

Sacramento Intermodal Transportation Facility



Natural Environment Study

Sacramento, California

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Acronyms and Abbreviations

Caltrans	California Department of Transportation
CBD	Central Business District
City	City of Sacramento
CNDDDB	California Natural Diversity Database
Depot	Southern Pacific Railroad Depot
DFG	California Department of Fish and Game
EIR	environmental impact report
FHWA	Federal Highway Administration
Guidelines	<i>Conservation Guidelines for the Valley Elderberry Longhorn Beetle, July 9, 1999</i>
I-5	Interstate 5
LRT	light rail transit
MBTA	Migratory Bird Treaty Act
NEPA	National Environmental Policy Act
NES	natural environment study
proposed project	Sacramento Intermodal Transportation Facility
REA	Railway Express Agency
RSP	Sacramento Railyards Specific Plan
RT	Sacramento Regional Transit
SITF	Sacramento Intermodal Transportation Facility
SPRR	Southern Pacific Railroad
Station	Sacramento Valley Station
UPRR	Union Pacific Railroad
USC	United States Code
USFWS	U.S. Fish and Wildlife Service
VELB	valley elderberry longhorn beetle

Sacramento Intermodal Transportation Facility Natural Environment Study

Summary

The Federal Highway Administration (FHWA), the California Department of Transportation (Caltrans), and City of Sacramento (City), in cooperation with the Federal Transit Administration and the Federal Railroad Administration, propose to expand the existing Sacramento Valley Station (Station) to meet current needs and to establish a state-of-the-art regional transportation center. This project, known as the Sacramento Intermodal Transportation Facility (SITF) (proposed project) would encompass a realignment of existing mainline rail tracks, improvements to the existing Station, which includes the current Southern Pacific Railroad Depot, and eventual transformation of the Station into a multimodal transportation center.

The project area was previously evaluated in the *Sacramento Railyards Specific Plan (RSP)* environmental impact report (EIR), which analyzed the entire 244-acre Railyards site (PBS&J/EIP 2007). That document included an evaluation of the 33-acre proposed project site and was consulted in preparation of this natural environment study (NES) report. In addition, reconnaissance level surveys for the proposed project were conducted on May 22, 2008, to verify the information from these previous studies and document whether biological conditions had changed.

Implementation of the proposed project would result in potential impacts on the special-status listed below.

- Valley elderberry longhorn beetle (VELB) (*Desmocerus californicus dimorphus*)—federally listed as threatened.
- Swainson’s hawk (*Buteo swainsoni*)—state-listed as threatened.
- Purple martin (*Progne subis*)—a California species of special concern.
- Pallid bat (*Anthrozous pallida*) and Pacific western big-eared bat (*Corynorhinus townsendii townsendii*)—California species of special concern.
- Migratory birds protected under the Migratory Bird Treaty Act.

The proposed project would not result in any impacts on wetlands, rare plants, or sensitive habitats. The site is minimally vegetated in ruderal vegetation, which includes several invasive species.

Four elderberry shrubs (habitat for VELB) were identified during surveys. Three of the shrubs cannot be completely avoided because of their proximity to the railroad tracks slated for relocation in Phase 1 of the project (they are located within 6.1 meters [20 feet] of the track relocation area). The other shrub is located outside the project site and is more than 6.1 meters

(20 feet) but within 30.5 meters (100 feet) of the track relocation area. Removal of habitat for VELB (elderberry shrubs) was covered by the take permit issued by the U.S. Fish and Wildlife Service (USFWS) for the Railyards Remediation Project (Federal Permit # TE023739). That permit has since expired, and Caltrans has recommended that effects on VELB habitat could be covered by the U.S. Department of Transportation FHWA's programmatic consultation with the USFWS for impacts on VELB (U.S. Fish and Wildlife Service 1997). The project may adversely affect VELB, and the project will be appended to the programmatic agreement.

Introduction

The Federal Highway Administration (FHWA), the California Department of Transportation (Caltrans), and the City of Sacramento (City), in cooperation with the Federal Transit Administration and the Federal Railroad Administration, propose to expand the existing Sacramento Valley Station (Station) to meet current needs and to establish a state-of-the-art regional transportation center to meet the future needs of rail and bus transit passengers and service operators in the Sacramento region through the year 2025 and beyond. Developed in three phases, the Sacramento Intermodal Transportation Facility (SITF) (proposed project) would encompass a realignment of existing mainline rail tracks (Phase 1); improvements to the existing Station, which includes the current Southern Pacific Railroad Depot (Phase 2); and eventual transformation of the Station into a multimodal transportation center (future Phase 3).

Design information for Phase 1 and Phase 2 is at a level sufficient to conduct site-specific analyses, but design information for future Phase 3 is currently only at a conceptual level. Therefore, the environmental analysis in this NES is at a project-specific level for Phases 1 and 2, and at the program level for future Phase 3. (It is anticipated that the FHWA, as the lead agency under the National Environmental Policy Act (NEPA), will have sufficient information to make a decision on whether to approve the entire proposed project and to authorize construction of Phases 1 and 2 on completion of the NEPA process, but a decision for Phase 3 would not be made until a later date when more detailed design information and subsequent environmental review under NEPA is completed.)

The proposed project is located within the City's historic commercial and government center of the Sacramento region, north of the State Capitol (Figure 1). The project site lies within the Central Business District (CBD) of the downtown area of the City and within the *Sacramento Railyards Specific Plan* (RSP) area, just south of the historic Southern Pacific Railroad (SPRR) Sacramento Shops complex (the remnants of which are known as the Central Shops buildings). The project site is generally bounded by I Street on the south, 2nd Street and the Sacramento River riverfront on the west, 7th Street on the east, and the Central Shops buildings on the north (Figure 2). The site includes the historic SPRR Depot (Depot), which currently houses the Sacramento Amtrak station; operations for interstate passenger rail service and the Capitol Corridor and San Joaquin Corridor intercity services; the existing Union Pacific Railroad (UPRR) freight rail lines, passenger platforms, and tunnel; Sacramento Regional Transit's (RT's) light rail transit (LRT) line and station; bus loading areas for multiple service providers; and associated passenger parking. The SPRR Depot and all of its associated facilities are known as the Station. The privately owned Railway Express Agency (REA) building is located

