4.2 BIOLOGICAL RESOURCES

4.2.1 Introduction

This section evaluates the potential effects on biological resources associated with development and operation of the McKinley Village Project (proposed project). This section describes the biological resources present within the project site; identifies special-status plant and wildlife species that are known to occur or potentially occur within the project site; outlines applicable federal, state, and regional regulations pertaining to protection of plant and wildlife species; identifies potential project-specific impacts on biological resource and measures to minimize these impacts; and identifies cumulative impacts. This section also addresses potential impacts to biological resources associated with proposed off-site improvements (A Street, 40th Street undercrossing and improvements; the Alhambra Bicycle/Pedestrian undercrossing (if approved by UPRR); and the westerly detention basin).

A number of comments regarding biological resources were received in response to the Notice of Preparation (NOP) that included concerns regarding displacement of wildlife in the area, loss of wildlife corridors, loss of trees and habitat for nesting birds, loss of raptor foraging habitat, and general impacts to biological resources. Many commenters raised specific concerns regarding the Swainson's hawk (*Buteo swainsoni*) and other raptors, including burrowing owl (*Athene cunicularia*) and white-tailed kite (*Elanus leucurus*). Other specific wildlife issues raised during the NOP comment period include impacts to valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*; VELB) and the potential for wetlands to be present on the site. A copy of the NOP and comment letters received in response to the NOP is included in Appendix A.

Information contained in this section is largely based on a technical report prepared by Dudek, Biological Resources Assessment for the McKinley Village Project (Dudek 2013, included as Appendix D), conducted for the approximately 48.75-acre project site by Dudek biologists. The purpose of the assessment was to identify and characterize the biological communities present on and immediately adjacent to the project site, to record plant and animal species observed on the site, and to evaluate the site for its potential to support sensitive biological resources, including special-status plant and animal species and any other resources considered sensitive by local, state, and/or federal resource agencies that could potentially be impacted by construction and implementation of the proposed project. Prior to the field survey, the California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDB) was queried for any reported occurrences of special-status species in the Sacramento East Quadrangle and was expanded to include species occurrences within approximately 5 miles of the project site. A search of existing biology reports for the project site and adjacent properties was conducted, and soils reports, aerial photos, and online resources were also used to gather information pertinent to the project site.

The results of the literature review and field investigations are summarized in the environmental setting section, with more detailed species lists and results included in Appendix D.

4.2.2 Environmental Setting

This section describes the existing habitats in the project area and also identifies the sensitive habitats that could be affected by development of the project site. Special-status species with the potential to occur in habitats found within the project site are also described.

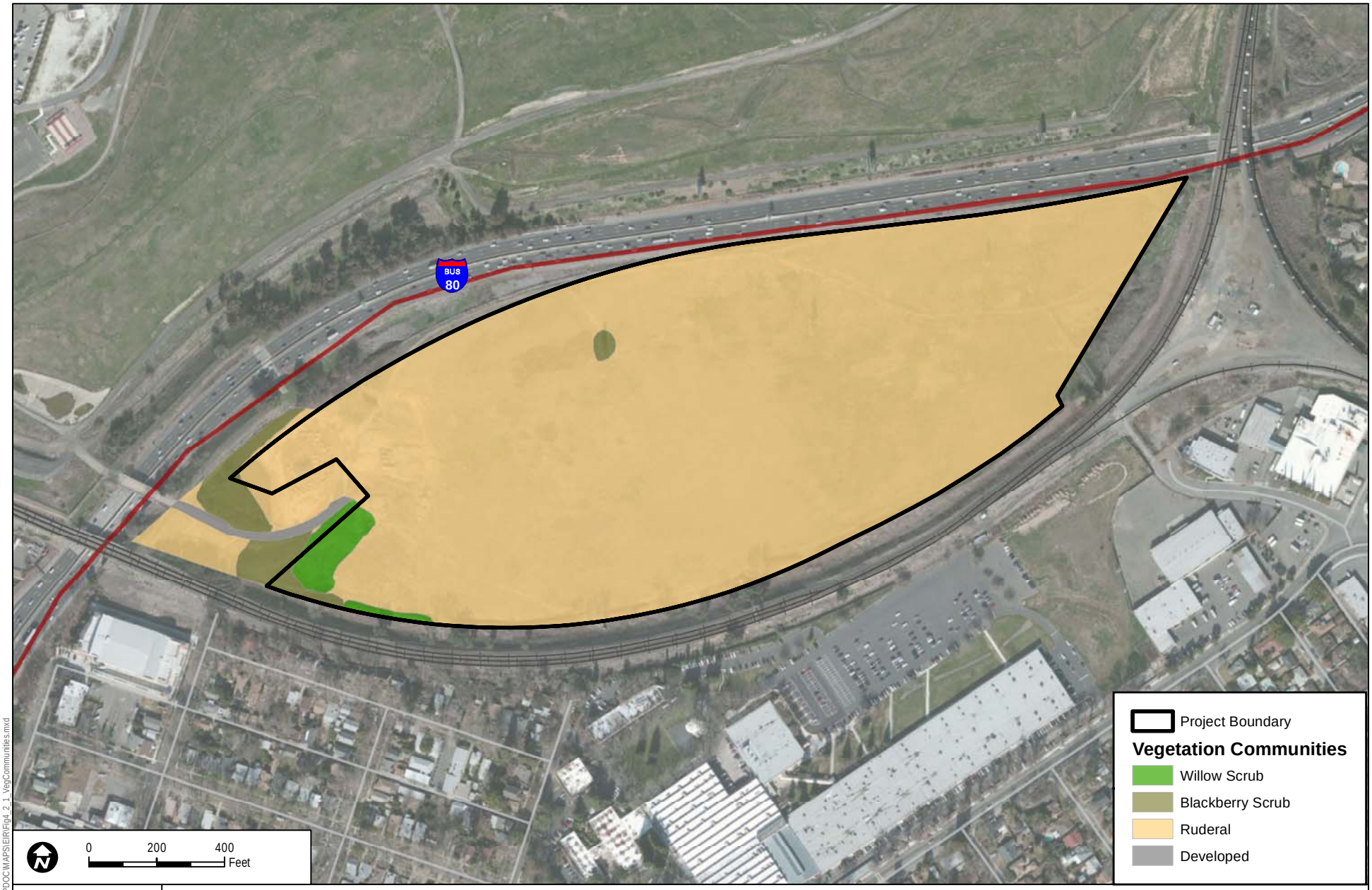
Physical Setting

The project site is bounded on the south and east by a portion of the Union Pacific Railroad (UPRR) tracks located on an elevated berm with an approximate elevation of between 18 to 30 feet above the current site elevation. The northern and western portions of the site are bounded by the Capital City Freeway. The approximately 48.75-acre site is moderately flat with elevations ranging from approximately 14 feet above mean sea level (AMSL) on the west side of the property to approximately 27 feet AMSL on the east side of the property. The project site is currently vacant and contains a fallow field dominated by non-native grasses, a few scattered trees and shrubs, and four freestanding billboards and overhead utility lines and poles. Two groundwater monitoring wells and six soil gas probes are located along the northern portion of the project site used for post-closure monitoring of the former 28th Street Landfill.

The soils on the site belong to the Columbia soil series including Columbia sandy loam drained, 0% to 2% slopes, Columbia sandy loam occasionally flooded 0% to 2% slopes, and Columbia-Urban land complex, 0% to 2% slopes (NRCS 1993). Detailed descriptions of the physical conditions of the site and these soil types can be found in the Biological Resources Assessment for the McKinley Village Project included as Appendix D.

Vegetation

The site contains a mixture of native and non-native vegetation. The majority of the site consists of ruderal habitat (non-native annual grass species and non-native forbs and/or bare dirt) (see Figure 4.2-1, Vegetation Communities). The site is annually mowed and disked in the late spring to early summer months, and was last mowed in July 2013.



SOURCE: ESRI 2013

FIGURE 4.2-1

Vegetation Communities

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Disturbed/ruderal habitat includes areas where weedy species have outcompeted native vegetative cover. Such areas on site include dirt roads, open fields, including those disked and mowed, fire breaks, and areas along the UPRR right-of-way (ROW). Overstory vegetation in this habitat consists of scattered individual trees and shrubs including valley oak (*Quercus lobata*), Fremont's cottonwood (*Populus fremontii)*, and box elder (*Acer negundo*) within the ROW, outside of the boundaries of the project site. Blue elderberry (*Sambucus mexicana*) and button willow (*Cephalanthus occidentalis*) occur within the west side of the project site. Dominant understory vegetation observed in this habitat includes ripgut brome (*Bromus diandrus*), johnsongrass (*Sorghum halepense)*, Bermuda grass (*Cynodon dactylon)*, yellow star-thistle (*Centaurea solstitialis)*, black mustard (*Brassica nigra*), white goosefoot (*Chenopodium album)*, prickly lettuce (*Lactuca serriola)*, field bindweed (*Convolvulus arvensis)*, and jimsonweed (*Datura wrightii*).

Smaller areas within the project site are dominated by willow scrub on the west. The dominant overstory vegetation observed within this habitat includes an open, scattered canopy of narrow-leaved willow (*Salix exigua*). The dominant understory vegetation observed within this habitat includes Bermuda grass, common sunflower (*Helianthus annuus*), Indian hemp (*Apocynum cannabinum*), prickly lettuce (*Lactuca serriola*), yellow starthistle, field bindweed, white goosefoot, curly dock (*Rumex crispus*), Italian thistle (*Carduus pycnocephalus*), wild radish (*Raphanus sativa*), and dog fennel (*Anthemis cotula*).

Along the northwestern edge of the project site Himalayan blackberry (*Rubus discolor*) occurs as the dominant vegetation. The overstory vegetation includes scattered Fremont's cottonwood and red alder (*Alnus rubra*). Herbaceous understory is composed primarily of non-native species and includes johnsongrass.

Representative photos of the project site from various photo points are included in Appendix D. The plant species observed on the project site are listed in Table 4.2-1.

