

Appendix B
Andersen Drive – Technical Memorandum –
Biological Resources for the Andersen Drive At-Grade Crossing Project

November 11, 2015
Paul Jensen, AICP
Community Development Director
City of San Rafael
P.O. Box 151560
San Rafael, CA 94915-1560

Biological Resources for the Andersen Drive At-Grade Crossing Project

Dear Mr. Jensen:

Introduction

The purpose of this memo is to address the for special-status species potentially affected by the construction of an at-grade rail crossing of Andersen Drive in the City of San Rafael. The proposed crossing was previously evaluated in both an Environmental Assessment (EA) pursuant to the National Environmental Policy Act (NEPA) prepared for the SMART Downtown San Rafael-Larkspur Extension Project with the Federal Transit Administration (FTA) as the federal lead agency and an Environmental Impact Report (EIR) prepared for the Sonoma-Marín Area Rail Transit Project.^{1, 2} The NEPA EA fully evaluated the project for potential impacts to federally-listed sensitive species. The relevant federal regulatory agency for potentially affected species in the area concurred with FTA's determination that the SMART Downtown San Rafael-Larkspur Extension Project (including the construction of an at-grade crossing of Andersen Drive) will not adversely affect listed species. For the City's project, additional species that are listed as sensitive by the State of California require evaluation in compliance with the requirements of the California Environmental Quality Act (CEQA).

Project Location

The project is located where the SMART Rail alignment intersects Andersen Drive, from the intersection of Francisco Way and Andersen Drive and extending approximately 0.10 miles north along the existing paved roadway. The project footprint consists of the section of the proposed SMART rail alignment that crosses the existing paved Andersen Drive. The project site is an active paved roadway, with roadside ruderal vegetation and scattered trees along the edges, and is located in an urbanized industrial area.

Background

Previous analysis for biological resources was undertaken for the Downtown San Rafael to Larkspur extension as part of the 2014 EA prepared as per NEPA. As part of this effort, a general habitat assessment covering terrestrial plant and wildlife species with the potential to occur in the Downtown San Rafael-Larkspur Extension Project rail corridor was undertaken in April 2013³. The general assessment focused on potential effects on sensitive land-based biological resources within the Downtown San Rafael-Larkspur Extension Project area that are protected by federal laws, which included wetland areas and navigable waters. A preliminary jurisdictional delineation was conducted for the Downtown San Rafael-Larkspur Extension Project right-of-way (ROW)⁴. There are no wetlands located within the project footprint.

¹FTA. 2014 (December). *Downtown San Rafael to Larkspur Extension Environmental Assessment*

² Parsons Brinckerhoff. 2006 (June). *Sonoma-Marín Area Rail Transit Project Final Environmental Impact Report*.

³AECOM. 2013a (April, updated June 2014). *Biological Resources Technical Report, Sonoma-Marín Area Rail Transit Downtown San Rafael-Larkspur Extension*.

⁴AECOM. 2013b (February, updated June 2014). *Preliminary Delineation of Waters of the United States, including Wetlands, Sonoma-Marín Area Rail Transit Downtown San Rafael-Larkspur Extension*.

Methods

To determine whether additional special-status species not previously considered in the 2014 EA would be impacted by project activities including species protected under the California Endangered Species Act (CESA) and regulated by the California Department of Fish and Wildlife (CDFW), special-status species were assessed for their potential to occur in the project area using (1) results a United States Fish and Wildlife Service (USFWS) iPac conservation planning tool search, and (2) results of a California Natural Diversity Data Base (CNDDDB) 5-mile project radius species record search. Fish and other aquatic species were excluded from the assessment due to the absence of aquatic habitat in or adjacent to the project area. The proposed project would not impact aquatic species.

