

## **4.6 BIOLOGICAL RESOURCES**

This section provides information on biological resources located in the planning area. Impacts on biological resources from implementation of the Draft General Plan and GGRP are discussed in conjunction with mitigation measures to avoid, reduce, or compensate for significant impacts.

### **4.6.1 REGULATORY SETTING**

Biological resources are subject to a variety of laws and regulations as part of the environmental review process. This section provides brief descriptions of the laws and regulations that may apply to the biological resources in the planning area.

#### **FEDERAL PLANS, POLICIES, REGULATIONS, AND LAWS**

##### **Federal Endangered Species Act**

The U.S. Fish and Wildlife Service (USFWS) has authority over projects that may result in “take” of a species listed as threatened or endangered under the ESA. Take is defined under Section 9 of ESA as “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.” Under federal regulation, take is further defined to include habitat modification or degradation that would be expected to result in death or injury to listed wildlife. If a project would result in take of a federally listed species, either an incidental take permit, under Section 10(a) of ESA, or a federal interagency consultation, under Section 7 of ESA, is required before the take can occur. Such a permit typically requires minimization of, and compensation for, take.

##### **Migratory Bird Treaty Act**

The Migratory Bird Treaty Act (MBTA), first enacted in 1918, implements domestically a series of treaties between the United States and Great Britain (on behalf of Canada), Mexico, Japan, and the former Soviet Union that provide for international migratory bird protection. The MBTA provides that it shall be unlawful, except as permitted by regulations, “to pursue, take, or kill any migratory bird, or any part, nest or egg of any such bird...” (U.S. Code Title 16, Section 703) and authorizes the Secretary of the Interior to regulate the taking of migratory birds. This prohibition includes both direct and indirect acts, although harassment and habitat modification are not included unless they result in direct loss of birds, nests, or eggs. The current list of species protected by the MBTA includes several hundred species and essentially includes all native birds.

##### **Section 404 of the Clean Water Act**

Section 404 of the federal Clean Water Act (CWA) requires a project applicant to obtain a permit from the United States Army Corps of Engineers (USACE) before engaging in any activity that involves discharge of dredged or fill material into waters of the United States, including wetlands. Fill material includes material placed in waters of the United States where the material has the effect of replacing any portion of a water of the United States with dry land or changing the bottom elevation of any portion of a water of the United States. Waters of the United States include navigable waters of the United States; interstate waters; all other waters where the use, degradation, or destruction of the waters could affect interstate or foreign commerce; and relatively permanent tributaries to any of these waters. Potentially jurisdictional wetlands must meet three wetland delineation criteria: hydrophytic vegetation, hydric soil types, and wetland hydrology. Wetlands that meet the delineation criteria may be jurisdictional under Section 404 of CWA pending USACE and Environmental Protection Agency (EPA) review.

In 2008, the USACE and EPA issued regulations governing compensatory mitigation for activities authorized by permits issued by the USACE. These regulations establish a preference for the use of mitigation banks to reduce some of the risks and uncertainties associated with compensatory mitigation.

## **STATE PLANS, POLICIES, REGULATIONS, AND LAWS**

### **California Endangered Species Act**

The California Endangered Species Act (CESA) directs state agencies not to approve projects that would jeopardize the continued existence of an endangered or threatened species or result in the destruction or adverse modification of habitat essential to the continued existence of a species. Furthermore, CESA states that reasonable and prudent alternatives shall be developed by the California Department of Fish and Game (DFG), together with the project proponent and any state lead agency, consistent with conserving the species, while at the same time maintaining the project purpose to the greatest extent possible. A “take” of a species, under CESA, is defined as an activity that would directly or indirectly kill an individual of a species. The CESA definition of take does not include “harm” or “harass” as is included in the federal ESA. As a result, the threshold for a take under CESA may be more difficult to achieve than under the ESA because habitat modification is not necessarily considered a take under CESA.

Sections 2081(b) and (c) of CESA allow DFG to issue an incidental take permit for a state-listed threatened and endangered species only if certain criteria are met, including that the take is incidental to an otherwise lawful activity; that the impacts of the authorized take have been minimized and fully mitigated; and that issuance of the permit will not jeopardize the continued existence of a state-listed species.

Under CESA, DFG maintains a list of threatened and endangered species. In addition, DFG maintains lists of candidate species and species of special concern. Candidate species are those species under review for addition to either the list of threatened or endangered species. Species of special concern status applies to animals not listed under the federal ESA or CESA, but which nonetheless are declining at a rate that could result in listing, or have historically occurred in low numbers and known threats to their persistence currently exist. The designation is intended to result in special consideration for these animals during environmental review.

### **California Fish and Game Code**

#### ***Fully Protected Species***

The California Fish and Game Code strictly prohibits the incidental or deliberate take of fully protected species. DFG cannot issue a take permit for fully protected species, except under narrow conditions for scientific research or the protection of livestock; therefore, avoidance measures may be required to avoid take.

#### ***Lake and Streambed Alteration***

Rivers, streams, and lakes in California are subject to regulation by DFG, pursuant to Section 1602 of the California Fish and Game Code. Activities regulated by DFG include diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake. DFG defines a stream as a body of water that flows at least periodically or intermittently through a bed or channel having banks and that supports fish or other aquatic life.

#### ***Protection for Bird Nests***

Section 3503 of the California Fish and Game Code states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird. Section 3503.5 of the California Fish and Game Code specifically states that it is unlawful to take, possess, or destroy raptors (e.g., hawks, owls, eagles, falcons), including their nests or eggs.

### **Native Plant Protection Act**

California’s Native Plant Protection Act (Fish and Game Code Sections 1900–1913) requires all state agencies to establish criteria to determine whether a species, subspecies, or variety of native plant is endangered or rare. This

act prohibits the taking of listed plants from the wild and requires that DFG be notified at least 10 days in advance about any change in land use that would adversely affect listed plants. This requirement allows DFG to salvage listed plant species that would otherwise be destroyed.

### **Porter-Cologne Water Quality Control Act**

Under Section 401 of the CWA, an applicant for a Section 404 permit must obtain a certificate from the appropriate state agency stating that the intended dredging or filling activity is consistent with the state's water quality standards and criteria. In California, the authority to grant water quality certification is delegated by the State Water Resources Control Board to the nine regional water quality control boards (RWQCBs). The planning area is under the jurisdiction of the Central Valley Regional Water Quality Control Board.

Each of the nine RWQCBs must prepare and periodically update basin plans for water quality control in accordance with the Porter-Cologne Water Quality Control Act. Each basin plan sets forth water quality standards for surface water and groundwater and actions to control nonpoint and point sources of pollution. These actions seek to achieve and maintain the basin plan standards. Basin plans offer an opportunity to protect wetlands by establishing water quality objectives. The RWQCB's jurisdiction includes federally-protected waters, as well as areas that meet the definition of "waters of the state." A water of the state is defined as any surface water or groundwater, including saline waters, within the boundaries of the state. The RWQCB has the discretion to take jurisdiction over areas not federally protected under Section 401 provided they meet the waters of the state definition. Mitigation requiring no net loss of wetland functions and values of waters of the state is typically required by the RWQCB.