Table 4.2-1
Flora Observed on and Immediately Adjacent to the Project Site

Scientific Name	Common Name
Acer negundo	box elder
Ailanthus altissima	tree-of-heaven
Alnus rubra	red alder
*Anagalis arvensis**	scarlet pimpernel
*Anthemis cotula**	dog fennel
Apocynum cannabium	Indian hemp
*Avena fatua**	wild oat
Baccharis pilularis	coyote brush

Table 4.2-1
Flora Observed on and Immediately Adjacent to the Project Site

Scientific Name	Common Name
*Brassica nigra**	black mustard
*Bromus diandrus**	ripgut brome
*Bromus hordeaceus**	soft chess
*Carduus pycnocephalus**	Italian thistle
*Centaurea solstitialis**	yellow star-thistle
Cephalanthus occidentalis	button willow
*Chenopodium album**	white goosefoot
*Cichorium intybus**	chicory
*Cirsium arvense**	Canada thistle
*Cirsium vulgare**	bull thistle
*Convolvulus arvensis**	field bindweed
Conyza canadensis	Canada horseweed
*Cynodon dactylon**	Bermuda grass
Datura wrightii	jimsonweed
Helianthus annus	common sunflower
*Hirschfeldia incana**	shortpod mustard
*Lactuca serriola**	prickly lettuce
*Lolium multiflorum**	Italian ryegrass
*Melilotus alba**	sweet white clover
Populus fremontii	Fremont's cottonwood
Prunus sp.*	plum
*Raphanus sativus**	wild radish
Rosa californica	California rose
*Rubus discolor**	Himalayan blackberry
*Rumex crispus**	curly dock
Salix exigua	narrow-leaved willow
Sambucus mexicana	blue elderberry
*Sorghum halepense**	johnsongrass
Torilis arvensis	field hedge parsley
Urtica dioica	stinging nettle
Vicia sativa	common vetch
Vitis californica	California grape
Xanthium strumarium	cocklebur

Source: See Appendix D.
Note: * non-native species

Common Wildlife

During the June 13, 2013, survey, a total of eight animal species was observed within the boundaries of the project site, shown in Table 4.2-2. All species, with one exception, are bird species that are considered common and adapted to life in proximity to human activity and the urban environment. Most other animal species that are expected to occur on the site, including the one mammal species observed, are those that typically occur in an urban-developed setting within disturbed and/or landscaped habitat.

No amphibians or reptiles were observed on site. However, the site would likely support some species that are adapted to the urban environment including, but not limited to, California king snake (*Lamprepeltis getuda californiae*), western fence lizard (*Sceloporus occidentalis*), and Pacific gopher snake (*Pituophis catenifer catenifer)*.

The one mammal observed on the project site, California ground squirrel (*Otospermophilus beecheyi*), was observed along the access road. However, no large burrow complexes of this species were observed on the project site, indicating that this species likely does not occur regularly, possibly due to mowing and disking activities. Other common mammal species expected to occur on the project site include, but are not limited to: Botta's pocket gopher (*Thomomys bottae*), California vole (*Microtus californicus*), striped skunk (*Mephitis mephitis*), raccoon (*Procyon lotor*), Virginia opossum (*Dipdelphis virginiana*), and coyote (*Canis latrans*). Like the bird and amphibian/reptile species, these mammals are adapted to life in an urban setting and are therefore relatively tolerant of human interaction and activity. However, the ongoing mowing and disking of the site likely limits populations of these species to the more vegetated margins of the site.

Table 4.2-2
Fauna Observed on the Project Site

Scientific Name	Common Name
Otospermophilus beecheyi	California ground squirrel
Sturnis vulgaris	European starling*
Carpodacus mexicanus	house finch
Zenaida macroura	mourning dove
Mimus polyglottos	northern mockingbird
Buteo jamaicensis	red-tailed hawk
Agelaius phoeniceus	red-winged blackbird
Tyrannus verticalis	western kingbird

Source: See Appendix D.
Note: *non-native species

Special-Status Species

The following section addresses special-status plant and animal species observed, reported, or having the potential to occur on the project site. These include species that have been afforded special status and/or recognition by federal and state resource agencies, as well as recognized private conservation organizations such as the California Native Plant Society (CNPS). In general, the principal reason an individual taxon (species, subspecies, or variety) is given such recognition is the documented or expected decline in population size, geographical extent, and/or distribution that has resulted, in most cases, from habitat loss.

The potential occurrence of special-status plant and animal species in the vicinity of the project site has been determined through habitat information collected through the biological survey conducted by Dudek in June 2013, review of the CNDDB, the CNPS's Inventory of Rare and Endangered Vascular Plants of California (CNPS 2010), the CDFW BIOS database, and the U.S. Fish and Wildlife Service (USFWS) Endangered and Threatened Species List for the U.S. Geological Survey's 7.5-minute Sacramento East quadrangle maps.

Special-Status Flora

Many of the special-status plant species in Sacramento County are associated with Gabbro soils, vernal pools, or perennial wetlands, none of which occurs on the project site.

Two special-status plant species occurrences are documented within a 5-mile radius of the project site: the Sanford's arrowhead (*Sagittaria sanfordi*) and wooly rose-mallow (*Hibiscus lasiocarpos* var. *occidentalis*), both of which are associated with perennial wetlands that do not occur on or adjacent to the site. Due to the lack of habitat suitable to support these special-status plants species known to occur in the region, the project site is not expected to support occurrences of any special-status plant species.

Special-Status Fauna

The results of the CNDDB search, USFWS database, and other literature review resulted in the identification of 17 special-status animal species known to occur in the region. Special-status animal species that occur with 5 miles of the project site that are dependent on specialized habitat types (e.g., wetlands) that do not occur on or near the project site were eliminated from further investigation. These include giant garter snake (*Thamnophis gigas*), California linderiella (*Linderiella occidentalis*), spring-run chinook salmon (*Onchorynchus tshawytscha*), winter-run chinook salmon (*Onchorynchus tshawytscha*), Sacramento splittail (*Pogonichthys macrolepidotus*), tri-colored blackbird (*Agelaius tricolor*), western pond turtle (*Emys marmorata*), vernal pool fairy shrimp (*Branchinecta lynchi*), and vernal pool tadpole shrimp (*Lepidurus packardi*). All are dependent on perennial flowing water, perennial marsh habitat, or vernal pool grassland habitats that do not occur on or immediately adjacent to the project site. Therefore, these species are not expected to occur on the project site or adjacent properties.

The eight remaining special-status animal species are known to occur in non-native grasslands, disturbed habitats, and riparian areas, all of which occur to some degree on or adjacent to the site. Therefore, while the project site is disturbed and surrounded by development, the potential for these eight species to potentially occur within the site could not be discounted. Five of these species were determined to have only a low probability of occurrence. These include Cooper's hawk (*Accipiter cooperi*), burrowing owl, ferruginous hawk (*Buteo regalis*), merlin (*Falco columbaris*), and purple martin (*Progne subis*). The three remaining species were determined to have moderate potential to occur on the project site: Swainson's hawk, white-tailed kite, and the valley elderberry longhorn beetle. Table 4.2-3 and the narrative below include more detailed information regarding all eight species.

Table 4.2-3
Special-Status Animal Species with Potential to Occur On or Near the Project Site

Scientific Name	Common Name	Status (Federal /State)	Primary Habitat Associations	Potential to Occur On or Near the Project Site
Accipiter cooperi	Cooper's hawk	None/WL	Cismontane woodland; riparian forest; riparian woodland; upper montane coniferous forest.	Low; site is disturbed and does not have nesting habitat within its boundaries, but suitable nesting and roosting trees are on adjacent properties and the nearby American River Parkway. Some potential to forage along the margins of the site.
Athene cunicularia (burrow sites and some wintering sites)	burrowing owl	BCC, BLM/CSC	Grassland, lowland scrub, agriculture, coastal dunes and other artificial open areas with rodent burrows or other dry burrow site.	Low; very little ground squirrel activity, which provides nesting and shelter burrows, was observed on the site; potential habitat for foraging on irregular basis.
Buteo regalis (Nonbreeding/ wintering)	ferruginous hawk	BLM, BCC/WL	Open, dry country; grasslands; open fields; agriculture.	Low; there are records within 5 miles but this raptor generally prefers larger areas of habitat within which to forage and does not nest in this region. Possible irregular visitor as a migrant.
Buteo swainsoni	Swainson's hawk	BCC/ST,ABC	Breeds in riparian woodlands and	Moderate; some potential nest trees at edge of site

Table 4.2-3
Special-Status Animal Species with Potential to Occur On or Near the Project Site

Scientific Name	Common Name	Status (Federal /State)	Primary Habitat Associations	Potential to Occur On or Near the Project Site
(nesting)			occasionally in open oak woodlands/savanna near rivers. Forages in open grassland, shrublands, and croplands.	in Caltrans and UPRR ROW., but no nests observed during surveys. Known active nests in nearby neighborhood and along American River Parkway. The site is suitable for foraging during and immediately after disking, but may be too overgrown with weeds and forbs from infrequent maintenance to provide consistently high quality foraging habitat.
Elanus leucurus	white-tailed kite	BLM/P	Cismontane woodland; riparian woodland; valley and foothill grassland; wetland.	Moderate; nesting occurrences within 5 miles. Some potential nest trees at edge of site in Caltrans and UPRR ROW. Pair observed off site where the extension of A Street is proposed, north of the freeway, during the biological survey. Habitat on site suitable for foraging during and immediately after disking but may be too overgrown with weeds/forbs between site maintenance activities.
Falco columbaris	merlin	None/WL	Estuary; great basin grassland; valley and foothill grassland.	Low; species is known from the area, but on-site habitat is marginal, and the species is not known to nest in the region. Only expected to occur as a migrant or winter visitor.

Table 4.2-3
Special-Status Animal Species with Potential to Occur On or Near the Project Site

Scientific Name	Common Name	Status (Federal /State)	Primary Habitat Associations	Potential to Occur On or Near the Project Site
Progne subis	purple martin	None/CSC	Broadleaved upland forest; lower montane coniferous forest. Bridges and underpasses in urban areas.	Low; species is known from within 5 miles of the project site, and freeway overpass bridges and oak trees provide suitable nesting habitats. However, site surveys found no occurrences of this species on site.
Desmocerus californicus dimorphus	Valley elderberry longhorn beetle	FT/None	Occurs only in the Central Valley of California in association with blue elderberry (*Sambucas Mexicana*).	Moderate; elderberry shrubs exist on site and on adjacent property, and stem counts indicate there is suitable VELB habitat.