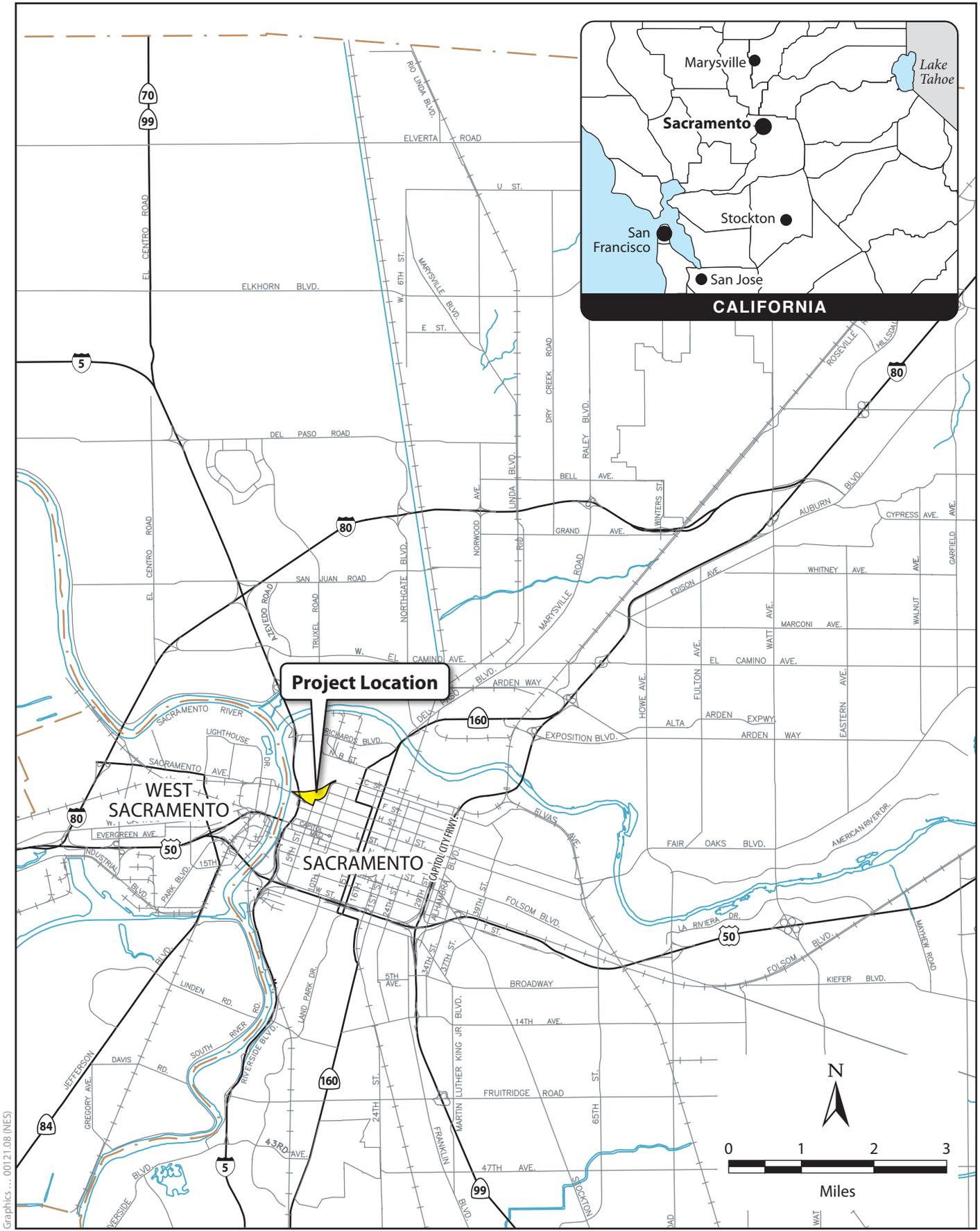


Figure 1
Project Vicinity

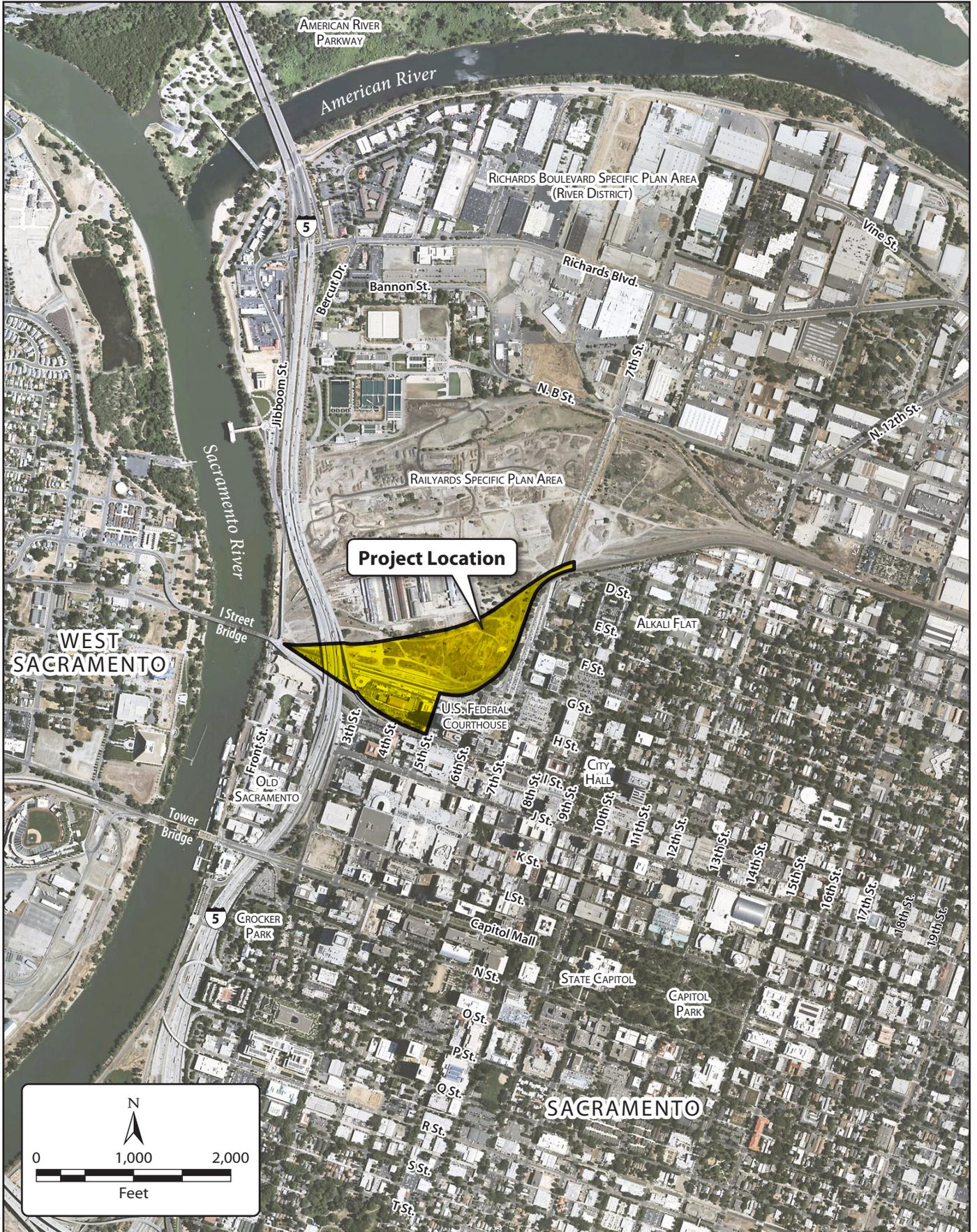


Figure 2
Project Location

immediately adjacent to the project site (near the Depot) but is not part of the existing Station or proposed project.

The proposed project site consists of approximately 33 acres, including the existing Station facilities that are owned by the City. The City is in the process of acquiring additional land immediately north of the Station for the proposed project. The area to be acquired also contains the approximately 3,300-foot-long UPRR rail corridor (current alignment and proposed realignment) between the Sacramento River and 7th Street.

For all phases, construction staging, equipment lay down, and access and material storage for all work would occur within the project footprint or on existing access roads. Track installation materials would be brought in by rail. Phase 1 would be constructed and fully operational in 2010. Phase 2 would start construction in the first quarter of 2011, after the completion of Phase 1, and would be completed in approximately 3 years. The timing of future Phase 3 is uncertain and depends on the build alternative selected and the availability of funding.

Phase 1—Track Relocation

Phase 1 consists of the following components (Figure 3):

- Preparing the new alignment for relocation of the existing mainline freight and passenger tracks.
- Installing new freight tracks, new passenger tracks, and associated equipment within the platform area.
- Constructing new double-sided passenger platforms.
- Constructing a new passenger platform tunnel, west service tunnel, and west pedestrian/bicycle tunnel under the relocated tracks.
- Constructing a pedestrian walkway from the passenger platform tunnel to the Depot building on the south side of the rail corridor.
- Constructing a pedestrian connection from the passenger platform tunnel to the north side of the rail corridor.
- Constructing a service access pathway from the Depot to the proposed new passenger tracks, consisting of a grade-separated crossing of the tracks on the west side of the platforms (West Service Tunnel), the service roadway between the platforms, and the paved drive between the Depot and the at-grade crossing.
- Removing the existing mainline tracks and passenger platforms behind the Depot once the new track alignment was operational. The ramps to the platform that are part of the existing pedestrian tunnel at the Depot would be subsequently connected to the new walkway.

Following NEPA approval, the City would commence construction in late 2009 or early 2010.

Phase 2—Sacramento Valley Station Improvements

Phase 2 would consist of improvements to the existing Station that would upgrade its facilities and relocate transportation uses for more efficient operations, including improvements to the existing Depot. Phase 2 consists of the following components (Figure 3):

- Relocating, reconfiguring, and repaving/restriping the existing RT and Amtrak bus berths.
- Relocating the existing LRT station to a north-south alignment on the eastern edge of the site as planned by RT, which would create better internal site circulation and proximity to the bus berths and to the long-distance passenger rail service from LRT trains.
- Providing enhanced passenger connections, including walkway upgrades (e.g., street furniture, a shade/weather covering, and landscaping/lighting) from the new passenger platforms to the Depot and a tunnel extension that connects the existing Depot tunnel and the new passenger platform tunnel constructed in Phase 1.
- Relocating and reconfiguring passenger vehicle and bicycle parking to accommodate existing parking demand and improve the drop-off area in front of the Depot.
- Upgrading the electrical system at the station and within the Depot to meet functional needs and requirements.
- Providing a transit way along the north side of the site connecting the west side of the facility to the extension of F Street to facilitate bus circulation on site and provide shortcuts separate from congested city streets.

The Phase 2 improvements would be constructed after the tracks have been relocated.

Future Phase 3—Intermodal Improvements

Future Phase 3 consists of the following components (Figure 3). Implementation of future Phase 3 would be dependent on the availability of funding allocations.

- Converting the existing Station into a large multimodal regional transportation facility that integrates a classic transportation building and a new terminal.
- Expanding bus bays.
- Expanding baggage facilities.
- Constructing multiple waiting areas.
- Expanding site features that serve passengers and providers.
- Meeting sustainable design objectives.

The ultimate SITF in Phase 3 would include a new terminal building to accommodate projected service providers and passengers. The joint development square footage ranges from 2,508 to 6,782 square meters (27,000 to 73,000 square feet).



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Source: Tran Systems 2008.

Figure 3
Project Composite

Study Methods

The biological study area for the proposed project includes the limits of the project improvements, a 30.5-meter (100-foot) buffer outside of the project limits to include areas that may contain elderberry shrubs that provide habitat for VELB, as well as portions of the I Street on-ramp and the Interstate 5 (I-5) overpass to the south of the project area, which are occupied by purple martins and roosting bats (Figure 4). Past biological surveys in the study area conducted for the RSP EIR (PBS&J/EIP 2007) included 100-foot transect pedestrian surveys across the entire site to identify potential wetlands, special-status plants, and wildlife species' habitat and to document the general biota in the study area. Land within 30.5 meters (100 feet) of the project area also was evaluated for the potential occurrence of habitat for the federally listed VELB, and the locations of any observed special-status species or any signs indicating that such species could nest, forage, or otherwise use the biological study area (e.g., scat, prints, or sounds), as well as boundaries of wetlands and other waters of the United States, were recorded using a Trimble ProXR GPS receiver (PBS&J/EIP 2007). This information was reviewed in preparation of this document.

A reconnaissance-level survey of the biological study area was conducted on May 22, 2008 to verify the information in the 2006 studies and document whether any changes in biological conditions had occurred. A meandering transect was walked, and notes were made on observed biological resources. Sensitive biological areas identified in the RSP EIR were visited to determine the status of previously identified resources. These areas included two locations of previously identified elderberry shrubs (*Sambucus mexicanus*), habitat for VELB, along the eastern margin of the project area and a colony of purple martins beneath the I Street on-ramp to I-5 (Figure 4).

On December 19, 2008, a field meeting was attended by ICF Jones & Stokes staff members Beth Eggerts, John Howe, and Will Kohn; Caltrans Environmental Coordinator Laura Walsh; Caltrans biologist Suzanne Melim; FHWA Environmental Specialist Larry Vinzant; and U.S. Fish and Wildlife Service (USFWS) biologist Rocky Montgomery to review project impacts on VELB habitat. During this meeting, specific VELB impacts were identified.

Environmental Setting

Description of the Existing Biological and Physical Conditions

As noted above, the biological study area for the proposed project includes the limits of the project improvements, as well as portions of the I Street on-ramp and the I-5 overpass to the south of the project area, which are occupied by purple martins and roosting bat. The biological study area has been extensively disturbed by past and ongoing transportation, commercial, and industrial activities, as well as soil remediation work. Because of this, the majority of the biological study area warrants a land cover classification of vacant. The vacant classification includes areas that support ruderal, weedy vegetation; bare earth; and hardscape. Most of the vegetation in the biological study area consists of introduced or ruderal plant species and appears to be in a constant state of disturbance and thus changes from year to year.

The soil underlying the biological study area consists of deposits of silt and sand. This extends from the surface to a depth of 9.1 to 15.2 meters (30 to 50 feet) and includes fill placed over the area during the past 130 years. The elevation of the site ranges from approximately 6.1 to 9.1 meters (20 feet to 30 feet) above mean sea level.

Vegetation Communities

As mentioned above, the vacant land is dominated by ruderal plant species. The dominant plant species within this area include wild oat (*Avena* sp.), riggut brome (*Bromus diandrus*), yellow starthistle (*Centaurea solstitialis*), mustard (*Brassica* spp.), vetch (*Vicia* sp.), bindweed (*Convolvulus arvensis*), milk thistle (*Silybum marianum*), and tarweed (*Holocarpha* sp.). There also are scattered trees throughout the biological study area, including individual cottonwoods (*Populus fremontii*) and tree of heaven (*Ailanthus altissima*). Many of these trees are relatively small, multitrukened resprouts. One elderberry shrub was observed along the eastern boundary of the project area. This shrub is an apparent resprout that was removed during site remediation under a renewable take permit issued by the USFWS for the Railyards Remediation Project (Federal Permit # TE023739). Three more shrubs were identified outside the project site, just east of the existing track location, in a landscaped area adjacent to a parking lot.