RESULTS

Table 1 (attached) lists special-status plant and wildlife species that were considered for the potential to occur in the Andersen Drive at-grade crossing project area. The table includes special-status species within the iPac United States Fish and Wildlife (USFWS) Conservation Planning tool buffer zone and special-status species known to have occurred within a 5-mile radius as reported by the California Natural Diversity Database (CNDDDB).

The following definitions are used in Table 1 and the subsequent discussion when determining the potential for a special-status species to occur:

- ▶ **Assumed Present:** The species has been observed in the project area or is known to be present based on evidence obtained during field surveys, recent site surveys, or CNDDDB records within a 5-mile radius.
- ▶ **High Potential:** Suitable habitat is present in the project area and all of the habitat requirements for the species are present; CNDDDB records exist within a 5-mile radius of the project area; and the species was not observed during field surveys but has been known to occur in the project vicinity. The species has a high probability to occur or otherwise be affected by the project.
- ▶ **Moderate Potential:** Suitable habitat for the species is present in the project area; CNDDDB records exist within a 5-mile radius of the project area; and individuals were not observed during field surveys; however, the species may be present or otherwise affected by the project.
- ▶ **Low Potential:** Marginally suitable habitat occurs in the project area and only some of the habitat components required by the species are present in or adjacent to the project area. CNDDDB records exist within a 5-mile radius of the project area. The species has a low probability to occur in the project area or be affected by the project.
- ▶ **No Potential:** Habitat in the project area is unsuitable and/or the project is located outside the habitat range of the species.

With the exception of potential nesting habitat for migratory birds, as shown in Table 1, special-status species are considered not likely to occur in the project area due to a lack of suitable habitat. Therefore, no project impacts would occur. To reduce the potential for impacting nesting birds during project construction activities, Mitigation Measure BR 3a from the 2006 SMART EIR would be implemented:

- ▶ **Mitigation Measure BR 3a:** To the extent feasible, trees and shrubs in the construction zones will be trimmed or removed between September 1 and January 31, to reduce potential impacts on nesting birds. If vegetation must be removed during the period from February 1 to August 31, a qualified wildlife biologist will conduct pre-construction surveys for nesting birds. If an active nest is found, the bird will be identified to species, and the approximate distance from the closest work site to the nest will be estimated. No additional measures need be implemented if active nests are more than the following distances from the nearest work site: a) 300 feet for raptors; or b) 75 feet for other non-special-status bird species. If active nests are closer than those distances to the nearest work site and the potential exists for destruction of a nest or substantial disturbance to nesting birds because of construction activities, a plan to monitor nesting birds during construction will be prepared and submitted to the USFWS and California Department of Fish and Wildlife for review and approval. Disturbance of active nests will be avoided to the extent possible, until it is determined that nesting is complete and the young have fledged.

CONCLUSION

With the implementation of Mitigation Measure BR 3a from the 2006 SMART EIR and the existing conditions and measures identified in the 2014 EA, the potential impact to special-status species would be less than significant. The project would not adversely affect state or federal listed species.

If you have questions, please feel free to call Kristin Tremain at 415-955-2918 or email at kristin.tremain@aecom.com.