Notes:
Federal Designations:
BCC USFWS: Birds of Conservation Concern
BLM Bureau of Land Management Sensitive Species
FE Federally listed as Endangered
FT Federally listed as Threatened
State Designations:
CSC California Species of Special Concern
P CDFW Protected and Fully Protected Species
SE State-listed as Endangered
ST State-listed as Threatened
WL CDFW Watch List
Other:
ABC American Bird Conservancy: United States Watch List of Birds of Conservation Concern

Swainson's hawk (*Buteo swainsoni*)

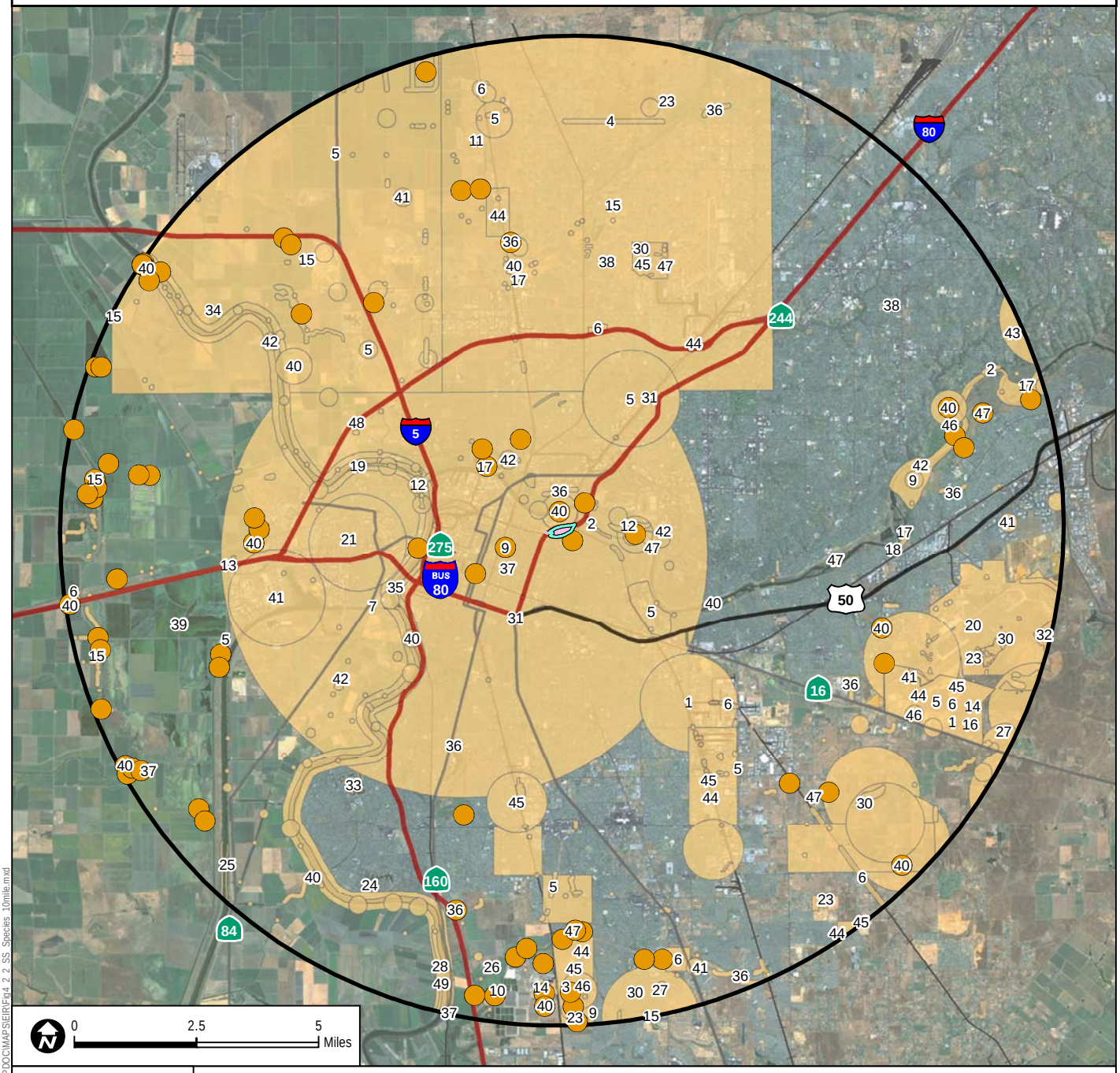
The Swainson's hawk is listed as threatened in California and is protected under the federal Migratory Bird Treaty Act (MBTA). This species migrates into California from South America in the spring to establish breeding territories and typically migrates out of California by the end of September. In the Sacramento Valley region, Swainson's hawks typically nest in woodland habitats, tree clusters, or isolated trees, usually near riparian systems and generally adjacent to or in close proximity to suitable foraging habitat, which includes rangelands, grasslands, and various agricultural fields (Estep 1989).

The CDFW, CNDDB, and BIOS database research reports several known Swainson's hawk nests along the American River Parkway to the north of the project site, as shown in Figure 4.2-2,

Special-Status Species within 5 Miles of the Project Site. Not reported in this data but known to several local environmental organizations and individuals, an active Swainson's hawk nest occurs in a conifer tree in a residential area approximately 1,000 feet south of the project site, as shown in Figure 4.2-3. The location and status (active) of this nest was confirmed by a Dudek biologist on a site visit on July 11, 2013. Potential nest trees for Swainson's hawk occur adjacent to the site, but no Swainson's hawk (or other raptor) nests were observed in these areas during site surveys.

The disturbed/ruderal habitat on the proposed project site can provide foraging opportunities for Swainson's hawks, especially during and after annual mowing and disking of the site, which occurs in the late spring to early summer when Swainson's hawks are actively nesting and foraging in the area. However, after mowing/disking occurs, the relative value of this habitat for Swainson's hawk and other raptors likely declines over time as the prey base decreases in numbers due to lack of vegetative cover. Conversely, once the non-native grasses and ruderal vegetation grows back later in the year, the site likely becomes overgrown such that foraging quality again declines (Swainson's hawks generally prefer foraging in low-vegetative cover areas that facilitates easy access to prey) until the site is mowed. Consequently, while the site does provide some short-term foraging habitat value to Swainson's hawks, the cyclical nature of management activities on the site likely results in a range of habitat values during the time that Swainson's hawks are in the region (generally April through September), with the highest values expected to occur during and immediately after mowing and disking of the site in early summer.

Based on the cyclical nature of prey accessibility on the site, it can be assumed that those Swainson's hawks that utilize the site as a source of prey likely forage in other areas in the region as well to adequately address foraging demands during the entire breeding season. In an effort to assess this site's relative value to Swainson's hawks in the area, all potential foraging habitats (e.g., agricultural land, open space, open fields) within 10 miles of the known Swainson's hawk nest near the proposed project site were mapped (see Figure 4.2-4). Ten miles is the radius from an active Swainson's hawk nest within which the CDFW recommends considering whether a proposed project will adversely affect suitable foraging habitat and is the approximate maximum flight distance that Swainson's hawk adults will fly from an active nest in search of prey (CDFG 1994). It is assumed that nests west of the Sacramento River would generally utilize agricultural lands to the west, so this analysis focused on an area within 10 miles of the nearest nest to the project site. Based on this analysis, approximately 29,266 acres of suitable Swainson's hawk foraging habitat occurs within 10 miles of the nest nearest to the project site and east of the Sacramento River, as shown in Figure 4.2-4, Swainson's Hawk Foraging Habitat. An additional 31,852 acres of habitat occurs west of the Sacramento River. However, because of the urbanized nature of much of the lands east of the Sacramento River, the vast majority of suitable foraging habitat within this 10-mile radius of the project site lies west of the Sacramento River. In essence, very little suitable Swainson's hawk foraging habitat occurs within 5 miles of the project site (Figure 4.2-4). The project site represents 0.09% of the total amount of available foraging habitat within the 10-mile assessment area.



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SOURCE: ESRI; County of Sacramento 2012; CNDDB 2013

FIGURE 4.2-2

Special-Status Species within 10 Miles of the Project Site

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SOURCE: ESRI; County of Sacramento 2012

FIGURE 4.2-3

Location of Swainson's Hawk Nest

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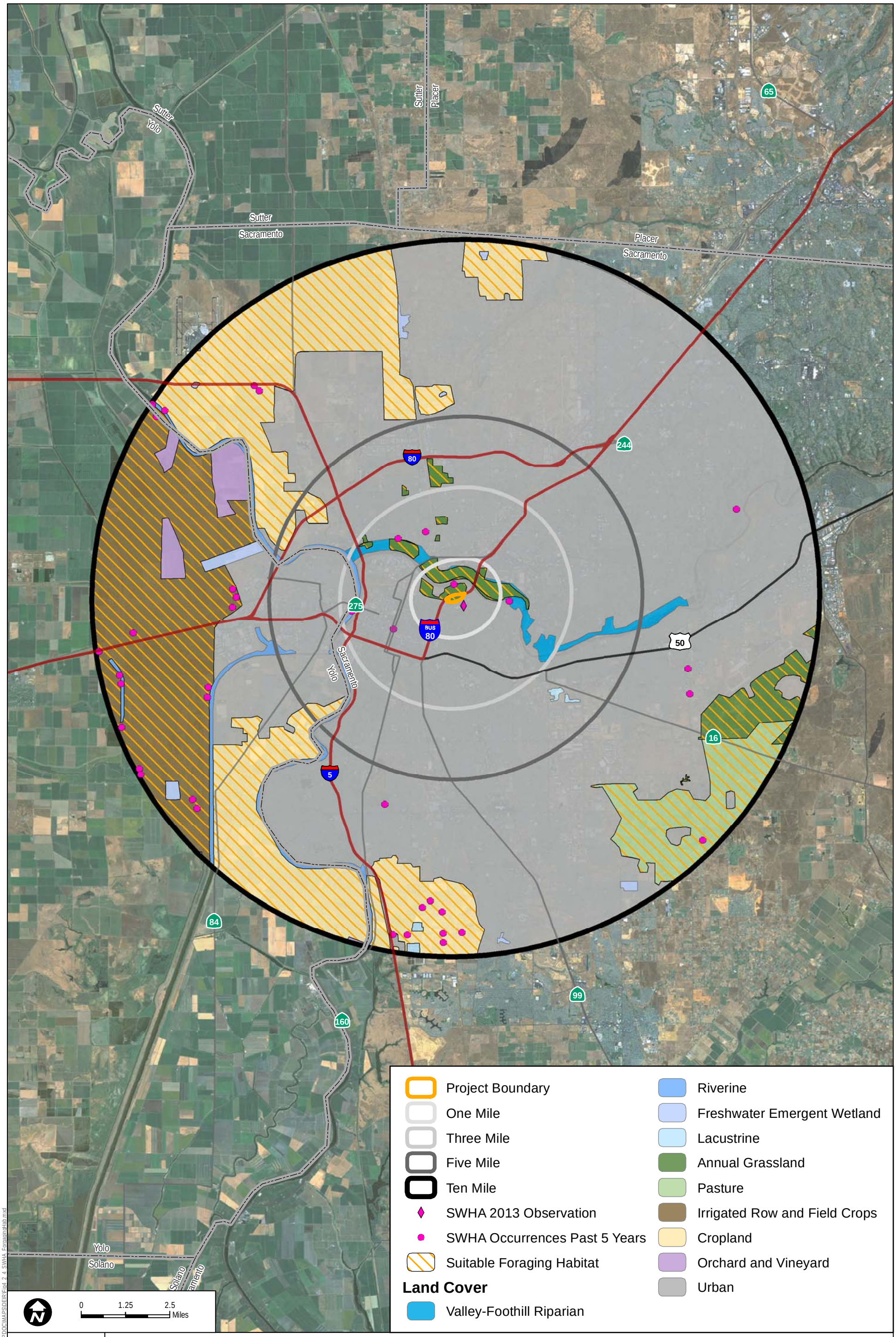