Wildlife

The biological study area is just east of the Sacramento River and approximately 1.6 kilometers (1 mile) south of the American River Parkway. Many species of wildlife that nest or den in vegetation along the rivers forage within the biological study area. Because of its proximity to the local river corridor, the biological study area provides somewhat greater wildlife habitat values than typical vacant urban land.

The biological study area primarily supports common birds and mammals. Wildlife species that were observed or are expected to occur in the biological study area are western scrub jay (*Aphelocoma californica*), American crow (*Corvus brachyrhynchos*), northern mockingbird (*Mimus polyglottos*), Brewer's blackbird (*Euphagus cyanocephalus*), yellow-billed magpie (*Pica nuttalli*), house finch (*Carpodacus mexicanus*), house mouse (*Mus musculus*), black rat (*Ratus ratus*), house cat (*Felis catus*), black-tailed jackrabbit (*Lepus californicus*), raccoon (*Procyon lotor*), and skunk (*Mephitis mephitis*). In addition, six roosts of bats were observed under I-5 and the I Street on-ramp, and a purple martin nest colony was located under the I Street on-ramp during the previous studies (PBS&J/EIP 2007).

Wildlife Movement

The biological study area is largely surrounded by urban development, which prevents the biological study area's use by wildlife as a movement corridor.

Aquatic Resources

No aquatic resources were identified within the biological study area. The Sacramento River is located approximately 76.2 meters (250 feet) west of the western boundary of the biological study area; project activities would not have any potential for effects on this resource.

Invasive Species

As identified above, the site consists of mostly ruderal vegetation. Of the plant species identified during previous surveys of the study area (PBS&J/EIP 2007), 11 are listed as invasive species in



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Figure 4
Biological Study Area

the *California Invasive Plant Inventory* (California Invasive Plant Council 2006). One of these species, yellow starthistle, has a rating of “High,” which means that it has severe ecological impacts on physical processes, plant and animal communities, and vegetation structure (California Invasive Plant Council 2006). Five of these species, tree of heaven, ripgut brome, Bermuda grass (*Cynodon dactylon*), eucalyptus (*Eucalyptus* sp.), and edible fig (*Ficus carica*), have a rating of “Moderate,” which means that these species have substantial and apparent—but generally not severe—ecological impacts on physical processes, plant and animal communities, and vegetation structure (California Invasive Plant Council 2006). The remaining five species, field mustard (*Brassica rapa*), red-stemmed filaree (*Erodium cicutarium*), rabbit’s foot grass (*Polypogon monspeliensis*), wild radish (*Raphanus sativus*), and milk thistle, have a rating of “Limited,” which means these species are invasive but that their ecological impacts are minor on a statewide level or there was not enough information to justify a higher score. The reconnaissance level survey conducted on May 22, 2008, did not involve a botanical survey; however many of the species listed above were observed during the meandering transects conducted across the biological study area.

Regional Species and Habitats of Concern

Regional species and habitats of concern were addressed in the RSP EIR, which identified 13 species that potentially occur in the RSP area (the entire 244-acre Railyards site) or that could be affected by the implementation of the RSP. Only seven of these species have a potential to occur in the 33-acre biological study area for the proposed project. These species include VELB, Swainson’s hawk, white-tailed kite (*Elanus leucurus*), burrowing owl (*Athene cunicularia*), purple martin, pallid bat, and Pacific western big-eared bat. A list of special-status species recorded in the California Natural Diversity Database (CNDDDB) within the vicinity of the biological study area is provided in Appendix A. A list of potentially occurring federally listed species obtained from the U.S. Fish and Wildlife Service is presented in Appendix B. Table 1 below provides a summary of potentially occurring special-status species.

Vegetation

No special-status plant species were identified during the previous surveys of the study area and no special-status plant species were identified as potentially occurring in the biological study area (PBS&J/EIP 2007). In addition, no sensitive vegetation communities are located in the biological study area.

Animals

As mentioned above, seven special-status animal species have the potential to use the site. Brief summaries of these species, including updated information obtained from the May 22, 2008, site visit, are provided below.

Table 1. Special-Status Species Identified as Having the Potential to Occur in the Biological Study Area

Common and Scientific Name	Status ^a Federal/State/Other	Distribution	Preferred Habitats	Habitat Present in the Biological Study Area
Plants				
Ferris' milk-vetch <i>Astragalus tener</i> var. <i>ferrisiae</i>	-/-/1B.1	Known to occur in the northern Sacramento Valley.	Spring meadows and seeps and valley grasslands in subalkaline flats.	No. No suitable habitat exists within the biological study area.
Alkali milk-vetch <i>Astragalus tener</i> var. <i>tener</i>	-/-/1B.2	Known to occur in the southern Sacramento Valley, northern San Joaquin Valley, and eastern San Francisco Bay.	Playas, valley and foothill grasslands on adobe clay soils, and alkaline vernal pools.	No. No suitable habitat exists within the biological study area.
Heartscale <i>Atriplex cordulata</i>	-/-/1B.2	Known to occur in the southern Sacramento Valley and San Joaquin Valley.	Chenopod scrub, meadows, seeps, and valley and foothill grasslands on saline or alkaline soils.	No. No suitable habitat exists within the biological study area.
Brittlescale <i>Atriplex depressa</i>	-/-/1B.2	Known to occur in the southern Sacramento Valley and San Joaquin Valley.	Chenopod scrub, meadows, seeps, playas, valley and foothill grasslands, and vernal pools on alkaline-clay soils.	No. No suitable habitat exists within the biological study area.
San Joaquin spearscale <i>Atriplex joaquiniana</i>	-/-/1B.2	Known to occur in the southern Sacramento Valley, San Joaquin Valley, and inner Coast Range.	Chenopod scrub, meadows, seeps, playas, and valley and foothill grasslands on alkaline soils.	No. No suitable habitat exists within the biological study area.
Palmate-bracted bird's-beak <i>Cordylanthus palmatus</i>	E/E/1B.1	Known to occur in the Central Valley.	Chenopod scrub and valley and foothill grasslands on alkaline soils.	No. No suitable habitat exists within the biological study area.
Dwarf downingia <i>Downingia pusilla</i>	-/-/2.2	Fresno, Merced, Napa, Placer, Sacramento, San Joaquin, Solano, Sonoma, Stanislaus, Tehama, Yuba Counties.	Valley and foothill grassland and vernal pools.	No. No suitable habitat exists within the biological study area.
Bogg's Lake hedge-hyssop <i>Gratiola heterosepala</i>	-/E/1B.2	Occurs in the inner north Coast Range, central Sierra Nevada foothills, Sacramento Valley, and the Modoc Plateau.	Vernal pools and margins of seasonally receding ponds and lakes.	No. No suitable habitat exists within the biological study area.
Woolly rose-mallow <i>Hibiscus lasiocarpus</i>	-/-/2.2	Known to occur in the southern Sacramento Valley and delta region.	Freshwater marshes and swamps.	No. No suitable habitat exists within the biological study area.

Common and Scientific Name	Status ^a Federal/State/Other	Distribution	Preferred Habitats	Habitat Present in the Biological Study Area
Northern California black walnut <i>Juglans hindsii</i>	-/-/1B.1	Known to occur in the north Coast Range, southern Sacramento Valley, northern San Joaquin Valley, and San Francisco Bay area.	Riparian forest and woodlands.	No. No suitable habitat exists within the biological study area.
Legenere <i>Legenere limosa</i>	-/-/1B.1	Primarily in the lower Sacramento Valley in Lake and Solano Counties, San Joaquin Valley in Stanislaus County, and San Mateo County in the Santa Cruz Mountains.	Seasonally saturated habitat, such as vernal pools, swales, drainages, marsh edges, and riverbanks.	No. No suitable habitat exists within the biological study area.
Heckard's pepper grass <i>Lepidium latipes</i> var. <i>heckardii</i>	-/-/1B.1	Known to occur in southern Sacramento Valley.	Valley and foothill grasslands on alkaline flats.	No. No suitable habitat exists within the biological study area.
Baker's navarretia <i>Navarretia leucocephala</i> ssp. <i>bakeri</i>	-/-/1B.1	Known to occur in inner Coast Range and western Sacramento Valley.	Cismontane woodland, lower montane coniferous forest, meadows, seeps, valley and foothill grasslands, and vernal pools.	No. No suitable habitat exists within the biological study area.
Colusa grass <i>Neostapfia colusana</i>	T/E/1B.1	Known to occur in the Central Valley.	Large adobe vernal pools.	No. No suitable habitat exists within the biological study area.
Sanford's arrowhead <i>Sagittaria sanfordii</i>	-/-/1B.2	Widespread but infrequent; Del Norte, Fresno, Sacramento, Santa Barbara, and Ventura Counties.	Sloughs and sluggish streams with silty or muddy substrate; associated with emergent marsh vegetation between.	No. No suitable habitat exists within the biological study area.
Solano grass <i>Tuctoria mucronata</i>	E/E/1B.1	Known to occur in Solano County.	Mesic valley and foothill grasslands and vernal pools.	No. No suitable habitat exists within the biological study area.
Invertebrates				
Conservancy fairy shrimp <i>Branchinecta conservatio</i>	E/-	Limited to eight populations in the following counties: Butte, Tehama, Glenn, Yolo, Solano, Merced, Stanislaus, and Ventura.	Inhabit large, cool-water pools with moderately turbid water.	No. No suitable habitat exists within the biological study area.
Vernal pool fairy shrimp <i>Branchinecta lynchi</i>	T/-	Central Valley; central and southern Coast Ranges from Tehama County to Santa Barbara County; isolated populations also in Riverside County.	Common in vernal pools; also found in sandstone rock outcrop pools.	No. No suitable habitat exists within the biological study area.