### **REGIONAL AND LOCAL PLANS, POLICIES, REGULATIONS, AND LAWS**

The Resource Conservation Chapter of the Draft General Plan sets forth numerous goals, policies, and implementation measures to preserve and protect open space and biological resources. These policies are identified in relevant impact discussions in section 4.6.3.

#### **Tree Preservation and Protection Ordinance**

Chapter 106.39 of the Citrus Heights Zoning Code provides regulations for the protection, preservation, and maintenance of protected trees in the City. The ordinance protects native oak trees, oak woodlands, trees of historic or cultural significance, groves and stands of mature trees, and mature trees associated with development proposals.

## **4.6.2 ENVIRONMENTAL SETTING**

Citrus Heights is primarily an urban setting consisting of a variety of residential, commercial and industrial uses. Topography is relatively flat with small hills rolling to the north. Cripple Creek and Arcade Creek are the main waterways which flow through the planning area. In addition to these two main drainages, entire reaches of Brooktree, Mariposa, and San Juan Creeks, and a small portion of Coyle Creek flow within the planning area. Agriculture and urban development have modified most of the native habitat in the region. However, the creeks and tributaries and associated riparian habitats within the planning area provide movement corridors and nesting and foraging habitat for various types of wildlife.

### **BIOTIC HABITATS**

Four distinct biotic habitats are present within Citrus Heights: Urban, Annual Grassland, Interior Live Oak and Valley Foothill Riparian. These habitat types were described using *A Guide to Wildlife Habitats of California* (Mayer & Laudenslayer 1988) and are presented in more detail below, including a description of the vegetation and wildlife associated with each habitat.

## Urban

A distinguishing characteristic of urban habitats is the mixture of native and introduced plant species. Non-native and ornamental plant species may provide valuable habitat elements such as cover for nesting and roosting, as well as food sources such as nuts and berries. Urban habitats are predominant within Citrus Heights, and include ornamental landscaping and lawns associated with street medians, homes, and commercial buildings. Common ornamental trees and shrubs include Modesto ash (*Fraxinus* sp.), pyracantha (*Pyracantha angustifolia*), and elm trees (*Ulmus* spp.).

Urban/developed lands are generally not of high value for wildlife. Birds and mammals that occur in these areas typically include introduced species adapted to human habitation, including European starling (*Sturnus vulgaris*), house sparrow (*Passer domesticus*), house mouse (*Mus musculus*), Virginia opossum (*Didelphis virginiana*) and Norway rat (*Rattus norvegicus*). Native bird species typically found in urbanized areas include house finch (*Carpodacus mexicanus*), northern mockingbird (*Mimus polyglottos*), American robin (*Turdus migratorius*), white-crowned sparrow (*Zonotrichia leucophrys*), dark-eyed junco (*Junco hyemalis*), and scrub jay (*Aphelocoma californica*). Bat species California myotis (*Myotis californicus*), big brown bat (*Eptesicus fuscus*), and Brazilian free-tailed bat (*Tadarida brasiliensis*) will utilize larger buildings, especially ones in close proximity to riparian corridors, for roosting sites. Native mammal species found in urban habitats include raccoon (*Procyon lotor*), and woodrat (*Neotoma* spp.).

## Annual Grassland

Open space and vacant lots within developed portions of the planning area support small pockets of annual grassland habitat. This habitat type is most prevalent within drier areas of the floodplains of Arcade Creek, Cripple Creek, and their associated tributaries. Due to prior human disturbance, some of these areas are more degraded in nature and are generally comprised of non-native plant species. Common grass species include wild oat (*Avena* sp.), soft chess (*Bromus mollis*), ripgut brome (*Bromus diandrus*), and Italian ryegrass (*Lolium multiflorum*). Herbaceous species commonly occurring in annual grasslands within Citrus Heights include wild radish (*Raphanus sativus*), wild mustard (*Brassica* sp.), yellow star-thistle (*Centaurea solstitialis*), and wild fennel (*Foeniculum vulgare*). The height and density of annual grassland vegetation varies with soil type and available water.

California annual grassland provides foraging and breeding habitat for many wildlife species. Mammals such as California vole (*Microtus californicus*), Botta's pocket gopher (*Thomomys bottae*), and black-tailed jackrabbit (*Lepus californica*) commonly occur in this habitat. These rodent species attract raptors including red-tailed hawk (*Buteo jamaicensis*), American kestrel (*Falco sparverius*), and barn owl (*Tyto alba*). This habitat also attracts mourning dove (*Zenaida macroura*), and western meadowlark (*Sturnella neglecta*). White-tailed kite (*Elanus leucurus*), a California fully protected species, may forage within annual grassland habitat. Due to the dry nature of annual grasslands, few if any amphibian species inhabit this habitat. However, annual grassland does provide suitable shelter, basking sites, and foraging habitat for reptiles such as gopher snake (*Pituophis melanoleucus*) and western fence lizard (*Sceloporus occidentalis*).

## Interior Live Oak Woodland

Small pockets of Interior Live Oak woodland habitat occur within Citrus Heights in undeveloped upland areas, above the mean high-water line, along Arcade Creek, Cripple Creek and their associated drainages. The dominant plant species associated with this habitat is interior live oak (*Quercus wislizenii*), with valley oak (*Quercus lobata*) and blue oak (*Quercus douglasii*) occurring as common associates. Within Citrus Heights, this particular habitat has a minimal shrub understory. The herbaceous layer is composed of plant species common to annual grasslands, as well as plantain (*Plantago* sp.) and mugwort (*Artemisia douglasiana*) occurring in more mesic areas.

Interior live oak woodland provides shelter, shade, foraging, and breeding habitat for a variety of species. Oak acorns are an essential food resource for many species including western gray squirrel (*Sciurus griseus*), dusky-footed woodrat (*Neotoma fuscipes*), acorn woodpecker (*Melanerpes formicivorus*), northern flicker (*Colaptes auratus*), and scrub jay. The abundant insect life found in the bark and foliage of oaks provides food for bird species such as white-breasted nuthatch (*Sitta carolinensis*), bushtit (*Psaltriparus minimus*), and ash-throated flycatcher (*Myiarchus cinerascens*). Avian predators that nest and forage in interior live oak woodlands include great horned owl (*Bubo virginianus*), western screech-owl (*Otus kennicotti*), red-tailed hawk, and red-shouldered hawk (*Buteo lineatus*). Oak trees also provide shelter, shade, and breeding habitat for several other wildlife species, including raccoon, striped skunk (*Mephitis mephitis*), cottontail (*Sylvilagus audubonii*), and gray fox (*Urocyon cinereoargenteus*). Typical amphibian and reptile species include western skink (*Eumeces skiltonianus*), California slender salamander (*Batrachoseps attenuatus*), Pacific tree frog (*Pseudacris egilla*), western fence lizard and northern alligator lizard (*Elgaria coeruleus*).