SOURCE: ESRI 2013, County of Sacramento 2012

FIGURE 4.2-4

Swainson's Hawk Foraging Habitat

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White-tailed kite (*Elanus leucurus*)

The white-tailed kite is a California Fully Protected species. This year-round resident breeds between February and October, with a peak from May to August. White-tailed kites are known to forage for small rodents and insects in agricultural areas, especially alfalfa fields. Nests are generally built in available trees near hunting grounds. Nest sites are closely associated with suitable foraging habitat with high rodent populations in the immediate vicinity of the nest. While no white-tailed kites were observed on the project site during surveys, suitable nesting and foraging habitat is present within the area. Two white-tailed kites were observed off site near the A Street Bridge where the extension of A Street is proposed. Similar to Swainson's hawk, the value of the site as foraging habitat is variable given the cyclical nature of on-site management activities, with the highest habitat values expected to be during and immediately following vegetation mowing and disking of the site in the early summer.

Purple martin (*Progne subis*)

This California Watch List species occurs as a summer resident and migrant, primarily from mid-March to late September. The purple martin breeds from May (rarely late April) to mid-August (Williams 1998). Purple martins are widely, but locally distributed in forest and woodland areas at low to intermediate elevations throughout California. Populations are densest in central and northern coastal conifer forests and smaller and more localized in the Sierra Nevada, interior foothills, and Southern California. The species' range has contracted substantially on the central and southern coastal slope and in the Central Valley, and probably, at least locally, in the Sierra Nevada and Cascades and are now virtually extirpated (extinct) from most interior and south coastal lowland areas, presumably by nest competition from the European starling (*Sturnis vulgaris*). A significant remnant population in Sacramento nested in buildings and riparian habitats from Stockton in the Sacramento–San Joaquin River Delta north through the Sacramento Valley through the 1960s to early 1970s.

Small populations of the species are known to nest under highway and street overpasses and bridges, under billboards, and within tree cavities in the Sacramento region. CNDDB records for the species exist within 5 miles of the project site (CDFG 2011). While a few billboards are located on the project site, and the A Street and UPRR bridges (off site) are considered potential nesting habitat, no purple martins were observed on the site during surveys, and no historical breeding is known to occur on or adjacent to the site or under the A Street or UPRR bridges. Therefore, purple martins are considered to have a low potential of occurring within the project site and off-site improvement areas.

Valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*)

The valley elderberry longhorn beetle (VELB), a federally listed threatened species, is dependent on elderberry shrubs (*Sambucus* spp.) for breeding and feeding habitat. Elderberry shrubs are a common component of riparian forests and adjacent upland habitats in California's Central Valley. The VELB spends most of its life in the larval stage, living within the stems of the elderberry plant. The USFWS considers all elderberry shrubs 2.5 centimeters (1 inch) or greater diameter at ground level within the species' range to be potential habitat (USFWS 1999). The exit holes made by the emerging adults are distinctive 0.5- to 1-centimeter round or oval openings. The entire life cycle of the VELB revolves around the elderberry. Adults eat the elderberry foliage until about June when they mate. The females lay eggs in crevices in the bark. Upon hatching, the larvae then begin to tunnel into the tree, where they will spend 1 to 2 years eating the interior wood, which is their sole food source.

Elderberry shrubs were mapped on and adjacent to the project site by EDAW/AECOM in 2008, and a Biological Opinion (BO) was issued by the USFWS in June 2008, authorizing development of the area pursuant to stated terms and conditions. Seventeen elderberry shrubs or clusters (identified as Shrubs 1–17) were observed prior to the issuance of the BO. In May 2008, Union Pacific conducted vegetation clearing within their ROW along the southern and eastern edge of the project site, removing most of the understory vegetation, including elderberry shrubs. The BO, therefore, considered only four shrubs (Shrubs 2, 3, 4, and 6), with a total of 87 stems measuring greater than 1 inch in diameter. Additional damage occurred in the northeastern portion of the project area as a result of a brush fire.

A subsequent survey by Foothill Associates in February 2013, confirmed the presence of the four shrubs, and also identified regrowth at the prior locations of Shrubs 1 and 11. Stem counts conducted in February 2013 identified a total 100 stems of 1 inch or greater at five shrubs (shrubs 2,3,4,6, and 11). Note that the a stem count was not made for the sixth shrub, the re-occurrence at Group 1, as it occurs within the UPRR and California Department of Transportation (Caltrans) ROW and would not be affected by the proposed project. Project construction would avoid Shrubs 1 and 2, thereby reducing the number of potentially affected stems to 66. The stem counts for each location are shown in Table 4.2-4.

Table 4.2-4
Elderberry Shrubs, Existing Conditions

Group	Stem Class			Exit Holes?
	1-inch–3-inch"	*3-inch—5-inch*	*>5-inch*	
1[1]	-	-	-	-
2[2]	34	0	0	N

Table 4.2-4
Elderberry Shrubs, Existing Conditions

Group	Stem Class			Exit Holes?
	1-inch–3-inch"	*3-inch—5-inch*	*>5-inch*	
3	10	3	2	Y
4	4	1	1	N
6	15	11	10	Y
11[3]	9	0	0	N
Subtotal	*72*	*15*	*13*	
Total Affected	**66**			

Source: Foothills Associates 2013
Notes:
[1] Regrowth identified at shrub 1 but not quantified because it is on UPRR land and would not be affected.
[2] Group 2 would be avoided by proposed project, and is not included in the Total Affected.
[3] New occurrence near the location of Group 11.

Cooper's hawk (*Accipiter cooperii*)

The Cooper's hawk is a California Species of Special Concern and protected under the MBTA. This species typically nests in densely canopied trees such as oak and riparian woodlands in lower elevations and ponderosa pine forests at upper elevations. In the Sacramento region, Cooper's hawks breed from approximately March to August and typically nest in open interrupted or marginal type woodland habitats. Nest sites are mainly found in live oaks and in riparian habitats with deciduous trees, as in canyon bottoms of river floodplains. Cooper's hawks prey almost exclusively on small to mid-sized birds.

Because of the lack of woodland habitat on site, Cooper's hawk is not expected to nest or regularly forage within the project site, but could do so in treed areas adjacent to the project site.

Western burrowing owl (*Athene cunicularia hypogea*)

The western burrowing owl is a California Species of Special Concern. Burrowing owls in the Sacramento region are typically found in annual and perennial grasslands, although owl habitat may also include more vegetated areas if the canopy covers less than 30% of the ground surface. Burrows are the essential component of burrowing owl habitat. Burrowing owls typically use burrows made by fossorial mammals, such as ground squirrels or badgers, but also may use man-made structures, such as cement culverts; cement, asphalt, or wood debris piles; or openings beneath cement or asphalt pavement. Western burrowing owls exhibit high site-fidelity and reuse burrows year after year (Gervais et al. 2008). They are opportunistic feeders, primarily feeding on arthropods, small mammals and birds found in grasslands, mowed areas,

overgrazed grasslands, and agricultural areas near nest sites (Gervais et al. 2008). Western burrowing owls breed from March through August, with a peak in April and May.

Very little ground squirrel activity was observed on site. As noted above, burrowing owls are typically found in association with ground squirrel burrow complexes in the region, but the lack of burrow complexes on the project site indicates that the species is likely only to occur in low numbers, if at all. However, an individual owl could briefly forage on the site during migration or movement periods, and some undiscovered mammal burrow or other cavity could occur that could support burrowing owls.

Ferruginous hawk (*Buteo regalis*)

The ferruginous hawk is a California Species of Special Concern. This raptor is also protected under the MBTA. Ferruginous hawks typically occur in open country such as grasslands, sagebrush, deserts, shrublands, and the outer edges of pinyon-pine and other forests. They select rocky outcrops, hillsides, rock pinnacles, or trees for nest sites. Small to medium-sized mammals make up the majority of their diet.

Ferruginous hawks do not nest in the Sacramento region and are only expected to occur as an irregular migrant.

Merlin (*Falco columbarius*)

Merlin is an uncommon winter migrant in California from September to May. It can be found in a variety of habitat types, including coastlines, grasslands, oak savannahs, woodlands, and wetlands. In California, the species generally occurs below 3900 feet in elevation (Polite 1999). The merlin feeds primarily on small birds, but also small mammals and insects. Merlins generally do not breed in California, but rather further north in Canada and Alaska.

On the project site, the species is only expected to occur as an irregular migrant or winter visitor.

Wildlife Movement Corridors

The project site is not part of a regional wildlife corridor, as it is largely surrounded by urban development and other artificial land uses. The closest habitat corridor in the area is associated with the American River Parkway approximately 0.25 mile east and 0.4 mile north of the site, separated by the Capital City Freeway and Sutter's Landing Regional Park to the north, and local roads and a single-family residential subdivision (River Park) to the east. Consequently, while a number of common wildlife species may utilize the site as habitat for breeding, foraging, and shelter to some degree, due to the fact that the site is essentially surrounded by urban and suburban development and transit facilities (e.g., freeway) and there

is limited access across the Capital City Freeway, the site itself does not effectively function as part of a corridor that links large open space areas.