Common and Scientific Name	Status ^a Federal/State/Other	Distribution	Preferred Habitats	Habitat Present in the Biological Study Area
Valley elderberry longhorn beetle <i>Desmocerus californicus dimorphus</i>	T/-	Riparian and oak woodland habitats below 3,000 feet throughout the Central Valley and surrounding foothills.	Riparian and oak savanna habitats with elderberry shrubs, which are the host plant.	Yes. Four elderberry shrubs were identified within the biological study area. Exit holes were identified on one of the shrubs.
Vernal pool tadpole shrimp <i>Lepidurus packardii</i>	E/-	Great Central Valley and the Sacramento River Delta to the east side of San Francisco Bay, California.	Vernal pools and ephemeral stock ponds.	No. No suitable habitat exists within the biological study area.
Fish				
Green sturgeon <i>Acipenser medirostris</i>	T/SSC	In California, they are known to spawn in the Sacramento River and Klamath River Basin.	An anadromous fish that spawns in deep pools or "holes" in large, turbulent, freshwater river mainstems. Early life stages may remain in freshwater for up to 2 years.	No. No suitable habitat exists within the biological study area.
Sacramento perch <i>Archoplites interruptus</i>	-/SSC	Historically occurred throughout the Central Valley, in Clear Lake, and the Pajaro and Salinas Rivers. Now occur in a few locations within their native range and have been introduced into several reservoirs and associated streams.	Formerly inhabited sloughs, slow-moving rivers, and lakes but are now found mostly in reservoirs and farm ponds.	No. No suitable habitat exists within the biological study area.
Delta smelt <i>Hypomesus transpacificus</i>	T/T	Are found only from the Suisun Bay upstream through the Delta in Contra Costa, San Joaquin, Sacramento, Solano, and Yolo Counties.	Are found in euryhaline waters of the delta. Spawn in tidally influenced backwater sloughs and channel edge waters.	No. No suitable habitat exists within the biological study area.
Central Valley steelhead <i>Oncorhynchus mykiss</i>	T/-	Sacramento and San Joaquin River and their tributaries.	An anadromous fish that spawns and spends a portion of its life in inland streams, typically maturing in the open ocean.	No. No suitable habitat exists within the biological study area.
Central Valley spring-run Chinook salmon <i>Oncorhynchus tshawytscha</i>	T/T	Sacramento and San Joaquin River and their tributaries.	An anadromous fish that spawns and spends a portion of its life in inland streams, typically maturing in the open ocean.	No. No suitable habitat exists within the biological study area.

Common and Scientific Name	Status ^a Federal/State/Other	Distribution	Preferred Habitats	Habitat Present in the Biological Study Area
Winter-run Chinook salmon, Sacramento River <i>Oncorhynchus tshawytscha</i>	E/E	Sacramento River and its tributaries.	An anadromous fish that spawns and spends a portion of its life in inland streams, typically maturing in the open ocean.	No. No suitable habitat exists within the biological study area.
Sacramento splittail <i>Pogonichthys macrolepidotus</i>	-/SSC	Endemic to California, mainly to sloughs, lakes, and rivers of the Central Valley.	Adapted for living in estuarine waters with fluctuating conditions. Prefer slow-moving sections of rivers and sloughs. Move upstream during winter and spring months to forage and spawn.	No. No suitable habitat exists within the biological study area.
Amphibians				
California tiger salamander <i>Ambystoma californiense</i>	T/SSC	Occur in the Central Valley, including Sierra Nevada foothills, up to approximately 1,000 feet, and coastal region from Sonoma County south to Santa Barbara County, up to approximately 3,000 feet.	Small ponds, lakes, or vernal pools in grasslands and oak woodlands for larvae; rodent burrows, rock crevices, or fallen logs for cover for adults.	No. No suitable habitat exists within the biological study area.
California red-legged frog <i>Rana aurora draytonii</i>	T/SSC	Historic range extended along the coast from the vicinity of Point Reyes National Seashore in Marin County and inland from Shasta County south to Baja California. Current known distribution is along the coast from Marin County south to Los Angeles County (with inland populations in San Bernardino and Riverside Counties), the inner Coast Range from Tehama County south to eastern San Luis Obispo County, and in the Sierra Nevada from Butte County south to Tuolumne County.	Permanent and semi-permanent aquatic habitats, such as creeks and coldwater ponds, with emergent and submergent vegetation and riparian species along the edges; may estivate in rodent burrows or cracks during dry periods.	No. No suitable habitat exists within the biological study area.

Common and Scientific Name	Status ^a Federal/State/Other	Distribution	Preferred Habitats	Habitat Present in the Biological Study Area
Reptile				
Western pond turtle <i>Actinemys marmorata</i>	-/SSC	The western pond turtle is uncommon to common in suitable aquatic habitat throughout California west of the Cascade–Sierra Nevada crest and absent from desert regions, except in the Mojave Desert along the Mojave River and its tributaries.	Occupies ponds, marshes, rivers, streams, and irrigation canals with muddy or rocky bottoms and with watercress, cattails, water lilies, or other aquatic vegetation in woodlands, grasslands, and open forests.	No. No suitable habitat exists within the biological study area.
Giant garter snake <i>Thamnophis gigas</i>	T/T	Central Valley from Fresno north to the Gridley/Sutter Buttes area; has been extirpated from areas south of Fresno,	Sloughs, canals, and other small waterways where there is a prey base of small fish and amphibians; requires grassy banks and emergent vegetation for basking and areas of high ground protected from flooding during winter.	No. No suitable habitat exists within the biological study area.
Birds				
Tricolored blackbird (nesting colony) <i>Agelaius tricolor</i>	-/SSC	Largely endemic to California; permanent residents in the Central Valley from Butte County to Kern County; at scattered coastal locations from Marin County south to San Diego County; breeds at scattered locations in Lake, Sonoma, and Solano Counties; rare nester in Siskiyou, Modoc, and Lassen Counties.	Nests in dense colonies in emergent marsh vegetation, such as tules and cattails, or upland sites with blackberries, nettles, thistles, and grainfields; nesting habitat must be large enough to support 50 pairs; probably requires water at or near the nesting colony; requires large foraging areas, including marshes, pastures, agricultural wetlands, dairies, and feedlots, where insect prey is abundant.	No. No suitable habitat exists within the biological study area.
Grasshopper sparrow <i>Ammodramus savannarum</i>	-/SSC	Summer resident and breeder in foothills and lowlands west of the Cascade-Sierra Nevada crest.	Occurs in dry, dense grasslands, especially those with a variety of grasses and tall forbs and scattered shrubs for singing perches. Nests in slight depressions in dense grasslands.	No. No suitable habitat exists within the biological study area.

Common and Scientific Name	Status ^a Federal/State/Other	Distribution	Preferred Habitats	Habitat Present in the Biological Study Area
Burrowing owl (burrow sites and some wintering sites) <i>Athene cunicularia</i>	-/SSC	Lowlands throughout California, including the Central Valley, northeastern plateau, southeastern deserts, and coastal areas; rare along south coast	Rodent burrows in sparse grassland, desert, and agricultural habitats.	Yes. Habitat for this species in the biological study area is limited to debris piles. No burrows were identified in the biological study area.
Swainson's hawk (nesting) <i>Buteo swainsoni</i>	-/T	Lower Sacramento and San Joaquin Valleys, the Klamath Basin, and Butte Valley; the state's highest nesting densities occur near Davis and Woodland, Yolo County	Nests in small stands of oaks or cottonwoods in or near open riparian habitats; forages in grasslands, irrigated pastures, and grainfields adjacent to nest locations.	Yes. No preferred nesting habitat for this species occurs in the project area. Foraging habitat (large grasslands, pastures, and grainfields) does not occur within the biological study area. The discontinuous patches of ruderal vegetation within the study area do not provide significant foraging habitat because of the high level of disturbance. There are no recorded occurrences of this species within the immediate vicinity of the biological study area, though there are several occurrences within 5 miles (CNDDB 2008).
Western snowy plover <i>Charadrius alexandrinus nivosus</i>	T/SSC	Nests at inland lakes throughout northeastern, central, and southern California, including Mono Lake and Salton Sea	Barren to sparsely vegetated ground at alkaline or saline lakes, reservoirs, ponds, and riverine sand bars; also along sewage, salt-evaporation, and agricultural wastewater ponds.	No. No suitable nesting habitat exists within the biological study area.
Mountain plover <i>Charadrius montanus</i>	-/SSC	Does not breed in California; in winter, found in the Central Valley south of Yuba County, along the coast in parts of San Luis Obispo, Santa Barbara, Ventura, and San Diego Counties; parts of Imperial, Riverside, Kern, and Los Angeles Counties	Occupies open plains or rolling hills with short grasses or very sparse vegetation; nearby bodies of water are not needed; may use newly plowed or sprouting grainfields.	No. No suitable habitat exists within the biological study area.
Western yellow-billed cuckoo <i>Coccyzus americanus occidentalis</i>	C/E	Nests along the upper Sacramento, lower Feather, south fork of the Kern, Amargosa, Santa Ana, and Colorado Rivers.	Wide, dense riparian forests with a thick understory of willows for nesting; sites with a dominant cottonwood overstory are preferred for foraging; may avoid valley-oak riparian habitats where scrub jays are abundant.	No. No suitable habitat exists within the biological study area.

Common and Scientific Name	Status ^a Federal/State/Other	Distribution	Preferred Habitats	Habitat Present in the Biological Study Area
White-tailed kite (nesting) <i>Elanus leucurus</i>	-/FP	Lowland areas west of Sierra Nevada from head of Sacramento Valley south, including coastal valleys and foothills to western San Diego County at the Mexico border.	Low foothills or valley areas with valley or live oaks, riparian areas, and marshes near open grasslands for foraging.	Yes. There is no suitable nesting habitat for this species in the biological study area; however, there is potential foraging habitat within the biological study area.
Purple martin <i>Progne subis</i>	-/SSC	Coastal mountains south to San Luis Obispo County, west slope of the Sierra Nevada, and northern Sierra and Cascade ranges. Absent from the Central Valley except in Sacramento. Isolated, local populations in southern California.	Nests in abandoned woodpecker holes in oaks, cottonwoods, and other deciduous trees in a variety of wooded and riparian habitats. Also nests in vertical drainage holes under elevated freeways and highway bridges.	Yes. Known to nest in weep holes on the underside of the I Street ramp leading from the I Street bridge, and may gather nesting materials from the western portion of the study area.
Bank swallow <i>Riparia riparia</i>	-/T	Occurs along the Sacramento River from Tehama County to Sacramento County, along the Feather and lower American Rivers, in the Owens Valley, and in the plains east of the Cascade Range in Modoc, Lassen, and northern Siskiyou Counties. Small populations near the coast from San Francisco County to Monterey County.	Nests in bluffs or banks, usually adjacent to water, where the soil consists of sand or sandy loam.	No. No suitable habitat exists within the biological study area.
Yellow-headed blackbird <i>Xanthocephalus xanthocephalus</i>	-/SSC	Breeds east of Cascade Range and Sierra Nevada in the Central Valley, Imperial Valley, and Colorado River valleys.	Nesting colonies located in large, dense emergent wetlands, often consisting of tules, cattails, or other tall plants along the borders of lakes or ponds. Nests and roosts are over deep water. Winters in southwest United States and Mexico.	No. No suitable habitat exists within the biological study area.