Sincerely,



Michael Kay
Project Manager



Kristin Tremain
Biologist

**Table 1
Special-Status Species with Potential to Occur in the Project Area**

Species	Status	Habitat	Potential for Occurrence within Project Area
Plants			
Marin County navarretia <i>Navarretia rosulata</i>	1B.2	Saltmarsh, coastal swamp. Blooming period May - July. Elevation 200 – 635 meters.	<u>No Potential.</u> Suitable habitat is not present in the project area. The nearest CNDDDB record is on Mount Tamalpais.
Marin western flax <i>Hesperolinon congestum</i>	1B.1	Open, sparsely vegetated serpentine grassland; bedrock outcrops; in scalds and scrapes in serpentine soil. Blooming period April to July. Elevation range 5 – 370 meters.	<u>No Potential:</u> Suitable habitat is not present in the project area. There are no CNDDDB records located within five miles of the project area.
Napa false indigo <i>Amorpha californica</i> Nutt. Var. <i>napensis</i>	1B.2	Broad-leafed upland forest, shaded slopes of mixed coniferous, chaparral, and cismontane woodland. Blooming period April – July. Elevation 120 – 200 meters.	<u>No Potential:</u> Suitable habitat is not present in the project area. There are no CNDDDB records located within five miles of the project area.
North Coast semaphore grass <i>Pleuropogon hooverianus</i>	CT, 1B.1	Freshwater marsh, meadows, vernal pools, woodlands. One population known from the Santa Rosa Plains. Blooming period April – June. Elevation 10 – 671 meters.	<u>No potential.</u> Suitable habitat is not present in the project area. There are no CNDDDB records located within five miles of the project area.
Point Reyes salty bird's-beak <i>Chloropyron maritimum</i> ssp. <i>palustre</i>	1B.2	Saltmarsh, coastal swamp. Blooming period June – October. Elevation 0 – 10 meters.	<u>No potential.</u> Suitable habitat is not present in the project area. The nearest CNDDDB record is located approximately 0.32 miles from the project area.

Species	Status	Habitat	Potential for Occurrence within Project Area
San Francisco Bay spineflower <i>Chorizanthe cuspidata</i> var. <i>cuspidata</i>	1B.2	Coastal bluffs, dunes, prairies, scrubs. Blooming period April – August. Elevation 3 – 215.	<u>No Potential.</u> Suitable habitat is not present in the project area. There are no CNDDDB records located within five miles of the project area.
Thin-lobed horkelia <i>Horkelia tenuiloba</i>	1B.2	Oak woodlands, grasslands, sandy soils. Blooming period May – August. Elevation 50-150 meters.	<u>No Potential.</u> Suitable habitat is not present in the project area. There are no CNDDDB records located within five miles of the project area.
Tiburon buckwheat <i>Eriogonum luteolum</i> var. <i>caninum</i>	1B.2	Grasslands, prairies, valleys and foothills with sandy to gravel serpentine soil. Blooming period May – September. Elevation 0 – 700 meters	<u>Low potential.</u> Suitable habitat is not present in the project area. There are no CNDDDB records located within five miles of the project area.
Tiburon mariposa-lily <i>Calochortus tiburonensis</i>	FT, CT, 1B.1	Found on valley and foothill grasslands; serpentine soil. Blooming period March – June. Elevation 50-150 meters.	<u>No Potential.</u> Suitable habitat is not present in the project area. There are no CNDDDB records located within five miles of the project area.
Tiburon paintbrush <i>Castilleja affinis</i> var. <i>neglecta</i>	FE, CT, 1B.2	Found on valley and foothill grasslands; serpentine soil. Blooming period April – June. Elevation 60 – 400 meters.	<u>No Potential.</u> Suitable habitat is not present in the project area. There are no CNDDDB records located within five miles of the project area.
White-rayed pentachaeta <i>Pentachaeta bellidiflora</i>	CE, 1B.1	Broad-leafed upland forest, shaded slopes of mixed coniferous, chaparral, and cismontane woodland. Blooming period April – July. Elevation 120 – 200 meters.	<u>No Potential:</u> no suitable habitat and elevation range. The nearest CNDDDB record is .99 miles from the project.