Wetlands

A jurisdictional wetland delineation for the McKinley Village Project site was conducted in 2008 (EDAW 2008), and was verified by the U.S. Army Corps of Engineers (ACOE) on February 21, 2008 (ACOE 2008). The ACOE re-verified the delineation in January 2013 and granted an extension for re-verification of the delineation through January 2018 (ACOE 2013). The willow scrub habitat that was delineated was deemed not jurisdictional by the ACOE because the soils are not typically hydric; it does not have sufficient wetland hydrology; and much of the understory vegetation is consistent with upland and/or disturbed areas. Therefore, no waters of the United States or wetlands, as defined by the ACOE, or waters of the state, were identified as occurring on the site.

4.2.3 Regulatory Background

Federal Regulations

Federal Endangered Species Act

The federal Endangered Species Act (FESA) of 1973 (16 U.S.C. 1531 et seq.), as amended, is administered by USFWS for most plant and animal species, and by the National Oceanic and Atmospheric Administration (NOAA) National Marine Fisheries Service for certain marine species. This legislation is intended to provide a means to conserve the ecosystems upon which endangered and threatened species depend and provide programs for the conservation of those species, thus preventing extinction of plants and wildlife. FESA defines an endangered species as “any species that is in danger of extinction throughout all or a significant portion of its range.” A threatened species is defined as “any species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.” Under FESA, it is unlawful to take any listed species, and “take” is defined as, “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.” The VELB, discussed above, is a federally listed threatened species, although the species is currently being considered for de-listing as threatened.

FESA allows for the issuance of incidental take permits for listed species under Section 7, which is generally available for projects that also require other federal agency permits or other approvals, and under Section 10, which provides for the approval of habitat conservation plans (HCPs) on private property without any other federal agency involvement. Upon development of an HCP, USFWS can issue incidental take permits (ITPs) for listed species.

Clean Water Act

Pursuant to Section 404 of the Clean Water Act (CWA), the ACOE regulates the discharge of dredged and/or fill material into "waters of the United States." The term "waters of the United States" (waters) is defined in the "Definition of Waters of the United States" in ACOE regulations (33 CFR 328.3(a)) as (1) all waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide; (2) all interstate waters including interstate wetlands; (3) all other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect foreign commerce; (4) all impoundments of waters otherwise defined as waters of the United States under the definition; (5) tributaries of waters identified in paragraphs (a) (1) through (4) of this section; and (6) wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a)(1) through (6) of this section.

The term "wetlands" (a subset of waters) is defined in 33 CFR 328.3(b) as "those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas."

The discharge of dredge or fill material into waters, including wetlands, requires authorization from ACOE prior to impacts. For impacts to wetlands or waters under ACOE jurisdiction, either an Individual Permit or a Nationwide Permit (NWP) would be required in accordance with Section 404 of the CWA. If a project fails to comply with the terms and regulations specified in the NWP guidelines, then an Individual Permit to ACOE must be prepared. No jurisdictional wetlands are present on the project site.

Pursuant to Section 401 of the federal CWA, the Regional Water Quality Control Board (RWQCB) regulates discharging waste, or proposing to discharge waste, within any region that could affect a "water of the state" (California Water Code, Section 13260(a)), pursuant to provisions of the Porter–Cologne Water Quality Control Act. Waters of the state are defined as "any surface water or groundwater, including saline waters, within the boundaries of the state" (California Water Code, Section 13050(e)). Before ACOE will issue a CWA Section 404 permit, applicants must receive a CWA Section 401 Water Quality Certification from the RWQCB. If a CWA Section 404 permit is not required for the project, the RWQCB may still require a permit (i.e., Waste Discharge Requirement) for impacts to waters of the state under the Porter–Cologne Water Quality Control Act.

Migratory Bird Treaty Act

The MBTA was originally passed in 1918 as four bilateral treaties, or conventions, for the protection of a shared migratory bird resource. The primary motivation for the international negotiations was to stop the "indiscriminate slaughter" of migratory birds by market hunters and others. Each of the treaties protects selected species of birds and provides for closed and open seasons for hunting game birds. The MBTA protects over 800 species of birds.

State Regulations

California Endangered Species Act

The California Endangered Species Act (CESA) defines an endangered species as "a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant which is in serious danger of becoming extinct throughout all, or a significant portion, of its range due to one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, or disease." CESA defines a threatened species as "a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that, although not presently threatened with extinction, is likely to become an endangered species in the foreseeable future in the absence of the special protection and management efforts required by this chapter. Any animal determined by the Commission as rare on or before January 1, 1985, is a threatened species." Swainson's hawk, discussed above, is a state-listed threatened species. A candidate species is defined as "a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that the California Fish and Game Commission (Commission) has formally noticed as being under review by the department for addition to either the list of endangered species or the list of threatened species, or a species for which the Commission has published a notice of proposed regulation to add the species to either list." CESA does not list invertebrate species.

CDFW administers CESA which prohibits the "take" of plant and animal species designated by the Fish and Game Commission as endangered or threatened in the state of California. Under CESA Section 86, take is defined as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." CESA Section 2053 stipulates that state agencies may not approve projects that will "jeopardize the continued existence of any endangered species or threatened species, or result in the destruction or adverse modification of habitat essential to the continued existence of those species, if there are reasonable and prudent alternatives available consistent with conserving the species or its habitat which would prevent jeopardy."

CESA authorizes the taking of threatened, endangered, or candidate species if take is incidental to an otherwise lawful activity and if specific criteria are met. These provisions also require CDFW to coordinate consultations with USFWS for actions involving federally listed species that are also state-listed species. In certain circumstances, CESA allows CDFW to adopt a CESA

incidental take authorization as satisfactory for California Environmental Quality Act (CEQA) purposes based on finding that the federal permit adequately protects the species and is consistent with state law.

California Environmental Quality Act

Although threatened and endangered species are protected by specific federal and state statutes, Section 15380(b) of the CEQA Guidelines provides that a species not listed on the federal or state list of protected species may be considered rare or endangered if the species can be shown to meet certain specified criteria. These criteria have been modeled after definitions in FESA and the section of the California Fish and Wildlife Code dealing with rare or endangered plants and animals. CEQA Guidelines Section 15380(b) requires public agencies to undertake reviews to determine if projects would result in significant effects on species that are not listed by either the USFWS or CDFW (i.e., candidate species). Thus, CEQA provides an agency with the ability to protect a species from a project's potential impacts until the respective government agencies have an opportunity to designate the species as protected, if warranted.

California Fish and Game Code Sections 3503, 3503.5, and 3513

Fish and Game Code Section 3503 states that it is unlawful to take, possess, or needlessly destroy the nests or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto. Fish and Game Code Section 3503.5 protects all birds of prey (raptors) and their eggs and nests. Section 3513 states that it is unlawful to take or possess any migratory non-game bird as designated in the MBTA. These regulations could require that elements of the proposed project (particularly vegetation removal or construction near nest trees) be reduced or eliminated during critical phases of the nesting cycle unless surveys by a qualified biologist demonstrate that nests, eggs, or nesting birds will not be disturbed, subject to approval by CDFW and/or USFWS.

California Fish and Game Code Sections 3511, 4700, 5050, and 5515

Sections 3511 (birds), 4700 (mammals), 5050 (reptiles and amphibians), and 5515 (fish) of the California Fish and Game Code designate certain species as "fully protected." Fully protected species, or parts thereof, may not be taken or possessed at any time except as part of an approved Natural Community Conservation Plan (NCCP) that treats such species as "covered species" or in connection with statutory-specified actions pursuant to the "Quantification Settlement Agreement" involving water transfer from the Imperial Irrigation District to the Metropolitan Water District of Southern California. The only fully protected species with some potential to occur on the project site is white-tailed kite, discussed in detail above. The California Fish and Game Commission may authorize the collecting of such species for necessary

scientific research. Legally imported and fully protected species or parts thereof may be possessed under a permit issued by CDFW.

Local Regulations

City of Sacramento 2030 General Plan

The following goals and policies from the City's 2030 General Plan Environmental Resources (ER Element) are relevant to biological resources within the project site.

Goal ER 2.1 Natural and Open Space Protection. Protect and enhance open space, natural areas, and significant wildlife and vegetation in the city as integral parts of a sustainable environment within a larger regional ecosystem.

> **Policy ER 2.1.1 Resource Preservation.** The City shall encourage new development to preserve on-site natural elements that contribute to the community's native plant and wildlife species value and to its aesthetic character.
>
> **Policy ER 2.1.9 Wildlife Corridors.** The City shall preserve, protect, and avoid impacts to wildlife corridors. If corridors are adversely affected, damaged habitat shall be replaced with habitat of equivalent value.
>
> **Policy ER 2.1.10 Habitat Assessments.** The City shall consider the potential impact on sensitive plants for each project requiring discretionary approval and shall require preconstruction surveys and/or habitat assessments for sensitive plant and wildlife species. If the preconstruction survey and/or habitat assessment determines that suitable habitat for sensitive plant and/or wildlife species is present, then either (1) protocol-level or industry-recognized (if no protocol has been established) surveys shall be conducted; or (2) presence of the species shall be assumed to occur in suitable habitat on the project site. Survey Reports shall be prepared and submitted to the City and the CDFW or USFWS (depending on the species) for further consultation and development of avoidance and/or mitigation measures consistent with state and federal law.
>
> **Policy ER 2.1.11 Agency Coordination.** The City shall coordinate with State and Federal resource agencies (e.g., California Department of Fish and Wildlife (CDFW), U.S. Army Corps of Engineers, and United States Fish and Wildlife Serve (USFWS)) to protect areas containing rare or endangered species of plants and animals.

City of Sacramento Tree Protection and Preservation Ordinance

The City of Sacramento (City) has adopted an ordinance to protect trees as a significant resource to the community. It is the City's policy to retain trees when possible regardless of their size. When circumstances will not allow for retention, permits are required to remove trees that are within City jurisdiction. Removal of, or construction around, trees that are protected by the tree ordinance are subject to permission and inspection by City arborists. The City of Sacramento Tree Service Division reviews project plans and works with City of Sacramento Public Works during the construction process to minimize impacts on street trees in the City. There are no City street trees within the project site. However, there are some trees within the UPRR ROW that may require removal to accommodate construction of the vehicle and bicycle/pedestrian underpass (if the bicycle/pedestrian underpass is approved by UPRR).