## Valley Foothill Riparian

Valley foothill riparian woodlands are complex habitats associated with perennial and intermittent creeks and streams. Riparian woodlands generally have closed canopies dominated by broad-leaved, winter deciduous trees. The composition of species in riparian woodlands is highly variable and depends on geographic location, elevation, substrate, and amount of flow in a watercourse. Riparian woodland is a widespread habitat type scattered throughout the Central Valley, though it has been estimated that nearly 95% of riparian woodlands have been eliminated in California (Mayer & Laudenslayer 1988). Within the planning area, small pockets of valley foothill riparian habitat occur along Arcade and Cripple creeks, as well as their tributary streams Brooktree Creek, Coyle Creek, San Juan Creek, and Mariposa Creek.

In addition to providing high value wildlife habitat, riparian woodlands provide local movement corridors between fragmented habitat patches. Due to the value and scarcity of riparian woodlands, on both a state and regional level, they are considered a sensitive habitat by DFG. Remnant valley foothill riparian woodland corridors along Arcade Creek, Cripple Creek, and other smaller waterways are important biotic resources.

Two distinct types of riparian woodlands occur in the planning area: willow scrub and valley oak riparian. Willow scrub riparian habitat is a dense, streamside thicket dominated by shrubby willow species including Pacific willow (*Salix lasiandra*) and sandbar willow (*Salix hindsiana*). Fremont's cottonwood (*Populus fremontii*) is a common associate species in the overstory. The shrub understory is composed primarily of Himalayan blackberry (*Rubus concolor*) and the herbaceous layer is dominated by cattail (*Typha* sp.), nutsedge (*Cyperus eragrostis*), and dock (*Rumex* sp.). Valley oak riparian is a medium to tall woodland with a closed-canopy. The overstory is composed primarily of valley oak, with scattered Fremont's cottonwood, blue oak, blue elderberry (*Sambucus mexicana*), and Pacific willow. The shrub and herbaceous understories are similar to the willow scrub understories and also include poison oak (*Toxicodendron diversilobum*).

Valley foothill riparian habitat can support more species (i.e., more than 250 species) than any other habitat type in the planning area. Riparian woodland provides abundant food, cover, and breeding sites for wildlife in close proximity to water. These factors and the structural diversity of riparian woodlands are primarily responsible for the high productivity of this habitat type. Bird species characteristic to this habitat include California quail (*Callipepla californica*), mourning dove, red-shouldered hawk, Nuttall's woodpecker (*Picoides nuttallii*), black phoebe (*Sayornis nigricans*), western wood-pewee (*Contopus sordidulus*), and California towhee (*Pipilo crissalis*). A number of these species nest or roost in riparian woodland and feed in adjacent habitat types, such as annual grassland and interior live oak woodland. Riparian woodlands also provide important feeding, resting, and nesting habitat for neotropical migrant songbirds such as warblers, vireos, grosbeaks, and flycatchers.

Mammals found within valley foothill riparian habitat may include raccoon, deer mouse, broad-footed mole (*Scapanus latimanus*), striped skunk, gray fox, and Virginia opossum. Amphibians and reptiles likely to occur in

this habitat include western toad (*Bufo boreas*), Pacific tree frog, western skink, and western aquatic garter snake (*Thamnophis elegans sirtalis*).

In addition to providing high value wildlife habitat, riparian woodlands provide local movement corridors between fragmented habitat patches. Due to the value and scarcity of riparian woodlands, on both a state and regional level, they are considered a sensitive habitat by DFG. Remnant valley foothill riparian woodland corridors along Arcade Creek, Cripple Creek, and other smaller waterways are important biotic resources.

## **SPECIAL-STATUS SPECIES**

Special-status plant and wildlife species are defined as species that meet one or more of the following criteria:

- ▶ Listed, proposed for listing, or candidates for listing as threatened or endangered under the ESA;
- ▶ Listed, or proposed for listing by the State of California as rare, threatened, or endangered under the CESA;
- ▶ Included on List 1B or 2 of the California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants of California (CNPS 2008);
- ▶ Designated as fully protected or species of special concern by DFG; and
- ▶ Species that otherwise meet the definition of rare, threatened, or endangered, as described in the CEQA Guidelines, Section 15380.

## **Plants**

A list of special-status plant species was developed using DFG's California Natural Diversity Database (CNDDDB) and the CNPS electronic floristic inventory for the Citrus Heights USGS 7.5 minute quadrangle and the eight surrounding quadrangles (DFG 2010, CNPS 2010). Of the 12 special-status plant species identified in the CNDDDB and CNPS database searches, there are three species for which suitable habitat is present in the planning area. These species are summarized in Table 4.6-1 and discussed individually below. Exhibit 4.6-1 shows locations of species occurrences within a one-mile radius of the City.

### ***Bigscale Balsam Root***

Bigscale balsam root is a CNPS List 1B.2 perennial herb. It is endemic to California; known from Alameda, Butte, Colusa, El Dorado, Lake, Mariposa, Napa, Placer, Santa Clara, Solano, Sonoma, and Tehama Counties. It can be found in chaparral, cismontane woodland and California annual grassland habitats at elevations ranging from 295 to 5,102 feet. Bigscale balsam root blooms from March through June and produces conspicuous yellow flowers.

Bigscale balsam root has potential to occur within open areas of annual grassland habitat in the planning area. The nearest known occurrence is approximately five miles from the planning area, north of Roseville.

### ***Stinkbells***

Stinkbells is a perennial bulb that blooms between March and June. It is typically found in valley annual grassland, chaparral, and foothill grasslands on clay soils within serpentine substrates. Stinkbells is a CNPS List 4 species. The List 4 ranking includes plant species that are on the CNPS watch list because of limited distribution. Some plants constituting CNPS List 4 meet the definitions of Section 1901, Chapter 10, or Sections 2062 and 2067 of the DFG Code and are thus eligible for state listing. DFG recommends that CNPS List 4 plants be evaluated for consideration during preparation of CEQA environmental documents. Stinkbells are known to occur near the western City limits.

**Table 4.6-1  
Special-Status Plant Species Known to Occur or Potentially Occurring in the Planning Area**

Species	Status <sup>1</sup>			Habitat
	USFWS	DFG	CNPS <sup>1</sup>	
Bigscale balsam root <i>Balsamorhiza macrolepis</i> var. <i>macrolepis</i>	–	–	1B.2	Could occur; suitable habitat in open areas that support California annual grassland. The nearest known occurrence is approximately five miles away.
Stinkbells <i>Fritillaria agrestis</i>	–	–	4.2	Known to occur; suitable habitat in California annual grassland habitat.
Sanford’s arrowhead <i>Sagittaria sanfordii</i>	–	–	1B.2	Known to occur; suitable habitat in freshwater marsh along creeks and streams in valley foothill riparian habitat as well slow-moving drainages and ditches.

