not have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or the U.S. Fish and Wildlife Service.**

Impact Analysis

Riparian habitat within the proposed incorporation area is restricted to narrow areas along some reaches of the American River, Chicken Ranch Slough and Strong Ranch Slough and their associated tributaries. Areas bordering these sloughs and tributaries are largely developed, although some vacant parcels may occur close to these features. Existing riparian habitat has the potential to be impacted by future projects that may occur within the incorporation area. Under existing, pre-

incorporation conditions, the County undertakes a CEQA review of any project that requires a discretionary permit. Under this review, potential project-related impacts to riparian habitat or other sensitive habitat are identified, and mitigation is prescribed where appropriate. With implementation of the project, all discretionary projects planned within the proposed incorporation area would continue to be subject to review and, if necessary, mitigation under CEQA.

Significance Determination Before Mitigation

No impact.

Mitigation Measures

No mitigation is required.

Significance Determination After Mitigation

No impact.

Federally Protected Wetlands

Impact 3.2-3:	**The project would not have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including but not limited to marsh, vernal pool, and coastal) through direct removal, filling, hydrological interruption, or other means.**

Impact Analysis

In addition to Chicken Ranch and Strong Ranch sloughs and their tributaries, the proposed incorporation area may support a variety of wetland types, such as season wetlands and fresh emergent wetland. These features have the potential to be impacted by future projects that may occur within the incorporation area. However, under existing, pre-incorporation conditions, the County prepares CEQA reviews for any proposed project that is located close to these features, and that requires a discretionary permit. Under this review, potential project-related impacts to wetlands are identified and mitigation prescribed where appropriate. With the implementation of the project, all discretionary projects planned within the incorporation area would continue to be subject to review of the new city and mitigation requirements based on regulatory standards.

Significance Determination Before Mitigation

No impact.

Mitigation Measures

No mitigation is required.

Significance Determination After Mitigation

No impact.

Wildlife Corridors and Nursery Sites

Impact 3.2-4:	**The project would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of wildlife nursery sites.**

Impact Analysis

Riparian corridors such as the American River, Chicken Ranch Slough, and Strong Ranch Slough and their tributaries provide movement corridors for a variety of bird and mammal species. This is particularly true in urban areas where remnant habitat is often restricted to linear corridors along streams, rivers, and other water features. Although the proposed incorporation is highly urbanized and largely built out, some vacant parcels may border these potential corridor areas. Under existing, pre-incorporation conditions, the County prepares CEQA reviews of any project planned near these potential corridor features and that requires a discretionary permit. Under this review, potential project-related impacts to these potential corridors are identified, and mitigation is prescribed where appropriate. With the implementation of the project, all discretionary projects planned within the incorporation area would continue to be subject to review and, if necessary, to mitigation under CEQA.

Significance Determination Before Mitigation

No impact.

Mitigation Measures

No mitigation is required.

Significance Determination After Mitigation

No impact.

Local Policies or Ordinances Protecting Biological Resources

Impact 3.2-5:	**The project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.**

Impact Analysis

Currently, the Sacramento County General Plan guides planning within the proposed incorporation area. Oak trees within the proposed incorporation area are protected under the County's Tree Preservation and Protection Ordinance. Should the project be implemented, all applicable General Plan policies and ordinances, including the Tree Preservation and Protection Ordinance, would be adopted until such time that a planning document is prepared and adopted for the newly incorporated city, as discussed in the project description. For this reason, the project would not conflict with any local policies or ordinances adopted for the purpose of tree preservation, protection of wetland and riparian habitats, oak trees, or any other biological resources.

Significance Determination Before Mitigation

No impact.

Mitigation Measures

No mitigation is required.

Significance Determination After Mitigation

No impact.

Conservation Plans

Impact 3.2-6:	**The project would not conflict with the provisions of an adopted habitat conservation plan; natural community conservation plan; or other approved local, regional, or state habitat conservation plan.**

Impact Analysis

The proposed incorporation area is not covered under any habitat conservation plan; natural community conservation plan (NCCP); or any other approved local, regional, or state habitat conservation plan (HCP). It also is not located in an area for which such a plan is being prepared. Therefore, the proposed incorporation would not conflict with the provisions of any conservation plan.

Significance Determination Before Mitigation

No impact.

Mitigation Measures

No mitigation is required.

Significance Determination After Mitigation

No impact.