Species	Status	Habitat	Potential for Occurrence within Project Area
Invertebrates			
San Bruno Elfin Butterfly <i>Callophrys mossii bayensis</i>	FE	The San Bruno elfin inhabits rocky outcrops and cliffs in coastal scrub on the San Francisco peninsula. The San Bruno elfin is restricted to a few small populations, the largest of which occurs on San Bruno Mountain. Its habitat has been diminished by quarrying, off- road recreation, and urban development (Xerces Society 2015a).	<u>No potential.</u> Due to the presently existing developed area, high traffic shopping center and unsuitable habitat this species has a low potential of occurrence. Stonecrop was not observed during the field survey for the Environmental Assessment performed per NEPA (2014) for the San Rafael to Larkspur extension, and the project corridor is located outside of the known range for this species. There are no CNDDDB records located within five miles of the project area.
Mission Blue Butterfly <i>Icaricia icarioides missionensis</i>	FE	The adult flight season extends from late March to early July. Habitat restricted to coastal scrub. Associated with perennial lupine host plants. Colonies are located at sites ranging from 690 to 1,180-foot elevation (Xerces Society 2015b).	<u>No potential.</u> No suitable habitat in the area. No lupine host plants found in the project area. There are no CNDDDB records located within five miles of the project area.
Myrtle's Silverspot Butterfly <i>Speyeria zerene myrtleae</i>	FE	Preferred habitat is coastal dunes, scrub, and grassland; associated with host plant <i>Viola adunca</i> . Myrtle's silverspot is only known from four populations in northwestern Marin County and southwestern Sonoma County (Xerces Society 2015c).	<u>No Potential.</u> No suitable habitat in project area. Host plant not found present. There are no CNDDDB records located within five miles of the project area.

Species	Status	Habitat	Potential for Occurrence within Project Area
Reptiles			
Western pond turtle <i>Emys marmorata</i>	SSC	Inhabits permanent water with adequate depth in creeks, concrete channelization of creeks, with logs, rocks, and boulders for basking.. Species uses surrounding uplands for egg deposition.	<u>No potential.</u> Aquatic habitat is not present in project area, nor is it adjacent to any sites with permanent water with the species habitat requirements. There are no CNDDDB records located within five miles of the project area.
Amphibians			
California red-legged frog <i>Rana draytonii</i>	FT	Lowlands and foothills in or near pools of deep water with dense, shrubby, or emergent riparian vegetation. Requires still or slow moving aquatic habitat for breeding, normally with emergent and submerged vegetation; upland burrows during nonbreeding season.	<u>Low potential.</u> Species is not likely to occur in the project area. Neither permanent water nor moving water is present. There are no CNDDDB records located within five miles of the project area. A non-native grassland hillslope occurs approximately 0.5mi SW of the project area that could potentially provide low quality habitat for burrows; however, this area is isolated from the project area by an active roadway, and is highly unlikely used as a wildlife corridor.

Species	Status	Habitat	Potential for Occurrence within Project Area
Birds			
California black rail <i>Laterallus jamaicensis coturniculus</i>	CT	Common yearlong in coastal wetlands and brackish areas around San Francisco, Monterey, and Morro bays (in coastal saline emergent wetlands along southern California. Prefers emergent wetland dominated by pickleweed and cordgrass. Requires shallow water and mudflats for foraging.	<u>No potential.</u> No mudflats documents in the area. Site does not contain suitable habitat for foraging or nesting. There are no CNDDDB records located within five miles of the project area.
California Least Tern <i>Sterna antillarum browni</i>	FT	Seacoasts, beaches, bays, estuaries, lagoons, lakes and rivers, breeding on sandy or gravelly beaches and banks of rivers or lakes, rarely on flat rooftops of buildings.	<u>No potential.</u> Suitable habitat is not present. There are no CNDDDB records located within five miles of the project area.
Marbled Murrelet <i>Brachyramphus marmoratus</i>	FT, CE	Breeds in coniferous forests near coasts, nesting on large horizontal branches high up in trees. Winters at sea.	<u>No potential.</u> Suitable habitat is not present. There are no CNDDDB records located within five miles of the project area.
Northern Spotted Owl <i>Strix occidentalis caurina</i>	FT, SSC	In northern part of range, lives in old-growth coniferous forests. Uses other forest types and rocky canyons in other parts of range, but prefers mature forests.	<u>No potential.</u> Suitable habitat is not present. There are no CNDDDB records located within five miles of the project area.