The Sacramento City Code includes the following provisions to protect City trees:

> **12.56.020 Definitions.**
>
> "City street tree" means and includes any tree growing on a public street right-of-way. City street trees are maintained by the city.
>
> "Maintenance easement private street tree" means and includes any tree growing within a maintenance easement. No parcel contains more than one maintenance easement private street tree per forty (40) feet of street frontage. If there is more than one tree in the maintenance easement per forty (40) feet of street frontage, only the one closest to the street is a maintenance easement private street tree, and the other(s) are private trees.
>
> "Street tree" means and includes both city street trees and maintenance easement private trees (Prior code Section 45.01.002).
>
> **12.56.60.1 Protection of trees.**
>
> No person shall remove, trim, prune, cut or otherwise perform maintenance on any city street tree without first obtaining a permit from the director pursuant to Chapter 12.56.070. (Prior Code Section 45.01.006).
>
> **12.64.020 Definitions.**
>
> "Circumference" means circumference measured four and one-half feet above ground level.

> "Director" means the director of the department of transportation or the director's authorized representative.
>
> "Drip line area" means the area measured from the trunk of the tree outward to a point at the perimeter of the outermost branch structure of the tree.
>
> "Heritage tree" means:
>
> Any tree of any species with a trunk circumference of one hundred (100) inches or more, which is of good quality in terms of health, vigor of growth and conformity to generally accepted horticultural standards of shape and location for its species.
>
> Any native *Quercus* species, *Aesculus california* or *Platanus cacemosa*, having a circumference of thirty-six (36) inches or greater when a single trunk, or a cumulative circumference of thirty-six (36) inches or greater when a multi-trunk, which is of good quality in terms of health, vigor of growth and conformity to generally accepted horticultural standards of shape and location for its species.
>
> Any tree thirty-six (36) inches in circumference or greater in a riparian zone. The riparian zone is measured from the centerline of the water course to thirty (30) feet beyond the high water line.
>
> Any tree, grove of trees or woodland trees designated by resolution of the city council to be of special historical or environmental value or of significant community benefit. (Ord. 2008-018 Section 3; prior code Section 45.04.211).

There are no trees that meet the City's definition of a heritage tree on the project site or within offsite areas that could be affected by project construction.

4.2.4 Impacts and Mitigation Measures

Methods of Analysis

The project setting was developed by reviewing available information on special-status species and sensitive habitats known to occur in the project vicinity. This review was supplemented with a field survey conducted on June 13, 2013, to determine which of these species actually occurs or whether potential habitat for these species is present on the proposed project site. The information review included the following:

- A query of the CNDDB and USFWS species list databases for the Sacramento, California 7.5-minute U.S. Geological Survey quadrangle maps;
- A search of existing biology reports for adjacent properties, soils reports, aerial photos, other City CEQA documents, and online resources;

- A review of the habitat requirements of the special-status species determined to have potential to occur on the proposed project site through the above queries;
- A review of the Preliminary Delineation of Waters of the Unites States, Including Wetlands – McKinley Village Project (EDAW/AECOM 2007);
- A review of the Effects Analysis on Valley Elderberry Longhorn Beetle – McKinley Village Project (EDAW/AECOM 2008)
- A review of the McKinley Village Biological Assessment (Foothill Associates 2013);
- A review of the Approved Jurisdictional Determination Letter, No. 2007-02321 (ACOE, Sacramento District 2008);
- A review of the re-verification letter (ACOE, California Delta Branch 2013);
- A review of the Memorandum of Understanding Between McKinley Investors and the U.S. Fish and Wildlife Service, Sacramento, California (USFWS 2008a); and
- A review of the Formal Consultation Regarding the McKinley Village Project, Sacramento, California (USFWS 2008b).

Additionally, the City of Sacramento 2030 General Plan was reviewed for policies that address biological resources. As stated in the environmental setting section, complete results of the CNDDB and USFWS queries are provided in the Biological Resources Assessment included in Appendix D.

CEQA requires that projects analyze the potential impacts on special-status plant and animal species, as well as on sensitive habitats, wildlife corridors, and waters of the United States. Impacts on wildlife species that are not considered special-status under CEQA are generally not considered significant unless impacts are associated with the species' migration routes or movements, or the species are considered locally important. In the region of the project site, deer or other common species (e.g., skunk, raccoon, possum, coyote) would not be considered special-status species; however, impacts on their movements and migration routes would be considered significant under CEQA. Regardless of status, all nesting native bird species are protected from harm under the state Fish and Game Code and the federal MBTA.

Thresholds of Significance

Consistent with Appendix G and Appendix I of the CEQA Guidelines, thresholds of significance adopted by the City in applicable general plans and previous environmental documents, and professional judgment, a significant impact would occur if the proposed project would:

- result in substantial degradation of the quality of the environment or reduction of habitat or population below self-sustaining levels of threatened or endangered species of plant or animal;

- interfere substantially with the movement of any native resident or migratory wildlife species or with established native resident or migratory wildlife corridor;
- substantially reduce the number or restrict the range of a special-status species;
- substantially reduce the habitat of a fish or wildlife species;
- cause a fish or wildlife population to drop below self-sustaining levels;
- threaten to eliminate a plant or animal community;
- adversely affect other special-status species or species of special concern; or
- have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act through direct removal, filling, hydrological interruption or other means.

A preliminary jurisdictional delineation for the McKinley Village Project site was conducted in 2007 (EDAW/AECOM 2007), and was verified by the ACOE on February 21, 2008 (ACOE 2008) and re-verified by the ACOE in January 2013 (ACOE 2013). No waters of the United States or wetlands, as defined by the ACOE, were identified as occurring on the site. Therefore, the significance criteria associated with waters of the United States is not analyzed further. Similarly, because the site and off-site improvement areas are not within an approved HCP, Natural Community Conservation Plan (NCCP), or other approved conservation plan, the significance criteria associated with these resources are not considered further. There are no trees that meet the City's definition of a heritage tree on the project site or within off-site areas that could be affected by project construction; however, there are trees located in the UPRR and Caltrans ROWs adjacent to the project boundary. Construction of off-site improvements may require the removal of trees within these areas. Any tree removal would be required to comply with the City's tree ordinance. This issue is not further evaluated.

Project-Specific Impacts and Mitigation Measures

4.2-1: The proposed project could have a substantial adverse effect, either directly or through habitat modifications, on a species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS; or substantially reduce the number or restrict the range of a special-status species. Based on the analysis below, and with implementation of mitigation, the impact is *less than significant*.

Three special-status species were determined to have moderate potential to occur on the project site: Swainson's hawk, white-tailed kite, and valley elderberry longhorn beetle. Five other species are considered to have a low potential of occurring: Cooper's hawk, burrowing owl, ferruginous hawk, merlin, and purple martin. Because ferruginous hawk and merlin do

not nest in this region of the state and would only be expected to occur as an occasional migrant or winter visitor, conversion of the project site or off-site improvement areas is not expected to have adverse impacts on these two raptors. Therefore, potential impacts on these species are not considered further. Potential impacts on the remaining six special-status species are discussed below.

In compliance with General Plan Policy ER 2.1.10, a qualified biologist has surveyed the site and prepared a Biological Technical Report that identifies any sensitive plant and wildlife species present on the site, in addition to the prior reports prepared for the project site (listed above). City staff and the environmental consultants also met with the CDFW during preparation of this analysis, per General Plan Policy ER 2.1.11.

Swainson's hawk

The CNDDB and BIOS databases report several Swainson's hawk nests along the American River Parkway to the north of the project site. In addition, an active nest approximately 1,000 feet to the south of the project site (see Figure 4.2-3), but not reported within the CNDDB, was confirmed by a Dudek biologist. Several isolated trees on the site, primarily at the edge of the site within and adjacent to the Caltrans and UPRR ROW, could potentially be used as nest trees by Swainson's hawk; additional trees occur approximately 300 feet to the northwest of the site, but no Swainson's hawk (or other raptor) nests were observed in any of these trees during site surveys. Although no nests were found to exist within the project site, should a nest be established within any of these trees prior to development of the site, construction activities could disturb the nest if conducted during the breeding season (generally March 1 through September 15). Such disturbance could adversely affect nest success, including loss of nest productivity or possible nest abandonment.

As noted in the Environmental Setting, the disturbed/ruderal habitat on the site can provide foraging opportunities for Swainson's hawks, especially during and after annual mowing and disking of the site, which occurs in the late spring to early summer when Swainson's hawks are actively nesting and foraging in the area. However, after mowing/disking occurs, the relative value of this habitat for Swainson's hawk and other raptors likely declines over time as the prey base decreases in numbers due to lack of vegetative cover. Conversely, once the non-native grasses and ruderal vegetation grows back later in the year, the site likely becomes overgrown such that foraging quality again declines until the site is mowed. Consequently, while the site does provide some short-term foraging habitat value to Swainson's hawks, the cyclical nature of management activities on the site likely results in a range of habitat values during the time that Swainson's hawks are in the region (generally April through September), with the highest values expected to occur during and immediately after mowing and disking of the site.

As noted previously, there are approximately 29,266 acres of suitable Swainson's hawk foraging habitat within 10 miles of the nest nearest to the project area, east of the Sacramento River. An additional 31,852 acres of habitat occurs west of the Sacramento River. The project site represents 0.09% of the total amount of available foraging habitat within a 10-mile assessment area. However, as previously noted, because of the urbanized nature of much of the lands east of the Sacramento River, the vast majority of suitable foraging habitat within this 10-mile radius lies west of the Sacramento River. In essence, very little suitable Swainson's hawk foraging habitat occurs within 5 miles of the project site (Figure 4.2-4).

The potential impact to nesting Swainson's hawks, should active Swainson's hawk nests occur within trees on or immediately adjacent to the site or off-site improvement areas prior to development, as well as the loss of approximately 50 acres of foraging habitat (includes both on and off site) potentially used by nearby active nests known to occur in the project vicinity, is considered a **significant impact.**

White-tailed kite

While no white-tailed kites were observed on the site during surveys, a pair of white-tailed kites was observed on an overhead utility line just north of the A Street bridge in the area where A Street is proposed to be improved. Suitable nesting and foraging habitat is present within the project vicinity. Similar to Swainson's hawk, the value of the site as foraging habitat is likely variable given the cyclic nature of on-site management activities, with the highest habitat values expected to be during and immediately following vegetation mowing and disking of the site in the early summer. The white-tailed kite breeds from February to October, with a peak from May to August. Should active white-tailed kite nests occur immediately adjacent to the project site or off-site improvement areas, construction activity could adversely affect nesting activity, including loss of nest productivity or possible nest abandonment.