Common and Scientific Name	Status ^a Federal/State/Other	Distribution	Preferred Habitats	Habitat Present in the Biological Study Area
Mammals				
Pallid bat <i>Antrozous pallidus</i>	-/SSC	Throughout California, primarily at lower elevations and mid-elevations.	Occurs in a variety of habitats from desert to coniferous forest; most closely associated with oak, yellow pine, redwood, and giant sequoia habitats in northern California. Prefers rocky outcrops, cliffs, and crevices with access to open habitats for foraging. Use caves, crevices, mines, and hollow trees for roosting.	Yes. There is suitable habitat for this species in the biological study area. The elevated sections of I-5 and the I Street ramp provide roosting habitat for pallid and Pacific western big-eared bats. Unidentified bats were observed roosting in a road seam underneath the I Street ramp.
Townsend's big-eared bat <i>Corynorhinus townsendii</i>	-/SSC	Widespread throughout California.	Roosts in caves, tunnels, mines, crevices, hollow trees, and buildings, usually near water.	Yes. There is suitable habitat for this species in the biological study area. The elevated sections of I-5 and the I Street ramp provide roosting habitat for pallid and Pacific western big-eared bats. Unidentified bats were observed roosting in a road seam underneath the I Street ramp.
American badger <i>Taxidae taxus</i>	-/SSC	Statewide except for the northwestern corner of Del Norte County and parts of Humboldt and Siskiyou Counties.	Typically found in drier open stages of most shrub, forest, and herbaceous habitats with dry, friable soils.	No. No dens or burrows identified within the biological study area.

^a Status Definitions:

Federal

- E = listed as endangered under the federal Endangered Species Act.
- T = listed as threatened under the federal Endangered Species Act.
- C = candidate for listing under the federal Endangered Species Act.
- = no listing.

State

- E = listed as endangered under the California Endangered Species Act.
- T = listed as threatened under the California Endangered Species Act.
- R = listed as rare under the California Endangered Species Act.
- SSC = species of special concern in California.
- FP = fully protected under the California Fish and Game Code.
- = no listing.

California Native Plant Society (CNPS)

- 1B = List 1B species: rare, threatened, or endangered in California and elsewhere.
- 2 = List 2 species: rare, threatened, or endangered in California but more common elsewhere.
- 3 = List 3 species: plants about which more information is needed to determine their status.

Threat Code Extensions

- .1 = seriously endangered in California (more than 80% of occurrences threatened; high degree and immediacy of threat).
- .2 = fairly endangered in California (20%–80% of occurrences threatened).

Valley Elderberry Longhorn Beetle

Two elderberry shrubs, which are the host plant for VELB, were identified within the biological study area for the proposed project during previous surveys conducted in 2006 (PBS&J/EIP 2007). No exit holes or adults were observed during the 2006 surveys conducted for the RSP EIR. During the May 22, 2008, site visit, only one of these shrubs remained, and only as a resprout. The one remaining shrub—the resprouted elderberry along the eastern boundary of the site, just west of the intersection of 7th and F Streets (Figure 4)—has a 4-inch diameter cut stump with several new stems sprouting on the stump that are less than one inch in diameter and two stems sprouting in the vicinity of the original shrub that are just over 1 inch in diameter at ground level and approximately 2.4 meters (8 feet) tall. The shrub appears to have been cut down at some point, as evidenced by the 10.2-centimeter (4-inch) diameter stump that remains. The newly sprouted stems on the stump are all less than one inch in diameter. The shrub is growing on both sides of a chain-link fence along the boundary of the RSP site, within 6.1 meters (20 feet) of the existing railroad tracks (Figure 5, shrub #1). On the east side of this fence is a row of landscape trees that border a public parking lot. On the west side are the aforementioned railroad tracks that are bordered by gravel shoulders beyond which occurs a mix of bare ground and ruderal vegetation. No exit holes were observed on any of the stems. This shrub occurs outside of riparian habitat and is not within 15.2 meters (50 feet) of any other elderberry shrub. The shrub is not within critical habitat for VELB.

Three more shrubs were identified outside of the project area but within 30.5 meters (100 feet) of the track relocation area. These shrubs occur just east of the project boundary in a landscaped area adjacent to a parking lot (Figure 5, shrubs #s 2–4). The landscaped area consists mostly of tree of heaven. The dripline of elderberry shrub #2 touches the project boundary fence in a non-riparian area. The shrub is approximately 4.6 meters (15 feet) tall and has a multi-branched trunk that is greater than 12.7 centimeters (5 inches) in diameter at ground level. No exit holes were observed. This shrub has evidence of past pruning. Elderberry shrub #3 is located approximately 9.1 meters (30 feet) from the project boundary fence, in a non-riparian area, and is approximately 7.6 meters (25 feet) away from shrub #2. Shrub #3 is approximately 3.7 meters (12 feet) tall and consists of a two-stemmed trunk that is greater than 12.7 centimeters (5 inches) in diameter at ground level. No exit holes were observed. The dripline of elderberry shrub #4 is located approximately 1.5 meters (5 feet) from the project boundary fence in a non-riparian area. This shrub is approximately 4.3 meters (14 feet) tall and has one trunk at ground level that is greater than 12.7 centimeters (5 inches), and another stem that is 2.5 to 7.6 centimeters (1 to 3 inches) in diameter at ground level. Several exit holes were observed on the stems of this shrub. No other shrubs were observed within this area or any other area within the biological study area. There does not appear to be any other suitable habitat for VELB within 609.6 meters (2,000 feet) of the biological study area.

Swainson's Hawk

The RSP EIR documented numerous records for nesting Swainson's hawks along the Sacramento and American Rivers that place the biological study area within the foraging range of these birds. However, there is no suitable nesting habitat on site, and the discontinuous patches of ruderal vegetation within the biological study area do not provide significant foraging habitat because of the high level of disturbance. During the May 22, 2008, site visit, the only



The resprouted elderberry shrub found along the eastern boundary of the SITF project site, just west of the intersection of 7th and F Streets

potential prey observed within the biological study area was black-tailed jackrabbits. No mammal burrows were observed within the biological study area, presumably as a result of past and present soil remediation activities on site.

White-Tailed Kite

White-tailed kites were not observed within the study area during the 2006 site visits for the RSP EIR or May 22, 2008, site visit for the proposed project. The study area does not provide potential nesting habitat for this species. This species is known to forage in ruderal vegetation, but the site provides a limited prey base for this species.

Burrowing Owl

There is potential habitat for burrowing owls in the biological study area. Though no mammal burrows were observed within the biological study area, debris piles on site may provide cover for burrowing owls (see Figure 4). No burrowing owls or burrowing owl signs were observed within the study area during the 2006 site visits for the RSP EIR or May 22, 2008, site visit for the proposed project.

Purple Martin

A colony of purple martins is known to occur on the underside of the I Street ramp leading from the I Street Bridge, which is adjacent to the proposed project site. This nesting colony has occupied this location since at least 1974. It uses the weep holes underneath the I Street ramp and gathers nesting materials from the western portion of the proposed project site. This colony was observed during the 2006 site visits for the RSP EIR and is assumed to be active.

Pallid Bat and Pacific Western Big-Eared Bat

The elevated sections of I-5 and the I Street ramp provide roosting habitat for pallid and Pacific western big-eared bats. During the site visits in 2006 for the RSP EIR, unidentified bats were observed roosting in the road seams underneath I-5 and the I Street ramp. On May 22, 2008, several unidentified bats were observed roosting in a road seam underneath the I Street ramp, and a moderate amount of guano was observed below the roost. This site could serve as a maternal colony or just a day roost for bats. Formal surveys would need to be conducted to determine the number and species of bats and whether a maternal colony occurs in this seam. The Depot building also provides potential day roost and/or maternity roost habitat. Formal surveys have not been conducted to determine if the Depot building is used by bats as day roost or maternity roost.

Migratory Birds

The Migratory Bird Treaty Act (MBTA) (16 United States Code [USC] 703) enacts the provisions of treaties between the United States, Great Britain, Mexico, Japan, and the Soviet Union and authorizes the U.S. Secretary of the Interior to protect and regulate the taking of migratory birds. It establishes seasons and bag limits for hunted species and protects migratory birds, their occupied nests, and their eggs (16 USC 703, 50 CFR 21, 50 CFR 10). The USFWS is

responsible for overseeing compliance with the MBTA, and the U.S. Department of Agriculture’s Animal Damage Control Officer makes recommendations on related animal protection issues. Birds protected by the MBTA may use the site for nesting. Nesting habitat for burrowing owls is associated primarily with the trees and debris piles that are scattered throughout the site. Other ground-nesting birds may use the site, but there is very little vegetative cover and frequent disturbance, which makes their occurrence within the project site less likely.

Project Impacts

Potential impacts on the following special-status wildlife species were identified in the RSP EIR within the 244-acre RSP study area, which includes the 33-acre proposed project area. These impacts are briefly summarized below.

Valley Elderberry Longhorn Beetle

The Railyards Remediation Project had take authorization for VELB but this take authorization has since expired. Elderberry shrubs #1, 2, and 4 are located within 6.1 meters (20 feet) of the area of the track relocation and fence removal activities and thus would be directly affected by project activities. Elderberry shrub 3 would not be removed, and no ground-disturbing activities would occur within 6.1 meters (20 feet) of this shrub. A total of approximately 743 square meters (8,000 square feet) of ground would be temporarily disturbed (during track removal) within 15.2 meters (50 feet) of the elderberry shrubs. Table 2 summarizes these impacts.

Table 2. Elderberry Shrubs

Shrub #	Stem Diameter Class at Ground Level in centimeters (inches)			Exit Holes Present?	In Riparian Habitat?	Effect on Shrub
	2.5–7.6 (1–3)	7.6–12.7 (3–5)	>12.7 (>5)			
1	2	1	0	N	N	Direct
2	0	0	1	N	N	Direct
3	0	0	1	N	N	Indirect
4	1	0	1	Y	N	Direct
Total	3	1	3			

Swainson’s Hawk, White-Tailed Kite, and Burrowing Owl

The RSP EIR identified potentially significant impacts on Swainson’s hawk, white-tailed kite, and burrowing owl nesting habitat, which could be mitigated with the implementation of avoidance and minimization measures. For Swainson’s hawk and white-tailed kite, these impacts were identified for the portion of riparian habitat along the Sacramento River, which is outside of the proposed project biological study area. However, nesting habitat is close enough to the proposed project biological study area (within 76 meters [250 feet] of the westernmost portion of the project site) that project activities may affect nesting for Swainson’s hawks and white-tailed kites. Potential burrowing owl habitat, limited to debris piles, could also be affected by ground-disturbing activities in the proposed project biological study area.