**Notes:**

USFWS = US Fish and Wildlife Service, DFG = Department of Fish and Game, CNPS = California Native Plant Society

<sup>1</sup> CNPS Categories:

- 1B Plant species considered rare or endangered in California and elsewhere (protected under CEQA, but not legally protected under ESA or CESA)
- 4 Plants species of limited distribution or infrequent throughout a broader area in California (vulnerability or susceptibility to threat appears low). Uncommon enough that their status should be monitored regularly

<sup>2</sup> CNPS Extensions:

- 2 Fairly endangered in California (20% to 80% of occurrences are threatened).

Sources: CNDDDB 2010; CNPS 2010; Data compiled by AECOM in 2010

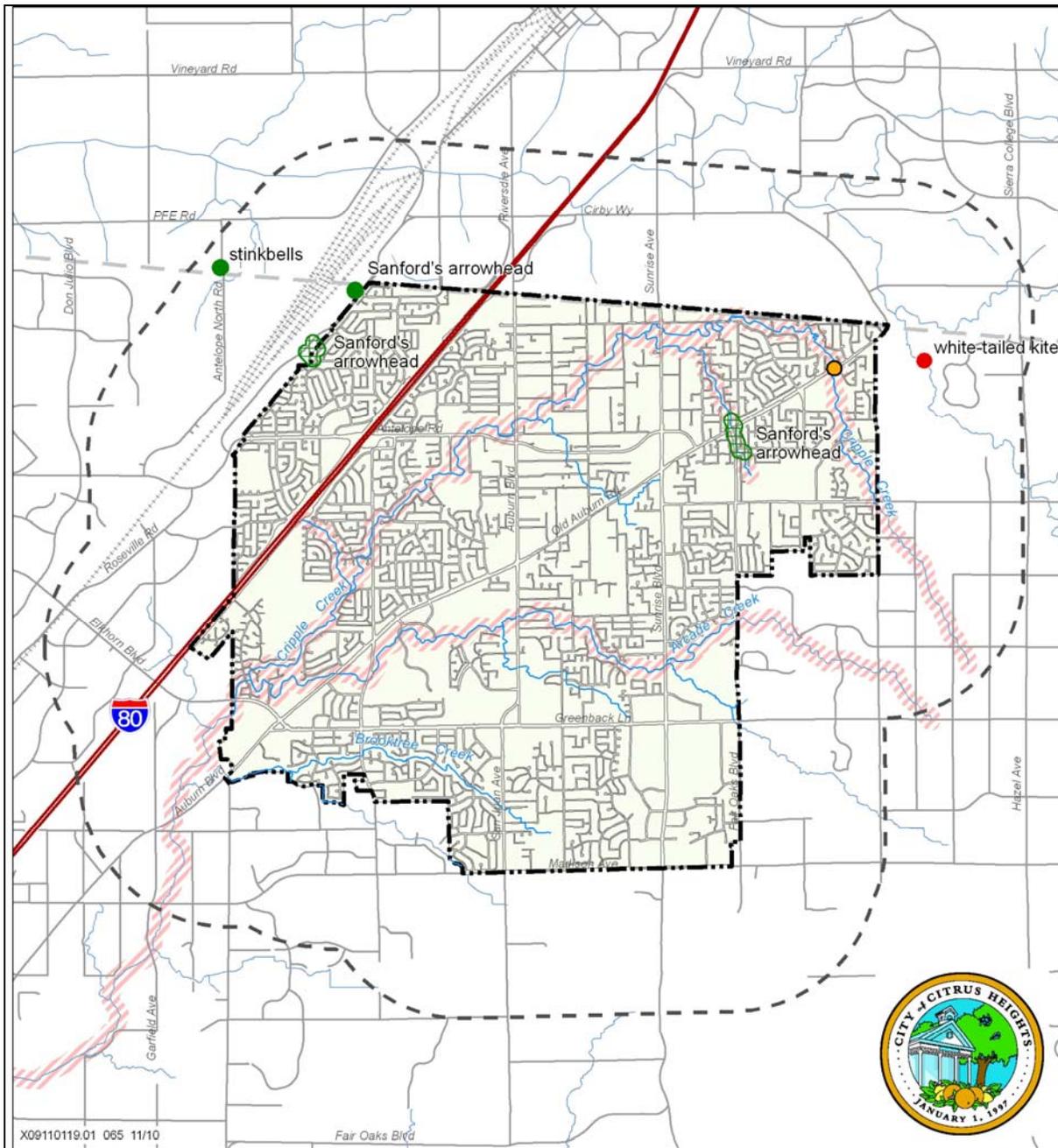
**Sanford’s Arrowhead**

Sanford’s arrowhead is a perennial herb. It is a CNPS List 1B.2 species. This species is found in shallow, standing, fresh water and sluggish waterways including marshes, swamps, ponds, sloughs, ditches, canals, streams and rivers at elevations that range from 10 to 2,000 feet. Sanford’s arrowhead blooms between May and October. The leaves are often shaped like arrowheads and the inflorescence is made up of several whorls of small white flowers.

Three known occurrences of Sanford’s arrowhead are located within Citrus Heights. These occurrences are located at an unnamed drainage to Cripple Creek between Oak Avenue and Old Auburn Road, an unnamed drainage located along the northwestern City boundary on the east side of Roseville Road, and an unnamed channel located along the northwestern City boundary at the Roseville Road/Whyte Avenue intersection, just south of the Placer/Sacramento County line (CNDDDB 2010). Suitable habitat is present along drainages, ditches and streams in the planning area.

**Fish and Wildlife**

Information on potential occurrences of special-status wildlife species in the planning area was derived from a CNDDDB query for the Citrus Heights USGS 7.5 minute quadrangle and the eight surrounding quadrangles (CNDDDB 2010) as well as biological surveys conducted by Padre Associates in 2007 and information obtained by the City of Citrus Heights related to the Stock Ranch development project (1999). Of the 16 special-status wildlife species identified in the CNDDDB search, there are four species for which suitable habitat is present in the planning area. These species are summarized in Table 4.6-2 and discussed individually below. Exhibit 4.6-1 shows locations of species occurrences within a one-mile radius of the City.



**LEGEND**

- City of Citrus Heights
- County Boundary
- Major Roads
- Plant - Accuracy Class 1
- Plant - Accuracy Class 2
- Animal - Accuracy Class 1
- Northwestern Pond Turtle <sup>1</sup>
- Valley Elderberry Longhorn Beetle Habitat <sup>2</sup>

CNDDB Accuracy Class 1: Reported occurrence is a point; location considered accurate to within the minimum mappable unit of 80 meters.

CNDDB Accuracy Class 2: Reported location is an area with defined boundaries.

CNDDB Accuracy Classes 4-9: Reported location considered accurate within the radius shown.