Consequently, the potential impact to adjacent nests, should they occur prior to site conversion, and the loss of on-site foraging habitat is **potentially significant.**

Valley elderberry longhorn beetle

As described in the Environmental Setting and in Table 4.2-4, potential VELB habitat – elderberry shrubs or clusters with stems of 1 inch or greater diameter – has been identified on and adjacent to the site. The BO issued by USFWS identified four clusters (identified as Shrubs 2, 3, 4, and 6), down from an initial 17 clusters identified prior to May, 2008, as habitat for the VELB. A survey conducted in February 2013 confirmed the presence of Shrubs 2, 3, 4, and 6, and identified significant regrowth at the location of Shrub 1 and 11, for a total of six shrubs. Regrowth was identified at Shrub 1, but not quantified because it is located on UPRR land, outside of the project site. Stem counts conducted in February 2013 identified a total 100 stems of one inch or greater

at the five shrubs (shrubs 2,3,4,6, and 11). Project construction would avoid Shrub 1 and 2 by implementing a 100-foot construction setback, and a 20-foot permanent setback (from the development footprint), reducing the number of potentially affected stems to 66. However, the loss of 66 suitable VELB elderberry stems would be considered a **potentially significant impact**.

Cooper's Hawk, Burrowing Owl, Purple Martin

As discussed above, the potential for these three resident bird species to occur on the project site is considered low, primarily due to the general lack of suitable nesting habitat and because of the disturbed and ruderal nature of the site. However, Cooper's hawks could nest within tree habitat adjacent to the site, burrowing owls could potentially nest on or adjacent to the site in ground squirrel burrows or other ground openings, and purple martins could potentially nest within the on-site billboards, adjacent oak trees, or under the UPRR and A Street bridges. Should active nests of these species occur on or immediately adjacent to the project site, construction activity could adversely affect nesting activity, including loss of nest productivity or possible nest abandonment. Such an impact would be considered **potentially significant**.

Mitigation Measures

Mitigation Measure 4.2-1(a) would avoid or substantially reduce impacts during project construction to nesting Swainson's hawks, white-tailed kites, Cooper's hawks, burrowing owls, and purple martins should active nests of these species occur within or immediately adjacent to the project site. This measure will also reduce impacts to any other native bird species protected by the federal MBTA and/or state Fish and Game Code regulations.

The City requires that loss of Swainson's hawk foraging habitat be mitigated through acquisition and/or preservation of similar or better habitat. As discussed above, very little suitable foraging habitat occurs within 5 miles of the project site due to the urban and developed nature of the vast majority of habitat east of the Sacramento River. The area within 5 miles of the project site includes large parts of the City of Sacramento, open water (American River), and parks and recreation areas that are either in a developed, urban condition, approved for development, or that otherwise do not serve as, or provide, suitable Swainson's hawk foraging habitat. Extensive and contiguous suitable habitat is in relative abundance west of the Sacramento River, but still within the 10 mile foraging radius of the project site.

Mitigation Measure 4.2-1(b) would provide compensation for the loss of foraging habitat for the Swainson's hawk to ensure adequate foraging land is preserved within 10 miles of the project site. CDFW guidance provides that mitigation lands should be located within a 10-mile radius of the project site. It is anticipated that the value of this habitat would be significantly higher than what currently occurs on the project site. Implementation of this mitigation measure would reduce impacts to the Swainson's hawk and other raptors from the loss of foraging habitat.

Mitigation Measure 4.2-1(c) would provide avoidance, minimization, and compensation for potential impacts to VELB. Therefore, implementation of these mitigation measures would reduce impacts to these species and the loss of foraging habitat to **less than significant**.

Birds

4.2-1(a) Should construction activities begin during the breeding season (March 1 through September 15), a qualified biologist shall conduct appropriate pre-construction surveys for Swainson's hawk, Cooper's hawk, white-tailed kite, burrowing owl, purple martin, and other raptor and native bird nests within or immediately adjacent to the project site and all off-site improvement areas no more than 30 days before any construction activity commences. The pre-construction surveys shall be conducted between March and September and shall follow accepted survey protocols for these species. The purpose of the surveys will be to determine if active nests of special-status birds are present in the disturbance zone or within 500 feet of the disturbance zone boundary (and within 0.25 mile for Swainson's hawks). If active nests are found, ground-disturbing activities within 300 feet of the nest (and up to 500 feet for most raptors, depending upon specific site conditions) shall be postponed or halted, at the discretion of the qualified biologist, until the nest is vacated and juveniles have fledged, as determined by the biologist. Limits of construction to avoid impacts to an active nest during construction activities shall be established in the field with flagging, fencing, or other appropriate barriers, and construction personnel shall be instructed on the sensitivity of nest areas. If active Swainson's hawk nests are located within 0.25 mile of proposed construction activities, construction shall not begin, or shall be discontinued, until the project applicant has consulted with the California Department of Fish and Wildlife (CDFW) to determine the appropriate course of action, consistent with the guidance provided in the 1994 Staff Report Regarding Mitigation for Impacts to Swainson's Hawks in the Central Valley of California (CDFG 1994), to reduce potential impacts on nesting Swainson's and to determine under what circumstances construction activities can occur. Possible measures to reduce potential impacts could include creation of buffers, limits on the timing or location of use of construction equipment, limits on the types of equipment used to reduce noise intensity, etc. Equipment operation and construction activities shall be suspended until CDFW provides direction. If ground-disturbing activities are delayed, then additional pre-disturbance surveys shall be conducted such that no more than 7 days elapse between the survey and ground-disturbing activities. The qualified biologist shall serve as a construction monitor during those periods when construction activities are to occur near active nest areas to avoid inadvertent impacts to these nests.

Swainson's Hawk Foraging Habitat

4.2-1(b) Prior to the issuance of grading permits, the project applicant shall provide the City with evidence that the applicant has compensated for the loss of Swainson's hawk foraging habitat. Compensation shall provide suitable foraging habitat and shall be consistent with guidance provided in the 1994 *Staff Report Regarding Mitigation for Impacts to Swainson's Hawks in the Central Valley of California* (CDFG 1994). Suitable foraging habitat includes fallow land, alfalfa or other low growing crops, as defined in CDFG 1994 and Estep 1989.

Consistent with the CDFG staff report, habitat shall be provided at the ratio of 1:1 (mitigation:impact). The habitat provided shall be of equal or greater quality than that lost as a result of the proposed project. A detailed description of the location and boundaries of the easements to be maintained and managed as Swainson's hawk foraging habitat shall be provided by the project applicant. The project applicant shall coordinate with the City's Environmental Services Department to ensure the land meets the City's requirements as well as current California Department of Fish and Wildlife (CDFW) criteria.

The project applicant shall record one or more conservation easements consistent with the above standards. The conservation easement(s) shall be executed by the project applicant and a conservation operator and shall satisfy the requirements of applicable state law. The conservation easement(s) shall be reviewed by CDFW prior to the recordation. The conservation easements shall prohibit planting or maintenance of vineyards or orchards.

The project applicant shall also prepare a Swainson's hawk habitat management and monitoring plan for submittal to the City for approval prior to the issuance of grading permits. The plan shall address, at a minimum, the following: crops and/or habitat types that will be planted and managed on the parcel; rotation and harvest schedule if crops are planted; and monitoring that will occur to ensure that the parcel is managed as Swainson's hawk habitat and to report on the extent to which Swainson's hawks are utilizing the parcel as foraging habitat.

VELB

4.2-1(c) The project applicant shall implement avoidance, minimization, and compensation measures for VELB consistent with the Biological Opinion (June 2008) and Memorandum of Understanding (May 2008) with USFWS. These measures include the following:

Worker Environmental Awareness Program (WEAP) Training shall be conducted for all construction personnel by a USFWS-approved biologist prior to start of construction. WEAP shall include information on responsibilities regarding VELB, the life-history of the species, protections afforded under the FESA and potential penalties, and the protection measures identified in the Biological Opinion.

A USFWS-approved biological monitor(s) shall inspect construction-related activities at the proposed site to ensure that no unauthorized take of federally listed VELB or destruction of their habitat occurs. The name(s) and resume(s) of the monitor(s) shall be submitted to USFWS 30 days prior to the start of construction. The monitor shall have the authority through communication with the resident engineer to stop all construction activities in the immediate area if a VELB is encountered during construction until appropriate corrective measures have been completed or until the VELB is determined to be unharmed. VELB encountered during construction activities shall be allowed to move away from the area on their own volition. The monitor shall notify USFWS immediately if any listed species are found on site.

Project construction within 100 feet of elderberry shrubs shall be prohibited during the beetle emergence and mating period (March 15 through June 15) to eliminate any indirect effects on the beetle or its eggs.

Measures consistent with the current Construction Site Best Management Practices (BMPs) shall be implemented to minimize effects to the VELB during construction. BMPs shall be implemented to prevent sedimentation from entering environmentally sensitive areas (ESAs) and to reduce erosion, dust, noise and other deleterious aspects of construction-related activities. These BMPs may include, but are not limited to, silt fencing, temporary berms, restrictions on cleaning equipment in or near ESAs, installation of vegetative strips, and temporary sediment disposal. Runoff from dust control and hazardous materials shall be retained on the construction site and prevented from flowing into the ESAs.

Roadways and areas disturbed by project activities within 100 feet of elderberry shrubs shall be watered at least twice a day to minimize dust emissions.

During construction operations, the number of access routes, number and size of staging areas, and the total area of the proposed project activity shall be limited to the minimum necessary. Routes and boundaries shall be clearly demarcated. Movement of heavy equipment to and from the project site shall be restricted to established roadways to minimize habitat disturbance. Project-related vehicles shall observe a 20-miles-per-hour speed limit within construction areas, except on City and county roads and on state and federal highways. All heavy equipment, vehicles, and supplies shall be stored at the designated staging area at the end of each work period.

During construction operations, stockpiling of construction materials, portable equipment, vehicles, and supplies shall be restricted to the designated construction staging areas and exclusive of the ESAs. The project applicant (or construction contractor) shall ensure contamination of habitat does not occur during such operations. All workers shall be informed of the importance of preventing spills and appropriate measures to take should a spill occur.