Purple Martin

The RSP EIR identified potential effects on nesting purple martin. Construction in the vicinity of the purple martin colony was identified as having the potential to result in mortality, abandonment of nests, and reduced reproductive success for this species. The project has since been modified and would not result in the direct removal of the overpasses where the birds nest is located. Therefore, no direct impacts on nesting habitat would occur as a result of the implementation of the proposed project; however construction in the vicinity may result in indirect impacts on the species. Construction activities may also result in temporary impacts on nest gathering sites and roosting sites (utility lines).

Pallid Bat and Pacific Western Big-Eared Bat

The RSP EIR identified potential effects on pallid and Pacific western big-eared bats. Construction during track relocation and improvements to the Depot may disturb day roosts and maternal roosting sites but would not be likely to affect roosting bats or a maternal colony adversely. Track improvements would not result in the direct removal of the roost habitat under I-5 or the I Street ramp and would not result in a significant increase in the levels of disturbance that currently occur in the proximity, namely vehicle traffic on the overpasses and train, car, and pedestrian traffic below these locations. Some construction activities may have a greater potential to affect a maternal roost, if one is identified. These activities may include diesel exhaust production beyond normal levels, fueling activities, and/or use or mixing of any chemicals, or any other such activity below these locations during project construction, could potentially result in the abandonment of a maternal roost.

Though roosting bats have not been identified as occupying the Depot, it is possible that they could be there. Project construction at the Depot could potentially result in the removal or disturbance of bat roosting habitat.

Migratory Birds

Other than aforementioned impacts on special-status birds, the proposed project may affect other nesting birds protected under the MBTA. Project related impacts on nesting migratory birds would be minimal due to limited nesting opportunities on site and the continuous level of disturbance that goes on there.

Mitigation Measures

Mitigation Measure 1: Mitigation for Potential Impacts on VELB

Impacts on VELB habitat will be covered under the U.S. Department of Transportation FHWA's programmatic consultation with the USFWS for impacts on VELB. The applicant will mitigate for these impacts according to *Formal Programmatic Consultation Permitting Projects with Relatively Small Effects on the Valley Elderberry Longhorn Beetle within the Jurisdiction of the Sacramento Field Office, California* (Administration File #572.9/9821) and the USFWS's *Conservation Guidelines for the Valley Elderberry Longhorn Beetle, July 9, 1999* (Guidelines). The Guidelines outline avoidance, minimization, and mitigation measures for impacts on VELB.

Complete avoidance would require a 30.5-meter (100-foot) setback from the dripline of the elderberry shrub with a minimum of 6.1 meters (20 feet) allowed where encroachment has been approved by the USFWS. The proposed project is unable to completely avoid direct and indirect impacts on elderberry shrubs. Elderberry shrub #s 1, 2, and 4 will be directly affected because they occur within 6.1 meters (20 feet) of the track and fence removal activities. Elderberry shrub #3 will have ground-disturbing activities occurring within 30.5 meters (100 feet) but not within 6 meters (20 feet) of its dripline.

As determined by USFWS representative Rocky Montgomery during the December 19, 2008, site meeting, the shrubs are candidates for transplantation. Shrubs will be transplanted when the shrubs are dormant, generally November to the first two weeks in February. A monitor will be on the site during the transplantation to ensure that no unauthorized take of VELB occurs. Specific transplanting techniques will follow those outlined in the Guidelines.

To minimize impacts on shrub #3, orange construction fencing will be installed around the shrub so that it is not inadvertently damaged during project construction activities. The fencing will be placed at least 20 feet from the dripline of the shrub. Signs will be placed every 15.2 meters (50 feet) on the fencing that state the following: "This area is habitat of the valley elderberry longhorn beetle, a threatened species, and it must not be disturbed. This species is protected by the Endangered Species Act of 1973, as amended. Violators are subject to prosecution, fines, and imprisonment." The signs should be clearly readable from a distance of 6.1 meters (20 feet) and must be maintained for the duration of construction.

Before any work occurs in the project area, including grading, a qualified wildlife biologist will conduct mandatory contractor/worker awareness training for construction personnel. The awareness training will be provided to all construction personnel to brief them on the need to avoid impacts on biological resources and the penalties for not complying with biological mitigation requirements. If new construction personnel are added to the project, the contractor will ensure that the personnel receive the mandatory training before starting work.

The City will ensure that dust control measures are implemented for all ground-disturbing activities in the project area. These measures may include application of water to graded and disturbed areas that are unvegetated. To avoid attracting Argentine ants, at no time will water be sprayed within the driplines of elderberry shrubs.

The project proponent will mitigate for impacts on the shrubs by purchasing mitigation credits at a USFWS-approved mitigation bank or by planting elderberry seedlings and associated native plants within a USFWS-approved conservation area. Mitigation will be done according to the measures outlined in Table 1 of the Guidelines. A summary of the required mitigation is presented below in Table 3. As seen in this table the proposed project would require that 15 elderberry seedlings and 23 associated native plants be planted at a USFWS-approved mitigation bank. The River Ranch Conservation Bank in Yolo County, which is run by Wildlands Inc., has been identified as mitigation bank with available credits to mitigate for VELB impacts. Compensatory mitigation will include transplanting the three shrubs to this bank and planting elderberry seedlings and associated natives to compensate for these direct impacts (see Table 3).

Table 3. Elderberry Mitigation

Location	Stem Diameter Class at Ground Level in centimeters (inches)	Exit Holes?	Elderberry Seedling Ratio	Associated Native Plant Ratio (ratio of associated natives to elderberry seedlings)	Stem Count	Total (Elderberry/ Associated Natives)
Non-riparian	2.5–7.6 (1–3)	No	1:1	1:1	2	4/6
		Yes	2:1	2:1	1	
Non-riparian	7.6–12.7 (3–5)	No	2:1	1:1	1	2/2
		Yes	4:1	2:1	0	
Non-riparian	>12.7 (>5)	No	3:1	1:1	1	9/15
		Yes	6:1	2:1	1	
Total					6	15/23

Mitigation Measure 2: Mitigation for Potential Impacts on Swainson’s Hawk

If construction occurs during the breeding season (February 1–August 31), the City will conduct California Department of Fish and Game– (DFG-) recommended protocol-level surveys within 0.8 kilometer (0.5 mile) of the project area prior to construction as required by the *Recommended Timing and Methodology for Swainson’s Hawk Nesting Surveys in California’s Central Valley* (Swainson’s Hawk Technical Advisory Committee 2000) or as required by the DFG in the future. If no active nests are identified during the survey, then no additional mitigation is required.

If active nests are found in the vicinity of the construction area, mitigation measures consistent with the *Staff Report Regarding Mitigation for Impacts to Swainson’s Hawks (Buteo swainsoni) in the Central Valley of California* will be incorporated in the following manner or as directed by the DFG:

1. If an active nest is found, no intensive new disturbances (e.g., heavy equipment operation associated with construction, use of cranes or draglines, new rock crushing activities) or other project-related activities that may cause nest abandonment or forced fledging, can be initiated within 200 yards (buffer zone) of an active nest between March 1 and September 15. The size of the buffer area may be adjusted if a qualified biologist and the DFG determine it would not be likely to have adverse effects on the hawks. No project activity will commence within the buffer area until a qualified biologist confirms that the nest is no longer active.
2. If construction or other project-related activities that may cause nest abandonment or forced fledging are necessary within the buffer zone, monitoring of the nest site (funded by the project proponent) by a qualified biologist will be required to determine if the nest is abandoned. If the nest is abandoned and if the nestlings are still alive, the project proponent will fund the recovery and hacking (controlled release of captive reared young) of the nestling(s).
3. Routine disturbances, such as routine maintenance activities within 0.4 kilometer (0.25 mile) of an active nest, will not be prohibited unless consultation with DFG determines that these activities will not affect the active nest.

Mitigation Measure 3: Mitigation for Potential Impacts on Migratory Birds, Including White-Tailed Kite

Mitigation measures for potential impacts on migratory birds including white-tailed kite include those listed below.

1. Vegetation removal and construction activities are to be conducted during the non-nesting season (September 1 through January 31) whenever feasible.
2. If vegetation removal or construction activities occur during the nesting season (between February 1 and August 31), a nesting survey will be conducted by a qualified biologist of all habitat within 152.4 meters (500 feet) of the construction area. Surveys will be conducted no less than 14 days and no more than 30 days prior to commencement of construction activities and surveys will be conducted in accordance with DFG protocol as applicable. If no active nests are identified on or within 152.4 meters (500 feet) of the construction site, no further mitigation is necessary. This survey can be carried out concurrently with surveys for other species provided it does not conflict with any established survey protocols. A copy of the preconstruction survey will be submitted to the City.
3. If an active nest of a sensitive species is identified on the site (per established thresholds), specific mitigation measures will be developed in consultation with the DFG and USFWS. At a minimum, these measures will include a 500-foot no-work buffer that will be maintained between the nest and construction activity until DFG and/or USFWS approves of any other mitigation measures.
4. Completion of the nesting cycle will be determined by qualified ornithologist or biologist.

Mitigation Measure 4: Mitigation for Potential Impacts on Burrowing Owls

Mitigation measures for potential impacts on nesting burrowing owls is presented below.

1. Prior to construction activity, focused preconstruction surveys will be conducted for burrowing owls where suitable habitat is present within the construction areas. Surveys will be conducted no less than 14 days and no more than 30 days prior to commencement of construction activities, and surveys will be conducted in accordance with DFG burrowing owl survey protocol (California Department of Fish and Game 1995). If no occupied burrows or burrowing habitat is found in the survey area, a letter report documenting survey methods and findings will be submitted to the City and DFG, and no further mitigation is necessary.
2. If unoccupied burrows or burrowing habitat (including debris piles) is found during the non-breeding season (September 1 through January 31), the project applicant may obstruct or remove the unoccupied burrowing habitat to prevent owls from occupying the project area. These measures would prevent inadvertent impacts during construction activities.
3. If occupied burrows or burrowing habitat is found, impacts on the burrows will be avoided by providing a buffer of 50.3 meters (165 feet) during the non-breeding season (September 1 through January 31) or 76.2 meters (250 feet) during the breeding season (February 1 through August 31). The size of the buffer area may be adjusted if a qualified biologist and the DFG determine it would not be likely to have adverse effects on the owls. No project activity will commence within the buffer area until a qualified biologist confirms that the burrow is no longer occupied. If the burrow is occupied by a nesting pair, a minimum of 7.5

acres of foraging habitat contiguous to the burrow will be maintained until the breeding season is over.