<sup>1</sup> Padre 2007  
<sup>2</sup> City of Citrus Heights 1999

Source: CNDDB 2010



Source: CNDDB 2010

**Special Status Species**

**Exhibit 4.6-1**

**Table 4.6-2  
Special-Status Wildlife Species Known to Occur or Potentially Occurring in the Planning Area**

Species	Status <sup>1</sup>		Habitat
	USFWS	DFG	
<b>Invertebrates</b>			
Valley elderberry longhorn beetle <i>Desmocerus californicus dimorphus</i>	T		Could occur; elderberry shrubs are present in valley foothill riparian habitat along Arcade and Cripple creeks.
<b>Reptiles</b>			
Northwestern pond turtle <i>Actinemys marmorata marmorata</i>		CSC	Known to occur; suitable habitat is present in freshwater marshes, rivers, streams, and irrigation ditches within valley foothill riparian habitat.
<b>Birds</b>			
White-tailed kite <i>Elanus leucurus</i>		FPS	Known to occur; suitable habitat is present for nesting in trees within the valley foothill riparian and interior live oak habitats and foraging in annual grassland habitat.
<b>Mammals</b>			
Palid bat <i>Antrozous pallidus</i>		CSC	Could occur; suitable habitat for roosting and foraging is present in valley foothill riparian, interior live oak habitats and annual grassland habitats.
Notes: DFG = California Department of Fish and Game; USFWS = U.S. Fish and Wildlife Service			
<sup>1</sup> Legal Status Definitions			
<u>Federal Listing Categories (USFWS)</u>		<u>State Listing Categories (DFG)</u>	
E	Endangered	E	Endangered
T	Threatened (legally protected)	T	Threatened (legally protected)
C	Candidate	CSC	Species of Special Concern
		FPS	Fully Protected Species

### **Valley Elderberry Longhorn Beetle**

The valley elderberry longhorn beetle is federally listed as threatened. It is patchily distributed throughout Central Valley riparian habitats and, less frequently, within oak woodlands and other upland habitats where elderberry shrubs exist. The species is usually found on or close to its host plant, elderberry (*Sambucus mexicanus*). The exit holes made by emerging adults are distinctive one-half to one centimeter round or oval openings.

Elderberry shrubs occur along both Arcade and Cripple Creeks. However, there are no known occurrences of valley elderberry longhorn beetle within the planning area. Elderberry shrubs located on the Stock Ranch development were inspected in 1992, but no sign of valley elderberry longhorn beetle was observed (City of Citrus Heights 1999). The nearest known valley elderberry longhorn beetle occurrence is approximately 2.5 miles from the planning area.

### **Northwestern Pond Turtle**

Northwestern pond turtle is a California Species of Special Concern. This species is generally associated with permanent or near-permanent aquatic habitats, such as lakes, ponds, streams, freshwater marshes, and agricultural ditches. It requires still or slow-moving water with instream emergent woody debris, rocks, or similar features for basking sites. Pond turtles are highly aquatic but can venture far from water for egg-laying. Nests are typically located on unshaded upland slopes in dry substrates with clay or silt soils. Pond turtles can over-winter in upland sites.

A recorded occurrence of northwestern pond turtle was found in the northeastern portion of the planning area at Old Auburn Road, near the Cripple Creek drainage (Padre 2007). Other suitable aquatic habitat for pond turtle may occur along the creeks, tributaries, ponds and other waterways in the planning area.

### **White-tailed kite**

White-tailed kite is a California fully protected species. This species nests in rolling foothills and valley margins with scattered oaks, riparian woodlands, or marshes next to deciduous woodland, and forages in open grasslands, meadows, or marshes as well as agricultural areas, especially alfalfa fields.

A pair of white-tailed kites is known to occur in Woodbridge Park, on the east side of Linda Creek, approximately 0.5 mile southeast of Old Auburn Road and the Linda Creek Court subdivision (CNDDDB 2010). Suitable nesting habitat is present within Interior Live Oak and Valley Foothill Riparian habitats near open, undeveloped grassland and/or agricultural areas.

### **Pallid Bat**

Pallid bat is a California species of concern. Pallid bats occupy a wide variety of habitats, and are most common in open, dry habitats with rocky areas for roosting. Pallid bats roost in rock crevices, caves, mine shafts, under bridges, in buildings and tree hollows and forage in open areas. Colonies are usually small and may contain between 12 and 100 bats.

Limited suitable roosting habitat for pallid bat is present in the planning area in bridges, Interior Live Oak, and Valley Foothill Riparian habitats. The nearest known occurrence of pallid bat is greater than five miles from the planning area (CNDDDB 2010).

## **SENSITIVE NATURAL COMMUNITIES**

Sensitive natural communities and habitat types include those of special concern to DFG, or that are afforded specific consideration through CEQA, Section 1602 of the California Fish and Game Code, the Porter-Cologne Act, and/or Section 404 of the CWA. Habitat types and natural communities within the planning area that would be considered sensitive by regulatory agencies include the Valley Foothill Riparian habitat and freshwater marsh associated with perennial and intermittent streams and drainages in the planning area. These include both Cripple Creek and Arcade Creek, in addition to Brooktree Creek, Coyle Creek, San Juan Creek, and Mariposa Creek.

## **4.6.3 IMPACTS AND MITIGATION MEASURES**

### **METHODOLOGY**

Analysis of the effects of implementing the Draft General Plan on biological resources was based largely on literature review and information on the distribution of special-status species in the planning area from the CNDDDB and CNPS's *Inventory of Rare and Endangered Vascular Plants of California*. Impact significance was determined by comparing projected land uses at buildout of the Draft General Plan against existing conditions using the significance criteria described below. Draft General Plan policies and actions that either may lead to an impact or minimize a potential impact are discussed below for each impact area.

### **THRESHOLDS OF SIGNIFICANCE**

Based on Appendix G of the State CEQA Guidelines, an impact on biological resources is considered significant if implementation of the Draft General Plan and GGRP would:

- ▶ 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 DFG or USFWS;
- ▶ have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by DFG or USFWS;
- ▶ 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 nursery sites by native wildlife;
- ▶ conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or
- ▶ conflict with the provisions of an adopted habitat conservation plan (HCP), natural community conservation plan (NCCP), or other approved local, regional, or state HCP.

The Draft General Plan and GGRP establish local policies protecting biological resources. Therefore there would be no conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. This significance criterion is not discussed further in this EIR.

No adopted or planned HCP or NCCP covers the planning area. For this reason, there would be no conflicts between the proposed project and any HCP or NCCP. This significance criterion is not discussed further in this EIR.

## IMPACT ANALYSIS

**IMPACT 4.6-1** *Impact to Special-status Plant Species. Two special-status plant species, stinkbells and bigscale balsam root, are known and have the potential to occur within California annual grassland in the planning area. One special status plant species, Sanford's arrowhead, is known and has the potential to occur within freshwater marsh along creeks and streams in the planning area as well as along ditches and irrigation canals. Future land uses consistent with the Draft General Plan could result in loss or degradation of existing populations or of suitable habitat for these species as described below. This impact is considered **significant**.*

Although protocol-level surveys have not been conducted for all suitable habitat within the planning area, the planning area supports suitable habitat for three special-status plant species. Approximately 98% of Citrus Heights is built out. Therefore, open, undeveloped parcels within the planning area are limited in size and concentrated along the creeks, parks, and in the Stock Ranch area. Populations that occur in suitable habitat associated with these areas could be affected by proposed land uses either directly or indirectly through modification of suitable habitat caused by pollutants transported by urban runoff and other means, changes in vegetation as a result of proposed land uses and management practices, altered hydrology from the construction of adjacent residential development and roadways, habitat fragmentation, and the introduction of invasive species or noxious weeds from surrounding development.