Species	Status	Habitat	Potential for Occurrence within Project Area
Ridgeway Rail <i>Rallus longirostris obsoletus</i>	FE, CE	Saltmarshes and mangrove swamps. Ridgway's rail forages at the upper end of, along the ecotone between mudflat and higher vegetated zones, and in tidal sloughs.	<u>No potential.</u> Suitable habitat is not present. There are no CNDDDB records located within five miles of the project area.
Short-tailed Albatross <i>Phoebastria albatrus</i>	FE, SSC	Nest on sloping grassy terraces on two rugged, isolated, windswept islands in Japan. After breeding, move to feeding areas in the North Pacific. When feeding, albatrosses alight on the ocean surface and seize their prey, including squid, fish, and shrimp	<u>No potential.</u> Suitable habitat is not present. There are no CNDDDB records located within five miles of the project area.
Western burrowing owl <i>Athene cunicularia</i>	SSC	Require open areas with short, sparse vegetation and underground burrows. Suitable owl habitat may also include trees and shrubs if the canopy covers less than 30 percent of the ground surface; will nest or find shelter in both natural and artificial burrows.	<u>Low potential.</u> No suitable habitat in the project area. Non-native, roadside vegetation may provide low-quality habitat; however, no burrows were found in the field survey performed in the Environmental Assessment per NEPA in 2014. There are no CNDDDB records located within five miles of the project area.
Western Snowy Plover <i>Charadrius alexandrinus nivosus</i>	FT, SSC	Barren to sparsely vegetated sand beaches, dry salt flats in lagoons, dredge spoils deposited on beach or dune habitat, levees and flats at salt-evaporation ponds, river bars, along alkaline or saline lakes, reservoirs, and ponds.	<u>No potential.</u> Suitable habitat is not present. There are no CNDDDB records located within five miles of the project area.

Species	Status	Habitat	Potential for Occurrence within Project Area
Mammals			
Pallid bat <i>Antrozous pallidus</i>	SSC	Common species of low elevations in California. Prefers rocky outcrops, cliffs, and crevices with access to open habitats for foraging. Nocturnal. Hibernates. Emerges after sunset, and again shortly before dawn. Forages (1-3 mi) from day roost. Capable of homing from distances of a few miles, but not farther.	<u>Low potential.</u> The nearest CNDDDB known record is located 0.8 miles of the project area. Urban buildings nearby could potentially provide roosting requirements; however, given the project location along an existing roadway, no buildings would be impacted by project activities. Potential low-quality foraging habitat is present in the ruderal areas at the northern and southern edges of the project footprint.
Salt-marsh harvest mouse <i>Reithrodontomys raviventris</i>	FE, CE	Found only in saline emergent wetlands in San Francisco Bay and its tributaries.	<u>No potential to occur.</u> Project area does not contain suitable habitat. The nearest CNDDDB record is located 0.8 miles southwest of the project.
<p><u>Explanation of state and federal listing codes:</u></p> <p>Federal listing codes:</p> <p>-FE: Federally Endangered Species</p> <p>-FT: Federally Threatened Species</p>	<p>California listing codes:</p> <p>-CE: State-listed as endangered</p> <p>-CT: State-listed as threatened</p> <p>-FP: Fully Protected Species</p> <p>-SSC: Species of Special Concern</p>	<p>California Rare Plant Ranks (CRPR):</p> <p>-1A: Presumed extirpated in California and rare or extinct elsewhere</p> <p>-1B.1: Rare, threatened, or endangered in California and elsewhere; seriously endangered in California</p> <p>-1B.2: Rare, threatened, or endangered in California and elsewhere; fairly endangered in California</p> <p>-1B.3: Rare, threatened, or endangered in California and elsewhere; not very endangered in California</p> <p>-2.1: Endangered in California, but more common elsewhere</p> <p>-2.2: Threatened in California, but more common elsewhere</p> <p>-2.3: Rare in California; but more common elsewhere</p>	