4. If impacts on occupied burrows are unavoidable during the non-breeding season, on-site passive relocation techniques approved by the DFG will be used to encourage owls to move to alternative burrows outside of the impact area. No occupied burrows will be disturbed during the nesting season unless a qualified biologist verifies through non-invasive methods that juveniles from the occupied burrows are foraging independently and are capable of independent survival. Mitigation for foraging habitat for relocated pairs will follow guidelines provided in the California Burrowing Owl Consortium's April 1995 *Burrowing Owl Survey Protocol and Mitigation Guidelines*, which ranges from 7.5 to 19.5 acres per pair.

Mitigation Measure 5: Mitigation for Temporary Impacts on Purple Martins

Prior to the realignment of the tracks or removal of the existing overhead utility lines, the following measures will be implemented to reduce impacts on the purple martins.

1. To offset loss the loss of nesting material gathering sites and reduce potential predation from feral cats using tall vegetation as ambush points, during railroad track realignment the City will ensure that weed abatement measures are conducted (e.g., weed whacking) biweekly from March 15 to May 15. The area to be maintained is the area that extends out 182.9 meters (600 feet) north of the existing railroad. The plant waste will be left in place from March 15 to May 15 to allow the purple martins to use the "waste" for nest building material. This measure is temporary and will only occur while the existing railroad tracks are being realigned.
2. To offset the potential impacts from loss of perching wires the project applicant will erect at least 70.1 meters (230 feet) of permanent perching structures within 61 meters (200 feet) of the colony. The wires will be erected, before the removal of the existing utility lines and poles and should be 0.95–1.9 centimeters (3/8–3/4 inch) in diameter and will be at least 5.9 meters (19.5 feet) off the ground. Pole-mounted structures could be mounted on light poles or fencing for stability. The project applicant may also consult with the California State Railroad Museum as to the possibility of the perches being erected, within their state lands.
3. Landscaping within 36.9 meters (120 feet) of the colony will be planned as to not disrupt the flight access to the colony, small and medium size non fruit-bearing trees will be incorporated to the landscaping plans. Landscaping plans will also consider the option of prohibiting fruit-bearing trees within 152.4 meters (500 feet) of the site and not removing all the grass and tree clippings from the area during maintenance specifically at the beginning of the nesting season (March 15 to May 15) as to allow the purple martins to use the clippings as nesting materials.
 - A. Until the proposed open space that is adjacent to the I Street Colony is landscaped as detailed above, the project applicant will, from March 15 to May 15, supply nesting material (straw, pine needles, etc.) in designated areas close to the colony for use by the purple martins while the planted trees and shrubs develop. The areas should be no further than 61 meters (200 feet) from perching wires.

4. As long as the I Street Colony is active, landscaping trees adjacent to the purple martin colony will include pine species (*Pinus* spp.) to provide a permanent source of nesting material. The pine needles that have dropped to the ground will not be removed during landscape maintenance from January 1 to May 15.
5. Although purple martins are tolerant of human activities, if active nests are present no construction will be conducted within 30.5 meters (100 feet) of the edge of the purple martin colony (as demarcated by the active nest hole closest to the construction activity) during the beginning of the purple martin breeding season from March 15 to May 15. The buffer area will be avoided to prevent destruction or disturbance to the nest(s) until it is no longer active. The size of the buffer area may be adjusted if a qualified biologist and DFG determine it would not be likely to have adverse effects on the martins. The site characteristics used to determine the size of the modified buffer should include; a) topographic screening; b) distance from disturbance to nest; c) the size and quality of foraging habitat surrounding the nest; and d) sensitivity of the species to nest disturbances. No project activity will commence within the buffer area until a qualified biologist confirms that any nests are no longer active. In addition, no equipment will be parked or stored beneath the I Street on-ramp or the I-5 overpass at the I Street on-ramp during the breeding season (April 15 to August 1).

Mitigation Measure 6: Mitigation for Potential Impacts on Bats

Prior to any construction activities within 30.5 meters (100 feet) of the I-5 and I Street bridges, the project applicant will conduct a preconstruction survey to determine the presence of roosting bats. The surveys should be conducted 1 week prior to the start of construction at dusk, when bats would be expected to be present and active. This survey will be conducted by a wildlife biologist qualified to identify the species of bats using these roosts. If the preconstruction surveys determine that no bats are roosting on the I-5 and I Street bridges, then no further mitigation is required.

If roosting bats are present, the biologist will determine if the roost is a day roost or is a maternal roost. Then, if the roost is determined to be a maternal roost, construction activities that cause the abandonment of the maternal roost or cause harm to bats (e.g., diesel fumes being trapped under the bridges) will be prohibited until the biologist determines that the bat pups have left the roost and are able to fend for themselves. The biologist will consult with the DFG for further guidance on avoiding and minimizing impacts on a maternal colony. If the roost is determined to be a day roost then normal construction activities should not be prohibited. It is believed that day roosting bats occurring there are already acclimated to high levels of noise and disturbance associated with current vehicle traffic on the I-5 and the I Street ramp and train, car, pedestrian traffic, and maintenance activities below these areas.

Prior to any construction at the Depot, the City will conduct a preconstruction survey to determine the presence of roosting bats. The surveys should be conducted 1 week prior to the start of construction at dusk, when bats would be expected to be present and active. This survey will be conducted by a wildlife biologist qualified to identify the species of bats using these roosts. If the preconstruction surveys determine that no bats are roosting in the Depot, then no further mitigation is required. If bats are determined to be roosting in the Depot, the above measures will be implemented before construction occurs at the Depot. If it is determined that the roost is a day roost, the wildlife biologist who conducted the preconstruction surveys will

recommend appropriate measures to exclude the bats from roosting at the Depot. These include installing exclusion devices (i.e., lightweight polypropylene netting [$<1/6$ -inch mesh], plastic sheeting, tube-type excluders, etc.) to prevent roosting bats from being in the Depot when construction occurs. The biologist will also recommend, through consultation with the DFG and other bat experts, appropriate replacement roosting habitat for the displaced bats. If the roost is determined to be a maternal roost, construction activities that cause the abandonment or destruction of the maternal roost or cause harm to bats will be prohibited until the biologist determines that the bat pups have left the roost and are able to fend for themselves.

Permits Required and Conclusions

The proposed project has the potential to adversely affect VELB. Take authorization would be required from the U.S. Fish and Wildlife Service for impacts on VELB. This take authorization would be obtained during Section 7 consultation between the USFWS and FHWA. This project will be appended to the existing programmatic agreement between the USFWS and FHWA. Mitigation for these impacts will be achieved according to the USFWS Guidelines for VELB.

References

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- U.S. Fish and Wildlife Service. 1997. *Formal Programmatic Consultation Permitting Projects with Relatively Small Effects on the Valley Elderberry Longhorn Beetle within the Jurisdiction of the Sacramento Field Office, California*. (Administration File #572.9/9821.) March. U.S. Fish and Wildlife Service, Sacramento, CA.
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Appendix A CNDDDB List

California Department of Fish and Game
 Natural Diversity Database
 Selected Elements by Scientific Name - Portrait
 Sacramento West and Surrounding Eight Quadrangles

Scientific Name/Common Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS
1 <i>Accipiter cooperii</i> Cooper's hawk	ABNKC12040			G5	S3	
2 <i>Actinemys marmorata</i> western pond turtle	ARAAD02030			G3G4	S3	SC
3 <i>Actinemys marmorata marmorata</i> northwestern pond turtle	ARAAD02031			G3G4T3	S3	SC
4 <i>Agelaius tricolor</i> tricolored blackbird	ABPBXB0020			G2G3	S2	SC
5 <i>Ammodramus savannarum</i> grasshopper sparrow	ABPBXA0020			G5	S2	SC
6 <i>Antrozous pallidus</i> pallid bat	AMACC10010			G5	S3	SC
7 <i>Archoplites interruptus</i> Sacramento perch	AFCQB07010			G3	S1	SC
8 <i>Ardea alba</i> great egret	ABNGA04040			G5	S4	
9 <i>Ardea herodias</i> great blue heron	ABNGA04010			G5	S4	
10 <i>Astragalus tener var. ferrisiae</i> Ferris' milk-vetch	PDFAB0F8R3			G1T1	S1.1	1B.1
11 <i>Astragalus tener var. tener</i> alkali milk-vetch	PDFAB0F8R1			G1T1	S1.1	1B.2
12 <i>Athene cunicularia</i> burrowing owl	ABNSB10010			G4	S2	SC
13 <i>Atriplex cordulata</i> heartscale	PDCHE040B0			G2?	S2.2?	1B.2
14 <i>Atriplex depressa</i> brittlescale	PDCHE042L0			G2Q	S2.2	1B.2
15 <i>Atriplex joaquiniana</i> San Joaquin spearscale	PDCHE041F3			G2	S2.1	1B.2
16 <i>Branchinecta conservatio</i> Conservancy fairy shrimp	ICBRA03010	Endangered		G1	S1	
17 <i>Branchinecta lynchi</i> vernal pool fairy shrimp	ICBRA03030	Threatened		G3	S2S3	
18 <i>Branchinecta mesovallensis</i> midvalley fairy shrimp	ICBRA03150			G2	S2	
19 <i>Buteo regalis</i> ferruginous hawk	ABNKC19120			G4	S3S4	
20 <i>Buteo swainsoni</i> Swainson's hawk	ABNKC19070		Threatened	G5	S2	
21 <i>Charadrius alexandrinus nivosus</i> western snowy plover	ABNNB03031	Threatened		G4T3	S2	SC
22 <i>Charadrius montanus</i> mountain plover	ABNNB03100			G2	S2?	SC
23 <i>Cicindela hirticollis abrupta</i> Sacramento Valley tiger beetle	IICOL02106			G5TH	SH	
24 <i>Coccyzus americanus occidentalis</i> western yellow-billed cuckoo	ABNRB02022	Candidate	Endangered	G5T3Q	S1	