## Draft General Plan Policies and Actions

The following Draft General Plan policies and actions are designed to protect biological resources:

### **Policies**

- ▶ **34.1:** Preserve continuous riparian corridors and adjacent habitat along the City’s creeks and waterways.
- ▶ **34.2:** Achieve and maintain a balance between conservation, development and utilization of open space to enhance air and water quality.
- ▶ **34.3:** Provide for “no net loss” of sensitive habitats such as aquatic and riparian areas.

### **Actions**

**34.2.A.** Prepare and adopt Community Design Guidelines to include standards to protect habitat areas from encroachment of lighting, non-native landscaping, noise, soil erosion and toxic substances.

**34.2.B.** Revise grading guidelines to minimize removal of significant vegetation and promote creation of pervious surfaces around natural habitat areas.

**34.2.C.** Adopt a landscape ordinance complying with the Department of Water Resources guidelines. The City’s landscape ordinance should update landscape provisions to incorporate climate-appropriate native trees and water conserving landscaping that increase infiltration rates and protect sensitive areas.

**34.3.A.** Update development standards to limit construction activity and development to maximize the water-holding capacity and maintain natural nutrient levels of the soil within buffer zones adjacent to drainages.

**34.3.B.** Require new development and redevelopment projects to incorporate low impact development (LID) measures and source controls in all cases to reduce runoff to the community’s sensitive habitat areas.

Implementation of Draft General Plan policies and actions would reduce potential impacts on special-status plants, but does not guarantee that the retention of existing areas of natural vegetation would prevent potential impact to these species. Therefore, this impact is **significant** and mitigation is required.

### **Mitigation Measure**

**Mitigation Measure 4.6-1:** For projects that would affect potential habitat for stinkbells, bigscale balsam root, and/or Sanford’s arrowhead, the City shall require surveys and require implementation of avoidance measures or compensatory mitigation as needed. Furthermore, the City shall implement the following measures to mitigate impacts of future projects consistent with the Draft General Plan;

- ▶ As a condition of approval, the City shall require future projects with potential to affect habitat for special-status plant species to evaluate whether they would remove or degrade potentially suitable habitat. This evaluation shall be completed by a qualified biologist and shall be included as part of the project environmental documentation.
- ▶ Projects that would remove or degrade potentially suitable habitat for special-status plant species shall conduct special-status plant surveys according to established protocols (i.e., DFG 2009 as updated). If surveys are required, the results shall be included as part of the project environmental documentation.
- ▶ If special-status plant populations are identified during protocol-level surveys, project design shall incorporate measures to avoid direct and indirect disturbances of special-status plant populations and their habitat.

- ▶ If impacts on special-status plant populations cannot be avoided through project design, the City shall require the project applicant to develop and implement a mitigation and monitoring plan to compensate for the loss of special-status plants. The mitigation and monitoring plan shall be developed in coordination with the City and DFG and shall include criteria for success and corrective measures to be implemented if success criteria are not met. Compensatory mitigation may include transplanting existing plants, seed collection and inoculation in other suitable habitat areas, and/or preservation in perpetuity of other existing populations of these species.

## Conclusion

Implementation of Mitigation Measure 4.6-1 would reduce impacts on special-status plant species to a **less-than-significant** level by requiring proposed future projects to identify and avoid special-status plant populations or provide compensation for the loss of special-status plants through creation of off-site population, conservation easements, or other appropriate measures developed in coordination with DFG.

**IMPACT 4.6-2** *Impact to Special-status Wildlife Species. Four special-status wildlife species, valley elderberry longhorn beetle, northwestern pond turtle, white-tailed kite and pallid bat are known to occur or have the potential to occur within California annual grassland, interior live oak woodland, and valley foothill riparian habitat in the planning area. Implementation of the Draft General Plan could result in loss or degradation of existing populations or of suitable habitat for these species as described below. This impact is considered significant.*

Suitable habitat for northwestern pond turtle and valley elderberry longhorn beetle is present mainly within the riparian areas along Cripple Creek and Arcade Creek. California annual grassland, interior live oak and valley foothill riparian woodlands could provide suitable habitat for white-tailed kite and pallid bat. Special-status wildlife populations that use these habitats could be affected by proposed land uses either directly, or indirectly through disturbance during the breeding season, modification of suitable habitat caused by pollutants transported by urban runoff and other means, changes in vegetation as a result of proposed land uses and management practices, altered hydrology from the construction of adjacent development and roadways, and habitat fragmentation.

## Draft General Plan Policies and Actions

Implementation of the following Draft General Plan policies and actions would reduce impacts to special-status wildlife species:

### Policies

- ▶ **34.1:** Preserve continuous riparian corridors and adjacent habitat along the City’s creeks and waterways.
- ▶ **34.2:** Achieve and maintain a balance between conservation, development and utilization of open space to enhance air and water quality.
- ▶ **34.3:** Provide for “no net loss” of sensitive habitats such as aquatic and riparian areas.
- ▶ **35.1:** Identify and protect significant natural resource areas critical to protecting and sustaining wildlife populations.
- ▶ **35.2:** Maintain habitat corridors to connect conservation areas such as parks and open space, protect biodiversity, accommodate wildlife movement, and sustain ecosystems.

- ▶ **36.1:** Incorporate existing trees into development projects. Avoid adverse effects on health and longevity of native oaks or other significant trees through appropriate design measures and construction practices. When tree preservation is not possible, require appropriate tree replacement.

### **Actions**

**34.2.A.** Prepare and adopt Community Design Guidelines to include standards to protect habitat areas from encroachment of lighting, non-native landscaping, noise, soil erosion and toxic substances.

**34.2.B.** Revise grading guidelines to minimize removal of significant vegetation and promote creation of pervious surfaces around natural habitat areas.

**34.2.C.** Adopt a landscape ordinance complying with the Department of Water Resources guidelines. The City's landscape ordinance should update landscape provisions to incorporate climate-appropriate native trees and water conserving landscaping that increase infiltration rates and protect sensitive areas.

**34.3.A.** Update development standards to limit construction activity and development to maximize the water-holding capacity and maintain natural nutrient levels of the soil within buffer zones adjacent to drainages.

**34.3.B.** Require new development and redevelopment projects to incorporate low impact development (LID) measures and source controls in all cases to reduce runoff to the community's sensitive habitat areas.

**36.1.A.** Review and strengthen the City's Tree Preservation Ordinance.

**36.1.B.** Prepare a plan to systematically increase tree canopy in the City.

### **Tree Preservation and Protection Ordinance**

Chapter 106.39 of the Citrus Heights Zoning Code provides regulations for the protection, preservation, and maintenance of protected trees in the City. The ordinance protects native oak trees, oak woodlands, trees of historic or cultural significance, groves and stands of mature trees, and mature trees associated with development proposals.