No application of herbicides, insecticides, and/or other chemical agents shall occur within 100-feet of the elderberry plants or where they might drift or wash into the area of the elderberry plants.

The project applicant shall require documentation from the contractor that aggregate, fill, or borrow material provided for the project was obtained in compliance with the Act.

Prior to the commencement of construction activities, high visibility fencing shall be erected around the VELB habitat to identify them and protect designated ESAs from encroachment of personnel and equipment. These areas shall be avoided by all construction personnel. The fencing shall be inspected before each work day maintained by the project applicant until completion of the project. The fencing may be removed only when the construction of the project is complete.

- Fencing shall be established at a minimum setback of 20 feet from the dripline of each elderberry shrub that is between 20 and 100 feet of the proposed project construction activity. These shrubs shall not be removed or transplanted. There shall be no physical alterations of any type within the area enclosed by the fencing.

Signs shall be posted every 50 feet along the edge of the ESA, with the following information: “This area is habitat of a federally threatened and/or endangered species, and must not be disturbed. These species are protected by the

Endangered Species Act of 1973, as amended. Violators are subject to prosecution, fines, and imprisonment." The signs shall be clearly readable from a distance of 20 feet, and must be maintained for the duration of the construction.

A post construction walk-through shall be conducted to assess whether any damage occurred to vegetation within the buffer areas. Damage may include accidental cutting of vegetation or visible physical damage to roots, stems, and leaves. If damage is observed, vegetation within the buffer areas shall be restored with appropriate native plant species. Erosion control measures and exotic weed abatement measures shall be implemented. If unanticipated damage is done to elderberry shrubs, USFWS shall be notified and appropriate compensation shall be implemented.

After construction activities are complete, any temporary fill or construction debris shall be removed and disturbed areas restored to their pre-project conditions. An area subject to "temporary" disturbance includes an area that is disturbed during the project, but that, after project completion, shall not be subject to further disturbance and has the potential to be re-vegetated.

Prior to the commencement of construction activities, the project proponent shall compensate for the temporary and permanent loss of habitat of the VELB as follows:

- Shrubs that cannot be preserved in place shall be transplanted to an area that will have minimal human use and where associated native riparian species are located or an alternative USFWS-approved mitigation site.
- Elderberry shrubs shall be transplanted when the plant is dormant (November 1 through February 14) to increase the success of the transplanting, if feasible. A qualified biologist shall be available to monitor transplanting activity.
- If transplantation is not feasible during the dormant period (i.e., because of timing constraints), the number of elderberry seedlings and associated native plants shall be increased to an appropriate amount, based on consultation with USFWS.
- Each elderberry stem measuring 1 inch or greater in diameter at ground level that is adversely affected (i.e., transplanted or destroyed) shall be replaced with elderberry seedlings and seedlings of associated species, in accordance with the Conservation Guidelines. Elderberry seedlings or cutting shall be replaced at ratios ranging from 1:1 to 6:1 (see below).
- Associated native plants shall be planted at 1:1 or 2:1 ratios (see below). Stock of seedlings and/or cutting should be obtained from local sources.

- Prior to ground-breaking activities at the project site, the project applicant shall purchase the required beetle habitat credits at a USFWS-approved conservation bank. Each credit purchased shall provide for the planting of five elderberry seedlings and five associated native plant seedlings. The project applicant proposed to purchase credits from Wildlands Inc., River Ranch Conservation Bank or another approved mitigation bank.

Table 4.2-5
Approved Elderberry Mitigation Ratios

Stem Size	Exit Holes?	Elderberry Seedling Ratio	Associated Native Plant Seedlings
1 inch—3 inches	No	1:1	1:1
3 inches—5 inches	No	2:1	1:1
>5 inches	No	3:1	1:1
1 inch—3inches	Yes	2:1	2:1
3 inches—5 inches	Yes	4:1	2:1
>5 inches	Yes	6:1	2:1

Sources: Biological Opinion (USFWS 2008b) and Memorandum of Understanding (USFWS 2008a).

Formal consultation with USFWS identified 87 stems potentially impacted. Based on existing conditions, 66 stems would be affected by the proposed project. Therefore, it is not necessary to re-initiate formal consultation with USFWS. Using the mitigation ratios indicated in the Biological Opinion, 196 elderberry seedlings (40 habitat bank credits) would be required.

4.2-2: The proposed project could interfere with the movement of native resident or migratory wildlife species or with established native resident or migratory wildlife corridors. Based on the analysis below the impact is *less than significant.*

As described in the Environmental Setting, the project site is not part of a regional wildlife corridor as it is largely surrounded by urban development and other artificial land uses. The closest habitat corridor in the area is associated with the American River and the American River Parkway located approximately 0.25 mile east of the site and 0.4 mile north of the site, separated by the Capital City Freeway and Sutter's Landing Regional Park to the north, and roads and a single-family residential neighborhood (River Park) to the east.

Therefore, although the project site may serve as foraging habitat for some species (discussed above under Impact 4.2-1), it does not function as part of a wildlife corridor that links large open space areas. This impact would be **less than significant**.

Mitigation Measures

None required.

4.2-3: The proposed project could cause a fish or wildlife population to drop below self-sustaining levels or threaten to eliminate a plant or animal community. Based on the analysis below the impact is *less than significant.*

The term "wildlife" encompasses a variety of animal taxon including reptiles, amphibians, birds, mammals, and insects. And the term "population" can apply to a wide variety of geographic boundaries. Therefore, for the purposes of this analysis, it is assumed that the "population" boundary for assessing the project's impacts on wildlife is that area contained within the City limits. Due to the size of the project site, its location, and the minimal resource value the site provides, this area is adequate to determine if development of this site would create population-wide impacts on wildlife species or eliminate plant or animal communities.

Because of the disturbed nature of the site due to ongoing mowing and disking, intact native plant communities are not able to be established over the long term. Consequently, habitat values on the site are not conducive to supporting long-term and viable populations of wildlife. As discussed above under Impact 4.2-1, the proposed project could affect bird nesting habitat adjacent to the site, either indirectly through on-site construction activities, or through removal of trees related to construction of off-site infrastructure. These effects would be mitigated through implementation of Mitigation Measure 4.2-1(a), which requires preconstruction surveys to avoid disturbing nesting birds. In addition, there are state and federal laws that protect native animal species, e.g., the federal Migratory Bird Treaty Act, and state Fish and Game Code regulations, that would still apply and would need to be complied with prior to site grading and development Compliance with these measures would help avoid or reduce eliminating an animal community.

The proposed project could also reduce foraging opportunities that currently exist for some raptor species immediately after mowing and disking of on-site ruderal vegetation, as described in Impact 4.2-2, although due to the size of the project site, its location, and the fact that it only provides marginal foraging habitat, the loss of this site would not cause a specific wildlife population within the City limits to drop below self-sustaining levels, nor would it threaten to eliminate such a population. As previously noted, the nearest fish habitat is the American River which is approximately 0.25 mile from the site, separated by a freeway and urban land uses. Therefore, the project would not adversely affect fish species. In addition, based on the biological resources survey that was done for the project, no special-status plant species or other native plants were identified that could be adversely affected by development of the site potentially eliminating a native plant community. The project would not cause a fish or wildlife

population to drop below self-sustaining levels or threaten to eliminate a plant or animal community. Therefore, this impact would be **less than significant**.

Mitigation Measures

None required.

Cumulative Impacts

The geographic context for the analysis of cumulative biological impacts includes the areas contained within the Sacramento Valley and adjacent foothills (identified as the region), but primarily focused on the area within the City limits. Present and probable future projects within the region (which include, but not limited to, development in the City of Sacramento, County of Sacramento, cities of Roseville, Rocklin, Elk Grove, Galt, Woodland, counties of Yuba, Sutter, Placer and Yolo) are anticipated to permanently remove plant and wildlife resources, which could affect both common and special-status species and their habitat.

4.2-4: The proposed project could contribute to a cumulative loss of habitat for common and special-status wildlife species. Based on the analysis below and with implementation of mitigation the impact would be *less than significant.*

As described previously, construction and operation of the proposed project would result in the loss of habitat that, while disturbed and managed due to mowing and disking, does provide some foraging value to special-status raptor species, particularly after mowing that uncovers prey species for a short period of time. The site, while disturbed, also provides habitat for a variety of small mammals, reptiles, and some bird species. Conversion of the site to a developed condition, when combined with other cumulative development, would result in the cumulative loss of such habitat in the region, as well as the potential displacement of common wildlife species utilizing the site. The City's General Plan MEIR determined that development within the City, which included development of the project site, would result in a regional significant cumulative impact on special-status species and their habitats. The cumulative loss of common species was not evaluated because the loss of these species is not considered by the City to have any effect. However, because of the heavily disturbed nature of the site, the general lack of native vegetation on the site, and because it is not considered optimal habitat for common species, the project's contribution to a cumulative impact would be **less than significant.**

As discussed above, the site does provide limited foraging habitat values to special-status raptors including Swainson's hawk, white-tailed kite, and burrowing owl. The City's General Plan MEIR determined that future development would result in a regional significant cumulative impact on special-status species and their habitats. Because of the known location of several active Swainson's hawk nests within the project vicinity (near the American River and within 1,000 feet

of the site), and because this species is known to occasionally forage within ruderal, non-native grassland habitats (and has been observed foraging on the project site after mowing activities), the conversion of this site to a developed condition, combined with other cumulative development, would be cumulatively considerable, and the project's incremental contribution to the cumulative loss of foraging habitat for this species (and potentially to white-tailed kite and burrowing owl) within the region would be cumulatively considerable. This loss would represent a **significant cumulative impact**.

Mitigation Measures

Mitigation Measure 4.2-1(b) would mitigate the loss of Swainson's hawk foraging habitat by ensuring that land is preserved at a 1:1 ratio within 10 miles of the project site. This would allow foraging raptors to still have access to foraging land for survival. This mitigation would reduce the cumulative impact to a less-than-significant impact. Habitat preserved under this measure would also mitigate potential impacts to white-tailed kite and burrowing owl. Furthermore, other approved and future projects within the region that do have the potential to impact these special-status species would be analyzed and mitigated according existing laws and regulations, potentially resulting in no net loss of special-status species habitat. Therefore, with implementation of Mitigation Measure 4.2-1(b), the project's contribution to a cumulative impact with respect to loss of raptor foraging habitat would be **less than significant**.

4.2-4 Implement Mitigation Measure 4.2-1(b).

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