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Natural Diversity Database
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Scientific Name/Common Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS
25 <i>Cordylanthus palmatus</i> palmate-bracted bird's-beak	PDSCR0J0J0	Endangered	Endangered	G1	S1.1	1B.1
26 <i>Desmocerus californicus dimorphus</i> valley elderberry longhorn beetle	IICOL48011	Threatened		G3T2	S2	
27 <i>Downingia pusilla</i> dwarf downingia	PDCAM060C0			G3	S3.1	2.2
28 <i>Egretta thula</i> snowy egret	ABNGA06030			G5	S4	
29 <i>Elanus leucurus</i> white-tailed kite	ABNKC06010			G5	S3	
30 <i>Elderberry Savanna</i>	CTT63440CA			G2	S2.1	
31 <i>Falco columbarius</i> merlin	ABNKD06030			G5	S3	
32 <i>Fritillaria agrestis</i> stinkbells	PMLIL0V010			G3	S3.2	4.2
33 <i>Gratiola heterosepala</i> Boggs Lake hedge-hyssop	PDSCR0R060		Endangered	G3	S3.1	1B.2
34 <i>Great Valley Cottonwood Riparian Forest</i>	CTT61410CA			G2	S2.1	
35 <i>Hibiscus lasiocarpus</i> woolly rose-mallow	PDMAL0H0Q0			G4	S2.2	2.2
36 <i>Juglans hindsii</i> Northern California black walnut	PDJUG02040			G1	S1.1	1B.1
37 <i>Lasionycteris noctivagans</i> silver-haired bat	AMACC02010			G5	S3S4	
38 <i>Lasiurus cinereus</i> hoary bat	AMACC05030			G5	S4?	
39 <i>Legenere limosa</i> legenere	PDCAM0C010			G2	S2.2	1B.1
40 <i>Lepidium latipes var. heckardii</i> Heckard's pepper-grass	PDBRA1M0K1			G4T1	S1.2	1B.2
41 <i>Lepidurus packardii</i> vernal pool tadpole shrimp	ICBRA10010	Endangered		G3	S2S3	
42 <i>Linderiella occidentalis</i> California linderiella	ICBRA06010			G3	S2S3	
43 <i>Myrmosula pacifica</i> Antioch multilid wasp	IIHYM15010			GH	SH	
44 <i>Navarretia leucocephala ssp. bakeri</i> Baker's navarretia	PDPLM0C0E1			G4T2	S2.1	1B.1
45 <i>Neostapfia colusana</i> Colusa grass	PMPOA4C010	Threatened	Endangered	G3	S3.1	1B.1
46 <i>Northern Claypan Vernal Pool</i>	CTT44120CA			G1	S1.1	
47 <i>Northern Hardpan Vernal Pool</i>	CTT44110CA			G3	S3.1	
48 <i>Nycticorax nycticorax</i> black-crowned night heron	ABNGA11010			G5	S3	
49 <i>Phalacrocorax auritus</i> double-crested cormorant	ABNFD01020			G5	S3	
50 <i>Plegadis chihi</i> white-faced ibis	ABNGE02020			G5	S1	

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Scientific Name/Common Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS
51 <i>Pogonichthys macrolepidotus</i> Sacramento splittail	AFCJB34020			G2	S2	SC
52 <i>Progne subis</i> purple martin	ABPAU01010			G5	S3	SC
53 <i>Riparia riparia</i> bank swallow	ABPAU08010		Threatened	G5	S2S3	
54 <i>Sagittaria sanfordii</i> Sanford's arrowhead	PMALI040Q0			G3	S3.2	1B.2
55 <i>Taxidea taxus</i> American badger	AMAJF04010			G5	S4	SC
56 <i>Thamnophis gigas</i> giant garter snake	ARADB36150	Threatened	Threatened	G2G3	S2S3	
57 <i>Tuctoria mucronata</i> Crampton's tuctoria or Solano grass	PMPOA6N020	Endangered	Endangered	G1	S1.1	1B.1
58 <i>Xanthocephalus xanthocephalus</i> yellow-headed blackbird	ABPBXB3010			G5	S3S4	SC

Appendix B USFWS List

U.S. Fish & Wildlife Service
Sacramento Fish & Wildlife Office
Federal Endangered and Threatened Species that Occur in
or may be Affected by Projects in the Counties and/or
U.S.G.S. 7 1/2 Minute Quads you requested

Document Number: 081201104257

Database Last Updated: September 11, 2008

Quad Lists

Listed Species

Invertebrates

Branchinecta lynchi

vernal pool fairy shrimp (T)

Desmocerus californicus dimorphus

valley elderberry longhorn beetle (T)

Lepidurus packardii

vernal pool tadpole shrimp (E)

Fish

Acipenser medirostris

green sturgeon (T) (NMFS)

Hypomesus transpacificus

Critical habitat, delta smelt (X)

delta smelt (T)

Oncorhynchus mykiss

Central Valley steelhead (T) (NMFS)

Critical habitat, Central Valley steelhead (X) (NMFS)

Oncorhynchus tshawytscha

Central Valley spring-run chinook salmon (T) (NMFS)

Critical Habitat, Central Valley spring-run chinook (X) (NMFS)

Critical habitat, winter-run chinook salmon (X) (NMFS)

winter-run chinook salmon, Sacramento River (E) (NMFS)

Amphibians

Ambystoma californiense

California tiger salamander, central population (T)

Rana aurora draytonii

California red-legged frog (T)

Reptiles

Thamnophis gigas

giant garter snake (T)

Quads Containing Listed, Proposed or Candidate Species:

SACRAMENTO WEST (513D)

County Lists

No county species lists requested.

Key:

- (E) *Endangered* - Listed as being in danger of extinction.
- (T) *Threatened* - Listed as likely to become endangered within the foreseeable future.
- (P) *Proposed* - Officially proposed in the Federal Register for listing as endangered or threatened.
- (NMFS) Species under the Jurisdiction of the [National Oceanic & Atmospheric Administration Fisheries Service](#). Consult with them directly about these species.
- Critical Habitat* - Area essential to the conservation of a species.
- (PX) *Proposed Critical Habitat* - The species is already listed. Critical habitat is being proposed for it.
- (C) *Candidate* - Candidate to become a proposed species.
- (V) Vacated by a court order. Not currently in effect. Being reviewed by the Service.
- (X) *Critical Habitat* designated for this species

Important Information About Your Species List

How We Make Species Lists

We store information about endangered and threatened species lists by U.S. Geological Survey 7½ minute quads. The United States is divided into these quads, which are about the size of San Francisco.

The animals on your species list are ones that occur within, **or may be affected by** projects within, the quads covered by the list.

- Fish and other aquatic species appear on your list if they are in the same watershed as your quad or if water use in your quad might affect them.
- Amphibians will be on the list for a quad or county if pesticides applied in that area may be carried to their habitat by air currents.
- Birds are shown regardless of whether they are resident or migratory. Relevant birds on the county list should be considered regardless of whether they appear on a quad list.

Plants

Any plants on your list are ones that have actually been observed in the area covered by the list. Plants may exist in an area without ever having been detected there. You can find out what's in the surrounding quads through the California Native Plant Society's online [Inventory of Rare and Endangered Plants](#).

Surveying

Some of the species on your list may not be affected by your project. A trained biologist and/or botanist, familiar with the habitat requirements of the species on your list, should determine whether they or habitats suitable for them may be affected by your project. We recommend that your surveys include any proposed and candidate species on your list. See our [Protocol](#) and [Recovery Permits](#) pages.

For plant surveys, we recommend using the [Guidelines for Conducting and Reporting Botanical Inventories](#). The results of your surveys should be published in any environmental documents prepared for your project.

Your Responsibilities Under the Endangered Species Act

All animals identified as listed above are fully protected under the Endangered Species Act of

1973, as amended. Section 9 of the Act and its implementing regulations prohibit the take of a federally listed wildlife species. Take is defined by the Act as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect" any such animal.

Take may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or shelter (50 CFR §17.3).

Take incidental to an otherwise lawful activity may be authorized by one of two procedures:

- If a Federal agency is involved with the permitting, funding, or carrying out of a project that may result in take, then that agency must engage in a formal [consultation](#) with the Service.

During formal consultation, the Federal agency, the applicant and the Service work together to avoid or minimize the impact on listed species and their habitat. Such consultation would result in a biological opinion by the Service addressing the anticipated effect of the project on listed and proposed species. The opinion may authorize a limited level of incidental take.

- If no Federal agency is involved with the project, and federally listed species may be taken as part of the project, then you, the applicant, should apply for an incidental take permit. The Service may issue such a permit if you submit a satisfactory conservation plan for the species that would be affected by your project.

Should your survey determine that federally listed or proposed species occur in the area and are likely to be affected by the project, we recommend that you work with this office and the California Department of Fish and Game to develop a plan that minimizes the project's direct and indirect impacts to listed species and compensates for project-related loss of habitat. You should include the plan in any environmental documents you file.

Critical Habitat

When a species is listed as endangered or threatened, areas of habitat considered essential to its conservation may be designated as critical habitat. These areas may require special management considerations or protection. They provide needed space for growth and normal behavior; food, water, air, light, other nutritional or physiological requirements; cover or shelter; and sites for breeding, reproduction, rearing of offspring, germination or seed dispersal.

Although critical habitat may be designated on private or State lands, activities on these lands are not restricted unless there is Federal involvement in the activities or direct harm to listed wildlife.

If any species has proposed or designated critical habitat within a quad, there will be a separate line for this on the species list. Boundary descriptions of the critical habitat may be found in the Federal Register. The information is also reprinted in the Code of Federal Regulations (50 CFR 17.95). See our [Map Room](#) page.

Candidate Species

We recommend that you address impacts to candidate species. We put plants and animals on our candidate list when we have enough scientific information to eventually propose them for listing as threatened or endangered. By considering these species early in your planning process you may be able to avoid the problems that could develop if one of these candidates was listed before the end of your project.

Species of Concern

The Sacramento Fish & Wildlife Office no longer maintains a list of species of concern. However, various other agencies and organizations maintain lists of at-risk species. These

lists provide essential information for land management planning and conservation efforts.
[More info](#)

Wetlands

If your project will impact wetlands, riparian habitat, or other jurisdictional waters as defined by section 404 of the Clean Water Act and/or section 10 of the Rivers and Harbors Act, you will need to obtain a permit from the U.S. Army Corps of Engineers. Impacts to wetland habitats require site specific mitigation and monitoring. For questions regarding wetlands, please contact Mark Littlefield of this office at (916) 414-6580.

Updates

Our database is constantly updated as species are proposed, listed and delisted. If you address proposed and candidate species in your planning, this should not be a problem. However, we recommend that you get an updated list every 90 days. That would be March 01, 2009.