Draft General Plan policies and actions and implementation of the City's Tree Preservation and Protection Ordinance would reduce impacts on special-status wildlife species, but would not guarantee that the retention of existing areas of natural vegetation would prevent potential impacts to these species. This impact is **significant** and mitigation is required.

### **Mitigation Measure**

**Mitigation Measure 4.6-2a:** For projects that would affect valley elderberry longhorn beetle or its habitat, require implementation of avoidance measures and/or compensatory mitigation as needed. The City shall implement the following mitigation measures to avoid, minimize, and mitigate impacts to valley elderberry longhorn beetle:

- ▶ As a condition of approval, the City shall require all future projects that would result in vegetation removal or ground-disturbing activities within 100 feet of native riparian vegetation to conduct a biological resources inventory to determine if elderberry shrubs are present. This vegetation type is typically found near stream corridors that traverse the planning area. The inventory shall be completed by a qualified biologist and shall be included as part of the project application. If elderberry shrubs are identified, but no disturbance is proposed within 100 feet of an elderberry shrub, no further mitigation is required.

- ▶ If elderberry shrubs are identified, and disturbance is proposed within 100 feet of an elderberry shrub that could affect valley elderberry longhorn beetle (per USFWS 1999, as updated); the City shall require the project applicant to avoid, minimize, and compensate for effects on valley elderberry longhorn beetle consistent with the methods described in *Conservation Guidelines for the Valley Elderberry Longhorn Beetle* (USFWS 1999), as updated. These methods include establishing and maintaining a buffer zone, protective measures such as barrier fencing and signage, restoration and maintenance of the work area, transplanting affected shrubs, and planting new elderberry plants and associated native species in protected areas.

**Mitigation Measure 4.6-2b:** For projects that would affect aquatic habitat for northwestern pond turtle, the City shall require implementation of avoidance measures. The City shall implement the following mitigation measures to avoid or minimize impacts to northwestern pond turtle:

- ▶ As a condition of approval, the City shall require all future projects that would result in work within streams or ponds to conduct a biological resources inventory to determine if aquatic habitat for northwestern pond turtle is present. This inventory shall be completed by a qualified biologist and shall be included as part of the project application.
- ▶ Immediately prior to commencement of work in northwestern pond turtle aquatic habitat, a qualified biologist shall perform a survey for northwestern pond turtle. If northwestern pond turtles are found, the biologist will coordinate with DFG to relocate the individuals. Aquatic habitat areas that cannot feasibly be avoided during project construction will be dewatered prior to construction. A qualified monitor shall be available to remove northwestern pond turtles until the work area is fully dewatered, and will be available until work is completed to remove any northwestern pond turtles that may enter the work area.

**Mitigation Measure 4.6-2c:** For projects that would affect white-tailed kite and other raptors (e.g. hawks, owls) protected under Fish and Game Code, the City shall require implementation of avoidance measures. The City shall implement the following mitigation measures to avoid, minimize, and mitigate impacts to white-tailed kite or other raptors:

- ▶ As a condition of approval, the City shall require all future projects that would result in work within 300 feet of native upland or riparian woodlands to conduct a biological resources inventory to determine if potential nesting habitat for white-tailed kite or other raptors is present. This inventory shall be completed by a qualified biologist and shall be included as part of the project application.
- ▶ For projects within 300 feet of potential raptor nesting habitat, and where project work will begin from February 1 through August 30, a survey to identify active nests for tree-nesting raptors will be conducted by a qualified biologist no more than 2 weeks before the start of construction. Active raptor nests located within 300 feet of the project will be mapped. A determination will be made by a qualified biologist, in coordination with CDFG, as to whether or not construction work would affect the active nest or disrupt reproductive behavior. Criteria used for this evaluation will include, but not be limited to, presence of visual screening between the nest and construction activities, and behavior of adult raptors in response to the surveyors or other ambient human activity. Alternatively, other appropriate avoidance measures approved by CDFG may be implemented to ensure that the nest is protected. If it is determined that construction will not affect an active nest or disrupt breeding behavior, construction may proceed without any restriction or mitigation measure.
- ▶ If it is determined that construction will affect an active raptor nest or disrupt reproductive behavior, then avoidance is the only mitigation available. Construction will not be permitted within 300 feet of such a nest until a qualified biologist determines that the subject nests are no longer active.

**Mitigation Measure 4.6-2d:** For projects that would affect pallid bat, the City shall require implementation of avoidance measures. The City shall implement the following measures to avoid, minimize, and mitigate impacts to pallid bat:

- ▶ As a condition of approval, the City shall require all future projects that would result in work on existing bridges to conduct a biological resources inventory to determine if the structures are active roosts for pallid bat. This inventory shall be completed by a qualified biologist and shall be included as part of the project application.
- ▶ If active roosts are present, a qualified biologist shall supervise the installation of barriers (e.g., screens or other methods acceptable to DFG) at potential roosts to prevent bat use after verifying that no bats would be trapped by the barriers.
- ▶ If roost sites cannot be screened in advance, pre-construction surveys shall be conducted by a qualified biologist no more than 14 days and no less than 7 days prior to the beginning of any construction activity. If an active roost is found, a determination will be made by a qualified biologist, in coordination with DFG, as to whether or not construction work will affect the site or disrupt roosting behavior. Criteria used for this evaluation will include, but not be limited to, presence of visual and audio screening between the site and construction activities. If construction activities have the potential to threaten the viability of an active maternity site discovered during the survey, then a minimum 100-foot buffer will be flagged around the site and designated a construction-free zone until the site is no longer active or other appropriate avoidance measures, including a reduced buffer size, approved by DFG, are implemented to ensure that the site is adequately protected. Specific implementation of this measure shall be based on conditions at the project site.

## Conclusion

Implementation of Mitigation Measure 4.6-2a would reduce impacts on valley elderberry longhorn beetle by requiring future project applicants to identify valley elderberry longhorn beetle habitat and avoid impacts on the species. Where impacts cannot be avoided, appropriate minimization and compensation measures will be required. Implementation of Mitigation Measure 4.6-2b would reduce impacts on northwestern pond turtle by requiring future project applicants to identify northwestern pond turtle habitat and avoid impacts on the species. Implementation of Mitigation Measure 4.6-2c would reduce impacts on white-tailed kite and other raptors level by requiring future project applicants to identify white-tailed kite and other raptor breeding habitat and avoid impacts on those species. Implementation of Mitigation Measure 4.6-2d would reduce impacts on pallid bat by requiring future project applicants to identify roosts and avoid impacts on the species. Therefore, this impact would be **less than significant** with mitigation incorporated.

**IMPACT 4.6-3** *Loss of Native Trees and/or Heritage Trees. Construction of infrastructure, roadways, or buildings related to proposed land uses could result in adverse effects on native trees and/or large heritage trees, which provide both aesthetic and wildlife value. With implementation of policies and actions within the Draft General Plan and the City's Tree Preservation and Protection Ordinance, this impact would be less than significant.*

Citrus Heights has many large native trees and large non-native, ornamental tree species that provide important nesting habitat for many wildlife species. These trees provide many benefits to residents and visitors, including shade and aesthetic value.

## Draft General Plan Policies and Actions

The following Draft General Plan policies and actions are designed to protect native trees and/or large heritage trees.

### Policies

- ▶ **36.1:** Incorporate existing trees into development projects. Avoid adverse effects on health and longevity of native oaks or other significant trees through appropriate design measures and construction practices. When tree preservation is not possible, require appropriate tree replacement.

- ▶ **36.2:** Raise community consciousness about the value and importance of trees, including native oaks.

### **Actions**

**36.1.A.** Review and strengthen the City’s Tree Preservation Ordinance.

**36.1.B.** Prepare a plan to systematically increase tree canopy in the City.

**36.2.A.** Participate in Arbor Day programs and promote planting of trees on a Citywide basis.

**36.2.B.** Involve community groups, such as schools and youth, and partner with other regional non-profit organizations in tree planting programs.

**36.2.C.** Prepare and adopt a climate-appropriate tree list to inform community planting and preservation choices.

### **Tree Preservation and Protection Ordinance**

Chapter 106.39 of the Citrus Heights Zoning Code provides regulations for the protection, preservation, and maintenance of protected trees. The ordinance protects native oak trees, oak woodlands, trees of historic or cultural significance, groves and stands of mature trees, and mature trees associated with development proposals.

### **Conclusion**

With implementation of Draft General Plan policies and actions and the City’s Tree Preservation and Protection Ordinance, impacts on native trees and/or heritage trees would be prevented or adequate compensation would be provided. For this reason this impact is considered **less than significant**.

**IMPACT**     *Loss and Degradation of Federally Protected Wetlands and Other Waters of the United States and Waters of the State, and Associated Sensitive Natural Communities. Construction of infrastructure, roadways, or buildings related to proposed land uses could result in modifications to jurisdictional waters of the United States, including wetlands and waters of the state, and to riparian vegetation identified by DFG as a Sensitive Natural Community. Proposed land uses could result in alteration or disturbance of wetlands and/or streambeds and/or removal of associated vegetation. Therefore, this impact is considered **significant**.*

4.6-4

Both Cripple Creek and Arcade Creek stream channels and natural banks have undergone modifications due to the amount of commercial and residential development that has encroached within and ultimately disturbed and degraded the riparian zone in the planning area (City of Citrus Heights 2000). Wetlands and creeks that could be directly and indirectly affected by proposed land uses include Cripple Creek and Arcade Creek and associated intermittent perennial tributaries, in addition to potential wetlands. It is likely that at least some acreage of aquatic habitats associated with these waterways could be lost or degraded as a result of proposed land uses and that these habitats would qualify as jurisdictional waters of the United States under Section 404 of the CWA or waters of the state under the Porter Cologne Water Quality Control Act. Sensitive natural communities in the planning area include valley foothill riparian habitat and freshwater marsh within this habitat or drainages and ditches in the planning area. Riparian and freshwater habitats are considered sensitive by DFG. The creeks and streams in the planning area and their tributaries are further regulated by DFG under the Streambed Alteration Program per Section 1602 of the California Fish and Game Code.

### **Draft General Plan Policies and Actions**

Implementation of the following Draft General Plan policies and actions would reduce potential impacts.

## **Policies**

- ▶ **34.1:** Preserve continuous riparian corridors and adjacent habitat along the City’s creeks and waterways.
- ▶ **34.2:** Achieve and maintain a balance between conservation, development and utilization of open space to enhance air and water quality.
- ▶ **34.3:** Provide for “no net loss” of sensitive habitats such as aquatic and riparian areas.
- ▶ **35.1:** Identify and protect significant natural resource areas critical to protecting and sustaining wildlife populations.
- ▶ **35.2:** Maintain habitat corridors to connect conservation areas such as parks and open space, protect biodiversity, accommodate wildlife movement, and sustain ecosystems.

## **Actions**

**34.2.A.** Prepare and adopt Community Design Guidelines to include standards to protect habitat areas from encroachment of lighting, non-native landscaping, noise, soil erosion and toxic substances.

**34.2.B.** Revise grading guidelines to minimize removal of significant vegetation and promote creation of pervious surfaces around natural habitat areas.

**34.2.C.** Adopt a landscape ordinance complying with the Department of Water Resources guidelines. The City’s landscape ordinance should update landscape provisions to incorporate climate-appropriate native trees and water conserving landscaping that increase infiltrations rates and protect sensitive areas.

**34.3.A.** Update development standards to limit construction activity and development to maximize the water-holding capacity and maintain natural nutrient levels of the soil within buffer zones adjacent to drainages.

**34.3.B.** Require new development and redevelopment projects to incorporate low impact development (LID) measures and source controls in all cases to reduce runoff to the community’s sensitive habitat areas.

Although Draft General Plan policies and programs would reduce and control alterations and disturbance of streambeds, proposed land uses could still result in alteration or wetlands, streams, and other sensitive natural communities. Therefore, this would be a **significant** impact requiring mitigation.

## **Mitigation Measure**

**Mitigation Measure 4.6-4:** For projects that would affect wetlands, streams, and sensitive natural communities, the City shall require no net loss of those communities, in compliance with Draft General Plan Policy 34.3. The City shall implement the following mitigation measures to avoid, minimize, and mitigate impacts on wetlands, streambeds and associated Sensitive Natural Communities:

- ▶ The City shall require future projects on sites supporting aquatic resources or natural habitats (i.e. not cultivated or developed), as a condition of project approval, to conduct a biological resources inventory to identify and map wetlands, streams, and sensitive natural communities on the project site. Such inventory shall be completed as part of the complete application for a project.
- ▶ If it is determined that wetlands, streams, and sensitive natural communities would be affected as part of a project, the project applicant shall be required to demonstrate to the City that the project has ensured no net loss of the resources by obtaining mitigation credits at a mitigation bank approved by DFG or USACE. Alternatively, the applicant can prepare an on-site or off-site habitat restoration or mitigation and monitoring

plan. The mitigation and monitoring plan shall include detailed written specifications and work descriptions for the restoration project(s), including, as applicable but not limited to: the geographic boundaries of the project(s); construction methods; timing and sequence; sources of water, including connections to existing waters and uplands; soil properties (e.g., particle size, organic content, etc.); methods for establishing the desired plant communities; plans to control invasive plant species; proposed grading plans, including elevations and slopes of the substrate; soil management; and erosion control measures.

## **Conclusion**

Implementation of Mitigation Measure 4.6-4 would reduce the impact on wetlands, streams, and sensitive natural communities because it would ensure no net loss of these resources in compliance with Draft General Plan Policy 34.3. Therefore, this impact would be **less than significant** with mitigation incorporated.

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